TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
1																											
2																											
3			B2		B2		B2		B2		B2		B2		B2		B2		B2		B2		B2		B2		B2
4			S177C		T176O		U235I		V224S		W371J		Y336B		Z225N		Z960F		AH49A		AU36B		BC27M		BH96P		BR55J
5			4/1/97		7/16/97		10/22/97		1/29/98		5/19/98		8/18/98		11/12/98		2/17/99		5/18/99		9/21/99		12/8/99		2/16/00		5/23/00
6																											
7	1	**CHLORINATED PHENOLS (µg/L)**																									
8	2	**EPA Method SW8040**																									
9	3	Pentachlorophenol	0.25	U	**0.17**	J1	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25
10	4	2,4,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25
11	5	2,3,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25
12	6	2,4,5-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25
13	7	2,3,4-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25
15	9	2,3,4,5-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25
16	10																										
17	11	**SEMIVOLATILES (µg/L)**																									
18	12	**EPA Method SW8270**																									
19	13	Phenol	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0
20	14	4-Methylphenol	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
21	15	Isophorone	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
22	16	2,4-Dimethylphenol	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0
23	17	Benzoic Acid	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10
24	18	Naphthalene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
25	19	2-Methylnaphthalene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
26	20	2,4,6-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0
27	21	2,4,5-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0
28	22	Acenaphthene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
29	23	Dibenzofuran	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
30	24	Fluorene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
31	25	Pentachlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0
32	26	bis(2-Ethylhexyl)phthalate	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**1.0**		1.0	U	**0.6**	J1	1.0	U	1.0
33	27																										
34	28	**VOLATILES (µg/L)**																									
35	29	**EPA Method SW8260**																									
36	30	Acetone	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0
37	31	Carbon Disulfide	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
38	32	2-Butanone	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	**5.6**		5.0	U	5.0	U	5.0	U	5.0	U	5.0
39	33	Benzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
40	34	Bromoform	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
41	35	Toluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
42	36	Ethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
43	37	Styrene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
44	38	m,p-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
45	39	o-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
46	40	1,3,5-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
47	41	1,2,4-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
48	42	Isopropylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
49	43	n-Propylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
50	44	tert-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
51	45	sec-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	UJ	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
52	46	4-Isopropyltoluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
53	47	n-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
54	48	Naphthalene	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0
55		Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
56	49																										
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																									
58	51	**Method OR-DEQ**																									
59	52	**TPH-Diesel**	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	**0.48**		0.25	U	0.25	U	**0.36**		**0.28**
60	53	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
61	54	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
62	55																										
63	56	**PRIORITY POLLUTANT**																									
64	57	**METALS (mg/L)**																									
65	58	Arsenic (7060)	**0.008**		**0.008**		0.05	U	0.05	U	**0.014**		**0.022**		**0.010**		**0.026**		**0.010**		**0.012**		**0.012**		**0.017**		**0.012**

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB
3			B2		B2		B2		B2		B2		B2		B2		B2		B2		B2		B2		B2		B2	
4			CB68B		CL03J		CT67G		DE68K		DM30N		DW37C		ED23B		EM75K		ES04H		EY88D		FF88P		FL41G		FU50D	
5			8/29/00		11/10/00		2/15/01		6/5/01		8/14/01		11/28/01		2/26/02		6/25/02		08/28/02		11/11/02		2/13/03		5/7/03		8/29/03	
7	**CHLORINATED PHENOLS (µg/L)**																											
8	**EPA Method SW8040**																											
9	Pentachlorophenol	UJ	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.27	U	0.25	U	0.26	U	0.25	U	0.5	U
10	2,4,6-Trichlorophenol	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
11	2,3,6-Trichlorophenol	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
12	2,4,5-Trichlorophenol	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
13	2,3,4-Trichlorophenol	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
15	2,3,4,5-Tetrachlorophenol	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
16																												
17	**SEMIVOLATILES (µg/L)**																											
18	**EPA Method SW8270**																											
19	Phenol	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.1	U	2.2	U	2	U	2	U	2	U
20	4-Methylphenol	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1.1	U	1	U	1	U	1	U
21	Isophorone	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1.1	U	1	U	1	U	1	U
22	2,4-Dimethylphenol	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.2	U	3.3	U	3.1	U	3	U	3	U
23	Benzoic Acid	U	10	U	10	U	10	U	10	U	10	U	50	U	50	U	50	U	53	U	56	U	51	U	50	U	50	U
24	Naphthalene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1.1	U	1	U	1	U	1	U
25	2-Methylnaphthalene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1.1	U	1	U	1	U	1	U
26	2,4,6-Trichlorophenol	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.3	U	5.6	U	5.1	U	5	U	5	U
27	2,4,5-Trichlorophenol	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.3	U	5.6	U	5.1	U	5	U	5	U
28	Acenaphthene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1.1	U	1	U	1	U	1	U
29	Dibenzofuran	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1.1	U	1	U	1	U	1	U
30	Fluorene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1.1	U	1	U	1	U	1	U
31	Pentachlorophenol	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.3	U	5.6	U	5.1	U	5	U	5	U
32	bis(2-Ethylhexyl)phthalate	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	4.0	U	4.0	U	4.0	U	4.3	U	4.4	U	1	U	1	U	**6.1**	
33																												
34	**VOLATILES (µg/L)**																											
35	**EPA Method SW8260**																											
36	Acetone	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	**7.2**		5.0	U	5.0	U	5	U	5	U	5	U	**12**		5	U
37	Carbon Disulfide	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U
38	2-Butanone	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5	U	5	U	5	U	5	U	5	U
39	Benzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U
40	Bromoform	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U
41	Toluene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U
42	Ethylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U
43	Styrene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U
44	m,p-Xylene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U
45	o-Xylene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U
46	1,3,5-Trimethylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U
47	1,2,4-Trimethylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U
48	Isopropylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U
49	n-Propylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U
50	tert-Butylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U
51	sec-Butylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U
52	4-Isopropyltoluene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U
53	n-Butylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U
54	Naphthalene	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5	U	5	U	5	U	5	U	5	U
55	Methyl tert-butyl ether		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
56																												
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																											
58	**Method OR-DEQ**																											
59	**TPH-Diesel**		0.25	U	0.25	U	0.25	U	NA		NA		NA		0.25	U	NA		NA		NA		0.25	U	NA		NA	
60	**TPH-D Motor Oil**		NA		0.50	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
61	**TPH-Gasoline**		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
62																												
63	**PRIORITY POLLUTANT**																											
64	**METALS (mg/L)**																											
65	Arsenic (7060)		**0.015**		**0.006**		**0.006**		**0.005**		**0.010**		**0.009**		**0.011**		**0.010**		**0.013**		0.05	U	**0.027**		**0.048**		**0.01**	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BC	BD	BE	BF
1					
2					
3		B2		B2	
4		FY64E		0402099-02	
5		10/20/03		2/19/04	
6					
7	**CHLORINATED PHENOLS (µg/L)**				
8	**EPA Method SW8040**				
9	Pentachlorophenol	0.5	U	0.475	U
10	2,4,6-Trichlorophenol	NA		NA	
11	2,3,6-Trichlorophenol	NA		NA	
12	2,4,5-Trichlorophenol	NA		NA	
13	2,3,4-Trichlorophenol	NA		NA	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA	
15	2,3,4,5-Tetrachlorophenol	NA		NA	
16					
17	**SEMIVOLATILES (µg/L)**				
18	**EPA Method SW8270**				
19	Phenol	2	U	1.95	U
20	4-Methylphenol	1	U	9.73	U
21	Isophorone	1	U	0.973	U
22	2,4-Dimethylphenol	3	U	2.92	U
23	Benzoic Acid	10	U	19.5	U
24	Naphthalene	1	U	0.973	U
25	2-Methylnaphthalene	1	U	0.973	U
26	2,4,6-Trichlorophenol	5	U	4.86	U
27	2,4,5-Trichlorophenol	5	U	4.86	U
28	Acenaphthene	1	U	0.973	U
29	Dibenzofuran	1	U	0.973	U
30	Fluorene	1	U	0.973	U
31	Pentachlorophenol	5	U	4.86	U
32	bis(2-Ethylhexyl)phthalate	1	U	0.973	U
33					
34	**VOLATILES (µg/L)**				
35	**EPA Method SW8260**				
36	Acetone	5	U	50	U
37	Carbon Disulfide	1	U	2	U
38	2-Butanone	5	U	10	U
39	Benzene	1	U	0.4	U
40	Bromoform	1	U	1	U
41	Toluene	1	U	1	U
42	Ethylbenzene	1	U	1	U
43	Styrene	1	U	1	U
44	m,p-Xylene	1	U	2	U
45	o-Xylene	1	U	1	U
46	1,3,5-Trimethylbenzene	1	U	1	U
47	1,2,4-Trimethylbenzene	1	U	1	U
48	Isopropylbenzene	1	U	1	U
49	n-Propylbenzene	1	U	1	U
50	tert-Butylbenzene	1	U	1	U
51	sec-Butylbenzene	1	U	1	U
52	4-Isopropyltoluene	1	U	1	U
53	n-Butylbenzene	1	U	1	U
54	Naphthalene	5	U	1	U
55	Methyl tert-butyl ether	NA		1	U
56					
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**				
58	**Method OR-DEQ**				
59	**TPH-Diesel**	NA		NA	
60	**TPH-D Motor Oil**	NA		NA	
61	**TPH-Gasoline**	NA		NA	
62					
63	**PRIORITY POLLUTANT**				
64	**METALS (mg/L)**				
65	Arsenic (7060)	**0.002**		**0.005**	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
1																											
2																											
3			B2		B2		B2		B2		B2		B2		B2		B2		B2		B2		B2		B2		B2
4			S177C		T176O		U235I		V224S		W371J		Y336B		Z225N		Z960F		AH49A		AU36B		BC27M		BH96P		BR55J
5			4/1/97		7/16/97		10/22/97		1/29/98		5/19/98		8/18/98		11/12/98		2/17/99		5/18/99		9/21/99		12/8/99		2/16/00		5/23/00
66	59	Chromium (6010)	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005
67	60	Copper (6010)	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002
68	61	Lead (7421)	0.001	U	0.001	U	0.02	U	0.02	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001
69	62	Nickel (6010)	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01
70	63	Zinc (6010)	0.004	U	0.004	U	**0.013**		0.004	U	0.004	U	**0.005**		0.004	U	**0.007**	J	**0.006**		**0.005**		0.006	U	**0.007**		**0.011**
71	64																										
72	65	**MAJOR IONS AND CONVENTIONALS**																									
73	66	Calcium (mg/L) (6010)	**66.1**		**65.6**		**40.1**		**41.8**		NA		NA		NA		**38.8**		NA		NA		NA		NA		NA
74	67	Magnesium (mg/L) (6010)	**45.2**		**47**		**14.4**		**13.5**		NA		NA		NA		**11.9**		NA		NA		NA		NA		NA
75	68	Potassium (mg/L) (6010)	**2.0**		**1.9**		**4.7**		**4.5**		NA		NA		NA		**4.5**		NA		NA		NA		NA		NA
76	69	Sodium (mg/L) (6010)	**18.8**		**19.6**		**11.5**		**9.59**		NA		NA		NA		**9.03**		NA		NA		NA		NA		NA
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	**370**		**380**	J2	**38**		**190**		NA		NA		NA		**170**		NA		NA		NA		NA		NA
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		1.0	U	NA		NA		NA		NA		NA
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	**370**		**380**	J2	**38**		**190**		NA		NA		NA		**170**		NA		NA		NA		NA		NA
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	NT		**420**	J2	**210**		**190**		**180**		**200**		**230**		**180**		**170**		**210**		**160**		**180**		**190**
81	74	Chloride (mg/L) (EPA 325.2)	**7.6**		**9.1**		**2.6**		**1.9**		**3.4**		**1.6**		**2.7**		**1.0**		**3.9**		**2.7**		**3.9**		**3.6**		**2.8**
82	75	N-Nitrate (mg-N/L) (Calculated)	0.010	U	0.010	U	**0.027**		**0.018**	J2	NA		NA		NA		**0.012**		NA		NA		NA		NA		NA
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	0.02	J	**0.028**	J2	**0.32**		0.010	UJ	NA		NA		NA		**0.019**		NA		NA		NA		NA		NA
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	**0.019**		0.010	U	**0.35**		**0.018**	J2	NA		NA		NA		**0.031**		NA		NA		NA		NA		NA
85	78	Sulfate (mg/L) (EPA 375.2)	2.5	U	2.5	U	2.5	U	2.5	U	NA		NA		NA		**3.8**		NA		NA		NA		NA		NA
86	79																										

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB
3			B2		B2		B2		B2		B2		B2		B2		B2		B2		B2		B2		B2		B2	
4			CB68B		CL03J		CT67G		DE68K		DM30N		DW37C		ED23B		EM75K		ES04H		EY88D		FF88P		FL41G		FU50D	
5			8/29/00		11/10/00		2/15/01		6/5/01		8/14/01		11/28/01		2/26/02		6/25/02		08/28/02		11/11/02		2/13/03		5/7/03		8/29/03	
66	Chromium (6010)	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U
67	Copper (6010)	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U
68	Lead (7421)	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.02	U	0.001	U	0.001	U	0.001	U
69	Nickel (6010)	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
70	Zinc (6010)		**0.011**		0.006	U	0.006	U	**0.009**		0.006	U	0.006	U	0.006	U	0.006	U	0.006	U	0.006	U	**0.01**		**0.016**	J	0.006	U
72	**MAJOR IONS AND CONVENTIONALS**																											
73	Calcium (mg/L) (6010)		NA		NA		**43.6**		**48.0**		**42.0**		**56.4**	J	**43.3**		NA		NA		NA		**46.7**		NA		NA	
74	Magnesium (mg/L) (6010)		NA		NA		**19.4**		**23.8**		**18.3**		**32.6**	J	**14.5**		NA		NA		NA		**20.5**		NA		NA	
75	Potassium (mg/L) (6010)		NA		NA		**3.4**		**3.4**		**3.9**		**2.4**		**5.2**		NA		NA		NA		**3.9**		NA		NA	
76	Sodium (mg/L) (6010)		NA		NA		**11.0**		**12.1**		**11.4**		**15.0**		**9.84**		NA		NA		NA		**11.3**		NA		NA	
77	Alkalinity (mg/L CaCO3) (SM 2320)		NA		NA		**200**		NA		NA		NA		**240**		NA		NA		NA		**270**		NA		NA	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)		NA		NA		1.0	U	NA		NA		NA		**1.0**	U	NA		NA		NA		1	U	NA		NA	
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)		NA		NA		**200**		NA		NA		NA		**240**		NA		NA		NA		**270**		NA		NA	
80	Total Dissolved Solids (mg/L) (EPA 160.1)		**220**		**240**		**260**		**260**		**270**		**280**		**240**		**190**		**210**		**360**		**250**		**220**		**240**	
81	Chloride (mg/L) (EPA 325.2)		**2.5**		**3.2**		**3.9**	J	**3.2**		**6.1**		**3.9**		**3.3**		**5.1**		**5.2**		**4.3**		**5.9**		**3.5**		**2.9**	
82	N-Nitrate (mg-N/L) (Calculated)		NA		NA		**0.81**		NA		NA		NA		**0.73**		NA		NA		NA		**0.2**		NA		NA	
83	N-Nitrite (mg-N/L) (EPA 354.1)		NA		NA		0.010	J	NA		NA		NA		**0.021**		NA		NA		NA		**0.023**		NA		NA	
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)		NA		NA		**0.81**		NA		NA		NA		**0.75**	J	NA		NA		NA		**0.22**		NA		NA	
85	Sulfate (mg/L) (EPA 375.2)		NA		NA		**4.1**		NA		NA		NA		**2.6**		NA		NA		NA		**3**		NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BC	BD	BE	BF
1					
2					
3		B2		B2	
4		FY64E		0402099-02	
5		10/20/03		2/19/04	
66	Chromium (6010)	0.005	U	**0.0087**	
67	Copper (6010)	0.002	U	0.01	U
68	Lead (7421)	0.001	U	0.0001	U
69	Nickel (6010)	0.01	U	0.005	U
70	Zinc (6010)	0.006	U	0.01	U
71					
72	**MAJOR IONS AND CONVENTIONALS**				
73	Calcium (mg/L) (6010)	NA		NA	
74	Magnesium (mg/L) (6010)	NA		NA	
75	Potassium (mg/L) (6010)	NA		NA	
76	Sodium (mg/L) (6010)	NA		NA	
77	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA	
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA	
80	Total Dissolved Solids (mg/L) (EPA 160.1)	**250**		**218**	
81	Chloride (mg/L) (EPA 325.2)	**3.1**		**2.64**	
82	N-Nitrate (mg-N/L) (Calculated)	NA		NA	
83	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA	
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA	
85	Sulfate (mg/L) (EPA 375.2)	NA		NA	
86					

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
1																											
2																											
3			B2		B2		B2		B2		B2		B2		B2		B2		B2		B2		B2		B2		B2
4			S177C		T176O		U235I		V224S		W371J		Y336B		Z225N		Z960F		AH49A		AU36B		BC27M		BH96P		BR55J
5			4/1/97		7/16/97		10/22/97		1/29/98		5/19/98		8/18/98		11/12/98		2/17/99		5/18/99		9/21/99		12/8/99		2/16/00		5/23/00
87	80	**FIELD PARAMETERS**																									
88	81	pH (avg)	6.75		6.73		7.28		6.96		6.61		6.43		6.48		7.16		6.27		6.61		6.88		6.70		6.51
89	82	Temperature (° C) (avg)	13.4		16.3		13.9		14.4		13.0		15.5		12.9		13.3		14.1		15.0		12.6		13.4		16.1
90	83	Conductivity (um/hos)	769		675		297		385		494		643		234		357		253		285		305		653		665
91	84	Dissolved oxygen (mg/L) (avg)	NA		NA		NA		NA		1.44		1.50		3.24		3.13		1.53		2.93		1.98		1.09		0.67
92	85																										
93	86	**DIOXINS AND FURANS (ng/L)**																									
94	87	**Method 8290**																									
95	88	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
96	89	Total TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
97	90	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
98	91	Total TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
99	92	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
100	93	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
101	94	Total PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
102	95	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
103	96	Total PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
108	101	Total HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
112	105	Total HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
115	108	Total HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
117	110	Total HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
118	111	OCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
119	112	OCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
120	113																										
121																											
122																											

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB
1																												
2																												
3			B2		B2		B2		B2		B2		B2		B2		B2		B2		B2		B2		B2		B2	
4			CB68B		CL03J		CT67G		DE68K		DM30N		DW37C		ED23B		EM75K		ES04H		EY88D		FF88P		FL41G		FU50D	
5			8/29/00		11/10/00		2/15/01		6/5/01		8/14/01		11/28/01		2/26/02		6/25/02		08/28/02		11/11/02		2/13/03		5/7/03		8/29/03	
87	**FIELD PARAMETERS**																											
88	pH (avg)		7.00		5.53		6.97		6.80		6.96		6.71		6.90		7.01		7.21		6.8		7.06		7.25		6.96	
89	Temperature (° C) (avg)		15.6		13.3		13.5		14.0		16.3		12.8		13.1		15.3		15.9		14.1		14.4		15.2		14.9	
90	Conductivity (um/hos)		346		319		315		611		608		384		362		272		272		595		598		319		340	
91	Dissolved oxygen (mg/L) (avg)		1.16		2.17		1.81		1.59		1.98		4.27		7.72		4.80		1.09		2.52		0		4.22		1.75	
92																												
93	**DIOXINS AND FURANS (ng/L)**																											
94	**Method 8290**																											
95	2,3,7,8-TCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
96	Total TCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
97	2,3,7,8-TCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
98	Total TCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
99	1,2,3,7,8-PeCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
100	2,3,4,7,8-PeCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
101	Total PeCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
102	1,2,3,7,8-PeCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
103	Total PeCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
104	1,2,3,4,7,8-HxCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
105	1,2,3,6,7,8-HxCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
106	2,3,4,6,7,8-HxCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
107	1,2,3,7,8,9-HxCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
108	Total HxCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
109	1,2,3,4,7,8-HxCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
110	1,2,3,6,7,8-HxCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
111	1,2,3,7,8,9-HxCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
112	Total HxCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
113	1,2,3,4,6,7,8-HpCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
114	1,2,3,4,7,8,9-HpCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
115	Total HpCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
116	1,2,3,4,6,7,8-HpCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
117	Total HpCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
118	OCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
119	OCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
120																												
121																												
122																												

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BC	BD	BE	BF
1					
2					
3		B2		B2	
4		FY64E		0402099-02	
5		10/20/03		2/19/04	
87	**FIELD PARAMETERS**				
88	pH (avg)	6.71		6.52	
89	Temperature (° C) (avg)	14.9		14.8	
90	Conductivity (um/hos)	560		301	
91	Dissolved oxygen (mg/L) (avg)	0.56		3.24	
92					
93	**DIOXINS AND FURANS (ng/L)**				
94	**Method 8290**				
95	2,3,7,8-TCDF	NA		NA	
96	Total TCDF	NA		NA	
97	2,3,7,8-TCDD	NA		NA	
98	Total TCDD	NA		NA	
99	1,2,3,7,8-PeCDF	NA		NA	
100	2,3,4,7,8-PeCDF	NA		NA	
101	Total PeCDF	NA		NA	
102	1,2,3,7,8-PeCDD	NA		NA	
103	Total PeCDD	NA		NA	
104	1,2,3,4,7,8-HxCDF	NA		NA	
105	1,2,3,6,7,8-HxCDF	NA		NA	
106	2,3,4,6,7,8-HxCDF	NA		NA	
107	1,2,3,7,8,9-HxCDF	NA		NA	
108	Total HxCDF	NA		NA	
109	1,2,3,4,7,8-HxCDD	NA		NA	
110	1,2,3,6,7,8-HxCDD	NA		NA	
111	1,2,3,7,8,9-HxCDD	NA		NA	
112	Total HxCDD	NA		NA	
113	1,2,3,4,6,7,8-HpCDF	NA		NA	
114	1,2,3,4,7,8,9-HpCDF	NA		NA	
115	Total HpCDF	NA		NA	
116	1,2,3,4,6,7,8-HpCDD	NA		NA	
117	Total HpCDD	NA		NA	
118	OCDF	NA		NA	
119	OCDD	NA		NA	
120					
121					
122					

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
1																											
2																											
3			B2		B2		B2		B2		B2		B2		B2		B2		B2		B2		B2		B2		B2
4			S177C		T176O		U235I		V224S		W371J		Y336B		Z225N		Z960F		AH49A		AU36B		BC27M		BH96P		BR55J
5			4/1/97		7/16/97		10/22/97		1/29/98		5/19/98		8/18/98		11/12/98		2/17/99		5/18/99		9/21/99		12/8/99		2/16/00		5/23/00
123	114	**PAHs (µg/L)**																									
124	115	**EPA Method SW8270 SIM**																									
125	116	Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
126	117	2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
127	118	Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
128	119	Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
129	120	Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
130	121	Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
131	122	Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB
1																												
2																												
3			B2		B2		B2		B2		B2		B2		B2		B2		B2		B2		B2		B2		B2	
4			CB68B		CL03J		CT67G		DE68K		DM30N		DW37C		ED23B		EM75K		ES04H		EY88D		FF88P		FL41G		FU50D	
5			8/29/00		11/10/00		2/15/01		6/5/01		8/14/01		11/28/01		2/26/02		6/25/02		08/28/02		11/11/02		2/13/03		5/7/03		8/29/03	
123	**PAHs (µg/L)**																											
124	**EPA Method SW8270 SIM**																											
125	Naphthalene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
126	2-Methylnaphthalene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
127	Acenaphthylene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
128	Acenaphthene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
129	Fluorene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
130	Anthracene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
131	Dibenzofuran		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BC	BD	BE	BF
1					
2					
3		B2		B2	
4		FY64E		0402099-02	
5		10/20/03		2/19/04	
123	**PAHs (µg/L)**				
124	**EPA Method SW8270 SIM**				
125	Naphthalene	NA		NA	
126	2-Methylnaphthalene	NA		NA	
127	Acenaphthylene	NA		NA	
128	Acenaphthene	NA		NA	
129	Fluorene	NA		NA	
130	Anthracene	NA		NA	
131	Dibenzofuran	NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
2									Dup of G1A				Dup of G1A													
3			G1A		G1A		G1A		G1B		G1A		S		G1A		G1A		G1A		G1A		G1A		G1A	
4			S177E		T176H		U258C		U258A		V224T		V224L		W391G		Y313D		Z225C		Z960O		AH27J		AU45F	
5			4/2/97		7/15/97		10/23/97		10/23/97		1/29/98		1/29/98		5/20/98		8/17/98		11/13/98		2/17/99		5/17/99		9/22/99	
7	1	**CHLORINATED PHENOLS (µg/L)**																								
8	2	**EPA Method SW8040**																								
9	3	Pentachlorophenol	**66**		**170**		**25**		**21**		**99**		**96**		**0.16**	J1	**0.37**		0.25	U	**0.28**		0.25	U	0.25	U
10	4	2,4,6-Trichlorophenol	**0.25**		**5.1**		**0.58**		**0.59**		**1.8**	J2	**1.3**	J2	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
11	5	2,3,6-Trichlorophenol	**0.40**		0.91	U	0.25	U	0.25	U	**0.26**		**0.20**	J1	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
12	6	2,4,5-Trichlorophenol	0.49	U	1.7	U	0.35	U	1.0	U	**1.1**		**0.86**		0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
13	7	2,3,4-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	**3.4**		**21**		**2.5**		**2.3**		**5.4**		**5.1**		0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
15	9	2,3,4,5-Tetrachlorophenol	**0.49**		**3.6**		**0.50**		**0.49**		**0.50**		**0.41**		0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
16	10																									
17	11	**SEMIVOLATILES (µg/L)**																								
18	12	**EPA Method SW8270**																								
19	13	Phenol	2.0	U	**7.5**		3.4	U	2.5	U	2.0	U	2.0	U	**2.3**		**6.0**		2.0	U	2.0	U	**3.2**		**10**	
20	14	4-Methylphenol	1.0	U	**2.2**		1.7	U	1.2	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**15**		1.0	U
21	15	Isophorone	1.0	U	1.0	U	1.7	U	1.2	U	**1.2**		**1.1**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
22	16	2,4-Dimethylphenol	3.0	U	3.0	U	5.2	U	3.8	U	3.0	U	**3.3**		**11**	J2	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U
23	17	Benzoic Acid	10	U	10	U	17	U	12	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	**16**	
24	18	Naphthalene	**9.7**		**14**		**11**		**11**		30	J2	**23**	J2	**8.4**	J2	**9.0**		**1.6**		**2.4**		**15**		**6.4**	
25	19	2-Methylnaphthalene	**29**		**37**		**33**		**35**		**44**	J2	**30**	J2	**19**	J2	**25**		**7.2**		**14**		**23**		**16**	
26	20	2,4,6-Trichlorophenol	5.0	U	**9.6**		8.6	U	6.2	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
27	21	2,4,5-Trichlorophenol	5.0	U	**5.6**		8.6	U	6.2	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
28	22	Acenaphthene	1.0	U	1.0	U	1.7	U	1.2	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
29	23	Dibenzofuran	1.0	U	1.0	U	1.7	U	1.2	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
30	24	Fluorene	1.0	U	1.0	U	1.7	U	1.2	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
31	25	Pentachlorophenol	**65**		**180**		**34**		**37**		**4.3**	J1	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
32	26	bis(2-Ethylhexyl)phthalate	1.0	U	1.0	U	1.7	U	**2.1**		1.0	U	**1.8**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
33	27																									
34	28	**VOLATILES (µg/L)**																								
35	29	**EPA Method SW8260**																								
36	30	Acetone	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	**6.8**		5.0	U	5.0	U	5.0	U	**14**		**16**	M
37	31	Carbon Disulfide	1.0	U	1.0	U	1.0	U	150	J	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
38	32	2-Butanone	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	**36**		**22**	
39	33	Benzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**2.7**	
40	34	Bromoform	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
41	35	Toluene	1.0	U	**1.2**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**1.3**		1.0	U
42	36	Ethylbenzene	31		**49**		**74**	J2	**59**	J2	**28**		**32**		**34**		**42**		**3.1**		1.0	U	**81**		**7.4**	
43	37	Styrene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
44	38	m,p-Xylene	**51**		**74**		**160**	J2	**120**	J2	**74**		**89**		**74**		**93**		**5.7**		**2.0**		**120**		**24**	
45	39	o-Xylene	**3.4**		**5.2**		**10**		**8.3**		**4.1**		**4.1**		1.0	U	**2.5**		1.0	U	1.0	U	**5.6**		1.0	U
46	40	1,3,5-Trimethylbenzene	**36**		**58**		**120**	J2	**85**	J2	**59**		**60**		**38**		**52**		**3.2**		**4.2**		**35**		**20**	
47	41	1,2,4-Trimethylbenzene	**130**		**150**		**350**	J2	**250**	J2	140		**160**		**120**		**99**		**8.8**		**9.9**		**110**		**57**	
48	42	Isopropylbenzene	**180**		**200**		**310**	J2	**240**	J2	**130**		**140**		**200**	E	**180**		**170**		**170**		**190**		**96**	
49	43	n-Propylbenzene	**200**		**220**		**340**	J2	**270**	J2	**140**		**160**		**210**	E	**180**		**170**		**160**		**220**		**93**	
50	44	tert-Butylbenzene	**3.6**		**5.1**	J2	**6.9**		**5.7**		**3.6**		**4.0**		**5.3**	M	**6.9**		**4.6**		**4.1**		**3.9**		**3.7**	
51	45	sec-Butylbenzene	**18**		**25**		**33**		**27**		**14**		**17**		**24**		**30**	J2	**23**		**18**		**20**		**19**	
52	46	4-Isopropyltoluene	**2.8**		**3.6**		**9.2**	J2	**6.2**	J2	**4.8**		**5.6**		**4.0**		**6.5**		1.0	U	1.0	U	**2.9**		**1.3**	
53	47	n-Butylbenzene	**14**	M	**19**		**26**		**22**		**12**		**14**		**19**		**23**		**15**		**11**		**15**		14	U
54	48	Naphthalene	**20**		**32**		**73**	J2	**50**	J2	**22**		**78**		**36**		**41**		**5.2**		**5.3**		**28**		**18**	
55		Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
56	49																									
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																								
58	51	**Method OR-DEQ**																								
59	52	**TPH-Diesel**	**4.0**		**3.9**		**3.5**		**3.6**		**3.3**		**3.5**		**3.0**		**2.6**		**2.7**		**2.5**		**2.6**		**2.6**	
60	53	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
61	54	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
62	55																									
63	56	**PRIORITY POLLUTANT**																								
64	57	**METALS (mg/L)**																								
65	58	Arsenic (7060)	**0.031**		**0.034**		0.05	U	0.05	U	0.05	U	0.05	U	**0.039**		**0.039**		**0.10**		**0.041**		**0.032**		**0.040**	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ
3		G1A		G1A		G1A		G1A		G1A		G1A		G1A		G1A		G1A		G1A		G1A		G1A		G1A	
4		BC27E		BH96J		BR64I		CB85G		CL03E		CT55A		DE87L		DM30A		DW37F		ED23I		EM85J		ER93D		EZ03D	
5		12/7/99		2/17/00		5/24/00		8/30/00		11/8/00		2/13/01		6/6/01		8/13/01		11/28/01		2/26/02		6/26/02		08/26/02		11/12/02	
7	**CHLORINATED PHENOLS (µg/L)**																										
8	**EPA Method SW8040**																										
9	Pentachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.26	U	0.25	U
10	2,4,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA	
11	2,3,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA	
12	2,4,5-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA	
13	2,3,4-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA	
15	2,3,4,5-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA	
16																											
17	**SEMIVOLATILES (µg/L)**																										
18	**EPA Method SW8270**																										
19	Phenol	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.1	U	2.2	U
20	4-Methylphenol	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1.1	U
21	Isophorone	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1.1	U
22	2,4-Dimethylphenol	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.1	U	3.3	U
23	Benzoic Acid	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	50	U	50	U	50	U	52	U	54	U
24	Naphthalene	**3.0**		**6.7**		**3.1**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1.1	U
25	2-Methylnaphthalene	**12**		**24**		**14**		**7.7**		**4.1**		**1.6**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1.1	U
26	2,4,6-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.2	U	5.4	U
27	2,4,5-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.2	U	5.4	U
28	Acenaphthene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1.1	U
29	Dibenzofuran	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1.1	U
30	Fluorene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1.1	U
31	Pentachlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.2	U	5.4	U
32	bis(2-Ethylhexyl)phthalate	1.0	U	1.0	U	1.0	U	**1.7**		1.0	U	1.0	U	1.0	U	1.0	U	4.0	U	4.0	U	4.0	U	4.2	U	4.3	U
33																											
34	**VOLATILES (µg/L)**																										
35	**EPA Method SW8260**																										
36	Acetone	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U		R	5.0	U	**5.6**		5.0	U	5.0	U	**7.8**		5	U	5	U
37	Carbon Disulfide	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U
38	2-Butanone	5.0	U	5.0	U	**9.0**		21	U	**21**		5.0	U	**6.2**		**13**		**6.4**		**7.5**		5.0	U	**11**	M	5	U
39	Benzene	1.0	U	**4.4**		**1.7**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U
40	Bromoform	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U
41	Toluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U
42	Ethylbenzene	**2.3**		1.0	U	**1.9**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**1.3**		1	U	1	U
43	Styrene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U
44	m,p-Xylene	**1.5**		1.0	U	1.0	U	1.0	U	**1.0**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U
45	o-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U
46	1,3,5-Trimethylbenzene	**11**		**1.6**		**7.9**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U
47	1,2,4-Trimethylbenzene	**14**		**17**		**11**		**3.8**		2.4	M	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U
48	Isopropylbenzene	**66**		**140**		**95**		**100**		**140**		**120**		**150**		**130**		**200**		**140**		**170**		**140**		**150**	
49	n-Propylbenzene	**64**		**130**		**90**		**92**		**130**		**110**		**140**		**120**		**190**		**120**		**150**		**110**		**130**	
50	tert-Butylbenzene	**1.7**		**4.8**		**2.6**		**4.0**		**3.7**		**3.2**		**4.5**		**3.2**		**4.9**		**3.6**		**4.7**		**3.8**		**3.7**	
51	sec-Butylbenzene	**6.9**		**24**		**9.6**		**20**		**19**		**16**		**20**		**17**		**23**		**16**		**23**		**18**		**18**	
52	4-Isopropyltoluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**7.9**		1.0	U	1.0	U	1	U	1	U
53	n-Butylbenzene	1.0	U	**17**		**6.2**	M	**14**	M	**12**		**10**		14	U	**11**		**14**	M	**12**		**13**	M	**11**	M	**11**	M
54	Naphthalene	5.0	U	**13**		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5	U	5	U
55	Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
56																											
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																										
58	**Method OR-DEQ**																										
59	**TPH-Diesel**	**2.3**		**2.3**		**3.2**		**2.1**		**2.2**		**3.4**		**2.3**		**3.3**		**4.5**		**4.3**		**5.0**		**4.8**		**4.4**	
60	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
61	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
62																											
63	**PRIORITY POLLUTANT**																										
64	**METALS (mg/L)**																										
65	Arsenic (7060)	**0.039**		**0.036**		**0.036**		**0.036**		**0.033**		**0.035**		**0.036**		**0.040**		**0.034**		**0.035**		**0.037**		**0.039**		0.05	U

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TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL
3		G1A		G1A		G1A		G1A		G1A		G1A	
4		FF76E		FL66D		FU50F		FY82N		0402105-04		0406039-03	
5		2/12/03		5/9/03		8/29/03		10/24/03		2/20/04		6/7/04	
7	**CHLORINATED PHENOLS (µg/L)**												
8	**EPA Method SW8040**												
9	Pentachlorophenol	**0.39**		0.25	U	0.51	U	0.5	U	0.478	U	0.507	U
10	2,4,6-Trichlorophenol	NA		NA		NA		NA		NA		NA	
11	2,3,6-Trichlorophenol	NA		NA		NA		NA		NA		NA	
12	2,4,5-Trichlorophenol	NA		NA		NA		NA		NA		NA	
13	2,3,4-Trichlorophenol	NA		NA		NA		NA		NA		NA	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA		NA		NA		NA		NA	
15	2,3,4,5-Tetrachlorophenol	NA		NA		NA		NA		NA		NA	
16													
17	**SEMIVOLATILES (µg/L)**												
18	**EPA Method SW8270**												
19	Phenol	2.1	U	2	U	2	U	2	U	2.06	U	2.13	U
20	4-Methylphenol	1	U	1	U	1	U	1	U	10.3	U	10.6	U
21	Isophorone	1	U	1	U	1	U	1	U	1.03	U	1.06	U
22	2,4-Dimethylphenol	3.1	U	3	U	3	U	3	U	3.08	U	3.19	U
23	Benzoic Acid	52	U	50	U	51	U	10	U	20.6	U	21.3	U
24	Naphthalene	1	U	1	U	1	U	1	U	1.03	U	1.06	U
25	2-Methylnaphthalene	1	U	1	U	1	U	1	U	1.03	U	1.06	U
26	2,4,6-Trichlorophenol	5.2	U	5	U	5.1	U	5	U	5.14	U	5.32	U
27	2,4,5-Trichlorophenol	5.2	U	5	U	5.1	U	5	U	5.14	U	5.32	U
28	Acenaphthene	1	U	1	U	1	U	1	U	1.03	U	1.06	U
29	Dibenzofuran	1	U	1	U	1	U	1	U	1.03	U	1.06	U
30	Fluorene	1	U	1	U	1	U	1	U	1.03	U	1.06	U
31	Pentachlorophenol	5.2	U	5	U	5.1	U	5	U	5.14	U	5.32	U
32	bis(2-Ethylhexyl)phthalate	1	U	1	U	**2.8**		1	U	1.03	U	1.06	U
33													
34	**VOLATILES (µg/L)**												
35	**EPA Method SW8260**												
36	Acetone	5	U	**5.6**	M	**9.3**	M	**7.3**	M	50	U	50	U
37	Carbon Disulfide	1	U	1	U	1	U	1	U	2	U	2	U
38	2-Butanone	5	U	5	U	**10**	M	**6.7**	M	10	U	10	U
39	Benzene	1	U	1	U	1	U	1	U	0.4	U	0.3	U
40	Bromoform	1	U	1	U	1	U	1	U	1	U	1	U
41	Toluene	1	U	1	U	1	U	1	U	1	U	1	U
42	Ethylbenzene	1	U	1	U	1	U	1	U	1	U	1	U
43	Styrene	1	U	1	U	1	U	1	U	1	U	1	U
44	m,p-Xylene	1	U	1	U	1	U	1	U	2	U	2	U
45	o-Xylene	1	U	1	U	1	U	1	U	1	U	1	U
46	1,3,5-Trimethylbenzene	1	U	1	U	1	U	1	U	1	U	1	U
47	1,2,4-Trimethylbenzene	1	U	1	U	1	U	1	U	1	U	1	U
48	Isopropylbenzene	**180**		**65**		**180**		**150**		**67.2**		**105**	
49	n-Propylbenzene	**150**		**49**		**160**		**130**		**57.1**		**112**	
50	tert-Butylbenzene	**4.7**		**2.6**		**5.1**		**3.5**		1	U	**5.1**	
51	sec-Butylbenzene	**22**		**7.2**		**23**		**17**		**7.93**		**27.5**	
52	4-Isopropyltoluene	1	U	1	U	1	U	1	U	1	U	1	U
53	n-Butylbenzene	**14**	M	**4.3**	M	**14**		**10**		**4.23**		**15**	
54	Naphthalene	5	U	5	U	5	U	5	U	1	U	1	U
55	Methyl tert-butyl ether	NA		NA		NA		NA		1	U	1	U
56													
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**												
58	**Method OR-DEQ**												
59	**TPH-Diesel**	**4.4**		**3.3**		**3.7**		**2.2**		**2.39**	J	**3.98**	
60	**TPH-D Motor Oil**	NA		NA		NA		0.5	U	0.491	UJ	0.536	U
61	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA	
62													
63	**PRIORITY POLLUTANT**												
64	**METALS (mg/L)**												
65	Arsenic (7060)	**0.024**		**0.028**		**0.036**		**0.035**		**0.032**		**0.033**	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1																										
2									Dup of G1A				Dup of G1A													
3			G1A		G1A		G1A		G1B		G1A		S		G1A		G1A		G1A		G1A		G1A		G1A	
4			S177E		T176H		U258C		U258A		V224T		V224L		W391G		Y313D		Z225C		Z960O		AH27J		AU45F	
5			4/2/97		7/15/97		10/23/97		10/23/97		1/29/98		1/29/98		5/20/98		8/17/98		11/13/98		2/17/99		5/17/99		9/22/99	
66	59	Chromium (6010)	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	**0.008**	
67	60	Copper (6010)	0.002	U	0.002	U	**0.002**		**0.003**		**0.004**		**0.004**		0.002	U	**0.004**		**0.004**		0.002	U	0.002	U	**0.009**	
68	61	Lead (7421)	0.001	U	0.001	U	0.02	U	0.02	U	0.02	U	0.02	U	**0.001**		**0.005**		**0.002**		0.001	U	**0.003**		**0.007**	
69	62	Nickel (6010)	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.02	U
70	63	Zinc (6010)	0.004	U	0.004	U	**0.024**		**0.024**		**0.008**		**0.010**		**0.005**	J2	**0.013**		**0.012**		**0.011**	J	0.009	U	**0.020**	
71	64																									
72	65	**MAJOR IONS AND CONVENTIONALS**																								
73	66	Calcium (mg/L) (6010)	**59.1**		**51**		**53.5**		**53.0**		**46.7**		**46.4**		NA		NA		NA		**55.5**		NA		NA	
74	67	Magnesium (mg/L) (6010)	**21.6**		**19.1**		**17.9**		**17.6**		**15.8**		**15.7**		NA		NA		NA		**19.5**		NA		NA	
75	68	Potassium (mg/L) (6010)	**0.8**		**0.7**		**6.8**		**7.6**		**1.5**		**1.5**		NA		NA		NA		**1.0**		NA		NA	
76	69	Sodium (mg/L) (6010)	**11.5**		**10.5**		**15.2**		**15.4**		**10.4**		**10.2**		NA		NA		NA		**11.0**		NA		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	**260**		**230**		**210**		**210**		**250**		**210**		NA		NA		NA		**240**		NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		1.0	U	NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	**260**		**230**		**210**		**210**		**250**		**210**		NA		NA		NA		**240**		NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	NT		**300**	J2	**270**		**260**		**230**		**270**		**300**		**290**		**260**		**340**		**670**		**580**	
81	74	Chloride (mg/L) (EPA 325.2)	**13**		**14**		**14**		**13**		**13**		**12**		**12**		**11**		**12**		**12**		**9.1**		**11**	
82	75	N-Nitrate (mg-N/L) (Calculated)	0.010	U	0.010	U	0.010	U	0.010	U	**0.022**	J2	**0.024**	J2	NA		NA		NA		**0.010**		NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	**0.036**	J	**0.042**	J2	**0.013**		**0.019**		**0.011**	J2	0.010	UJ	NA		NA		NA		**0.015**		NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	**0.024**		0.010	U	**0.020**		**0.020**		**0.033**	J2	**0.024**	J2	NA		NA		NA		**0.025**		NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	3.7		NA		NA		NA		**4.7**		NA		NA	
86	79																									

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ
1																											
2																											
3		G1A		G1A		G1A		G1A		G1A		G1A		G1A		G1A		G1A		G1A		G1A		G1A		G1A	
4		BC27E		BH96J		BR64I		CB85G		CL03E		CT55A		DE87L		DM30A		DW37F		ED23I		EM85J		ER93D		EZ03D	
5		12/7/99		2/17/00		5/24/00		8/30/00		11/8/00		2/13/01		6/6/01		8/13/01		11/28/01		2/26/02		6/26/02		08/26/02		11/12/02	
66	Chromium (6010)	0.005	U	0.005	U	0.005	U	**0.005**		0.005	U	0.005	U	0.005	U	**0.013**		**0.005**		**0.005**		0.005	U	0.005	U	**0.008**	
67	Copper (6010)	**0.003**		0.002	U	0.002	U	**0.015**		**0.004**		0.002	U	**0.003**		**0.017**		**0.005**	J	**0.005**		**0.002**		**0.004**		**0.01**	
68	Lead (7421)	**0.001**		0.001	U	**0.001**		**0.004**		**0.003**		**0.002**		**0.001**		**0.008**		**0.004**		**0.002**		0.001	U	**0.003**		0.02	U
69	Nickel (6010)	0.01	U	0.01	U	0.01	U	**0.01**		0.01	U	0.01	U	0.01	U	**0.01**		0.01	U	0.01	U	0.01	U	0.01	U	**0.01**	
70	Zinc (6010)	0.008	U	0.006	U	0.006	U	**0.014**		**0.009**		**0.008**		**0.009**		**0.033**		**0.015**	J	**0.008**		**0.008**		**0.034**		**0.02**	
71																											
72	**MAJOR IONS AND CONVENTIONALS**																										
73	Calcium (mg/L) (6010)	NA		NA		NA		NA		NA		**65.6**		**60.3**		**67.9**		**56.9**	J	**62.8**		NA		NA		NA	
74	Magnesium (mg/L) (6010)	NA		NA		NA		NA		NA		**21.6**		**20.2**		**24.9**		**18.7**	J	**21.1**		NA		NA		NA	
75	Potassium (mg/L) (6010)	NA		NA		NA		NA		NA		**1.8**		**3.4**		**2.4**		**3.6**		**3.2**		NA		NA		NA	
76	Sodium (mg/L) (6010)	NA		NA		NA		NA		NA		**11.2**		**12.1**		**13.5**		**13.4**		**13.0**		NA		NA		NA	
77	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		**310**		NA		NA		NA		**290**		NA		NA		NA	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		1.0	U	NA		NA		NA		1.0	U	NA		NA		NA	
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		**310**		NA		NA		NA		**290**		NA		NA		NA	
80	Total Dissolved Solids (mg/L) (EPA 160.1)	**420**		**450**		**390**		**460**		**380**		**350**	J	**340**	J	**330**	J	**330**		**380**		**320**		**330**		**430**	
81	Chloride (mg/L) (EPA 325.2)	**9.3**		**18**		**8.4**		**6.7**		**8.2**		**8.8**		**8.2**		**10**		**3.3**		**26**		**5.1**		**5**		**4.8**	
82	N-Nitrate (mg-N/L) (Calculated)	NA		NA		NA		NA		NA		**0.010**		NA		NA		NA		0.010	U	NA		NA		NA	
83	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		NA		NA		NA		0.010	U	NA		NA		NA		**0.074**		NA		NA		NA	
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		NA		NA		NA		**0.010**		NA		NA		NA		**0.057**	J	NA		NA		NA	
85	Sulfate (mg/L) (EPA 375.2)	NA		NA		NA		NA		NA		**4.7**		NA		NA		NA		**2.5**		NA		NA		NA	
86																											

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL
1													
2													
3		G1A		G1A		G1A		G1A		G1A		G1A	
4		FF76E		FL66D		FU50F		FY82N		0402105-04		0406039-03	
5		2/12/03		5/9/03		8/29/03		10/24/03		2/20/04		6/7/04	
66	Chromium (6010)	0.005	U	0.005	U	**0.006**		**0.01**		**0.0077**		**0.0155**	
67	Copper (6010)	**0.01**		0.002	U	**0.004**		**0.007**		**0.0346**		0.01	U
68	Lead (7421)	0.001	U	0.001	U	0.001	U	**0.003**		**0.0004**		**0.0004**	
69	Nickel (6010)	0.01	U	0.01	U	**0.05**		**0.08**		**0.0997**		**0.0955**	
70	Zinc (6010)	**0.013**		**0.011**		**0.009**		**0.021**		0.01	U	**0.0102**	
71													
72	**MAJOR IONS AND CONVENTIONALS**												
73	Calcium (mg/L) (6010)	**61.7**		NA		NA		NA		NA		NA	
74	Magnesium (mg/L) (6010)	**22**		NA		NA		NA		NA		NA	
75	Potassium (mg/L) (6010)	**7**		NA		NA		NA		NA		NA	
76	Sodium (mg/L) (6010)	**17**		NA		NA		NA		NA		NA	
77	Alkalinity (mg/L CaCO3) (SM 2320)	**300**		NA		NA		NA		NA		NA	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	1	U	NA		NA		NA		NA		NA	
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	**300**		NA		NA		NA		NA		NA	
80	Total Dissolved Solids (mg/L) (EPA 160.1)	**350**		**350**		**400**		**310**		**280**		**364**	
81	Chloride (mg/L) (EPA 325.2)	**3.6**		**6**		**7.3**		**8.4**		**7.79**		**6.83**	
82	N-Nitrate (mg-N/L) (Calculated)	**0.045**		NA		NA		NA		NA		NA	
83	N-Nitrite (mg-N/L) (EPA 354.1)	**0.023**		NA		NA		NA		NA		NA	
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	**0.068**		NA		NA		NA		NA		NA	
85	Sulfate (mg/L) (EPA 375.2)	2.5	U	NA		NA		NA		NA		NA	
86													

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

1																								
2								Dup of G1A				Dup of G1A												
3			G1A		G1A		G1A	G1B		G1A		S		G1A		G1A		G1A		G1A		G1A		G1A
4			S177E		T176H		U258C	U258A		V224T		V224L		W391G		Y313D		Z225C		Z960O		AH27J		AU45F
5			4/2/97		7/15/97		10/23/97	10/23/97		1/29/98		1/29/98		5/20/98		8/17/98		11/13/98		2/17/99		5/17/99		9/22/99
87	80	**FIELD PARAMETERS**																						
88	81	pH (avg)	6.77		6.67		6.82	6.82		6.73		6.70		6.43		6.50		6.30		6.87		5.75		6.67
89	82	Temperature (° C) (avg)	14.1		16.0		14.5	14.5		14.2		14.0		13.8		15.2		12.6		13.0		15.5		17.9
90	83	Conductivity (um/hos)	625		585		496	496		473		480		444		680		127		559		825		850
91	84	Dissolved oxygen (mg/L) (avg)	NA		NA		NA	NA		NA		NA		2.18		0.93		1.58		1.54		1.83		0.68
92	85																							
93	86	**DIOXINS AND FURANS (ng/L)**																						
94	87	**Method 8290**																						
95	88	2,3,7,8-TCDF	NA		NA		NA	NA		NA		NA		NA		NA		NA		NA		NA		NA
96	89	Total TCDF	NA		NA		NA	NA		NA		NA		NA		NA		NA		NA		NA		NA
97	90	2,3,7,8-TCDD	NA		NA		NA	NA		NA		NA		NA		NA		NA		NA		NA		NA
98	91	Total TCDD	NA		NA		NA	NA		NA		NA		NA		NA		NA		NA		NA		NA
99	92	1,2,3,7,8-PeCDF	NA		NA		NA	NA		NA		NA		NA		NA		NA		NA		NA		NA
100	93	2,3,4,7,8-PeCDF	NA		NA		NA	NA		NA		NA		NA		NA		NA		NA		NA		NA
101	94	Total PeCDF	NA		NA		NA	NA		NA		NA		NA		NA		NA		NA		NA		NA
102	95	1,2,3,7,8-PeCDD	NA		NA		NA	NA		NA		NA		NA		NA		NA		NA		NA		NA
103	96	Total PeCDD	NA		NA		NA	NA		NA		NA		NA		NA		NA		NA		NA		NA
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA	NA		NA		NA		NA		NA		NA		NA		NA		NA
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA	NA		NA		NA		NA		NA		NA		NA		NA		NA
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA	NA		NA		NA		NA		NA		NA		NA		NA		NA
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA	NA		NA		NA		NA		NA		NA		NA		NA		NA
108	101	Total HxCDF	NA		NA		NA	NA		NA		NA		NA		NA		NA		NA		NA		NA
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA	NA		NA		NA		NA		NA		NA		NA		NA		NA
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA	NA		NA		NA		NA		NA		NA		NA		NA		NA
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA	NA		NA		NA		NA		NA		NA		NA		NA		NA
112	105	Total HxCDD	NA		NA		NA	NA		NA		NA		NA		NA		NA		NA		NA		NA
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA	NA		NA		NA		NA		NA		NA		NA		NA		NA
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA	NA		NA		NA		NA		NA		NA		NA		NA		NA
115	108	Total HpCDF	NA		NA		NA	NA		NA		NA		NA		NA		NA		NA		NA		NA
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA	NA		NA		NA		NA		NA		NA		NA		NA		NA
117	110	Total HpCDD	NA		NA		NA	NA		NA		NA		NA		NA		NA		NA		NA		NA
118	111	OCDF	NA		NA		NA	NA		NA		NA		NA		NA		NA		NA		NA		NA
119	112	OCDD	NA		NA		NA	NA		NA		NA		NA		NA		NA		NA		NA		NA
120																								
121																								
122																								

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ
1																											
2																											
3		G1A		G1A		G1A		G1A		G1A		G1A		G1A		G1A		G1A		G1A		G1A		G1A		G1A	
4		BC27E		BH96J		BR64I		CB85G		CL03E		CT55A		DE87L		DM30A		DW37F		ED23I		EM85J		ER93D		EZ03D	
5		12/7/99		2/17/00		5/24/00		8/30/00		11/8/00		2/13/01		6/6/01		8/13/01		11/28/01		2/26/02		6/26/02		08/26/02		11/12/02	
87	**FIELD PARAMETERS**																										
88	pH (avg)	6.45		6.68		6.47		5.92		5.84		6.42		6.83		6.79		6.58		6.64		6.48		6.69		6.76	
89	Temperature (° C) (avg)	13.0		13.9		17.2		15.0		13.7		15.2		14.4		15.5		13.4		14.3		17.5		17.7		13.7	
90	Conductivity (um/hos)	742		828		796		799		679		645		651		614		586		578		592		513		665	
91	Dissolved oxygen (mg/L) (avg)	2.00		0.86		0.31		0.67		0.64		1.76		1.84		1.41		4.16		7.50		2.72		0.69		1.06	
92																											
93	**DIOXINS AND FURANS (ng/L)**																										
94	**Method 8290**																										
95	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
96	Total TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
97	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
98	Total TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
99	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
100	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
101	Total PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
102	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
103	Total PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
104	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
105	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
106	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
107	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
108	Total HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
109	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
110	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
111	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
112	Total HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
113	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
114	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
115	Total HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
116	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
117	Total HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
118	OCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
119	OCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
120																											
121																											
122																											

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL
1													
2													
3		G1A		G1A		G1A		G1A		G1A		G1A	
4		FF76E		FL66D		FU50F		FY82N		0402105-04		0406039-03	
5		2/12/03		5/9/03		8/29/03		10/24/03		2/20/04		6/7/04	
87	**FIELD PARAMETERS**												
88	pH (avg)	7.18		6.92		6.69		6.64		6.7		5.4	
89	Temperature (° C) (avg)	14.4		14.9		15		14.7		15.4		14.9	
90	Conductivity (um/hos)	682		566		588		603		560		473	
91	Dissolved oxygen (mg/L) (avg)	1.68		2.83		1.35		2.92		0.96		1.54	
92													
93	**DIOXINS AND FURANS (ng/L)**												
94	**Method 8290**												
95	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA	
96	Total TCDF	NA		NA		NA		NA		NA		NA	
97	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA	
98	Total TCDD	NA		NA		NA		NA		NA		NA	
99	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA	
100	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA	
101	Total PeCDF	NA		NA		NA		NA		NA		NA	
102	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA	
103	Total PeCDD	NA		NA		NA		NA		NA		NA	
104	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA	
105	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA	
106	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA	
107	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA	
108	Total HxCDF	NA		NA		NA		NA		NA		NA	
109	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA	
110	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA	
111	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA	
112	Total HxCDD	NA		NA		NA		NA		NA		NA	
113	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA	
114	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA	
115	Total HpCDF	NA		NA		NA		NA		NA		NA	
116	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA	
117	Total HpCDD	NA		NA		NA		NA		NA		NA	
118	OCDF	NA		NA		NA		NA		NA		NA	
119	OCDD	NA		NA		NA		NA		NA		NA	
120													
121													
122													

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1																										
2									Dup of G1A				Dup of G1A													
3			G1A		G1A		G1A		G1B		G1A		S		G1A		G1A		G1A		G1A		G1A		G1A	
4			S177E		T176H		U258C		U258A		V224T		V224L		W391G		Y313D		Z225C		Z960O		AH27J		AU45F	
5			4/2/97		7/15/97		10/23/97		10/23/97		1/29/98		1/29/98		5/20/98		8/17/98		11/13/98		2/17/99		5/17/99		9/22/99	
123		**PAHs (µg/L)**																								
124		**EPA Method SW8270 SIM**																								
125		Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		**2.5**		NA		NA	
126		2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		**16**		NA		NA	
127		Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		0.10	U	NA		NA	
128		Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		**0.23**	M	NA		NA	
129		Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		**0.16**	M	NA		NA	
130		Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		NA		0.10	U	NA		NA	
131		Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		0.10	U	NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ
1																											
2																											
3		G1A		G1A		G1A		G1A		G1A		G1A		G1A		G1A		G1A		G1A		G1A		G1A		G1A	
4		BC27E		BH96J		BR64I		CB85G		CL03E		CT55A		DE87L		DM30A		DW37F		ED23I		EM85J		ER93D		EZ03D	
5		12/7/99		2/17/00		5/24/00		8/30/00		11/8/00		2/13/01		6/6/01		8/13/01		11/28/01		2/26/02		6/26/02		08/26/02		11/12/02	
123	**PAHs (µg/L)**																										
124	**EPA Method SW8270 SIM**																										
125	Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
126	2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
127	Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
128	Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
129	Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
130	Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
131	Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL
1													
2													
3		G1A		G1A		G1A		G1A		G1A		G1A	
4		FF76E		FL66D		FU50F		FY82N		0402105-04		0406039-03	
5		2/12/03		5/9/03		8/29/03		10/24/03		2/20/04		6/7/04	
123	**PAHs (µg/L)**												
124	**EPA Method SW8270 SIM**												
125	Naphthalene	NA		NA		NA		NA		NA		NA	
126	2-Methylnaphthalene	NA		NA		NA		NA		NA		NA	
127	Acenaphthylene	NA		NA		NA		NA		NA		NA	
128	Acenaphthene	NA		NA		NA		NA		NA		NA	
129	Fluorene	NA		NA		NA		NA		NA		NA	
130	Anthracene	NA		NA		NA		NA		NA		NA	
131	Dibenzofuran	NA		NA		NA		NA		NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1																												
2																												
3			J2		J2		J2		J2		J2		J2		J2		J2		J2		J2		J2		J2		J2	
4			S177J		T176Q		U235K		V224P		W371L		Y314J		Z225P		Z960D		AH49D		AU22I		BC27L		BH96S		BR64E	
5			4/2/97		7/16/97		10/22/97		1/29/98		5/19/98		8/18/98		11/12/98		2/17/99		5/18/99		9/20/99		12/8/99		2/16/00		5/24/00	
6																												
7	1	**CHLORINATED PHENOLS (µg/L)**																										
8	2	**EPA Method SW8040**																										
9	3	Pentachlorophenol	**0.15**	J	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	**0.36**		0.25	U	0.25	U
10	4	2,4,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
11	5	2,3,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
12	6	2,4,5-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
13	7	2,3,4-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
15	9	2,3,4,5-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
16	10																											
17	11	**SEMIVOLATILES (µg/L)**																										
18	12	**EPA Method SW8270**																										
19	13	Phenol	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	**2.8**		2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
20	14	4-Methylphenol	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
21	15	Isophorone	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
22	16	2,4-Dimethylphenol	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U
23	17	Benzoic Acid	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
24	18	Naphthalene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
25	19	2-Methylnaphthalene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
26	20	2,4,6-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
27	21	2,4,5-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
28	22	Acenaphthene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
29	23	Dibenzofuran	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
30	24	Fluorene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
31	25	Pentachlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
32	26	bis(2-Ethylhexyl)phthalate	1.1	U	**1.7**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
33	27																											
34	28	**VOLATILES (µg/L)**																										
35	29	**EPA Method SW8260**																										
36	30	Acetone	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
37	31	Carbon Disulfide	1.0	U	1.0	U	**44**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
38	32	2-Butanone	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
39	33	Benzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
40	34	Bromoform	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
41	35	Toluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
42	36	Ethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
43	37	Styrene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
44	38	m,p-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
45	39	o-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
46	40	1,3,5-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
47	41	1,2,4-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
48	42	Isopropylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
49	43	n-Propylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
50	44	tert-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
51	45	sec-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	UJ	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
52	46	4-Isopropyltoluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
53	47	n-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
54	48	Naphthalene	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
55		Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
56	49																											
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																										
58	51	**Method OR-DEQ**																										
59	52	**TPH-Diesel**	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	**0.36**		0.25	U	0.25	U	**0.28**		**0.31**		**0.28**		**0.30**		**0.38**	
60	53	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
61	54	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
62	55																											
63	56	**PRIORITY POLLUTANT**																										
64	57	**METALS (mg/L)**																										
65	58	Arsenic (7060)	**0.011**		**0.012**		0.05	U	0.05	U	**0.010**		**0.008**		**0.008**		**0.009**		**0.006**		**0.010**		**0.010**		**0.012**		**0.006**	

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TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC
3		J2		J2		J2		J2		J2		J2		J2		J2		J2		J2		J2		J2		J2		J2
4		CB49H		CL03I		CT55E		DE68J		DM52A		DW48D		ED23D		EM85E		ES04E		EZ03L		FF76I		FL58J		FU31B		FY64I
5		8/29/00		11/10/00		2/14/01		6/5/01		8/14/01		11/29/01		2/26/02		6/26/02		08/28/02		11/12/02		2/12/03		5/8/03		8/27/03		10/21/03
7	**CHLORINATED PHENOLS (µg/L)**																											
8	**EPA Method SW8040**																											
9	Pentachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	**0.33**		0.25	U	0.25	U	0.28	U	0.25	U	0.26	U	0.25	U	0.5	U	0.5
10	2,4,6-Trichlorophenol	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
11	2,3,6-Trichlorophenol	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
12	2,4,5-Trichlorophenol	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
13	2,3,4-Trichlorophenol	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
15	2,3,4,5-Tetrachlorophenol	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
16																												
17	**SEMIVOLATILES (µg/L)**																											
18	**EPA Method SW8270**																											
19	Phenol	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.2	U	2.2	U	2	U	2	U	2	U	2
20	4-Methylphenol	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1.1	U	1	U	1	U	1	U	1
21	Isophorone	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1.1	U	1	U	1	U	1	U	1
22	2,4-Dimethylphenol	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.3	U	3.3	U	3.1	U	3	U	3	U	3
23	Benzoic Acid	10	U	10	U	10	U	10	U	10	U	30	U	50	U	50	U	56	U	56	U	51	U	50	U	50	U	10
24	Naphthalene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1.1	U	1	U	1	U	1	U	1
25	2-Methylnaphthalene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1.1	U	1	U	1	U	1	U	1
26	2,4,6-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.6	U	5.6	U	5.1	U	5	U	5	U	5
27	2,4,5-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.6	U	5.6	U	5.1	U	5	U	5	U	5
28	Acenaphthene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1.1	U	1	U	1	U	1	U	1
29	Dibenzofuran	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1.1	U	1	U	1	U	1	U	1
30	Fluorene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1.1	U	1	U	1	U	1	U	1
31	Pentachlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.6	U	5.6	U	5.1	U	5	U	5	U	5
32	bis(2-Ethylhexyl)phthalate	1.0	U	1.0	U	**1.0**		1.0	U	1.0	U	1.0	U	4.0	U	4.0	U	4.4	U	4.4	U	1	U	1	U	1	U	1
33																												
34	**VOLATILES (µg/L)**																											
35	**EPA Method SW8260**																											
36	Acetone	5.0	U	5.0	U		R	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5	U	5	U	5	U	5	U	5	U	5
37	Carbon Disulfide	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1
38	2-Butanone	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5	U	5	U	5	U	5	U	5	U	5
39	Benzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1
40	Bromoform	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1
41	Toluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1
42	Ethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1
43	Styrene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1
44	m,p-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1
45	o-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1
46	1,3,5-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1
47	1,2,4-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1
48	Isopropylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1
49	n-Propylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1
50	tert-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1
51	sec-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1
52	4-Isopropyltoluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1
53	n-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1
54	Naphthalene	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5	U	5	U	5	U	5	U	5	U	5
55	Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
56																												
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																											
58	**Method OR-DEQ**																											
59	**TPH-Diesel**	**0.26**		**0.40**		**0.35**		NA		NA		NA		**0.41**		NA		NA		NA		**0.39**		NA		NA		NA
60	**TPH-D Motor Oil**	NA		0.50	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
61	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
62																												
63	**PRIORITY POLLUTANT**																											
64	**METALS (mg/L)**																											
65	Arsenic (7060)	**0.004**		**0.008**		**0.008**		**0.010**		**0.010**		**0.008**		**0.012**		**0.005**		**0.008**		0.05	U	**0.008**		**0.005**		**0.005**		**0.004**

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TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BD	BE	BF
1				
2				
3			J2	
4			0402105-02	
5			2/20/04	
6				
7	**CHLORINATED PHENOLS (µg/L)**			
8	**EPA Method SW8040**			
9	Pentachlorophenol	U	0.483	U
10	2,4,6-Trichlorophenol		NA	
11	2,3,6-Trichlorophenol		NA	
12	2,4,5-Trichlorophenol		NA	
13	2,3,4-Trichlorophenol		NA	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol		NA	
15	2,3,4,5-Tetrachlorophenol		NA	
16				
17	**SEMIVOLATILES (µg/L)**			
18	**EPA Method SW8270**			
19	Phenol	U	1.99	U
20	4-Methylphenol	U	9.93	U
21	Isophorone	U	0.993	U
22	2,4-Dimethylphenol	U	2.98	U
23	Benzoic Acid	U	19.9	U
24	Naphthalene	U	0.993	U
25	2-Methylnaphthalene	U	0.993	U
26	2,4,6-Trichlorophenol	U	4.97	U
27	2,4,5-Trichlorophenol	U	4.97	U
28	Acenaphthene	U	0.993	U
29	Dibenzofuran	U	0.993	U
30	Fluorene	U	0.993	U
31	Pentachlorophenol	U	4.97	U
32	bis(2-Ethylhexyl)phthalate	U	0.993	U
33				
34	**VOLATILES (µg/L)**			
35	**EPA Method SW8260**			
36	Acetone	U	50	U
37	Carbon Disulfide	U	2	U
38	2-Butanone	U	10	U
39	Benzene	U	0.4	U
40	Bromoform	U	1	U
41	Toluene	U	1	U
42	Ethylbenzene	U	1	U
43	Styrene	U	1	U
44	m,p-Xylene	U	2	U
45	o-Xylene	U	1	U
46	1,3,5-Trimethylbenzene	U	1	U
47	1,2,4-Trimethylbenzene	U	1	U
48	Isopropylbenzene	U	1	U
49	n-Propylbenzene	U	1	U
50	tert-Butylbenzene	U	1	U
51	sec-Butylbenzene	U	1	U
52	4-Isopropyltoluene	U	1	U
53	n-Butylbenzene	U	1	U
54	Naphthalene	U	1	U
55	Methyl tert-butyl ether		1	U
56				
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**			
58	**Method OR-DEQ**			
59	**TPH-Diesel**		NA	
60	**TPH-D Motor Oil**		NA	
61	**TPH-Gasoline**		NA	
62				
63	**PRIORITY POLLUTANT**			
64	**METALS (mg/L)**			
65	Arsenic (7060)		**0.008**	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1																												
2																												
3			J2		J2		J2		J2		J2		J2		J2		J2		J2		J2		J2		J2		J2	
4			S177J		T176Q		U235K		V224P		W371L		Y314J		Z225P		Z960D		AH49D		AU22I		BC27L		BH96S		BR64E	
5			4/2/97		7/16/97		10/22/97		1/29/98		5/19/98		8/18/98		11/12/98		2/17/99		5/18/99		9/20/99		12/8/99		2/16/00		5/24/00	
66	59	Chromium (6010)	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U
67	60	Copper (6010)	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U
68	61	Lead (7421)	0.001	U	0.001	U	0.02	U	0.02	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
69	62	Nickel (6010)	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
70	63	Zinc (6010)	0.004	U	0.004	U	**0.012**		0.004	U	**0.005**	J2	**0.008**		0.004	U	**0.017**	J	**0.004**		**0.005**		0.006	U	0.006	U	**0.008**	
71	64																											
72	65	**MAJOR IONS AND CONVENTIONALS**																										
73	66	Calcium (mg/L) (6010)	**63.6**		**63**		**61.6**		**57.8**		NA		NA		NA		**59.4**		NA		NA		NA		NA		NA	
74	67	Magnesium (mg/L) (6010)	**43.1**		**43.9**		**39.7**		**37.1**		NA		NA		NA		**38.5**		NA		NA		NA		NA		NA	
75	68	Potassium (mg/L) (6010)	**2.4**		**2.1**		**2.5**		**2.2**		NA		NA		NA		**4.0**		NA		NA		NA		NA		NA	
76	69	Sodium (mg/L) (6010)	**17.7**		**17.7**		**18.1**		**17.1**		NA		NA		NA		**18.3**		NA		NA		NA		NA		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	**350**		**360**	J2	**170**		**380**		NA		NA		NA		**350**		NA		NA		NA		NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		1.0	U	NA		NA		NA		NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	**350**		**360**	J2	**170**		**380**		NA		NA		NA		**350**		NA		NA		NA		NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	NT		**410**	J2	**360**		**410**		**360**		**390**		**360**		**380**		**350**		**380**		**360**		**330**		**320**	
81	74	Chloride (mg/L) (EPA 325.2)	**7.3**		**7.0**		**9.0**		**8.0**		**8.2**		**7.7**		**8.1**		**8.0**		**6.9**		**6.3**		**7.2**		**7.7**		**5.6**	
82	75	N-Nitrate (mg-N/L) (Calculated)	0.010	U	0.010	U	**0.028**		**0.027**	J2	NA		NA		NA		0.010	U	NA		NA		NA		NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	**0.022**	J	**0.019**	J2	**0.015**		**0.013**	J2	NA		NA		NA		**0.022**		NA		NA		NA		NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	**0.015**		0.010	U	**0.043**		**0.040**	J2	NA		NA		NA		**0.016**		NA		NA		NA		NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	2.5	U	2.5	U	2.5	U	2.5	U	NA		NA		NA		**5.7**		NA		NA		NA		NA		NA	
86	79																											

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TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC
3		J2		J2		J2		J2		J2		J2		J2		J2		J2		J2		J2		J2		J2		J2
4		CB49H		CL03I		CT55E		DE68J		DM52A		DW48D		ED23D		EM85E		ES04E		EZ03L		FF76I		FL58J		FU31B		FY64I
5		8/29/00		11/10/00		2/14/01		6/5/01		8/14/01		11/29/01		2/26/02		6/26/02		08/28/02		11/12/02		2/12/03		5/8/03		8/27/03		10/21/03
66	Chromium (6010)	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005
67	Copper (6010)	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	**0.002**		0.002	U	**0.003**		0.002	U	0.002	U	0.002	U	0.002	U	**0.004**
68	Lead (7421)	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	**0.001**		0.001	U	0.001	U	0.001	U	0.02	U	**0.001**		0.001	U	0.001	U	0.001
69	Nickel (6010)	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01
70	Zinc (6010)	0.006	U	0.006	U	0.006	U	0.006	U	0.006	U	0.006	U	0.006	U	0.006	U	**0.011**		**0.009**		**0.007**		**0.008**		**0.006**		**0.006**
72	**MAJOR IONS AND CONVENTIONALS**																											
73	Calcium (mg/L) (6010)	NA		NA		**53.0**		**57.1**		**49.5**		**53.9**		**55.8**		NA		NA		NA		**54.1**		NA		NA		NA
74	Magnesium (mg/L) (6010)	NA		NA		**31.3**		**33.2**		**30.0**		**28.8**		**31.7**		NA		NA		NA		**29.2**		NA		NA		NA
75	Potassium (mg/L) (6010)	NA		NA		**1.8**		**2.1**		**2.1**		**2.6**		**2.8**		NA		NA		NA		**2.8**		NA		NA		NA
76	Sodium (mg/L) (6010)	NA		NA		**14.5**		**15.2**		**14.8**		**14.9**		**15.9**		NA		NA		NA		**15**		NA		NA		NA
77	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		**330**		NA		NA		NA		**370**		NA		NA		NA		**310**		NA		NA		NA
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		1.0	U	NA		NA		NA		1.0	U	NA		NA		NA		1	U	NA		NA		NA
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		**330**		NA		NA		NA		**370**		NA		NA		NA		**310**		NA		NA		NA
80	Total Dissolved Solids (mg/L) (EPA 160.1)	**380**		**340**		**370**		**370**		**350**		**350**		**340**		**290**		**330**		**360**		**330**		**320**		**360**		**340**
81	Chloride (mg/L) (EPA 325.2)	**4.4**		**5.1**		**5.0**		**4.2**		**5.9**		**4.3**		**5.3**		**4.8**		**4.1**		**4.6**		**4.5**		**4.6**		**3.9**		**4.1**
82	N-Nitrate (mg-N/L) (Calculated)	NA		NA		0.010	U	NA		NA		NA		0.010	U	NA		NA		NA		**0.046**		NA		NA		NA
83	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		0.010	U	NA		NA		NA		**0.013**		NA		NA		NA		**0.012**		NA		NA		NA
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		0.010	U	NA		NA		NA		**0.019**	J	NA		NA		NA		**0.058**		NA		NA		NA
85	Sulfate (mg/L) (EPA 375.2)	NA		NA		**5.6**		NA		NA		NA		**3.5**		NA		NA		NA		**5.9**		NA		NA		NA

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BD	BE	BF
1				
2				
3			J2	
4			0402105-02	
5			2/20/04	
66	Chromium (6010)	U	0.005	U
67	Copper (6010)		0.01	U
68	Lead (7421)	U	**0.0002**	
69	Nickel (6010)	U	0.005	U
70	Zinc (6010)		0.01	U
71				
72	**MAJOR IONS AND CONVENTIONALS**			
73	Calcium (mg/L) (6010)		NA	
74	Magnesium (mg/L) (6010)		NA	
75	Potassium (mg/L) (6010)		NA	
76	Sodium (mg/L) (6010)		NA	
77	Alkalinity (mg/L CaCO3) (SM 2320)		NA	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)		NA	
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)		NA	
80	Total Dissolved Solids (mg/L) (EPA 160.1)		**329**	
81	Chloride (mg/L) (EPA 325.2)		**4.42**	
82	N-Nitrate (mg-N/L) (Calculated)		NA	
83	N-Nitrite (mg-N/L) (EPA 354.1)		NA	
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)		NA	
85	Sulfate (mg/L) (EPA 375.2)		NA	
86				

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1																												
2																												
3			J2		J2		J2		J2		J2		J2		J2		J2		J2		J2		J2		J2		J2	
4			S177J		T176Q		U235K		V224P		W371L		Y314J		Z225P		Z960D		AH49D		AU22I		BC27L		BH96S		BR64E	
5			4/2/97		7/16/97		10/22/97		1/29/98		5/19/98		8/18/98		11/12/98		2/17/99		5/18/99		9/20/99		12/8/99		2/16/00		5/24/00	
87	80	**FIELD PARAMETERS**																										
88	81	pH (avg)	6.76		6.74		6.91		6.76		6.49		6.37		6.35		6.89		5.95		6.30		6.56		6.69		6.49	
89	82	Temperature (° C) (avg)	13.9		16.8		13.8		14.3		13.0		16.5		12.7		14.1		14.7		14.9		12.1		13.6		16.1	
90	83	Conductivity (um/hos)	721		650		551		646		663		756		399		683		565		587		631		657		637	
91	84	Dissolved oxygen (mg/L) (avg)	NA		NA		NA		NA		0.73		0.77		2.50		2.54		1.96		2.18		2.42		1.12		0.90	
92	85																											
93	86	**DIOXINS AND FURANS (ng/L)**																										
94	87	**Method 8290**																										
95	88	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
96	89	Total TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
97	90	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
98	91	Total TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
101	94	Total PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
103	96	Total PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
108	101	Total HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
112	105	Total HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
115	108	Total HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
117	110	Total HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
118	111	OCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
119	112	OCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
120																												
121																												
122																												

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TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC
1																												
2																												
3		J2		J2		J2		J2		J2		J2		J2		J2		J2		J2		J2		J2		J2		J2
4		CB49H		CL03I		CT55E		DE68J		DM52A		DW48D		ED23D		EM85E		ES04E		EZ03L		FF76I		FL58J		FU31B		FY64I
5		8/29/00		11/10/00		2/14/01		6/5/01		8/14/01		11/29/01		2/26/02		6/26/02		08/28/02		11/12/02		2/12/03		5/8/03		8/27/03		10/21/03
87	**FIELD PARAMETERS**																											
88	pH (avg)	6.71		5.46		6.27		6.72		6.91		6.61		6.62		6.58		6.93		6.61		7.06		6.87		6.73		6.93
89	Temperature (° C) (avg)	14.7		12.8		13.9		13.7		15.7		13.4		13.8		15.3		15.5		14.1		14		14.5		15.1		16.1
90	Conductivity (um/hos)	584		578		574		619		594		584		592		467		416		456		654		464		523		457
91	Dissolved oxygen (mg/L) (avg)	1.10		1.02		0.62		1.12		1.30		3.69		6.76		3.17		1.32		1.19		0		2.73		1.76		3.09
92																												
93	**DIOXINS AND FURANS (ng/L)**																											
94	**Method 8290**																											
95	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
96	Total TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
97	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
98	Total TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
99	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
100	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
101	Total PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
102	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
103	Total PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
104	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
105	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
106	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
107	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
108	Total HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
109	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
110	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
111	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
112	Total HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
113	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
114	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
115	Total HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
116	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
117	Total HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
118	OCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
119	OCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
120																												
121																												
122																												

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BD	BE	BF
1				
2				
3			J2	
4			0402105-02	
5			2/20/04	
87	**FIELD PARAMETERS**			
88	pH (avg)		6.67	
89	Temperature (° C) (avg)		13.9	
90	Conductivity (um/hos)		490	
91	Dissolved oxygen (mg/L) (avg)		1.64	
92				
93	**DIOXINS AND FURANS (ng/L)**			
94	**Method 8290**			
95	2,3,7,8-TCDF		NA	
96	Total TCDF		NA	
97	2,3,7,8-TCDD		NA	
98	Total TCDD		NA	
99	1,2,3,7,8-PeCDF		NA	
100	2,3,4,7,8-PeCDF		NA	
101	Total PeCDF		NA	
102	1,2,3,7,8-PeCDD		NA	
103	Total PeCDD		NA	
104	1,2,3,4,7,8-HxCDF		NA	
105	1,2,3,6,7,8-HxCDF		NA	
106	2,3,4,6,7,8-HxCDF		NA	
107	1,2,3,7,8,9-HxCDF		NA	
108	Total HxCDF		NA	
109	1,2,3,4,7,8-HxCDD		NA	
110	1,2,3,6,7,8-HxCDD		NA	
111	1,2,3,7,8,9-HxCDD		NA	
112	Total HxCDD		NA	
113	1,2,3,4,6,7,8-HpCDF		NA	
114	1,2,3,4,7,8,9-HpCDF		NA	
115	Total HpCDF		NA	
116	1,2,3,4,6,7,8-HpCDD		NA	
117	Total HpCDD		NA	
118	OCDF		NA	
119	OCDD		NA	
120				
121				
122				

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1																												
2																												
3			J2		J2		J2		J2		J2		J2		J2		J2		J2		J2		J2		J2		J2	
4			S177J		T176Q		U235K		V224P		W371L		Y314J		Z225P		Z960D		AH49D		AU22I		BC27L		BH96S		BR64E	
5			4/2/97		7/16/97		10/22/97		1/29/98		5/19/98		8/18/98		11/12/98		2/17/99		5/18/99		9/20/99		12/8/99		2/16/00		5/24/00	
123		**PAHs (µg/L)**																										
124		**EPA Method SW8270 SIM**																										
125		Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
126		2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
127		Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
128		Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
129		Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
130		Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
131		Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC
1																												
2																												
3		J2		J2		J2		J2		J2		J2		J2		J2		J2		J2		J2		J2		J2		J2
4		CB49H		CL03I		CT55E		DE68J		DM52A		DW48D		ED23D		EM85E		ES04E		EZ03L		FF76I		FL58J		FU31B		FY64I
5		8/29/00		11/10/00		2/14/01		6/5/01		8/14/01		11/29/01		2/26/02		6/26/02		08/28/02		11/12/02		2/12/03		5/8/03		8/27/03		10/21/03
123	**PAHs (µg/L)**																											
124	**EPA Method SW8270 SIM**																											
125	Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
126	2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
127	Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
128	Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
129	Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
130	Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
131	Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BD	BE	BF
1				
2				
3			J2	
4			0402105-02	
5			2/20/04	
123	**PAHs (µg/L)**			
124	**EPA Method SW8270 SIM**			
125	Naphthalene		NA	
126	2-Methylnaphthalene		NA	
127	Acenaphthylene		NA	
128	Acenaphthene		NA	
129	Fluorene		NA	
130	Anthracene		NA	
131	Dibenzofuran		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
1																											
2																											
3			LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D
4			S167L		T176F		U235U		V208G		W371H		Y336H		Z225D		Z960H		AH27H		AU45K		BC21AC		BH75H		BR55F
5			4/1/97		7/15/97		10/23/97		1/28/98		5/18/98		8/19/98		11/13/98		2/17/99		5/17/99		9/23/99		12/6/99		2/15/00		5/23/00
6																											
7	1	**CHLORINATED PHENOLS (µg/L)**																									
8	2	**EPA Method SW8040**																									
9	3	Pentachlorophenol	**0.60**		0.25	U	0.25	U	0.25	U	0.25	U	**0.16**	J1	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25
10	4	2,4,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25
11	5	2,3,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25
12	6	2,4,5-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25
13	7	2,3,4-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25
15	9	2,3,4,5-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25
16	10																										
17	11	**SEMIVOLATILES (µg/L)**																									
18	12	**EPA Method SW8270**																									
19	13	Phenol	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0
20	14	4-Methylphenol	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
21	15	Isophorone	1.0	U	1.0	UJ	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
22	16	2,4-Dimethylphenol	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0
23	17	Benzoic Acid	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10
24	18	Naphthalene	1.0	U	1.0	UJ	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
25	19	2-Methylnaphthalene	1.0	U	1.0	UJ	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
26	20	2,4,6-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0
27	21	2,4,5-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0
28	22	Acenaphthene	1.0	U	1.0	UJ	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
29	23	Dibenzofuran	1.0	U	1.0	UJ	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
30	24	Fluorene	1.0	U	1.0	UJ	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
31	25	Pentachlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0
32	26	bis(2-Ethylhexyl)phthalate	1.0	UJ	1.0	UJ	3.5	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**1.0**		**6.5**		1.0	U	1.0	U	1.0
33	27																										
34	28	**VOLATILES (µg/L)**																									
35	29	**EPA Method SW8260**																									
36	30	Acetone	5.0	U	5.0	U	5.0	U	5.0	U	5.3	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0
37	31	Carbon Disulfide	1.0	U	1.0	U	**1.4**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
38	32	2-Butanone	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0
39	33	Benzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
40	34	Bromoform	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
41	35	Toluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
42	36	Ethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
43	37	Styrene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
44	38	m,p-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
45	39	o-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
46	40	1,3,5-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
47	41	1,2,4-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
48	42	Isopropylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
49	43	n-Propylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
50	44	tert-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
51	45	sec-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	UJ	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
52	46	4-Isopropyltoluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
53	47	n-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
54	48	Naphthalene	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0
55		Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
56	49																										
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																									
58	51	**Method OR-DEQ**																									
59	52	**TPH-Diesel**	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	**0.36**		0.25	U	0.25	U	0.25	U	**0.67**		0.25	U	0.25	U	0.25
60	53	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
61	54	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
62	55																										
63	56	**PRIORITY POLLUTANT**																									
64	57	**METALS (mg/L)**																									
65	58	Arsenic (7060)	**0.004**		**0.006**		0.05	U	0.05	U	**0.006**		**0.006**		**0.007**		**0.007**		**0.005**		**0.006**		**0.006**		**0.008**		**0.006**

BZTO104(e)018836

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB
3			LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D	
4			CB49B		CK77E		CT37C		DE68E		DM52D		DW48L		ED16I		EM75H		ER92D		EY88F		FF88L		FL41E		FU31D	
5			8/28/00		11/7/00		2/12/01		6/4/01		8/15/01		11/29/01		2/25/02		6/25/02		08/26/02		11/11/02		2/13/03		5/7/03		8/27/03	
7	**CHLORINATED PHENOLS (µg/L)**																											
8	**EPA Method SW8040**																											
9	Pentachlorophenol	UJ	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	**0.26**		**0.26**		0.25	U	0.27	U	0.25	U	0.25	U	0.25	U	0.6	U
10	2,4,6-Trichlorophenol	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
11	2,3,6-Trichlorophenol	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
12	2,4,5-Trichlorophenol	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
13	2,3,4-Trichlorophenol	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
15	2,3,4,5-Tetrachlorophenol	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
16																												
17	**SEMIVOLATILES (µg/L)**																											
18	**EPA Method SW8270**																											
19	Phenol	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.1	U	2	U	2	U	2	U	2.4	U
20	4-Methylphenol	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1	U	1	U	1	U	1.2	U
21	Isophorone	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1	U	1	U	1	U	1.2	U
22	2,4-Dimethylphenol	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.2	U	3	U	3	U	3	U	3.6	U
23	Benzoic Acid	U	10	U	10	U	10	U	10	U	10	U	30	U	50	U	50	U	53	U	50	U	50	U	50	U	60	U
24	Naphthalene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1	U	1	U	1	U	1.2	U
25	2-Methylnaphthalene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1	U	1	U	1	U	1.2	U
26	2,4,6-Trichlorophenol	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.3	U	5	U	5	U	5	U	6	U
27	2,4,5-Trichlorophenol	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.3	U	5	U	5	U	5	U	6	U
28	Acenaphthene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1	U	1	U	1	U	1.2	U
29	Dibenzofuran	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1	U	1	U	1	U	1.2	U
30	Fluorene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1	U	1	U	1	U	1.2	U
31	Pentachlorophenol	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.3	U	5	U	5	U	5	U	6	U
32	bis(2-Ethylhexyl)phthalate	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	4.0	U	4.0	U	4.3	U	4	U	1	U	1	U	1.2	U
33																												
34	**VOLATILES (µg/L)**																											
35	**EPA Method SW8260**																											
36	Acetone	U	5.0	U	5.0	U	7.6	U	5.0	U	5.0	U	**20**		**6.9**		**6.4**		**16**		5	U	5	U	**6.3**		5	U
37	Carbon Disulfide	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U
38	2-Butanone	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5	U	5	U	5	U	5	U	5	U
39	Benzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U
40	Bromoform	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U
41	Toluene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U
42	Ethylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U
43	Styrene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U
44	m,p-Xylene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U
45	o-Xylene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U
46	1,3,5-Trimethylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U
47	1,2,4-Trimethylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U
48	Isopropylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U
49	n-Propylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U
50	tert-Butylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U
51	sec-Butylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U
52	4-Isopropyltoluene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U
53	n-Butylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U
54	Naphthalene	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5	U	5	U	5	U	5	U	5	U
55	Methyl tert-butyl ether		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
56																												
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																											
58	**Method OR-DEQ**																											
59	**TPH-Diesel**	U	0.25	U	0.25	U	**0.27**		NA		NA		NA		0.25	U	NA		NA		NA		0.25	U	NA		NA	
60	**TPH-D Motor Oil**		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
61	**TPH-Gasoline**		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
62																												
63	**PRIORITY POLLUTANT**																											
64	**METALS (mg/L)**																											
65	Arsenic (7060)		**0.006**		**0.005**		**0.006**		**0.005**		**0.006**		**0.006**		**0.006**		**0.005**		**0.006**		0.05	U	**0.006**		**0.006**		**0.006**	

BZTO104(e)018837

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BC	BD
1			
2			
3		LW1D	
4		FY64K	
5		10/21/03	
6			
7	**CHLORINATED PHENOLS (µg/L)**		
8	**EPA Method SW8040**		
9	Pentachlorophenol	0.5	U
10	2,4,6-Trichlorophenol	NA	
11	2,3,6-Trichlorophenol	NA	
12	2,4,5-Trichlorophenol	NA	
13	2,3,4-Trichlorophenol	NA	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA	
15	2,3,4,5-Tetrachlorophenol	NA	
16			
17	**SEMIVOLATILES (µg/L)**		
18	**EPA Method SW8270**		
19	Phenol	2	U
20	4-Methylphenol	1	U
21	Isophorone	1	U
22	2,4-Dimethylphenol	3	U
23	Benzoic Acid	10	U
24	Naphthalene	1	U
25	2-Methylnaphthalene	1	U
26	2,4,6-Trichlorophenol	5	U
27	2,4,5-Trichlorophenol	5	U
28	Acenaphthene	1	U
29	Dibenzofuran	1	U
30	Fluorene	1	U
31	Pentachlorophenol	5	U
32	bis(2-Ethylhexyl)phthalate	1	U
33			
34	**VOLATILES (µg/L)**		
35	**EPA Method SW8260**		
36	Acetone	**5.1**	
37	Carbon Disulfide	1	U
38	2-Butanone	5	U
39	Benzene	1	U
40	Bromoform	1	U
41	Toluene	1	U
42	Ethylbenzene	1	U
43	Styrene	1	U
44	m,p-Xylene	1	U
45	o-Xylene	1	U
46	1,3,5-Trimethylbenzene	1	U
47	1,2,4-Trimethylbenzene	1	U
48	Isopropylbenzene	1	U
49	n-Propylbenzene	1	U
50	tert-Butylbenzene	1	U
51	sec-Butylbenzene	1	U
52	4-Isopropyltoluene	1	U
53	n-Butylbenzene	1	U
54	Naphthalene	5	U
55	Methyl tert-butyl ether	NA	
56			
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**		
58	**Method OR-DEQ**		
59	**TPH-Diesel**	NA	
60	**TPH-D Motor Oil**	NA	
61	**TPH-Gasoline**	NA	
62			
63	**PRIORITY POLLUTANT**		
64	**METALS (mg/L)**		
65	Arsenic (7060)	**0.006**	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
1																											
2																											
3			LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D
4			S167L		T176F		U235U		V208G		W371H		Y336H		Z225D		Z960H		AH27H		AU45K		BC21AC		BH75H		BR55F
5			4/1/97		7/15/97		10/23/97		1/28/98		5/18/98		8/19/98		11/13/98		2/17/99		5/17/99		9/23/99		12/6/99		2/15/00		5/23/00
66	59	Chromium (6010)	0.005	U	**0.007**		0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	**0.007**		**0.006**		0.005	U	0.005
67	60	Copper (6010)	0.002	U	**0.009**		**0.004**		**0.003**		0.002	U	0.004		0.002	U	0.002	U	0.002	U	**0.007**		**0.003**		**0.003**		0.002
68	61	Lead (7421)	0.001	U	**0.002**		0.02	U	0.02	U	0.001	U	**0.001**		0.001	U	0.001	U	0.001	U	**0.003**		**0.001**		**0.002**		**0.001**
69	62	Nickel (6010)	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01
70	63	Zinc (6010)	0.004	U	**0.019**	J2	**0.021**		**0.010**		**0.008**	J2	**0.014**		**0.006**		**0.009**	J	0.007	U	**0.021**		**0.012**		**0.017**		**0.007**
71	64																										
72	65	**MAJOR IONS AND CONVENTIONALS**																									
73	66	Calcium (mg/L) (6010)	**69.1**		**71.1**		**72.9**		**65.8**		NA		NA		NA		**63.4**		NA		NA		NA		NA		NA
74	67	Magnesium (mg/L) (6010)	**40.5**		**42.6**		**43.1**		**37.0**		NA		NA		NA		**38.6**		NA		NA		NA		NA		NA
75	68	Potassium (mg/L) (6010)	**1.9**		**2.0**		**2.0**		**1.1**		NA		NA		NA		**1.5**		NA		NA		NA		NA		NA
76	69	Sodium (mg/L) (6010)	**15.3**		**16.4**		**16.3**		**15.9**		NA		NA		NA		**15.1**		NA		NA		NA		NA		NA
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	**360**		**350**		**360**		**370**		NA		NA		NA		**360**		NA		NA		NA		NA		NA
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		1.0	U	NA		NA		NA		NA		NA
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	**360**		**350**		**360**		**370**		NA		NA		NA		**360**		NA		NA		NA		NA		NA
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	NT		**400**	J2	**400**		**370**	J2	**310**		**350**		**310**		**340**		**340**		**360**		**360**		**360**		**350**
81	74	Chloride (mg/L) (EPA 325.2)	**3.2**	J	**3.0**		**3.5**		**3.3**		**3.9**		**2.0**		**2.8**		**3.6**		**1.6**		**3.2**		**3.7**		**3.5**		**10**
82	75	N-Nitrate (mg-N/L) (Calculated)	**0.012**	J	0.010	U	**0.017**		**0.021**		NA		NA		NA		0.010	U	NA		NA		NA		NA		NA
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	0.010	U	0.010	U	0.010	U	0.010	U	NA		NA		NA		**0.020**		NA		NA		NA		NA		NA
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	**0.012**	J	0.010	U	**0.017**		**0.021**		NA		NA		NA		**0.020**		NA		NA		NA		NA		NA
85	78	Sulfate (mg/L) (EPA 375.2)	**3.4**	J	2.5	U	2.5	U	2.5	U	NA		NA		NA		**7.2**		NA		NA		NA		NA		NA
86	79																										

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB
3			LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D	
4			CB49B		CK77E		CT37C		DE68E		DM52D		DW48L		ED16I		EM75H		ER92D		EY88F		FF88L		FL41E		FU31D	
5			8/28/00		11/7/00		2/12/01		6/4/01		8/15/01		11/29/01		2/25/02		6/25/02		08/26/02		11/11/02		2/13/03		5/7/03		8/27/03	
66	Chromium (6010)	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U
67	Copper (6010)	U	0.002	U	**0.002**	J2	0.002	U	0.002	U	0.002	U	0.003	U	**0.005**		0.002	U	**0.005**		**0.003**		**0.004**		0.002	U	**0.002**	
68	Lead (7421)		0.001	U	**0.001**		0.001	U	0.001	U	0.001	U	**0.002**		0.001	U	**0.005**		**0.002**		0.02	U	0.001	U	0.001	U	0.001	U
69	Nickel (6010)	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
70	Zinc (6010)		**0.011**		**0.007**		**0.007**		0.006	U	0.006	U	**0.01**		**0.011**		**0.006**		**0.011**		**0.009**		**0.014**		**0.01**	J	**0.012**	
71																												
72	**MAJOR IONS AND CONVENTIONALS**																											
73	Calcium (mg/L) (6010)		NA		NA		**51.5**		**53.8**		**50.2**		**45.3**		**51.6**		NA		NA		NA		**48.2**		NA		NA	
74	Magnesium (mg/L) (6010)		NA		NA		**32.5**		**33.0**		**32.0**		**29.2**		**34.0**		NA		NA		NA		**30.9**		NA		NA	
75	Potassium (mg/L) (6010)		NA		NA		**1.1**		**1.3**		**1.4**		**1.3**		**1.8**		NA		NA		NA		**1.4**		NA		NA	
76	Sodium (mg/L) (6010)		NA		NA		**13.0**		**12.9**		**13.3**		**12.4**		**14.4**		NA		NA		NA		**13.6**		NA		NA	
77	Alkalinity (mg/L CaCO3) (SM 2320)		NA		NA		**300**		NA		NA		NA		**280**		NA		NA		NA		**270**		NA		NA	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)		NA		NA		1.0	U	NA		NA		NA		1.0	U	NA		NA		NA		1	U	NA		NA	
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)		NA		NA		**300**		NA		NA		NA		**280**		NA		NA		NA		**270**		NA		NA	
80	Total Dissolved Solids (mg/L) (EPA 160.1)		**380**		**360**		**380**		**360**		**360**		**320**		**320**		**300**		**340**		**320**		**280**		**300**		**320**	
81	Chloride (mg/L) (EPA 325.2)		**3.2**		**3.2**		**3.0**		**3.2**		**3.1**		**2.6**		**3.0**		**1.6**		**2.6**		**2.7**		**4.9**		**3.1**		**2.2**	
82	N-Nitrate (mg-N/L) (Calculated)		NA		NA		0.010	U	NA		NA		NA		0.010	U	NA		NA		NA		**0.031**		NA		NA	
83	N-Nitrite (mg-N/L) (EPA 354.1)		NA		NA		0.010	U	NA		NA		NA		**0.010**		NA		NA		NA		0.01	U	NA		NA	
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)		NA		NA		0.010	UJ	NA		NA		NA		**0.017**		NA		NA		NA		**0.031**		NA		NA	
85	Sulfate (mg/L) (EPA 375.2)		NA		NA		**11**		NA		NA		NA		**6.1**		NA		NA		NA		**4.6**		NA		NA	
86																												

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BC	BD
1			
2			
3		LW1D	
4		FY64K	
5		10/21/03	
66	Chromium (6010)	**0.005**	
67	Copper (6010)	**0.005**	
68	Lead (7421)	**0.036**	
69	Nickel (6010)	0.01	U
70	Zinc (6010)	**0.019**	
71			
72	**MAJOR IONS AND CONVENTIONALS**		
73	Calcium (mg/L) (6010)	NA	
74	Magnesium (mg/L) (6010)	NA	
75	Potassium (mg/L) (6010)	NA	
76	Sodium (mg/L) (6010)	NA	
77	Alkalinity (mg/L CaCO3) (SM 2320)	NA	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA	
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA	
80	Total Dissolved Solids (mg/L) (EPA 160.1)	**330**	
81	Chloride (mg/L) (EPA 325.2)	**2.9**	
82	N-Nitrate (mg-N/L) (Calculated)	NA	
83	N-Nitrite (mg-N/L) (EPA 354.1)	NA	
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA	
85	Sulfate (mg/L) (EPA 375.2)	NA	
86			

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
1																											
2																											
3			LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D
4			S167L		T176F		U235U		V208G		W371H		Y336H		Z225D		Z960H		AH27H		AU45K		BC21AC		BH75H		BR55F
5			4/1/97		7/15/97		10/23/97		1/28/98		5/18/98		8/19/98		11/13/98		2/17/99		5/17/99		9/23/99		12/6/99		2/15/00		5/23/00
87	80	**FIELD PARAMETERS**																									
88	81	pH (avg)	6.91		6.99		7.14		6.94		6.64		6.61		6.45		6.97		6.05		6.90		6.36		6.88		6.65
89	82	Temperature (° C) (avg)	14.1		16.5		14.4		14.1		12.7		16.0		13.8		14.6		16.4		15.9		14.1		14.7		14.7
90	83	Conductivity (um/hos)	678		654		576		594		522		633		137		586		459		488		536		521		482
91	84	Dissolved oxygen (mg/L) (avg)	NA		NA		NA		NA		NA		0.95		2.22		2.43		2.41		0.76		3.26		1.89		0.97
92	85																										
93	86	**DIOXINS AND FURANS (ng/L)**																									
94	87	**Method 8290**																									
95	88	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
96	89	Total TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
97	90	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
98	91	Total TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
99	92	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
100	93	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
101	94	Total PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
102	95	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
103	96	Total PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
108	101	Total HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
112	105	Total HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
115	108	Total HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
117	110	Total HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
118	111	OCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
119	112	OCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
120																											
121																											
122																											

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB
1																												
2																												
3			LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D	
4			CB49B		CK77E		CT37C		DE68E		DM52D		DW48L		ED16I		EM75H		ER92D		EY88F		FF88L		FL41E		FU31D	
5			8/28/00		11/7/00		2/12/01		6/4/01		8/15/01		11/29/01		2/25/02		6/25/02		08/26/02		11/11/02		2/13/03		5/7/03		8/27/03	
87	**FIELD PARAMETERS**																											
88	pH (avg)		6.55		5.47		6.64		6.96		7.11		6.86		6.36		6.86		6.96		7.03		7.12		7.31		7.05	
89	Temperature (° C) (avg)		15.2		14.0		15.0		15.6		16.3		14.3		14.1		16.0		16.0		14.9		15.5		14.6		16.7	
90	Conductivity (um/hos)		553		481		476		484		503		467		445		451		389		495		508		411		388	
91	Dissolved oxygen (mg/L) (avg)		1.78		2.23		1.51		1.99		1.34		4.23		4.78		5.36		1.91		2.59		0		4.2		1.54	
92																												
93	**DIOXINS AND FURANS (ng/L)**																											
94	**Method 8290**																											
95	2,3,7,8-TCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
96	Total TCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
97	2,3,7,8-TCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
98	Total TCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
99	1,2,3,7,8-PeCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
100	2,3,4,7,8-PeCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
101	Total PeCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
102	1,2,3,7,8-PeCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
103	Total PeCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
104	1,2,3,4,7,8-HxCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
105	1,2,3,6,7,8-HxCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
106	2,3,4,6,7,8-HxCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
107	1,2,3,7,8,9-HxCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
108	Total HxCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
109	1,2,3,4,7,8-HxCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
110	1,2,3,6,7,8-HxCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
111	1,2,3,7,8,9-HxCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
112	Total HxCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
113	1,2,3,4,6,7,8-HpCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
114	1,2,3,4,7,8,9-HpCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
115	Total HpCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
116	1,2,3,4,6,7,8-HpCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
117	Total HpCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
118	OCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
119	OCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
120																												
121																												
122																												

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BC	BD
1			
2			
3		LW1D	
4		FY64K	
5		10/21/03	
87	**FIELD PARAMETERS**		
88	pH (avg)	7.07	
89	Temperature (° C) (avg)	17.1	
90	Conductivity (um/hos)	381	
91	Dissolved oxygen (mg/L) (avg)	2.51	
92			
93	**DIOXINS AND FURANS (ng/L)**		
94	**Method 8290**		
95	2,3,7,8-TCDF	NA	
96	Total TCDF	NA	
97	2,3,7,8-TCDD	NA	
98	Total TCDD	NA	
99	1,2,3,7,8-PeCDF	NA	
100	2,3,4,7,8-PeCDF	NA	
101	Total PeCDF	NA	
102	1,2,3,7,8-PeCDD	NA	
103	Total PeCDD	NA	
104	1,2,3,4,7,8-HxCDF	NA	
105	1,2,3,6,7,8-HxCDF	NA	
106	2,3,4,6,7,8-HxCDF	NA	
107	1,2,3,7,8,9-HxCDF	NA	
108	Total HxCDF	NA	
109	1,2,3,4,7,8-HxCDD	NA	
110	1,2,3,6,7,8-HxCDD	NA	
111	1,2,3,7,8,9-HxCDD	NA	
112	Total HxCDD	NA	
113	1,2,3,4,6,7,8-HpCDF	NA	
114	1,2,3,4,7,8,9-HpCDF	NA	
115	Total HpCDF	NA	
116	1,2,3,4,6,7,8-HpCDD	NA	
117	Total HpCDD	NA	
118	OCDF	NA	
119	OCDD	NA	
120			
121			
122			

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
1																											
2																											
3			LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D
4			S167L		T176F		U235U		V208G		W371H		Y336H		Z225D		Z960H		AH27H		AU45K		BC21AC		BH75H		BR55F
5			4/1/97		7/15/97		10/23/97		1/28/98		5/18/98		8/19/98		11/13/98		2/17/99		5/17/99		9/23/99		12/6/99		2/15/00		5/23/00
123		**PAHs (µg/L)**																									
124		**EPA Method SW8270 SIM**																									
125		Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
126		2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
127		Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
128		Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
129		Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
130		Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
131		Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB
1																												
2																												
3			LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D		LW1D	
4			CB49B		CK77E		CT37C		DE68E		DM52D		DW48L		ED16I		EM75H		ER92D		EY88F		FF88L		FL41E		FU31D	
5			8/28/00		11/7/00		2/12/01		6/4/01		8/15/01		11/29/01		2/25/02		6/25/02		08/26/02		11/11/02		2/13/03		5/7/03		8/27/03	
123	**PAHs (µg/L)**																											
124	**EPA Method SW8270 SIM**																											
125	Naphthalene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
126	2-Methylnaphthalene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
127	Acenaphthylene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
128	Acenaphthene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
129	Fluorene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
130	Anthracene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
131	Dibenzofuran		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BC	BD
1			
2			
3		LW1D	
4		FY64K	
5		10/21/03	
123	**PAHs (µg/L)**		
124	**EPA Method SW8270 SIM**		
125	Naphthalene	NA	
126	2-Methylnaphthalene	NA	
127	Acenaphthylene	NA	
128	Acenaphthene	NA	
129	Fluorene	NA	
130	Anthracene	NA	
131	Dibenzofuran	NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
1																											
2																											
3			LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D
4			S177F		T176V		U235S		V224M		W391H		Y336C		Z225H		Z960M		AH76I		AU36C		BC27B		BH96K		BR55I
5			4/2/97		7/16/97		10/23/97		1/29/98		5/20/98		8/18/98		11/13/98		2/18/99		5/19/99		9/21/99		12/7/99		2/18/00		5/23/00
7	1	**CHLORINATED PHENOLS (µg/L)**																									
8	2	**EPA Method SW8040**																									
9	3	Pentachlorophenol	**0.23**	J	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25
10	4	2,4,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25
11	5	2,3,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25
12	6	2,4,5-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25
13	7	2,3,4-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25
15	9	2,3,4,5-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25
16	10																										
17	11	**SEMIVOLATILES (µg/L)**																									
18	12	**EPA Method SW8270**																									
19	13	Phenol	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0
20	14	4-Methylphenol	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
21	15	Isophorone	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
22	16	2,4-Dimethylphenol	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0
23	17	Benzoic Acid	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10
24	18	Naphthalene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**1.2**		1.0	U	1.0
25	19	2-Methylnaphthalene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
26	20	2,4,6-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0
27	21	2,4,5-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0
28	22	Acenaphthene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
29	23	Dibenzofuran	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
30	24	Fluorene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
31	25	Pentachlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0
32	26	bis(2-Ethylhexyl)phthalate	1.0	U	**5.3**	J2	5.4	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
33	27																										
34	28	**VOLATILES (µg/L)**																									
35	29	**EPA Method SW8260**																									
36	30	Acetone	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0
37	31	Carbon Disulfide	1.0	U	1.0	U	**4.0**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
38	32	2-Butanone	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0
39	33	Benzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
40	34	Bromoform	1.0	U	**1.6**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
41	35	Toluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
42	36	Ethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
43	37	Styrene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
44	38	m,p-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
45	39	o-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
46	40	1,3,5-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
47	41	1,2,4-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**1.0**		1.0	U	1.0	U	1.0
48	42	Isopropylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
49	43	n-Propylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
50	44	tert-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
51	45	sec-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	UJ	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
52	46	4-Isopropyltoluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
53	47	n-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
54	48	Naphthalene	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0
55		Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
56	49																										
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																									
58	51	**Method OR-DEQ**																									
59	52	**TPH-Diesel**	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	**0.38**		**0.32**
60	53	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
61	54	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
62	55																										
63	56	**PRIORITY POLLUTANT**																									
64	57	**METALS (mg/L)**																									
65	58	Arsenic (7060)	**0.010**		**0.009**		0.05	U	0.05	U	**0.018**		**0.014**		**0.015**		**0.017**		**0.017**		**0.017**		**0.017**		**0.021**		**0.019**

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TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB
3			LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D	
4			CB49E		CK77G		CT55C		DE68H		DM52C		DW48A		ED34F		EM85A		ES04B		EZ03A		FF88B		FL66J		FU50A	
5			8/29/00		11/8/00		2/14/01		6/5/01		8/15/01		11/29/01		2/28/02		6/26/02		08/28/02		11/12/02		2/13/03		5/9/03		8/29/03	
7	**CHLORINATED PHENOLS (µg/L)**																											
8	**EPA Method SW8040**																											
9	Pentachlorophenol	UJ	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	**3.0**		**0.76**		0.25	U	0.29	U	0.25	U	**0.28**		0.25	U	0.55	U
10	2,4,6-Trichlorophenol	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
11	2,3,6-Trichlorophenol	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
12	2,4,5-Trichlorophenol	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
13	2,3,4-Trichlorophenol	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
15	2,3,4,5-Tetrachlorophenol	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
16																												
17	**SEMIVOLATILES (µg/L)**																											
18	**EPA Method SW8270**																											
19	Phenol	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.3	U	2.2	U	2	U	2	U	2.2	U
20	4-Methylphenol	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.2	U	1.1	U	1	U	1	U	1.1	U
21	Isophorone	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.2	U	1.1	U	1	U	1	U	1.1	U
22	2,4-Dimethylphenol	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.5	U	3.3	U	3	U	3	U	3.3	U
23	Benzoic Acid	U	10	U	10	U	10	U	10	U	10	U	30	U	50	U	50	U	58	U	54	U	50	U	50	U	55	U
24	Naphthalene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.2	U	1.1	U	1	U	1	U	1.1	U
25	2-Methylnaphthalene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.2	U	1.1	U	1	U	1	U	1.1	U
26	2,4,6-Trichlorophenol	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.8	U	5.4	U	5	U	5	U	5.5	U
27	2,4,5-Trichlorophenol	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.8	U	5.4	U	5	U	5	U	5.5	U
28	Acenaphthene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.2	U	1.1	U	1	U	1	U	1.1	U
29	Dibenzofuran	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.2	U	1.1	U	1	U	1	U	1.1	U
30	Fluorene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.2	U	1.1	U	1	U	1	U	1.1	U
31	Pentachlorophenol	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	**26**		5.0	U	5.8	U	5.4	U	5	U	5	U	5.5	U
32	bis(2-Ethylhexyl)phthalate	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**1.0**		4.0	U	4.0	U	4.7	U	4.3	U	1	U	1	U	1.1	U
33																												
34	**VOLATILES (µg/L)**																											
35	**EPA Method SW8260**																											
36	Acetone	U	5.0	U	**15**			R	**23**		**38**		**80**		**10**		**50**		**13**		5	U	**12**		**24**		**17**	
37	Carbon Disulfide	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U
38	2-Butanone	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5	U	5	U	5	U	5	U	5	U
39	Benzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U
40	Bromoform	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U
41	Toluene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U
42	Ethylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U
43	Styrene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U
44	m,p-Xylene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U
45	o-Xylene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U
46	1,3,5-Trimethylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U
47	1,2,4-Trimethylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U
48	Isopropylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U
49	n-Propylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U
50	tert-Butylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U
51	sec-Butylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U
52	4-Isopropyltoluene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U
53	n-Butylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U
54	Naphthalene	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5	U	5	U	5	U	5	U	5	U
55	Methyl tert-butyl ether		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
56																												
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																											
58	**Method OR-DEQ**																											
59	**TPH-Diesel**		0.25	U	0.25	U	**0.28**		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
60	**TPH-D Motor Oil**		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
61	**TPH-Gasoline**		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
62																												
63	**PRIORITY POLLUTANT**																											
64	**METALS (mg/L)**																											
65	Arsenic (7060)		**0.017**		**0.016**		**0.015**		**0.016**		**0.018**		**0.020**		**0.016**		**0.019**		**0.016**		0.05	U	**0.014**		**0.016**		**0.018**	

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TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BC	BD	BE	BF
1					
2					
3		LW3D		LW3D	
4		FY82I		0402113-10	
5		10/24/03		2/23/04	
6					
7	**CHLORINATED PHENOLS (µg/L)**				
8	**EPA Method SW8040**				
9	Pentachlorophenol	**0.62**		0.489	U
10	2,4,6-Trichlorophenol	NA		NA	
11	2,3,6-Trichlorophenol	NA		NA	
12	2,4,5-Trichlorophenol	NA		NA	
13	2,3,4-Trichlorophenol	NA		NA	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA	
15	2,3,4,5-Tetrachlorophenol	NA		NA	
16					
17	**SEMIVOLATILES (µg/L)**				
18	**EPA Method SW8270**				
19	Phenol	2.2	U	1.97	U
20	4-Methylphenol	1.1	U	9.85	U
21	Isophorone	1.1	U	0.985	U
22	2,4-Dimethylphenol	3.3	U	2.96	U
23	Benzoic Acid	11	U	19.7	U
24	Naphthalene	1.1	U	0.985	U
25	2-Methylnaphthalene	1.1	U	0.985	U
26	2,4,6-Trichlorophenol	5.5	U	4.93	U
27	2,4,5-Trichlorophenol	5.5	U	4.93	U
28	Acenaphthene	1.1	U	0.985	U
29	Dibenzofuran	1.1	U	0.985	U
30	Fluorene	1.1	U	0.985	U
31	Pentachlorophenol	5.5	U	4.93	U
32	bis(2-Ethylhexyl)phthalate	1.1	U	0.985	U
33					
34	**VOLATILES (µg/L)**				
35	**EPA Method SW8260**				
36	Acetone	**64**		50	U
37	Carbon Disulfide	1	U	2	U
38	2-Butanone	5	U	10	U
39	Benzene	1	U	0.4	U
40	Bromoform	1	U	1	U
41	Toluene	1	U	1	U
42	Ethylbenzene	1	U	1	U
43	Styrene	1	U	1	U
44	m,p-Xylene	1	U	2	U
45	o-Xylene	1	U	1	U
46	1,3,5-Trimethylbenzene	1	U	1	U
47	1,2,4-Trimethylbenzene	1	U	1	U
48	Isopropylbenzene	1	U	1	U
49	n-Propylbenzene	1	U	1	U
50	tert-Butylbenzene	1	U	1	U
51	sec-Butylbenzene	1	U	1	U
52	4-Isopropyltoluene	1	U	1	U
53	n-Butylbenzene	1	U	1	U
54	Naphthalene	5	U	1	U
55	Methyl tert-butyl ether	NA		1	U
56					
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**				
58	**Method OR-DEQ**				
59	**TPH-Diesel**	NA		NA	
60	**TPH-D Motor Oil**	NA		NA	
61	**TPH-Gasoline**	NA		NA	
62					
63	**PRIORITY POLLUTANT**				
64	**METALS (mg/L)**				
65	Arsenic (7060)	**0.018**		**0.014**	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
1																											
2																											
3			LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D
4			S177F		T176V		U235S		V224M		W391H		Y336C		Z225H		Z960M		AH76I		AU36C		BC27B		BH96K		BR55I
5			4/2/97		7/16/97		10/23/97		1/29/98		5/20/98		8/18/98		11/13/98		2/18/99		5/19/99		9/21/99		12/7/99		2/18/00		5/23/00
66	59	Chromium (6010)	0.005	U	**0.164**		0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005
67	60	Copper (6010)	**0.003**		**0.164**		0.002	U	**0.004**		0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002
68	61	Lead (7421)	0.001	U	**0.062**		0.02	U	0.02	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001
69	62	Nickel (6010)	0.01	U	**0.12**		0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01
70	63	Zinc (6010)	**0.021**		**0.464**		**0.016**		**0.015**		**0.009**	J2	**0.011**		**0.007**		**0.012**	J	**0.009**		**0.012**		0.010	U	**0.011**		0.006
71	64																										
72	65	**MAJOR IONS AND CONVENTIONALS**																									
73	66	Calcium (mg/L) (6010)	**54.4**		**82.6**		**58.7**		**61.3**		NA		NA		NA		**62.7**		NA		NA		NA		NA		NA
74	67	Magnesium (mg/L) (6010)	**26.1**		**55.4**		**27.7**		**28.4**		NA		NA		NA		**29.0**		NA		NA		NA		NA		NA
75	68	Potassium (mg/L) (6010)	**3.4**		**11.5**		**3.9**		**3.7**		NA		NA		NA		**3.5**		NA		NA		NA		NA		NA
76	69	Sodium (mg/L) (6010)	**51.0**		**92.1**		**35.7**		**27.8**		NA		NA		NA		**17.8**		NA		NA		NA		NA		NA
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	**370**		**340**	J2	**340**		**360**		NA		NA		NA		**350**		NA		NA		NA		NA		NA
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		1.0	U	NA		NA		NA		NA		NA
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	**370**		**340**	J2	**340**		**360**		NA		NA		NA		**350**		NA		NA		NA		NA		NA
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	NT		**360**	J2	**350**		**360**		**380**		**340**		**330**		**380**		**340**		**340**		**360**		**360**		**360**
81	74	Chloride (mg/L) (EPA 325.2)	**4.8**		**4.3**		**4.9**		**3.9**		**4.7**		**3.1**		**3.5**		**5.3**		**3.5**		**3.4**		**4.5**		**4.3**		**4.4**
82	75	N-Nitrate (mg-N/L) (Calculated)	**0.012**		0.010	U	**0.026**		**0.023**	J2	NA		NA		NA		0.010	U	NA		NA		NA		NA		NA
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	**0.012**	J	**0.012**	J2	**0.014**		0.010	UJ	NA		NA		NA		**0.021**		NA		NA		NA		NA		NA
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	**0.024**		0.010	U	**0.040**		**0.023**	J2	NA		NA		NA		**0.020**		NA		NA		NA		NA		NA
85	78	Sulfate (mg/L) (EPA 375.2)	**12**	J	**4.3**		2.5	U	**2.6**		NA		NA		NA		**5.4**		NA		NA		NA		NA		NA
86	79																										

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB
1																												
2																												
3			LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D	
4			CB49E		CK77G		CT55C		DE68H		DM52C		DW48A		ED34F		EM85A		ES04B		EZ03A		FF88B		FL66J		FU50A	
5			8/29/00		11/8/00		2/14/01		6/5/01		8/15/01		11/29/01		2/28/02		6/26/02		08/28/02		11/12/02		2/13/03		5/9/03		8/29/03	
66	Chromium (6010)	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	**0.010**		0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U
67	Copper (6010)	U	0.002	U	**0.004**	J2	0.002	U	0.002	U	0.002	U	0.002	U	**0.004**		**0.002**		**0.003**		**0.002**		0.002	U	**0.003**		**0.003**	
68	Lead (7421)	U	0.001	U	**0.001**		0.001	U	0.001	U	0.001	U	**0.002**		0.001	U	0.001	U	0.001	U	0.02	U	**0.002**		**0.001**		0.001	U
69	Nickel (6010)	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
70	Zinc (6010)	U	**0.015**		**0.017**		**0.007**		0.006	U	**0.012**		**0.013**		**0.008**		**0.008**		**0.014**		0.006	U	0.006	U	**1.1**		**0.008**	
71																												
72	**MAJOR IONS AND CONVENTIONALS**																											
73	Calcium (mg/L) (6010)		NA		NA		**61.4**		**62.1**		**55.1**		**57.3**		**60.9**		NA		NA		NA		**57.8**		NA		NA	
74	Magnesium (mg/L) (6010)		NA		NA		**27.5**		**28.4**		**25.4**		**26.3**		**27.6**		NA		NA		NA		**27.7**		NA		NA	
75	Potassium (mg/L) (6010)		NA		NA		**3.2**		**3.5**		**3.4**		**3.2**		**3.9**		NA		NA		NA		**3.6**		NA		NA	
76	Sodium (mg/L) (6010)		NA		NA		**13.4**		**13.4**		**12.6**		**13.2**		**14.5**		NA		NA		NA		**13.7**		NA		NA	
77	Alkalinity (mg/L CaCO3) (SM 2320)		NA		NA		**330**		NA		NA		NA		**350**		NA		NA		NA		**310**		NA		NA	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)		NA		NA		1.0	U	NA		NA		NA		1.0	U	NA		NA		NA		1	U	NA		NA	
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)		NA		NA		**330**		NA		NA		NA		**350**		NA		NA		NA		**310**		NA		NA	
80	Total Dissolved Solids (mg/L) (EPA 160.1)		**410**		**350**		**360**		**370**		**310**		**330**		**390**		**310**		**380**		**380**		**350**		**330**		**330**	
81	Chloride (mg/L) (EPA 325.2)		**3.5**		**6.9**		**3.3**		**6.2**		**4.5**		**3.4**		**3.7**		**3.4**		**3.4**		**3.5**		**4.7**		**3.3**		**2.6**	
82	N-Nitrate (mg-N/L) (Calculated)		NA		NA		**0.012**		NA		NA		NA		NA		NA		NA		NA		**0.031**		NA		NA	
83	N-Nitrite (mg-N/L) (EPA 354.1)		NA		NA		0.010	U	NA		NA		NA		NA		NA		NA		NA		**0.032**		NA		NA	
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)		NA		NA		**0.012**		NA		NA		NA		NA		NA		NA		NA		**0.063**		NA		NA	
85	Sulfate (mg/L) (EPA 375.2)		NA		NA		**6.5**		NA		NA		NA		**5.5**		NA		NA		NA		**4.1**		NA		NA	
86																												

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TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BC	BD	BE	BF
1					
2					
3		LW3D		LW3D	
4		FY82I		0402113-10	
5		10/24/03		2/23/04	
66	Chromium (6010)	**0.006**		**0.006**	
67	Copper (6010)	**0.004**		0.01	U
68	Lead (7421)	**0.001**		**0.0006**	
69	Nickel (6010)	0.01	U	0.005	U
70	Zinc (6010)	**0.013**		0.01	U
71					
72	**MAJOR IONS AND CONVENTIONALS**				
73	Calcium (mg/L) (6010)	NA		NA	
74	Magnesium (mg/L) (6010)	NA		NA	
75	Potassium (mg/L) (6010)	NA		NA	
76	Sodium (mg/L) (6010)	NA		NA	
77	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA	
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA	
80	Total Dissolved Solids (mg/L) (EPA 160.1)	**290**		**350**	
81	Chloride (mg/L) (EPA 325.2)	**3.6**		**3.97**	
82	N-Nitrate (mg-N/L) (Calculated)	NA		NA	
83	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA	
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA	
85	Sulfate (mg/L) (EPA 375.2)	NA		NA	
86					

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
1																											
2																											
3			LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D
4			S177F		T176V		U235S		V224M		W391H		Y336C		Z225H		Z960M		AH76I		AU36C		BC27B		BH96K		BR55I
5			4/2/97		7/16/97		10/23/97		1/29/98		5/20/98		8/18/98		11/13/98		2/18/99		5/19/99		9/21/99		12/7/99		2/18/00		5/23/00
87	80	**FIELD PARAMETERS**																									
88	81	pH (avg)	6.76		6.74		6.59		6.87		6.48		6.40		6.21		6.58		6.08		6.44		6.31		6.30		6.55
89	82	Temperature (° C) (avg)	12.7		16.2		13.4		16.5		13.3		14.2		13.3		12.4		13.9		15.5		12.2		12.3		16.0
90	83	Conductivity (um/hos)	706		646		627		668		504		673		159		695		635		588		657		667		627
91	84	Dissolved oxygen (mg/L) (avg)	NA		NA		NA		NA		2.21		1.60		2.22		2.47		1.99		2.10		2.44		2.05		1.49
92	85																										
93	86	**DIOXINS AND FURANS (ng/L)**																									
94	87	**Method 8290**																									
95	88	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
96	89	Total TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
97	90	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
98	91	Total TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
99	92	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
100	93	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
101	94	Total PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
102	95	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
103	96	Total PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
108	101	Total HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
112	105	Total HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
115	108	Total HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
117	110	Total HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
118	111	OCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
119	112	OCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
120																											
121																											
122																											

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB
1																												
2																												
3			LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D	
4			CB49E		CK77G		CT55C		DE68H		DM52C		DW48A		ED34F		EM85A		ES04B		EZ03A		FF88B		FL66J		FU50A	
5			8/29/00		11/8/00		2/14/01		6/5/01		8/15/01		11/29/01		2/28/02		6/26/02		08/28/02		11/12/02		2/13/03		5/9/03		8/29/03	
87	**FIELD PARAMETERS**																											
88	pH (avg)		5.92		5.58		6.29		6.56		6.54		6.47		6.50		6.30		6.45		6.39		6.8		6.87		6.52	
89	Temperature (° C) (avg)		14.0		12.7		12.4		13.6		14.4		12.7		12.5		14.4		15.2		13.3		13.1		14.5		15.1	
90	Conductivity (um/hos)		629		624		638		655		628		628		617		629		595		664		826		534		525	
91	Dissolved oxygen (mg/L) (avg)		1.04		1.28		0.60		0.92		11.14		3.61		7.98		4.43		1.20		1.94		0		4.28		1.13	
92																												
93	**DIOXINS AND FURANS (ng/L)**																											
94	**Method 8290**																											
95	2,3,7,8-TCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
96	Total TCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
97	2,3,7,8-TCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
98	Total TCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
99	1,2,3,7,8-PeCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
100	2,3,4,7,8-PeCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
101	Total PeCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
102	1,2,3,7,8-PeCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
103	Total PeCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
104	1,2,3,4,7,8-HxCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
105	1,2,3,6,7,8-HxCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
106	2,3,4,6,7,8-HxCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
107	1,2,3,7,8,9-HxCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
108	Total HxCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
109	1,2,3,4,7,8-HxCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
110	1,2,3,6,7,8-HxCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
111	1,2,3,7,8,9-HxCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
112	Total HxCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
113	1,2,3,4,6,7,8-HpCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
114	1,2,3,4,7,8,9-HpCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
115	Total HpCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
116	1,2,3,4,6,7,8-HpCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
117	Total HpCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
118	OCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
119	OCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
120																												
121																												
122																												

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BC	BD	BE	BF
1					
2					
3		LW3D		LW3D	
4		FY82I		0402113-10	
5		10/24/03		2/23/04	
87	**FIELD PARAMETERS**				
88	pH (avg)	6.33		6.45	
89	Temperature (° C) (avg)	13.0		14.2	
90	Conductivity (um/hos)	543		541	
91	Dissolved oxygen (mg/L) (avg)	2.00		0.04	
92					
93	**DIOXINS AND FURANS (ng/L)**				
94	**Method 8290**				
95	2,3,7,8-TCDF	NA		NA	
96	Total TCDF	NA		NA	
97	2,3,7,8-TCDD	NA		NA	
98	Total TCDD	NA		NA	
99	1,2,3,7,8-PeCDF	NA		NA	
100	2,3,4,7,8-PeCDF	NA		NA	
101	Total PeCDF	NA		NA	
102	1,2,3,7,8-PeCDD	NA		NA	
103	Total PeCDD	NA		NA	
104	1,2,3,4,7,8-HxCDF	NA		NA	
105	1,2,3,6,7,8-HxCDF	NA		NA	
106	2,3,4,6,7,8-HxCDF	NA		NA	
107	1,2,3,7,8,9-HxCDF	NA		NA	
108	Total HxCDF	NA		NA	
109	1,2,3,4,7,8-HxCDD	NA		NA	
110	1,2,3,6,7,8-HxCDD	NA		NA	
111	1,2,3,7,8,9-HxCDD	NA		NA	
112	Total HxCDD	NA		NA	
113	1,2,3,4,6,7,8-HpCDF	NA		NA	
114	1,2,3,4,7,8,9-HpCDF	NA		NA	
115	Total HpCDF	NA		NA	
116	1,2,3,4,6,7,8-HpCDD	NA		NA	
117	Total HpCDD	NA		NA	
118	OCDF	NA		NA	
119	OCDD	NA		NA	
120					
121					
122					

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
1																											
2																											
3			LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D
4			S177F		T176V		U235S		V224M		W391H		Y336C		Z225H		Z960M		AH76I		AU36C		BC27B		BH96K		BR55I
5			4/2/97		7/16/97		10/23/97		1/29/98		5/20/98		8/18/98		11/13/98		2/18/99		5/19/99		9/21/99		12/7/99		2/18/00		5/23/00
123		**PAHs (µg/L)**																									
124		**EPA Method SW8270 SIM**																									
125		Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
126		2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
127		Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
128		Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
129		Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
130		Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
131		Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB
1																												
2																												
3			LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D		LW3D	
4			CB49E		CK77G		CT55C		DE68H		DM52C		DW48A		ED34F		EM85A		ES04B		EZ03A		FF88B		FL66J		FU50A	
5			8/29/00		11/8/00		2/14/01		6/5/01		8/15/01		11/29/01		2/28/02		6/26/02		08/28/02		11/12/02		2/13/03		5/9/03		8/29/03	
123	**PAHs (µg/L)**																											
124	**EPA Method SW8270 SIM**																											
125	Naphthalene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
126	2-Methylnaphthalene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
127	Acenaphthylene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
128	Acenaphthene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
129	Fluorene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
130	Anthracene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
131	Dibenzofuran		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BC	BD	BE	BF
1					
2					
3		LW3D		LW3D	
4		FY82I		0402113-10	
5		10/24/03		2/23/04	
123	**PAHs (µg/L)**				
124	**EPA Method SW8270 SIM**				
125	Naphthalene	NA		NA	
126	2-Methylnaphthalene	NA		NA	
127	Acenaphthylene	NA		NA	
128	Acenaphthene	NA		NA	
129	Fluorene	NA		NA	
130	Anthracene	NA		NA	
131	Dibenzofuran	NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X
2							Dup of LW4D										Dup of LW4D				Dup of LW4D			
3			LW4D		LW4D		LW40D		LW4D		LW4D		LW4D (a)		LW4D		LW40D		LW4D		LW40D		LW4D	
4			S167I		T176M		T176L		U235N		V232F		B802035-02		W391E		W391I		Y314E		Y314B		Z225J	
5			4/1/97		7/16/97		7/16/97		10/22/97		1/30/98		1/30/98		5/20/98		5/20/98		8/17/98		8/17/98		11/14/98	
7	1	**CHLORINATED PHENOLS (µg/L)**																						
8	2	**EPA Method SW8040**																						
9	3	Pentachlorophenol	**450**		**8200**		**7200**		**8700**		**14000**		**16500**		**4300**		**4400**		**3300**		**3300**		**2400**	
10	4	2,4,6-Trichlorophenol	**0.44**		**4.0**		**3.7**		**4.8**		**8.8**		NA		**5.3**		**5.4**		**6.3**		**6.5**		**20**	J2
11	5	2,3,6-Trichlorophenol	0.29	U	1.8	U	1.8	U	0.73	U	0.25	U	NA		0.25	U	0.25	U	0.82	U	0.90	U	0.46	U
12	6	2,4,5-Trichlorophenol	11	U	39	U	30	U	76	U	**39**		NA		**90**		**90**		51	U	51	U	60	U
13	7	2,3,4-Trichlorophenol	0.28	U	0.25	U	0.25	U	0.25	U	0.25	U	NA		0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	**20**		**880**		**770**		**600**		**940**		**746**		**240**		**250**		**270**		**280**		**210**	J2
15	9	2,3,4,5-Tetrachlorophenol	**6.1**		**29**		**26**		**19**		**20**		NA		50	U	50	U	**16**		**14**		**8.4**	
16	10																							
17	11	**SEMIVOLATILES (µg/L)**																						
18	12	**EPA Method SW8270**																						
19	13	Phenol	**150**		**180**		**200**		**58**		**30**		100	U	**16**		**17**		**10**		**8.1**		**7.7**	
20	14	4-Methylphenol	**11**		**33**		**32**		1.0	U	**8.7**		100	U	**16**		**15**		1.0	U	1.0	U	**10**	
21	15	Isophorone	1.0	U	1.0	U	1.0	U	**1.8**		**2.3**		NA		1.0	U	1.0	U	**1.1**		1.0	U	1.0	U
22	16	2,4-Dimethylphenol	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	200	U	**17**	J2	**18**	J2	3.0	U	3.0	U	3.0	U
23	17	Benzoic Acid	**22**		**28**	J2	**47**	J2	10	U	10	U	NA		10	U	10	U	10	U	10	U	10	U
24	18	Naphthalene	**35**		**44**		**46**		**36**		**30**		NA		**16**	J2	**21**	J2	**18**	J2	**23**	J2	**28**	
25	19	2-Methylnaphthalene	**52**		**67**		**74**		**45**		**44**		NA		**24**	J2	**32**	J2	**42**		**49**		**57**	
26	20	2,4,6-Trichlorophenol	5.0	U	**8.0**		**9.4**		**7.5**		**9.3**		100	U	**7.3**	J2	**9.4**	J2	5.0	U	5.0	U	**18**	J2
27	21	2,4,5-Trichlorophenol	**14**		**43**		**49**		**69**		**78**		100	U	**57**		**60**		**7.4**		**6.7**		**69**	
28	22	Acenaphthene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
29	23	Dibenzofuran	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
30	24	Fluorene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
31	25	Pentachlorophenol	**390**		**10000**		**12000**		**18000**		**16000**		**13500**		**5300**		**5200**		**3100**		**2900**		**4600**	
32	26	bis(2-Ethylhexyl)phthalate	10	UJ	1.0	U	1.0	U	**2.0**		1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
33	27																							
34	28	**VOLATILES (µg/L)**																						
35	29	**EPA Method SW8260**																						
36	30	Acetone	**16**		**42**		**43**		**25**		**29**		NA		**17**		**17**		**11**		**9.2**		**12**	
37	31	Carbon Disulfide	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
38	32	2-Butanone	5.0	U	**12**		**12**		5.0	U	5.0	U	NA		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
39	33	Benzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
40	34	Bromoform	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
41	35	Toluene	**10**		**6.4**		**6.3**		**17**		**11**		NA		**5.4**		**5.4**		**10**		**9.6**		**5.7**	
42	36	Ethylbenzene	**140**		**190**		**190**		**180**		**130**		NA		**12**		**13**		**100**		**95**		**93**	
43	37	Styrene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
44	38	m,p-Xylene	**390**		**580**		**600**		**730**		**500**		NA		**450**		**450**		**320**		**320**		**340**	
45	39	o-Xylene	**77**		**140**		**140**		**150**		**100**		NA		**110**		**110**		**120**		**95**		**94**	
46	40	1,3,5-Trimethylbenzene	**170**		**190**		**180**		**330**		**140**		NA		**160**		**150**		**180**		**170**		**120**	
47	41	1,2,4-Trimethylbenzene	**580**		**630**		720		**1100**	J2	**560**		NA		**480**		**550**		**590**		**570**		**460**	J2
48	42	Isopropylbenzene	**110**		**120**		**120**		**140**	J2	**81**		NA		**7.5**		**7.4**		**100**		**85**		**54**	
49	43	n-Propylbenzene	**140**		**160**		**150**		**190**		**110**		NA		**7.6**		**7.3**		**120**		**110**		**78**	
50	44	tert-Butylbenzene	1.0	U	1.0	U	**4.1**	J2	**3.8**		**2.6**		NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
51	45	sec-Butylbenzene	**15**		**20**		**18**		**18**	J2	**12**		NA		1.0	U	1.0	U	**22**	J2	1.0	UJ	1.0	U
52	46	4-Isopropyltoluene	**10**		**15**		**14**		**14**	J2	**10**		NA		**5.4**		**5.4**		**15**		**12**		**8.5**	
53	47	n-Butylbenzene	**14**		**20**		**18**		**17**	J2	**13**		NA		4.4	U	4.2	U	**21**	J2	**16**	J2	**12**	J2
54	48	Naphthalene	**54**		**87**		**84**		**92**	J2	**78**		NA		**41**		**41**		**50**		**48**		**28**	
55		Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
56	49																							
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																						
58	51	**Method OR-DEQ**																						
59	52	**TPH-Diesel**	**7.2**		**12**		**12**		**15**		**11**		NA		**7.2**		**6.8**		**6.5**	J2	**8.2**	J2	**4.6**	
60	53	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
61	54	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
62	55																							
63	56	**PRIORITY POLLUTANT**																						
64	57	**METALS (mg/L)**																						
65	58	Arsenic (7060)	**0.024**		**0.025**		**0.025**		0.05	U	0.05	U	NA		**0.028**		**0.028**		**0.028**		**0.029**		**0.028**	

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GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU
2		Dup of LW4D				Dup of LW4D						Dup of LW4D				Dup of LW4D								
3		LW40D		LW4D		LW40D		LW4D		LW4D		LW40D		LW4D		LW40D		LW4D		LW4D		LW4D		LW4D
4		Z225L		Z960P		Z960K		AH49H		AU45G		AU45I		BC21J		BC27P		BH96E		BR55D		CB68D		CL03G
5		11/14/98		2/17/99		2/17/99		5/18/99		9/22/99		9/22/99		12/9/99		12/9/99		2/17/00		5/22/00		8/30/00		11/9/00
7	**CHLORINATED PHENOLS (µg/L)**																							
8	**EPA Method SW8040**																							
9	Pentachlorophenol	**2300**		**2300**		**2400**		**2.5**		**0.85**	J2	**0.58**	J2	**1.5**	J2	**3.4**	J2	**0.60**		**0.41**	J2	**0.30**		0.25
10	2,4,6-Trichlorophenol	**16**	J2	**9.6**	J	**13**	J	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25
11	2,3,6-Trichlorophenol	0.47	U	1.2	U	1.1	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25
12	2,4,5-Trichlorophenol	26	U	80	U	48	U	0.39	U	0.25	U	0.25	U	0.34	U	0.69	U	0.25	U	0.25	U	0.41	U	0.25
13	2,3,4-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	**160**	J2	**130**		**140**		**0.26**		0.25	U	0.25	U	**1.4**	J2	**3.0**	J2	0.25	U	0.25	U	0.25	U	0.25
15	2,3,4,5-Tetrachlorophenol	**8.4**		**67**	J	**42**	J	**0.49**		0.25	U	0.25	U	0.25	U	**0.19**	J1	0.25	U	0.25	U	0.25	U	0.25
16																								
17	**SEMIVOLATILES (µg/L)**																							
18	**EPA Method SW8270**																							
19	Phenol	**7.6**		**23**		**25**		2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	**110**		2.0
20	4-Methylphenol	**9.4**		**7.5**		**7.7**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
21	Isophorone	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
22	2,4-Dimethylphenol	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0
23	Benzoic Acid	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	**11**		10
24	Naphthalene	**28**		**23**		**25**		1.0	U	**27**	J2	**14**	J2	**19**		**19**		**24**		**10**		**11**		**5.4**
25	2-Methylnaphthalene	**58**		**64**		**65**		1.0	U	**41**	J2	**22**	J2	**30**		**30**		**30**		**18**		**18**		**11**
26	2,4,6-Trichlorophenol	**20**	J2	**12**		**11**		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0
27	2,4,5-Trichlorophenol	**66**		**59**		**55**		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0
28	Acenaphthene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
29	Dibenzofuran	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
30	Fluorene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
31	Pentachlorophenol	**3800**		**4000**		**3700**		**6.5**		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	**8.9**		5.0
32	bis(2-Ethylhexyl)phthalate	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**0.7**	J1	**0.7**	J1	1.0	U	1.0	U	1.0	U	2.8
33																								
34	**VOLATILES (µg/L)**																							
35	**EPA Method SW8260**																							
36	Acetone	**13**		**16**		**15**		**16**		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.3	U	25	U	17
37	Carbon Disulfide	1.0	U	3.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	5.0	U	1.0
38	2-Butanone	5.0	U	15	U	**7.4**		**8.2**		**28**		**32**		5.0	U	5.0	U	5.0	U	5.0	U	25	U	**14**
39	Benzene	1.0	U	3.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**1.2**		5.0	U	1.0
40	Bromoform	1.0	U	3.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	5.0	U	1.0
41	Toluene	**5.0**		**6.0**		**6.5**		**11**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**1.4**		5.0	U	1.0
42	Ethylbenzene	**80**		**52**		**62**		**220**		**39**		**38**		**21**		**21**		**18**		**22**		**39**		**1.3**
43	Styrene	1.0	U	3.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	5.0	U	1.0
44	m,p-Xylene	**300**		**320**		**320**		**720**		**110**		**110**		**88**		**90**		**76**		**100**		**120**		**3.6**
45	o-Xylene	**78**		**84**		**95**		**130**		**5.4**		**4.5**		**20**		**20**		**8.1**		**11**		**13**		1.0
46	1,3,5-Trimethylbenzene	**99**		**170**		**140**		**160**		**70**		**70**		**94**		**96**		**90**		**70**		**50**		**12**
47	1,2,4-Trimethylbenzene	**590**	J2	**550**		**520**		**700**		**320**		**310**		**260**		**280**		**290**		**300**		**270**		**240**
48	Isopropylbenzene	**46**		**42**		**43**		**92**		**65**		**68**		**40**		**39**		**79**		**54**		**62**		**56**
49	n-Propylbenzene	**65**		**51**		**54**		**130**		**69**		**71**		**45**		**45**		**87**		**61**		**76**		**60**
50	tert-Butylbenzene	1.0	U	**3.0**		**2.9**		**4.3**		1.0	U	1.0	U	**2.0**		**2.0**		**4.2**		**2.6**		5.0	U	**2.9**
51	sec-Butylbenzene	1.0	U	**8.3**		**9.2**		**16**		**14**		**14**		**7.3**		**7.3**		**15**		**9.8**		**11**		**9.1**
52	4-Isopropyltoluene	**6.8**		**8.3**		**8.1**		**11**		**7.6**		**6.9**		**7.3**		**7.5**		**6.6**		**4.3**		**7.6**		1.0
53	n-Butylbenzene	**8.9**	J2	**9.7**		**10**		**16**		12	U	12	U	8.0	U	8.3	U	**14**		9.2	U	9.7	U	**7.0**
54	Naphthalene	**28**		**41**		**44**		**57**		**34**		**33**		**28**		**30**		**50**		**34**		**26**		**12**
55	Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
56																								
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																							
58	**Method OR-DEQ**																							
59	**TPH-Diesel**	**4.6**		**6.9**		**7.3**		**5.0**		**4.2**	J2	**3.2**	J2	**3.1**		**2.9**		**3.8**		**2.8**		**3.3**		**5.4**
60	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		0.50
61	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
62																								
63	**PRIORITY POLLUTANT**																							
64	**METALS (mg/L)**																							
65	Arsenic (7060)	**0.030**		**0.030**		**0.029**		**0.029**		**0.030**		**0.033**		**0.024**		**0.025**		**0.030**		**0.025**		**0.029**		**0.028**

BZTO104(e)018861

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AV	AW	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU
3			LW4D		LW4D		LW4D		LW4D		LW4D		LW4D		LW4D		LW4D		LW4D		LW4D		LW4D		LW4D		LW4D
4			CT67D		DE87K		DM30D		DW29G		ED30H		EN00H		ER93L		EZ17F		FF65G		FL58E		FU45N		FY82L		0402113-08
5			2/15/01		6/6/01		8/13/01		11/27/01		2/27/02		6/27/02		08/27/02		11/13/02		2/11/03		5/8/03		8/28/03		10/24/03		2/23/04
7	**CHLORINATED PHENOLS (µg/L)**																										
8	**EPA Method SW8040**																										
9	Pentachlorophenol	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.3	U	0.25	U	0.26	U	0.26	U	**1**	J	0.5	U	NA
10	2,4,6-Trichlorophenol	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
11	2,3,6-Trichlorophenol	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
12	2,4,5-Trichlorophenol	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
13	2,3,4-Trichlorophenol	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
15	2,3,4,5-Tetrachlorophenol	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
16																											
17	**SEMIVOLATILES (µg/L)**																										
18	**EPA Method SW8270**																										
19	Phenol	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.4	U	2.3	U	2.1	U	2	U	2	U	2	U	1.93
20	4-Methylphenol	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.2	U	1.1	U	1	U	1	U	1	U	1	U	9.64
21	Isophorone	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.2	U	1.1	U	1	U	1	U	1	U	1	U	0.964
22	2,4-Dimethylphenol	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.6	U	3.4	U	3.1	U	3.1	U	3.1	U	3	U	2.89
23	Benzoic Acid	U	10	U	10	U	10	U	30	U	50	U	50	U	60	U	57	U	52	U	51	U	51	U	10	U	19.3
24	Naphthalene		**2.1**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.2	U	1.1	U	1	U	1	U	1	U	1	U	**4.12**
25	2-Methylnaphthalene		**11**		**3.6**		**3.3**		**1.4**		**1.8**		**1.6**		1.2	U	1.1	U	1	U	1	U	1	U	1	U	**11.7**
26	2,4,6-Trichlorophenol	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	6	U	5.7	U	5.2	U	5.1	U	5.1	U	5	U	4.82
27	2,4,5-Trichlorophenol	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	6	U	5.7	U	5.2	U	5.1	U	5.1	U	5	U	4.82
28	Acenaphthene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.2	U	1.1	U	1	U	1	U	1	U	1	U	0.964
29	Dibenzofuran	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.2	U	1.1	U	1	U	1	U	1	U	1	U	0.964
30	Fluorene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.2	U	1.1	U	1	U	1	U	1	U	1	U	0.964
31	Pentachlorophenol	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	6	U	5.7	U	5.2	U	5.1	U	5.1	U	5	U	**8.95**
32	bis(2-Ethylhexyl)phthalate	U	1.0	U	1.0	U	1.0	U	1.0	U	4.0	U	4.0	U	4.8	U	4.5	U	1	U	1	U	1	U	1	U	0.964
33																											
34	**VOLATILES (µg/L)**																										
35	**EPA Method SW8260**																										
36	Acetone	U	5.0	U	**22**		**42**		**77**		**14**		20	U	**8.2**		9	U	**96**		**11**	M	**12**	J	**6.6**	M	50
37	Carbon Disulfide	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1	U	2
38	2-Butanone		**26**		**14**		5.0	U	5.0	U	**14**		5.0	U	**13**	M	5	U	5	U	5	U	**13**	M	**9.1**	M	10
39	Benzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1	U	0.4
40	Bromoform	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1	U	1
41	Toluene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1	U	1
42	Ethylbenzene		**1.3**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1	U	1
43	Styrene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1	U	1
44	m,p-Xylene		**3.0**		**1.4**		1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1	U	2
45	o-Xylene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1	U	1
46	1,3,5-Trimethylbenzene		**14**		**13**		**3.4**		**1.4**		**2.4**		**1.1**		1	U	1	U	1	U	1	U	1	U	1	U	1
47	1,2,4-Trimethylbenzene		**120**		**84**		**49**		**7.2**		**48**		**9.5**		**15**		1	U	**3**		**5.5**		1	U	**1.4**		1
48	Isopropylbenzene		**58**		**31**		**14**		**3.9**		**14**		**5.0**		**5.7**		**4.2**		**3.7**		**7**		**2.6**		**1.9**		**2.46**
49	n-Propylbenzene		**60**		**39**		**16**		**5.2**		**14**		**5.1**		**4.9**		**4.2**		**2.9**		**5.3**		**1.6**		**1.6**		**1**
50	tert-Butylbenzene		**2.8**		**1.7**		**1.3**	M	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1	U	1
51	sec-Butylbenzene		**9.8**		**7.4**		**4.1**		**1.6**		**2.8**		**1.7**		**1.8**		**1.3**		1	U	**1.6**		1	U	1	U	1
52	4-Isopropyltoluene	U	1.0	U	**2.3**		1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1	U	1
53	n-Butylbenzene		**7.8**		**6.2**		**3.4**	M	1.7	U	**2.3**		1.6	U	**1.6**		**1.1**	M	1	U	**1.2**		1	U	1	U	1
54	Naphthalene		**8.9**		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5	U	5	U	5	U	5	U	5	U	5	U	1
55	Methyl tert-butyl ether		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		1
56																											
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																										
58	**Method OR-DEQ**																										
59	**TPH-Diesel**		**4.4**		**3.5**		**3.4**		**1.8**		**4.0**		**2.8**		**3.2**		**2.4**		**3**		**2.6**		**1.8**		**1.6**		**1**
60	**TPH-D Motor Oil**	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		0.5	U	0.504
61	**TPH-Gasoline**		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
62																											
63	**PRIORITY POLLUTANT**																										
64	**METALS (mg/L)**																										
65	Arsenic (7060)		**0.03**		**0.028**		**0.032**		**0.022**		**0.040**		**0.027**		**0.028**		0.05	U	**0.03**		**0.04**		**0.04**		**0.028**		**0.031**

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TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BV
1		
2		
3		
4		
5		
6		
7	**CHLORINATED PHENOLS (µg/L)**	
8	**EPA Method SW8040**	
9	Pentachlorophenol	
10	2,4,6-Trichlorophenol	
11	2,3,6-Trichlorophenol	
12	2,4,5-Trichlorophenol	
13	2,3,4-Trichlorophenol	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	
15	2,3,4,5-Tetrachlorophenol	
16		
17	**SEMIVOLATILES (µg/L)**	
18	**EPA Method SW8270**	
19	Phenol	U
20	4-Methylphenol	U
21	Isophorone	U
22	2,4-Dimethylphenol	U
23	Benzoic Acid	U
24	Naphthalene	
25	2-Methylnaphthalene	
26	2,4,6-Trichlorophenol	U
27	2,4,5-Trichlorophenol	U
28	Acenaphthene	U
29	Dibenzofuran	U
30	Fluorene	U
31	Pentachlorophenol	
32	bis(2-Ethylhexyl)phthalate	U
33		
34	**VOLATILES (µg/L)**	
35	**EPA Method SW8260**	
36	Acetone	U
37	Carbon Disulfide	U
38	2-Butanone	U
39	Benzene	U
40	Bromoform	U
41	Toluene	U
42	Ethylbenzene	U
43	Styrene	U
44	m,p-Xylene	U
45	o-Xylene	U
46	1,3,5-Trimethylbenzene	U
47	1,2,4-Trimethylbenzene	U
48	Isopropylbenzene	
49	n-Propylbenzene	
50	tert-Butylbenzene	U
51	sec-Butylbenzene	U
52	4-Isopropyltoluene	U
53	n-Butylbenzene	U
54	Naphthalene	U
55	Methyl tert-butyl ether	U
56		
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**	
58	**Method OR-DEQ**	
59	**TPH-Diesel**	
60	**TPH-D Motor Oil**	U
61	**TPH-Gasoline**	
62		
63	**PRIORITY POLLUTANT**	
64	**METALS (mg/L)**	
65	Arsenic (7060)	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X
1																								
2							Dup of LW4D										Dup of LW4D				Dup of LW4D			
3			LW4D		LW4D		LW40D		LW4D		LW4D		LW4D (a)		LW4D		LW40D		LW4D		LW40D		LW4D	
4			S167I		T176M		T176L		U235N		V232F		B802035-02		W391E		W391I		Y314E		Y314B		Z225J	
5			4/1/97		7/16/97		7/16/97		10/22/97		1/30/98		1/30/98		5/20/98		5/20/98		8/17/98		8/17/98		11/14/98	
66	59	Chromium (6010)	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	NA		0.005	U	0.005	U	0.005	U	0.005	U	0.005	U
67	60	Copper (6010)	**0.003**		**0.004**		**0.003**		**0.002**		**0.005**		NA		**0.002**		**0.002**		**0.003**		**0.003**		0.002	U
68	61	Lead (7421)	0.001	U	0.001	U	0.001	U	0.02	U	0.02	U	NA		0.001	U	0.001	U	**0.001**		**0.001**		0.001	U
69	62	Nickel (6010)	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	NA		0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
70	63	Zinc (6010)	0.004	U	**0.008**	J2	**0.005**	J2	**0.023**		**0.014**		NA		0.004	U	**0.010**	J2	**0.006**		**0.010**		**0.007**	
71	64																							
72	65	**MAJOR IONS AND CONVENTIONALS**																						
73	66	Calcium (mg/L) (6010)	**49.9**		**49.7**		**51**		**45.6**		**42.2**		NA		NA		NA		NA		NA		NA	
74	67	Magnesium (mg/L) (6010)	**21.9**		**21.7**		**22.3**		**19.4**		**17.7**		NA		NA		NA		NA		NA		NA	
75	68	Potassium (mg/L) (6010)	**1.2**		**1.0**		**1.0**		**1.2**		**1.0**		NA		NA		NA		NA		NA		NA	
76	69	Sodium (mg/L) (6010)	**10.9**		**10.4**		**10.6**		**10.1**		**9.60**		NA		NA		NA		NA		NA		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	**240**		**200**		**200**		**200**		**140**		NA		NA		NA		NA		NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	**240**		**200**		**200**		**200**		**140**		NA		NA		NA		NA		NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	NT		**240**	J2	**340**	J2	**260**		**250**	J2	NA		**240**		**230**		**240**		**270**		**270**	
81	74	Chloride (mg/L) (EPA 325.2)	**19**	J	**15**		**15**		**16**		**15**		NA		**13**		**12**		**13**		**12**		**11**	
82	75	N-Nitrate (mg-N/L) (Calculated)	0.010	U	0.010	U	0.010	U	**0.025**		0.010	UJ	NA		NA		NA		NA		NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	**0.026**	J	**0.032**	J2	**0.025**	J2	**0.010**		**0.019**	J2	NA		NA		NA		NA		NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	**0.019**	J	**0.01**		**0.01**		**0.035**		**0.010**	J2	NA		NA		NA		NA		NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	**3.2**	J	2.5	U	**2.5**	U	2.5	U	2.5	U	NA		NA		NA		NA		NA		NA	
86	79																							

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU
2		Dup of LW4D				Dup of LW4D						Dup of LW4D				Dup of LW4D								
3		LW40D		LW4D		LW40D		LW4D		LW4D		LW40D		LW4D		LW40D		LW4D		LW4D		LW4D		LW4D
4		Z225L		Z960P		Z960K		AH49H		AU45G		AU45I		BC21J		BC27P		BH96E		BR55D		CB68D		CL03G
5		11/14/98		2/17/99		2/17/99		5/18/99		9/22/99		9/22/99		12/9/99		12/9/99		2/17/00		5/22/00		8/30/00		11/9/00
66	Chromium (6010)	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	**0.007**		**0.008**		0.005	U	0.005	U	0.005	U	0.005
67	Copper (6010)	0.002	U	**0.005**		**0.005**		0.002	U	**0.004**		**0.003**		**0.011**		**0.012**		**0.007**		0.002	U	**0.002**		**0.004**
68	Lead (7421)	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	**0.002**		**0.002**		**0.001**		0.001	U	0.001
69	Nickel (6010)	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	**0.01**		0.01	U	0.01	U	0.01
70	Zinc (6010)	**0.006**		**0.009**	J	**0.008**	J	**0.005**		**0.007**	J2	**0.016**	J2	0.020	U	0.021	U	**0.019**		**0.008**		**0.020**		**0.013**
71																								
72	**MAJOR IONS AND CONVENTIONALS**																							
73	Calcium (mg/L) (6010)	NA		**50.4**		**51.7**		NA		NA		NA		NA		NA		NA		NA		NA		NA
74	Magnesium (mg/L) (6010)	NA		**21.6**		**22.0**		NA		NA		NA		NA		NA		NA		NA		NA		NA
75	Potassium (mg/L) (6010)	NA		**0.7**	J	**0.9**	J	NA		NA		NA		NA		NA		NA		NA		NA		NA
76	Sodium (mg/L) (6010)	NA		**10.6**		**10.9**		NA		NA		NA		NA		NA		NA		NA		NA		NA
77	Alkalinity (mg/L CaCO3) (SM 2320)	NA		**210**		**210**		NA		NA		NA		NA		NA		NA		NA		NA		NA
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		1.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		**210**		**210**		NA		NA		NA		NA		NA		NA		NA		NA		NA
80	Total Dissolved Solids (mg/L) (EPA 160.1)	**280**		**360**		**320**		**310**		**300**		**270**		**260**		**290**		**270**		**270**		**360**		**370**
81	Chloride (mg/L) (EPA 325.2)	**13**		**17**		**18**		**12**		**12**		**12**		**13**		**14**		**12**		**12**		**9.8**		**16**
82	N-Nitrate (mg-N/L) (Calculated)	NA		**0.010**		0.010	U	NA		NA		NA		NA		NA		NA		NA		NA		NA
83	N-Nitrite (mg-N/L) (EPA 354.1)	NA		**0.015**	J	**0.023**	J	NA		NA		NA		NA		NA		NA		NA		NA		NA
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		**0.025**	J	**0.018**	J	NA		NA		NA		NA		NA		NA		NA		NA		NA
85	Sulfate (mg/L) (EPA 375.2)	NA		**6.1**	J	**8.8**	J	NA		NA		NA		NA		NA		NA		NA		NA		NA
86																								

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AV	AW	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU
3			LW4D		LW4D		LW4D		LW4D		LW4D		LW4D		LW4D		LW4D		LW4D		LW4D		LW4D		LW4D		LW4D
4			CT67D		DE87K		DM30D		DW29G		ED30H		EN00H		ER93L		EZ17F		FF65G		FL58E		FU45N		FY82L		0402113-08
5			2/15/01		6/6/01		8/13/01		11/27/01		2/27/02		6/27/02		08/27/02		11/13/02		2/11/03		5/8/03		8/28/03		10/24/03		2/23/04
66	Chromium (6010)	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	**0.009**		**0.01**
67	Copper (6010)		**0.005**		**0.003**		**0.004**		**0.003**		**0.004**		**0.003**		**0.004**		**0.004**		**0.002**		**0.002**		**0.005**		**0.006**		0.01
68	Lead (7421)	U	0.001	U	0.001	U	**0.001**		0.001	U	0.001	U	0.001	U	**0.002**		0.02	U	0.001	U	**0.002**		0.001	U	0.001	U	**0.0010**
69	Nickel (6010)	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	**0.02**		0.01	U	0.005
70	Zinc (6010)		**0.016**		**0.011**		0.012		**0.011**		**0.010**	J	**0.009**		**0.009**		**0.011**		**0.021**		**0.009**		**0.006**		**0.017**		0.01
71																											
72	**MAJOR IONS AND CONVENTIONALS**																										
73	Calcium (mg/L) (6010)		**71.3**		**74.5**		**81.3**		**57.1**		**67.1**		**65.9**		NA		NA		**56.5**		NA		NA		NA		NA
74	Magnesium (mg/L) (6010)		**30.1**		**31.0**		**35.2**		**25.2**		**31.9**		**29.4**		NA		NA		**25.9**		NA		NA		NA		NA
75	Potassium (mg/L) (6010)		**1.6**		**1.4**		**1.5**		**1.8**		**1.0**		**1.3**		NA		NA		**1.4**		NA		NA		NA		NA
76	Sodium (mg/L) (6010)		**14.5**		**14.5**		**16.5**		**16.4**		**15.9**		**18.2**		NA		NA		**16.1**		NA		NA		NA		NA
77	Alkalinity (mg/L CaCO3) (SM 2320)		**360**		NA		NA		NA		**430**		NA		NA		NA		**330**		NA		NA		NA		NA
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)		1.0	U	NA		NA		NA		1.0	U	NA		NA		NA		1	U	NA		NA		NA		NA
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)		**360**		NA		NA		NA		**430**		NA		NA		NA		**330**		NA		NA		NA		NA
80	Total Dissolved Solids (mg/L) (EPA 160.1)		**430**		**460**	J	**430**	J	**350**		**400**		**360**		**430**		**390**		**360**		**400**		**390**		**340**		**417**
81	Chloride (mg/L) (EPA 325.2)		**24**	J	**18**		**18**		**12**		**14**	J	**15**		**13**		**15**		**15**		**11**		**7.8**		**11**		**9.75**
82	N-Nitrate (mg-N/L) (Calculated)		0.010	U	NA		NA		NA		**0.012**		NA		NA		NA		0.01	U	NA		NA		NA		NA
83	N-Nitrite (mg-N/L) (EPA 354.1)		**0.037**	J	NA		NA		NA		**0.012**		NA		NA		NA		**0.052**		NA		NA		NA		NA
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)		**0.045**		NA		NA		NA		**0.024**		NA		NA		NA		**0.045**		NA		NA		NA		NA
85	Sulfate (mg/L) (EPA 375.2)		**8.6**		NA		NA		NA		**9.5**		NA		NA		NA		**8.5**		NA		NA		NA		NA
86																											

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BV
1		
2		
3		
4		
5		
66	Chromium (6010)	
67	Copper (6010)	U
68	Lead (7421)	
69	Nickel (6010)	U
70	Zinc (6010)	U
71		
72	**MAJOR IONS AND CONVENTIONALS**	
73	Calcium (mg/L) (6010)	
74	Magnesium (mg/L) (6010)	
75	Potassium (mg/L) (6010)	
76	Sodium (mg/L) (6010)	
77	Alkalinity (mg/L CaCO3) (SM 2320)	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	
80	Total Dissolved Solids (mg/L) (EPA 160.1)	
81	Chloride (mg/L) (EPA 325.2)	
82	N-Nitrate (mg-N/L) (Calculated)	
83	N-Nitrite (mg-N/L) (EPA 354.1)	
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	
85	Sulfate (mg/L) (EPA 375.2)	
86		

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X
2							Dup of LW4D										Dup of LW4D				Dup of LW4D			
3			LW4D		LW4D		LW40D		LW4D		LW4D		LW4D (a)		LW4D		LW40D		LW4D		LW40D		LW4D	
4			S167I		T176M		T176L		U235N		V232F		B802035-02		W391E		W391I		Y314E		Y314B		Z225J	
5			4/1/97		7/16/97		7/16/97		10/22/97		1/30/98		1/30/98		5/20/98		5/20/98		8/17/98		8/17/98		11/14/98	
87	80	**FIELD PARAMETERS**																						
88	81	pH (avg)	6.65		6.67		6.67		6.94		6.84		6.84		6.51		6.51		6.49		6.48		6.39	
89	82	Temperature (° C) (avg)	12.9		15.1		14.9		13.6		13.5		13.5		13.3		13.3		18.1		18.3		13.5	
90	83	Conductivity (um/hos)	559		491		490		375		381		381		368		367		557		560		120	
91	84	Dissolved oxygen (mg/L) (avg)	NA		NA		NA		NA		NA		NA		1.74		1.74		1.00		1.00		1.44	
92	85																							
93	86	**DIOXINS AND FURANS (ng/L)**																						
94	87	**Method 8290**																						
95	88	2,3,7,8-TCDF	NA		NA		NA		NA		0.0027	U	NA		NA		NA		0.0049	U	NA		0.0023	U
96	89	Total TCDF	NA		NA		NA		NA		0.0027	U	NA		NA		NA		0.0049	U	NA		0.0023	U
97	90	2,3,7,8-TCDD	NA		NA		NA		NA		0.0029	U	NA		NA		NA		0.0063	U	NA		0.0045	U
98	91	Total TCDD	NA		NA		NA		NA		0.0029	U	NA		NA		NA		0.0063	U	NA		0.0045	U
99	92	1,2,3,7,8-PeCDF	NA		NA		NA		NA		0.0018	U	NA		NA		NA		0.0035	U	NA		**0.0012**	
100	93	2,3,4,7,8-PeCDF	NA		NA		NA		NA		0.0019	U	NA		NA		NA		0.0050	U	NA		0.0034	U
101	94	Total PeCDF	NA		NA		NA		NA		0.0019	U	NA		NA		NA		0.0043	U	NA		**0.0012**	
102	95	1,2,3,7,8-PeCDD	NA		NA		NA		NA		0.0052	U	NA		NA		NA		0.0071	U	NA		0.0072	U
103	96	Total PeCDD	NA		NA		NA		NA		0.0052	U	NA		NA		NA		**0.019**		NA		0.0072	U
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		0.0024	U	NA		NA		NA		0.0880	U	NA		0.0059	U
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		0.0026	U	NA		NA		NA		0.0390	U	NA		0.0020	U
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		0.0049	U	NA		NA		NA		0.0088	U	NA		0.0049	U
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		0.0052	U	NA		NA		NA		**0.066**		NA		0.0036	U
108	101	Total HxCDF	NA		NA		NA		NA		0.0110	U	NA		NA		NA		**0.210**		NA		0.0041	U
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		0.0032	U	NA		NA		NA		0.0140	U	NA		0.0056	U
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		0.0044	U	NA		NA		NA		0.0097	U	NA		0.0043	U
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		0.0031	U	NA		NA		NA		0.0048	U	NA		0.0040	U
112	105	Total HxCDD	NA		NA		NA		NA		0.0036	U	NA		NA		NA		**0.043**		NA		0.0046	U
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		0.0140	U	NA		NA		NA		0.0140	U	NA		0.0038	U
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		0.0030	U	NA		NA		NA		0.0062	U	NA		0.0022	U
115	108	Total HpCDF	NA		NA		NA		NA		0.0220	U	NA		NA		NA		**0.022**		NA		0.0030	U
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		**0.0240**		NA		NA		NA		**0.031**		NA		**0.0095**	
117	110	Total HpCDD	NA		NA		NA		NA		**0.0400**		NA		NA		NA		**0.045**		NA		**0.0160**	
118	111	OCDF	NA		NA		NA		NA		**0.0140**		NA		NA		NA		**0.032**		NA		**0.0088**	
119	112	OCDD	NA		NA		NA		NA		**0.1500**		NA		NA		NA		**0.300**		NA		**0.0720**	
120																								
121																								
122																								

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU
2		Dup of LW4D				Dup of LW4D						Dup of LW4D				Dup of LW4D								
3		LW40D		LW4D		LW40D		LW4D		LW4D		LW40D		LW4D		LW40D		LW4D		LW4D		LW4D		LW4D
4		Z225L		Z960P		Z960K		AH49H		AU45G		AU45I		BC21J		BC27P		BH96E		BR55D		CB68D		CL03G
5		11/14/98		2/17/99		2/17/99		5/18/99		9/22/99		9/22/99		12/9/99		12/9/99		2/17/00		5/22/00		8/30/00		11/9/00
87	**FIELD PARAMETERS**																							
88	pH (avg)	6.37		6.86		6.85		5.88		5.99		6.60		6.68		6.65		6.72		6.66		6.02		5.96
89	Temperature (° C) (avg)	13.3		13.3		13.2		14.7		18.8		16.3		12.8		12.9		16.4		16.5		14.4		13.3
90	Conductivity (um/hos)	120		500		500		462		491		359		436		424		548		437		526		656
91	Dissolved oxygen (mg/L) (avg)	1.80		2.39		2.57		2.40		1.35		1.42		1.76		1.86		0.12		1.00		1.39		0.31
92																								
93	**DIOXINS AND FURANS (ng/L)**																							
94	**Method 8290**																							
95	2,3,7,8-TCDF	NA		0.0017	U	NA		0.0011	U	0.0018	U	NA		0.00068	U	NA		0.0034	U	NA		NA		NA
96	Total TCDF	NA		0.0017	U	NA		0.0011	U	0.0018	U	NA		0.00068	U	NA		0.0034	U	NA		NA		NA
97	2,3,7,8-TCDD	NA		0.0043	U	NA		0.0016	U	0.0031	U	NA		0.00130	U	NA		0.0058	U	NA		NA		NA
98	Total TCDD	NA		0.0043	U	NA		0.0016	U	0.0031	U	NA		0.00130	U	NA		0.0058	U	NA		NA		NA
99	1,2,3,7,8-PeCDF	NA		0.0028	U	NA		0.0021	U	0.0031	U	NA		0.00120	U	NA		0.0025	U	NA		NA		NA
100	2,3,4,7,8-PeCDF	NA		0.0036	U	NA		0.0027	U	0.0032	U	NA		0.00088	U	NA		0.0033	U	NA		NA		NA
101	Total PeCDF	NA		0.0032	U	NA		0.0024	U	0.0032	U	NA		0.00110	U	NA		0.0029	U	NA		NA		NA
102	1,2,3,7,8-PeCDD	NA		0.0046	U	NA		0.0023	U	0.0048	U	NA		0.00094	U	NA		0.0051	U	NA		NA		NA
103	Total PeCDD	NA		0.0046	U	NA		0.0023	U	0.0048	U	NA		0.00094	U	NA		0.0051	U	NA		NA		NA
104	1,2,3,4,7,8-HxCDF	NA		**0.0013**		NA		0.0035	U	0.0024	U	NA		0.00150	U	NA		0.0031	U	NA		NA		NA
105	1,2,3,6,7,8-HxCDF	NA		0.0024	U	NA		**0.0014**		0.0019	U	NA		0.00150	U	NA		0.0029	U	NA		NA		NA
106	2,3,4,6,7,8-HxCDF	NA		0.0036	U	NA		**0.0032**		**0.0024**		NA		0.0025	U	NA		0.0034	U	NA		NA		NA
107	1,2,3,7,8,9-HxCDF	NA		0.0044	U	NA		0.0039	U	0.0021	U	NA		0.00170	U	NA		0.0036	U	NA		NA		NA
108	Total HxCDF	NA		**0.0013**		NA		**0.0046**		**0.0024**		NA		0.0025	U	NA		0.0033	U	NA		NA		NA
109	1,2,3,4,7,8-HxCDD	NA		0.0054	U	NA		0.0051	U	0.0039	U	NA		0.00150	U	NA		0.0050	U	NA		NA		NA
110	1,2,3,6,7,8-HxCDD	NA		0.0037	U	NA		0.0052	U	0.0035	U	NA		0.00170	U	NA		0.0037	U	NA		NA		NA
111	1,2,3,7,8,9-HxCDD	NA		0.0036	U	NA		0.0039	U	0.0025	U	NA		0.00150	U	NA		0.0034	U	NA		NA		NA
112	Total HxCDD	NA		0.0042	U	NA		0.0047	U	0.0033	U	NA		0.00160	U	NA		0.0040	U	NA		NA		NA
113	1,2,3,4,6,7,8-HpCDF	NA		0.0026	U	NA		0.0039	U	0.0022	U	NA		0.0015	U	NA		0.0024	U	NA		NA		NA
114	1,2,3,4,7,8,9-HpCDF	NA		0.0045	U	NA		**0.0036**	U	0.0060	U	NA		0.00200	U	NA		0.0065	U	NA		NA		NA
115	Total HpCDF	NA		0.0036	U	NA		**0.0051**		0.0041	U	NA		**0.0036**	J1	NA		0.0044	U	NA		NA		NA
116	1,2,3,4,6,7,8-HpCDD	NA		**0.0055**		NA		**0.0110**		**0.0044**		NA		**0.0090**	J1	NA		0.0059	U	NA		NA		NA
117	Total HpCDD	NA		**0.0055**		NA		**0.0160**		**0.0044**		NA		**0.0160**	J1	NA		0.0040	U	NA		NA		NA
118	OCDF	NA		**0.0100**		NA		**0.0100**		0.0042	U	NA		**0.0058**	J1	NA		0.0048	U	NA		NA		NA
119	OCDD	NA		0.0420	U	NA		**0.0770**		**0.0440**		NA		0.0660	U	NA		**0.044**	J1	NA		NA		NA
120																								
121																								
122																								

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TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AV	AW	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU
1																											
2																											
3			LW4D		LW4D		LW4D		LW4D		LW4D		LW4D		LW4D		LW4D		LW4D		LW4D		LW4D		LW4D		LW4D
4			CT67D		DE87K		DM30D		DW29G		ED30H		EN00H		ER93L		EZ17F		FF65G		FL58E		FU45N		FY82L		0402113-08
5			2/15/01		6/6/01		8/13/01		11/27/01		2/27/02		6/27/02		08/27/02		11/13/02		2/11/03		5/8/03		8/28/03		10/24/03		2/23/04
87	**FIELD PARAMETERS**																										
88	pH (avg)		6.49		6.91		6.94		6.61		6.48		6.65		7.04		6.31		7		6.97		7		6.79		6.49
89	Temperature (° C) (avg)		13.8		14.7		15.4		13.3		14.2		14.4		15.8		14		14.1		14.1		17.3		14.6		14.4
90	Conductivity (um/hos)		673		778		757		592		705		624		613		564		704		599		526		523		482
91	Dissolved oxygen (mg/L) (avg)		0.19		0.48		0.98		4.41		7.10		4.00		1.24		0.37		0.76		1.68		1.66		2.57		1.36
92																											
93	**DIOXINS AND FURANS (ng/L)**																										
94	**Method 8290**																										
95	2,3,7,8-TCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
96	Total TCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
97	2,3,7,8-TCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
98	Total TCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
99	1,2,3,7,8-PeCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
100	2,3,4,7,8-PeCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
101	Total PeCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
102	1,2,3,7,8-PeCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
103	Total PeCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
104	1,2,3,4,7,8-HxCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
105	1,2,3,6,7,8-HxCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
106	2,3,4,6,7,8-HxCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
107	1,2,3,7,8,9-HxCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
108	Total HxCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
109	1,2,3,4,7,8-HxCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
110	1,2,3,6,7,8-HxCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
111	1,2,3,7,8,9-HxCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
112	Total HxCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
113	1,2,3,4,6,7,8-HpCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
114	1,2,3,4,7,8,9-HpCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
115	Total HpCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
116	1,2,3,4,6,7,8-HpCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
117	Total HpCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
118	OCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
119	OCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
120																											
121																											
122																											

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BV
1		
2		
3		
4		
5		
87	**FIELD PARAMETERS**	
88	pH (avg)	
89	Temperature (° C) (avg)	
90	Conductivity (um/hos)	
91	Dissolved oxygen (mg/L) (avg)	
92		
93	**DIOXINS AND FURANS (ng/L)**	
94	**Method 8290**	
95	2,3,7,8-TCDF	
96	Total TCDF	
97	2,3,7,8-TCDD	
98	Total TCDD	
99	1,2,3,7,8-PeCDF	
100	2,3,4,7,8-PeCDF	
101	Total PeCDF	
102	1,2,3,7,8-PeCDD	
103	Total PeCDD	
104	1,2,3,4,7,8-HxCDF	
105	1,2,3,6,7,8-HxCDF	
106	2,3,4,6,7,8-HxCDF	
107	1,2,3,7,8,9-HxCDF	
108	Total HxCDF	
109	1,2,3,4,7,8-HxCDD	
110	1,2,3,6,7,8-HxCDD	
111	1,2,3,7,8,9-HxCDD	
112	Total HxCDD	
113	1,2,3,4,6,7,8-HpCDF	
114	1,2,3,4,7,8,9-HpCDF	
115	Total HpCDF	
116	1,2,3,4,6,7,8-HpCDD	
117	Total HpCDD	
118	OCDF	
119	OCDD	
120		
121		
122		

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X
1																								
2							Dup of LW4D										Dup of LW4D				Dup of LW4D			
3			LW4D		LW4D		LW40D		LW4D		LW4D		LW4D (a)		LW4D		LW40D		LW4D		LW40D		LW4D	
4			S167I		T176M		T176L		U235N		V232F		B802035-02		W391E		W391I		Y314E		Y314B		Z225J	
5			4/1/97		7/16/97		7/16/97		10/22/97		1/30/98		1/30/98		5/20/98		5/20/98		8/17/98		8/17/98		11/14/98	
123		**PAHs (µg/L)**																						
124		**EPA Method SW8270 SIM**																						
125		Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
126		2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
127		Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
128		Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
129		Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
130		Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
131		Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU
1																								
2		Dup of LW4D				Dup of LW4D						Dup of LW4D				Dup of LW4D								
3		LW40D		LW4D		LW40D		LW4D		LW4D		LW40D		LW4D		LW40D		LW4D		LW4D		LW4D		LW4D
4		Z225L		Z960P		Z960K		AH49H		AU45G		AU45I		BC21J		BC27P		BH96E		BR55D		CB68D		CL03G
5		11/14/98		2/17/99		2/17/99		5/18/99		9/22/99		9/22/99		12/9/99		12/9/99		2/17/00		5/22/00		8/30/00		11/9/00
123	**PAHs (µg/L)**																							
124	**EPA Method SW8270 SIM**																							
125	Naphthalene	NA		**22**		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
126	2-Methylnaphthalene	NA		**60**		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
127	Acenaphthylene	NA		0.10	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
128	Acenaphthene	NA		**0.44**	M	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
129	Fluorene	NA		0.10	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
130	Anthracene	NA		0.10	U	NA		NA		NA		NA				NA		NA		NA		NA		NA
131	Dibenzofuran	NA		**0.34**	M	NA		NA		NA		NA				NA		NA		NA		NA		NA

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AV	AW	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU
1																											
2																											
3			LW4D		LW4D		LW4D		LW4D		LW4D		LW4D		LW4D		LW4D		LW4D		LW4D		LW4D		LW4D		LW4D
4			CT67D		DE87K		DM30D		DW29G		ED30H		EN00H		ER93L		EZ17F		FF65G		FL58E		FU45N		FY82L		0402113-08
5			2/15/01		6/6/01		8/13/01		11/27/01		2/27/02		6/27/02		08/27/02		11/13/02		2/11/03		5/8/03		8/28/03		10/24/03		2/23/04
123	**PAHs (µg/L)**																										
124	**EPA Method SW8270 SIM**																										
125	Naphthalene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
126	2-Methylnaphthalene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
127	Acenaphthylene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
128	Acenaphthene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
129	Fluorene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
130	Anthracene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
131	Dibenzofuran		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BV
1		
2		
3		
4		
5		
123	**PAHs (µg/L)**	
124	**EPA Method SW8270 SIM**	
125	Naphthalene	
126	2-Methylnaphthalene	
127	Acenaphthylene	
128	Acenaphthene	
129	Fluorene	
130	Anthracene	
131	Dibenzofuran	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

			LW6D S167G 3/31/97		LW6D T176I 7/15/97		LW6D U235R 10/22/97		LW6D V208I 1/28/98		LW6D W391D 5/20/98		LW6D Y314C 8/17/98		LW6D Z225B 11/13/98		LW6D Z960G 2/17/99		LW6D AH27I 5/17/99		LW6D AU45D 9/22/99		LW6D BC27F 12/7/99		LW6D BH96I 2/17/00	
1	1	**CHLORINATED PHENOLS (µg/L)**																								
2	2	**EPA Method SW8040**																								
3	3	Pentachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	**0.42**		0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
4	4	2,4,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
5	5	2,3,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
6	6	2,4,5-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
7	7	2,3,4-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
8	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
9	9	2,3,4,5-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
10	10																									
11	11	**SEMIVOLATILES (µg/L)**																								
12	12	**EPA Method SW8270**																								
13	13	Phenol	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
14	14	4-Methylphenol	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
15	15	Isophorone	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
16	16	2,4-Dimethylphenol	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U
17	17	Benzoic Acid	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
18	18	Naphthalene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
19	19	2-Methylnaphthalene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
20	20	2,4,6-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
21	21	2,4,5-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
22	22	Acenaphthene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
23	23	Dibenzofuran	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
24	24	Fluorene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
25	25	Pentachlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
26	26	bis(2-Ethylhexyl)phthalate	1.0	UJ	**1.1**	J2	**1.3**		**1.2**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**4.6**	
27	27																									
28	28	**VOLATILES (µg/L)**																								
29	29	**EPA Method SW8260**																								
30	30	Acetone	5.0	U	5.0	U	**5.1**		5.0	U	**7.1**		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
31	31	Carbon Disulfide	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
32	32	2-Butanone	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
33	33	Benzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
34	34	Bromoform	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
35	35	Toluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
36	36	Ethylbenzene	1.0	U	1.0	U	1.0	U	**2.1**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
37	37	Styrene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
38	38	m,p-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
39	39	o-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
40	40	1,3,5-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
41	41	1,2,4-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
42	42	Isopropylbenzene	**41**		**61**		**78**	J2	**76**		**56**		**96**		**93**		**32**		**31**		**52**		**43**		**68**	
43	43	n-Propylbenzene	**14**		**28**		**40**		**36**		**20**		**44**		**32**		**8.9**		**9.3**		**14**		**7.7**		**10**	
44	44	tert-Butylbenzene	**2.4**		**2.7**	J2	**2.8**		**2.3**		**2.8**		**3.8**		**3.2**		**2.0**		**2.4**		**3.5**		**3.0**		**4.1**	
45	45	sec-Butylbenzene	**5.7**		**8.3**		**8.5**	J2	**7.1**		**7.8**		**14**	J2	**9.7**		**3.6**		**5.4**		**10**		**8.2**		**12**	
46	46	4-Isopropyltoluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
47	47	n-Butylbenzene	**1.6**		**2.8**		**2.8**	J2	**2.9**		2.7	U	**5.0**		**3.2**		**1.2**		**2.1**		3.0	U	2.3	U	**3.6**	
48	48	Naphthalene	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
49	49	Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
50	50																									
51	51	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																								
52	52	**Method OR-DEQ**																								
53	53	**TPH-Diesel**	**1.0**		**1.0**		**1.2**		**0.80**		**0.86**		**1.3**		**1.0**		**0.62**		**0.92**		**1.4**		**1.0**		**1.0**	
54	54	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
55	55	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
56	56																									
57	57	**PRIORITY POLLUTANT**																								
58	58	**METALS (mg/L)**																								
59	59	Arsenic (7060)	**0.013**		**0.015**		0.05	U	0.05	U	**0.017**		**0.011**		**0.016**		**0.014**		**0.018**		**0.016**		**0.016**		**0.016**	

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TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ
3		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D	
4		BR64J		CB85E		CL03C		CT55B		DE87G		DM30B		DW29H		ED23H		EM85I		ER93C		EZ03E		FF76F		FL66E	
5		5/24/00		8/30/00		11/8/00		2/13/01		6/5/01		8/13/01		11/27/01		2/26/02		6/26/02		08/26/02		11/12/02		2/12/03		5/9/03	
7	**CHLORINATED PHENOLS (µg/L)**																										
8	**EPA Method SW8040**																										
9	Pentachlorophenol	0.25	U	0.25	U	0.25	U	**0.46**		0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.3	U	0.25	U	0.25	U	**0.47**	
10	2,4,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
11	2,3,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
12	2,4,5-Trichlorophenol	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
13	2,3,4-Trichlorophenol	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
15	2,3,4,5-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
16																											
17	**SEMIVOLATILES (µg/L)**																										
18	**EPA Method SW8270**																										
19	Phenol	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.4	U	2.2	U	2	U	2	U
20	4-Methylphenol	**1.0**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.2	U	1.1	U	1	U	1	U
21	Isophorone	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.2	U	1.1	U	1	U	1	U
22	2,4-Dimethylphenol	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.6	U	3.3	U	3	U	3	U
23	Benzoic Acid	10	U	10	U	10	U	10	U	10	U	10	U	30	U	50	U	50	U	60	U	54	U	50	U	50	U
24	Naphthalene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.2	U	1.1	U	1	U	1	U
25	2-Methylnaphthalene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.2	U	1.1	U	1	U	1	U
26	2,4,6-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	6	U	5.4	U	5	U	5	U
27	2,4,5-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	6	U	5.4	U	5	U	5	U
28	Acenaphthene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.2	U	1.1	U	1	U	1	U
29	Dibenzofuran	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.2	U	1.1	U	1	U	1	U
30	Fluorene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.2	U	1.1	U	1	U	1	U
31	Pentachlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	6	U	5.4	U	5	U	5	U
32	bis(2-Ethylhexyl)phthalate	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	4.0	U	4.0	U	4.8	U	4.3	U	**13**		1	U
33																											
34	**VOLATILES (µg/L)**																										
35	**EPA Method SW8260**																										
36	Acetone	5.0	U	5.0	U	5.0	U		R	5.0	U	5.0	U	5.0	U	5.0	U	**6.8**		5	U	**16**		5	U	**9.6**	
37	Carbon Disulfide	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U
38	2-Butanone	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5	U	5	U	5	U	5	U
39	Benzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U
40	Bromoform	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U
41	Toluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U
42	Ethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U
43	Styrene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U
44	m,p-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U
45	o-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U
46	1,3,5-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U
47	1,2,4-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U
48	Isopropylbenzene	**24**		**16**		**24**		**14**		**10**		**8.8**		**2.6**		**7.0**		**2.6**		**7.5**		**3.4**		**4**		**2.7**	
49	n-Propylbenzene	**4.4**		1.0	U	**2.8**		**1.4**		**1.1**		**1.4**		1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U
50	tert-Butylbenzene	**2.3**		**3.5**		**2.8**		**2.8**		**3.4**		**2.8**		**3.1**		**3.1**		**1.8**		**3.4**		**3.2**		**3.1**		**2**	
51	sec-Butylbenzene	**4.4**		**6.0**		**6.4**		**5.3**		**4.7**		**4.3**		**2.4**		**3.4**		**1.7**		**3.3**		**2.2**		**2.5**		**1.8**	
52	4-Isopropyltoluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U
53	n-Butylbenzene	**1.7**	M	1.2	U	1.0	U	**1.3**	M	1.3	U	1.4	U	1.0	U	**1.2**	M	1.0	U	1	U	1	U	1	U	1	U
54	Naphthalene	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5	U	5	U	5	U	5	U
55	Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
56																											
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																										
58	**Method OR-DEQ**																										
59	**TPH-Diesel**	**1.1**		**1.2**		**1.2**		**1.8**		**1.4**		**1.7**		**1.8**		**1.9**		**1.6**		**2.6**		**2.2**		**2.3**		**2.2**	
60	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
61	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
62																											
63	**PRIORITY POLLUTANT**																										
64	**METALS (mg/L)**																										
65	Arsenic (7060)	**0.012**		**0.018**		**0.015**		**0.015**		**0.017**		**0.020**		**0.021**		**0.016**		**0.016**		**0.02**		0.05	U	**0.011**		**0.017**	

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TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BA	BB	BC	BD	BE	BF	BG	BH
3		LW6D		LW6D		LW6D		LW6D	
4		FU45R		FY82O		0402105-05		0406039-01	
5		8/28/03		10/24/03		2/20/04		6/7/04	
7	**CHLORINATED PHENOLS (µg/L)**								
8	**EPA Method SW8040**								
9	Pentachlorophenol	**0.6**	J	**1.1**		0.483	U	0.498	U
10	2,4,6-Trichlorophenol	NA		NA		NA		NA	
11	2,3,6-Trichlorophenol	NA		NA		NA		NA	
12	2,4,5-Trichlorophenol	NA		NA		NA		NA	
13	2,3,4-Trichlorophenol	NA		NA		NA		NA	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA		NA		NA	
15	2,3,4,5-Tetrachlorophenol	NA		NA		NA		NA	
16									
17	**SEMIVOLATILES (µg/L)**								
18	**EPA Method SW8270**								
19	Phenol	2.1	U	2	U	1.92	U	2	U
20	4-Methylphenol	1	U	1	U	9.61	U	9.98	U
21	Isophorone	1	U	1	U	0.961	U	0.998	U
22	2,4-Dimethylphenol	3.1	U	3.1	U	2.88	U	2.99	U
23	Benzoic Acid	52	U	10	U	19.2	U	20	U
24	Naphthalene	1	U	1	U	0.961	U	0.998	U
25	2-Methylnaphthalene	1	U	1	U	0.961	U	0.998	U
26	2,4,6-Trichlorophenol	5.2	U	5.1	U	4.8	U	4.99	U
27	2,4,5-Trichlorophenol	5.2	U	5.1	U	4.8	U	4.99	U
28	Acenaphthene	1	U	1	U	0.961	U	0.998	U
29	Dibenzofuran	1	U	1	U	0.961	U	0.998	U
30	Fluorene	1	U	1	U	0.961	U	0.998	U
31	Pentachlorophenol	5.2	U	5.1	U	4.8	U	4.99	U
32	bis(2-Ethylhexyl)phthalate	1	U	1	U	0.961	U	0.998	U
33									
34	**VOLATILES (µg/L)**								
35	**EPA Method SW8260**								
36	Acetone	**6.2**	J	5	U	50	U	50	U
37	Carbon Disulfide	1	U	1	U	2	U	2	U
38	2-Butanone	5	U	5	U	10	U	10	U
39	Benzene	1	U	1	U	0.4	U	0.3	U
40	Bromoform	1	U	1	U	1	U	1	U
41	Toluene	1	U	1	U	1	U	1	U
42	Ethylbenzene	1	U	1	U	1	U	1	U
43	Styrene	1	U	1	U	1	U	1	U
44	m,p-Xylene	1	U	1	U	2	U	2	U
45	o-Xylene	1	U	1	U	1	U	1	U
46	1,3,5-Trimethylbenzene	1	U	1	U	1	U	1	U
47	1,2,4-Trimethylbenzene	1	U	1	U	1	U	1	U
48	Isopropylbenzene	**3.5**		**4.2**		**3.43**		**2.05**	
49	n-Propylbenzene	1	U	1	U	1	U	1	U
50	tert-Butylbenzene	**2.3**		**2.9**		1	U	**1.76**	
51	sec-Butylbenzene	**2.1**		**2.1**		**1.27**		1	U
52	4-Isopropyltoluene	1	U	1	U	1	U	1	U
53	n-Butylbenzene	1	U	1	U	1	U	1	U
54	Naphthalene	5	U	5	U	1	U	1	U
55	Methyl tert-butyl ether	NA		NA		1	U	1	U
56									
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**								
58	**Method OR-DEQ**								
59	**TPH-Diesel**	**1.9**		**1.1**		**1.36**	J	**1.9**	
60	**TPH-D Motor Oil**	NA		0.5	U	0.491	UJ	0.51	U
61	**TPH-Gasoline**	NA		NA		NA		NA	
62									
63	**PRIORITY POLLUTANT**								
64	**METALS (mg/L)**								
65	Arsenic (7060)	**0.014**		**0.016**		**0.015**		**0.013**	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1																										
2																										
3			LW6D		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D	
4			S167G		T176I		U235R		V208I		W391D		Y314C		Z225B		Z960G		AH27I		AU45D		BC27F		BH96I	
5			3/31/97		7/15/97		10/22/97		1/28/98		5/20/98		8/17/98		11/13/98		2/17/99		5/17/99		9/22/99		12/7/99		2/17/00	
66	59	Chromium (6010)	0.005	U	0.005	U	**0.011**		0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U
67	60	Copper (6010)	**0.004**		**0.003**		**0.014**		**0.002**		**0.003**		0.002	U	0.002	U	0.002	U	0.002	U	**0.002**		0.002	U	0.002	U
68	61	Lead (7421)	**0.001**		**0.002**		0.02	U	0.02	U	**0.001**		0.001	U	**0.002**		0.001	U	0.001	U	0.001	U	**0.001**		0.001	U
69	62	Nickel (6010)	0.01	U	0.01	U	**0.01**		0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
70	63	Zinc (6010)	**0.006**		**0.009**	J2	**0.045**		**0.011**		**0.017**	J2	**0.006**		**0.009**		**0.008**	J	0.007	U	**0.009**		**0.011**	U	**0.010**	
71	64																									
72	65	**MAJOR IONS AND CONVENTIONALS**																								
73	66	Calcium (mg/L) (6010)	**47.2**		**44.2**		**49.1**		**41.8**		NA		NA		NA		**42.9**		NA		NA		NA		NA	
74	67	Magnesium (mg/L) (6010)	**19.9**		**19**		**20.3**		**16.3**		NA		NA		NA		**17.6**		NA		NA		NA		NA	
75	68	Potassium (mg/L) (6010)	**3.0**		**2.7**		**3.5**		**2.4**		NA		NA		NA		**2.3**		NA		NA		NA		NA	
76	69	Sodium (mg/L) (6010)	**15.6**		**13.9**		**14.1**		**12.1**		NA		NA		NA		**11.6**		NA		NA		NA		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	**250**		**190**		**210**		**200**		NA		NA		NA		**210**		NA		NA		NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		1.0	U	NA		NA		NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	**250**		**190**		**210**		**200**		NA		NA		NA		**210**		NA		NA		NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	NT		**260**	J2	**260**		**230**		**220**		**240**		**240**		**260**		**240**		**240**		**250**		**240**	
81	74	Chloride (mg/L) (EPA 325.2)	**8.4**	J	**4.1**		**3.9**		**2.7**		**3.3**		**2.0**		**2.6**		**4.2**		1.0	U	**3.1**		**4.3**		**2.8**	
82	75	N-Nitrate (mg-N/L) (Calculated)	**0.016**	J	0.010	U	**0.013**		0.010	U	NA		NA		NA		0.010	U	NA		NA		NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	**0.025**	J	**0.014**		**0.010**		**0.014**		NA		NA		NA		**0.018**		NA		NA		NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	**0.041**	J	0.010	U	**0.023**		**0.016**		NA		NA		NA		**0.017**		NA		NA		NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	**4.7**	J	2.5	U	2.5	U	2.5	U	NA		NA		NA		**5.5**		NA		NA		NA		NA	
86	79																									

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ
1																											
2																											
3		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D	
4		BR64J		CB85E		CL03C		CT55B		DE87G		DM30B		DW29H		ED23H		EM85I		ER93C		EZ03E		FF76F		FL66E	
5		5/24/00		8/30/00		11/8/00		2/13/01		6/5/01		8/13/01		11/27/01		2/26/02		6/26/02		08/26/02		11/12/02		2/12/03		5/9/03	
66	Chromium (6010)	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U
67	Copper (6010)	0.002	U	**0.002**		**0.006**		0.002	U	**0.003**		**0.003**		0.002	U	0.002	U	0.002	U	**0.002**		0.002	U	**0.005**		0.002	U
68	Lead (7421)	**0.001**		**0.002**		**0.002**		**0.001**		**0.002**		**0.002**		0.001	U	0.001	U	0.001	U	0.001	U	0.02	U	0.001	U	**0.001**	
69	Nickel (6010)	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
70	Zinc (6010)	0.006	U	**0.007**		**0.008**		**0.007**		**0.008**		**0.009**		0.006	U	**0.008**		0.006	U	**0.007**		0.006	U	**0.01**		**0.007**	
71																											
72	**MAJOR IONS AND CONVENTIONALS**																										
73	Calcium (mg/L) (6010)	NA		NA		NA		**40.8**		**44.2**		**40.8**		**40.9**		**42.5**		NA		NA		NA		**39.5**		NA	
74	Magnesium (mg/L) (6010)	NA		NA		NA		**16.1**		**18.4**		**16.8**		**16.5**		**17.6**		NA		NA		NA		**16.7**		NA	
75	Potassium (mg/L) (6010)	NA		NA		NA		**2.1**		**3.2**		**2.6**		**2.0**		**2.7**		NA		NA		NA		**1.9**		NA	
76	Sodium (mg/L) (6010)	NA		NA		NA		**10.3**		**11.5**		**10.4**		**10.3**		**11.1**		NA		NA		NA		**9.6**		NA	
77	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		NA		**200**		NA		NA		NA		**220**		NA		NA		NA		**300**		NA	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		1.0	U	NA		NA		NA		1.0	U	NA		NA		NA		1	U	NA	
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		**200**		NA		NA		NA		**220**		NA		NA		NA		**300**		NA	
80	Total Dissolved Solids (mg/L) (EPA 160.1)	**230**		**240**		**220**		**290**	J	**240**	J	**220**	J	**250**		**260**		**240**		**270**		**310**		**280**		**260**	
81	Chloride (mg/L) (EPA 325.2)	**2.1**		**1.4**		**2.2**		**1.8**		**2.2**		**3.8**		**2.1**		**2.8**		**2.5**		**2.2**		**2.8**		**4.2**		**1.8**	
82	N-Nitrate (mg-N/L) (Calculated)	NA		NA		NA		0.010	U	NA		NA		NA		**0.010**		NA		NA		NA		**0.048**		NA	
83	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		NA		0.010	U	NA		NA		NA		**0.023**		NA		NA		NA		**0.015**		NA	
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		NA		0.010	U	NA		NA		NA		**0.033**	J	NA		NA		NA		**0.063**		NA	
85	Sulfate (mg/L) (EPA 375.2)	NA		NA		NA		**3.3**		NA		NA		NA		2.5	U	NA		NA		NA		2.5	U	NA	
86																											

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BA	BB	BC	BD	BE	BF	BG	BH
1									
2									
3		LW6D		LW6D		LW6D		LW6D	
4		FU45R		FY82O		0402105-05		0406039-01	
5		8/28/03		10/24/03		2/20/04		6/7/04	
66	Chromium (6010)	0.005	U	**0.008**		**0.0101**		**0.0208**	
67	Copper (6010)	**0.004**		**0.005**		0.01	U	0.01	U
68	Lead (7421)	0.001	U	**0.003**		**0.0009**		**0.0002**	
69	Nickel (6010)	0.01	U	0.01	U	0.005	U	0.005	U
70	Zinc (6010)	**0.007**		**0.013**		0.01	U	0.01	U
71									
72	**MAJOR IONS AND CONVENTIONALS**								
73	Calcium (mg/L) (6010)	NA		NA		NA		NA	
74	Magnesium (mg/L) (6010)	NA		NA		NA		NA	
75	Potassium (mg/L) (6010)	NA		NA		NA		NA	
76	Sodium (mg/L) (6010)	NA		NA		NA		NA	
77	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA	
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA	
80	Total Dissolved Solids (mg/L) (EPA 160.1)	**290**		**250**		**269**		**325**	
81	Chloride (mg/L) (EPA 325.2)	**1.6**		**2.9**		**3.04**		**2.91**	
82	N-Nitrate (mg-N/L) (Calculated)	NA		NA		NA		NA	
83	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		NA		NA	
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		NA		NA	
85	Sulfate (mg/L) (EPA 375.2)	NA		NA		NA		NA	
86									

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1																										
2																										
3			LW6D		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D	
4			S167G		T176I		U235R		V208I		W391D		Y314C		Z225B		Z960G		AH27I		AU45D		BC27F		BH96I	
5			3/31/97		7/15/97		10/22/97		1/28/98		5/20/98		8/17/98		11/13/98		2/17/99		5/17/99		9/22/99		12/7/99		2/17/00	
87	80	**FIELD PARAMETERS**																								
88	81	pH (avg)	6.53		6.63		6.84		6.65		6.35		6.34		6.17		6.78		5.66		6.64		6.38		6.57	
89	82	Temperature (° C) (avg)	12.2		15.7		13.2		13.5		13.0		17.9		13.1		13.7		14.6		15.5		12.8		13.5	
90	83	Conductivity (um/hos)	504		501		377		431		369		559		134		448		360		398		409		420	
91	84	Dissolved oxygen (mg/L) (avg)	NA		NA		NA		NA		1.85		NA		1.58		2.77		1.60		1.96		1.86		0.82	
92	85																									
93	86	**DIOXINS AND FURANS (ng/L)**																								
94	87	**Method 8290**																								
95	88	2,3,7,8-TCDF	NA		0.0027	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
96	89	Total TCDF	NA		0.0011-0.0028	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
97	90	2,3,7,8-TCDD	NA		0.0013	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
98	91	Total TCDD	NA		0.0011-0.0029	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		0.0035	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		0.0029	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
101	94	Total PeCDF	NA		0.0013-0.0045	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		0.0052	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
103	96	Total PeCDD	NA		0.0019-0.0061	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		0.0030	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		0.0032	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		0.0041	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		0.0047	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
108	101	Total HxCDF	NA		0.0041	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		0.0051	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		0.0076	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		0.0041	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
112	105	Total HxCDD	NA		0.0024-0.0089	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		0.0047	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		0.0054	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
115	108	Total HpCDF	NA		0.0017-0.0069	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		**0.0250**		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
117	110	Total HpCDD	NA		**0.0360**		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
118	111	OCDF	NA		**0.0350**		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
119	112	OCDD	NA		**0.2400**		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
120																										
121																										
122																										

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ
1																											
2																											
3		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D	
4		BR64J		CB85E		CL03C		CT55B		DE87G		DM30B		DW29H		ED23H		EM85I		ER93C		EZ03E		FF76F		FL66E	
5		5/24/00		8/30/00		11/8/00		2/13/01		6/5/01		8/13/01		11/27/01		2/26/02		6/26/02		08/26/02		11/12/02		2/12/03		5/9/03	
87	**FIELD PARAMETERS**																										
88	pH (avg)	6.42		5.85		5.73		6.32		6.58		6.72		6.58		6.54		6.41		6.58		6.73		6.96		6.81	
89	Temperature (° C) (avg)	17.1		15.1		13.8		16.6		14.1		15.7		13.4		15.7		16.6		17.3		13.7		14.5		14.5	
90	Conductivity (um/hos)	421		398		360		408		428		413		410		381		331		373		499		494		354	
91	Dissolved oxygen (mg/L) (avg)	0.48		1.36		1.20		2.16		2.06		1.50		3.91		7.27		3.07		1.39		1.14		1.68		2.47	
92																											
93	**DIOXINS AND FURANS (ng/L)**																										
94	**Method 8290**																										
95	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
96	Total TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
97	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
98	Total TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
99	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
100	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
101	Total PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
102	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
103	Total PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
104	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
105	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
106	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
107	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
108	Total HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
109	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
110	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
111	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
112	Total HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
113	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
114	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
115	Total HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
116	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
117	Total HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
118	OCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
119	OCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
120																											
121																											
122																											

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BA	BB	BC	BD	BE	BF	BG	BH
1									
2									
3		LW6D		LW6D		LW6D		LW6D	
4		FU45R		FY82O		0402105-05		0406039-01	
5		8/28/03		10/24/03		2/20/04		6/7/04	
87	**FIELD PARAMETERS**								
88	pH (avg)	6.87		6.57		6.55		5.37	
89	Temperature (° C) (avg)	16.3		14.7		15.5		15.3	
90	Conductivity (um/hos)	364		375		378		311	
91	Dissolved oxygen (mg/L) (avg)	2.1		2.86		2.34		1.62	
92									
93	**DIOXINS AND FURANS (ng/L)**								
94	**Method 8290**								
95	2,3,7,8-TCDF	NA		NA		NA		NA	
96	Total TCDF	NA		NA		NA		NA	
97	2,3,7,8-TCDD	NA		NA		NA		NA	
98	Total TCDD	NA		NA		NA		NA	
99	1,2,3,7,8-PeCDF	NA		NA		NA		NA	
100	2,3,4,7,8-PeCDF	NA		NA		NA		NA	
101	Total PeCDF	NA		NA		NA		NA	
102	1,2,3,7,8-PeCDD	NA		NA		NA		NA	
103	Total PeCDD	NA		NA		NA		NA	
104	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA	
105	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA	
106	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA	
107	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA	
108	Total HxCDF	NA		NA		NA		NA	
109	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA	
110	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA	
111	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA	
112	Total HxCDD	NA		NA		NA		NA	
113	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA	
114	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA	
115	Total HpCDF	NA		NA		NA		NA	
116	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA	
117	Total HpCDD	NA		NA		NA		NA	
118	OCDF	NA		NA		NA		NA	
119	OCDD	NA		NA		NA		NA	
120									
121									
122									

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1																										
2																										
3			LW6D		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D	
4			S167G		T176I		U235R		V208I		W391D		Y314C		Z225B		Z960G		AH27I		AU45D		BC27F		BH96I	
5			3/31/97		7/15/97		10/22/97		1/28/98		5/20/98		8/17/98		11/13/98		2/17/99		5/17/99		9/22/99		12/7/99		2/17/00	
123		**PAHs (µg/L)**																								
124		**EPA Method SW8270 SIM**																								
125		Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
126		2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
127		Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
128		Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
129		Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
130		Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
131		Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ
1																											
2																											
3		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D		LW6D	
4		BR64J		CB85E		CL03C		CT55B		DE87G		DM30B		DW29H		ED23H		EM85I		ER93C		EZ03E		FF76F		FL66E	
5		5/24/00		8/30/00		11/8/00		2/13/01		6/5/01		8/13/01		11/27/01		2/26/02		6/26/02		08/26/02		11/12/02		2/12/03		5/9/03	
123	**PAHs (µg/L)**																										
124	**EPA Method SW8270 SIM**																										
125	Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
126	2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
127	Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
128	Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
129	Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
130	Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
131	Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BA	BB	BC	BD	BE	BF	BG	BH
1									
2									
3		LW6D		LW6D		LW6D		LW6D	
4		FU45R		FY82O		0402105-05		0406039-01	
5		8/28/03		10/24/03		2/20/04		6/7/04	
123	**PAHs (µg/L)**								
124	**EPA Method SW8270 SIM**								
125	Naphthalene	NA		NA		NA		NA	
126	2-Methylnaphthalene	NA		NA		NA		NA	
127	Acenaphthylene	NA		NA		NA		NA	
128	Acenaphthene	NA		NA		NA		NA	
129	Fluorene	NA		NA		NA		NA	
130	Anthracene	NA		NA		NA		NA	
131	Dibenzofuran	NA		NA		NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1																												
2																												
3			LW9D		LW9D		LW9D		LW9D		LW9D		LW9D		LW9D		LW9D		LW9D		LW9D		LW9D		LW9D		LW9D	
4			AH76Q		AU45E		BC27G		BH96Q		BR64M		CB85F		CL03D		CT67B		DE87H		DM30F		DW29B		ED34J		EM85H	
5			5/19/99		9/22/99		12/7/99		2/16/00		5/25/00		8/30/00		11/8/00		2/14/01		6/5/01		8/14/01		11/27/01		2/28/02		6/26/02	
6																												
7	1	**CHLORINATED PHENOLS (µg/L)**																										
8	2	**EPA Method SW8040**																										
9	3	Pentachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
10	4	2,4,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA	
11	5	2,3,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA	
12	6	2,4,5-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA	
13	7	2,3,4-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA	
15	9	2,3,4,5-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA	
16	10																											
17	11	**SEMIVOLATILES (µg/L)**																										
18	12	**EPA Method SW8270**																										
19	13	Phenol	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
20	14	4-Methylphenol	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
21	15	Isophorone	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
22	16	2,4-Dimethylphenol	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U
23	17	Benzoic Acid	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	30	U	50	U	50	U
24	18	Naphthalene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
25	19	2-Methylnaphthalene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
26	20	2,4,6-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
27	21	2,4,5-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
28	22	Acenaphthene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
29	23	Dibenzofuran	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
30	24	Fluorene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
31	25	Pentachlorophenol	5.0	U	5.0	U	5.0	U	**17**		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
32	26	bis(2-Ethylhexyl)phthalate	1.2	U	**2.1**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**1.1**		1.0	U	1.0	U	**3.1**		4.0	U	4.0	U
33	27																											
34	28	**VOLATILES (µg/L)**																										
35	29	**EPA Method SW8260**																										
36	30	Acetone	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	**6.1**		5.0	U	**6.7**		**37**		**14**	
37	31	Carbon Disulfide	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
38	32	2-Butanone	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
39	33	Benzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
40	34	Bromoform	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
41	35	Toluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
42	36	Ethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
43	37	Styrene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
44	38	m,p-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
45	39	o-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
46	40	1,3,5-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
47	41	1,2,4-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
48	42	Isopropylbenzene	**10**		**5.5**		**8.5**		**1.1**		**3.0**		**3.0**		1.0	U	**2.1**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
49	43	n-Propylbenzene	**8.4**		**8.7**		**3.8**		1.0	U	**1.2**		**2.7**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
50	44	tert-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
51	45	sec-Butylbenzene	1.0	U	**2.3**		**1.4**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
52	46	4-Isopropyltoluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
53	47	n-Butylbenzene	1.0	U	**1.6**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
54	48	Naphthalene	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
55		Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
56	49																											
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																										
58	51	**Method OR-DEQ**																										
59	52	**TPH-Diesel**	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	**0.25**		0.25	U	**0.35**		0.25	U	**0.26**	
60	53	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		0.50	U	NA		NA	
61	54	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		0.25	U	NA		NA	
62	55																											
63	56	**PRIORITY POLLUTANT**																										
64	57	**METALS (mg/L)**																										
65	58	Arsenic (7060)	**0.025**		**0.030**		**0.022**		**0.028**		**0.028**		**0.032**		**0.030**		**0.037**		**0.033**		**0.044**		**0.042**		**0.030**		**0.033**	

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TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR
3		LW9D		LW9D		LW9D		LW9D		LW9D		LW9D		LW9D		LW9D	
4		ER93M		EZ03F		FF76K		FL66H		FU45P		FY82M		0402105-08		0406039-02	
5		08/27/02		11/12/02		2/12/03		5/9/03		8/28/03		10/24/03		2/20/04		6/7/04	
7	**CHLORINATED PHENOLS (µg/L)**																
8	**EPA Method SW8040**																
9	Pentachlorophenol	0.28	U	0.25	U	0.26	U	0.25	U	**0.55**	J	0.51	U	0.495	U	0.494	U
10	2,4,6-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA		NA	
11	2,3,6-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA		NA	
12	2,4,5-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA		NA	
13	2,3,4-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA		NA	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA		NA		NA		NA		NA		NA		NA	
15	2,3,4,5-Tetrachlorophenol	NA		NA		NA		NA		NA		NA		NA		NA	
16																	
17	**SEMIVOLATILES (µg/L)**																
18	**EPA Method SW8270**																
19	Phenol	2.2	U	2.3	U	2.1	U	2	U	2.1	U	2	U	1.92	U	2.27	U
20	4-Methylphenol	1.1	U	1.1	U	1	U	1	U	1	U	1	U	9.58	U	11.4	U
21	Isophorone	1.1	U	1.1	U	1	U	1	U	1	U	1	U	0.958	U	1.14	U
22	2,4-Dimethylphenol	3.3	U	3.4	U	3.1	U	3	U	3.1	U	3.1	U	2.87	U	3.41	U
23	Benzoic Acid	56	U	57	U	52	U	50	U	52	U	10	U	19.2	U	22.7	U
24	Naphthalene	1.1	U	1.1	U	1	U	1	U	1	U	1	U	0.958	U	1.14	U
25	2-Methylnaphthalene	1.1	U	1.1	U	1	U	1	U	1	U	1	U	0.958	U	1.14	U
26	2,4,6-Trichlorophenol	5.6	U	5.7	U	5.2	U	5	U	5.2	U	5.1	U	4.79	U	5.68	U
27	2,4,5-Trichlorophenol	5.6	U	5.7	U	5.2	U	5	U	5.2	U	5.1	U	4.79	U	5.68	U
28	Acenaphthene	1.1	U	1.1	U	1	U	1	U	1	U	1	U	0.958	U	1.14	U
29	Dibenzofuran	1.1	U	1.1	U	1	U	1	U	1	U	1	U	0.958	U	1.14	U
30	Fluorene	1.1	U	1.1	U	1	U	1	U	1	U	1	U	0.958	U	1.14	U
31	Pentachlorophenol	5.6	U	5.7	U	5.2	U	5	U	5.2	U	5.1	U	4.79	U	5.68	U
32	bis(2-Ethylhexyl)phthalate	4.4	U	4.6	U	1	U	1	U	1	U	1	U	0.958	U	1.14	U
33																	
34	**VOLATILES (µg/L)**																
35	**EPA Method SW8260**																
36	Acetone	5	U	5	U	5	U	5	U	5	U	5	U	50	U	50	U
37	Carbon Disulfide	1	U	1	U	1	U	1	U	1	U	1	U	2	U	2	U
38	2-Butanone	5	U	5	U	5	U	5	U	5	U	5	U	10	U	10	U
39	Benzene	1	U	1	U	1	U	1	U	1	U	1	U	0.4	U	0.3	U
40	Bromoform	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
41	Toluene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
42	Ethylbenzene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
43	Styrene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
44	m,p-Xylene	1	U	1	U	1	U	1	U	1	U	1	U	2	U	2	U
45	o-Xylene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
46	1,3,5-Trimethylbenzene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
47	1,2,4-Trimethylbenzene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
48	Isopropylbenzene	1	U	1	U	**3.3**		1	U	**14**		**12**		**4.36**		1	U
49	n-Propylbenzene	1	U	1	U	1		1	U	**7.8**		**5.4**		**1.16**		1	U
50	tert-Butylbenzene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
51	sec-Butylbenzene	1	U	1	U	1	U	1	U	**1.6**		**1.3**		1	U	1	U
52	4-Isopropyltoluene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
53	n-Butylbenzene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
54	Naphthalene	5	U	5	U	5	U	5	U	5	U	5	U	1	U	1	U
55	Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		1	U	1	U
56																	
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																
58	**Method OR-DEQ**																
59	**TPH-Diesel**	0.25	U	0.25	U	0.25	U	0.25	U	**0.34**		0.25	U	0.246	UJ	0.246	U
60	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		0.5	U	0.492	UJ	0.492	U
61	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA		NA	
62																	
63	**PRIORITY POLLUTANT**																
64	**METALS (mg/L)**																
65	Arsenic (7060)	**0.033**		0.05	U	**0.021**		**0.03**		**0.03**		**0.038**		**0.030**		**0.027**	

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TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1																												
2																												
3			LW9D		LW9D		LW9D		LW9D		LW9D		LW9D		LW9D		LW9D		LW9D		LW9D		LW9D		LW9D		LW9D	
4			AH76Q		AU45E		BC27G		BH96Q		BR64M		CB85F		CL03D		CT67B		DE87H		DM30F		DW29B		ED34J		EM85H	
5			5/19/99		9/22/99		12/7/99		2/16/00		5/25/00		8/30/00		11/8/00		2/14/01		6/5/01		8/14/01		11/27/01		2/28/02		6/26/02	
66	59	Chromium (6010)	**0.025**		**0.020**		**0.009**		**0.014**		0.005	U	**0.013**		**0.010**		**0.012**		0.005	U	0.005	U	0.005	U	0.005	U	0.005	U
67	60	Copper (6010)	**0.027**		**0.019**		**0.011**		**0.016**		**0.004**		**0.013**		**0.015**		**0.014**		**0.009**		**0.002**		**0.005**		**0.004**		**0.002**	
68	61	Lead (7421)	**0.006**		**0.006**		**0.004**		**0.003**		**0.002**		**0.005**		**0.003**		**0.006**		0.001	U	0.001	U	**0.003**		0.001	U	0.001	U
69	62	Nickel (6010)	**0.02**		0.02	U	0.01	U	**0.02**		0.01	U	**0.01**		0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
70	63	Zinc (6010)	**0.070**		**0.052**		**0.032**	U	**0.042**		**0.013**		**0.033**		**0.028**		**0.039**		**0.012**		0.006	U	**0.019**		**0.009**		**0.011**	
71	64																											
72	65	**MAJOR IONS AND CONVENTIONALS**																										
73	66	Calcium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		**28.8**		**37.0**		**39.8**		**39.3**		**40.0**		NA	
74	67	Magnesium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		**11.0**	J	**13.2**		**13.8**		**13.7**		**13.8**		NA	
75	68	Potassium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		**2.0**		**1.9**		**1.8**		**1.6**		**2.0**		NA	
76	69	Sodium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		**5.18**		**5.47**		**5.76**		**6.14**		**7.23**		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		**150**		NA		NA		NA		**180**		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		1.0	U	NA		NA		NA		1.0	U	NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		**150**		NA		NA		NA		**180**		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	**130**		**120**		**130**		**110**		**140**		**150**		**170**		**190**		**210**	J	**200**		**220**		**260**		**220**	
81	74	Chloride (mg/L) (EPA 325.2)	**1.4**		**2.6**		**2.7**		**3.1**		**2.6**		**2.4**		**2.1**		**2.9**	J	**2.1**		**3.3**		**1.8**		**2.4**		**3.0**	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA		NA		NA		NA		NA		NA		NA		0.010	U	NA		NA		NA		0.010	U	NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		NA		NA		NA		NA		NA		**0.011**	J	NA		NA		NA		**0.018**		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		NA		NA		NA		NA		NA		**0.018**		NA		NA		NA		**0.025**		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	NA		NA		NA		NA		NA		NA		NA		**4.6**		NA		NA		NA		**5.3**		NA	
86	79																											

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR
1																	
2																	
3		LW9D		LW9D		LW9D		LW9D		LW9D		LW9D		LW9D		LW9D	
4		ER93M		EZ03F		FF76K		FL66H		FU45P		FY82M		0402105-08		0406039-02	
5		08/27/02		11/12/02		2/12/03		5/9/03		8/28/03		10/24/03		2/20/04		6/7/04	
66	Chromium (6010)	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	**0.012**		**0.0101**		**0.0173**	
67	Copper (6010)	0.002	U	0.002	U	**0.002**		0.002	U	**0.004**		**0.011**		0.01	U	0.01	U
68	Lead (7421)	**0.002**		0.02	U	0.001	U	0.001	U	0.001	U	**0.002**		**0.0007**		**0.0006**	
69	Nickel (6010)	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.005	U	0.005	U
70	Zinc (6010)	**0.012**		**0.008**		**0.008**		0.006	U	**0.008**		**0.027**		0.01	U	0.01	U
71																	
72	**MAJOR IONS AND CONVENTIONALS**																
73	Calcium (mg/L) (6010)	NA		NA		**34.3**		NA		NA		NA		NA		NA	
74	Magnesium (mg/L) (6010)	NA		NA		**11.8**		NA		NA		NA		NA		NA	
75	Potassium (mg/L) (6010)	NA		NA		**1.6**		NA		NA		NA		NA		NA	
76	Sodium (mg/L) (6010)	NA		NA		**5.3**		NA		NA		NA		NA		NA	
77	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		**130**		NA		NA		NA		NA		NA	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		1	U	NA		NA		NA		NA		NA	
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		**130**		NA		NA		NA		NA		NA	
80	Total Dissolved Solids (mg/L) (EPA 160.1)	**190**		**210**		**250**		**180**		**180**		**160**		**181**		**237**	
81	Chloride (mg/L) (EPA 325.2)	**2.5**		**2.2**		**1.9**		**2**		1	U	**1.2**		**1.47**		**1.39**	
82	N-Nitrate (mg-N/L) (Calculated)	NA		NA		**0.11**		NA		NA		NA		NA		NA	
83	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		**0.019**		NA		NA		NA		NA		NA	
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		**0.13**		NA		NA		NA		NA		NA	
85	Sulfate (mg/L) (EPA 375.2)	NA		NA		**16**		NA		NA		NA		NA		NA	
86																	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1																												
2																												
3			LW9D		LW9D		LW9D		LW9D		LW9D		LW9D		LW9D		LW9D		LW9D		LW9D		LW9D		LW9D		LW9D	
4			AH76Q		AU45E		BC27G		BH96Q		BR64M		CB85F		CL03D		CT67B		DE87H		DM30F		DW29B		ED34J		EM85H	
5			5/19/99		9/22/99		12/7/99		2/16/00		5/25/00		8/30/00		11/8/00		2/14/01		6/5/01		8/14/01		11/27/01		2/28/02		6/26/02	
87	80	**FIELD PARAMETERS**																										
88	81	pH (avg)	6.35		6.71		6.62		6.90		6.69		6.05		5.91		6.35		6.81		6.97		6.72		6.52		6.41	
89	82	Temperature (° C) (avg)	14.5		14.9		13.1		13.7		14.8		14.7		13.4		14.3		14.3		14.6		13.0		14.1		16.9	
90	83	Conductivity (um/hos)	171		160		166		198		198		227		242		259		330		324		345		361		310	
91	84	Dissolved oxygen (mg/L) (avg)	3.18		1.73		1.57		1.39		0.48		1.67		1.06		0.75		1.67		1.80		132		7.46		3.30	
92	85																											
93	86	**DIOXINS AND FURANS (ng/L)**																										
94	87	**Method 8290**																										
95	88	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
96	89	Total TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
97	90	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
98	91	Total TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
101	94	Total PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
103	96	Total PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
108	101	Total HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
112	105	Total HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
115	108	Total HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
117	110	Total HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
118	111	OCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
119	112	OCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
120																												
121																												
122																												

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR
1																	
2																	
3		LW9D		LW9D		LW9D		LW9D		LW9D		LW9D		LW9D		LW9D	
4		ER93M		EZ03F		FF76K		FL66H		FU45P		FY82M		0402105-08		0406039-02	
5		08/27/02		11/12/02		2/12/03		5/9/03		8/28/03		10/24/03		2/20/04		6/7/04	
87	**FIELD PARAMETERS**																
88	pH (avg)	6.89		6.91		7.02		6.83		6.95		6.69		6.64		5.41	
89	Temperature (° C) (avg)	15.6		14.3		14.7		15		16.4		14.9		16.3		15.6	
90	Conductivity (um/hos)	249		314		281		171		205		255		274		125	
91	Dissolved oxygen (mg/L) (avg)	0.99		1		2.04		4.56		1.03		2.91		1.42		5.05	
92																	
93	**DIOXINS AND FURANS (ng/L)**																
94	**Method 8290**																
95	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA		NA	
96	Total TCDF	NA		NA		NA		NA		NA		NA		NA		NA	
97	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA		NA	
98	Total TCDD	NA		NA		NA		NA		NA		NA		NA		NA	
99	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA	
100	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA	
101	Total PeCDF	NA		NA		NA		NA		NA		NA		NA		NA	
102	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA		NA	
103	Total PeCDD	NA		NA		NA		NA		NA		NA		NA		NA	
104	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA	
105	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA	
106	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA	
107	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA	
108	Total HxCDF	NA		NA		NA		NA		NA		NA		NA		NA	
109	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA	
110	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA	
111	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA	
112	Total HxCDD	NA		NA		NA		NA		NA		NA		NA		NA	
113	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA	
114	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA	
115	Total HpCDF	NA		NA		NA		NA		NA		NA		NA		NA	
116	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA		NA	
117	Total HpCDD	NA		NA		NA		NA		NA		NA		NA		NA	
118	OCDF	NA		NA		NA		NA		NA		NA		NA		NA	
119	OCDD	NA		NA		NA		NA		NA		NA		NA		NA	
120																	
121																	
122																	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1																												
2																												
3			LW9D		LW9D		LW9D		LW9D		LW9D		LW9D		LW9D		LW9D		LW9D		LW9D		LW9D		LW9D		LW9D	
4			AH76Q		AU45E		BC27G		BH96Q		BR64M		CB85F		CL03D		CT67B		DE87H		DM30F		DW29B		ED34J		EM85H	
5			5/19/99		9/22/99		12/7/99		2/16/00		5/25/00		8/30/00		11/8/00		2/14/01		6/5/01		8/14/01		11/27/01		2/28/02		6/26/02	
123		**PAHs (µg/L)**																										
124		**EPA Method SW8270 SIM**																										
125		Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
126		2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
127		Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
128		Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
129		Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
130		Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
131		Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR
1																	
2																	
3		LW9D		LW9D		LW9D		LW9D		LW9D		LW9D		LW9D		LW9D	
4		ER93M		EZ03F		FF76K		FL66H		FU45P		FY82M		0402105-08		0406039-02	
5		08/27/02		11/12/02		2/12/03		5/9/03		8/28/03		10/24/03		2/20/04		6/7/04	
123	**PAHs (µg/L)**																
124	**EPA Method SW8270 SIM**																
125	Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA	
126	2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA	
127	Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA	
128	Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA	
129	Fluorene	NA		NA		NA		NA		NA		NA		NA		NA	
130	Anthracene	NA		NA		NA		NA		NA		NA		NA		NA	
131	Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
3			LW10D		LW10D		LW10D		LW10D		LW10D		LW10D		LW10D		LW10D		LW10D		LW10D		LW10D		LW10D		LW10D	
4			AH76P		AU45H		BC27D		BH96H		BR64L		CB85H		CL03O		CT67A		DE87I		DM30E		DW29D		ED30C		EN00C	
5			5/19/99		9/22/99		12/7/99		2/17/00		5/25/00		8/31/00		11/9/00		2/15/01		6/6/01		8/13/01		11/27/01		2/27/02		6/27/02	
7	1	**CHLORINATED PHENOLS (µg/L)**																										
8	2	**EPA Method SW8040**																										
9	3	Pentachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
10	4	2,4,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA	
11	5	2,3,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA	
12	6	2,4,5-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA	
13	7	2,3,4-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA	
15	9	2,3,4,5-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA	
16	10																											
17	11	**SEMIVOLATILES (µg/L)**																										
18	12	**EPA Method SW8270**																										
19	13	Phenol	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
20	14	4-Methylphenol	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
21	15	Isophorone	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
22	16	2,4-Dimethylphenol	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U
23	17	Benzoic Acid	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	30	U	50	U	50	U
24	18	Naphthalene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
25	19	2-Methylnaphthalene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
26	20	2,4,6-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
27	21	2,4,5-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
28	22	Acenaphthene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
29	23	Dibenzofuran	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
30	24	Fluorene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
31	25	Pentachlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
32	26	bis(2-Ethylhexyl)phthalate	3.2	U	**1.3**		1.0	U	**1.1**		**1.7**		1.0	U	**2.7**		**1.2**		1.0	U	**2.0**		1.0	U	4.0	U	4.0	U
33	27																											
34	28	**VOLATILES (µg/L)**																										
35	29	**EPA Method SW8260**																										
36	30	Acetone	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	**11**		5.0	U	5.0	U
37	31	Carbon Disulfide	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
38	32	2-Butanone	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
39	33	Benzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
40	34	Bromoform	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
41	35	Toluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
42	36	Ethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
43	37	Styrene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
44	38	m,p-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
45	39	o-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
46	40	1,3,5-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
47	41	1,2,4-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
48	42	Isopropylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
49	43	n-Propylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
50	44	tert-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
51	45	sec-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
52	46	4-Isopropyltoluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
53	47	n-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
54	48	Naphthalene	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
55		Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
56	49																											
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																										
58	51	**Method OR-DEQ**																										
59	52	**TPH-Diesel**	0.25	U	**0.32**		0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
60	53	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		NA		0.50	U	NA		NA		NA		NA		NA		NA	
61	54	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
62	55																											
63	56	**PRIORITY POLLUTANT**																										
64	57	**METALS (mg/L)**																										
65	58	Arsenic (7060)	**0.038**		**0.038**		**0.022**		**0.032**		**0.025**		**0.037**		**0.022**		**0.025**		**0.023**		**0.027**		**0.017**		**0.019**		**0.031**	

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TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR
3		LW10D		LW10D		LW10D		LW10D		LW10D		LW10D		LW10D		LW10D	
4		ER93E		EZ17I		FF76C		FL41N		FU45K		FY82B		0402113-02		0406073-02	
5		08/27/02		11/13/02		2/12/03		5/7/03		8/28/03		10/23/03		2/23/04		6/10/04	
7	**CHLORINATED PHENOLS (µg/L)**																
8	**EPA Method SW8040**																
9	Pentachlorophenol	0.27	U	**0.47**		0.25	U	**0.36**		**4**	J	**0.94**		0.491	U	0.509	U
10	2,4,6-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA		NA	
11	2,3,6-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA		NA	
12	2,4,5-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA		NA	
13	2,3,4-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA		NA	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA		NA		NA		NA		NA		NA		NA	
15	2,3,4,5-Tetrachlorophenol	NA		NA		NA		NA		NA		NA		NA		NA	
16																	
17	**SEMIVOLATILES (µg/L)**																
18	**EPA Method SW8270**																
19	Phenol	2.2	U	2.1	U	2	U	2	U	2	U	2	U	2	U	2.14	U
20	4-Methylphenol	1.1	U	1.1	U	1	U	1	U	1	U	1	U	9.99	U	10.7	U
21	Isophorone	1.1	U	1.1	U	1	U	1	U	1	U	1	U	0.999	U	1.07	U
22	2,4-Dimethylphenol	3.3	U	3.2	U	3	U	3	U	3.1	U	3	U	3	U	3.21	U
23	Benzoic Acid	54	U	53	U	50	U	50	U	51	U	10	U	20	U	21.4	U
24	Naphthalene	1.1	U	1.1	U	1	U	1	U	1	U	1	U	0.999	U	1.07	U
25	2-Methylnaphthalene	1.1	U	1.1	U	1	U	1	U	1	U	1	U	0.999	U	1.07	U
26	2,4,6-Trichlorophenol	5.4	U	5.3	U	5	U	5	U	5.1	U	5	U	5	U	5.35	U
27	2,4,5-Trichlorophenol	5.4	U	5.3	U	5	U	5	U	5.1	U	5	U	5	U	5.35	U
28	Acenaphthene	1.1	U	1.1	U	1	U	1	U	1	U	1	U	0.999	U	1.07	U
29	Dibenzofuran	1.1	U	1.1	U	1	U	1	U	1	U	1	U	0.999	U	1.07	U
30	Fluorene	1.1	U	1.1	U	1	U	1	U	1	U	1	U	0.999	U	1.07	U
31	Pentachlorophenol	5.4	U	5.3	U	5	U	5	U	5.1	U	5	U	5	U	5.35	U
32	bis(2-Ethylhexyl)phthalate	4.3	U	4.3	U	1	U	1	U	1	U	1	U	0.999	U	1.07	U
33																	
34	**VOLATILES (µg/L)**																
35	**EPA Method SW8260**																
36	Acetone	5	U	5	U	5	U	5	U	5	U	5	U	50	U	50	U
37	Carbon Disulfide	1	U	1	U	1	U	1	U	1	U	1	U	2	U	2	U
38	2-Butanone	5	U	5	U	5	U	5	U	5	U	5	U	10	U	10	U
39	Benzene	1	U	1	U	1	U	1	U	1	U	1	U	0.4	U	0.3	U
40	Bromoform	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
41	Toluene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
42	Ethylbenzene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
43	Styrene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
44	m,p-Xylene	1	U	1	U	1	U	1	U	1	U	1	U	2	U	2	U
45	o-Xylene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
46	1,3,5-Trimethylbenzene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
47	1,2,4-Trimethylbenzene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
48	Isopropylbenzene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
49	n-Propylbenzene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
50	tert-Butylbenzene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
51	sec-Butylbenzene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
52	4-Isopropyltoluene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
53	n-Butylbenzene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
54	Naphthalene	5	U	5	U	5	U	5	U	5	U	5	U	1	U	1	U
55	Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		1	U	1	U
56																	
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																
58	**Method OR-DEQ**																
59	**TPH-Diesel**	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.247	U	0.238	U
60	**TPH-D Motor Oil**	NA		0.5	U	NA		NA		NA		0.5	U	0.494	U	0.476	U
61	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA		NA	
62																	
63	**PRIORITY POLLUTANT**																
64	**METALS (mg/L)**																
65	Arsenic (7060)	**0.026**		0.05	U	**0.011**		**0.008**		**0.026**		**0.024**		**0.023**		**0.019**	

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TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1																												
2																												
3			LW10D		LW10D		LW10D		LW10D		LW10D		LW10D		LW10D		LW10D		LW10D		LW10D		LW10D		LW10D		LW10D	
4			AH76P		AU45H		BC27D		BH96H		BR64L		CB85H		CL03O		CT67A		DE87I		DM30E		DW29D		ED30C		EN00C	
5			5/19/99		9/22/99		12/7/99		2/17/00		5/25/00		8/31/00		11/9/00		2/15/01		6/6/01		8/13/01		11/27/01		2/27/02		6/27/02	
66	59	Chromium (6010)	0.005	U	**0.021**		**0.006**		0.005	U	0.005	U	**0.034**		**0.013**		**0.011**		**0.008**		**0.019**		**0.010**		0.005	U	0.005	U
67	60	Copper (6010)	**0.003**		**0.028**		**0.011**		0.002	U	**0.005**		**0.045**		**0.021**		**0.015**		**0.009**		**0.024**		**0.012**		**0.009**		**0.004**	
68	61	Lead (7421)	**0.001**		**0.008**		**0.003**		0.001	U	**0.002**		**0.012**		**0.006**		**0.006**		**0.003**		**0.008**		**0.004**		**0.002**		0.001	U
69	62	Nickel (6010)	0.01	U	0.02	U	0.01	U	0.01	U	0.01	U	**0.03**		0.01	U	0.01	U	0.01	U	**0.01**		0.01	U	0.01	U	0.01	U
70	63	Zinc (6010)	**0.018**		**0.046**		0.022	U	**0.010**		**0.010**		**0.076**		**0.030**		**0.031**		**0.018**		**0.039**		**0.022**		**0.015**	J	**0.010**	
71	64																											
72	65	**MAJOR IONS AND CONVENTIONALS**																										
73	66	Calcium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		**19.2**		**20.4**		**22.5**		**21.0**		**19.0**		**19.1**	
74	67	Magnesium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		**9.95**		**10.3**		**12.1**		**10.3**		**9.55**		**9.37**	
75	68	Potassium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		**1.1**		**1.2**		**1.5**		**0.9**		**1.0**		**0.7**	
76	69	Sodium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		**8.31**		**9.80**		**9.09**		**9.65**		**9.06**		**8.77**	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		**110**		NA		NA		NA		**100**		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		1.0	U	NA		NA		NA		1.0	U	NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		**110**		NA		NA		NA		**100**		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	**180**		**180**		**170**		**150**		**150**		**170**		**160**		**150**		**150**	J	**160**	J	**150**		**100**		**140**	
81	74	Chloride (mg/L) (EPA 325.2)	**1.7**		**1.9**		**2.1**		**3.5**		**2.3**		**14**		**2.0**		**2.6**	J	**1.9**		**4.1**		**1.7**		**1.3**	J	**2.1**	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA		NA		NA		NA		NA		NA		NA		0.010	U	NA		NA		NA		**0.012**		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		NA		NA		NA		NA		NA		0.010	U	NA		NA		NA		**0.013**		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		NA		NA		NA		NA		NA		0.010	U	NA		NA		NA		**0.025**		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	NA		NA		NA		NA		NA		NA		NA		**6.2**		NA		NA		NA		**7.5**		NA	
86	79																											

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR
3		LW10D		LW10D		LW10D		LW10D		LW10D		LW10D		LW10D		LW10D	
4		ER93E		EZ17I		FF76C		FL41N		FU45K		FY82B		0402113-02		0406073-02	
5		08/27/02		11/13/02		2/12/03		5/7/03		8/28/03		10/23/03		2/23/04		6/10/04	
66	Chromium (6010)	**0.007**		**0.009**		0.005	U	0.005	U	0.005	U	**0.012**		**0.0114**		**0.0156**	
67	Copper (6010)	**0.009**		**0.012**		**0.004**	J	**0.003**		**0.004**		**0.011**		0.01	U	0.01	U
68	Lead (7421)	**0.004**		0.02	U	0.001	U	**0.001**		0.001	U	**0.003**		**0.0010**		0.0001	U
69	Nickel (6010)	0.01	U	**0.01**		0.01	U	0.01	U	0.01	U	0.01	U	0.005	U	0.005	U
70	Zinc (6010)	**0.018**		**0.026**		**0.01**		**0.019**		0.006	U	**0.024**		0.01	U	0.01	U
71																	
72	**MAJOR IONS AND CONVENTIONALS**																
73	Calcium (mg/L) (6010)	NA		NA		**14.1**		NA		NA		NA		NA		NA	
74	Magnesium (mg/L) (6010)	NA		NA		**5.88**		NA		NA		NA		NA		NA	
75	Potassium (mg/L) (6010)	NA		NA		**1.2**		NA		NA		NA		NA		NA	
76	Sodium (mg/L) (6010)	NA		NA		**8.5**		NA		NA		NA		NA		NA	
77	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		**96**		NA		NA		NA		NA		NA	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		1	U	NA		NA		NA		NA		NA	
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		**96**		NA		NA		NA		NA		NA	
80	Total Dissolved Solids (mg/L) (EPA 160.1)	**150**		**170**		**130**		**88**		**120**	J	**120**		**162**		**161**	
81	Chloride (mg/L) (EPA 325.2)	**2.2**		**2.5**		**1.9**		**1.6**		**1.4**		**1.5**		**1.56**		**1.53**	
82	N-Nitrate (mg-N/L) (Calculated)	NA		NA		**0.025**		NA		NA		NA		NA		NA	
83	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		0.01	U	NA		NA		NA		NA		NA	
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		**0.025**		NA		NA		NA		NA		NA	
85	Sulfate (mg/L) (EPA 375.2)	NA		NA		**7.4**		NA		NA		NA		NA		NA	
86																	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1																												
2																												
3			LW10D		LW10D		LW10D		LW10D		LW10D		LW10D		LW10D		LW10D		LW10D		LW10D		LW10D		LW10D		LW10D	
4			AH76P		AU45H		BC27D		BH96H		BR64L		CB85H		CL03O		CT67A		DE87I		DM30E		DW29D		ED30C		EN00C	
5			5/19/99		9/22/99		12/7/99		2/17/00		5/25/00		8/31/00		11/9/00		2/15/01		6/6/01		8/13/01		11/27/01		2/27/02		6/27/02	
87	80	**FIELD PARAMETERS**																										
88	81	pH (avg)	6.44		6.49		6.79		6.86		6.90		6.71		6.10		6.72		6.88		7.03		6.80		6.50		6.56	
89	82	Temperature (° C) (avg)	14.7		17.1		12.6		15.8		13.9		13.8		13.0		13.7		13.7		16.2		14.1		13.5		14.1	
90	83	Conductivity (um/hos)	195		233		220		246		255		208		203		204		228		216		216		164		189	
91	84	Dissolved oxygen (mg/L) (avg)	2.03		1.29		2.53		0.52		0.72		1.47		1.09		0.52		2.70		0.63		3.97		7.74		5.59	
92	85																											
93	86	**DIOXINS AND FURANS (ng/L)**																										
94	87	**Method 8290**																										
95	88	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
96	89	Total TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
97	90	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
98	91	Total TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
101	94	Total PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
103	96	Total PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
108	101	Total HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
112	105	Total HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
115	108	Total HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
117	110	Total HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
118	111	OCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
119	112	OCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
120																												
121																												
122																												

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TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR
1																	
2																	
3		LW10D		LW10D		LW10D		LW10D		LW10D		LW10D		LW10D		LW10D	
4		ER93E		EZ17I		FF76C		FL41N		FU45K		FY82B		0402113-02		0406073-02	
5		08/27/02		11/13/02		2/12/03		5/7/03		8/28/03		10/23/03		2/23/04		6/10/04	
87	**FIELD PARAMETERS**																
88	pH (avg)	6.67		6.35		7.14		7.18		7.07		6.48		6.47		6.71	
89	Temperature (° C) (avg)	14.3		13.7		13.6		13.4		15.8		17.9		15.7		14.5	
90	Conductivity (um/hos)	180		188		178		93		122		164		151		140	
91	Dissolved oxygen (mg/L) (avg)	0.95		1.22		1.47		5.73		2.33		5.66		4.49		1.71	
92																	
93	**DIOXINS AND FURANS (ng/L)**																
94	**Method 8290**																
95	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA		NA	
96	Total TCDF	NA		NA		NA		NA		NA		NA		NA		NA	
97	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA		NA	
98	Total TCDD	NA		NA		NA		NA		NA		NA		NA		NA	
99	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA	
100	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA	
101	Total PeCDF	NA		NA		NA		NA		NA		NA		NA		NA	
102	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA		NA	
103	Total PeCDD	NA		NA		NA		NA		NA		NA		NA		NA	
104	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA	
105	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA	
106	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA	
107	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA	
108	Total HxCDF	NA		NA		NA		NA		NA		NA		NA		NA	
109	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA	
110	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA	
111	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA	
112	Total HxCDD	NA		NA		NA		NA		NA		NA		NA		NA	
113	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA	
114	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA	
115	Total HpCDF	NA		NA		NA		NA		NA		NA		NA		NA	
116	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA		NA	
117	Total HpCDD	NA		NA		NA		NA		NA		NA		NA		NA	
118	OCDF	NA		NA		NA		NA		NA		NA		NA		NA	
119	OCDD	NA		NA		NA		NA		NA		NA		NA		NA	
120																	
121																	
122																	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1																												
2																												
3			LW10D		LW10D		LW10D		LW10D		LW10D		LW10D		LW10D		LW10D		LW10D		LW10D		LW10D		LW10D		LW10D	
4			AH76P		AU45H		BC27D		BH96H		BR64L		CB85H		CL03O		CT67A		DE87I		DM30E		DW29D		ED30C		EN00C	
5			5/19/99		9/22/99		12/7/99		2/17/00		5/25/00		8/31/00		11/9/00		2/15/01		6/6/01		8/13/01		11/27/01		2/27/02		6/27/02	
123		**PAHs (µg/L)**																										
124		**EPA Method SW8270 SIM**																										
125		Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
126		2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
127		Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
128		Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
129		Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
130		Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
131		Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR
1																	
2																	
3		LW10D		LW10D		LW10D		LW10D		LW10D		LW10D		LW10D		LW10D	
4		ER93E		EZ17I		FF76C		FL41N		FU45K		FY82B		0402113-02		0406073-02	
5		08/27/02		11/13/02		2/12/03		5/7/03		8/28/03		10/23/03		2/23/04		6/10/04	
123	**PAHs (µg/L)**																
124	**EPA Method SW8270 SIM**																
125	Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA	
126	2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA	
127	Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA	
128	Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA	
129	Fluorene	NA		NA		NA		NA		NA		NA		NA		NA	
130	Anthracene	NA		NA		NA		NA		NA		NA		NA		NA	
131	Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1																												
2																												
3			LW11D		LW11D		LW11D		LW11D		LW11D		LW11D		LW11D		LW11D		LW11D		LW11D		LW11D		LW11D		LW11D	
4			AH76H		AU45C		BC27I		BH96L		BR64G		CB49F		CK77H		CT55D		DE68B		DM52G		DW48B		ED34E		EM85C	
5			5/20/99		9/22/99		12/8/99		2/18/00		5/24/00		8/29/00		11/8/00		2/14/01		6/5/01		8/15/01		11/29/01		2/28/02		6/26/02	
6																												
7	1	**CHLORINATED PHENOLS (µg/L)**																										
8	2	**EPA Method SW8040**																										
9	3	Pentachlorophenol	**46**		**8.1**		**1.1**		**0.36**		0.25	U	0.25	U	0.25	U	**1.6**		0.25	U	0.25	U	**0.62**		**0.76**		0.25	U
10	4	2,4,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA	
11	5	2,3,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA	
12	6	2,4,5-Trichlorophenol	0.57	U	1.3	U	0.39	U	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA	
13	7	2,3,4-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	**2.2**		**1.5**		**0.36**		**0.12**	J1	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA	
15	9	2,3,4,5-Tetrachlorophenol	**2.2**		**1.1**		**0.27**		0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA	
16	10																											
17	11	**SEMIVOLATILES (µg/L)**																										
18	12	**EPA Method SW8270**																										
19	13	Phenol	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
20	14	4-Methylphenol	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**1.6**		1.0	U	1.0	U
21	15	Isophorone	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
22	16	2,4-Dimethylphenol	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U
23	17	Benzoic Acid	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	30	U	50	U	50	U
24	18	Naphthalene	**1.3**		1.0	U	**0.9**	J1	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
25	19	2-Methylnaphthalene	1.0	U	1.0	U	**0.6**	J1	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
26	20	2,4,6-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
27	21	2,4,5-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
28	22	Acenaphthene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
29	23	Dibenzofuran	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
30	24	Fluorene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
31	25	Pentachlorophenol	**55**		**5.0**		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
32	26	bis(2-Ethylhexyl)phthalate	3.5	U	1.0	U	**2.6**		**2.7**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**1.9**		4.0	U	4.0	U
33	27																											
34	28	**VOLATILES (µg/L)**																										
35	29	**EPA Method SW8260**																										
36	30	Acetone	**8.9**		**16**		5.0	U	5.0	U	5.0	U	**8.4**		**12**			R	**35**		**10**		**130**		5.0	U	**54**	
37	31	Carbon Disulfide	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
38	32	2-Butanone	5.0	U	22	U	5.9	U	5.0	U	**5.4**		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
39	33	Benzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
40	34	Bromoform	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
41	35	Toluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
42	36	Ethylbenzene	**16**		**7.2**		**3.2**		**1.1**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
43	37	Styrene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
44	38	m,p-Xylene	**22**		**7.4**		**2.1**		**1.3**		**1.6**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
45	39	o-Xylene	**21**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
46	40	1,3,5-Trimethylbenzene	**34**		**26**		**10**		**7.5**		**8.0**		**4.4**		**3.1**		**4.2**		**3.4**		**2.2**		**1.1**		1.0	U	1.0	U
47	41	1,2,4-Trimethylbenzene	**97**		**40**		**12**		**9.0**		**12**		**6.7**		**5.6**		**7.0**		**5.7**		**3.6**		**1.7**		1.0	U	**1.4**	
48	42	Isopropylbenzene	**12**		**11**		**6.9**		**4.0**		**2.4**		**1.1**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
49	43	n-Propylbenzene	**18**		**20**		**13**		**7.5**		**4.8**		**2.8**		**1.6**		**1.3**		**1.2**		**1.2**		1.0	U	1.0	U	1.0	U
50	44	tert-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
51	45	sec-Butylbenzene	**4.6**		**5.3**		**4.8**		**3.7**		**2.7**		**2.2**		**1.7**		**1.2**		**1.2**		**1.4**		**1.2**		1.0	U	1.0	U
52	46	4-Isopropyltoluene	**6.7**		**5.0**		**2.0**		**1.6**		**1.9**		**1.7**		1.0	U	**1.0**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
53	47	n-Butylbenzene	**5.8**		4.1	U	2.3	U	**2.3**		**2.2**	M	**2.4**	M	**1.5**		**1.4**	M	**1.5**		**1.5**		1.0	U	1.0	U	1.0	U
54	48	Naphthalene	**5.3**		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
55		Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
56	49																											
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																										
58	51	**Method OR-DEQ**																										
59	52	**TPH-Diesel**	**0.68**		**1.4**		**0.76**		**0.60**		**0.74**		**0.88**		**0.70**		**1.1**		**1.0**		**0.88**		**0.98**		**0.87**		**1.1**	
60	53	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
61	54	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
62	55																											
63	56	**PRIORITY POLLUTANT**																										
64	57	**METALS (mg/L)**																										
65	58	Arsenic (7060)	**0.006**		**0.008**		**0.006**		**0.007**		**0.007**		**0.007**		**0.007**		**0.006**		**0.007**		**0.009**		**0.009**		**0.007**		**0.007**	

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TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP
3		LW11D		LW11D		LW11D		LW11D		LW11D		LW11D		LW11D	
4		ES04C		EZ03B		FF88D		FL66I		FU50B		FY82J		0402113-11	
5		08/28/02		11/12/02		2/13/03		5/9/03		8/29/03		10/24/03		2/23/04	
7	**CHLORINATED PHENOLS (µg/L)**														
8	**EPA Method SW8040**														
9	Pentachlorophenol	0.26	U	0.25	U	0.26	U	0.26	U	**5.6**		0.55	U	**1.5**	
10	2,4,6-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA	
11	2,3,6-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA	
12	2,4,5-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA	
13	2,3,4-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA		NA		NA		NA		NA		NA	
15	2,3,4,5-Tetrachlorophenol	NA		NA		NA		NA		NA		NA		NA	
17	**SEMIVOLATILES (µg/L)**														
18	**EPA Method SW8270**														
19	Phenol	2	U	2.2	U	2	U	2	U	2.1	U	2.2	U	1.95	U
20	4-Methylphenol	1	U	1.1	U	1	U	1	U	1	U	1.1	U	9.76	U
21	Isophorone	1	U	1.1	U	1	U	1	UJ	1	U	1.1	U	0.976	U
22	2,4-Dimethylphenol	3.1	U	3.3	U	3.1	U	3.1	U	3.1	U	3.3	U	2.93	U
23	Benzoic Acid	51	U	54	U	51	U	51	U	52	U	11	U	19.5	U
24	Naphthalene	1	U	1.1	U	1	U	1	UJ	1	U	1.1	U	0.976	U
25	2-Methylnaphthalene	1	U	1.1	U	1	U	1	UJ	1	U	1.1	U	0.976	U
26	2,4,6-Trichlorophenol	5.1	U	5.4	U	5.1	U	5.1	U	5.2	U	5.5	U	4.88	U
27	2,4,5-Trichlorophenol	5.1	U	5.4	U	5.1	U	5.1	U	5.2	U	5.5	U	4.88	U
28	Acenaphthene	1	U	1.1	U	1	U	1	UJ	1	U	1.1	U	0.976	U
29	Dibenzofuran	1	U	1.1	U	1	U	1	UJ	1	U	1.1	U	0.976	U
30	Fluorene	1	U	1.1	U	1	U	1	UJ	1	U	1.1	U	0.976	U
31	Pentachlorophenol	5.1	U	5.4	U	5.1	U	5.1	U	5.2	U	5.5	U	4.88	U
32	bis(2-Ethylhexyl)phthalate	4.1	U	4.3	U	**1.9**		1	UJ	**1.9**		**1.5**		**1.86**	
34	**VOLATILES (µg/L)**														
35	**EPA Method SW8260**														
36	Acetone	**27**		**31**		**26**		**140**		**11**		**71**		50	U
37	Carbon Disulfide	1	U	1	U	1	U	1	U	1	U	1	U	2	U
38	2-Butanone	5	U	5	U	5	U	5	U	5	U	5	U	10	U
39	Benzene	1	U	1	U	1	U	1	U	1	U	1	U	0.4	U
40	Bromoform	1	U	1	U	1	U	1	U	1	U	1	U	1	U
41	Toluene	1	U	1	U	1	U	1	U	1	U	1	U	1	U
42	Ethylbenzene	1	U	1	U	1	U	1	U	1	U	1	U	1	U
43	Styrene	1	U	1	U	1	U	1	U	1	U	1	U	1	U
44	m,p-Xylene	1	U	1	U	1	U	1	U	1	U	1	U	2	U
45	o-Xylene	1	U	1	U	1	U	1	U	1	U	1	U	1	U
46	1,3,5-Trimethylbenzene	1	U	1	U	1	U	1	U	1	U	1	U	1	U
47	1,2,4-Trimethylbenzene	1	U	1	U	1	U	1	U	1	U	1	U	1	U
48	Isopropylbenzene	1	U	1	U	1	U	1	U	1	U	1	U	1	U
49	n-Propylbenzene	1	U	1	U	1	U	1	U	1	U	1	U	1	U
50	tert-Butylbenzene	1	U	1	U	1	U	1	U	1	U	1	U	1	U
51	sec-Butylbenzene	1	U	1	U	1	U	1	U	1	U	1	U	1	U
52	4-Isopropyltoluene	1	U	1	U	1	U	1	U	1	U	1	U	1	U
53	n-Butylbenzene	1	U	1	U	1	U	1	U	1	U	1	U	1	U
54	Naphthalene	5	U	5	U	5	U	5	U	5	U	5	U	1	U
55	Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		1	U
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**														
58	**Method OR-DEQ**														
59	**TPH-Diesel**	**0.97**		**0.8**		**0.74**		**0.91**		**1.1**		**0.66**		**0.562**	
60	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		0.5	U	0.504	U
61	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA	
63	**PRIORITY POLLUTANT**														
64	**METALS (mg/L)**														
65	Arsenic (7060)	**0.005**		0.05	U	**0.008**		**0.007**		**0.005**		**0.005**		**0.007**	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1																												
2																												
3			LW11D		LW11D		LW11D		LW11D		LW11D		LW11D		LW11D		LW11D		LW11D		LW11D		LW11D		LW11D		LW11D	
4			AH76H		AU45C		BC27I		BH96L		BR64G		CB49F		CK77H		CT55D		DE68B		DM52G		DW48B		ED34E		EM85C	
5			5/20/99		9/22/99		12/8/99		2/18/00		5/24/00		8/29/00		11/8/00		2/14/01		6/5/01		8/15/01		11/29/01		2/28/02		6/26/02	
66	59	Chromium (6010)	**0.008**		**0.053**		**0.015**		**0.011**		**0.013**		**0.018**		**0.016**		0.005	U	0.005	U	**0.024**		0.005	U	0.005	U	0.005	U
67	60	Copper (6010)	**0.005**		**0.051**		**0.016**		**0.013**		**0.014**		**0.017**		**0.018**	J2	**0.005**		**0.002**		**0.024**		0.004	U	**0.007**		**0.003**	
68	61	Lead (7421)	**0.002**		**0.018**		**0.007**		**0.004**		**0.008**		**0.006**		**0.008**		**0.002**		**0.002**		**0.008**		**0.004**		**0.002**		0.001	U
69	62	Nickel (6010)	0.01	U	0.04	U	0.01	U	**0.01**		0.01	U	**0.02**		**0.01**		0.01	U	0.01	U	**0.02**		0.01	U	0.01	U	0.01	U
70	63	Zinc (6010)	**0.030**		**0.142**		**0.047**		**0.042**		**0.040**		**0.052**		**0.058**		**0.023**		**0.018**		**0.064**		**0.022**		**0.022**		**0.013**	
71	64																											
72	65	**MAJOR IONS AND CONVENTIONALS**																										
73	66	Calcium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		**54.9**		**61.5**		**55.9**		**58.6**		**60.0**		NA	
74	67	Magnesium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		**26.4**		**31.0**		**27.6**		**28.6**		**31.3**		NA	
75	68	Potassium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		**1.7**		**1.9**		**2.9**		**2.1**		**2.2**		NA	
76	69	Sodium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		**15.6**		**16.6**		**17.5**		**16.2**		**17.6**		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		**350**		NA		NA		NA		**370**		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		1.0	U	NA		NA		NA		1.0	U	NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		**350**		NA		NA		NA		**370**		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	**420**		**310**		**310**		**290**		**350**		**380**		**380**		**360**		**370**		**300**		**340**		**340**		**410**	
81	74	Chloride (mg/L) (EPA 325.2)	**9.2**		**10**		**11**		**11**		**10**		**10**		**14**		**7.7**		**8.8**		**8.3**		**7.5**		**9.8**		**12**	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA		NA		NA		NA		NA		NA		NA		0.010	U	NA		NA		NA		**0.024**		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		NA		NA		NA		NA		NA		0.010	U	NA		NA		NA		**0.025**		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		NA		NA		NA		NA		NA		0.010	U	NA		NA		NA		**0.049**		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	NA		NA		NA		NA		NA		NA		NA		**6.3**		NA		NA		NA		**7.6**		NA	
86	79																											

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP
1															
2															
3		LW11D		LW11D		LW11D		LW11D		LW11D		LW11D		LW11D	
4		ES04C		EZ03B		FF88D		FL66I		FU50B		FY82J		0402113-11	
5		08/28/02		11/12/02		2/13/03		5/9/03		8/29/03		10/24/03		2/23/04	
66	Chromium (6010)	**0.02**		**0.032**		0.005	U	0.005	U	**0.007**		**0.016**		**0.0104**	
67	Copper (6010)	**0.02**		**0.034**		**0.007**		**0.004**		**0.008**		**0.015**		0.01	U
68	Lead (7421)	**0.007**		0.02	U	**0.002**		**0.002**		**0.002**		**0.004**		**0.0019**	
69	Nickel (6010)	**0.01**		**0.05**		**0.05**		**0.01**		**0.01**		**0.02**		0.005	U
70	Zinc (6010)	**0.053**		**0.096**		**0.024**		**0.019**		**0.025**		**0.041**		0.01	U
71															
72	**MAJOR IONS AND CONVENTIONALS**														
73	Calcium (mg/L) (6010)	NA		NA		**70.4**		NA		NA		NA		NA	
74	Magnesium (mg/L) (6010)	NA		NA		**31.7**		NA		NA		NA		NA	
75	Potassium (mg/L) (6010)	NA		NA		**2.6**		NA		NA		NA		NA	
76	Sodium (mg/L) (6010)	NA		NA		**17.5**		NA		NA		NA		NA	
77	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		**310**		NA		NA		NA		NA	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		1	U	NA		NA		NA		NA	
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		**310**		NA		NA		NA		NA	
80	Total Dissolved Solids (mg/L) (EPA 160.1)	**390**		**470**		**380**		**320**		**260**		**290**		**361**	
81	Chloride (mg/L) (EPA 325.2)	**9.8**		**7.4**		**7.8**		**6.7**		**4.6**		**5.8**		**6.68**	
82	N-Nitrate (mg-N/L) (Calculated)	NA		NA		**0.02**		NA		NA		NA		NA	
83	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		0.01	U	NA		NA		NA		NA	
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		**0.02**		NA		NA		NA		NA	
85	Sulfate (mg/L) (EPA 375.2)	NA		NA		**96**		NA		NA		NA		NA	
86															

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1																												
2																												
3			LW11D		LW11D		LW11D		LW11D		LW11D		LW11D		LW11D		LW11D		LW11D		LW11D		LW11D		LW11D		LW11D	
4			AH76H		AU45C		BC27I		BH96L		BR64G		CB49F		CK77H		CT55D		DE68B		DM52G		DW48B		ED34E		EM85C	
5			5/20/99		9/22/99		12/8/99		2/18/00		5/24/00		8/29/00		11/8/00		2/14/01		6/5/01		8/15/01		11/29/01		2/28/02		6/26/02	
87	80	**FIELD PARAMETERS**																										
88	81	pH (avg)	6.51		6.75		6.54		6.44		6.63		6.35		5.75		6.38		6.75		7.80		6.68		6.52		6.56	
89	82	Temperature (° C) (avg)	15.5		15.3		12.1		12.0		17.0		15.0		12.8		12.3		13.3		14.7		12.6		12.8		14.9	
90	83	Conductivity (um/hos)	630		487		617		551		643		523		544		454		493		488		473		576		694	
91	84	Dissolved oxygen (mg/L) (avg)	1.96		1.53		1.33		1.86		1.53		1.49		1.23		1.14		1.45		1.43		3.48		8.44		3.33	
92	85																											
93	86	**DIOXINS AND FURANS (ng/L)**																										
94	87	**Method 8290**																										
95	88	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
96	89	Total TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
97	90	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
98	91	Total TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
101	94	Total PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
103	96	Total PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
108	101	Total HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
112	105	Total HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
115	108	Total HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
117	110	Total HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
118	111	OCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
119	112	OCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
120																												
121																												
122																												

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP
3		LW11D		LW11D		LW11D		LW11D		LW11D		LW11D		LW11D	
4		ES04C		EZ03B		FF88D		FL66I		FU50B		FY82J		0402113-11	
5		08/28/02		11/12/02		2/13/03		5/9/03		8/29/03		10/24/03		2/23/04	
87	**FIELD PARAMETERS**														
88	pH (avg)	6.44		6.2		6.96		6.81		6.7		6.48		6.53	
89	Temperature (° C) (avg)	15.7		14		13.6		14.3		14.4		13.3		14.1	
90	Conductivity (um/hos)	466		642		704		419		334		376		485	
91	Dissolved oxygen (mg/L) (avg)	1.30		0.48		0		2.57		2.31		2.80		1.13	
92															
93	**DIOXINS AND FURANS (ng/L)**														
94	**Method 8290**														
95	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA	
96	Total TCDF	NA		NA		NA		NA		NA		NA		NA	
97	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA	
98	Total TCDD	NA		NA		NA		NA		NA		NA		NA	
99	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA	
100	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA	
101	Total PeCDF	NA		NA		NA		NA		NA		NA		NA	
102	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA	
103	Total PeCDD	NA		NA		NA		NA		NA		NA		NA	
104	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA	
105	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA	
106	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA	
107	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA	
108	Total HxCDF	NA		NA		NA		NA		NA		NA		NA	
109	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA	
110	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA	
111	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA	
112	Total HxCDD	NA		NA		NA		NA		NA		NA		NA	
113	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA	
114	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA	
115	Total HpCDF	NA		NA		NA		NA		NA		NA		NA	
116	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA	
117	Total HpCDD	NA		NA		NA		NA		NA		NA		NA	
118	OCDF	NA		NA		NA		NA		NA		NA		NA	
119	OCDD	NA		NA		NA		NA		NA		NA		NA	
120															
121															
122															

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1																												
2																												
3			LW11D		LW11D		LW11D		LW11D		LW11D		LW11D		LW11D		LW11D		LW11D		LW11D		LW11D		LW11D		LW11D	
4			AH76H		AU45C		BC27I		BH96L		BR64G		CB49F		CK77H		CT55D		DE68B		DM52G		DW48B		ED34E		EM85C	
5			5/20/99		9/22/99		12/8/99		2/18/00		5/24/00		8/29/00		11/8/00		2/14/01		6/5/01		8/15/01		11/29/01		2/28/02		6/26/02	
123		**PAHs (µg/L)**																										
124		**EPA Method SW8270 SIM**																										
125		Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
126		2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
127		Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
128		Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
129		Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
130		Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
131		Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP
1															
2															
3		LW11D		LW11D		LW11D		LW11D		LW11D		LW11D		LW11D	
4		ES04C		EZ03B		FF88D		FL66I		FU50B		FY82J		0402113-11	
5		08/28/02		11/12/02		2/13/03		5/9/03		8/29/03		10/24/03		2/23/04	
123	**PAHs (µg/L)**														
124	**EPA Method SW8270 SIM**														
125	Naphthalene	NA		NA		NA		NA		NA		NA		NA	
126	2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA	
127	Acenaphthylene	NA		NA		NA		NA		NA		NA		NA	
128	Acenaphthene	NA		NA		NA		NA		NA		NA		NA	
129	Fluorene	NA		NA		NA		NA		NA		NA		NA	
130	Anthracene	NA		NA		NA		NA		NA		NA		NA	
131	Dibenzofuran	NA		NA		NA		NA		NA		NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
2					Dup of LW14D																							
3			LW14D		W		LW14D		LW14D		LW14D		LW14D		LW14D		LW14D		LW14D		LW14D		LW14D		LW14D		LW14D	
4			BR64R		BR64Q		CT67N		DE87E		DM30Q		DW29J		ED30E		EN00E		ER93F		EZ17C		FF65E		FL58D		FU45L	
5			5/25/00		5/25/00		2/14/01		6/6/01		8/13/01		11/27/01		2/27/02		6/27/02		08/27/02		11/13/02		2/11/03		5/8/03		8/28/03	
7	1	**CHLORINATED PHENOLS (µg/L)**																										
8	2	**EPA Method SW8040**																										
9	3	Pentachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.27	U	0.25	U	0.25	U	0.25	U	**2.3**	J
10	4	2,4,6-Trichlorophenol	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
11	5	2,3,6-Trichlorophenol	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
12	6	2,4,5-Trichlorophenol	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
13	7	2,3,4-Trichlorophenol	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
15	9	2,3,4,5-Tetrachlorophenol	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
16	10																											
17	11	**SEMIVOLATILES (µg/L)**																										
18	12	**EPA Method SW8270**																										
19	13	Phenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
20	14	4-Methylphenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
21	15	Isophorone	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
22	16	2,4-Dimethylphenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
23	17	Benzoic Acid	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
24	18	Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
25	19	2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
26	20	2,4,6-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
27	21	2,4,5-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
28	22	Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
29	23	Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
30	24	Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
31	25	Pentachlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
32	26	bis(2-Ethylhexyl)phthalate	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
33	27																											
34	28	**VOLATILES (µg/L)**																										
35	29	**EPA Method SW8260**																										
36	30	Acetone	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
37	31	Carbon Disulfide	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
38	32	2-Butanone	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
39	33	Benzene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
40	34	Bromoform	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
41	35	Toluene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
42	36	Ethylbenzene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
43	37	Styrene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
44	38	m,p-Xylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
45	39	o-Xylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
46	40	1,3,5-Trimethylbenzene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
47	41	1,2,4-Trimethylbenzene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
48	42	Isopropylbenzene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
49	43	n-Propylbenzene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
50	44	tert-Butylbenzene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
51	45	sec-Butylbenzene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
52	46	4-Isopropyltoluene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
53	47	n-Butylbenzene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
54	48	Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
55		Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
56	49																											
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																										
58	51	**Method OR-DEQ**																										
59	52	**TPH-Diesel**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
60	53	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
61	54	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
62	55																											
63	56	**PRIORITY POLLUTANT**																										
64	57	**METALS (mg/L)**																										
65	58	Arsenic (7060)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AC	AD	AE	AF
1					
2					
3		LW14D		LW14D	
4		FY82C		0402113-03	
5		10/23/03		2/23/04	
6					
7	**CHLORINATED PHENOLS (µg/L)**				
8	**EPA Method SW8040**				
9	Pentachlorophenol	0.5	U	0.557	U
10	2,4,6-Trichlorophenol	NA		NA	
11	2,3,6-Trichlorophenol	NA		NA	
12	2,4,5-Trichlorophenol	NA		NA	
13	2,3,4-Trichlorophenol	NA		NA	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA	
15	2,3,4,5-Tetrachlorophenol	NA		NA	
16					
17	**SEMIVOLATILES (µg/L)**				
18	**EPA Method SW8270**				
19	Phenol	NA		NA	
20	4-Methylphenol	NA		NA	
21	Isophorone	NA		NA	
22	2,4-Dimethylphenol	NA		NA	
23	Benzoic Acid	NA		NA	
24	Naphthalene	NA		NA	
25	2-Methylnaphthalene	NA		NA	
26	2,4,6-Trichlorophenol	NA		NA	
27	2,4,5-Trichlorophenol	NA		NA	
28	Acenaphthene	NA		NA	
29	Dibenzofuran	NA		NA	
30	Fluorene	NA		NA	
31	Pentachlorophenol	NA		NA	
32	bis(2-Ethylhexyl)phthalate	NA		NA	
33					
34	**VOLATILES (µg/L)**				
35	**EPA Method SW8260**				
36	Acetone	NA		NA	
37	Carbon Disulfide	NA		NA	
38	2-Butanone	NA		NA	
39	Benzene	NA		NA	
40	Bromoform	NA		NA	
41	Toluene	NA		NA	
42	Ethylbenzene	NA		NA	
43	Styrene	NA		NA	
44	m,p-Xylene	NA		NA	
45	o-Xylene	NA		NA	
46	1,3,5-Trimethylbenzene	NA		NA	
47	1,2,4-Trimethylbenzene	NA		NA	
48	Isopropylbenzene	NA		NA	
49	n-Propylbenzene	NA		NA	
50	tert-Butylbenzene	NA		NA	
51	sec-Butylbenzene	NA		NA	
52	4-Isopropyltoluene	NA		NA	
53	n-Butylbenzene	NA		NA	
54	Naphthalene	NA		NA	
55	Methyl tert-butyl ether	NA		NA	
56					
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**				
58	**Method OR-DEQ**				
59	**TPH-Diesel**	NA		NA	
60	**TPH-D Motor Oil**	NA		NA	
61	**TPH-Gasoline**	NA		NA	
62					
63	**PRIORITY POLLUTANT**				
64	**METALS (mg/L)**				
65	Arsenic (7060)	NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1																												
2					Dup of LW14D																							
3			LW14D		W		LW14D		LW14D		LW14D		LW14D		LW14D		LW14D		LW14D		LW14D		LW14D		LW14D		LW14D	
4			BR64R		BR64Q		CT67N		DE87E		DM30Q		DW29J		ED30E		EN00E		ER93F		EZ17C		FF65E		FL58D		FU45L	
5			5/25/00		5/25/00		2/14/01		6/6/01		8/13/01		11/27/01		2/27/02		6/27/02		08/27/02		11/13/02		2/11/03		5/8/03		8/28/03	
66	59	Chromium (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
67	60	Copper (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
68	61	Lead (7421)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
69	62	Nickel (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
70	63	Zinc (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
71	64																											
72	65	**MAJOR IONS AND CONVENTIONALS**																										
73	66	Calcium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
74	67	Magnesium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
75	68	Potassium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
76	69	Sodium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
81	74	Chloride (mg/L) (EPA 325.2)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
86	79																											

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AC	AD	AE	AF
1					
2					
3		LW14D		LW14D	
4		FY82C		0402113-03	
5		10/23/03		2/23/04	
66	Chromium (6010)	NA		NA	
67	Copper (6010)	NA		NA	
68	Lead (7421)	NA		NA	
69	Nickel (6010)	NA		NA	
70	Zinc (6010)	NA		NA	
71					
72	**MAJOR IONS AND CONVENTIONALS**				
73	Calcium (mg/L) (6010)	NA		NA	
74	Magnesium (mg/L) (6010)	NA		NA	
75	Potassium (mg/L) (6010)	NA		NA	
76	Sodium (mg/L) (6010)	NA		NA	
77	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA	
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA	
80	Total Dissolved Solids (mg/L) (EPA 160.1)	NA		NA	
81	Chloride (mg/L) (EPA 325.2)	NA		NA	
82	N-Nitrate (mg-N/L) (Calculated)	NA		NA	
83	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA	
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA	
85	Sulfate (mg/L) (EPA 375.2)	NA		NA	
86					

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1																												
2					Dup of LW14D																							
3			LW14D		W		LW14D		LW14D		LW14D		LW14D		LW14D		LW14D		LW14D		LW14D		LW14D		LW14D		LW14D	
4			BR64R		BR64Q		CT67N		DE87E		DM30Q		DW29J		ED30E		EN00E		ER93F		EZ17C		FF65E		FL58D		FU45L	
5			5/25/00		5/25/00		2/14/01		6/6/01		8/13/01		11/27/01		2/27/02		6/27/02		08/27/02		11/13/02		2/11/03		5/8/03		8/28/03	
87	80	**FIELD PARAMETERS**																										
88	81	pH (avg)	6.64		6.64		6.15		6.65		6.81		6.61		6.35		6.64		6.73		6.22		7.05		6.69		6.98	
89	82	Temperature (° C) (avg)	14.1		14.2		12.9		13.5		14.1		12.4		13.6		13.9		14.8		13.4		14.3		13.3		16.1	
90	83	Conductivity (um/hos)	312		312		345		371		296		362		356		487		434		477		426		258		224	
91	84	Dissolved oxygen (mg/L) (avg)	4.54		4.52		0.12		1.17		0.83		4.12		7.36		5.08		2.09		0.77		2.48		3.06		1.54	
92	85																											
93	86	**DIOXINS AND FURANS (ng/L)**																										
94	87	**Method 8290**																										
95	88	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
96	89	Total TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
97	90	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
98	91	Total TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
101	94	Total PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
103	96	Total PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
108	101	Total HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
112	105	Total HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
115	108	Total HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
117	110	Total HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
118	111	OCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
119	112	OCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
120																												
121																												
122																												

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TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AC	AD	AE	AF
1					
2					
3		LW14D		LW14D	
4		FY82C		0402113-03	
5		10/23/03		2/23/04	
87	**FIELD PARAMETERS**				
88	pH (avg)	6.56		6.38	
89	Temperature (° C) (avg)	14.2		13.7	
90	Conductivity (um/hos)	238		239	
91	Dissolved oxygen (mg/L) (avg)	2.29		1.11	
92					
93	**DIOXINS AND FURANS (ng/L)**				
94	**Method 8290**				
95	2,3,7,8-TCDF	NA		NA	
96	Total TCDF	NA		NA	
97	2,3,7,8-TCDD	NA		NA	
98	Total TCDD	NA		NA	
99	1,2,3,7,8-PeCDF	NA		NA	
100	2,3,4,7,8-PeCDF	NA		NA	
101	Total PeCDF	NA		NA	
102	1,2,3,7,8-PeCDD	NA		NA	
103	Total PeCDD	NA		NA	
104	1,2,3,4,7,8-HxCDF	NA		NA	
105	1,2,3,6,7,8-HxCDF	NA		NA	
106	2,3,4,6,7,8-HxCDF	NA		NA	
107	1,2,3,7,8,9-HxCDF	NA		NA	
108	Total HxCDF	NA		NA	
109	1,2,3,4,7,8-HxCDD	NA		NA	
110	1,2,3,6,7,8-HxCDD	NA		NA	
111	1,2,3,7,8,9-HxCDD	NA		NA	
112	Total HxCDD	NA		NA	
113	1,2,3,4,6,7,8-HpCDF	NA		NA	
114	1,2,3,4,7,8,9-HpCDF	NA		NA	
115	Total HpCDF	NA		NA	
116	1,2,3,4,6,7,8-HpCDD	NA		NA	
117	Total HpCDD	NA		NA	
118	OCDF	NA		NA	
119	OCDD	NA		NA	
120					
121					
122					

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1																												
2					Dup of LW14D																							
3			LW14D		W		LW14D		LW14D		LW14D		LW14D		LW14D		LW14D		LW14D		LW14D		LW14D		LW14D		LW14D	
4			BR64R		BR64Q		CT67N		DE87E		DM30Q		DW29J		ED30E		EN00E		ER93F		EZ17C		FF65E		FL58D		FU45L	
5			5/25/00		5/25/00		2/14/01		6/6/01		8/13/01		11/27/01		2/27/02		6/27/02		08/27/02		11/13/02		2/11/03		5/8/03		8/28/03	
123		**PAHs (µg/L)**																										
124		**EPA Method SW8270 SIM**																										
125		Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
126		2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
127		Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
128		Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
129		Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
130		Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
131		Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AC	AD	AE	AF
1					
2					
3		LW14D		LW14D	
4		FY82C		0402113-03	
5		10/23/03		2/23/04	
123	**PAHs (µg/L)**				
124	**EPA Method SW8270 SIM**				
125	Naphthalene	NA		NA	
126	2-Methylnaphthalene	NA		NA	
127	Acenaphthylene	NA		NA	
128	Acenaphthene	NA		NA	
129	Fluorene	NA		NA	
130	Anthracene	NA		NA	
131	Dibenzofuran	NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB		
1																														
2																														
3			LW17D		LW17D		LW17D		LW17D		LW17D		LW17D		LW17D		LW17D		LW17D		LW17D		LW17D		LW17D		LW17D			
4			CB85A		CL03R		CT67L		DE87C		DM30P		DW48H		ED34B		EN00J		ER93N		EZ03H		FF88H		FL66F		FU45S			
5			8/31/00		11/8/00		2/14/01		6/5/01		8/13/01		11/29/01		2/28/02		6/27/02		08/27/02		11/12/02		2/13/03		5/9/03		8/28/03			
6																														
7	1	**CHLORINATED PHENOLS (µg/L)**																												
8	2	**EPA Method SW8040**																												
9	3	Pentachlorophenol	0.25	U	0.25	U	**0.56**		0.25	U	0.25	U	0.25	U	**6.8**		0.25	U	0.28	U	0.25	U	**0.33**		0.25	U	0.5	U		
10	4	2,4,6-Trichlorophenol	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA			
11	5	2,3,6-Trichlorophenol	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA			
12	6	2,4,5-Trichlorophenol	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA			
13	7	2,3,4-Trichlorophenol	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA			
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA			
15	9	2,3,4,5-Tetrachlorophenol	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA			
16	10																													
17	11	**SEMIVOLATILES (µg/L)**																												
18	12	**EPA Method SW8270**																												
19	13	Phenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA			
20	14	4-Methylphenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA			
21	15	Isophorone	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA			
22	16	2,4-Dimethylphenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA			
23	17	Benzoic Acid	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA			
24	18	Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA			
25	19	2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA			
26	20	2,4,6-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA			
27	21	2,4,5-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA			
28	22	Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA			
29	23	Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA			
30	24	Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA			
31	25	Pentachlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA			
32	26	bis(2-Ethylhexyl)phthalate	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA			
33	27																													
34	28	**VOLATILES (µg/L)**																												
35	29	**EPA Method SW8260**																												
36	30	Acetone	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA			
37	31	Carbon Disulfide	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA			
38	32	2-Butanone	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA			
39	33	Benzene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA			
40	34	Bromoform	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA			
41	35	Toluene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA			
42	36	Ethylbenzene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA			
43	37	Styrene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA			
44	38	m,p-Xylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA			
45	39	o-Xylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA			
46	40	1,3,5-Trimethylbenzene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA			
47	41	1,2,4-Trimethylbenzene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA			
48	42	Isopropylbenzene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA			
49	43	n-Propylbenzene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA			
50	44	tert-Butylbenzene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA			
51	45	sec-Butylbenzene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA			
52	46	4-Isopropyltoluene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA			
53	47	n-Butylbenzene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA			
54	48	Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA			
55		Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA			
56	49																													
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																												
58	51	**Method OR-DEQ**																												
59	52	**TPH-Diesel**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA			
60	53	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA			
61	54	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA			
62	55																													
63	56	**PRIORITY POLLUTANT**																												
64	57	**METALS (mg/L)**																												
65	58	Arsenic (7060)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA			

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AC	AD	AE	AF
1					
2					
3		LW17D		LW17D	
4		FY82G		0402105-06	
5		10/23/03		2/20/04	
6					
7	**CHLORINATED PHENOLS (µg/L)**				
8	**EPA Method SW8040**				
9	Pentachlorophenol	0.51	U	0.497	U
10	2,4,6-Trichlorophenol	NA		NA	
11	2,3,6-Trichlorophenol	NA		NA	
12	2,4,5-Trichlorophenol	NA		NA	
13	2,3,4-Trichlorophenol	NA		NA	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA	
15	2,3,4,5-Tetrachlorophenol	NA		NA	
16					
17	**SEMIVOLATILES (µg/L)**				
18	**EPA Method SW8270**				
19	Phenol	NA		NA	
20	4-Methylphenol	NA		NA	
21	Isophorone	NA		NA	
22	2,4-Dimethylphenol	NA		NA	
23	Benzoic Acid	NA		NA	
24	Naphthalene	NA		NA	
25	2-Methylnaphthalene	NA		NA	
26	2,4,6-Trichlorophenol	NA		NA	
27	2,4,5-Trichlorophenol	NA		NA	
28	Acenaphthene	NA		NA	
29	Dibenzofuran	NA		NA	
30	Fluorene	NA		NA	
31	Pentachlorophenol	NA		NA	
32	bis(2-Ethylhexyl)phthalate	NA		NA	
33					
34	**VOLATILES (µg/L)**				
35	**EPA Method SW8260**				
36	Acetone	NA		NA	
37	Carbon Disulfide	NA		NA	
38	2-Butanone	NA		NA	
39	Benzene	NA		NA	
40	Bromoform	NA		NA	
41	Toluene	NA		NA	
42	Ethylbenzene	NA		NA	
43	Styrene	NA		NA	
44	m,p-Xylene	NA		NA	
45	o-Xylene	NA		NA	
46	1,3,5-Trimethylbenzene	NA		NA	
47	1,2,4-Trimethylbenzene	NA		NA	
48	Isopropylbenzene	NA		NA	
49	n-Propylbenzene	NA		NA	
50	tert-Butylbenzene	NA		NA	
51	sec-Butylbenzene	NA		NA	
52	4-Isopropyltoluene	NA		NA	
53	n-Butylbenzene	NA		NA	
54	Naphthalene	NA		NA	
55	Methyl tert-butyl ether	NA		NA	
56					
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**				
58	**Method OR-DEQ**				
59	**TPH-Diesel**	NA		NA	
60	**TPH-D Motor Oil**	NA		NA	
61	**TPH-Gasoline**	NA		NA	
62					
63	**PRIORITY POLLUTANT**				
64	**METALS (mg/L)**				
65	Arsenic (7060)	NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1																												
2																												
3			LW17D		LW17D		LW17D		LW17D		LW17D		LW17D		LW17D		LW17D		LW17D		LW17D		LW17D		LW17D		LW17D	
4			CB85A		CL03R		CT67L		DE87C		DM30P		DW48H		ED34B		EN00J		ER93N		EZ03H		FF88H		FL66F		FU45S	
5			8/31/00		11/8/00		2/14/01		6/5/01		8/13/01		11/29/01		2/28/02		6/27/02		08/27/02		11/12/02		2/13/03		5/9/03		8/28/03	
66	59	Chromium (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
67	60	Copper (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
68	61	Lead (7421)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
69	62	Nickel (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
70	63	Zinc (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
71	64																											
72	65	**MAJOR IONS AND CONVENTIONALS**																										
73	66	Calcium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
74	67	Magnesium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
75	68	Potassium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
76	69	Sodium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
81	74	Chloride (mg/L) (EPA 325.2)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
86	79																											

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AC	AD	AE	AF
1					
2					
3		LW17D		LW17D	
4		FY82G		0402105-06	
5		10/23/03		2/20/04	
66	Chromium (6010)	NA		NA	
67	Copper (6010)	NA		NA	
68	Lead (7421)	NA		NA	
69	Nickel (6010)	NA		NA	
70	Zinc (6010)	NA		NA	
71					
72	**MAJOR IONS AND CONVENTIONALS**				
73	Calcium (mg/L) (6010)	NA		NA	
74	Magnesium (mg/L) (6010)	NA		NA	
75	Potassium (mg/L) (6010)	NA		NA	
76	Sodium (mg/L) (6010)	NA		NA	
77	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA	
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA	
80	Total Dissolved Solids (mg/L) (EPA 160.1)	NA		NA	
81	Chloride (mg/L) (EPA 325.2)	NA		NA	
82	N-Nitrate (mg-N/L) (Calculated)	NA		NA	
83	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA	
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA	
85	Sulfate (mg/L) (EPA 375.2)	NA		NA	
86					

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1																												
2																												
3			LW17D		LW17D		LW17D		LW17D		LW17D		LW17D		LW17D		LW17D		LW17D		LW17D		LW17D		LW17D		LW17D	
4			CB85A		CL03R		CT67L		DE87C		DM30P		DW48H		ED34B		EN00J		ER93N		EZ03H		FF88H		FL66F		FU45S	
5			8/31/00		11/8/00		2/14/01		6/5/01		8/13/01		11/29/01		2/28/02		6/27/02		08/27/02		11/12/02		2/13/03		5/9/03		8/28/03	
87	80	**FIELD PARAMETERS**																										
88	81	pH (avg)	6.14		5.95		6.15		6.53		6.67		6.44		6.49		6.68		6.41		6.64		6.9		6.75		6.74	
89	82	Temperature (° C) (avg)	13.8		13.5		14.4		14.0		15.3		14		13.7		14.2		16.1		13.7		15.2		13.8		17.4	
90	83	Conductivity (um/hos)	305		79		440		488		544		529		62		196		399		457		401		349		431	
91	84	Dissolved oxygen (mg/L) (avg)	2.10		1.21		0.47		2.27		1.69		3.81		7.82		4.92		1.31		0.94		0		2.33		1.01	
92	85																											
93	86	**DIOXINS AND FURANS (ng/L)**																										
94	87	**Method 8290**																										
95	88	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
96	89	Total TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
97	90	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
98	91	Total TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
101	94	Total PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
103	96	Total PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
108	101	Total HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
112	105	Total HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
115	108	Total HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
117	110	Total HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
118	111	OCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
119	112	OCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
120																												
121																												
122																												

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TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AC	AD	AE	AF
1					
2					
3		LW17D		LW17D	
4		FY82G		0402105-06	
5		10/23/03		2/20/04	
87	**FIELD PARAMETERS**				
88	pH (avg)	6.47		6.44	
89	Temperature (° C) (avg)	15.8		15.7	
90	Conductivity (um/hos)	434		367	
91	Dissolved oxygen (mg/L) (avg)	3.72		23.19	
92					
93	**DIOXINS AND FURANS (ng/L)**				
94	**Method 8290**				
95	2,3,7,8-TCDF	NA		NA	
96	Total TCDF	NA		NA	
97	2,3,7,8-TCDD	NA		NA	
98	Total TCDD	NA		NA	
99	1,2,3,7,8-PeCDF	NA		NA	
100	2,3,4,7,8-PeCDF	NA		NA	
101	Total PeCDF	NA		NA	
102	1,2,3,7,8-PeCDD	NA		NA	
103	Total PeCDD	NA		NA	
104	1,2,3,4,7,8-HxCDF	NA		NA	
105	1,2,3,6,7,8-HxCDF	NA		NA	
106	2,3,4,6,7,8-HxCDF	NA		NA	
107	1,2,3,7,8,9-HxCDF	NA		NA	
108	Total HxCDF	NA		NA	
109	1,2,3,4,7,8-HxCDD	NA		NA	
110	1,2,3,6,7,8-HxCDD	NA		NA	
111	1,2,3,7,8,9-HxCDD	NA		NA	
112	Total HxCDD	NA		NA	
113	1,2,3,4,6,7,8-HpCDF	NA		NA	
114	1,2,3,4,7,8,9-HpCDF	NA		NA	
115	Total HpCDF	NA		NA	
116	1,2,3,4,6,7,8-HpCDD	NA		NA	
117	Total HpCDD	NA		NA	
118	OCDF	NA		NA	
119	OCDD	NA		NA	
120					
121					
122					

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1																												
2																												
3			LW17D		LW17D		LW17D		LW17D		LW17D		LW17D		LW17D		LW17D		LW17D		LW17D		LW17D		LW17D		LW17D	
4			CB85A		CL03R		CT67L		DE87C		DM30P		DW48H		ED34B		EN00J		ER93N		EZ03H		FF88H		FL66F		FU45S	
5			8/31/00		11/8/00		2/14/01		6/5/01		8/13/01		11/29/01		2/28/02		6/27/02		08/27/02		11/12/02		2/13/03		5/9/03		8/28/03	
123		**PAHs (µg/L)**																										
124		**EPA Method SW8270 SIM**																										
125		Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
126		2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
127		Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
128		Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
129		Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
130		Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
131		Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AC	AD	AE	AF
1					
2					
3		LW17D		LW17D	
4		FY82G		0402105-06	
5		10/23/03		2/20/04	
123	**PAHs (µg/L)**				
124	**EPA Method SW8270 SIM**				
125	Naphthalene	NA		NA	
126	2-Methylnaphthalene	NA		NA	
127	Acenaphthylene	NA		NA	
128	Acenaphthene	NA		NA	
129	Fluorene	NA		NA	
130	Anthracene	NA		NA	
131	Dibenzofuran	NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1																												
2																												
3			LW18D		LW18D		LW18D		LW18D		LW18D		LW18D		LW18D		LW18D		LW18D		LW18D		LW18D		LW18D		LW18D	
4			CB85B		CL03S		CT67M		DE87D		DM30O		DW48G		ED34C		EN00I		ER93O		EZ03G		FF76D		FL66G		FU45Q	
5			8/31/00		11/9/00		2/14/01		6/5/01		8/13/01		11/29/01		2/28/02		6/27/02		08/27/02		11/12/02		2/12/03		5/9/03		8/28/03	
7	1	**CHLORINATED PHENOLS (µg/L)**																										
8	2	**EPA Method SW8040**																										
9	3	Pentachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	**0.26**		**0.44**		0.25	U	0.3	U	0.25	U	0.25	U	0.25	U	**0.58**	J
10	4	2,4,6-Trichlorophenol	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
11	5	2,3,6-Trichlorophenol	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
12	6	2,4,5-Trichlorophenol	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
13	7	2,3,4-Trichlorophenol	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
15	9	2,3,4,5-Tetrachlorophenol	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
16	10																											
17	11	**SEMIVOLATILES (µg/L)**																										
18	12	**EPA Method SW8270**																										
19	13	Phenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
20	14	4-Methylphenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
21	15	Isophorone	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
22	16	2,4-Dimethylphenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
23	17	Benzoic Acid	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
24	18	Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
25	19	2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
26	20	2,4,6-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
27	21	2,4,5-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
28	22	Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
29	23	Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
30	24	Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
31	25	Pentachlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
32	26	bis(2-Ethylhexyl)phthalate	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
33	27																											
34	28	**VOLATILES (µg/L)**																										
35	29	**EPA Method SW8260**																										
36	30	Acetone	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
37	31	Carbon Disulfide	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
38	32	2-Butanone	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
39	33	Benzene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
40	34	Bromoform	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
41	35	Toluene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
42	36	Ethylbenzene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
43	37	Styrene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
44	38	m,p-Xylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
45	39	o-Xylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
46	40	1,3,5-Trimethylbenzene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
47	41	1,2,4-Trimethylbenzene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
48	42	Isopropylbenzene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
49	43	n-Propylbenzene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
50	44	tert-Butylbenzene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
51	45	sec-Butylbenzene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
52	46	4-Isopropyltoluene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
53	47	n-Butylbenzene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
54	48	Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
55		Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
56	49																											
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																										
58	51	**Method OR-DEQ**																										
59	52	**TPH-Diesel**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
60	53	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
61	54	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
62	55																											
63	56	**PRIORITY POLLUTANT**																										
64	57	**METALS (mg/L)**																										
65	58	Arsenic (7060)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AC	AD	AE	AF
1					
2					
3		LW18D		LW18D	
4		FY82F		0402105-07	
5		10/23/03		2/20/04	
6					
7	**CHLORINATED PHENOLS (µg/L)**				
8	**EPA Method SW8040**				
9	Pentachlorophenol	**0.58**		0.488	U
10	2,4,6-Trichlorophenol	NA		NA	
11	2,3,6-Trichlorophenol	NA		NA	
12	2,4,5-Trichlorophenol	NA		NA	
13	2,3,4-Trichlorophenol	NA		NA	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA	
15	2,3,4,5-Tetrachlorophenol	NA		NA	
16					
17	**SEMIVOLATILES (µg/L)**				
18	**EPA Method SW8270**				
19	Phenol	NA		NA	
20	4-Methylphenol	NA		NA	
21	Isophorone	NA		NA	
22	2,4-Dimethylphenol	NA		NA	
23	Benzoic Acid	NA		NA	
24	Naphthalene	NA		NA	
25	2-Methylnaphthalene	NA		NA	
26	2,4,6-Trichlorophenol	NA		NA	
27	2,4,5-Trichlorophenol	NA		NA	
28	Acenaphthene	NA		NA	
29	Dibenzofuran	NA		NA	
30	Fluorene	NA		NA	
31	Pentachlorophenol	NA		NA	
32	bis(2-Ethylhexyl)phthalate	NA		NA	
33					
34	**VOLATILES (µg/L)**				
35	**EPA Method SW8260**				
36	Acetone	NA		NA	
37	Carbon Disulfide	NA		NA	
38	2-Butanone	NA		NA	
39	Benzene	NA		NA	
40	Bromoform	NA		NA	
41	Toluene	NA		NA	
42	Ethylbenzene	NA		NA	
43	Styrene	NA		NA	
44	m,p-Xylene	NA		NA	
45	o-Xylene	NA		NA	
46	1,3,5-Trimethylbenzene	NA		NA	
47	1,2,4-Trimethylbenzene	NA		NA	
48	Isopropylbenzene	NA		NA	
49	n-Propylbenzene	NA		NA	
50	tert-Butylbenzene	NA		NA	
51	sec-Butylbenzene	NA		NA	
52	4-Isopropyltoluene	NA		NA	
53	n-Butylbenzene	NA		NA	
54	Naphthalene	NA		NA	
55	Methyl tert-butyl ether	NA		NA	
56					
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**				
58	**Method OR-DEQ**				
59	**TPH-Diesel**	NA		NA	
60	**TPH-D Motor Oil**	NA		NA	
61	**TPH-Gasoline**	NA		NA	
62					
63	**PRIORITY POLLUTANT**				
64	**METALS (mg/L)**				
65	Arsenic (7060)	NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1																												
2																												
3			LW18D		LW18D		LW18D		LW18D		LW18D		LW18D		LW18D		LW18D		LW18D		LW18D		LW18D		LW18D		LW18D	
4			CB85B		CL03S		CT67M		DE87D		DM30O		DW48G		ED34C		EN00I		ER93O		EZ03G		FF76D		FL66G		FU45Q	
5			8/31/00		11/9/00		2/14/01		6/5/01		8/13/01		11/29/01		2/28/02		6/27/02		08/27/02		11/12/02		2/12/03		5/9/03		8/28/03	
66	59	Chromium (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
67	60	Copper (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
68	61	Lead (7421)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
69	62	Nickel (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
70	63	Zinc (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
71	64																											
72	65	**MAJOR IONS AND CONVENTIONALS**																										
73	66	Calcium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
74	67	Magnesium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
75	68	Potassium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
76	69	Sodium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
81	74	Chloride (mg/L) (EPA 325.2)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
86	79																											

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AC	AD	AE	AF
1					
2					
3		LW18D		LW18D	
4		FY82F		0402105-07	
5		10/23/03		2/20/04	
66	Chromium (6010)	NA		NA	
67	Copper (6010)	NA		NA	
68	Lead (7421)	NA		NA	
69	Nickel (6010)	NA		NA	
70	Zinc (6010)	NA		NA	
71					
72	**MAJOR IONS AND CONVENTIONALS**				
73	Calcium (mg/L) (6010)	NA		NA	
74	Magnesium (mg/L) (6010)	NA		NA	
75	Potassium (mg/L) (6010)	NA		NA	
76	Sodium (mg/L) (6010)	NA		NA	
77	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA	
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA	
80	Total Dissolved Solids (mg/L) (EPA 160.1)	NA		NA	
81	Chloride (mg/L) (EPA 325.2)	NA		NA	
82	N-Nitrate (mg-N/L) (Calculated)	NA		NA	
83	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA	
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA	
85	Sulfate (mg/L) (EPA 375.2)	NA		NA	
86					

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1																												
2																												
3			LW18D		LW18D		LW18D		LW18D		LW18D		LW18D		LW18D		LW18D		LW18D		LW18D		LW18D		LW18D		LW18D	
4			CB85B		CL03S		CT67M		DE87D		DM30O		DW48G		ED34C		EN00I		ER93O		EZ03G		FF76D		FL66G		FU45Q	
5			8/31/00		11/9/00		2/14/01		6/5/01		8/13/01		11/29/01		2/28/02		6/27/02		08/27/02		11/12/02		2/12/03		5/9/03		8/28/03	
87	80	**FIELD PARAMETERS**																										
88	81	pH (avg)	6.48		6.12		6.08		6.38		6.60		6.44		6.26		6.45		6.64		6.57		6.83		6.62		6.79	
89	82	Temperature (° C) (avg)	14.1		12.8		13.9		14.7		15.2		13.8		14.5		15.5		16.0		14.6		14.4		15.1		18.8	
90	83	Conductivity (um/hos)	338		265		523		486		623		435		422		393		455		511		544		315		379	
91	84	Dissolved oxygen (mg/L) (avg)	2.14		1.25		0.37		0.69		1.82		3.27		7.60		4.42		0.82		0.69		0.88		1.78		0.98	
92	85																											
93	86	**DIOXINS AND FURANS (ng/L)**																										
94	87	**Method 8290**																										
95	88	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
96	89	Total TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
97	90	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
98	91	Total TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
101	94	Total PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
103	96	Total PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
108	101	Total HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
112	105	Total HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
115	108	Total HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
117	110	Total HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
118	111	OCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
119	112	OCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
120																												
121																												
122																												

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TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AC	AD	AE	AF
1					
2					
3		LW18D		LW18D	
4		FY82F		0402105-07	
5		10/23/03		2/20/04	
87	**FIELD PARAMETERS**				
88	pH (avg)	6.53		6.42	
89	Temperature (° C) (avg)	17.9		15.7	
90	Conductivity (um/hos)	425		206	
91	Dissolved oxygen (mg/L) (avg)	4.38		2.29	
92					
93	**DIOXINS AND FURANS (ng/L)**				
94	**Method 8290**				
95	2,3,7,8-TCDF	NA		NA	
96	Total TCDF	NA		NA	
97	2,3,7,8-TCDD	NA		NA	
98	Total TCDD	NA		NA	
99	1,2,3,7,8-PeCDF	NA		NA	
100	2,3,4,7,8-PeCDF	NA		NA	
101	Total PeCDF	NA		NA	
102	1,2,3,7,8-PeCDD	NA		NA	
103	Total PeCDD	NA		NA	
104	1,2,3,4,7,8-HxCDF	NA		NA	
105	1,2,3,6,7,8-HxCDF	NA		NA	
106	2,3,4,6,7,8-HxCDF	NA		NA	
107	1,2,3,7,8,9-HxCDF	NA		NA	
108	Total HxCDF	NA		NA	
109	1,2,3,4,7,8-HxCDD	NA		NA	
110	1,2,3,6,7,8-HxCDD	NA		NA	
111	1,2,3,7,8,9-HxCDD	NA		NA	
112	Total HxCDD	NA		NA	
113	1,2,3,4,6,7,8-HpCDF	NA		NA	
114	1,2,3,4,7,8,9-HpCDF	NA		NA	
115	Total HpCDF	NA		NA	
116	1,2,3,4,6,7,8-HpCDD	NA		NA	
117	Total HpCDD	NA		NA	
118	OCDF	NA		NA	
119	OCDD	NA		NA	
120					
121					
122					

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1																												
2																												
3			LW18D		LW18D		LW18D		LW18D		LW18D		LW18D		LW18D		LW18D		LW18D		LW18D		LW18D		LW18D		LW18D	
4			CB85B		CL03S		CT67M		DE87D		DM30O		DW48G		ED34C		EN00I		ER93O		EZ03G		FF76D		FL66G		FU45Q	
5			8/31/00		11/9/00		2/14/01		6/5/01		8/13/01		11/29/01		2/28/02		6/27/02		08/27/02		11/12/02		2/12/03		5/9/03		8/28/03	
123		**PAHs (µg/L)**																										
124		**EPA Method SW8270 SIM**																										
125		Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
126		2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
127		Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
128		Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
129		Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
130		Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
131		Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AC	AD	AE	AF
1					
2					
3		LW18D		LW18D	
4		FY82F		0402105-07	
5		10/23/03		2/20/04	
123	**PAHs (µg/L)**				
124	**EPA Method SW8270 SIM**				
125	Naphthalene	NA		NA	
126	2-Methylnaphthalene	NA		NA	
127	Acenaphthylene	NA		NA	
128	Acenaphthene	NA		NA	
129	Fluorene	NA		NA	
130	Anthracene	NA		NA	
131	Dibenzofuran	NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2								
3			LW20D		LW20D		LW20D	
4			FZ04N		0402115-03		0406050-10	
5			10/28/03		2/24/04		6/8/04	
7	1	**CHLORINATED PHENOLS (µg/L)**						
8	2	**EPA Method SW8040**						
9	3	Pentachlorophenol	NA		NA		NA	
10	4	2,4,6-Trichlorophenol	NA		NA		NA	
11	5	2,3,6-Trichlorophenol	NA		NA		NA	
12	6	2,4,5-Trichlorophenol	NA		NA		NA	
13	7	2,3,4-Trichlorophenol	NA		NA		NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA		NA	
15	9	2,3,4,5-Tetrachlorophenol	NA		NA		NA	
16	10							
17	11	**SEMIVOLATILES (µg/L)**						
18	12	**EPA Method SW8270**						
19	13	Phenol	2	U	2.05	U	2.08	U
20	14	4-Methylphenol	1	U	10.2	U	10.4	U
21	15	Isophorone	1	U	1.02	U	1.04	U
22	16	2,4-Dimethylphenol	3	U	3.07	U	3.12	U
23	17	Benzoic Acid	10	U	20.5	U	20.8	U
24	18	Naphthalene	1	U	1.02	U	1.04	U
25	19	2-Methylnaphthalene	1	U	1.02	U	1.04	U
26	20	2,4,6-Trichlorophenol	5	U	5.12	U	5.19	U
27	21	2,4,5-Trichlorophenol	5	U	5.12	U	5.19	U
28	22	Acenaphthene	1	U	1.02	U	1.04	U
29	23	Dibenzofuran	1	U	1.02	U	1.04	U
30	24	Fluorene	1	U	1.02	U	1.04	U
31	25	Pentachlorophenol	5	U	5.12	U	5.19	U
32	26	bis(2-Ethylhexyl)phthalate	**3.9**		1.02	U	1.04	U
33	27							
34	28	**VOLATILES (µg/L)**						
35	29	**EPA Method SW8260**						
36	30	Acetone	**6**	M	50	U	50	U
37	31	Carbon Disulfide	1	U	2	U	2	U
38	32	2-Butanone	5	U	10	U	10	U
39	33	Benzene	1	U	0.4	U	0.3	U
40	34	Bromoform	1	U	1	U	1	U
41	35	Toluene	1	U	1	U	1	U
42	36	Ethylbenzene	1	U	1	U	1	U
43	37	Styrene	1	U	1	U	1	U
44	38	m,p-Xylene	1	U	2	U	2	U
45	39	o-Xylene	1	U	1	U	1	U
46	40	1,3,5-Trimethylbenzene	1	U	1	U	1	U
47	41	1,2,4-Trimethylbenzene	1	U	1	U	1	U
48	42	Isopropylbenzene	1	U	1	U	1	U
49	43	n-Propylbenzene	1	U	1	U	1	U
50	44	tert-Butylbenzene	1	U	1	U	1	U
51	45	sec-Butylbenzene	1	U	1	U	1	U
52	46	4-Isopropyltoluene	1	U	1	U	1	U
53	47	n-Butylbenzene	1	U	1	U	1	U
54	48	Naphthalene	5	U	1	U	1	U
55		Methyl tert-butyl ether	**1.5**		1	U	1	U
56	49							
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**						
58	51	**Method OR-DEQ**						
59	52	**TPH-Diesel**	**0.4**		**0.369**		**0.573**	
60	53	**TPH-D Motor Oil**	0.5	U	0.492	U	0.504	U
61	54	**TPH-Gasoline**	0.25	U	0.1	U	0.1	U
62	55							
63	56	**PRIORITY POLLUTANT**						
64	57	**METALS (mg/L)**						
65	58	Arsenic (7060)	**0.021**		**0.029**		**0.027**	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2								
3			LW20D		LW20D		LW20D	
4			FZ04N		0402115-03		0406050-10	
5			10/28/03		2/24/04		6/8/04	
66	59	Chromium (6010)	0.005	U	**0.0206**		**0.0199**	
67	60	Copper (6010)	**0.004**		0.01	U	0.01	U
68	61	Lead (7421)	0.001	U	**0.0020**		**0.0014**	
69	62	Nickel (6010)	0.01	U	0.005	U	0.005	U
70	63	Zinc (6010)	**0.015**		**0.0113**		**0.0167**	
71	64							
72	65	**MAJOR IONS AND CONVENTIONALS**						
73	66	Calcium (mg/L) (6010)	NA		NA		NA	
74	67	Magnesium (mg/L) (6010)	NA		NA		NA	
75	68	Potassium (mg/L) (6010)	NA		NA		NA	
76	69	Sodium (mg/L) (6010)	NA		NA		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	**220**		**244**		**222**	
81	74	Chloride (mg/L) (EPA 325.2)	**5.6**		**2.77**		**2.8**	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA		NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	NA		NA		NA	
86	79							

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2								
3			LW20D		LW20D		LW20D	
4			FZ04N		0402115-03		0406050-10	
5			10/28/03		2/24/04		6/8/04	
87	80	**FIELD PARAMETERS**						
88	81	pH (avg)	6.62		6.74		6.82	
89	82	Temperature (° C) (avg)	15.8		14.1		14.8	
90	83	Conductivity (um/hos)	347		283		264	
91	84	Dissolved oxygen (mg/L) (avg)	2.04		2.67		1.19	
92	85							
93	86	**DIOXINS AND FURANS (ng/L)**						
94	87	**Method 8290**						
95	88	2,3,7,8-TCDF	NA		NA		NA	
96	89	Total TCDF	NA		NA		NA	
97	90	2,3,7,8-TCDD	NA		NA		NA	
98	91	Total TCDD	NA		NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA		NA	
101	94	Total PeCDF	NA		NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA		NA	
103	96	Total PeCDD	NA		NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA	
108	101	Total HxCDF	NA		NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA	
112	105	Total HxCDD	NA		NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA	
115	108	Total HpCDF	NA		NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA	
117	110	Total HpCDD	NA		NA		NA	
118	111	OCDF	NA		NA		NA	
119	112	OCDD	NA		NA		NA	
120								
121								
122								

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2								
3			LW20D		LW20D		LW20D	
4			FZ04N		0402115-03		0406050-10	
5			10/28/03		2/24/04		6/8/04	
123		**PAHs (µg/L)**						
124		**EPA Method SW8270 SIM**						
125		Naphthalene	0.1	U	0.0557	U	**0.06**	
126		2-Methylnaphthalene	0.1	U	NA		NA	
127		Acenaphthylene	0.1	U	0.0557	U	0.05	U
128		Acenaphthene	0.1	U	0.0557	U	0.05	U
129		Fluorene	0.1	U	**0.078**		**0.17**	
130		Anthracene	0.1	U	0.0557	U	0.05	U
131		Dibenzofuran	0.1	U	NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2								
3			LW22D		LW22D		LW22D	
4			FZ04A		0402115-10		0406040-03	
5			10/27/03		2/24/04		6/7/04	
7	1	**CHLORINATED PHENOLS (µg/L)**						
8	2	**EPA Method SW8040**						
9	3	Pentachlorophenol	NA		NA		NA	
10	4	2,4,6-Trichlorophenol	NA		NA		NA	
11	5	2,3,6-Trichlorophenol	NA		NA		NA	
12	6	2,4,5-Trichlorophenol	NA		NA		NA	
13	7	2,3,4-Trichlorophenol	NA		NA		NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA		NA	
15	9	2,3,4,5-Tetrachlorophenol	NA		NA		NA	
16	10							
17	11	**SEMIVOLATILES (µg/L)**						
18	12	**EPA Method SW8270**						
19	13	Phenol	**4.1**		2.05	U	1.9	U
20	14	4-Methylphenol	1.4	U	10.3	U	9.51	U
21	15	Isophorone	1.4	U	1.03	U	0.951	U
22	16	2,4-Dimethylphenol	4.2	U	3.08	U	2.85	U
23	17	Benzoic Acid	14	U	20.5	U	19	U
24	18	Naphthalene	1.4	U	1.03	U	0.951	U
25	19	2-Methylnaphthalene	1.4	U	1.03	U	0.951	U
26	20	2,4,6-Trichlorophenol	7	U	5.13	U	4.76	U
27	21	2,4,5-Trichlorophenol	7	U	5.13	U	4.76	U
28	22	Acenaphthene	1.4	U	1.03	U	0.951	U
29	23	Dibenzofuran	1.4	U	1.03	U	0.951	U
30	24	Fluorene	1.4	U	1.03	U	0.951	U
31	25	Pentachlorophenol	7	U	5.13	U	4.76	U
32	26	bis(2-Ethylhexyl)phthalate	1.4	U	1.03	U	0.951	U
33	27							
34	28	**VOLATILES (µg/L)**						
35	29	**EPA Method SW8260**						
36	30	Acetone	**5.2**	M	50	U	50	U
37	31	Carbon Disulfide	1	U	2	U	2	U
38	32	2-Butanone	5	U	10	U	10	U
39	33	Benzene	**2.9**		0.4	U	0.3	U
40	34	Bromoform	1	U	1	U	1	U
41	35	Toluene	**1.6**		1	U	1	U
42	36	Ethylbenzene	1	U	1	U	1	U
43	37	Styrene	1	U	1	U	1	U
44	38	m,p-Xylene	**1.6**		2	U	2	U
45	39	o-Xylene	1	U	1	U	1	U
46	40	1,3,5-Trimethylbenzene	1	U	1	U	1	U
47	41	1,2,4-Trimethylbenzene	1	U	1	U	1	U
48	42	Isopropylbenzene	**14**		1	U	**13.8**	
49	43	n-Propylbenzene	**12**		1	U	**5.59**	
50	44	tert-Butylbenzene	1	U	1	U	1	U
51	45	sec-Butylbenzene	**1.5**		1	U	**1.26**	
52	46	4-Isopropyltoluene	1	U	1	U	1	U
53	47	n-Butylbenzene	1	U	1	U	1	U
54	48	Naphthalene	5	U	1	U	1	U
55		Methyl tert-butyl ether	**1.9**	M	1	U	1	U
56	49							
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**						
58	51	**Method OR-DEQ**						
59	52	**TPH-Diesel**	**2**		**0.429**		**3.43**	
60	53	**TPH-D Motor Oil**	0.5	U	0.497	U	0.499	U
61	54	**TPH-Gasoline**	**0.54**		0.1	U	**0.239**	
62	55							
63	56	**PRIORITY POLLUTANT**						
64	57	**METALS (mg/L)**						
65	58	Arsenic (7060)	**0.023**		**0.039**		**0.026**	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2								
3			LW22D		LW22D		LW22D	
4			FZ04A		0402115-10		0406040-03	
5			10/27/03		2/24/04		6/7/04	
66	59	Chromium (6010)	**0.15**		**0.0195**		**0.0235**	
67	60	Copper (6010)	**0.199**		**0.0114**		0.01	U
68	61	Lead (7421)	**0.056**		**0.0097**		**0.0037**	
69	62	Nickel (6010)	**0.14**		0.005	U	0.005	U
70	63	Zinc (6010)	**0.4**		**0.0361**		**0.0175**	
71	64							
72	65	**MAJOR IONS AND CONVENTIONALS**						
73	66	Calcium (mg/L) (6010)	NA		NA		NA	
74	67	Magnesium (mg/L) (6010)	NA		NA		NA	
75	68	Potassium (mg/L) (6010)	NA		NA		NA	
76	69	Sodium (mg/L) (6010)	NA		NA		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	**280**		**263**		**308**	
81	74	Chloride (mg/L) (EPA 325.2)	**1.7**		**1.94**		**1.55**	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA		NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	NA		NA		NA	
86	79							

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2								
3			LW22D		LW22D		LW22D	
4			FZ04A		0402115-10		0406040-03	
5			10/27/03		2/24/04		6/7/04	
87	80	**FIELD PARAMETERS**						
88	81	pH (avg)	6.65		6.53		5.19	
89	82	Temperature (° C) (avg)	17.2		14.5		14.6	
90	83	Conductivity (um/hos)	498		295		377	
91	84	Dissolved oxygen (mg/L) (avg)	4.51		2.82		3.19	
92	85							
93	86	**DIOXINS AND FURANS (ng/L)**						
94	87	**Method 8290**						
95	88	2,3,7,8-TCDF	NA		NA		NA	
96	89	Total TCDF	NA		NA		NA	
97	90	2,3,7,8-TCDD	NA		NA		NA	
98	91	Total TCDD	NA		NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA		NA	
101	94	Total PeCDF	NA		NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA		NA	
103	96	Total PeCDD	NA		NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA	
108	101	Total HxCDF	NA		NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA	
112	105	Total HxCDD	NA		NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA	
115	108	Total HpCDF	NA		NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA	
117	110	Total HpCDD	NA		NA		NA	
118	111	OCDF	NA		NA		NA	
119	112	OCDD	NA		NA		NA	
120								
121								
122								

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2								
3			LW22D		LW22D		LW22D	
4			FZ04A		0402115-10		0406040-03	
5			10/27/03		2/24/04		6/7/04	
123		**PAHs (µg/L)**						
124		**EPA Method SW8270 SIM**						
125		Naphthalene	0.14	U	0.0523	U	**0.106**	
126		2-Methylnaphthalene	0.14	U	NA		NA	
127		Acenaphthylene	0.14	U	0.0523	U	0.0482	U
128		Acenaphthene	1		0.0523	U	0.0482	U
129		Fluorene	0.35		0.0523	U	0.0482	U
130		Anthracene	0.14	U	0.0523	U	0.0482	U
131		Dibenzofuran	0.14	U	NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2								
3			LW23D		LW23D		LW23D	
4			FZ04B		0402115-11		0406040-04	
5			10/27/03		2/24/04		6/7/04	
7	1	**CHLORINATED PHENOLS (µg/L)**						
8	2	**EPA Method SW8040**						
9	3	Pentachlorophenol	NA		NA		NA	
10	4	2,4,6-Trichlorophenol	NA		NA		NA	
11	5	2,3,6-Trichlorophenol	NA		NA		NA	
12	6	2,4,5-Trichlorophenol	NA		NA		NA	
13	7	2,3,4-Trichlorophenol	NA		NA		NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA		NA	
15	9	2,3,4,5-Tetrachlorophenol	NA		NA		NA	
16	10							
17	11	**SEMIVOLATILES (µg/L)**						
18	12	**EPA Method SW8270**						
19	13	Phenol	2	U	2.26	U	1.94	U
20	14	4-Methylphenol	1	U	11.3	U	9.68	U
21	15	Isophorone	1	U	1.13	U	0.968	U
22	16	2,4-Dimethylphenol	3	U	3.39	U	2.9	U
23	17	Benzoic Acid	10	U	22.6	U	19.4	U
24	18	Naphthalene	1	U	1.13	U	0.968	U
25	19	2-Methylnaphthalene	1	U	1.13	U	0.968	U
26	20	2,4,6-Trichlorophenol	5	U	5.66	U	4.84	U
27	21	2,4,5-Trichlorophenol	5	U	5.66	U	4.84	U
28	22	Acenaphthene	1	U	1.13	U	0.968	U
29	23	Dibenzofuran	1	U	1.13	U	0.968	U
30	24	Fluorene	1	U	1.13	U	0.968	U
31	25	Pentachlorophenol	5	U	5.66	U	4.84	U
32	26	bis(2-Ethylhexyl)phthalate	**6.8**		1.13	U	0.968	U
33	27							
34	28	**VOLATILES (µg/L)**						
35	29	**EPA Method SW8260**						
36	30	Acetone	**19**		50	U	50	U
37	31	Carbon Disulfide	1	U	2	U	2	U
38	32	2-Butanone	5	U	10	U	10	U
39	33	Benzene	**40**		**22.9**		**132**	
40	34	Bromoform	1	U	1	U	1	U
41	35	Toluene	**1.2**		1	U	1	U
42	36	Ethylbenzene	1	U	1	U	1	U
43	37	Styrene	1	U	1	U	1	U
44	38	m,p-Xylene	**1.2**		2	U	2	U
45	39	o-Xylene	1	U	1	U	1	U
46	40	1,3,5-Trimethylbenzene	1	U	1	U	1	U
47	41	1,2,4-Trimethylbenzene	1	U	1	U	1	U
48	42	Isopropylbenzene	**16**		**8.51**		**13.7**	
49	43	n-Propylbenzene	**8.6**		**6.71**		**6.9**	
50	44	tert-Butylbenzene	1	U	1	U	1	U
51	45	sec-Butylbenzene	**3.3**		**1.12**		**2.86**	
52	46	4-Isopropyltoluene	1	U	1	U	1	U
53	47	n-Butylbenzene	**1.6**		1	U	**1.4**	
54	48	Naphthalene	5	U	1	U	1	U
55		Methyl tert-butyl ether	**33**		**17.4**		**51.2**	
56	49							
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**						
58	51	**Method OR-DEQ**						
59	52	**TPH-Diesel**	**2.9**		**1.53**		**4.44**	
60	53	**TPH-D Motor Oil**	0.5	U	**0.648**		0.527	U
61	54	**TPH-Gasoline**	**0.88**		**0.67**		**0.732**	
62	55							
63	56	**PRIORITY POLLUTANT**						
64	57	**METALS (mg/L)**						
65	58	Arsenic (7060)	**0.021**		**0.042**		**0.044**	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2								
3			LW23D		LW23D		LW23D	
4			FZ04B		0402115-11		0406040-04	
5			10/27/03		2/24/04		6/7/04	
66	59	Chromium (6010)	**0.135**		**0.0226**		**0.0248**	
67	60	Copper (6010)	**0.201**		**0.0197**		0.01	U
68	61	Lead (7421)	**0.068**		**0.0085**		**0.0047**	
69	62	Nickel (6010)	**0.11**		0.005	U	0.005	U
70	63	Zinc (6010)	**0.348**		**0.0333**		**0.024**	
71	64							
72	65	**MAJOR IONS AND CONVENTIONALS**						
73	66	Calcium (mg/L) (6010)	NA		NA		NA	
74	67	Magnesium (mg/L) (6010)	NA		NA		NA	
75	68	Potassium (mg/L) (6010)	NA		NA		NA	
76	69	Sodium (mg/L) (6010)	NA		NA		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	**330**		**349**		**456**	
81	74	Chloride (mg/L) (EPA 325.2)	**2.4**		**2.54**		**2.54**	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA		NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	NA		NA		NA	
86	79							

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2								
3			LW23D		LW23D		LW23D	
4			FZ04B		0402115-11		0406040-04	
5			10/27/03		2/24/04		6/7/04	
87	80	**FIELD PARAMETERS**						
88	81	pH (avg)	6.78		6.85		5.51	
89	82	Temperature (° C) (avg)	15.8		13.9		14.5	
90	83	Conductivity (um/hos)	547		474		547	
91	84	Dissolved oxygen (mg/L) (avg)	0.35		1.11		3.01	
92	85							
93	86	**DIOXINS AND FURANS (ng/L)**						
94	87	**Method 8290**						
95	88	2,3,7,8-TCDF	NA		NA		NA	
96	89	Total TCDF	NA		NA		NA	
97	90	2,3,7,8-TCDD	NA		NA		NA	
98	91	Total TCDD	NA		NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA		NA	
101	94	Total PeCDF	NA		NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA		NA	
103	96	Total PeCDD	NA		NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA	
108	101	Total HxCDF	NA		NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA	
112	105	Total HxCDD	NA		NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA	
115	108	Total HpCDF	NA		NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA	
117	110	Total HpCDD	NA		NA		NA	
118	111	OCDF	NA		NA		NA	
119	112	OCDD	NA		NA		NA	
120								
121								
122								

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2								
3			LW23D		LW23D		LW23D	
4			FZ04B		0402115-11		0406040-04	
5			10/27/03		2/24/04		6/7/04	
123		**PAHs (µg/L)**						
124		**EPA Method SW8270 SIM**						
125		Naphthalene	0.1	U	**0.09**		**0.517**	
126		2-Methylnaphthalene	0.1	U	NA		NA	
127		Acenaphthylene	0.1	U	0.05	U	**0.0683**	
128		Acenaphthene	0.61		**0.16**		**0.429**	
129		Fluorene	0.31		**0.06**		**0.0585**	
130		Anthracene	0.11		0.05	U	0.0488	U
131		Dibenzofuran	0.1	U	NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2								
3			LW24D		LW24D		LW24D	
4			FZ04U		0402115-07		0406040-07	
5			10/28/03		2/24/04		6/7/04	
7	1	**CHLORINATED PHENOLS (µg/L)**						
8	2	**EPA Method SW8040**						
9	3	Pentachlorophenol	NA		NA		NA	
10	4	2,4,6-Trichlorophenol	NA		NA		NA	
11	5	2,3,6-Trichlorophenol	NA		NA		NA	
12	6	2,4,5-Trichlorophenol	NA		NA		NA	
13	7	2,3,4-Trichlorophenol	NA		NA		NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA		NA	
15	9	2,3,4,5-Tetrachlorophenol	NA		NA		NA	
16	10							
17	11	**SEMIVOLATILES (µg/L)**						
18	12	**EPA Method SW8270**						
19	13	Phenol	2	U	2.14	U	1.9	U
20	14	4-Methylphenol	1	U	10.7	U	9.51	U
21	15	Isophorone	1	U	1.07	U	0.951	U
22	16	2,4-Dimethylphenol	3	U	3.22	U	2.85	U
23	17	Benzoic Acid	10	U	21.4	U	19	U
24	18	Naphthalene	1	U	1.07	U	0.951	U
25	19	2-Methylnaphthalene	1	U	1.07	U	0.951	U
26	20	2,4,6-Trichlorophenol	5	U	5.36	U	4.75	U
27	21	2,4,5-Trichlorophenol	5	U	5.36	U	4.75	U
28	22	Acenaphthene	1	U	**1.37**		**1.27**	
29	23	Dibenzofuran	1	U	1.07	U	0.951	U
30	24	Fluorene	1	U	**3.55**		**3.06**	
31	25	Pentachlorophenol	5	U	5.36	U	4.75	U
32	26	bis(2-Ethylhexyl)phthalate	**5.6**		1.07	U	**1.07**	
33	27							
34	28	**VOLATILES (µg/L)**						
35	29	**EPA Method SW8260**						
36	30	Acetone	5	U	50	U	50	U
37	31	Carbon Disulfide	1	U	2	U	2	U
38	32	2-Butanone	5	U	10	U	10	U
39	33	Benzene	1	U	0.4	U	0.3	U
40	34	Bromoform	1	U	1	U	1	U
41	35	Toluene	1	U	1	U	1	U
42	36	Ethylbenzene	1	U	1	U	1	U
43	37	Styrene	1	U	1	U	1	U
44	38	m,p-Xylene	1	U	2	U	2	U
45	39	o-Xylene	1	U	1	U	1	U
46	40	1,3,5-Trimethylbenzene	1	U	1	U	1	U
47	41	1,2,4-Trimethylbenzene	1	U	1	U	1	U
48	42	Isopropylbenzene	**2.2**		**7.97**		**8.96**	
49	43	n-Propylbenzene	1	U	**12.8**		**11.5**	
50	44	tert-Butylbenzene	1	U	1	U	1	U
51	45	sec-Butylbenzene	**1.3**		**4.81**		**4.84**	
52	46	4-Isopropyltoluene	1	U	1	U	1	U
53	47	n-Butylbenzene	1	U	**2.85**		**3.51**	
54	48	Naphthalene	5	U	1	U	1	U
55		Methyl tert-butyl ether	1	U	1	U	1	U
56	49							
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**						
58	51	**Method OR-DEQ**						
59	52	**TPH-Diesel**	**2.5**		**5.43**		**6.84**	
60	53	**TPH-D Motor Oil**	0.5	U	**1.15**		0.541	U
61	54	**TPH-Gasoline**	**0.92**		**1.5**		**1.23**	
62	55							
63	56	**PRIORITY POLLUTANT**						
64	57	**METALS (mg/L)**						
65	58	Arsenic (7060)	**0.009**		**0.066**		**0.058**	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2								
3			LW24D		LW24D		LW24D	
4			FZ04U		0402115-07		0406040-07	
5			10/28/03		2/24/04		6/7/04	
66	59	Chromium (6010)	**0.125**		**0.0423**		**0.0421**	
67	60	Copper (6010)	**0.163**		**0.0474**		**0.0256**	
68	61	Lead (7421)	**0.058**		**0.0182**		**0.0126**	
69	62	Nickel (6010)	**0.11**		**0.0096**		**0.0069**	
70	63	Zinc (6010)	**0.327**		**0.102**		**0.0779**	
71	64							
72	65	**MAJOR IONS AND CONVENTIONALS**						
73	66	Calcium (mg/L) (6010)	NA		NA		NA	
74	67	Magnesium (mg/L) (6010)	NA		NA		NA	
75	68	Potassium (mg/L) (6010)	NA		NA		NA	
76	69	Sodium (mg/L) (6010)	NA		NA		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	**340**		**277**		**350**	
81	74	Chloride (mg/L) (EPA 325.2)	**2.2**		**2.3**		**1.89**	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA		NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	NA		NA		NA	
86	79							

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2								
3			LW24D		LW24D		LW24D	
4			FZ04U		0402115-07		0406040-07	
5			10/28/03		2/24/04		6/7/04	
87	80	**FIELD PARAMETERS**						
88	81	pH (avg)	6.87		6.69		5.43	
89	82	Temperature (° C) (avg)	16.9		14.8		15.5	
90	83	Conductivity (um/hos)	494		440		426	
91	84	Dissolved oxygen (mg/L) (avg)	0.57		1.08		1.6	
92	85							
93	86	**DIOXINS AND FURANS (ng/L)**						
94	87	**Method 8290**						
95	88	2,3,7,8-TCDF	NA		NA		NA	
96	89	Total TCDF	NA		NA		NA	
97	90	2,3,7,8-TCDD	NA		NA		NA	
98	91	Total TCDD	NA		NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA		NA	
101	94	Total PeCDF	NA		NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA		NA	
103	96	Total PeCDD	NA		NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA	
108	101	Total HxCDF	NA		NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA	
112	105	Total HxCDD	NA		NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA	
115	108	Total HpCDF	NA		NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA	
117	110	Total HpCDD	NA		NA		NA	
118	111	OCDF	NA		NA		NA	
119	112	OCDD	NA		NA		NA	
120								
121								
122								

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2								
3			LW24D		LW24D		LW24D	
4			FZ04U		0402115-07		0406040-07	
5			10/28/03		2/24/04		6/7/04	
123		**PAHs (µg/L)**						
124		**EPA Method SW8270 SIM**						
125		Naphthalene	0.1	U	**0.749**		**0.87**	
126		2-Methylnaphthalene	0.1	U	NA		NA	
127		Acenaphthylene	0.1	U	**0.375**		**0.303**	
128		Acenaphthene	0.91		**1.56**		**1.21**	
129		Fluorene	0.7		**3.96**		**2.81**	
130		Anthracene	0.43		**0.135**		**0.162**	
131		Dibenzofuran	0.1	U	NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2								
3			LW25D		LW25D		LW25D	
4			FZ04V		0402115-08		0406040-08	
5			10/28/03		2/24/04		6/7/04	
7	1	**CHLORINATED PHENOLS (µg/L)**						
8	2	**EPA Method SW8040**						
9	3	Pentachlorophenol	NA		NA		NA	
10	4	2,4,6-Trichlorophenol	NA		NA		NA	
11	5	2,3,6-Trichlorophenol	NA		NA		NA	
12	6	2,4,5-Trichlorophenol	NA		NA		NA	
13	7	2,3,4-Trichlorophenol	NA		NA		NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA		NA	
15	9	2,3,4,5-Tetrachlorophenol	NA		NA		NA	
16	10							
17	11	**SEMIVOLATILES (µg/L)**						
18	12	**EPA Method SW8270**						
19	13	Phenol	2.3	U	2.13	U	2.04	U
20	14	4-Methylphenol	1.2	U	10.7	U	10.2	U
21	15	Isophorone	1.2	U	1.07	U	1.02	U
22	16	2,4-Dimethylphenol	3.5	U	3.2	U	3.06	U
23	17	Benzoic Acid	12	U	21.3	U	20.4	U
24	18	Naphthalene	1.2	U	1.07	U	1.02	U
25	19	2-Methylnaphthalene	1.2	U	1.07	U	1.02	U
26	20	2,4,6-Trichlorophenol	5.8	U	5.34	U	5.11	U
27	21	2,4,5-Trichlorophenol	5.8	U	5.34	U	5.11	U
28	22	Acenaphthene	1.2	U	1.07	U	1.02	U
29	23	Dibenzofuran	1.2	U	1.07	U	1.02	U
30	24	Fluorene	1.2	U	1.29	U	1.02	U
31	25	Pentachlorophenol	5.8	U	5.34	U	5.11	U
32	26	bis(2-Ethylhexyl)phthalate	1.2	U	1.07	U	**3.53**	
33	27							
34	28	**VOLATILES (µg/L)**						
35	29	**EPA Method SW8260**						
36	30	Acetone	5	U	50	U	50	U
37	31	Carbon Disulfide	1	U	2	U	2	U
38	32	2-Butanone	5	U	10	U	10	U
39	33	Benzene	1	U	0.4	U	0.3	U
40	34	Bromoform	1	U	1	U	1	U
41	35	Toluene	1	U	1	U	1	U
42	36	Ethylbenzene	1	U	1	U	1	U
43	37	Styrene	1	U	1	U	1	U
44	38	m,p-Xylene	**1.6**		2	U	2	U
45	39	o-Xylene	1	U	1	U	1	U
46	40	1,3,5-Trimethylbenzene	1	U	1	U	1	U
47	41	1,2,4-Trimethylbenzene	1	U	1	U	1	U
48	42	Isopropylbenzene	**5.6**		**5.01**		**1.29**	
49	43	n-Propylbenzene	**2**		1	U	1	U
50	44	tert-Butylbenzene	1	U	1	U	1	U
51	45	sec-Butylbenzene	**1.2**		**2.43**		**1.4**	
52	46	4-Isopropyltoluene	1	U	1	U	1	U
53	47	n-Butylbenzene	1	U	1	U	1	U
54	48	Naphthalene	5	U	1	U	1	U
55		Methyl tert-butyl ether	1	U	1	U	1	U
56	49							
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**						
58	51	**Method OR-DEQ**						
59	52	**TPH-Diesel**	**1.3**		**6.67**		**2.31**	
60	53	**TPH-D Motor Oil**	0.5	U	**1.32**		0.494	U
61	54	**TPH-Gasoline**	**0.43**		**0.88**		**0.409**	J
62	55							
63	56	**PRIORITY POLLUTANT**						
64	57	**METALS (mg/L)**						
65	58	Arsenic (7060)	**0.032**		**0.026**		**0.028**	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2								
3			LW25D		LW25D		LW25D	
4			FZ04V		0402115-08		0406040-08	
5			10/28/03		2/24/04		6/7/04	
66	59	Chromium (6010)	**0.31**		**0.0517**		**0.0345**	
67	60	Copper (6010)	**0.373**		**0.0441**		**0.0179**	
68	61	Lead (7421)	**0.15**		**0.0233**		**0.0108**	
69	62	Nickel (6010)	**0.28**		**0.0158**		**0.0084**	
70	63	Zinc (6010)	**0.83**		**0.113**		**0.0647**	
71	64							
72	65	**MAJOR IONS AND CONVENTIONALS**						
73	66	Calcium (mg/L) (6010)	NA		NA		NA	
74	67	Magnesium (mg/L) (6010)	NA		NA		NA	
75	68	Potassium (mg/L) (6010)	NA		NA		NA	
76	69	Sodium (mg/L) (6010)	NA		NA		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	**210**		**250**		**232**	
81	74	Chloride (mg/L) (EPA 325.2)	**12**		**1.96**		**1.51**	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA		NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	NA		NA		NA	
86	79							

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2								
3			LW25D		LW25D		LW25D	
4			FZ04V		0402115-08		0406040-08	
5			10/28/03		2/24/04		6/7/04	
87	80	**FIELD PARAMETERS**						
88	81	pH (avg)	6.55		6.58		5.05	
89	82	Temperature (° C) (avg)	18.1		14.8		16	
90	83	Conductivity (um/hos)	290		381		232	
91	84	Dissolved oxygen (mg/L) (avg)	2.68		1.36		3.2	
92	85							
93	86	**DIOXINS AND FURANS (ng/L)**						
94	87	**Method 8290**						
95	88	2,3,7,8-TCDF	NA		NA		NA	
96	89	Total TCDF	NA		NA		NA	
97	90	2,3,7,8-TCDD	NA		NA		NA	
98	91	Total TCDD	NA		NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA		NA	
101	94	Total PeCDF	NA		NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA		NA	
103	96	Total PeCDD	NA		NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA	
108	101	Total HxCDF	NA		NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA	
112	105	Total HxCDD	NA		NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA	
115	108	Total HpCDF	NA		NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA	
117	110	Total HpCDD	NA		NA		NA	
118	111	OCDF	NA		NA		NA	
119	112	OCDD	NA		NA		NA	
120								
121								
122								

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2								
3			LW25D		LW25D		LW25D	
4			FZ04V		0402115-08		0406040-08	
5			10/28/03		2/24/04		6/7/04	
123		**PAHs (µg/L)**						
124		**EPA Method SW8270 SIM**						
125		Naphthalene	0.12	U	**0.352**		**0.397**	
126		2-Methylnaphthalene	0.12	U	NA		NA	
127		Acenaphthylene	0.12	U	**0.0771**		0.0509	U
128		Acenaphthene	0.45		**0.639**		**0.112**	
129		Fluorene	0.57		**0.738**		**0.285**	
130		Anthracene	0.12	U	**0.0771**		**0.214**	
131		Dibenzofuran	0.12	U	NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2								
3			LW26D		LW26D		LW26D	
4			FZ04T		0402115-05		0406040-06	
5			10/28/03		2/24/04		6/7/04	
7	1	**CHLORINATED PHENOLS (µg/L)**						
8	2	**EPA Method SW8040**						
9	3	Pentachlorophenol	NA		NA		NA	
10	4	2,4,6-Trichlorophenol	NA		NA		NA	
11	5	2,3,6-Trichlorophenol	NA		NA		NA	
12	6	2,4,5-Trichlorophenol	NA		NA		NA	
13	7	2,3,4-Trichlorophenol	NA		NA		NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA		NA	
15	9	2,3,4,5-Tetrachlorophenol	NA		NA		NA	
16	10							
17	11	**SEMIVOLATILES (µg/L)**						
18	12	**EPA Method SW8270**						
19	13	Phenol	2.2	U	2.22	U	1.94	U
20	14	4-Methylphenol	1.1	U	11.1	U	9.72	U
21	15	Isophorone	1.1	U	1.11	U	0.972	U
22	16	2,4-Dimethylphenol	3.3	U	3.33	U	2.92	U
23	17	Benzoic Acid	11	U	22.2	U	19.4	U
24	18	Naphthalene	1.1	U	1.11	U	0.972	U
25	19	2-Methylnaphthalene	1.1	U	1.11	U	0.972	U
26	20	2,4,6-Trichlorophenol	5.5	U	5.56	U	4.86	U
27	21	2,4,5-Trichlorophenol	5.5	U	5.56	U	4.86	U
28	22	Acenaphthene	1.1	U	1.11	U	0.972	U
29	23	Dibenzofuran	1.1	U	1.11	U	0.972	U
30	24	Fluorene	1.1	U	1.11	U	0.972	U
31	25	Pentachlorophenol	5.5	U	5.56	U	4.86	U
32	26	bis(2-Ethylhexyl)phthalate	1.1	U	1.11	U	0.972	U
33	27							
34	28	**VOLATILES (µg/L)**						
35	29	**EPA Method SW8260**						
36	30	Acetone	**11**		50	U	50	U
37	31	Carbon Disulfide	1	U	2	U	2	U
38	32	2-Butanone	5	U	10	U	10	U
39	33	Benzene	1	U	0.4	U	0.3	U
40	34	Bromoform	1	U	1	U	1	U
41	35	Toluene	1	U	1	U	1	U
42	36	Ethylbenzene	1	U	1	U	1	U
43	37	Styrene	1	U	1	U	1	U
44	38	m,p-Xylene	1	U	2	U	2	U
45	39	o-Xylene	1	U	1	U	1	U
46	40	1,3,5-Trimethylbenzene	1	U	1	U	1	U
47	41	1,2,4-Trimethylbenzene	1	U	1	U	1	U
48	42	Isopropylbenzene	1	U	1	U	1	U
49	43	n-Propylbenzene	1	U	1	U	1	U
50	44	tert-Butylbenzene	1	U	1	U	1	U
51	45	sec-Butylbenzene	1	U	1	U	1	U
52	46	4-Isopropyltoluene	1	U	1	U	1	U
53	47	n-Butylbenzene	1	U	1	U	1	U
54	48	Naphthalene	5	U	1	U	1	U
55		Methyl tert-butyl ether	**1.2**		1	U	1	U
56	49							
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**						
58	51	**Method OR-DEQ**						
59	52	**TPH-Diesel**	**1.1**		**1.74**		**4.07**	
60	53	**TPH-D Motor Oil**	0.5	U	**0.541**		0.491	U
61	54	**TPH-Gasoline**	**0.35**		**0.27**		**0.129**	
62	55							
63	56	**PRIORITY POLLUTANT**						
64	57	**METALS (mg/L)**						
65	58	Arsenic (7060)	**0.007**		**0.010**		**0.006**	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2								
3			LW26D		LW26D		LW26D	
4			FZ04T		0402115-05		0406040-06	
5			10/28/03		2/24/04		6/7/04	
66	59	Chromium (6010)	**0.012**		**0.0159**		**0.0185**	
67	60	Copper (6010)	**0.016**		0.01	U	0.01	U
68	61	Lead (7421)	**0.006**		**0.0027**		**0.0021**	
69	62	Nickel (6010)	**0.01**		0.005	U	0.005	U
70	63	Zinc (6010)	**0.036**		**0.0116**		**0.0161**	
71	64							
72	65	**MAJOR IONS AND CONVENTIONALS**						
73	66	Calcium (mg/L) (6010)	NA		NA		NA	
74	67	Magnesium (mg/L) (6010)	NA		NA		NA	
75	68	Potassium (mg/L) (6010)	NA		NA		NA	
76	69	Sodium (mg/L) (6010)	NA		NA		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	**300**		**349**		**356**	
81	74	Chloride (mg/L) (EPA 325.2)	**18**		**2.84**		**2.6**	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA		NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	NA		NA		NA	
86	79							

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2								
3			LW26D		LW26D		LW26D	
4			FZ04T		0402115-05		0406040-06	
5			10/28/03		2/24/04		6/7/04	
87	80	**FIELD PARAMETERS**						
88	81	pH (avg)	6.8		6.93		5.53	
89	82	Temperature (° C) (avg)	19.0		13		17.8	
90	83	Conductivity (um/hos)	509		388		397	
91	84	Dissolved oxygen (mg/L) (avg)	2.65		1.38		3.7	
92	85							
93	86	**DIOXINS AND FURANS (ng/L)**						
94	87	**Method 8290**						
95	88	2,3,7,8-TCDF	NA		NA		NA	
96	89	Total TCDF	NA		NA		NA	
97	90	2,3,7,8-TCDD	NA		NA		NA	
98	91	Total TCDD	NA		NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA		NA	
101	94	Total PeCDF	NA		NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA		NA	
103	96	Total PeCDD	NA		NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA	
108	101	Total HxCDF	NA		NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA	
112	105	Total HxCDD	NA		NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA	
115	108	Total HpCDF	NA		NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA	
117	110	Total HpCDD	NA		NA		NA	
118	111	OCDF	NA		NA		NA	
119	112	OCDD	NA		NA		NA	
120								
121								
122								

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2								
3			LW26D		LW26D		LW26D	
4			FZ04T		0402115-05		0406040-06	
5			10/28/03		2/24/04		6/7/04	
123		**PAHs (µg/L)**						
124		**EPA Method SW8270 SIM**						
125		Naphthalene	0.11	U	**0.0843**		0.0482	U
126		2-Methylnaphthalene	0.11	U	NA		NA	
127		Acenaphthylene	0.11	U	**0.116**		0.0482	U
128		Acenaphthene	0.11	U	**0.0632**		0.0482	U
129		Fluorene	0.11	U	**0.432**		0.0482	U
130		Anthracene	0.11	U	0.0527	U	0.0482	U
131		Dibenzofuran	0.11	U	NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2								
3			LW27D		LW27D		LW27D	
4			FZ04S		0402115-06		0406040-05	
5			10/28/03		2/24/04		6/7/04	
6								
7	1	**CHLORINATED PHENOLS (µg/L)**						
8	2	**EPA Method SW8040**						
9	3	Pentachlorophenol	NA		NA		NA	
10	4	2,4,6-Trichlorophenol	NA		NA		NA	
11	5	2,3,6-Trichlorophenol	NA		NA		NA	
12	6	2,4,5-Trichlorophenol	NA		NA		NA	
13	7	2,3,4-Trichlorophenol	NA		NA		NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA		NA	
15	9	2,3,4,5-Tetrachlorophenol	NA		NA		NA	
16	10							
17	11	**SEMIVOLATILES (µg/L)**						
18	12	**EPA Method SW8270**						
19	13	Phenol	2.2	U	1.99	U	1.98	U
20	14	4-Methylphenol	1.1	U	9.93	U	9.89	U
21	15	Isophorone	1.1	U	0.993	U	0.989	U
22	16	2,4-Dimethylphenol	3.2	U	2.98	U	2.97	U
23	17	Benzoic Acid	11	U	19.9	U	19.8	U
24	18	Naphthalene	1.1	U	0.993	U	0.989	U
25	19	2-Methylnaphthalene	1.1	U	0.993	U	0.989	U
26	20	2,4,6-Trichlorophenol	5.4	U	4.97	U	4.95	U
27	21	2,4,5-Trichlorophenol	5.4	U	4.97	U	4.95	U
28	22	Acenaphthene	1.1	U	0.993	U	0.989	U
29	23	Dibenzofuran	1.1	U	0.993	U	0.989	U
30	24	Fluorene	1.1	U	0.993	U	0.989	U
31	25	Pentachlorophenol	5.4	U	4.97	U	4.95	U
32	26	bis(2-Ethylhexyl)phthalate	1.1	U	0.993	U	0.989	U
33	27							
34	28	**VOLATILES (µg/L)**						
35	29	**EPA Method SW8260**						
36	30	Acetone	**7.9**		50	U	50	U
37	31	Carbon Disulfide	1	U	2	U	2	U
38	32	2-Butanone	5	U	10	U	10	U
39	33	Benzene	1	U	0.4	U	0.3	U
40	34	Bromoform	1	U	1	U	1	U
41	35	Toluene	1	U	1	U	1	U
42	36	Ethylbenzene	1	U	1	U	1	U
43	37	Styrene	1	U	1	U	1	U
44	38	m,p-Xylene	1	U	2	U	2	U
45	39	o-Xylene	1	U	1	U	1	U
46	40	1,3,5-Trimethylbenzene	1	U	1	U	1	U
47	41	1,2,4-Trimethylbenzene	1	U	1	U	1	U
48	42	Isopropylbenzene	1	U	1	U	1	U
49	43	n-Propylbenzene	1	U	1	U	1	U
50	44	tert-Butylbenzene	1	U	1	U	1	U
51	45	sec-Butylbenzene	1	U	1	U	1	U
52	46	4-Isopropyltoluene	1	U	1	U	1	U
53	47	n-Butylbenzene	1	U	1	U	1	U
54	48	Naphthalene	5	U	1	U	1	U
55		Methyl tert-butyl ether	1	U	1	U	1	U
56	49							
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**						
58	51	**Method OR-DEQ**						
59	52	**TPH-Diesel**	**0.54**		**0.598**		**2.43**	
60	53	**TPH-D Motor Oil**	0.5	U	0.497	U	0.557	U
61	54	**TPH-Gasoline**	0.25	U	0.1	U	**0.24**	
62	55							
63	56	**PRIORITY POLLUTANT**						
64	57	**METALS (mg/L)**						
65	58	Arsenic (7060)	**0.006**		**0.006**		**0.007**	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2								
3			LW27D		LW27D		LW27D	
4			FZ04S		0402115-06		0406040-05	
5			10/28/03		2/24/04		6/7/04	
66	59	Chromium (6010)	**0.009**		**0.0181**		**0.0203**	
67	60	Copper (6010)	**0.02**		0.01	U	0.01	U
68	61	Lead (7421)	**0.014**		**0.0021**		**0.0006**	
69	62	Nickel (6010)	**0.01**		0.005	U	0.005	U
70	63	Zinc (6010)	**0.047**		**0.0145**		0.01	U
71	64							
72	65	**MAJOR IONS AND CONVENTIONALS**						
73	66	Calcium (mg/L) (6010)	NA		NA		NA	
74	67	Magnesium (mg/L) (6010)	NA		NA		NA	
75	68	Potassium (mg/L) (6010)	NA		NA		NA	
76	69	Sodium (mg/L) (6010)	NA		NA		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	**240**		**306**		**318**	
81	74	Chloride (mg/L) (EPA 325.2)	**24**		**7.2**		**3.72**	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA		NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	NA		NA		NA	
86	79							

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2								
3			LW27D		LW27D		LW27D	
4			FZ04S		0402115-06		0406040-05	
5			10/28/03		2/24/04		6/7/04	
87	80	**FIELD PARAMETERS**						
88	81	pH (avg)	6.84		6.73		5.53	
89	82	Temperature (° C) (avg)	15.0		13.8		14.5	
90	83	Conductivity (um/hos)	329		345		363	
91	84	Dissolved oxygen (mg/L) (avg)	1.07		1.34		1.56	
92	85							
93	86	**DIOXINS AND FURANS (ng/L)**						
94	87	**Method 8290**						
95	88	2,3,7,8-TCDF	NA		NA		NA	
96	89	Total TCDF	NA		NA		NA	
97	90	2,3,7,8-TCDD	NA		NA		NA	
98	91	Total TCDD	NA		NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA		NA	
101	94	Total PeCDF	NA		NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA		NA	
103	96	Total PeCDD	NA		NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA	
108	101	Total HxCDF	NA		NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA	
112	105	Total HxCDD	NA		NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA	
115	108	Total HpCDF	NA		NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA	
117	110	Total HpCDD	NA		NA		NA	
118	111	OCDF	NA		NA		NA	
119	112	OCDD	NA		NA		NA	
120								
121								
122								

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2								
3			LW27D		LW27D		LW27D	
4			FZ04S		0402115-06		0406040-05	
5			10/28/03		2/24/04		6/7/04	
123		**PAHs (µg/L)**						
124		**EPA Method SW8270 SIM**						
125		Naphthalene	0.11	U	**0.0584**		**0.126**	
126		2-Methylnaphthalene	0.11	U	NA		NA	
127		Acenaphthylene	0.11	U	0.0584	U	0.0484	U
128		Acenaphthene	0.11	U	**0.0701**		**0.0871**	
129		Fluorene	0.11	U	0.0584	U	0.0484	U
130		Anthracene	0.11	U	0.0584	U	0.0484	U
131		Dibenzofuran	0.11	U	NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2								
3			LW29D		LW29D		LW29D	
4			FZ04D		0402080-07		0406050-07	
5			10/27/03		2/17/04		6/8/04	
6								
7	1	**CHLORINATED PHENOLS (µg/L)**						
8	2	**EPA Method SW8040**						
9	3	Pentachlorophenol	NA		NA		NA	
10	4	2,4,6-Trichlorophenol	NA		NA		NA	
11	5	2,3,6-Trichlorophenol	NA		NA		NA	
12	6	2,4,5-Trichlorophenol	NA		NA		NA	
13	7	2,3,4-Trichlorophenol	NA		NA		NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA		NA	
15	9	2,3,4,5-Tetrachlorophenol	NA		NA		NA	
16	10							
17	11	**SEMIVOLATILES (µg/L)**						
18	12	**EPA Method SW8270**						
19	13	Phenol	2.1	U	1.92	UJ	1.97	U
20	14	4-Methylphenol	1	U	9.61	UJ	9.87	U
21	15	Isophorone	1	U	0.961	UJ	0.987	U
22	16	2,4-Dimethylphenol	3.1	U	2.88	UJ	2.96	U
23	17	Benzoic Acid	10	U	19.2	UJ	19.7	U
24	18	Naphthalene	1	U	0.961	UJ	0.987	U
25	19	2-Methylnaphthalene	1	U	0.961	UJ	0.987	U
26	20	2,4,6-Trichlorophenol	5.2	U	4.8	UJ	4.94	U
27	21	2,4,5-Trichlorophenol	5.2	U	4.8	UJ	4.94	U
28	22	Acenaphthene	1	U	0.961	UJ	0.987	U
29	23	Dibenzofuran	1	U	0.961	UJ	0.987	U
30	24	Fluorene	1	U	0.961	UJ	0.987	U
31	25	Pentachlorophenol	5.2	U	4.8	UJ	4.94	U
32	26	bis(2-Ethylhexyl)phthalate	1	U	2.13	UJ	0.987	U
33	27							
34	28	**VOLATILES (µg/L)**						
35	29	**EPA Method SW8260**						
36	30	Acetone	5	U	50	U	50	U
37	31	Carbon Disulfide	**1.1**		2	U	2	U
38	32	2-Butanone	5	U	10	U	10	U
39	33	Benzene	1	U	0.4	U	0.3	U
40	34	Bromoform	1	U	1	U	1	U
41	35	Toluene	1	U	1	U	1	U
42	36	Ethylbenzene	1	U	1	U	1	U
43	37	Styrene	1	U	1	U	1	U
44	38	m,p-Xylene	1	U	2	U	2	U
45	39	o-Xylene	1	U	1	U	1	U
46	40	1,3,5-Trimethylbenzene	1	U	1	U	1	U
47	41	1,2,4-Trimethylbenzene	1	U	1	U	1	U
48	42	Isopropylbenzene	1	U	1	U	1	U
49	43	n-Propylbenzene	1	U	1	U	1	U
50	44	tert-Butylbenzene	1	U	1	U	1	U
51	45	sec-Butylbenzene	1	U	1	U	1	U
52	46	4-Isopropyltoluene	1	U	1	U	1	U
53	47	n-Butylbenzene	1	U	1	U	1	U
54	48	Naphthalene	5	U	1	U	1	U
55		Methyl tert-butyl ether	1	U	1	U	1	U
56	49							
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**						
58	51	**Method OR-DEQ**						
59	52	**TPH-Diesel**	0.25	U	0.242	U	0.249	U
60	53	**TPH-D Motor Oil**	0.5	U	0.483	U	0.497	U
61	54	**TPH-Gasoline**	0.25	U	0.1	U	0.1	U
62	55							
63	56	**PRIORITY POLLUTANT**						
64	57	**METALS (mg/L)**						
65	58	Arsenic (7060)	**0.004**		**0.006**		**0.006**	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2								
3			LW29D		LW29D		LW29D	
4			FZ04D		0402080-07		0406050-07	
5			10/27/03		2/17/04		6/8/04	
66	59	Chromium (6010)	**0.019**		**0.0137**		**0.0164**	
67	60	Copper (6010)	**0.019**		0.01	U	0.01	U
68	61	Lead (7421)	**0.006**		**0.0017**		**0.0013**	
69	62	Nickel (6010)	**0.02**		0.005	U	0.005	U
70	63	Zinc (6010)	**0.04**		**0.0336**		**0.0105**	
71	64							
72	65	**MAJOR IONS AND CONVENTIONALS**						
73	66	Calcium (mg/L) (6010)	NA		NA		NA	
74	67	Magnesium (mg/L) (6010)	NA		NA		NA	
75	68	Potassium (mg/L) (6010)	NA		NA		NA	
76	69	Sodium (mg/L) (6010)	NA		NA		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	**370**		**391**		**432**	
81	74	Chloride (mg/L) (EPA 325.2)	**30**		**4.25**		**4.33**	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA		NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	NA		NA		NA	
86	79							

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2								
3			LW29D		LW29D		LW29D	
4			FZ04D		0402080-07		0406050-07	
5			10/27/03		2/17/04		6/8/04	
87	80	**FIELD PARAMETERS**						
88	81	pH (avg)	6.69		7.14		7.02	
89	82	Temperature (° C) (avg)	16.0		13		14.5	
90	83	Conductivity (um/hos)	569		529		474	
91	84	Dissolved oxygen (mg/L) (avg)	3.36		2.18		1.41	
92	85							
93	86	**DIOXINS AND FURANS (ng/L)**						
94	87	**Method 8290**						
95	88	2,3,7,8-TCDF	NA		NA		NA	
96	89	Total TCDF	NA		NA		NA	
97	90	2,3,7,8-TCDD	NA		NA		NA	
98	91	Total TCDD	NA		NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA		NA	
101	94	Total PeCDF	NA		NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA		NA	
103	96	Total PeCDD	NA		NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA	
108	101	Total HxCDF	NA		NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA	
112	105	Total HxCDD	NA		NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA	
115	108	Total HpCDF	NA		NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA	
117	110	Total HpCDD	NA		NA		NA	
118	111	OCDF	NA		NA		NA	
119	112	OCDD	NA		NA		NA	
120								
121								
122								

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2								
3			LW29D		LW29D		LW29D	
4			FZ04D		0402080-07		0406050-07	
5			10/27/03		2/17/04		6/8/04	
123		**PAHs (µg/L)**						
124		**EPA Method SW8270 SIM**						
125		Naphthalene	0.1	U	0.0489	UJ	0.05	U
126		2-Methylnaphthalene	0.1	U	NA		NA	
127		Acenaphthylene	0.1	U	0.0489	UJ	0.05	U
128		Acenaphthene	0.1	U	0.0489	UJ	0.05	U
129		Fluorene	0.1	U	0.0489	UJ	0.05	U
130		Anthracene	0.1	U	0.0489	UJ	0.05	U
131		Dibenzofuran	0.1	U	NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2								
3			LW30D		LW30D		LW30D	
4			FZ04F		0402085-02		0406050-09	
5			10/27/03		2/18/04		6/8/04	
7	1	**CHLORINATED PHENOLS (µg/L)**						
8	2	**EPA Method SW8040**						
9	3	Pentachlorophenol	NA		NA		NA	
10	4	2,4,6-Trichlorophenol	NA		NA		NA	
11	5	2,3,6-Trichlorophenol	NA		NA		NA	
12	6	2,4,5-Trichlorophenol	NA		NA		NA	
13	7	2,3,4-Trichlorophenol	NA		NA		NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA		NA	
15	9	2,3,4,5-Tetrachlorophenol	NA		NA		NA	
16	10							
17	11	**SEMIVOLATILES (µg/L)**						
18	12	**EPA Method SW8270**						
19	13	Phenol	2.2	U	2.06	U	1.95	U
20	14	4-Methylphenol	1.1	U	10.3	U	9.76	U
21	15	Isophorone	1.1	U	1.03	U	0.976	U
22	16	2,4-Dimethylphenol	3.3	U	3.09	U	2.93	U
23	17	Benzoic Acid	11	U	20.6	U	19.5	U
24	18	Naphthalene	1.1	U	1.03	U	0.976	U
25	19	2-Methylnaphthalene	1.1	U	1.03	U	0.976	U
26	20	2,4,6-Trichlorophenol	5.6	U	5.15	U	4.88	U
27	21	2,4,5-Trichlorophenol	5.6	U	5.15	U	4.88	U
28	22	Acenaphthene	1.1	U	1.03	U	0.976	U
29	23	Dibenzofuran	1.1	U	1.03	U	0.976	U
30	24	Fluorene	1.1	U	1.03	U	0.976	U
31	25	Pentachlorophenol	5.6	U	5.15	U	4.88	U
32	26	bis(2-Ethylhexyl)phthalate	1.1	U	1.03	U	0.976	U
33	27							
34	28	**VOLATILES (µg/L)**						
35	29	**EPA Method SW8260**						
36	30	Acetone	**5.1**		50	UJ	50	U
37	31	Carbon Disulfide	1	U	**2.11**	J	2	U
38	32	2-Butanone	5	U	10	UJ	10	U
39	33	Benzene	1	U	0.4	UJ	0.3	U
40	34	Bromoform	1	U	1	UJ	1	U
41	35	Toluene	1	U	1	UJ	1	U
42	36	Ethylbenzene	1	U	1	UJ	1	U
43	37	Styrene	1	U	1	UJ	1	U
44	38	m,p-Xylene	1	U	2	UJ	2	U
45	39	o-Xylene	1	U	1	UJ	1	U
46	40	1,3,5-Trimethylbenzene	1	U	1	UJ	1	U
47	41	1,2,4-Trimethylbenzene	1	U	1	UJ	1	U
48	42	Isopropylbenzene	1	U	1	UJ	1	U
49	43	n-Propylbenzene	1	U	1	UJ	1	U
50	44	tert-Butylbenzene	1	U	1	UJ	1	U
51	45	sec-Butylbenzene	1	U	1	UJ	1	U
52	46	4-Isopropyltoluene	1	U	1	UJ	1	U
53	47	n-Butylbenzene	1	U	1	UJ	1	U
54	48	Naphthalene	5	U	1	UJ	1	U
55		Methyl tert-butyl ether	1	U	1	UJ	1	U
56	49							
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**						
58	51	**Method OR-DEQ**						
59	52	**TPH-Diesel**	0.25	U	**0.352**		**0.488**	
60	53	**TPH-D Motor Oil**	0.5	U	0.493	U	0.517	U
61	54	**TPH-Gasoline**	0.25	U	0.1	U	0.1	U
62	55							
63	56	**PRIORITY POLLUTANT**						
64	57	**METALS (mg/L)**						
65	58	Arsenic (7060)	**0.01**		**0.009**		**0.015**	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2								
3			LW30D		LW30D		LW30D	
4			FZ04F		0402085-02		0406050-09	
5			10/27/03		2/18/04		6/8/04	
66	59	Chromium (6010)	**0.026**		**0.0196**		**0.119**	
67	60	Copper (6010)	**0.04**		**0.016**		**0.156**	
68	61	Lead (7421)	**0.008**		**0.0033**		**0.0292**	
69	62	Nickel (6010)	**0.03**		0.005	U	**0.0682**	
70	63	Zinc (6010)	**0.07**		**0.0383**		**0.264**	
71	64							
72	65	**MAJOR IONS AND CONVENTIONALS**						
73	66	Calcium (mg/L) (6010)	NA		NA		NA	
74	67	Magnesium (mg/L) (6010)	NA		NA		NA	
75	68	Potassium (mg/L) (6010)	NA		NA		NA	
76	69	Sodium (mg/L) (6010)	NA		NA		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	**270**		**304**		**248**	
81	74	Chloride (mg/L) (EPA 325.2)	**7.3**		**8.36**		**7.41**	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA		NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	NA		NA		NA	
86	79							

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2								
3			LW30D		LW30D		LW30D	
4			FZ04F		0402085-02		0406050-09	
5			10/27/03		2/18/04		6/8/04	
87	80	**FIELD PARAMETERS**						
88	81	pH (avg)	6.65		6.86		6.69	
89	82	Temperature (° C) (avg)	13.8		13.8		14.7	
90	83	Conductivity (um/hos)	426		450		478	
91	84	Dissolved oxygen (mg/L) (avg)	1.96		2		1.34	
92	85							
93	86	**DIOXINS AND FURANS (ng/L)**						
94	87	**Method 8290**						
95	88	2,3,7,8-TCDF	NA		NA		NA	
96	89	Total TCDF	NA		NA		NA	
97	90	2,3,7,8-TCDD	NA		NA		NA	
98	91	Total TCDD	NA		NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA		NA	
101	94	Total PeCDF	NA		NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA		NA	
103	96	Total PeCDD	NA		NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA	
108	101	Total HxCDF	NA		NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA	
112	105	Total HxCDD	NA		NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA	
115	108	Total HpCDF	NA		NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA	
117	110	Total HpCDD	NA		NA		NA	
118	111	OCDF	NA		NA		NA	
119	112	OCDD	NA		NA		NA	
120								
121								
122								

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2								
3			LW30D		LW30D		LW30D	
4			FZ04F		0402085-02		0406050-09	
5			10/27/03		2/18/04		6/8/04	
123		**PAHs (µg/L)**						
124		**EPA Method SW8270 SIM**						
125		Naphthalene	0.11	U	0.0506	U	0.05	U
126		2-Methylnaphthalene	0.11	U	NA		NA	
127		Acenaphthylene	0.11	U	0.0506	U	0.05	U
128		Acenaphthene	0.11	U	0.0506	U	0.05	U
129		Fluorene	0.11	U	0.0506	U	0.05	U
130		Anthracene	0.11	U	0.0506	U	0.05	U
131		Dibenzofuran	0.11	U	NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2								
3			LW32D		LW32D		LW32D	
4			FZ04I		0402080-06		0406050-05	
5			10/27/03		2/17/04		6/8/04	
7	1	**CHLORINATED PHENOLS (µg/L)**						
8	2	**EPA Method SW8040**						
9	3	Pentachlorophenol	NA		NA		NA	
10	4	2,4,6-Trichlorophenol	NA		NA		NA	
11	5	2,3,6-Trichlorophenol	NA		NA		NA	
12	6	2,4,5-Trichlorophenol	NA		NA		NA	
13	7	2,3,4-Trichlorophenol	NA		NA		NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA		NA	
15	9	2,3,4,5-Tetrachlorophenol	NA		NA		NA	
16	10							
17	11	**SEMIVOLATILES (µg/L)**						
18	12	**EPA Method SW8270**						
19	13	Phenol	2.1	U	1.93	U	2.02	U
20	14	4-Methylphenol	1.1	U	9.65	U	10.1	U
21	15	Isophorone	1.1	U	0.965	U	1.01	U
22	16	2,4-Dimethylphenol	3.2	U	2.9	U	3.04	U
23	17	Benzoic Acid	11	U	19.3	U	20.2	U
24	18	Naphthalene	1.1	U	0.965	U	1.01	U
25	19	2-Methylnaphthalene	1.1	U	0.965	U	1.01	U
26	20	2,4,6-Trichlorophenol	5.3	U	4.83	U	5.06	U
27	21	2,4,5-Trichlorophenol	5.3	U	4.83	U	5.06	U
28	22	Acenaphthene	1.1	U	0.965	U	1.01	U
29	23	Dibenzofuran	1.1	U	0.965	U	1.01	U
30	24	Fluorene	1.1	U	0.965	U	1.01	U
31	25	Pentachlorophenol	5.3	U	4.83	U	5.06	U
32	26	bis(2-Ethylhexyl)phthalate	**2.2**		2.51	U	**2.21**	
33	27							
34	28	**VOLATILES (µg/L)**						
35	29	**EPA Method SW8260**						
36	30	Acetone	5	U	50	U	50	U
37	31	Carbon Disulfide	1	U	2	U	2	U
38	32	2-Butanone	5	U	10	U	10	U
39	33	Benzene	1	U	0.4	U	0.3	U
40	34	Bromoform	1	U	1	U	1	U
41	35	Toluene	1	U	1	U	1	U
42	36	Ethylbenzene	1	U	1	U	1	U
43	37	Styrene	1	U	1	U	1	U
44	38	m,p-Xylene	1	U	2	U	2	U
45	39	o-Xylene	1	U	1	U	1	U
46	40	1,3,5-Trimethylbenzene	1	U	1	U	1	U
47	41	1,2,4-Trimethylbenzene	1	U	1	U	1	U
48	42	Isopropylbenzene	1	U	1	U	1	U
49	43	n-Propylbenzene	1	U	1	U	1	U
50	44	tert-Butylbenzene	1	U	1	U	1	U
51	45	sec-Butylbenzene	1	U	1	U	1	U
52	46	4-Isopropyltoluene	1	U	1	U	1	U
53	47	n-Butylbenzene	1	U	1	U	1	U
54	48	Naphthalene	5	U	1	U	1	U
55		Methyl tert-butyl ether	1	U	1	U	1	U
56	49							
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**						
58	51	**Method OR-DEQ**						
59	52	**TPH-Diesel**	**0.35**		**0.504**		**0.72**	
60	53	**TPH-D Motor Oil**	0.5	U	0.491	U	0.559	U
61	54	**TPH-Gasoline**	0.25	U	0.1	U	0.1	U
62	55							
63	56	**PRIORITY POLLUTANT**						
64	57	**METALS (mg/L)**						
65	58	Arsenic (7060)	**0.004**		**0.009**		**0.010**	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2								
3			LW32D		LW32D		LW32D	
4			FZ04I		0402080-06		0406050-05	
5			10/27/03		2/17/04		6/8/04	
66	59	Chromium (6010)	**0.063**		**0.0202**		**0.0261**	
67	60	Copper (6010)	**0.082**		**0.0109**		0.01	U
68	61	Lead (7421)	**0.018**		**0.0028**		**0.0020**	
69	62	Nickel (6010)	**0.05**		0.005	U	0.005	U
70	63	Zinc (6010)	**0.146**		**0.0251**		**0.0189**	
71	64							
72	65	**MAJOR IONS AND CONVENTIONALS**						
73	66	Calcium (mg/L) (6010)	NA		NA		NA	
74	67	Magnesium (mg/L) (6010)	NA		NA		NA	
75	68	Potassium (mg/L) (6010)	NA		NA		NA	
76	69	Sodium (mg/L) (6010)	NA		NA		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	**270**		**332**		**343**	
81	74	Chloride (mg/L) (EPA 325.2)	**2.7**		**2.77**		**2.92**	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA		NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	NA		NA		NA	
86	79							

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2								
3			LW32D		LW32D		LW32D	
4			FZ04I		0402080-06		0406050-05	
5			10/27/03		2/17/04		6/8/04	
87	80	**FIELD PARAMETERS**						
88	81	pH (avg)	6.80		6.82		6.85	
89	82	Temperature (° C) (avg)	15.8		13.1		14.6	
90	83	Conductivity (um/hos)	436		474		421	
91	84	Dissolved oxygen (mg/L) (avg)	5.75		2.29		1.35	
92	85							
93	86	**DIOXINS AND FURANS (ng/L)**						
94	87	**Method 8290**						
95	88	2,3,7,8-TCDF	NA		NA		NA	
96	89	Total TCDF	NA		NA		NA	
97	90	2,3,7,8-TCDD	NA		NA		NA	
98	91	Total TCDD	NA		NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA		NA	
101	94	Total PeCDF	NA		NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA		NA	
103	96	Total PeCDD	NA		NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA	
108	101	Total HxCDF	NA		NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA	
112	105	Total HxCDD	NA		NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA	
115	108	Total HpCDF	NA		NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA	
117	110	Total HpCDD	NA		NA		NA	
118	111	OCDF	NA		NA		NA	
119	112	OCDD	NA		NA		NA	
120								
121								
122								

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2								
3			LW32D		LW32D		LW32D	
4			FZ04I		0402080-06		0406050-05	
5			10/27/03		2/17/04		6/8/04	
123		**PAHs (µg/L)**						
124		**EPA Method SW8270 SIM**						
125		Naphthalene	0.11	U	0.0473	UJ	0.05	U
126		2-Methylnaphthalene	0.11	U	NA		NA	
127		Acenaphthylene	0.11	U	0.0473	UJ	0.05	U
128		Acenaphthene	0.11	U	0.0473	UJ	0.05	U
129		Fluorene	0.11	U	0.0473	UJ	0.05	U
130		Anthracene	0.11	U	0.0473	UJ	0.05	U
131		Dibenzofuran	0.11	U	NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2								
3			LW35D		LW35D		LW35D	
4			FZ04K		0402115-09		0406040-02	
5			10/27/03		2/24/04		6/7/04	
7	1	**CHLORINATED PHENOLS (µg/L)**						
8	2	**EPA Method SW8040**						
9	3	Pentachlorophenol	NA		NA		NA	
10	4	2,4,6-Trichlorophenol	NA		NA		NA	
11	5	2,3,6-Trichlorophenol	NA		NA		NA	
12	6	2,4,5-Trichlorophenol	NA		NA		NA	
13	7	2,3,4-Trichlorophenol	NA		NA		NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA		NA	
15	9	2,3,4,5-Tetrachlorophenol	NA		NA		NA	
16	10							
17	11	**SEMIVOLATILES (µg/L)**						
18	12	**EPA Method SW8270**						
19	13	Phenol	2.9	U	1.99	U	2.01	U
20	14	4-Methylphenol	1.4	U	9.95	U	10	U
21	15	Isophorone	1.4	U	0.995	U	1	U
22	16	2,4-Dimethylphenol	4.3	U	2.99	U	3.01	U
23	17	Benzoic Acid	14	U	19.9	U	20.1	U
24	18	Naphthalene	1.4	U	0.995	U	1	U
25	19	2-Methylnaphthalene	1.4	U	0.995	U	1	U
26	20	2,4,6-Trichlorophenol	7.1	U	4.98	U	5.02	U
27	21	2,4,5-Trichlorophenol	7.1	U	4.98	U	5.02	U
28	22	Acenaphthene	1.4	U	0.995	U	1	U
29	23	Dibenzofuran	1.4	U	0.995	U	1	U
30	24	Fluorene	1.4	U	0.995	U	1	U
31	25	Pentachlorophenol	7.1	U	4.98	U	5.02	U
32	26	bis(2-Ethylhexyl)phthalate	**2.7**		0.995	U	1	U
33	27							
34	28	**VOLATILES (µg/L)**						
35	29	**EPA Method SW8260**						
36	30	Acetone	**7.9**	M	50	U	50	U
37	31	Carbon Disulfide	1	U	2	U	2	U
38	32	2-Butanone	5	U	10	U	10	U
39	33	Benzene	1	U	0.4	U	0.3	U
40	34	Bromoform	1	U	1	U	1	U
41	35	Toluene	1	U	1	U	1	U
42	36	Ethylbenzene	1	U	1	U	1	U
43	37	Styrene	1	U	1	U	1	U
44	38	m,p-Xylene	1	U	2	U	2	U
45	39	o-Xylene	1	U	1	U	1	U
46	40	1,3,5-Trimethylbenzene	1	U	1	U	1	U
47	41	1,2,4-Trimethylbenzene	1	U	1	U	1	U
48	42	Isopropylbenzene	**2.2**		**2.05**		1	U
49	43	n-Propylbenzene	1	U	1	U	1	U
50	44	tert-Butylbenzene	1	U	1	U	1	U
51	45	sec-Butylbenzene	1	U	1	U	1	U
52	46	4-Isopropyltoluene	1	U	1	U	1	U
53	47	n-Butylbenzene	1	U	1	U	1	U
54	48	Naphthalene	5	U	1	U	1	U
55		Methyl tert-butyl ether	**1.5**		1	U	1	U
56	49							
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**						
58	51	**Method OR-DEQ**						
59	52	**TPH-Diesel**	**3.1**		**0.491**		**4.13**	
60	53	**TPH-D Motor Oil**	0.5	U	0.486	U	0.492	U
61	54	**TPH-Gasoline**	0.25	U	0.1	U	**0.102**	
62	55							
63	56	**PRIORITY POLLUTANT**						
64	57	**METALS (mg/L)**						
65	58	Arsenic (7060)	**0.018**		**0.002**		**0.004**	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2								
3			LW35D		LW35D		LW35D	
4			FZ04K		0402115-09		0406040-02	
5			10/27/03		2/24/04		6/7/04	
66	59	Chromium (6010)	**0.35**		**0.0165**		**0.0326**	
67	60	Copper (6010)	**0.37**		0.01	U	**0.0107**	
68	61	Lead (7421)	**0.12**		**0.0042**		**0.0082**	
69	62	Nickel (6010)	**0.32**		0.005	U	**0.0114**	
70	63	Zinc (6010)	**0.93**		**0.0128**		**0.0444**	
71	64							
72	65	**MAJOR IONS AND CONVENTIONALS**						
73	66	Calcium (mg/L) (6010)	NA		NA		NA	
74	67	Magnesium (mg/L) (6010)	NA		NA		NA	
75	68	Potassium (mg/L) (6010)	NA		NA		NA	
76	69	Sodium (mg/L) (6010)	NA		NA		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	**240**		**263**		**364**	
81	74	Chloride (mg/L) (EPA 325.2)	**3.2**		**1.53**		**1.97**	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA		NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	NA		NA		NA	
86	79							

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2								
3			LW35D		LW35D		LW35D	
4			FZ04K		0402115-09		0406040-02	
5			10/27/03		2/24/04		6/7/04	
87	80	**FIELD PARAMETERS**						
88	81	pH (avg)	6.51		6.44		5.19	
89	82	Temperature (° C) (avg)	14.9		13.3		13.8	
90	83	Conductivity (um/hos)	526		272		428	
91	84	Dissolved oxygen (mg/L) (avg)	0.58		4.29		2.15	
92	85							
93	86	**DIOXINS AND FURANS (ng/L)**						
94	87	**Method 8290**						
95	88	2,3,7,8-TCDF	NA		NA		NA	
96	89	Total TCDF	NA		NA		NA	
97	90	2,3,7,8-TCDD	NA		NA		NA	
98	91	Total TCDD	NA		NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA		NA	
101	94	Total PeCDF	NA		NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA		NA	
103	96	Total PeCDD	NA		NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA	
108	101	Total HxCDF	NA		NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA	
112	105	Total HxCDD	NA		NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA	
115	108	Total HpCDF	NA		NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA	
117	110	Total HpCDD	NA		NA		NA	
118	111	OCDF	NA		NA		NA	
119	112	OCDD	NA		NA		NA	
120								
121								
122								

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2								
3			LW35D		LW35D		LW35D	
4			FZ04K		0402115-09		0406040-02	
5			10/27/03		2/24/04		6/7/04	
123		**PAHs (µg/L)**						
124		**EPA Method SW8270 SIM**						
125		Naphthalene	0.14	U	0.0509	U	**0.133**	
126		2-Methylnaphthalene	0.14	U	NA		NA	
127		Acenaphthylene	0.14	U	0.0509	U	0.0513	U
128		Acenaphthene	0.14	U	0.0509	U	0.0513	U
129		Fluorene	0.14	U	0.0509	U	0.0513	U
130		Anthracene	0.14	U	0.0509	U	0.0513	U
131		Dibenzofuran	0.14	U	NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
3			O		O		O		O		O		O		O		O		O		O		O		O		O	
4			S177M		T176J		U235P		V208J		W391L		Y314M		Z225S		Z960Y		AH27A		AU45O		BC30B		BH96A		BR64A	
5			4/1/97		7/15/97		10/22/97		1/28/98		5/19/98		8/18/98		11/13/98		2/17/99		5/17/99		9/22/99		12/7/99		2/16/00		5/23/00	
7	1	**CHLORINATED PHENOLS (µg/L)**																										
8	2	**EPA Method SW8040**																										
9	3	Pentachlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
10	4	2,4,6-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
11	5	2,3,6-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
12	6	2,4,5-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
13	7	2,3,4-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
15	9	2,3,4,5-Tetrachlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
16	10																											
17	11	**SEMIVOLATILES (µg/L)**																										
18	12	**EPA Method SW8270**																										
19	13	Phenol	**8.9**		**20**		**2.8**		2.0	U	2.0	U	2.0	U	**4.1**		2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
20	14	4-Methylphenol	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
21	15	Isophorone	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
22	16	2,4-Dimethylphenol	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U
23	17	Benzoic Acid	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
24	18	Naphthalene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
25	19	2-Methylnaphthalene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
26	20	2,4,6-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
27	21	2,4,5-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
28	22	Acenaphthene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**1.6**		**1.0**		1.0	U	**1.2**		1.0	U	1.0	U	1.0	U
29	23	Dibenzofuran	1.0	U	**2.2**		**2.0**		1.0	U	1.0	U	**1.6**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
30	24	Fluorene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**2.2**		1.0	U	1.0	U	**1.9**		1.0	U	1.0	U	**1.7**	
31	25	Pentachlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
32	26	bis(2-Ethylhexyl)phthalate	1.0	U	**1.0**	J2	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
33	27																											
34	28	**VOLATILES (µg/L)**																										
35	29	**EPA Method SW8260**																										
36	30	Acetone	5.0	U	**6.2**		**9.4**		**6.0**		8.5	U	**7.0**		**27**		5.0	U	5.0	U	**17**		5.0	U	17	U	**6.7**	M
37	31	Carbon Disulfide	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
38	32	2-Butanone	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	**7.1**		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
39	33	Benzene	**180**		**690**		**94**		1.0	U	1.0	U	**34**		**39**		**2.3**		**37**		**28**		1.0	U	1.0	U	1.0	U
40	34	Bromoform	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
41	35	Toluene	1.0	U	**1.1**		**1.6**		1.0	U	1.0	U	**6.3**		**5.3**		1.0	U	1.0	U	**2.5**		1.0	U	**1.5**		1.0	U
42	36	Ethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
43	37	Styrene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
44	38	m,p-Xylene	1.0	U	1.0	U	**1.5**		1.0	U	1.0	U	**5.0**		**3.8**		1.0	U	1.0	U	**1.6**		1.0	U	**1.1**		1.0	U
45	39	o-Xylene	1.0	U	**1.3**		1.0	U	1.0	U	1.0	U	**1.6**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
46	40	1,3,5-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
47	41	1,2,4-Trimethylbenzene	1.0	U	1.0	U	**1.0**	J2	1.0	U	1.0	U	**2.2**		**4.7**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
48	42	Isopropylbenzene	1.0	U	**15**		**22**	J2	**1.2**		**18**		**28**		**71**		1.0	U	**2.2**		**20**		**7.8**		**27**		**6.0**	
49	43	n-Propylbenzene	1.0	U	**9.8**		**7.2**		1.0	U	1.0	U	**14**		**51**		1.0	U	**2.0**		**15**		**2.3**		**12**		**3.0**	
50	44	tert-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**1.0**	J1	1.0	U	1.0	U	1.0	U	1.0	U
51	45	sec-Butylbenzene	1.0	U	**7.7**		**6.1**	J2	**1.3**		**5.2**		**10**	J2	**7.4**		**8.5**		**7.9**		**6.4**		**1.6**		**4.3**		**6.9**	
52	46	4-Isopropyltoluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
53	47	n-Butylbenzene	1.0	U	**1.9**		**1.2**	J2	1.0	U	1.0	U	**2.9**		**3.7**		**1.4**		**2.9**		**2.7**		1.0	U	**1.1**		**1.0**	
54	48	Naphthalene	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
55		Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
56	49																											
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																										
58	51	**Method OR-DEQ**																										
59	52	**TPH-Diesel**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
60	53	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
61	54	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
62	55																											
63	56	**PRIORITY POLLUTANT**																										
64	57	**METALS (mg/L)**																										
65	58	Arsenic (7060)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD
3		O		O		O		O		O		O		O		O		O		O		O		O		O		O	
4		CB85C		CL03P		CT55I		DE87A		DM30S		DW48E		ED23F		EM75L		ER93A		EY88A		FF88I		FL66B		FU45T		FY82Q	
5		8/30/00		11/8/00		2/13/01		6/5/01		8/14/01		11/29/01		2/26/02		6/25/02		08/26/02		11/11/02		2/13/03		5/9/03		8/28/03		10/24/03	
7	**CHLORINATED PHENOLS (µg/L)**																												
8	**EPA Method SW8040**																												
9	Pentachlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
10	2,4,6-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
11	2,3,6-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
12	2,4,5-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
13	2,3,4-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
15	2,3,4,5-Tetrachlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
16																													
17	**SEMIVOLATILES (µg/L)**																												
18	**EPA Method SW8270**																												
19	Phenol	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.2	U	2.2	U	2	U	2	U	2.3	U	2.1	U
20	4-Methylphenol	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1.1	U	1	U	1	U	1.1	U	1	U
21	Isophorone	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1.1	U	1	U	1	U	1.1	U	1	U
22	2,4-Dimethylphenol	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.3	U	3.3	U	3.1	U	3	U	3.4	U	3.1	U
23	Benzoic Acid	10	U	10	U	10	U	10	U	10	U	30	U	50	U	50	U	56	U	54	U	51	U	50	U	57	U	10	U
24	Naphthalene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1.1	U	1	U	1	U	1.1	U	1	U
25	2-Methylnaphthalene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1.1	U	1	U	1	U	1.1	U	1	U
26	2,4,6-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.6	U	5.4	U	5.1	U	5	U	5.7	U	5.2	U
27	2,4,5-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.6	U	5.4	U	5.1	U	5	U	5.7	U	5.2	U
28	Acenaphthene	**1.9**		**1.8**		1.0	U	1.0	U	**1.3**		1.0	U	1.0	U	1.0	U	1.1	U	**1.7**		1	U	1	U	1.1	U	**1.2**	
29	Dibenzofuran	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1.1	U	1	U	1	U	1.1	U	1	U
30	Fluorene	**2.9**		**3.5**		**2.0**		**1.6**		**1.6**		1.0	U	1.0	U	1.0	U	1.1	U	**2.1**		1	U	1	U	1.1	U	**1.8**	
31	Pentachlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.6	U	5.4	U	5.1	U	5	U	5.7	U	5.2	U
32	bis(2-Ethylhexyl)phthalate	1.0	U	**2.2**		1.0	U	**1.1**		**2.0**		1.0	U	4.0	U	4.0	U	4.4	U	4.3	U	1	U	1	U	1.1	U	1	U
33																													
34	**VOLATILES (µg/L)**																												
35	**EPA Method SW8260**																												
36	Acetone	**45**		**11**			R	**8.7**		5.0	U	5.0	U	5.0	U	**11**		**5.7**		5	U	5	U	5	U	**11**	J	**11**	
37	Carbon Disulfide	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1	U
38	2-Butanone	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5	U	5	U	5	U	5	U	5	U	5	U
39	Benzene	**18**		**7.7**		1.0	U	1.0	U	1.0	U	**1.0**		1.0	U	1.0	U	**2.6**		**40**		1	U	1	U	1	U	**1.5**	
40	Bromoform	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1	U
41	Toluene	**1.8**		**3.0**		**2.3**		**1.6**		**1.1**		**2.4**		1.0	U	1.0	U	1	U	**2.5**		1	U	1	U	**1.4**		**1.4**	
42	Ethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1	U
43	Styrene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1	U
44	m,p-Xylene	**1.3**		**2.6**		**2.6**		**1.9**		**1.1**		**2.5**		1.0	U	1.0	U	1	U	**2.1**		1	U	1	U	1	U	1	U
45	o-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1	U
46	1,3,5-Trimethylbenzene	1.0	U	**1.4**		1.0	U	**1.4**		1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1	U
47	1,2,4-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1	U
48	Isopropylbenzene	**26**		**33**		**26**		**37**		**32**		**64**		**31**		**30**		**5.6**		**46**		1	U	**3.4**		**27**		**27**	
49	n-Propylbenzene	**15**		**18**		**15**		**22**		**13**		**36**		**19**		**7.3**		**4.1**		**46**		1	U	**3.3**		**35**		**29**	
50	tert-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1	U
51	sec-Butylbenzene	**5.1**		**6.7**		**4.4**		**5.7**		**5.0**		**6.3**		**6.6**		**5.5**		**5.9**		**7.7**		**1.5**		**5.4**		**8**		**5.6**	
52	4-Isopropyltoluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1	U
53	n-Butylbenzene	**2.0**		**2.5**		**1.6**		**2.2**		**2.0**		**2.8**		**2.9**		**1.8**		**1.2**		**5.3**		1	U	1	U	**4.1**		**3**	
54	Naphthalene	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5	U	5	U	5	U	5	U	5	U	5	U
55	Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
56																													
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																												
58	**Method OR-DEQ**																												
59	**TPH-Diesel**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
60	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
61	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
62																													
63	**PRIORITY POLLUTANT**																												
64	**METALS (mg/L)**																												
65	Arsenic (7060)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	

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TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1																												
2																												
3			O		O		O		O		O		O		O		O		O		O		O		O		O	
4			S177M		T176J		U235P		V208J		W391L		Y314M		Z225S		Z960Y		AH27A		AU45O		BC30B		BH96A		BR64A	
5			4/1/97		7/15/97		10/22/97		1/28/98		5/19/98		8/18/98		11/13/98		2/17/99		5/17/99		9/22/99		12/7/99		2/16/00		5/23/00	
66	59	Chromium (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
67	60	Copper (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
68	61	Lead (7421)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
69	62	Nickel (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
70	63	Zinc (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
71	64																											
72	65	**MAJOR IONS AND CONVENTIONALS**																										
73	66	Calcium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
74	67	Magnesium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
75	68	Potassium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
76	69	Sodium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	NT		**330**	J2	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
81	74	Chloride (mg/L) (EPA 325.2)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
86	79																											

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD
3		O		O		O		O		O		O		O		O		O		O		O		O		O		O	
4		CB85C		CL03P		CT55I		DE87A		DM30S		DW48E		ED23F		EM75L		ER93A		EY88A		FF88I		FL66B		FU45T		FY82Q	
5		8/30/00		11/8/00		2/13/01		6/5/01		8/14/01		11/29/01		2/26/02		6/25/02		08/26/02		11/11/02		2/13/03		5/9/03		8/28/03		10/24/03	
66	Chromium (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
67	Copper (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
68	Lead (7421)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
69	Nickel (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
70	Zinc (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
71																													
72	**MAJOR IONS AND CONVENTIONALS**																												
73	Calcium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
74	Magnesium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
75	Potassium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
76	Sodium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
77	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
80	Total Dissolved Solids (mg/L) (EPA 160.1)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
81	Chloride (mg/L) (EPA 325.2)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
82	N-Nitrate (mg-N/L) (Calculated)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
83	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
85	Sulfate (mg/L) (EPA 375.2)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
86																													

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1																												
2																												
3			O		O		O		O		O		O		O		O		O		O		O		O		O	
4			S177M		T176J		U235P		V208J		W391L		Y314M		Z225S		Z960Y		AH27A		AU45O		BC30B		BH96A		BR64A	
5			4/1/97		7/15/97		10/22/97		1/28/98		5/19/98		8/18/98		11/13/98		2/17/99		5/17/99		9/22/99		12/7/99		2/16/00		5/23/00	
87	80	**FIELD PARAMETERS**																										
88	81	pH (avg)	6.77		6.82		6.86		6.79		6.43		6.39		6.32		6.62		5.57		6.70		6.27		6.62		6.39	
89	82	Temperature (° C) (avg)	12.3		15.7		13.6		14.2		14.1		15.0		13.3		14.6		15.0		17.8		13.0		15.0		15.6	
90	83	Conductivity (um/hos)	413		412		389		471		437		531		183		366		391		441		337		427		413	
91	84	Dissolved oxygen (mg/L) (avg)	NA		NA		NA		NA		3.36		1.68		1.41		2.44		1.85		1.93		1.58		1.58		1.82	
92	85																											
93	86	**DIOXINS AND FURANS (ng/L)**																										
94	87	**Method 8290**																										
95	88	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
96	89	Total TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
97	90	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
98	91	Total TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
101	94	Total PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
103	96	Total PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
108	101	Total HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
112	105	Total HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
115	108	Total HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
117	110	Total HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
118	111	OCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
119	112	OCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
120																												
121																												
122																												

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD
1																													
2																													
3		O		O		O		O		O		O		O		O		O		O		O		O		O		O	
4		CB85C		CL03P		CT55I		DE87A		DM30S		DW48E		ED23F		EM75L		ER93A		EY88A		FF88I		FL66B		FU45T		FY82Q	
5		8/30/00		11/8/00		2/13/01		6/5/01		8/14/01		11/29/01		2/26/02		6/25/02		08/26/02		11/11/02		2/13/03		5/9/03		8/28/03		10/24/03	
87	**FIELD PARAMETERS**																												
88	pH (avg)	5.85		5.70		6.27		6.43		6.80		6.62		6.27		6.43		6.18		6.79		6.67		6.39		6.85		6.62	
89	Temperature (° C) (avg)	15.9		13.4		16.5		14.5		15.9		12.5		15.3		17.3		17.3		14.0		14.7		14		17.9		14.9	
90	Conductivity (um/hos)	409		437		445		510		563		536		500		471		464		592		431		327		514		467	
91	Dissolved oxygen (mg/L) (avg)	1.16		0.39		2.15		2.40		1.89		4.34		7.41		4.16		2.18		1.93		0		2.01		0.88		3.07	
92																													
93	**DIOXINS AND FURANS (ng/L)**																												
94	**Method 8290**																												
95	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
96	Total TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
97	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
98	Total TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
99	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
100	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
101	Total PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
102	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
103	Total PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
104	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
105	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
106	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
107	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
108	Total HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
109	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
110	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
111	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
112	Total HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
113	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
114	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
115	Total HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
116	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
117	Total HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
118	OCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
119	OCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
120																													
121																													
122																													

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1																												
2																												
3			O		O		O		O		O		O		O		O		O		O		O		O		O	
4			S177M		T176J		U235P		V208J		W391L		Y314M		Z225S		Z960Y		AH27A		AU45O		BC30B		BH96A		BR64A	
5			4/1/97		7/15/97		10/22/97		1/28/98		5/19/98		8/18/98		11/13/98		2/17/99		5/17/99		9/22/99		12/7/99		2/16/00		5/23/00	
123		**PAHs (µg/L)**																										
124		**EPA Method SW8270 SIM**																										
125		Naphthalene	NA		NA		NA		NA		NA		NA		NA		**0.47**		NA		NA		NA		NA		NA	
126		2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		0.10	U	NA		NA		NA		NA		NA	
127		Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		**0.31**		NA		NA		NA		NA		NA	
128		Acenaphthene	NA		NA		NA		NA		NA		NA		NA		**0.92**		NA		NA		NA		NA		NA	
129		Fluorene	NA		NA		NA		NA		NA		NA		NA		0.10	U	NA		NA		NA		NA		NA	
130		Anthracene	NA		NA		NA		NA		NA		NA		NA		**0.28**	M	NA		NA		NA		NA		NA	
131		Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		0.10	U	NA		NA		NA		NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD
1																													
2																													
3		O		O		O		O		O		O		O		O		O		O		O		O		O		O	
4		CB85C		CL03P		CT55I		DE87A		DM30S		DW48E		ED23F		EM75L		ER93A		EY88A		FF88I		FL66B		FU45T		FY82Q	
5		8/30/00		11/8/00		2/13/01		6/5/01		8/14/01		11/29/01		2/26/02		6/25/02		08/26/02		11/11/02		2/13/03		5/9/03		8/28/03		10/24/03	
123	**PAHs (µg/L)**																												
124	**EPA Method SW8270 SIM**																												
125	Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
126	2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
127	Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
128	Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
129	Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
130	Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
131	Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
3			R		R		R		R		R		R		R		R		R		R		R		R		R	
4			S177N		T176K		U235Q		V208K		W391M		Y314N		Z225T		Z960Z		AH27B		AU45P		BC30C		BH96Y		BR64B	
5			4/1/97		7/15/97		10/22/97		1/28/98		5/19/98		8/18/98		11/13/98		2/17/99		5/17/99		9/22/99		12/7/99		2/16/00		5/23/00	
7	1	**CHLORINATED PHENOLS (µg/L)**																										
8	2	**EPA Method SW8040**																										
9	3	Pentachlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
10	4	2,4,6-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
11	5	2,3,6-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
12	6	2,4,5-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
13	7	2,3,4-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
15	9	2,3,4,5-Tetrachlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
16	10																											
17	11	**SEMIVOLATILES (µg/L)**																										
18	12	**EPA Method SW8270**																										
19	13	Phenol	**18**		**8.4**		2.0	U	2.0	U	2.0	U	**6.1**		**22**		**16**		**3.8**		**6.3**		2.0	U	2.0	U	2.0	U
20	14	4-Methylphenol	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
21	15	Isophorone	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
22	16	2,4-Dimethylphenol	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U
23	17	Benzoic Acid	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
24	18	Naphthalene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**1.6**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
25	19	2-Methylnaphthalene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
26	20	2,4,6-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
27	21	2,4,5-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
28	22	Acenaphthene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
29	23	Dibenzofuran	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
30	24	Fluorene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
31	25	Pentachlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
32	26	bis(2-Ethylhexyl)phthalate	1.0	U	**4.0**	J2	**2.8**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**1.0**		1.0	U	1.0	U
33	27																											
34	28	**VOLATILES (µg/L)**																										
35	29	**EPA Method SW8260**																										
36	30	Acetone	5.0	U	**13**		**6.9**		5.0	U	**11**		**8.9**		**17**		15	U	**7.5**		5.0	U	5.0	U	14	U	5.0	U
37	31	Carbon Disulfide	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	3.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
38	32	2-Butanone	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	15	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
39	33	Benzene	**410**		**990**		**4.7**		1.0	U	**2.5**		**160**		**120**		**740**		**57**		**120**		1.0	U	**2.1**		**9.3**	
40	34	Bromoform	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	3.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
41	35	Toluene	1.0	U	2.9		1.0	U	1.0	U	1.0	U	**6.0**		**3.5**		3.0	U	1.0	U	**6.0**		1.0	U	**1.2**		1.0	U
42	36	Ethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**14**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
43	37	Styrene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	3.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
44	38	m,p-Xylene	1.0	U	2.9		1.0	U	1.0	U	1.0	U	**6.4**		**2.1**		**4.9**		1.0	U	**6.9**		1.0	U	1.0	U	1.0	U
45	39	o-Xylene	1.0	U	1.8		1.0	U	1.0	U	1.0	U	**1.2**		1.0	U	3.0	U	1.0	U	**1.1**		1.0	U	1.0	U	1.0	U
46	40	1,3,5-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**1.5**		**1.4**		**15**		1.0	U	**1.4**		1.0	U	1.0	U	1.0	U
47	41	1,2,4-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**3.5**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
48	42	Isopropylbenzene	**2.6**		**16**		**5.1**	J2	1.0	U	**12**		**43**		**37**		**46**		**11**		**43**		1.0	U	**8.4**		**4.8**	
49	43	n-Propylbenzene	**1.7**		**3.7**		**1.6**		1.0	U	**2.4**		**19**		**19**		**51**		**3.9**		19	U	1.0	U	**5.4**		**1.2**	
50	44	tert-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	3.0		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
51	45	sec-Butylbenzene	**2.7**		**5.4**		**2.0**	J2	1.0	U	**3.2**		**5.1**	J2	**5.0**		**4.8**		**3.2**		**6.0**		1.0	U	**2.5**		**3.0**	
52	46	4-Isopropyltoluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	3.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
53	47	n-Butylbenzene	1.0	U	3.0		1.0	U	1.0	U	1.0	U	**2.3**		**1.4**		**16**		**1.0**		2.5	U	1.0	U	1.0	U	1.0	U
54	48	Naphthalene	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	15	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
55		Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
56	49																											
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																										
58	51	**Method OR-DEQ**																										
59	52	**TPH-Diesel**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
60	53	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
61	54	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
62	55																											
63	56	**PRIORITY POLLUTANT**																										
64	57	**METALS (mg/L)**																										
65	58	Arsenic (7060)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD
3		R		R		R		R		R		R		R		R		R		R		R		R		R		R	
4		CB85D		CL03Q		CT55J		DE87B		DM30T		DW48F		ED23G		EM75M		ER93B		EY88B		FF88J		FL66C		FU45U		FY82R	
5		8/30/00		11/8/00		2/13/01		6/5/01		8/14/01		11/29/01		2/26/02		6/25/02		08/26/02		11/11/02		2/13/03		5/9/03		8/28/03		10/24/03	
7	**CHLORINATED PHENOLS (µg/L)**																												
8	**EPA Method SW8040**																												
9	Pentachlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
10	2,4,6-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
11	2,3,6-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
12	2,4,5-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
13	2,3,4-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
15	2,3,4,5-Tetrachlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
16																													
17	**SEMIVOLATILES (µg/L)**																												
18	**EPA Method SW8270**																												
19	Phenol	**8.4**		**6.4**		2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.1	U	2.2	U	2	U	2	U	2	U	2	U
20	4-Methylphenol	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1.1	U	1	U	1	U	1	U	1	U
21	Isophorone	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1.1	U	1	U	1	U	1	U	1	U
22	2,4-Dimethylphenol	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.2	U	3.3	U	3	U	3	U	3	U	3	U
23	Benzoic Acid	10	U	10	U	10	U	10	U	10	U	30	U	50	U	50	U	53	U	54	U	50	U	50	U	50	U	10	U
24	Naphthalene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1.1	U	1	U	1	U	1	U	1	U
25	2-Methylnaphthalene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1.1	U	1	U	1	U	1	U	1	U
26	2,4,6-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.3	U	5.4	U	5	U	5	U	5	U	5	U
27	2,4,5-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.3	U	5.4	U	5	U	5	U	5	U	5	U
28	Acenaphthene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1.1	U	1	U	1	U	1	U	1	U
29	Dibenzofuran	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1.1	U	1	U	1	U	1	U	1	U
30	Fluorene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1.1	U	1	U	1	U	1	U	1	U
31	Pentachlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.3	U	5.4	U	5	U	5	U	5	U	5	U
32	bis(2-Ethylhexyl)phthalate	1.0	U	1.0	U	**1.6**		1.0	U	**5.4**		1.0	U	4.0	U	4.0	U	4.3	U	4.3	U	1	U	1	U	1	U	1	U
33																													
34	**VOLATILES (µg/L)**																												
35	**EPA Method SW8260**																												
36	Acetone	**22**		**12**			R	5.0	U	**10**		**5.0**		5.0	U	**11**		**14**		5	U	**7.4**		5	U	**18**	J	**16**	
37	Carbon Disulfide	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1	U
38	2-Butanone	5.0	U	**5.0**	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5	U	5	U	5	U	5	U	5	U	5	U
39	Benzene	**120**		**77**		**36**		**3.1**		**13**		1.0	U	**41**		1.0	U	**32**		**7.7**		1	U	1	U	1	U	1	U
40	Bromoform	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1	U
41	Toluene	**6.3**		**3.6**		**3.0**		**2.9**		**2.8**		**1.5**		1.0	U	1.0	U	**2.9**		**1.6**		1	U	1	U	**2.4**		**2.5**	
42	Ethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	**14**		**3.8**	
43	Styrene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1	U
44	m,p-Xylene	**5.8**		**2.4**		**1.8**		**4.1**		**3.4**		**1.6**		1.0	U	1.0	U	**3.5**		**1.4**		1	U	1	U	**26**	J	**9.4**	
45	o-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1	U
46	1,3,5-Trimethylbenzene	1.0	U	1.0	U	1.0	U	**1.1**		1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1	U
47	1,2,4-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1	U
48	Isopropylbenzene	**33**		**24**		**11**		**26**		**30**		**17**		**2.6**		**7.3**		**36**		**34**		**8.8**		1	U	**46**		**43**	
49	n-Propylbenzene	**18**		**14**		**5.1**		**9.1**		**16**		**6.8**		1.0	U	1.0	U	**14**		**20**		**3.3**		1	U	**37**		**20**	
50	tert-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1	U
51	sec-Butylbenzene	**5.6**		**4.4**		**3.4**		**4.7**		**3.8**		**2.9**		**2.3**		**2.2**		**5.4**		**4.7**		**2**		**1.4**		**6.8**		**4.3**	
52	4-Isopropyltoluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1	U
53	n-Butylbenzene	2.0	U	1.3	U	1.0	U	1.4	U	1.0	U	1.0	U	1.0	U	1.0	U	2.2	U	**2**		1	U	1	U	**3.9**		**1.7**	
54	Naphthalene	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5	U	5	U	5	U	5	U	5	U	5	U
55	Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
56																													
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																												
58	**Method OR-DEQ**																												
59	**TPH-Diesel**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
60	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
61	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
62																													
63	**PRIORITY POLLUTANT**																												
64	**METALS (mg/L)**																												
65	Arsenic (7060)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	

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TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1																												
2																												
3			R		R		R		R		R		R		R		R		R		R		R		R		R	
4			S177N		T176K		U235Q		V208K		W391M		Y314N		Z225T		Z960Z		AH27B		AU45P		BC30C		BH96Y		BR64B	
5			4/1/97		7/15/97		10/22/97		1/28/98		5/19/98		8/18/98		11/13/98		2/17/99		5/17/99		9/22/99		12/7/99		2/16/00		5/23/00	
66	59	Chromium (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
67	60	Copper (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
68	61	Lead (7421)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
69	62	Nickel (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
70	63	Zinc (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
71	64																											
72	65	**MAJOR IONS AND CONVENTIONALS**																										
73	66	Calcium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
74	67	Magnesium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
75	68	Potassium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
76	69	Sodium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	NT		**340**	J2	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
81	74	Chloride (mg/L) (EPA 325.2)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
86	79																											

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD
1																													
2																													
3		R		R		R		R		R		R		R		R		R		R		R		R		R		R	
4		CB85D		CL03Q		CT55J		DE87B		DM30T		DW48F		ED23G		EM75M		ER93B		EY88B		FF88J		FL66C		FU45U		FY82R	
5		8/30/00		11/8/00		2/13/01		6/5/01		8/14/01		11/29/01		2/26/02		6/25/02		08/26/02		11/11/02		2/13/03		5/9/03		8/28/03		10/24/03	
66	Chromium (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
67	Copper (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
68	Lead (7421)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
69	Nickel (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
70	Zinc (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
71																													
72	**MAJOR IONS AND CONVENTIONALS**																												
73	Calcium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
74	Magnesium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
75	Potassium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
76	Sodium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
77	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
80	Total Dissolved Solids (mg/L) (EPA 160.1)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
81	Chloride (mg/L) (EPA 325.2)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
82	N-Nitrate (mg-N/L) (Calculated)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
83	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
85	Sulfate (mg/L) (EPA 375.2)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
86																													

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1																												
2																												
3			R		R		R		R		R		R		R		R		R		R		R		R		R	
4			S177N		T176K		U235Q		V208K		W391M		Y314N		Z225T		Z960Z		AH27B		AU45P		BC30C		BH96Y		BR64B	
5			4/1/97		7/15/97		10/22/97		1/28/98		5/19/98		8/18/98		11/13/98		2/17/99		5/17/99		9/22/99		12/7/99		2/16/00		5/23/00	
87	80	**FIELD PARAMETERS**																										
88	81	pH (avg)	6.66		6.78		6.72		6.84		6.60		6.55		6.36		6.06		5.72		6.87		6.86		6.75		6.42	
89	82	Temperature (° C) (avg)	12.8		15.8		14.1		14.3		14.8		15.0		13.5		14.4		15.2		16.5		15.7		14.1		15.8	
90	83	Conductivity (um/hos)	503		629		1007		319		510		591		179		246		471		566		578		533		502	
91	84	Dissolved oxygen (mg/L) (avg)	NA		NA		NA		NA		3.54		1.35		1.16		2.27		1.61		2.26		1.33		0.93		2.10	
92	85																											
93	86	**DIOXINS AND FURANS (ng/L)**																										
94	87	**Method 8290**																										
95	88	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
96	89	Total TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
97	90	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
98	91	Total TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
101	94	Total PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
103	96	Total PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
108	101	Total HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
112	105	Total HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
115	108	Total HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
117	110	Total HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
118	111	OCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
119	112	OCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
120																												
121																												
122																												

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD
1																													
2																													
3		R		R		R		R		R		R		R		R		R		R		R		R		R		R	
4		CB85D		CL03Q		CT55J		DE87B		DM30T		DW48F		ED23G		EM75M		ER93B		EY88B		FF88J		FL66C		FU45U		FY82R	
5		8/30/00		11/8/00		2/13/01		6/5/01		8/14/01		11/29/01		2/26/02		6/25/02		08/26/02		11/11/02		2/13/03		5/9/03		8/28/03		10/24/03	
87	**FIELD PARAMETERS**																												
88	pH (avg)	6.10		5.91		6.43		6.88		7.00		6.68		5.95		6.64		6.75		NM		6.88		6.23		7.01		6.75	
89	Temperature (° C) (avg)	15.0		13.5		15.4		14.5		15.1		14.2		14.5		15.2		15.8		NM		14.6		13.7		17		15.5	
90	Conductivity (um/hos)	560		571		661		694		628		600		170		591		631		NM		598		244		630		644	
91	Dissolved oxygen (mg/L) (avg)	1.90		0.69		2.01		1.49		1.26		4.02		7.80		4.86		1.19		NM		0		3.12		0.44		3.62	
92																													
93	**DIOXINS AND FURANS (ng/L)**																												
94	**Method 8290**																												
95	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
96	Total TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
97	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
98	Total TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
99	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
100	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
101	Total PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
102	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
103	Total PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
104	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
105	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
106	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
107	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
108	Total HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
109	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
110	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
111	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
112	Total HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
113	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
114	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
115	Total HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
116	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
117	Total HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
118	OCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
119	OCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
120																													
121																													
122																													

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1																												
2																												
3			R		R		R		R		R		R		R		R		R		R		R		R		R	
4			S177N		T176K		U235Q		V208K		W391M		Y314N		Z225T		Z960Z		AH27B		AU45P		BC30C		BH96Y		BR64B	
5			4/1/97		7/15/97		10/22/97		1/28/98		5/19/98		8/18/98		11/13/98		2/17/99		5/17/99		9/22/99		12/7/99		2/16/00		5/23/00	
123		**PAHs (µg/L)**																										
124		**EPA Method SW8270 SIM**																										
125		Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
126		2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
127		Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
128		Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
129		Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
130		Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
131		Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD
1																													
2																													
3		R		R		R		R		R		R		R		R		R		R		R		R		R		R	
4		CB85D		CL03Q		CT55J		DE87B		DM30T		DW48F		ED23G		EM75M		ER93B		EY88B		FF88J		FL66C		FU45U		FY82R	
5		8/30/00		11/8/00		2/13/01		6/5/01		8/14/01		11/29/01		2/26/02		6/25/02		08/26/02		11/11/02		2/13/03		5/9/03		8/28/03		10/24/03	
123	**PAHs (µg/L)**																												
124	**EPA Method SW8270 SIM**																												
125	Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
126	2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
127	Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
128	Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
129	Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
130	Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
131	Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F
1						
2						
3			OX8D		OX8D	
4			FY72F		0402086-05	
5			10/22/03		2/18/04	
7	1	**CHLORINATED PHENOLS (µg/L)**				
8	2	**EPA Method SW8040**				
9	3	Pentachlorophenol	**0.62**		**1.31**	
10	4	2,4,6-Trichlorophenol	NA		NA	
11	5	2,3,6-Trichlorophenol	NA		NA	
12	6	2,4,5-Trichlorophenol	NA		NA	
13	7	2,3,4-Trichlorophenol	NA		NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA	
15	9	2,3,4,5-Tetrachlorophenol	NA		NA	
16	10					
17	11	**SEMIVOLATILES (µg/L)**				
18	12	**EPA Method SW8270**				
19	13	Phenol	NA		NA	
20	14	4-Methylphenol	NA		NA	
21	15	Isophorone	NA		NA	
22	16	2,4-Dimethylphenol	NA		NA	
23	17	Benzoic Acid	NA		NA	
24	18	Naphthalene	NA		NA	
25	19	2-Methylnaphthalene	NA		NA	
26	20	2,4,6-Trichlorophenol	NA		NA	
27	21	2,4,5-Trichlorophenol	NA		NA	
28	22	Acenaphthene	NA		NA	
29	23	Dibenzofuran	NA		NA	
30	24	Fluorene	NA		NA	
31	25	Pentachlorophenol	NA		NA	
32	26	bis(2-Ethylhexyl)phthalate	NA		NA	
33	27					
34	28	**VOLATILES (µg/L)**				
35	29	**EPA Method SW8260**				
36	30	Acetone	NA		NA	
37	31	Carbon Disulfide	NA		NA	
38	32	2-Butanone	NA		NA	
39	33	Benzene	NA		NA	
40	34	Bromoform	NA		NA	
41	35	Toluene	NA		NA	
42	36	Ethylbenzene	NA		NA	
43	37	Styrene	NA		NA	
44	38	m,p-Xylene	NA		NA	
45	39	o-Xylene	NA		NA	
46	40	1,3,5-Trimethylbenzene	NA		NA	
47	41	1,2,4-Trimethylbenzene	NA		NA	
48	42	Isopropylbenzene	NA		NA	
49	43	n-Propylbenzene	NA		NA	
50	44	tert-Butylbenzene	NA		NA	
51	45	sec-Butylbenzene	NA		NA	
52	46	4-Isopropyltoluene	NA		NA	
53	47	n-Butylbenzene	NA		NA	
54	48	Naphthalene	NA		NA	
55		Methyl tert-butyl ether	NA		NA	
56	49					
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**				
58	51	**Method OR-DEQ**				
59	52	**TPH-Diesel**	NA		NA	
60	53	**TPH-D Motor Oil**	NA		NA	
61	54	**TPH-Gasoline**	NA		NA	
62	55					
63	56	**PRIORITY POLLUTANT**				
64	57	**METALS (mg/L)**				
65	58	Arsenic (7060)	NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F
1						
2						
3			OX8D		OX8D	
4			FY72F		0402086-05	
5			10/22/03		2/18/04	
66	59	Chromium (6010)	NA		NA	
67	60	Copper (6010)	NA		NA	
68	61	Lead (7421)	NA		NA	
69	62	Nickel (6010)	NA		NA	
70	63	Zinc (6010)	NA		NA	
71	64					
72	65	**MAJOR IONS AND CONVENTIONALS**				
73	66	Calcium (mg/L) (6010)	NA		NA	
74	67	Magnesium (mg/L) (6010)	NA		NA	
75	68	Potassium (mg/L) (6010)	NA		NA	
76	69	Sodium (mg/L) (6010)	NA		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	NA		NA	
81	74	Chloride (mg/L) (EPA 325.2)	NA		NA	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	NA		NA	
86	79					

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F
1						
2						
3			OX8D		OX8D	
4			FY72F		0402086-05	
5			10/22/03		2/18/04	
87	80	**FIELD PARAMETERS**				
88	81	pH (avg)	7.00		7.02	
89	82	Temperature (° C) (avg)	15.5		14.1	
90	83	Conductivity (um/hos)	406		418	
91	84	Dissolved oxygen (mg/L) (avg)	1.24		20.49	
92	85					
93	86	**DIOXINS AND FURANS (ng/L)**				
94	87	**Method 8290**				
95	88	2,3,7,8-TCDF	NA		NA	
96	89	Total TCDF	NA		NA	
97	90	2,3,7,8-TCDD	NA		NA	
98	91	Total TCDD	NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA	
101	94	Total PeCDF	NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA	
103	96	Total PeCDD	NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA	
108	101	Total HxCDF	NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA	
112	105	Total HxCDD	NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA	
115	108	Total HpCDF	NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA	
117	110	Total HpCDD	NA		NA	
118	111	OCDF	NA		NA	
119	112	OCDD	NA		NA	
120						
121						
122						

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F
1						
2						
3			OX8D		OX8D	
4			FY72F		0402086-05	
5			10/22/03		2/18/04	
123		**PAHs (µg/L)**				
124		**EPA Method SW8270 SIM**				
125		Naphthalene	NA		NA	
126		2-Methylnaphthalene	NA		NA	
127		Acenaphthylene	NA		NA	
128		Acenaphthene	NA		NA	
129		Fluorene	NA		NA	
130		Anthracene	NA		NA	
131		Dibenzofuran	NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
2															Dup of RW2				Dup of RW2				Dup of RW2			
3			RW2		RW2		RW2		RW2		RW2		RW2		X		RW2		X		RW2		X		RW2	
4			AH76G		AU45N		BC30E		BH96F		BR64P		CD97A		CD97B		CL03N		CL03M		CT37L		CT37M		DE87P	
5			5/20/99		9/23/99		12/7/99		2/17/00		5/25/00		9/13/00		9/13/00		11/9/00		11/9/00		2/13/01		2/13/01		6/6/01	
7	1	**CHLORINATED PHENOLS (µg/L)**																								
8	2	**EPA Method SW8040**																								
9	3	Pentachlorophenol	**210**		**7.7**		0.25	U	**300**		**46**		**580**		**630**		**45**		**38**		**21**	J	**19**	J	0.25	U
10	4	2,4,6-Trichlorophenol	**1.9**		0.25	U	0.25	U	**3.1**		0.25	U	**2.3**		**2.5**		0.25	U	0.25	U	NA		NA		NA	
11	5	2,3,6-Trichlorophenol	**0.31**		0.25	U	0.25	U	**0.45**		0.25	U	0.48	U	0.51	U	0.25	U	0.25	U	NA		NA		NA	
12	6	2,4,5-Trichlorophenol	5.2	U	0.70	U	0.53	U	13	U	1.2	U	10	U	11	U	1.2	U	**1.1**		NA		NA		NA	
13	7	2,3,4-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	**15**		**0.71**		**0.33**		**18**		**8.0**		**42**		**45**		**3.6**		**3.5**		NA		NA		NA	
15	9	2,3,4,5-Tetrachlorophenol	**1.8**		**0.91**		0.25	U	**3.4**		**1.3**		**7.0**		**7.8**		**1.3**		**1.2**		NA		NA		NA	
16	10																									
17	11	**SEMIVOLATILES (µg/L)**																								
18	12	**EPA Method SW8270**																								
19	13	Phenol	2.0	U	**13**		2.0	U	2.0	U	2.0	U	**170**	J2	**150**	J2	**85**		**97**		**8.1**		**8.0**		2.0	U
20	14	4-Methylphenol	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**6.0**	J2	**5.3**	J2	**14**		**18**		**2.9**		**2.7**		1.0	U
21	15	Isophorone	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
22	16	2,4-Dimethylphenol	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U
23	17	Benzoic Acid	10	U	10	U	10	U	10	U	10	U	10	U	10	U	**21**		**22**		10	U	10	U	10	U
24	18	Naphthalene	**1.3**		**18**		**3.8**		**9.7**		**3.7**		**16**		**16**		**13**		**14**		**2.5**		**2.2**		1.0	U
25	19	2-Methylnaphthalene	1.0	U	**33**		**1.8**		**20**		**23**		**44**		**41**		**31**		**32**		**10**		**9.1**		**2.0**	
26	20	2,4,6-Trichlorophenol	5.0	U	5.0	U	5.0	U	**4.5**	J1	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
27	21	2,4,5-Trichlorophenol	5.0	U	5.0	U	5.0	U	**25**		5.0	U	**16**	J	**14**	J	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
28	22	Acenaphthene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
29	23	Dibenzofuran	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
30	24	Fluorene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
31	25	Pentachlorophenol	**140**		**9.6**		5.0	U	**680**		**51**		**490**	J2	**440**	J2	**77**		**95**		**26**	J	**30**	J	5.0	U
32	26	bis(2-Ethylhexyl)phthalate	1.5	U	**1.7**		**1.1**		**1.0**		1.0	U	1.0	U	**2.9**	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
33	27																									
34	28	**VOLATILES (µg/L)**																								
35	29	**EPA Method SW8260**																								
36	30	Acetone	15	U	**17**	M	5.0	U	10	U	5.0	U	**24**	M	**27**	M	**20**		**17**		14	U	13	U	5.0	U
37	31	Carbon Disulfide	3.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	2.0	U	1.0	U	1.0	U	1.0	U	1.0	U
38	32	2-Butanone	15	U	**22**	M	5.0	U	**23**	M	5.0	U	**24**		**28**		**30**		**24**		5.0	U	5.0	U	5.0	U
39	33	Benzene	3.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**2.8**		**2.7**		**1.2**		**1.2**		1.0	U
40	34	Bromoform	3.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	2.0	U	1.0	U	1.0	U	1.0	U	1.0	U
41	35	Toluene	3.0	U	**2.6**		1.0	U	1.0	U	1.0	U	**2.1**		**2.2**		2.0	U	**1.5**		1.0	U	1.0	U	1.0	U
42	36	Ethylbenzene	**25**		**45**		**13**		**22**		**3.9**		**28**		**27**		**27**		**29**		**4.8**		**4.3**		1.0	U
43	37	Styrene	3.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	2.0	U	1.0	U	1.0	U	1.0	U	1.0	U
44	38	m,p-Xylene	**61**		**120**		**25**		**53**		**8.2**		**78**		**76**		**78**		**81**		**10**		**9.6**		1.0	U
45	39	o-Xylene	**20**		**37**		**11**		**26**		**2.6**		**28**		**28**		**15**		**15**		**2.1**		**2.2**		1.0	U
46	40	1,3,5-Trimethylbenzene	**100**		**91**		**42**		**120**		**49**		**100**		**100**		**58**		**66**		**12**		**11**		1.0	U
47	41	1,2,4-Trimethylbenzene	**370**		**330**		**110**		**360**		**150**		**180**	M	**190**	M	**200**		**220**		**42**		**40**		**3.6**	
48	42	Isopropylbenzene	**78**		**65**		**29**		**79**		**52**		**70**		**73**		**57**		**68**		**30**		**29**		**11**	
49	43	n-Propylbenzene	**130**		**77**		**38**		**110**		**86**		**88**		**90**		**75**		**90**		**37**		**34**		**12**	
50	44	tert-Butylbenzene	**4.0**		**3.1**		1.0	U	**3.5**		**3.3**		**3.2**		**3.4**		**2.1**		**2.8**		**1.2**		**1.3**		1.0	U
51	45	sec-Butylbenzene	**18**		**17**		**5.5**		**21**		**16**		**15**		**16**		**11**		**14**		**4.9**		**4.7**		**1.6**	
52	46	4-Isopropyltoluene	**19**		**13**		**4.6**		**20**		**7.7**		**11**		**12**		**5.7**		**7.6**		1.0	U	1.0	U	1.0	U
53	47	n-Butylbenzene	**20**		17.0	U	5.2	U	**24**		**15**	M	**16**	M	**17**	M	**11**		14	U	**3.5**		**3.4**		1.2	U
54	48	Naphthalene	**18**		**30**		**8.3**		**25**		**7.0**		**28**		**30**		**22**		**25**		5.0	U	5.0	U	5.0	U
55		Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
56	49																									
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																								
58	51	**Method OR-DEQ**																								
59	52	**TPH-Diesel**	**2.2**		**2.6**		**1.2**		**2.4**		**1.5**		**3.4**		**3.8**		**5.2**		**5.0**		**1.7**		**1.7**		**0.86**	
60	53	**TPH-D Motor Oil**	0.50	U	0.50	U	0.50	U	NA		0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
61	54	**TPH-Gasoline**	**5.7**		**10**		**1.9**		NA		**5.1**		**7.7**		**7.7**		**4.6**		**5.0**		**1.8**		**1.7**		**0.60**	
62	55																									
63	56	**PRIORITY POLLUTANT**																								
64	57	**METALS (mg/L)**																								
65	58	Arsenic (7060)	**0.034**		**0.025**		**0.022**		**0.032**		**0.036**		**0.022**		**0.022**		**0.021**		**0.021**		**0.016**		**0.016**		**0.017**	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW
2		Dup of RW2				Dup of RW2				Dup of RW2				Dup of RW2				Dup of RW2				Dup of RW2		
3		X		RW2		W		RW2		W		RW2		W		RW2		W		RW2		W		RW2
4		DE87O		DM30I		DM30H		DW29E		DW29C		ED30D		ED30A		EN00D		EN00A		ER93G		ER93I		EZ17D
5		6/6/01		8/13/01		8/13/01		11/27/01		11/27/01		2/27/02		2/27/02		6/27/02		6/27/02		08/27/02		08/27/02		11/13/02
7	**CHLORINATED PHENOLS (µg/L)**																							
8	**EPA Method SW8040**																							
9	Pentachlorophenol	**0.68**		**5.0**		**5.0**		**1.7**		**1.8**		NA		NA		NA		NA		NA		NA		NA
10	2,4,6-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
11	2,3,6-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
12	2,4,5-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
13	2,3,4-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
15	2,3,4,5-Tetrachlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
16																								
17	**SEMIVOLATILES (µg/L)**																							
18	**EPA Method SW8270**																							
19	Phenol	2.0	U	2.0	U	2.0	U	2.0	UJ	2.0	U	**10**		**10**		2.0	U	**5.9**	J	**15**		**13**		2.2
20	4-Methylphenol	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**3.8**	J	1.0	UJ	1.0	U	**1.1**		**1.8**		**1.5**		1.1
21	Isophorone	1.0	U	1.0	U	1.0	U	1.0	UJ	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.2	U	1.1	U	1.1
22	2,4-Dimethylphenol	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.8	U	3.3	U	3.3
23	Benzoic Acid	10	U	10	U	10	U	30	U	30	U	50	U	50	U	50	U	50	U	62	U	54	U	54
24	Naphthalene	1.0	U	**1.6**		**1.8**		**1.8**	J	**1.8**	J	**7.4**		**7.0**		**5.2**	J	**6.4**	J	**5.9**		**5.6**		**4.1**
25	2-Methylnaphthalene	**2.0**		**6.5**		**6.4**		**5.7**	J	**7.0**	J	**18**		**17**		**11**	J	**14**	J	**15**		**13**		**11**
26	2,4,6-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	6.2	U	5.4	U	5.4
27	2,4,5-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	6.2	U	5.4	U	5.4
28	Acenaphthene	1.0	U	1.0	U	1.0	U	1.0	UJ	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.2	U	1.1	U	1.1
29	Dibenzofuran	1.0	U	1.0	U	1.0	U	1.0	UJ	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.2	U	1.1	U	1.1
30	Fluorene	1.0	U	1.0	U	1.0	U	1.0	UJ	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.2	U	1.1	U	1.1
31	Pentachlorophenol	5.0	U	5.0	U	5.0	U	5.0	UJ	5.0	U	**8.6**		**8.2**		**76**		**75**		**26**	J	**36**	J	**37**
32	bis(2-Ethylhexyl)phthalate	1.0	U	1.0	U	1.0	U	1.0	UJ	1.0	U	4.0	U	4.0	U	4.0	U	4.0	U	5	U	4.3	U	4.3
33																								
34	**VOLATILES (µg/L)**																							
35	**EPA Method SW8260**																							
36	Acetone	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.1	U	**5.2**		**6.4**		5
37	Carbon Disulfide	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1
38	2-Butanone	5.0	U	**5.2**		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5	U	5	U	5
39	Benzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**2.5**		**2.5**		**2.3**		**2.2**		**3.4**		**3.3**		**3.4**
40	Bromoform	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1
41	Toluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**1.6**		**1.7**		1.0	U	1.0	U	1	U	1	U	1
42	Ethylbenzene	1.0	U	**3.1**		**3.4**		**1.5**		**1.4**		**27**		**28**		**15**		**15**		**13**		**13**		**7.9**
43	Styrene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1
44	m,p-Xylene	1.0	U	**6.8**		**7.8**		**3.0**		**2.6**		**59**		**62**		**32**		**33**		**38**		**34**		**17**
45	o-Xylene	1.0	U	1.0	U	**1.6**		1.0	U	1.0	U	**14**		**14**		1.0	U	1.0	U	**6.5**		**5.9**		**2.3**
46	1,3,5-Trimethylbenzene	1.0	U	**6.5**		**6.7**		**3.9**		**3.7**		**44**		**44**		**21**		**23**		**27**		**24**		**9.8**
47	1,2,4-Trimethylbenzene	**3.8**		**23**		**26**		**13**		**12**		**150**		**150**		**62**		**62**		**84**		**78**		**37**
48	Isopropylbenzene	**11**		**24**		**25**		**30**		**30**		**54**		**51**		**46**		**44**		**44**		**45**		**37**
49	n-Propylbenzene	**12**		**28**		**29**		**36**		**37**		**76**		**73**		**58**		**57**		**58**		**59**		**46**
50	tert-Butylbenzene	1.0	U	**1.1**	M	**1.0**		**1.1**		**1.1**		**2.0**		**1.9**		**1.6**		**1.4**		**1.7**		**1.8**		**1.6**
51	sec-Butylbenzene	**1.7**		**3.9**		**4.1**		**4.7**		**4.7**		**9.6**		**9.5**		**8.4**		**8.2**		**8.3**		**8.4**		**6.7**
52	4-Isopropyltoluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**4.4**		**4.3**		**2.1**		**2.0**		**2.6**		**2.6**		**1.3**
53	n-Butylbenzene	1.2	U	**3.0**	M	**3.3**		**3.7**	M	**3.9**	M	**9.0**		**9.0**		6.5	U	6.1	U	7.6	U	7	U	**4.9**
54	Naphthalene	5.0	U	5.0	U	**5.0**		5.0	U	5.0	U	**15**		**16**		**8.7**		**8.5**		**10**		**9.9**		**6.3**
55	Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
56																								
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																							
58	**Method OR-DEQ**																							
59	**TPH-Diesel**	**0.88**		**1.4**		**1.2**		**1.4**		**1.4**		**1.9**	J	**0.89**	J	**1.8**		**1.9**		**1.7**		**1.6**		**1.3**
60	**TPH-D Motor Oil**	0.50	U	0.50	U	0.50	U	0.50	U	NA		0.50	U	0.50	U	0.50	U	0.50	U	0.5	U	0.5	U	0.5
61	**TPH-Gasoline**	**0.66**		**1.3**		**1.3**		**1.2**		NA		**4.0**	J	**3.8**		**2.6**		**2.6**		**2.9**		**3**		**2.1**
62																								
63	**PRIORITY POLLUTANT**																							
64	**METALS (mg/L)**																							
65	Arsenic (7060)	**0.016**		**0.019**		**0.020**		**0.018**		**0.022**		**0.020**		**0.022**		**0.019**		**0.020**		**0.021**		**0.021**		0.05

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT
2			Dup of RW2				Dup of RW2				Dup of RW2				Dup of RW2				Dup of RW2					
3			W		RW2		W		RW2		W		RW2		W		RW2		W		RW2		RW2	
4			EZ17B		FF65I		FF65K		FL41O		FL41Q		FU31F		FU31E		FY82D		FY82A		0402113-04		0406059-02	
5			11/13/02		2/11/03		2/11/03		5/7/03		5/7/03		8/27/03		8/27/03		10/23/03		10/23/03		2/23/04		6/9/04	
7	**CHLORINATED PHENOLS (µg/L)**																							
8	**EPA Method SW8040**																							
9	Pentachlorophenol		NA		NA		NA		NA		NA		**10**		NA		NA		NA		**8.51**		NA	
10	2,4,6-Trichlorophenol		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
11	2,3,6-Trichlorophenol		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
12	2,4,5-Trichlorophenol		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
13	2,3,4-Trichlorophenol		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
15	2,3,4,5-Tetrachlorophenol		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
16																								
17	**SEMIVOLATILES (µg/L)**																							
18	**EPA Method SW8270**																							
19	Phenol	U	2.2	U	2	U	2	U	2	U	2	U	2.1	U	2.1	U	2	U	2	U	1.98	U	2.05	U
20	4-Methylphenol	U	1.1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	9.89	U	10.2	U
21	Isophorone	U	1.1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	0.989	U	1.02	U
22	2,4-Dimethylphenol	U	3.3	U	3	U	3	U	3	U	3.1	U	3.1	U	3.1	U	3	U	3	U	2.97	U	3.07	U
23	Benzoic Acid	U	54	U	50	U	50	U	50	U	51	U	52	U	52	U	10	U	10	U	19.8	U	20.5	U
24	Naphthalene		**3.7**		**4.9**		**5.3**		**4.2**		**4**		**1.3**		**1.7**		**1.8**		**1.3**		0.989	U	**1.56**	
25	2-Methylnaphthalene		**9.6**		**13**		**14**		**13**		**12**		**4.8**	J	**6.2**	J	**7.2**	J	**5.4**	J	0.989	U	**5.41**	
26	2,4,6-Trichlorophenol	U	5.4	U	5	U	5	U	5	U	5.1	U	5.2	U	5.2	U	5	U	5	U	4.95	U	5.12	U
27	2,4,5-Trichlorophenol	U	5.4	U	5	U	5	U	5	U	5.1	U	5.2	U	5.2	U	5	U	5	U	4.95	U	5.12	U
28	Acenaphthene	U	1.1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	0.989	U	1.02	U
29	Dibenzofuran	U	1.1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	0.989	U	1.02	U
30	Fluorene	U	1.1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	0.989	U	1.02	U
31	Pentachlorophenol		**35**		**28**		**33**		**12**		**12**		**5.5**		**6.9**		**8.1**		**6.4**		4.95	U	**47.3**	
32	bis(2-Ethylhexyl)phthalate	U	4.3	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	0.989	U	1.02	U
33																								
34	**VOLATILES (µg/L)**																							
35	**EPA Method SW8260**																							
36	Acetone	U	5	U	5	U	5	U	5	U	**6.2**	M	5	U	5	U	5	U	5	U	50	U	50	U
37	Carbon Disulfide	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	2	U	2	U
38	2-Butanone	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	10	U	10	U
39	Benzene		**3.1**		**2.4**		**2.4**		**3.4**		**3.8**		**5.1**		**5.4**		**3.6**		**3.4**		**5.5**		**3.57**	
40	Bromoform	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
41	Toluene	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
42	Ethylbenzene		**7.3**		**8.2**		**8.1**		**9.5**		**10**		**4.2**		**4.2**		**2.6**		**2.7**		**10.5**		**3.41**	
43	Styrene	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
44	m,p-Xylene		**16**		**15**		**14**		**12**		**13**		**7**		**7.4**		**4.3**		**4.5**		**4.66**		**3.34**	
45	o-Xylene		**2.2**		**2.4**		**2.2**		1	U	1	U	1	U	1	U	1	U	1	U	**1.67**		1	U
46	1,3,5-Trimethylbenzene		**9.6**		**14**		**13**		**19**		**19**		**8.6**		**8.5**		**4.4**		**5.1**		**18.1**		**6.98**	
47	1,2,4-Trimethylbenzene		**36**		**46**		**44**		**59**		**62**		**28**		**29**		**16**		**17**		**61**		**20.5**	
48	Isopropylbenzene		**36**		**50**		**51**		**41**		**45**		**30**		**29**		**28**		**29**		**36.5**		**39.3**	
49	n-Propylbenzene		**45**		**60**		**62**		**56**		**60**		**40**		**39**		**35**		**36**		**55.3**		**60.8**	
50	tert-Butylbenzene		**1.5**		**1.7**		**1.8**		**1.8**		**2**		**1.4**		**1.3**		**1.2**		**1.2**		1	U	**1.56**	
51	sec-Butylbenzene		**6.3**		**8**		**8.1**		**8.2**		**8.8**		**5.9**		**5.7**		**5.1**		**5.4**		**7.63**		**8.48**	
52	4-Isopropyltoluene		**1.2**		**1.5**		**1.4**		**1.9**		**2**		**1**		1	U	1	U	1	U	**1.85**		1	U
53	n-Butylbenzene	M	**4.8**	M	**6**	M	**6**	M	**6.5**		**6.8**		**4.4**		**4.2**		**3.6**		**3.9**		**4.54**		**4.62**	
54	Naphthalene		**5.7**		**6.2**		**6.3**		**6.9**		**7.5**		5	U	5	U	5	U	5	U	**3.26**		**5.64**	
55	Methyl tert-butyl ether		NA		NA		NA		NA		NA		NA		NA		NA		NA		1	U	1	U
56																								
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																							
58	**Method OR-DEQ**																							
59	**TPH-Diesel**		**1.3**		**1.7**		**1.8**		**1.5**		**1.5**		**1.1**		**1**		**0.73**		**0.72**		**1.04**		**1.64**	
60	**TPH-D Motor Oil**	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.493	U	0.517	U
61	**TPH-Gasoline**		**2.4**		**2.5**		**2.6**		**2.2**		**2.4**		**1.6**		**1.6**		**1.2**		**1.2**		**2.6**		**1.72**	
62																								
63	**PRIORITY POLLUTANT**																							
64	**METALS (mg/L)**																							
65	Arsenic (7060)	U	0.05	U	**0.019**		**0.018**		**0.019**		**0.019**		**0.018**		**0.019**		**0.019**		**0.018**		**0.022**		**0.019**	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BU	BV
1			
2			
3		Dup of RW2	
4		0406059-01	
5		6/9/04	
6			
7	**CHLORINATED PHENOLS (µg/L)**		
8	**EPA Method SW8040**		
9	Pentachlorophenol	NA	
10	2,4,6-Trichlorophenol	NA	
11	2,3,6-Trichlorophenol	NA	
12	2,4,5-Trichlorophenol	NA	
13	2,3,4-Trichlorophenol	NA	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA	
15	2,3,4,5-Tetrachlorophenol	NA	
16			
17	**SEMIVOLATILES (µg/L)**		
18	**EPA Method SW8270**		
19	Phenol	1.95	U
20	4-Methylphenol	9.75	U
21	Isophorone	0.975	U
22	2,4-Dimethylphenol	2.92	U
23	Benzoic Acid	19.5	U
24	Naphthalene	**1.69**	
25	2-Methylnaphthalene	**6.08**	
26	2,4,6-Trichlorophenol	4.87	U
27	2,4,5-Trichlorophenol	4.87	U
28	Acenaphthene	0.975	U
29	Dibenzofuran	0.975	U
30	Fluorene	0.975	U
31	Pentachlorophenol	**46.7**	
32	bis(2-Ethylhexyl)phthalate	0.975	U
33			
34	**VOLATILES (µg/L)**		
35	**EPA Method SW8260**		
36	Acetone	50	U
37	Carbon Disulfide	2	U
38	2-Butanone	10	U
39	Benzene	**3.32**	
40	Bromoform	1	U
41	Toluene	1	U
42	Ethylbenzene	**3.97**	
43	Styrene	1	U
44	m,p-Xylene	**3.08**	
45	o-Xylene	1	U
46	1,3,5-Trimethylbenzene	**7.1**	
47	1,2,4-Trimethylbenzene	**19.8**	
48	Isopropylbenzene	**41**	
49	n-Propylbenzene	**62.7**	
50	tert-Butylbenzene	**1.64**	
51	sec-Butylbenzene	**8.82**	
52	4-Isopropyltoluene	1	U
53	n-Butylbenzene	**4.5**	
54	Naphthalene	**6.03**	
55	Methyl tert-butyl ether	1	U
56			
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**		
58	**Method OR-DEQ**		
59	**TPH-Diesel**	**1.45**	
60	**TPH-D Motor Oil**	0.5	U
61	**TPH-Gasoline**	**1.83**	
62			
63	**PRIORITY POLLUTANT**		
64	**METALS (mg/L)**		
65	Arsenic (7060)	**0.019**	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1																										
2															Dup of RW2				Dup of RW2				Dup of RW2			
3			RW2		RW2		RW2		RW2		RW2		RW2		X		RW2		X		RW2		X		RW2	
4			AH76G		AU45N		BC30E		BH96F		BR64P		CD97A		CD97B		CL03N		CL03M		CT37L		CT37M		DE87P	
5			5/20/99		9/23/99		12/7/99		2/17/00		5/25/00		9/13/00		9/13/00		11/9/00		11/9/00		2/13/01		2/13/01		6/6/01	
66	59	Chromium (6010)	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U
67	60	Copper (6010)	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	**0.005**		**0.007**		0.002	U	**0.004**		0.002	U	0.002	U	**0.003**	
68	61	Lead (7421)	**0.001**		**0.001**		0.001	U	0.001	U	0.001	U	**0.001**		0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
69	62	Nickel (6010)	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
70	63	Zinc (6010)	**0.016**		**0.042**		**0.025**		**0.031**		**0.016**		**0.022**	J2	**0.030**	J2	**0.116**		**0.122**		**0.022**		**0.022**		**0.058**	J
71	64																									
72	65	**MAJOR IONS AND CONVENTIONALS**																								
73	66	Calcium (mg/L) (6010)	**30.0**		NA		NA		NA		NA		NA		NA		NA		NA		**39.8**		**36.8**		**36.5**	
74	67	Magnesium (mg/L) (6010)	**9.90**		NA		NA		NA		NA		NA		NA		NA		NA		**17.1**		**15.8**		**17.2**	
75	68	Potassium (mg/L) (6010)	**2.5**		NA		NA		NA		NA		NA		NA		NA		NA		**2.4**		**2.1**		**3.1**	
76	69	Sodium (mg/L) (6010)	**7.68**		NA		NA		NA		NA		NA		NA		NA		NA		**12.6**		**11.7**		**12.6**	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	**140**		NA		NA		NA		NA		NA		NA		NA		NA		**220**		**220**		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		1.0	U	1.0	U	NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	**140**		NA		NA		NA		NA		NA		NA		NA		NA		**220**		**220**		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	**190**		**190**		**160**		**150**		**160**		**390**		**360**		**320**		**310**		**290**		**280**		**300**	J
81	74	Chloride (mg/L) (EPA 325.2)	**4.7**		**8.8**		**6.7**		**6.6**		**4.2**		**9.1**	J2	**7.4**	J2	**4.7**		**5.0**		**8.9**		**8.5**		**7.7**	
82	75	N-Nitrate (mg-N/L) (Calculated)	**0.017**		NA		NA		NA		NA		NA		NA		NA		NA		0.010	U	0.010	U	NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	0.010	U	NA		NA		NA		NA		NA		NA		NA		NA		**0.018**		**0.016**		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	**0.017**		NA		NA		NA		NA		NA		NA		NA		NA		0.010	U	0.010	U	NA	
85	78	Sulfate (mg/L) (EPA 375.2)	**9.3**		NA		NA		NA		NA		NA		NA		NA		NA		**5.2**		**4.3**		NA	
86	79																									

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW
1																								
2		Dup of RW2				Dup of RW2				Dup of RW2				Dup of RW2				Dup of RW2				Dup of RW2		
3		X		RW2		W		RW2		W		RW2		W		RW2		W		RW2		W		RW2
4		DE87O		DM30I		DM30H		DW29E		DW29C		ED30D		ED30A		EN00D		EN00A		ER93G		ER93I		EZ17D
5		6/6/01		8/13/01		8/13/01		11/27/01		11/27/01		2/27/02		2/27/02		6/27/02		6/27/02		08/27/02		08/27/02		11/13/02
66	Chromium (6010)	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005
67	Copper (6010)	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	**0.008**
68	Lead (7421)	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	**0.001**		**0.001**		0.02
69	Nickel (6010)	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01
70	Zinc (6010)	**0.189**	J	**0.020**	J	**0.028**	J	**0.010**		**0.013**		**0.043**	J	**0.016**	J	**0.015**	J	**0.037**	J	**0.034**	J	**0.02**	J	**0.022**
71																								
72	**MAJOR IONS AND CONVENTIONALS**																							
73	Calcium (mg/L) (6010)	**40.7**		**39.0**		**41.0**		**39.4**		**41.6**		**38.9**		**37.5**		**42.3**		**43.3**		NA		NA		NA
74	Magnesium (mg/L) (6010)	**19.1**		**17.1**		**17.8**		**16.4**		**17.5**		**16.2**		**15.3**		**17.0**		**17.5**		NA		NA		NA
75	Potassium (mg/L) (6010)	**3.0**		**2.8**		**2.8**		**2.4**		**2.4**		**2.5**		**2.2**		**2.3**		**2.3**		NA		NA		NA
76	Sodium (mg/L) (6010)	**13.6**		**12.3**		**12.9**		**11.7**		**12.4**		**11.2**		**10.9**		**12.0**		**12.3**		NA		NA		NA
77	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		**220**		**200**		NA		NA		NA		NA		NA
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		1.0	U	1.0	U	NA		NA		NA		NA		NA
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		**220**		**200**		NA		NA		NA		NA		NA
80	Total Dissolved Solids (mg/L) (EPA 160.1)	**290**	J	**270**	J	**290**	J	**260**		**280**		**270**		**290**		**250**		**270**		**270**		**270**		**270**
81	Chloride (mg/L) (EPA 325.2)	**7.4**		**8.9**		**8.2**		**5.5**		**5.7**		**24**	J	**4.1**	J	**6.1**		**5.8**		**4.6**		**5.1**		**4.8**
82	N-Nitrate (mg-N/L) (Calculated)	NA		NA		NA		NA		NA		**0.019**		0.010	U	NA		NA		NA		NA		NA
83	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		NA		NA		NA		**0.014**	J	**0.038**	J	NA		NA		NA		NA		NA
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		NA		NA		NA		**0.033**		**0.028**		NA		NA		NA		NA		NA
85	Sulfate (mg/L) (EPA 375.2)	NA		NA		NA		NA		NA		**6.3**	J	**9.8**	J	NA		NA		NA		NA		NA
86																								

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT
2			Dup of RW2				Dup of RW2				Dup of RW2				Dup of RW2				Dup of RW2					
3			W		RW2		W		RW2		W		RW2		W		RW2		W		RW2		RW2	
4			EZ17B		FF65I		FF65K		FL41O		FL41Q		FU31F		FU31E		FY82D		FY82A		0402113-04		0406059-02	
5			11/13/02		2/11/03		2/11/03		5/7/03		5/7/03		8/27/03		8/27/03		10/23/03		10/23/03		2/23/04		6/9/04	
66	Chromium (6010)	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	**0.0076**		**0.0136**	
67	Copper (6010)	J	0.002	UJ	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.01	U	0.01	U
68	Lead (7421)	U	0.02	U	0.001	U	0.001	U	0.001	U	**0.002**		0.001	U	0.001	U	0.001	U	0.001	U	**0.0051**		0.0001	U
69	Nickel (6010)	U	0.01	U	**0.01**		0.01	U	**0.01**		0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.005	U	0.005	U
70	Zinc (6010)		**0.017**		**0.013**	J	**0.016**	J	**0.067**		**0.064**		**0.013**		**0.014**		**0.062**	J	**0.008**	J	**0.0724**		**0.0105**	
71																								
72	**MAJOR IONS AND CONVENTIONALS**																							
73	Calcium (mg/L) (6010)		NA		**41.8**		**41.3**		NA		NA		NA		NA		NA		NA		NA		NA	
74	Magnesium (mg/L) (6010)		NA		**16.4**		**16.2**		NA		NA		NA		NA		NA		NA		NA		NA	
75	Potassium (mg/L) (6010)		NA		**2.5**		**2.6**		NA		NA		NA		NA		NA		NA		NA		NA	
76	Sodium (mg/L) (6010)		NA		**11.7**		**11.7**		NA		NA		NA		NA		NA		NA		NA		NA	
77	Alkalinity (mg/L CaCO3) (SM 2320)		NA		**240**		**240**		NA		NA		NA		NA		NA		NA		NA		NA	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)		NA		1	U	1	U	NA		NA		NA		NA		NA		NA		NA		NA	
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)		NA		**240**		**240**		NA		NA		NA		NA		NA		NA		NA		NA	
80	Total Dissolved Solids (mg/L) (EPA 160.1)		**270**		**260**		**260**		**270**		**270**		**290**		**280**		**230**		**250**		**237**		**254**	
81	Chloride (mg/L) (EPA 325.2)		**4.6**		**4.4**		**4.4**		**4.4**		**4.4**		**4.3**		**4.2**		**5.2**		**4.9**		**3.8**		**4.16**	
82	N-Nitrate (mg-N/L) (Calculated)		NA		0.01	U	**0.015**		NA		NA		NA		NA		NA		NA		NA		NA	
83	N-Nitrite (mg-N/L) (EPA 354.1)		NA		**0.041**		**0.043**		NA		NA		NA		NA		NA		NA		NA		NA	
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)		NA		**0.037**	J	**0.058**	J	NA		NA		NA		NA		NA		NA		NA		NA	
85	Sulfate (mg/L) (EPA 375.2)		NA		**3**		2.5	U	NA		NA		NA		NA		NA		NA		NA		NA	
86																								

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BU	BV
1			
2			
3		Dup of RW2	
4		0406059-01	
5		6/9/04	
66	Chromium (6010)	**0.0144**	
67	Copper (6010)	0.01	U
68	Lead (7421)	0.0001	U
69	Nickel (6010)	0.005	U
70	Zinc (6010)	**0.011**	
71			
72	**MAJOR IONS AND CONVENTIONALS**		
73	Calcium (mg/L) (6010)	NA	
74	Magnesium (mg/L) (6010)	NA	
75	Potassium (mg/L) (6010)	NA	
76	Sodium (mg/L) (6010)	NA	
77	Alkalinity (mg/L CaCO3) (SM 2320)	NA	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA	
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA	
80	Total Dissolved Solids (mg/L) (EPA 160.1)	**276**	
81	Chloride (mg/L) (EPA 325.2)	**3.74**	
82	N-Nitrate (mg-N/L) (Calculated)	NA	
83	N-Nitrite (mg-N/L) (EPA 354.1)	NA	
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA	
85	Sulfate (mg/L) (EPA 375.2)	NA	
86			

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
2															Dup of RW2				Dup of RW2				Dup of RW2			
3			RW2		RW2		RW2		RW2		RW2		RW2		X		RW2		X		RW2		X		RW2	
4			AH76G		AU45N		BC30E		BH96F		BR64P		CD97A		CD97B		CL03N		CL03M		CT37L		CT37M		DE87P	
5			5/20/99		9/23/99		12/7/99		2/17/00		5/25/00		9/13/00		9/13/00		11/9/00		11/9/00		2/13/01		2/13/01		6/6/01	
87	80	**FIELD PARAMETERS**																								
88	81	pH (avg)	6.63		6.65		6.58		6.67		6.56		6.19		6.19		5.55		5.54		6.33		6.33		6.66	
89	82	Temperature (° C) (avg)	14.2		14.7		13.1		14.4		15.0		15.6		15.6		12.7		12.7		12.6		12.7		13.6	
90	83	Conductivity (um/hos)	294		292		260		278		365		463		463		513		513		475		479		573	
91	84	Dissolved oxygen (mg/L) (avg)	1.61		1.37		2.46		0.68		0.74		11.94		11.94		0.53		0.55		0.90		0.95		0.83	
92	85																									
93	86	**DIOXINS AND FURANS (ng/L)**																								
94	87	**Method 8290**																								
95	88	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
96	89	Total TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
97	90	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
98	91	Total TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
101	94	Total PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
103	96	Total PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
108	101	Total HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
112	105	Total HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
115	108	Total HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
117	110	Total HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
118	111	OCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
119	112	OCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
120																										
121																										
122																										

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW
2		Dup of RW2				Dup of RW2				Dup of RW2				Dup of RW2				Dup of RW2				Dup of RW2		
3		X		RW2		W		RW2		W		RW2		W		RW2		W		RW2		W		RW2
4		DE87O		DM30I		DM30H		DW29E		DW29C		ED30D		ED30A		EN00D		EN00A		ER93G		ER93I		EZ17D
5		6/6/01		8/13/01		8/13/01		11/27/01		11/27/01		2/27/02		2/27/02		6/27/02		6/27/02		08/27/02		08/27/02		11/13/02
87	**FIELD PARAMETERS**																							
88	pH (avg)	6.65		6.70		6.68		6.50		6.5		6.27		6.27		6.47		6.47		6.52		6.56		6.19
89	Temperature (° C) (avg)	13.6		15.7		15.6		13.1		13.1		13.5		13.5		14.5		14.5		13.9		13.9		13.6
90	Conductivity (um/hos)	573		455		454		458		458		422		422		450		448		408		409		461
91	Dissolved oxygen (mg/L) (avg)	0.82		0.52		0.37		3.34		3.22		7.06		7.05		4.87		4.72		0.60		0.31		0.55
92																								
93	**DIOXINS AND FURANS (ng/L)**																							
94	**Method 8290**																							
95	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
96	Total TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
97	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
98	Total TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
99	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
100	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
101	Total PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
102	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
103	Total PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
104	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
105	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
106	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
107	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
108	Total HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
109	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
110	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
111	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
112	Total HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
113	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
114	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
115	Total HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
116	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
117	Total HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
118	OCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
119	OCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
120																								
121																								
122																								

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT
2			Dup of RW2				Dup of RW2				Dup of RW2				Dup of RW2				Dup of RW2					
3			W		RW2		W		RW2		W		RW2		W		RW2		W		RW2		RW2	
4			EZ17B		FF65I		FF65K		FL41O		FL41Q		FU31F		FU31E		FY82D		FY82A		0402113-04		0406059-02	
5			11/13/02		2/11/03		2/11/03		5/7/03		5/7/03		8/27/03		8/27/03		10/23/03		10/23/03		2/23/04		6/9/04	
87	**FIELD PARAMETERS**																							
88	pH (avg)		6.17		6.84		6.84		6.87		6.86		6.69		6.71		6.52		6.53		6.36		5.41	
89	Temperature (° C) (avg)		13.6		13.9		13.9		13.6		13.5		15.5		15.7		13.8		13.8		14.3		15.2	
90	Conductivity (um/hos)		461		542		542		392		390		414		411		392		392		348		395	
91	Dissolved oxygen (mg/L) (avg)		0.34		2.24		2.24		3215		3318		0.98		0.82		2.37		2.15		1.48		1.12	
92																								
93	**DIOXINS AND FURANS (ng/L)**																							
94	**Method 8290**																							
95	2,3,7,8-TCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
96	Total TCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
97	2,3,7,8-TCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
98	Total TCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
99	1,2,3,7,8-PeCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
100	2,3,4,7,8-PeCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
101	Total PeCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
102	1,2,3,7,8-PeCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
103	Total PeCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
104	1,2,3,4,7,8-HxCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
105	1,2,3,6,7,8-HxCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
106	2,3,4,6,7,8-HxCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
107	1,2,3,7,8,9-HxCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
108	Total HxCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
109	1,2,3,4,7,8-HxCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
110	1,2,3,6,7,8-HxCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
111	1,2,3,7,8,9-HxCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
112	Total HxCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
113	1,2,3,4,6,7,8-HpCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
114	1,2,3,4,7,8,9-HpCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
115	Total HpCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
116	1,2,3,4,6,7,8-HpCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
117	Total HpCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
118	OCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
119	OCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
120																								
121																							NA	
122																								

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BU	BV
1			
2			
3		Dup of RW2	
4		0406059-01	
5		6/9/04	
87	**FIELD PARAMETERS**		
88	pH (avg)	5.41	
89	Temperature (° C) (avg)	15.2	
90	Conductivity (um/hos)	395	
91	Dissolved oxygen (mg/L) (avg)	1.12	
92			
93	**DIOXINS AND FURANS (ng/L)**		
94	**Method 8290**		
95	2,3,7,8-TCDF	NA	
96	Total TCDF	NA	
97	2,3,7,8-TCDD	NA	
98	Total TCDD	NA	
99	1,2,3,7,8-PeCDF	NA	
100	2,3,4,7,8-PeCDF	NA	
101	Total PeCDF	NA	
102	1,2,3,7,8-PeCDD	NA	
103	Total PeCDD	NA	
104	1,2,3,4,7,8-HxCDF	NA	
105	1,2,3,6,7,8-HxCDF	NA	
106	2,3,4,6,7,8-HxCDF	NA	
107	1,2,3,7,8,9-HxCDF	NA	
108	Total HxCDF	NA	
109	1,2,3,4,7,8-HxCDD	NA	
110	1,2,3,6,7,8-HxCDD	NA	
111	1,2,3,7,8,9-HxCDD	NA	
112	Total HxCDD	NA	
113	1,2,3,4,6,7,8-HpCDF	NA	
114	1,2,3,4,7,8,9-HpCDF	NA	
115	Total HpCDF	NA	
116	1,2,3,4,6,7,8-HpCDD	NA	
117	Total HpCDD	NA	
118	OCDF	NA	
119	OCDD	NA	
120			
121		NA	
122			

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1																										
2															Dup of RW2				Dup of RW2				Dup of RW2			
3			RW2		RW2		RW2		RW2		RW2		RW2		X		RW2		X		RW2		X		RW2	
4			AH76G		AU45N		BC30E		BH96F		BR64P		CD97A		CD97B		CL03N		CL03M		CT37L		CT37M		DE87P	
5			5/20/99		9/23/99		12/7/99		2/17/00		5/25/00		9/13/00		9/13/00		11/9/00		11/9/00		2/13/01		2/13/01		6/6/01	
123		**PAHs (µg/L)**																								
124		**EPA Method SW8270 SIM**																								
125		Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
126		2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
127		Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
128		Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
129		Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
130		Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
131		Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
132																										

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW
1																								
2		Dup of RW2				Dup of RW2				Dup of RW2				Dup of RW2				Dup of RW2				Dup of RW2		
3		X		RW2		W		RW2		W		RW2		W		RW2		W		RW2		W		RW2
4		DE87O		DM30I		DM30H		DW29E		DW29C		ED30D		ED30A		EN00D		EN00A		ER93G		ER93I		EZ17D
5		6/6/01		8/13/01		8/13/01		11/27/01		11/27/01		2/27/02		2/27/02		6/27/02		6/27/02		08/27/02		08/27/02		11/13/02
123	**PAHs (µg/L)**																							
124	**EPA Method SW8270 SIM**																							
125	Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
126	2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
127	Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
128	Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
129	Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
130	Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
131	Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
132																				NA		NA		

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT
1																								
2			Dup of RW2				Dup of RW2				Dup of RW2				Dup of RW2				Dup of RW2					
3			W		RW2		W		RW2		W		RW2		W		RW2		W		RW2		RW2	
4			EZ17B		FF65I		FF65K		FL41O		FL41Q		FU31F		FU31E		FY82D		FY82A		0402113-04		0406059-02	
5			11/13/02		2/11/03		2/11/03		5/7/03		5/7/03		8/27/03		8/27/03		10/23/03		10/23/03		2/23/04		6/9/04	
123	**PAHs (µg/L)**																							
124	**EPA Method SW8270 SIM**																							
125	Naphthalene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
126	2-Methylnaphthalene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
127	Acenaphthylene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
128	Acenaphthene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
129	Fluorene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
130	Anthracene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
131	Dibenzofuran		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
132																								

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BU	BV
1			
2			
3		Dup of RW2	
4		0406059-01	
5		6/9/04	
123	**PAHs (µg/L)**		
124	**EPA Method SW8270 SIM**		
125	Naphthalene	NA	
126	2-Methylnaphthalene	NA	
127	Acenaphthylene	NA	
128	Acenaphthene	NA	
129	Fluorene	NA	
130	Anthracene	NA	
131	Dibenzofuran	NA	
132			

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1																
2																
3			J3		J3		J3		J3		J3		J3		J3	
4			S177K		T176R		U235L		V224Q		W371M		Y314K		Z225Q	
5			4/2/97		7/16/97		10/22/97		1/29/98		5/19/98		8/18/98		11/12/98	
7	1	**CHLORINATED PHENOLS (µg/L)**														
8	2	**EPA Method SW8040**														
9	3	Pentachlorophenol	0.25	U	0.25	U	0.25	U	0.25	UJ	**0.36**		0.25	U	0.25	U
10	4	2,4,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	UJ	0.25	U	0.25	U	0.25	U
11	5	2,3,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	UJ	0.25	U	0.25	U	0.25	U
12	6	2,4,5-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	UJ	0.25	U	0.25	U	0.25	U
13	7	2,3,4-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	UJ	0.25	U	0.25	U	0.25	U
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	UJ	0.25	U	0.25	U	0.25	U
15	9	2,3,4,5-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	UJ	0.25	U	0.25	U	0.25	U
16	10															
17	11	**SEMIVOLATILES (µg/L)**														
18	12	**EPA Method SW8270**														
19	13	Phenol	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
20	14	4-Methylphenol	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
21	15	Isophorone	1.0	U	1.0	UJ	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
22	16	2,4-Dimethylphenol	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U
23	17	Benzoic Acid	10	U	10	U	10	U	10	U	10	U	10	U	10	U
24	18	Naphthalene	1.0	U	1.0	UJ	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
25	19	2-Methylnaphthalene	1.0	U	1.0	UJ	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
26	20	2,4,6-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
27	21	2,4,5-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
28	22	Acenaphthene	1.0	U	1.0	UJ	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
29	23	Dibenzofuran	1.0	U	1.0	UJ	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
30	24	Fluorene	1.0	U	1.0	UJ	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
31	25	Pentachlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
32	26	bis(2-Ethylhexyl)phthalate	1.0	U	1.0	UJ	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
33	27															
34	28	**VOLATILES (µg/L)**														
35	29	**EPA Method SW8260**														
36	30	Acetone	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
37	31	Carbon Disulfide	1.0	U	1.0	U	**110**		1.0	U	1.0	U	1.0	U	1.0	U
38	32	2-Butanone	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
39	33	Benzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
40	34	Bromoform	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
41	35	Toluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
42	36	Ethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
43	37	Styrene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
44	38	m,p-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
45	39	o-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
46	40	1,3,5-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
47	41	1,2,4-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
48	42	Isopropylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
49	43	n-Propylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
50	44	tert-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
51	45	sec-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	UJ	1.0	U
52	46	4-Isopropyltoluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
53	47	n-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
54	48	Naphthalene	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
55		Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA	
56	49															
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**														
58	51	**Method OR-DEQ**														
59	52	**TPH-Diesel**	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
60	53	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		NA		NA	
61	54	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA	
62	55															
63	56	**PRIORITY POLLUTANT**														
64	57	**METALS (mg/L)**														
65	58	Arsenic (7060)	**0.010**		**0.012**		0.05	U	0.05	U	**0.011**		**0.014**		**0.017**	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1																
2																
3			J3		J3		J3		J3		J3		J3		J3	
4			S177K		T176R		U235L		V224Q		W371M		Y314K		Z225Q	
5			4/2/97		7/16/97		10/22/97		1/29/98		5/19/98		8/18/98		11/12/98	
66	59	Chromium (6010)	0.005	U	0.005	U	0.005	U	0.005	U	**0.014**		**0.018**		**0.012**	
67	60	Copper (6010)	0.002	U	**0.005**		0.002	U	**0.005**		**0.017**		**0.020**		**0.013**	
68	61	Lead (7421)	0.001	U	**0.002**		0.02	U	0.02	U	**0.006**		**0.007**		**0.003**	
69	62	Nickel (6010)	0.01	U	0.01	U	0.01	U	0.01	U	**0.01**		**0.01**		**0.01**	
70	63	Zinc (6010)	0.004	U	**0.013**		**0.018**		**0.010**		**0.034**	J2	**0.048**		**0.036**	
71	64															
72	65	**MAJOR IONS AND CONVENTIONALS**														
73	66	Calcium (mg/L) (6010)	**94.6**		**101**		**103**		**90.2**		NA		NA		NA	
74	67	Magnesium (mg/L) (6010)	**51.7**		**56.1**		**56.1**		**50.6**		NA		NA		NA	
75	68	Potassium (mg/L) (6010)	**1.8**		**1.9**		**2.0**		**1.6**		NA		NA		NA	
76	69	Sodium (mg/L) (6010)	**22.5**		**23.5**		**23.8**		**22.1**		NA		NA		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	**470**		**460**	J2	**510**		**470**		NA		NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	**470**		**460**	J2	**510**		**470**		NA		NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	NT		**580**	J2	**480**		**510**		**480**		**540**		**470**	
81	74	Chloride (mg/L) (EPA 325.2)	**9.9**		**9.3**		**11**		**12**		**12**		**13**		**12**	
82	75	N-Nitrate (mg-N/L) (Calculated)	0.010	U	0.010	U	**0.013**		**0.016**	J2	NA		NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	**0.012**	J	**0.012**	J2	0.010	U	0.010	UJ	NA		NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	**0.014**		0.010	U	**0.013**		**0.016**	J2	NA		NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	**2.8**	J	2.5	U	2.5	U	2.5	U	NA		NA		NA	
86	79															

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1																
2																
3			J3		J3		J3		J3		J3		J3		J3	
4			S177K		T176R		U235L		V224Q		W371M		Y314K		Z225Q	
5			4/2/97		7/16/97		10/22/97		1/29/98		5/19/98		8/18/98		11/12/98	
87	80	**FIELD PARAMETERS**														
88	81	pH (avg)	6.78		6.80		6.85		6.70		6.53		6.46		6.43	
89	82	Temperature (° C) (avg)	13.9		16.3		13.7		13.4		13.4		14.9		11.9	
90	83	Conductivity (um/hos)	859		765		673		771		788		916		422	
91	84	Dissolved oxygen (mg/L) (avg)	NA		NA		NA		NA		0.74		3.45		2.45	
92	85															
93	86	**DIOXINS AND FURANS (ng/L)**														
94	87	**Method 8290**														
95	88	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA	
96	89	Total TCDF	NA		NA		NA		NA		NA		NA		NA	
97	90	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA	
98	91	Total TCDD	NA		NA		NA		NA		NA		NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA	
101	94	Total PeCDF	NA		NA		NA		NA		NA		NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA	
103	96	Total PeCDD	NA		NA		NA		NA		NA		NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA	
108	101	Total HxCDF	NA		NA		NA		NA		NA		NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA	
112	105	Total HxCDD	NA		NA		NA		NA		NA		NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA	
115	108	Total HpCDF	NA		NA		NA		NA		NA		NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA	
117	110	Total HpCDD	NA		NA		NA		NA		NA		NA		NA	
118	111	OCDF	NA		NA		NA		NA		NA		NA		NA	
119	112	OCDD	NA		NA		NA		NA		NA		NA		NA	
120																
121																
122																

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1																
2																
3			J3		J3		J3		J3		J3		J3		J3	
4			S177K		T176R		U235L		V224Q		W371M		Y314K		Z225Q	
5			4/2/97		7/16/97		10/22/97		1/29/98		5/19/98		8/18/98		11/12/98	
123		**PAHs (µg/L)**														
124		**EPA Method SW8270 SIM**														
125		Naphthalene	NA		NA		NA		NA		NA		NA		NA	
126		2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA	
127		Acenaphthylene	NA		NA		NA		NA		NA		NA		NA	
128		Acenaphthene	NA		NA		NA		NA		NA		NA		NA	
129		Fluorene	NA		NA		NA		NA		NA		NA		NA	
130		Anthracene	NA		NA		NA		NA		NA		NA		NA	
131		Dibenzofuran	NA		NA		NA		NA		NA		NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
2					Dup of LW-12D1								Dup of LW12D1													
3			LW12D1		LW120D1		LW12D1		LW12D1		LW12D1		Y		LW12D1		LW12D1		LW12D1		LW12D1		LW12D1		LW12D1	
4			AH76C		AH76A		AU45L		BC27S		BH96M		BH96O		BR55B		CB85I		CL03K		CT67E		DE87M		DM52H	
5			5/20/99		5/20/99		9/23/99		12/9/99		2/18/00		2/18/00		5/22/00		8/31/00		11/10/00		2/15/01		6/6/01		8/15/01	
7	1	**CHLORINATED PHENOLS (µg/L)**																								
8	2	**EPA Method SW8040**																								
9	3	Pentachlorophenol	**28**		**32**		**1.4**		**200**		**0.28**		**0.23**	J1	0.25	UJ	0.25	U	0.25	U	**0.62**		0.25	U	0.25	U
10	4	2,4,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	**1.1**		0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA	
11	5	2,3,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA	
12	6	2,4,5-Trichlorophenol	0.25	U	0.25	U	0.25	U	1.2	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA	
13	7	2,3,4-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	**1.2**		**1.4**		**0.13**	J1	**6.2**		0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA	
15	9	2,3,4,5-Tetrachlorophenol	**1.0**		**1.0**		**0.36**		**8.0**		0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA	
16	10																									
17	11	**SEMIVOLATILES (µg/L)**																								
18	12	**EPA Method SW8270**																								
19	13	Phenol	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
20	14	4-Methylphenol	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
21	15	Isophorone	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
22	16	2,4-Dimethylphenol	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U
23	17	Benzoic Acid	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
24	18	Naphthalene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
25	19	2-Methylnaphthalene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
26	20	2,4,6-Trichlorophenol	5.0	U	5.0	U	5.0	U	**2.2**	J1	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
27	21	2,4,5-Trichlorophenol	5.0	U	5.0	U	5.0	U	**1.7**	J1	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
28	22	Acenaphthene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
29	23	Dibenzofuran	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
30	24	Fluorene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
31	25	Pentachlorophenol	**110**	J2	**81**	J2	5.0	U	**380**		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
32	26	bis(2-Ethylhexyl)phthalate	1.0	U	1.0	U	1.0	U	**1.0**	J1	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**1.0**		1.0	U
33	27																									
34	28	**VOLATILES (µg/L)**																								
35	29	**EPA Method SW8260**																								
36	30	Acetone	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
37	31	Carbon Disulfide	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
38	32	2-Butanone	**7.6**		5.0	U	**12**	M	5.0	U	5.0	U	5.0	U	5.0	U	9.5	U	**8.4**		5.0	U	5.0	U	**5.7**	
39	33	Benzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
40	34	Bromoform	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
41	35	Toluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
42	36	Ethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
43	37	Styrene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
44	38	m,p-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
45	39	o-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**1.2**		1.0	U	1.0	U
46	40	1,3,5-Trimethylbenzene	**11**		**9.7**		**3.6**		**1.5**		1.0	U	1.0	U	**2.4**		**3.3**		**4.8**		**4.4**		**1.9**		**1.5**	
47	41	1,2,4-Trimethylbenzene	**46**		**46**		**15**		**4.8**		**5.1**		**4.9**		**15**		**17**		**22**		**23**		**13**		**7.5**	
48	42	Isopropylbenzene	**2.6**		**2.6**		**1.7**		**1.1**		1.0	U	1.0	U	1.0	U	**1.3**		**1.4**		**1.6**		1.0	U
49	43	n-Propylbenzene	**3.9**		**3.8**		**2.4**		**1.3**		1.0	U	1.0	U	**1.5**		**1.5**		**2.2**		**2.5**		**2.0**		1.0	U
50	44	tert-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
51	45	sec-Butylbenzene	**1.7**		**1.7**		**1.0**		1.0	U	1.0	U	1.0	U	1.0	U	**1.2**		**1.6**		**1.9**		**1.3**		1.0	U
52	46	4-Isopropyltoluene	**2.0**		**2.0**		**1.3**		1.0	U	1.0	U	1.0	U	1.0	U	**1.1**		**1.6**		**1.9**		1.0	U	1.0	U
53	47	n-Butylbenzene	**1.7**		**1.7**	M	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.4	U	**1.7**	M	1.0	U	1.0	U
54	48	Naphthalene	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
55		Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
56	49																									
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																								
58	51	**Method OR-DEQ**																								
59	52	**TPH-Diesel**	**0.96**		**0.86**		**0.98**		**0.88**		**0.66**		**0.66**		**0.82**		**0.64**		**0.78**		**0.83**		**0.77**		**0.81**	
60	53	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		NA		NA		NA		0.50	U	NA		NA		NA	
61	54	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
62	55																									
63	56	**PRIORITY POLLUTANT**																								
64	57	**METALS (mg/L)**																								
65	58	Arsenic (7060)	**0.017**		**0.017**		**0.039**		**0.034**		**0.020**		**0.020**		**0.030**		**0.033**		**0.019**		**0.022**		**0.020**		**0.017**	

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TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AA	AB	AC	AD	AE	AF
1							
2							
3		LW12D1		LW12D1		LW12D1	
4		DW48J		ED34H		EN00K	
5		11/29/01		2/28/02		6/27/02	
6							
7	**CHLORINATED PHENOLS (µg/L)**						
8	**EPA Method SW8040**						
9	Pentachlorophenol	0.25	U	0.25	U	**1.6**	
10	2,4,6-Trichlorophenol	NA		NA		NA	
11	2,3,6-Trichlorophenol	NA		NA		NA	
12	2,4,5-Trichlorophenol	NA		NA		NA	
13	2,3,4-Trichlorophenol	NA		NA		NA	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA		NA	
15	2,3,4,5-Tetrachlorophenol	NA		NA		NA	
16							
17	**SEMIVOLATILES (µg/L)**						
18	**EPA Method SW8270**						
19	Phenol	2.0	U	2.0	U	2.0	U
20	4-Methylphenol	1.0	U	1.0	U	1.0	U
21	Isophorone	1.0	U	1.0	U	1.0	U
22	2,4-Dimethylphenol	3.0	U	3.0	U	3.0	U
23	Benzoic Acid	30	U	50	U	50	U
24	Naphthalene	1.0	U	1.0	U	1.0	U
25	2-Methylnaphthalene	1.0	U	1.0	U	1.0	U
26	2,4,6-Trichlorophenol	5.0	U	5.0	U	5.0	U
27	2,4,5-Trichlorophenol	5.0	U	5.0	U	5.0	U
28	Acenaphthene	1.0	U	1.0	U	1.0	U
29	Dibenzofuran	1.0	U	1.0	U	1.0	U
30	Fluorene	1.0	U	1.0	U	1.0	U
31	Pentachlorophenol	5.0	U	5.0	U	5.0	U
32	bis(2-Ethylhexyl)phthalate	1.0	U	4.0	U	4.0	U
33							
34	**VOLATILES (µg/L)**						
35	**EPA Method SW8260**						
36	Acetone	5.0	U	5.0	U	5.0	U
37	Carbon Disulfide	1.0	U	1.0	U	1.0	U
38	2-Butanone	**5.6**		**8.6**		5.0	U
39	Benzene	1.0	U	1.0	U	1.0	U
40	Bromoform	1.0	U	1.0	U	1.0	U
41	Toluene	1.0	U	1.0	U	1.0	U
42	Ethylbenzene	1.0	U	1.0	U	1.0	U
43	Styrene	1.0	U	1.0	U	1.0	U
44	m,p-Xylene	1.0	U	1.0	U	1.0	U
45	o-Xylene	1.0	U	1.0	U	1.0	U
46	1,3,5-Trimethylbenzene	**3.4**		**1.5**		1.0	U
47	1,2,4-Trimethylbenzene	**21**		**8.5**		**4.7**	
48	Isopropylbenzene	**1.6**		1.0	U	1.0	U
49	n-Propylbenzene	**2.8**		**1.1**		**1.3**	
50	tert-Butylbenzene	1.0	U	1.0	U	1.0	U
51	sec-Butylbenzene	**2.8**		1.0	U	**1.1**	
52	4-Isopropyltoluene	**2.2**		1.0	U	1.0	U
53	n-Butylbenzene	2.0	U	1.0	U	1.0	U
54	Naphthalene	5.0	U	5.0	U	5.0	U
55	Methyl tert-butyl ether	NA		NA		NA	
56							
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**						
58	**Method OR-DEQ**						
59	**TPH-Diesel**	**0.97**		**1.2**		**1.0**	
60	**TPH-D Motor Oil**	NA		NA		NA	
61	**TPH-Gasoline**	NA		NA		NA	
62							
63	**PRIORITY POLLUTANT**						
64	**METALS (mg/L)**						
65	Arsenic (7060)	**0.014**		**0.016**		**0.028**	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
2					Dup of LW-12D1								Dup of LW12D1													
3			LW12D1		LW120D1		LW12D1		LW12D1		LW12D1		Y		LW12D1		LW12D1		LW12D1		LW12D1		LW12D1		LW12D1	
4			AH76C		AH76A		AU45L		BC27S		BH96M		BH96O		BR55B		CB85I		CL03K		CT67E		DE87M		DM52H	
5			5/20/99		5/20/99		9/23/99		12/9/99		2/18/00		2/18/00		5/22/00		8/31/00		11/10/00		2/15/01		6/6/01		8/15/01	
66	59	Chromium (6010)	**0.007**		**0.007**		**0.035**		**0.091**		**0.017**		**0.019**		0.005	U	**0.006**		**0.010**		**0.008**		**0.012**		**0.032**	
67	60	Copper (6010)	**0.008**		**0.008**		**0.036**		**0.122**		**0.022**		**0.024**		**0.007**		**0.007**		**0.016**		**0.012**		**0.015**		**0.038**	
68	61	Lead (7421)	**0.002**		**0.002**		**0.011**		**0.030**		**0.005**		**0.005**		**0.003**		**0.002**		**0.006**		**0.003**		**0.013**		**0.012**	
69	62	Nickel (6010)	0.01	U	0.01	U	0.03	U	**0.07**		**0.02**		**0.02**		0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	**0.03**	
70	63	Zinc (6010)	**0.026**		**0.030**		**0.079**		**0.212**		**0.047**		**0.053**		**0.016**		**0.024**		**0.037**		**0.033**		**0.029**		**0.074**	
71	64																									
72	65	**MAJOR IONS AND CONVENTIONALS**																								
73	66	Calcium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		**54.8**		**60.5**		**53.1**	
74	67	Magnesium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		**26.2**		**29.5**		**29.0**	
75	68	Potassium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		**0.9**		**1.8**		**1.9**	
76	69	Sodium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		**10.9**		**12.3**		**11.5**	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		NA		NA		**320**		NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		NA		NA		1.0	U	NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		NA		NA		**320**		NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	**360**		**360**		**360**		**350**		**350**		**350**		**320**		**320**		**330**		**320**		**340**	J	**320**	
81	74	Chloride (mg/L) (EPA 325.2)	**3.8**		**3.8**		**3.3**		**4.5**		**3.8**		**4.2**		**4.1**		**6.8**		**3.3**		**4.2**	J	**3.7**		**7.8**	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA		NA		NA		NA		NA		NA		NA		NA		NA		0.010	U	NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		NA		NA		NA		NA		NA		NA		NA		0.010	U	NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		NA		NA		NA		NA		NA		NA		NA		0.010	U	NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	NA		NA		NA		NA		NA		NA		NA		NA		NA		**5.8**		NA		NA	
86	79																									

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TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AA	AB	AC	AD	AE	AF
1							
2							
3		LW12D1		LW12D1		LW12D1	
4		DW48J		ED34H		EN00K	
5		11/29/01		2/28/02		6/27/02	
66	Chromium (6010)	**0.009**		**0.015**		**0.006**	
67	Copper (6010)	0.012	U	**0.020**		**0.007**	
68	Lead (7421)	**0.005**		**0.006**		**0.002**	
69	Nickel (6010)	0.01	U	0.01	U	0.01	U
70	Zinc (6010)	**0.021**		**0.032**		**0.022**	
71							
72	**MAJOR IONS AND CONVENTIONALS**						
73	Calcium (mg/L) (6010)	**58.4**		**55.1**		**59.3**	
74	Magnesium (mg/L) (6010)	**29.4**		**25.4**		**28.1**	
75	Potassium (mg/L) (6010)	**1.5**		**1.5**		**1.0**	
76	Sodium (mg/L) (6010)	**12.2**		**12.5**		**12.4**	
77	Alkalinity (mg/L CaCO3) (SM 2320)	NA		**260**		NA	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		1.0	U	NA	
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		**260**		NA	
80	Total Dissolved Solids (mg/L) (EPA 160.1)	**350**		**330**		**300**	
81	Chloride (mg/L) (EPA 325.2)	**3.7**		**5.2**		**3.8**	
82	N-Nitrate (mg-N/L) (Calculated)	NA		**0.027**		NA	
83	N-Nitrite (mg-N/L) (EPA 354.1)	NA		0.010	U	NA	
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		**0.027**		NA	
85	Sulfate (mg/L) (EPA 375.2)	NA		**5.1**		NA	
86							

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
2					Dup of LW-12D1								Dup of LW12D1													
3			LW12D1		LW120D1		LW12D1		LW12D1		LW12D1		Y		LW12D1		LW12D1		LW12D1		LW12D1		LW12D1		LW12D1	
4			AH76C		AH76A		AU45L		BC27S		BH96M		BH96O		BR55B		CB85I		CL03K		CT67E		DE87M		DM52H	
5			5/20/99		5/20/99		9/23/99		12/9/99		2/18/00		2/18/00		5/22/00		8/31/00		11/10/00		2/15/01		6/6/01		8/15/01	
87	80	**FIELD PARAMETERS**																								
88	81	pH (avg)	6.96		6.96		7.13		6.96		6.95		6.85		6.95		6.85		5.68		6.82		7.15		7.20	
89	82	Temperature (° C) (avg)	13.2		13.0		14.7		11.9		11.7		11.7		15.0		13.0		12.2		13.1		14.0		14.4	
90	83	Conductivity (um/hos)	486		502		504		346		526		524		495		485		444		454		481		469	
91	84	Dissolved oxygen (mg/L) (avg)	1.86		1.67		1.01		2.36		1.79		1.43		1.26		1.74		0.93		0.13		2.10		1.96	
92	85																									
93	86	**DIOXINS AND FURANS (ng/L)**																								
94	87	**Method 8290**																								
95	88	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
96	89	Total TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
97	90	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
98	91	Total TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
101	94	Total PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
103	96	Total PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
108	101	Total HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
112	105	Total HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
115	108	Total HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
117	110	Total HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
118	111	OCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
119	112	OCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
120																										
121																										
122																										

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AA	AB	AC	AD	AE	AF
1							
2							
3		LW12D1		LW12D1		LW12D1	
4		DW48J		ED34H		EN00K	
5		11/29/01		2/28/02		6/27/02	
87	**FIELD PARAMETERS**						
88	pH (avg)	6.92		6.80		7.07	
89	Temperature (° C) (avg)	13.3		13.8		14.3	
90	Conductivity (um/hos)	434		431		410	
91	Dissolved oxygen (mg/L) (avg)	4.12		7.61		4.73	
92							
93	**DIOXINS AND FURANS (ng/L)**						
94	**Method 8290**						
95	2,3,7,8-TCDF	NA		NA		NA	
96	Total TCDF	NA		NA		NA	
97	2,3,7,8-TCDD	NA		NA		NA	
98	Total TCDD	NA		NA		NA	
99	1,2,3,7,8-PeCDF	NA		NA		NA	
100	2,3,4,7,8-PeCDF	NA		NA		NA	
101	Total PeCDF	NA		NA		NA	
102	1,2,3,7,8-PeCDD	NA		NA		NA	
103	Total PeCDD	NA		NA		NA	
104	1,2,3,4,7,8-HxCDF	NA		NA		NA	
105	1,2,3,6,7,8-HxCDF	NA		NA		NA	
106	2,3,4,6,7,8-HxCDF	NA		NA		NA	
107	1,2,3,7,8,9-HxCDF	NA		NA		NA	
108	Total HxCDF	NA		NA		NA	
109	1,2,3,4,7,8-HxCDD	NA		NA		NA	
110	1,2,3,6,7,8-HxCDD	NA		NA		NA	
111	1,2,3,7,8,9-HxCDD	NA		NA		NA	
112	Total HxCDD	NA		NA		NA	
113	1,2,3,4,6,7,8-HpCDF	NA		NA		NA	
114	1,2,3,4,7,8,9-HpCDF	NA		NA		NA	
115	Total HpCDF	NA		NA		NA	
116	1,2,3,4,6,7,8-HpCDD	NA		NA		NA	
117	Total HpCDD	NA		NA		NA	
118	OCDF	NA		NA		NA	
119	OCDD	NA		NA		NA	
120							
121							
122							

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1																										
2					Dup of LW-12D1								Dup of LW12D1													
3			LW12D1		LW120D1		LW12D1		LW12D1		LW12D1		Y		LW12D1		LW12D1		LW12D1		LW12D1		LW12D1		LW12D1	
4			AH76C		AH76A		AU45L		BC27S		BH96M		BH96O		BR55B		CB85I		CL03K		CT67E		DE87M		DM52H	
5			5/20/99		5/20/99		9/23/99		12/9/99		2/18/00		2/18/00		5/22/00		8/31/00		11/10/00		2/15/01		6/6/01		8/15/01	
123		**PAHs (µg/L)**																								
124		**EPA Method SW8270 SIM**																								
125		Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
126		2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
127		Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
128		Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
129		Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
130		Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
131		Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AA	AB	AC	AD	AE	AF
1							
2							
3		LW12D1		LW12D1		LW12D1	
4		DW48J		ED34H		EN00K	
5		11/29/01		2/28/02		6/27/02	
123	**PAHs (µg/L)**						
124	**EPA Method SW8270 SIM**						
125	Naphthalene	NA		NA		NA	
126	2-Methylnaphthalene	NA		NA		NA	
127	Acenaphthylene	NA		NA		NA	
128	Acenaphthene	NA		NA		NA	
129	Fluorene	NA		NA		NA	
130	Anthracene	NA		NA		NA	
131	Dibenzofuran	NA		NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
1																											
2																											
3			LW-12D2		LW-12D2		LW12D2		LW12D2		LW12D2		LW12D2		LW12D2		LW12D2		LW12D2		LW12D2		LW12D2		LW12D2		LW12D2
4			AH76B		AU45M		BC27T		BH96N		BR55A		CB85J		CL03L		CT67F		DE87R		DM52F		DW48I		ED34I		EN00L
5			5/20/99		9/23/99		12/9/99		2/18/00		5/22/00		8/31/00		11/10/00		2/15/01		6/6/01		8/15/01		11/29/01		2/28/02		6/27/02
7	1	**CHLORINATED PHENOLS (µg/L)**																									
8	2	**EPA Method SW8040**																									
9	3	Pentachlorophenol	**0.91**		0.25	U	**3.7**		0.25	U	0.25	UJ	0.25	U	0.25	U	0.25	U	**1.7**		0.25	U	0.25	U	NA		0.25
10	4	2,4,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA
11	5	2,3,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA
12	6	2,4,5-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA
13	7	2,3,4-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	0.25	U	0.25	U	**0.22**	J1	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA
15	9	2,3,4,5-Tetrachlorophenol	0.25	U	0.25	U	**0.50**		0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA
16	10																										
17	11	**SEMIVOLATILES (µg/L)**																									
18	12	**EPA Method SW8270**																									
19	13	Phenol	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0
20	14	4-Methylphenol	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
21	15	Isophorone	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
22	16	2,4-Dimethylphenol	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0
23	17	Benzoic Acid	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	30	U	50	U	50
24	18	Naphthalene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
25	19	2-Methylnaphthalene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
26	20	2,4,6-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0
27	21	2,4,5-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0
28	22	Acenaphthene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
29	23	Dibenzofuran	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
30	24	Fluorene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
31	25	Pentachlorophenol	5.0	U	5.0	U	**2.8**	J1	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0
32	26	bis(2-Ethylhexyl)phthalate	1.0	U	1.0	U	**20**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	4.0	U	**5.4**
33	27																										
34	28	**VOLATILES (µg/L)**																									
35	29	**EPA Method SW8260**																									
36	30	Acetone	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0
37	31	Carbon Disulfide	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
38	32	2-Butanone	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0
39	33	Benzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
40	34	Bromoform	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
41	35	Toluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
42	36	Ethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
43	37	Styrene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
44	38	m,p-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
45	39	o-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
46	40	1,3,5-Trimethylbenzene	**1.1**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
47	41	1,2,4-Trimethylbenzene	**3.7**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
48	42	Isopropylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
49	43	n-Propylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
50	44	tert-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
51	45	sec-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
52	46	4-Isopropyltoluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
53	47	n-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
54	48	Naphthalene	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0
55		Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
56	49																										
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																									
58	51	**Method OR-DEQ**																									
59	52	**TPH-Diesel**	0.25	U	0.25	U	**0.32**		0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		0.25	U	NA
60	53	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		NA		0.50	U	NA		NA		NA		NA		NA		NA
61	54	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
62	55																										
63	56	**PRIORITY POLLUTANT**																									
64	57	**METALS (mg/L)**																									
65	58	Arsenic (7060)	**0.020**		**0.021**		**0.003**		**0.019**		**0.024**		**0.022**		**0.020**		**0.022**		**0.022**		**0.024**		**0.024**		**0.020**		**0.018**

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AB
1		
2		
3		
4		
5		
7	**CHLORINATED PHENOLS (µg/L)**	
8	**EPA Method SW8040**	
9	Pentachlorophenol	U
10	2,4,6-Trichlorophenol	
11	2,3,6-Trichlorophenol	
12	2,4,5-Trichlorophenol	
13	2,3,4-Trichlorophenol	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	
15	2,3,4,5-Tetrachlorophenol	
16		
17	**SEMIVOLATILES (µg/L)**	
18	**EPA Method SW8270**	
19	Phenol	U
20	4-Methylphenol	U
21	Isophorone	U
22	2,4-Dimethylphenol	U
23	Benzoic Acid	U
24	Naphthalene	U
25	2-Methylnaphthalene	U
26	2,4,6-Trichlorophenol	U
27	2,4,5-Trichlorophenol	U
28	Acenaphthene	U
29	Dibenzofuran	U
30	Fluorene	U
31	Pentachlorophenol	U
32	bis(2-Ethylhexyl)phthalate	
33		
34	**VOLATILES (µg/L)**	
35	**EPA Method SW8260**	
36	Acetone	U
37	Carbon Disulfide	U
38	2-Butanone	U
39	Benzene	U
40	Bromoform	U
41	Toluene	U
42	Ethylbenzene	U
43	Styrene	U
44	m,p-Xylene	U
45	o-Xylene	U
46	1,3,5-Trimethylbenzene	U
47	1,2,4-Trimethylbenzene	U
48	Isopropylbenzene	U
49	n-Propylbenzene	U
50	tert-Butylbenzene	U
51	sec-Butylbenzene	U
52	4-Isopropyltoluene	U
53	n-Butylbenzene	U
54	Naphthalene	U
55	Methyl tert-butyl ether	
56		
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**	
58	**Method OR-DEQ**	
59	**TPH-Diesel**	
60	**TPH-D Motor Oil**	
61	**TPH-Gasoline**	
62		
63	**PRIORITY POLLUTANT**	
64	**METALS (mg/L)**	
65	Arsenic (7060)	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
1																											
2																											
3			LW-12D2		LW-12D2		LW12D2		LW12D2		LW12D2		LW12D2		LW12D2		LW12D2		LW12D2		LW12D2		LW12D2		LW12D2		LW12D2
4			AH76B		AU45M		BC27T		BH96N		BR55A		CB85J		CL03L		CT67F		DE87R		DM52F		DW48I		ED34I		EN00L
5			5/20/99		9/23/99		12/9/99		2/18/00		5/22/00		8/31/00		11/10/00		2/15/01		6/6/01		8/15/01		11/29/01		2/28/02		6/27/02
66	59	Chromium (6010)	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005
67	60	Copper (6010)	0.002	U	0.002	U	**0.005**		0.002	U	0.002	U	0.002	U	**0.004**		0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002
68	61	Lead (7421)	0.001	U	0.001	U	**0.002**		0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	**0.002**		0.001	U	0.001
69	62	Nickel (6010)	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01
70	63	Zinc (6010)	**0.007**		0.004	U	**0.306**		**0.009**		0.006	U	0.006	U	0.006	U	**0.009**		0.006	U	0.006	U	0.006	U	0.006	U	0.006
71	64																										
72	65	**MAJOR IONS AND CONVENTIONALS**																									
73	66	Calcium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		**36.1**		**38.3**		**29.4**		**31.9**		**39.1**		**52.5**
74	67	Magnesium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		**16.4**		**17.3**		**13.7**		**14.0**		**17.3**		**23.0**
75	68	Potassium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		**2.4**		**2.4**		**2.4**		**2.2**		**2.8**		**3.1**
76	69	Sodium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		**15.0**		**17.6**		**13.5**		**14.0**		**16.8**		**21.7**
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		**220**		NA		NA		NA		**230**		NA
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		1.0	U	NA		NA		NA		1.0	U	NA
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		**220**		NA		NA		NA		**230**		NA
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	**340**		**270**		**160**		**290**		**320**		**280**		**280**		**240**		**280**	J	**210**		**210**		**330**		**330**
81	74	Chloride (mg/L) (EPA 325.2)	**3.9**		**2.7**		**4.7**		**3.9**		**3.7**		**8.2**		**3.3**		**5.6**	J	**3.2**		**7.9**		**3.1**		**24**		**4.1**
82	75	N-Nitrate (mg-N/L) (Calculated)	NA		NA		NA		NA		NA		NA		NA		0.010	U	NA		NA		NA		0.010	U	NA
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		NA		NA		NA		NA		NA		**0.029**	J	NA		NA		NA		**0.042**		NA
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		NA		NA		NA		NA		NA		**0.031**		NA		NA		NA		**0.048**		NA
85	78	Sulfate (mg/L) (EPA 375.2)	NA		NA		NA		NA		NA		NA		NA		**7.3**		NA		NA		NA		**6.5**		NA
86	79																										

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AB
1		
2		
3		
4		
5		
66	Chromium (6010)	U
67	Copper (6010)	U
68	Lead (7421)	U
69	Nickel (6010)	U
70	Zinc (6010)	U
71		
72	**MAJOR IONS AND CONVENTIONALS**	
73	Calcium (mg/L) (6010)	
74	Magnesium (mg/L) (6010)	
75	Potassium (mg/L) (6010)	
76	Sodium (mg/L) (6010)	
77	Alkalinity (mg/L CaCO3) (SM 2320)	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	
80	Total Dissolved Solids (mg/L) (EPA 160.1)	
81	Chloride (mg/L) (EPA 325.2)	
82	N-Nitrate (mg-N/L) (Calculated)	
83	N-Nitrite (mg-N/L) (EPA 354.1)	
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	
85	Sulfate (mg/L) (EPA 375.2)	
86		

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
1																											
2																											
3			LW-12D2		LW-12D2		LW12D2		LW12D2		LW12D2		LW12D2		LW12D2		LW12D2		LW12D2		LW12D2		LW12D2		LW12D2		LW12D2
4			AH76B		AU45M		BC27T		BH96N		BR55A		CB85J		CL03L		CT67F		DE87R		DM52F		DW48I		ED34I		EN00L
5			5/20/99		9/23/99		12/9/99		2/18/00		5/22/00		8/31/00		11/10/00		2/15/01		6/6/01		8/15/01		11/29/01		2/28/02		6/27/02
87	80	**FIELD PARAMETERS**																									
88	81	pH (avg)	6.69		6.81		6.88		6.75		6.61		6.64		5.48		6.56		6.89		6.96		6.68		6.50		6.66
89	82	Temperature (° C) (avg)	13.8		14.2		11.9		13.0		13.9		13.7		13.3		13.3		13.9		14.0		13.1		13.1		14.2
90	83	Conductivity (um/hos)	514		391		250		475		468		443		442		429		473		356		375		439		528
91	84	Dissolved oxygen (mg/L) (avg)	2.40		0.42		2.80		1.42		0		0.52		0.29		0.00		0.50		0.34		3.45		7.16		4.25
92	85																										
93	86	**DIOXINS AND FURANS (ng/L)**																									
94	87	**Method 8290**																									
95	88	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
96	89	Total TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
97	90	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
98	91	Total TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
99	92	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
100	93	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
101	94	Total PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
102	95	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
103	96	Total PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
108	101	Total HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
112	105	Total HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
115	108	Total HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
117	110	Total HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
118	111	OCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
119	112	OCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
120																											
121																											
122																											

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AB
1		
2		
3		
4		
5		
87	**FIELD PARAMETERS**	
88	pH (avg)	
89	Temperature (° C) (avg)	
90	Conductivity (um/hos)	
91	Dissolved oxygen (mg/L) (avg)	
92		
93	**DIOXINS AND FURANS (ng/L)**	
94	**Method 8290**	
95	2,3,7,8-TCDF	
96	Total TCDF	
97	2,3,7,8-TCDD	
98	Total TCDD	
99	1,2,3,7,8-PeCDF	
100	2,3,4,7,8-PeCDF	
101	Total PeCDF	
102	1,2,3,7,8-PeCDD	
103	Total PeCDD	
104	1,2,3,4,7,8-HxCDF	
105	1,2,3,6,7,8-HxCDF	
106	2,3,4,6,7,8-HxCDF	
107	1,2,3,7,8,9-HxCDF	
108	Total HxCDF	
109	1,2,3,4,7,8-HxCDD	
110	1,2,3,6,7,8-HxCDD	
111	1,2,3,7,8,9-HxCDD	
112	Total HxCDD	
113	1,2,3,4,6,7,8-HpCDF	
114	1,2,3,4,7,8,9-HpCDF	
115	Total HpCDF	
116	1,2,3,4,6,7,8-HpCDD	
117	Total HpCDD	
118	OCDF	
119	OCDD	
120		
121		
122		

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
1																											
2																											
3			LW-12D2		LW-12D2		LW12D2		LW12D2		LW12D2		LW12D2		LW12D2		LW12D2		LW12D2		LW12D2		LW12D2		LW12D2		LW12D2
4			AH76B		AU45M		BC27T		BH96N		BR55A		CB85J		CL03L		CT67F		DE87R		DM52F		DW48I		ED34I		EN00L
5			5/20/99		9/23/99		12/9/99		2/18/00		5/22/00		8/31/00		11/10/00		2/15/01		6/6/01		8/15/01		11/29/01		2/28/02		6/27/02
123		**PAHs (µg/L)**																									
124		**EPA Method SW8270 SIM**																									
125		Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
126		2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
127		Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
128		Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
129		Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
130		Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
131		Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AB
1		
2		
3		
4		
5		
123	**PAHs (µg/L)**	
124	**EPA Method SW8270 SIM**	
125	Naphthalene	
126	2-Methylnaphthalene	
127	Acenaphthylene	
128	Acenaphthene	
129	Fluorene	
130	Anthracene	
131	Dibenzofuran	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F
1						
2						
3			LW15D		LW15D	
4			BR64T		CL03T	
5			5/25/00		11/9/00	
6						
7	1	**CHLORINATED PHENOLS (µg/L)**				
8	2	**EPA Method SW8040**				
9	3	Pentachlorophenol	**0.33**		0.25	U
10	4	2,4,6-Trichlorophenol	0.25	U	0.25	U
11	5	2,3,6-Trichlorophenol	0.25	U	0.25	U
12	6	2,4,5-Trichlorophenol	0.25	U	0.25	U
13	7	2,3,4-Trichlorophenol	0.25	U	0.25	U
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	0.25	U	0.25	U
15	9	2,3,4,5-Tetrachlorophenol	0.25	U	0.25	U
16	10					
17	11	**SEMIVOLATILES (µg/L)**				
18	12	**EPA Method SW8270**				
19	13	Phenol	NA		NA	
20	14	4-Methylphenol	NA		NA	
21	15	Isophorone	NA		NA	
22	16	2,4-Dimethylphenol	NA		NA	
23	17	Benzoic Acid	NA		NA	
24	18	Naphthalene	NA		NA	
25	19	2-Methylnaphthalene	NA		NA	
26	20	2,4,6-Trichlorophenol	NA		NA	
27	21	2,4,5-Trichlorophenol	NA		NA	
28	22	Acenaphthene	NA		NA	
29	23	Dibenzofuran	NA		NA	
30	24	Fluorene	NA		NA	
31	25	Pentachlorophenol	NA		NA	
32	26	bis(2-Ethylhexyl)phthalate	NA		NA	
33	27					
34	28	**VOLATILES (µg/L)**				
35	29	**EPA Method SW8260**				
36	30	Acetone	NA		NA	
37	31	Carbon Disulfide	NA		NA	
38	32	2-Butanone	NA		NA	
39	33	Benzene	NA		NA	
40	34	Bromoform	NA		NA	
41	35	Toluene	NA		NA	
42	36	Ethylbenzene	NA		NA	
43	37	Styrene	NA		NA	
44	38	m,p-Xylene	NA		NA	
45	39	o-Xylene	NA		NA	
46	40	1,3,5-Trimethylbenzene	NA		NA	
47	41	1,2,4-Trimethylbenzene	NA		NA	
48	42	Isopropylbenzene	NA		NA	
49	43	n-Propylbenzene	NA		NA	
50	44	tert-Butylbenzene	NA		NA	
51	45	sec-Butylbenzene	NA		NA	
52	46	4-Isopropyltoluene	NA		NA	
53	47	n-Butylbenzene	NA		NA	
54	48	Naphthalene	NA		NA	
55		Methyl tert-butyl ether	NA		NA	
56	49					
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**				
58	51	**Method OR-DEQ**				
59	52	**TPH-Diesel**	NA		NA	
60	53	**TPH-D Motor Oil**	NA		NA	
61	54	**TPH-Gasoline**	NA		NA	
62	55					
63	56	**PRIORITY POLLUTANT**				
64	57	**METALS (mg/L)**				
65	58	Arsenic (7060)	NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F
1						
2						
3			LW15D		LW15D	
4			BR64T		CL03T	
5			5/25/00		11/9/00	
66	59	Chromium (6010)	NA		NA	
67	60	Copper (6010)	NA		NA	
68	61	Lead (7421)	NA		NA	
69	62	Nickel (6010)	NA		NA	
70	63	Zinc (6010)	NA		NA	
71	64					
72	65	**MAJOR IONS AND CONVENTIONALS**				
73	66	Calcium (mg/L) (6010)	NA		NA	
74	67	Magnesium (mg/L) (6010)	NA		NA	
75	68	Potassium (mg/L) (6010)	NA		NA	
76	69	Sodium (mg/L) (6010)	NA		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	NA		NA	
81	74	Chloride (mg/L) (EPA 325.2)	NA		NA	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	NA		NA	
86	79					

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F
1						
2						
3			LW15D		LW15D	
4			BR64T		CL03T	
5			5/25/00		11/9/00	
87	80	**FIELD PARAMETERS**				
88	81	pH (avg)	6.69		6.12	
89	82	Temperature (° C) (avg)	14.6		12.8	
90	83	Conductivity (um/hos)	324		265	
91	84	Dissolved oxygen (mg/L) (avg)	0.67		1.25	
92	85					
93	86	**DIOXINS AND FURANS (ng/L)**				
94	87	**Method 8290**				
95	88	2,3,7,8-TCDF	NA		NA	
96	89	Total TCDF	NA		NA	
97	90	2,3,7,8-TCDD	NA		NA	
98	91	Total TCDD	NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA	
101	94	Total PeCDF	NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA	
103	96	Total PeCDD	NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA	
108	101	Total HxCDF	NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA	
112	105	Total HxCDD	NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA	
115	108	Total HpCDF	NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA	
117	110	Total HpCDD	NA		NA	
118	111	OCDF	NA		NA	
119	112	OCDD	NA		NA	
120						
121						
122						

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F
1						
2						
3			LW15D		LW15D	
4			BR64T		CL03T	
5			5/25/00		11/9/00	
123		**PAHs (µg/L)**				
124		**EPA Method SW8270 SIM**				
125		Naphthalene	NA		NA	
126		2-Methylnaphthalene	NA		NA	
127		Acenaphthylene	NA		NA	
128		Acenaphthene	NA		NA	
129		Fluorene	NA		NA	
130		Anthracene	NA		NA	
131		Dibenzofuran	NA		NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D
1				
2				
3			LW16D	
4			BR64U	
5			5/25/00	
6				
7	1	**CHLORINATED PHENOLS (µg/L)**		
8	2	**EPA Method SW8040**		
9	3	Pentachlorophenol	0.25	U
10	4	2,4,6-Trichlorophenol	0.25	U
11	5	2,3,6-Trichlorophenol	0.25	U
12	6	2,4,5-Trichlorophenol	0.25	U
13	7	2,3,4-Trichlorophenol	0.25	U
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	0.25	U
15	9	2,3,4,5-Tetrachlorophenol	0.25	U
16	10			
17	11	**SEMIVOLATILES (µg/L)**		
18	12	**EPA Method SW8270**		
19	13	Phenol	NA	
20	14	4-Methylphenol	NA	
21	15	Isophorone	NA	
22	16	2,4-Dimethylphenol	NA	
23	17	Benzoic Acid	NA	
24	18	Naphthalene	NA	
25	19	2-Methylnaphthalene	NA	
26	20	2,4,6-Trichlorophenol	NA	
27	21	2,4,5-Trichlorophenol	NA	
28	22	Acenaphthene	NA	
29	23	Dibenzofuran	NA	
30	24	Fluorene	NA	
31	25	Pentachlorophenol	NA	
32	26	bis(2-Ethylhexyl)phthalate	NA	
33	27			
34	28	**VOLATILES (µg/L)**		
35	29	**EPA Method SW8260**		
36	30	Acetone	NA	
37	31	Carbon Disulfide	NA	
38	32	2-Butanone	NA	
39	33	Benzene	NA	
40	34	Bromoform	NA	
41	35	Toluene	NA	
42	36	Ethylbenzene	NA	
43	37	Styrene	NA	
44	38	m,p-Xylene	NA	
45	39	o-Xylene	NA	
46	40	1,3,5-Trimethylbenzene	NA	
47	41	1,2,4-Trimethylbenzene	NA	
48	42	Isopropylbenzene	NA	
49	43	n-Propylbenzene	NA	
50	44	tert-Butylbenzene	NA	
51	45	sec-Butylbenzene	NA	
52	46	4-Isopropyltoluene	NA	
53	47	n-Butylbenzene	NA	
54	48	Naphthalene	NA	
55		Methyl tert-butyl ether	NA	NA
56	49			
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**		
58	51	**Method OR-DEQ**		
59	52	**TPH-Diesel**	NA	
60	53	**TPH-D Motor Oil**	NA	
61	54	**TPH-Gasoline**	NA	
62	55			
63	56	**PRIORITY POLLUTANT**		
64	57	**METALS (mg/L)**		
65	58	Arsenic (7060)	NA	

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D
1				
2				
3			LW16D	
4			BR64U	
5			5/25/00	
66	59	Chromium (6010)	NA	
67	60	Copper (6010)	NA	
68	61	Lead (7421)	NA	
69	62	Nickel (6010)	NA	
70	63	Zinc (6010)	NA	
71	64			
72	65	**MAJOR IONS AND CONVENTIONALS**		
73	66	Calcium (mg/L) (6010)	NA	
74	67	Magnesium (mg/L) (6010)	NA	
75	68	Potassium (mg/L) (6010)	NA	
76	69	Sodium (mg/L) (6010)	NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	NA	
81	74	Chloride (mg/L) (EPA 325.2)	NA	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA	
85	78	Sulfate (mg/L) (EPA 375.2)	NA	
86	79			

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D
1				
2				
3			LW16D	
4			BR64U	
5			5/25/00	
87	80	**FIELD PARAMETERS**		
88	81	pH (avg)	6.74	
89	82	Temperature (° C) (avg)	14.3	
90	83	Conductivity (um/hos)	314	
91	84	Dissolved oxygen (mg/L) (avg)	0.71	
92	85			
93	86	**DIOXINS AND FURANS (ng/L)**		
94	87	**Method 8290**		
95	88	2,3,7,8-TCDF	NA	
96	89	Total TCDF	NA	
97	90	2,3,7,8-TCDD	NA	
98	91	Total TCDD	NA	
99	92	1,2,3,7,8-PeCDF	NA	
100	93	2,3,4,7,8-PeCDF	NA	
101	94	Total PeCDF	NA	
102	95	1,2,3,7,8-PeCDD	NA	
103	96	Total PeCDD	NA	
104	97	1,2,3,4,7,8-HxCDF	NA	
105	98	1,2,3,6,7,8-HxCDF	NA	
106	99	2,3,4,6,7,8-HxCDF	NA	
107	100	1,2,3,7,8,9-HxCDF	NA	
108	101	Total HxCDF	NA	
109	102	1,2,3,4,7,8-HxCDD	NA	
110	103	1,2,3,6,7,8-HxCDD	NA	
111	104	1,2,3,7,8,9-HxCDD	NA	
112	105	Total HxCDD	NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA	
115	108	Total HpCDF	NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA	
117	110	Total HpCDD	NA	
118	111	OCDF	NA	
119	112	OCDD	NA	
120				
121				
122				

TABLE F-11
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D
1				
2				
3			LW16D	
4			BR64U	
5			5/25/00	
123		**PAHs (µg/L)**		
124		**EPA Method SW8270 SIM**		
125		Naphthalene	NA	
126		2-Methylnaphthalene	NA	
127		Acenaphthylene	NA	
128		Acenaphthene	NA	
129		Fluorene	NA	
130		Anthracene	NA	
131		Dibenzofuran	NA	

	A
1	BOLD DETECTS WHEN DATA IS STILL IN ROWS
2	DATE FORMAT DD/MM/YY
3	REMOVE "00" FROM SITE NAMES BEFORE COPY
4	BEGINNING 1Q04 WITH SPECIALTY, TWO PAH COMPOUNDS NOT ANALYZED (2-Methlynaphthalene and Dibenzofuran) - ENTER NA FOR THESE
5	WATCH METALS (ARESENIC AND LEAD) METHOD 6020 AND GASOLINE - UNITS IN PPB - CONVERT FOR THESE TABLES

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
1																											
2																											
3			B1		B2		D		G1A		J1		J2		K		LW10D		LW10S		LW11D		LW11S		LW13S		LW14D
4			0402099-01		0402099-02		0402105-03		0402105-04		0402105-01		0402105-02		0402098-01		0402113-02		0402113-01		0402113-11		0402086-06		0402113-06		0402113-03
5			2/19/2004		2/19/2004		2/20/2004		2/20/2004		2/20/2004		2/20/2004		2/19/2004		2/23/2004		2/23/2004		2/23/2004		2/18/2004		2/23/2004		2/23/2004
6																											
7																											
8																											
9	Pentachlorophenol	3	**2.46**	J	0.475	U	0.498	U	0.478	U	**1.13**		0.483	U	NA		0.491	U	0.493	U	**1.5**		NA		0.482	U	0.557
10			NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
11			NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
12			NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
13			NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
14			NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
15			NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
16																											
17																											
18																											
19	Phenol	13	1.91	U	1.95	U	1.98	U	2.06	U	1.93	UJ	1.99	U	NA		2	U	1.98	U	1.95	U	1.96	U	NA		NA
20	3-&4-Methylphenol	14	**12**		9.73	U	9.91	U	10.3	U	9.63	U	9.93	U	NA		9.99	U	9.9	U	9.76	U	9.8	U	NA		NA
21	Isophorone	15	0.956	U	0.973	U	0.991	U	1.03	U	0.963	U	0.993	U	NA		0.999	U	0.99	U	0.976	U	0.98	U	NA		NA
22	2,4-Dimethylphenol	16	2.87	U	2.92	U	2.97	U	3.08	U	2.89	U	2.98	U	NA		3	U	2.97	U	2.93	U	2.94	U	NA		NA
23	Benzoic Acid	17	19.1	U	19.5	U	19.8	U	20.6	U	19.3	U	19.9	U	NA		20	U	19.8	U	19.5	U	19.6	U	NA		NA
24	Naphthalene	18	**1.23**		0.973	U	0.991	U	1.03	U	**1.41**		0.993	U	NA		0.999	U	0.99	U	0.976	U	**9.22**		NA		NA
25	2-Methylnaphthalene	19	0.956	U	0.973	U	0.991	U	1.03	U	**1**		0.993	U	NA		0.999	U	0.99	U	0.976	U	**4.2**		NA		NA
26	2,4,6-Trichlorophenol	20	4.78	U	4.86	U	4.96	U	5.14	U	4.82	U	4.97	U	NA		5	U	4.95	U	4.88	U	4.9	U	NA		NA
27	2,4,5-Trichlorophenol	21	4.78	U	4.86	U	4.96	U	5.14	U	4.82	U	4.97	U	NA		5	U	4.95	U	4.88	U	4.9	U	NA		NA
28	Acenaphthene	22	0.956	U	0.973	U	0.991	U	1.03	U	0.963	U	0.993	U	NA		0.999	U	0.99	U	0.976	U	0.98	U	NA		NA
29	Dibenzofuran	23	0.956	U	0.973	U	0.991	U	1.03	U	0.963	U	0.993	U	NA		0.999	U	0.99	U	0.976	U	0.98	U	NA		NA
30	Fluorene	24	0.956	U	0.973	U	0.991	U	1.03	U	0.963	U	0.993	U	NA		0.999	U	0.99	U	0.976	U	0.98	U	NA		NA
31	Pentachlorophenol	25	4.78	U	4.86	U	4.96	U	5.14	U	4.82	U	4.97	U	NA		5	U	4.95	U	4.88	U	**6350**		NA		NA
32	Bis(2-ethylhexyl)phthalate	26	0.956	U	0.973	U	0.991	U	1.03	U	0.963	U	0.993	U	NA		0.999	U	0.99	U	**1.86**		0.98	U	NA		NA
33																											
34																											
35																											
36	Acetone	30	50	U	50	U	50	U	50	U	50	U	50	U	NA		50	U	50	U	50	U	50	UJ	NA		NA
37	Carbon disulfide	31	2	U	2	U	2	U	2	U	2	U	2	U	NA		2	U	2	U	2	U	2	UJ	NA		NA
38	2-Butanone	32	10	U	10	U	10	U	10	U	10	U	10	U	NA		10	U	10	U	10	U	10	UJ	NA		NA
39	Benzene	33	**36.9**		0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	**30.3**	J	NA		NA
40	Bromoform	34	1	U	1	U	1	U	1	U	1	U	1	U	NA		1	U	1	U	1	U	1	UJ	NA		NA
41	Toluene	35	**9.07**		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	UJ	NA		NA
42	Ethylbenzene	36	**55.2**		1	U	1	U	1	U	**2.82**		1	U	1	U	1	U	1	U	1	U	**71.6**	J	NA		NA
43	Styrene	37	1	U	1	U	1	U	1	U	1	U	1	U	NA		1	U	1	U	1	U	1	UJ	NA		NA
44	m,p-Xylene	38	**25.2**		2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	**61.6**	J	NA		NA
45	o-Xylene	39	**15.2**		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	**123**	J	NA		NA
46	1,3,5-Trimethylbenzene	40	**9.64**		1	U	1	U	1	U	1	U	1	U	NA		1	U	1	U	1	U	**34.8**	J	NA		NA
47	1,2,4-Trimethylbenzene	41	**26.6**		1	U	1	U	1	U	**6.76**		1	U	NA		1	U	1	U	1	U	**160**	J	NA		NA
48	Isopropylbenzene	42	**5.53**		1	U	1	U	**67.2**		**17**		1	U	NA		1	U	1	U	1	U	**15.9**	J	NA		NA
49	n-Propylbenzene	43	**8.05**		1	U	1	U	**57.1**		**21.7**		1	U	NA		1	U	1	U	1	U	**18.6**	J	NA		NA
50	tert-Butylbenzene	44	1	U	1	U	1	U	1	U	1	U	1	U	NA		1	U	1	U	1	U	1	UJ	NA		NA
51	sec-Butylbenzene	45	1	U	1	U	1	U	**7.93**		**3.14**		1	U	NA		1	U	1	U	1	U	**7.19**	J	NA		NA
52	4-Isopropyltoluene	46	1	U	1	U	1	U	1	U	1	U	1	U	NA		1	U	1	U	1	U	**4.32**	J	NA		NA
53	n-Butylbenzene	47	1	U	1	U	1	U	**4.23**		**1.74**		1	U	NA		1	U	1	U	1	U	**3.41**	J	NA		NA
54	Naphthalene	48	**5.47**		1	U	1	U	1	U	**4.77**		1	U	NA		1	U	1	U	1	U	**15.1**	J	NA		NA
55	Methyl tert-butyl ether	48.5	1	U	1	U	1	U	1	U	1	U	1	U	NA		1	U	1	U	1	U	NA		NA		NA
56																											
57																											
58																											
59	Diesel	52	**2.26**		NA		NA		**2.39**	J	NA		NA		NA		0.247	U	0.25	U	**0.562**		**3.07**		NA		NA
60	Lube Oil	53	0.477	U	NA		NA		0.491	UJ	NA		NA		NA		0.494	U	0.501	U	0.504	U	**0.573**		NA		NA
61	Gasoline	54	**2.6**		NA		NA		NA		NA		NA		0.1	U	NA		NA		NA		**6.8**		NA		NA
62																											
63																											
64																											
65	Arsenic	58	**0.003**		**0.005**		**0.021**		**0.032**		**0.009**		**0.008**		NA		**0.023**		0.001	U	**0.007**		**0.004**		NA		NA
66	Chromium	59	0.005	U	**0.0087**		**0.0078**		**0.0077**		**0.0232**	J	0.005	U	NA		**0.0114**		0.005	U	**0.0104**		**0.0069**		NA		NA
67	Copper	60	**0.0117**		0.01	U	0.01	U	**0.0346**		0.01	U	0.01	U	NA		0.01	U	0.01	U	0.01	U	0.01	U	NA		NA
68	Lead	61	**0.0007**		0.0001	U	**0.0021**		**0.0004**		**0.0004**		**0.0002**		NA		**0.0010**		**0.0004**		**0.0019**		**0.0002**		NA		NA
69	Nickel	62	**0.0075**		0.005	U	0.005	U	**0.0997**		**0.0151**		0.005	U	NA		0.005	U	0.005	U	0.005	U	0.005	U	NA		NA
70	Zinc	63	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	NA		0.01	U	0.01	U	0.01	U	0.01	U	NA		NA
71																											
72																											
73			NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA

	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD
1																													
2														Dup of LW20S														
3		LW17D		LW18D		LW19S		LW1S		LW20D		LW20S		X		LW22D		LW23D		LW24D		LW25D		LW26D		LW27D		LW28S	
4		0402105-06		0402105-07		0402115-04		0402098-02		0402115-03		0402115-02		0402115-01		0402115-10		0402115-11		0402115-07		0402115-08		0402115-05		0402115-06		0402080-02	
5		2/20/2004		2/20/2004		2/24/2004		2/19/2004		2/24/2004		2/24/2004		2/24/2004		2/24/2004		2/24/2004		2/24/2004		2/24/2004		2/24/2004		2/24/2004		2/17/2004	
6																													
7																													
8																													
9	U	0.497	U	0.488	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
10		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
11		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
12		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
13		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
14		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
15		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
16																													
17																													
18																													
19		NA		NA		2	U	NA		2.05	U	2.02	U	2.1	U	2.05	U	2.26	U	2.14	U	2.13	U	2.22	U	1.99	U	1.92	U
20		NA		NA		10	U	NA		10.2	U	10.1	U	10.5	U	10.3	U	11.3	U	10.7	U	10.7	U	11.1	U	9.93	U	9.62	U
21		NA		NA		1	U	NA		1.02	U	1.01	U	1.05	U	1.03	U	1.13	U	1.07	U	1.07	U	1.11	U	0.993	U	0.962	U
22		NA		NA		3	U	NA		3.07	U	3.03	U	3.15	U	3.08	U	3.39	U	3.22	U	3.2	U	3.33	U	2.98	U	2.89	U
23		NA		NA		20	U	NA		20.5	U	20.2	U	21	U	20.5	U	22.6	U	21.4	U	21.3	U	22.2	U	19.9	U	19.2	U
24		NA		NA		1	U	NA		1.02	U	1.01	U	1.05	U	1.03	U	1.13	U	1.07	U	1.07	U	1.11	U	0.993	U	0.962	U
25		NA		NA		1	U	NA		1.02	U	1.01	U	1.05	U	1.03	U	1.13	U	1.07	U	1.07	U	1.11	U	0.993	U	0.962	U
26		NA		NA		5	U	NA		5.12	U	5.05	U	5.25	U	5.13	U	5.66	U	5.36	U	5.34	U	5.56	U	4.97	U	4.81	U
27		NA		NA		5	U	NA		5.12	U	5.05	U	5.25	U	5.13	U	5.66	U	5.36	U	5.34	U	5.56	U	4.97	U	4.81	U
28		NA		NA		**1.18**		NA		1.02	U	**1.25**		1.05	U	1.03	U	1.13	U	**1.37**		1.07	U	1.11	U	0.993	U	0.962	U
29		NA		NA		**1.02**		NA		1.02	U	**1.43**		**1.49**		1.03	U	1.13	U	1.07	U	1.07	U	1.11	U	0.993	U	0.962	U
30		NA		NA		**2.82**		NA		1.02	U	**3.7**		**3.53**		1.03	U	1.13	U	**3.55**		1.29	U	1.11	U	0.993	U	0.962	U
31		NA		NA		5	U	NA		5.12	U	5.05	U	5.25	U	5.13	U	5.66	U	5.36	U	5.34	U	5.56	U	4.97	U	4.81	U
32		NA		NA		1	U	NA		1.02	U	1.01	U	1.05	U	1.03	U	1.13	U	1.07	U	1.07	U	1.11	U	0.993	U	0.962	U
33																													
34																													
35																													
36		NA		NA		50	U	NA		50	U	50	UJ	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U
37		NA		NA		2	U	NA		2	U	2	UJ	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
38		NA		NA		10	U	NA		10	U	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
39		NA		NA		0.4	U	0.4	U	0.4	U	**0.95**	J	**0.85**	J	0.4	U	**22.9**		0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
40		NA		NA		1	U	NA		1	U	1	UJ	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
41		NA		NA		1	U	1	U	1	U	1	UJ	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
42		NA		NA		1	U	1	U	1	U	1	UJ	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
43		NA		NA		1	U	NA		1	U	1	UJ	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
44		NA		NA		2	U	2	U	2	U	2	UJ	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
45		NA		NA		1	U	1	U	1	U	1	UJ	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
46		NA		NA		1	U	NA		1	U	1	UJ	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
47		NA		NA		1	U	NA		1	U	1	UJ	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
48		NA		NA		**6.65**		NA		1	U	**7.89**	J	**5.82**	J	1	U	**8.51**		**7.97**		**5.01**		1	U	1	U	1	U
49		NA		NA		**9.37**		NA		1	U	**10.8**	J	**9.94**		1	U	**6.71**		**12.8**		1	U	1	U	1	U	1	U
50		NA		NA		1	U	NA		1	U	1	UJ	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
51		NA		NA		**4.92**		NA		1	U	**6.27**	J	**5.19**		1	U	**1.12**		**4.81**		**2.43**		1	U	1	U	1	U
52		NA		NA		1	U	NA		1	U	1	UJ	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
53		NA		NA		**2.78**		NA		1	U	**3.43**	J	**2.78**		1	U	1	U	**2.85**		1	U	1	U	1	U	1	U
54		NA		NA		1	U	NA		1	U	1	UJ	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
55		NA		NA		1	U	NA		1	U	1	UJ	1	U	1	U	**17.4**		1	U	1	U	1	U	1	U	1	U
56																													
57																													
58																													
59		NA		NA		**7.53**		NA		**0.369**		**6.77**		**6.29**		**0.429**		**1.53**		**5.43**		**6.67**		**1.74**		**0.598**		0.242	U
60		NA		NA		**1.07**		NA		0.492	U	**1.06**		**0.998**		0.497	U	**0.648**		**1.15**		**1.32**		**0.541**		0.497	U	0.484	U
61		NA		NA		**1.3**		0.1	U	0.1	U	**1.4**		**1.2**		0.1	U	**0.67**		**1.5**		**0.88**		**0.27**		0.1	U	0.1	U
62																													
63																													
64																													
65		NA		NA		**0.040**				**0.029**		**0.020**		**0.019**		**0.039**		**0.042**		**0.066**		**0.026**		**0.010**		**0.006**		0.001	U
66		NA		NA		**0.0095**				**0.0206**		**0.013**		**0.0123**	J	**0.0195**		**0.0226**		**0.0423**		**0.0517**		**0.0159**		**0.0181**		0.005	U
67		NA		NA		0.01	U			0.01	U	0.01	U	0.01	U	**0.0114**		**0.0197**		**0.0474**		**0.0441**		0.01	U	0.01	U	0.01	U
68		NA		NA		**0.0005**				**0.0020**		**0.0005**	J	**0.0007**	J	**0.0097**		**0.0085**		**0.0182**		**0.0233**		**0.0027**		**0.0021**		0.0001	U
69		NA		NA		0.005	U			0.005	U	0.005	U	**0.016**		0.005	U	0.005	U	**0.0096**		**0.0158**		0.005	U	0.005	U	0.005	U
70		NA		NA		0.01	U			**0.0113**		0.01	U	0.01	U	**0.0361**		**0.0333**		**0.102**		**0.113**		**0.0116**		**0.0145**		0.01	U
71																													
72																													
73		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	

	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF
1																												
2																												
3	LW29D		LW29S		LW30D		LW30S		LW31S		LW32D		LW32S		LW33S		LW34S		LW35D		LW3D		LW4D		LW4S		LW6D	
4	0402080-07		0402080-08		0402085-02		0402085-01		0402080-03		0402080-06		0402080-05		0402080-04		0402080-01		0402115-09		0402113-10		0402113-08		0402113-07		0402105-05	
5	2/17/2004		2/17/2004		2/18/2004		2/18/2004		2/17/2004		2/17/2004		2/17/2004		2/17/2004		2/17/2004		2/24/2004		2/23/2004		2/23/2004		2/23/2004		2/20/2004	
6																												
7																												
8																												
9	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		0.489	U	NA		0.49	U	0.483	U
10	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
11	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
12	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
13	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
14	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
15	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
16																												
17																												
18																												
19	1.92	UJ	1.96	U	2.06	U	1.95	U	1.93	U	1.93	U	1.96	U	1.94	U	1.93	U	1.99	U	1.97	U	1.93	U	2.05	U	1.92	U
20	9.61	UJ	9.79	U	10.3	U	9.75	U	9.66	U	9.65	U	9.8	U	9.68	U	9.65	U	9.95	U	9.85	U	9.64	U	10.2	U	9.61	U
21	0.961	UJ	0.979	U	1.03	U	0.975	U	0.966	U	0.965	U	0.98	U	0.968	U	0.965	U	0.995	U	0.985	U	0.964	U	1.02	U	0.961	U
22	2.88	UJ	2.94	U	3.09	U	2.92	U	2.9	U	2.9	U	2.94	U	2.9	U	2.9	U	2.99	U	2.96	U	2.89	U	3.07	U	2.88	U
23	19.2	UJ	19.6	U	20.6	U	19.5	U	19.3	U	19.3	U	19.6	U	19.4	U	19.3	U	19.9	U	19.7	U	19.3	U	20.5	U	19.2	U
24	0.961	UJ	0.979	U	1.03	U	0.975	U	0.966	U	0.965	U	0.98	U	0.968	U	0.965	U	0.995	U	0.985	U	**4.12**		1.02	U	0.961	U
25	0.961	UJ	0.979	U	1.03	U	0.975	U	0.966	U	0.965	U	0.98	U	0.968	U	0.965	U	0.995	U	0.985	U	**11.7**		1.02	U	0.961	U
26	4.8	UJ	4.9	U	5.15	U	4.87	U	4.83	U	4.83	U	4.9	U	4.84	U	4.83	U	4.98	U	4.93	U	4.82	U	5.12	U	4.8	U
27	4.8	UJ	4.9	U	5.15	U	4.87	U	4.83	U	4.83	U	4.9	U	4.84	U	4.83	U	4.98	U	4.93	U	4.82	U	5.12	U	4.8	U
28	0.961	UJ	0.979	U	1.03	U	0.975	U	0.966	U	0.965	U	0.98	U	0.968	U	0.965	U	0.995	U	0.985	U	0.964	U	1.02	U	0.961	U
29	0.961	UJ	0.979	U	1.03	U	0.975	U	0.966	U	0.965	U	0.98	U	0.968	U	0.965	U	0.995	U	0.985	U	0.964	U	1.02	U	0.961	U
30	0.961	UJ	0.979	U	1.03	U	**1.39**		0.966	U	0.965	U	0.98	U	0.968	U	0.965	U	0.995	U	0.985	U	0.964	U	1.02	U	0.961	U
31	4.8	UJ	4.9	U	5.15	U	4.87	U	4.83	U	4.83	U	4.9	U	4.84	U	4.83	U	4.98	U	4.93	U	**8.95**		5.12	U	4.8	U
32	2.13	UJ	0.979	U	1.03	U	0.975	U	0.966	U	2.51	U	0.98	U	0.968	U	0.965	U	0.995	U	0.985	U	0.964	U	1.02	U	0.961	U
33																												
34																												
35																												
36	50	U	50	U	50	UJ	50	U	50	UJ	50	U	50	UJ	50	U	50	U	50	U	50	U	50	U	50	U	50	U
37	2	U	2	U	**2.11**	J	2	U	2	UJ	2	U	2	UJ	2	U	2	U	2	U	2	U	2	U	2	U	2	U
38	10	U	10	U	10	UJ	10	U	10	UJ	10	U	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U	10	U
39	0.4	U	0.4	U	0.4	UJ	0.4	U	0.4	UJ	0.4	U	0.4	UJ	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
40	1	U	1	U	1	UJ	1	U	1	UJ	1	U	1	UJ	1	U	1	U	1	U	1	U	1	U	1	U	1	U
41	1	U	1	U	1	UJ	1	U	1	UJ	1	U	1	UJ	1	U	1	U	1	U	1	U	1	U	1	U	1	U
42	1	U	1	U	1	UJ	1	U	1	UJ	1	U	1	UJ	1	U	1	U	1	U	1	U	1	U	1	U	1	U
43	1	U	1	U	1	UJ	1	U	1	UJ	1	U	1	UJ	1	U	1	U	1	U	1	U	1	U	1	U	1	U
44	2	U	2	U	2	UJ	2	U	2	UJ	2	U	2	UJ	2	U	2	U	2	U	2	U	2	U	2	U	2	U
45	1	U	1	U	1	UJ	1	U	1	UJ	1	U	1	UJ	1	U	1	U	1	U	1	U	1	U	1	U	1	U
46	1	U	1	U	1	UJ	1	U	1	UJ	1	U	1	UJ	1	U	1	U	1	U	1	U	1	U	1	U	1	U
47	1	U	1	U	1	UJ	1	U	1	UJ	1	U	1	UJ	1	U	1	U	1	U	1	U	1	U	1	U	1	U
48	1	U	1	U	1	UJ	**7.32**		1	UJ	1	U	**4.27**	J	1	U	1	U	**2.05**		1	U	**2.46**		1	U	**3.43**	
49	1	U	1	U	1	UJ	**26.7**		1	UJ	1	U	**4.87**	J	1	U	1	U	1	U	1	U	**1**		1	U	1	U
50	1	U	1	U	1	UJ	1	U	1	UJ	1	U	1	UJ	1	U	1	U	1	U	1	U	1	U	1	U	1	U
51	1	U	1	U	1	UJ	**1.64**		1	UJ	1	U	**2.52**	J	1	U	1	U	1	U	1	U	1	U	1	U	**1.27**	
52	1	U	1	U	1	UJ	1	U	1	UJ	1	U	1	UJ	1	U	1	U	1	U	1	U	1	U	1	U	1	U
53	1	U	1	U	1	UJ	**3.13**		1	UJ	1	U	**2.24**	J	1	U	1	U	1	U	1	U	1	U	1	U	1	U
54	1	U	1	U	1	UJ	1	U	1	UJ	1	U	1	UJ	1	U	1	U	1	U	1	U	1	U	1	U	1	U
55	1	U	1	U	1	UJ	1	U	1	UJ	1	U	1	UJ	1	U	1	U	1	U	1	U	1	U	1	U	1	U
56																												
57																												
58																												
59	0.242	U	0.243	U	**0.352**		**2.06**		0.242	U	**0.504**		**1.84**		0.247	U	0.242	U	**0.491**		NA		**1**		0.244	U	**1.36**	J
60	0.483	U	0.485	U	0.493	U	0.486	U	0.483	U	0.491	U	0.488	U	0.494	U	0.484	U	0.486	U	NA		0.504	U	0.487	U	0.491	UJ
61	0.1	U	0.1	U	0.1	U	**0.90**		0.1	U	0.1	U	**1.1**		0.1	U	0.1	U	0.1	U	NA		NA		NA		NA	
62																												
63																												
64																												
65	**0.006**		**0.002**		**0.009**		**0.018**		0.001	U	**0.009**		**0.023**		0.001	U	0.001	U	**0.002**		**0.014**		**0.031**		0.001	U	**0.015**	
66	**0.0137**		0.005	U	**0.0196**		**0.008**		0.005	U	**0.0202**		**0.0124**		**0.0113**		0.005	U	**0.0165**		**0.006**		**0.01**		**0.0071**		**0.0101**	
67	0.01	U	0.01	U	**0.016**		0.01	U	0.01	U	**0.0109**		0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
68	**0.0017**		0.0001	U	**0.0033**		**0.0015**		0.0001	U	**0.0028**		0.0001	U	0.0001	U	0.0001	U	**0.0042**		**0.0006**		**0.0010**		0.0001	U	**0.0009**	
69	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U
70	**0.0336**		0.01	U	**0.0383**		0.01	U	0.01	U	**0.0251**		0.01	U	**0.0111**		0.01	U	**0.0128**		0.01	U	0.01	U	0.01	U	0.01	U
71																												
72																												
73	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	

	CG	CH	CI	CJ	CK	CL	CM	CN	CO	CP	CQ	CR	CS	CT	CU	CV	CW	CX	CY	CZ	DA	DB	DC	DD	DE	DF	DG
1																											
2																											Dup of RW1
3	LW7S		LW8S		LW9D		OX1S		OX2S		OX3S		OX4S		OX5S		OX6S		OX7S		OX8D		OX8S		RW1		W
4	0402099-03		0402113-09		0402105-08		0402086-07		0402086-09		0402086-08		0402086-11		0402086-01		0402086-02		0402086-03		0402086-05		0402086-04		0402086-10		0402113-05
5	2/19/2004		2/23/2004		2/20/2004		2/18/2004		2/18/2004		2/18/2004		2/18/2004		2/18/2004		2/18/2004		2/18/2004		2/18/2004		2/18/2004		2/18/2004		2/23/2004
6																											
7																											
8																											
9	0.486	U	0.504	U	0.495	U	**62.1**		**5320**		**344**		**1410**		0.482	U	**527**		**166**		**1.31**		**56.4**		NA		NA
10	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
11	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
12	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
13	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
14	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
15	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
16																											
17																											
18																											
19	1.95	U	2.06	U	1.92	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		1.96	U	1.96
20	9.75	U	10.3	U	9.58	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		9.8	U	9.78
21	0.975	U	1.03	U	0.958	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		0.98	U	0.978
22	2.92	U	3.1	U	2.87	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		2.94	U	2.93
23	19.5	U	20.6	U	19.2	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		19.6	U	19.6
24	0.975	U	**15.2**		0.958	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		**15.6**		**3.63**
25	0.975	U	**20.3**		0.958	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		**6.33**		**10.4**
26	4.87	U	5.16	U	4.79	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		**14.8**		4.89
27	4.87	U	5.16	U	4.79	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		4.9	U	4.89
28	0.975	U	1.03	U	0.958	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		0.98	U	0.978
29	0.975	U	1.03	U	0.958	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		0.98	U	0.978
30	0.975	U	1.03	U	0.958	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		0.98	U	0.978
31	4.87	U	5.16	U	4.79	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		**2630**		**8.69**
32	0.975	U	1.03	U	0.958	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		0.98	U	0.978
33																											
34																											
35																											
36	50	U	50	U	50	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		50	U	50
37	2	U	2	U	2	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		2	U	2
38	10	U	10	U	10	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		10	U	10
39	0.4	U	**5.11**		0.4	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		**7.42**		**5.96**
40	1	U	1	U	1	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		1	U	1
41	1	U	1	U	1	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		1	U	1
42	**7.76**		**184**		1	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		**106**		**11.9**
43	1	U	1	U	1	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		1	U	1
44	2	U	2	U	2	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		**45.6**		**5.89**
45	1	U	1	U	1	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		**142**		**2.22**
46	1	U	1	U	1	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		**55.2**		**20.8**
47	1	U	1	U	1	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		**180**		**67.9**
48	**13.6**		**239**		**4.36**		NA		NA		NA		NA		NA		NA		NA		NA		NA		**43.9**		**40.8**
49	**27.5**		**205**		**1.16**		NA		NA		NA		NA		NA		NA		NA		NA		NA		**57.2**		**61.9**
50	1	U	**6.52**		1	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		**1.15**		1
51	**2.18**		**23.1**		1	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		**12.9**		**8.99**
52	1	U	1	U	1	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		**5.2**		**2.19**
53	**2.67**		**8.07**		1	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		**5.52**		**5.23**
54	1	U	**24.5**		1	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		**27.6**		**4.49**
55	1	U	1	U	1	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		1
56																											
57																											
58																											
59	**0.333**		**11.7**		0.246	UJ	NA		NA		NA		NA		NA		NA		NA		NA		NA		**11.2**	J	**1.08**
60	0.476	U	0.504	U	0.492	UJ	NA		NA		NA		NA		NA		NA		NA		NA		NA		**1.22**	J	0.492
61	**1.2**		**9.2**		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		**6.3**		**2.4**
62																											
63																											
64																											
65	**0.013**		**0.025**		**0.030**		NA		NA		NA		NA		NA		NA		NA		NA		NA		**0.004**		**0.021**
66	0.005	U	**0.0064**		**0.0101**		NA		NA		NA		NA		NA		NA		NA		NA		NA		**0.0093**		**0.0077**
67	0.01	U	0.01	U	0.01	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		**0.0172**		0.01
68	**0.0005**		**0.0001**		**0.0007**		NA		NA		NA		NA		NA		NA		NA		NA		NA		**0.0005**		0.0001
69	0.005	U	0.005	U	0.005	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		0.005	U	0.005
70	0.01	U	0.01	U	0.01	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		0.01	U	0.01
71																											
72																											
73	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA

	DH	DI	DJ
1			
2			
3		RW2	
4		0402113-04	
5		2/23/2004	
6			
7			
8			
9		**8.51**	
10		NA	
11		NA	
12		NA	
13		NA	
14		NA	
15		NA	
16			
17			
18			
19	U	1.98	U
20	U	9.89	U
21	U	0.989	U
22	U	2.97	U
23	U	19.8	U
24		0.989	U
25		0.989	U
26	U	4.95	U
27	U	4.95	U
28	U	0.989	U
29	U	0.989	U
30	U	0.989	U
31		4.95	U
32	U	0.989	U
33			
34			
35			
36	U	50	U
37	U	2	U
38	U	10	U
39		**5.5**	
40	U	1	U
41	U	1	U
42		**10.5**	
43	U	1	U
44		**4.66**	
45		**1.67**	
46		**18.1**	
47		**61**	
48		**36.5**	
49		**55.3**	
50	U	1	U
51		**7.63**	
52		**1.85**	
53		**4.54**	
54		**3.26**	
55	U	1	U
56			
57			
58			
59		**1.04**	
60	U	0.493	U
61		**2.6**	
62			
63			
64			
65		**0.022**	
66		**0.0076**	
67	U	0.01	U
68	U	**0.0051**	
69	U	0.005	U
70	U	**0.0724**	
71			
72			
73		NA	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
74			NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
75			NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
76			NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
77			NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
78			NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
79			NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
80	Total Dissolved Solids	73	**116**		**218**		**291**		**280**		**240**	J	**329**		NA		**162**		**81**		**361**		**274**		NA		NA
81	Chloride	74	**3.31**		**2.64**		**3.69**		**7.79**		**2.76**		**4.42**		NA		**1.56**		**1.04**		**6.68**		**3.13**		NA		NA
82			NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
83			NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
84			NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
85			NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
86																											
87																											
88	pH	81	4.99		6.52		6.61		6.7		6.23		6.67		5.18		6.47		6.17		6.53		6.53		6.23		6.38
89	Temperature	82	14		14.8		13.1		15.4		14		13.9		11.4		15.7		13.9		14.1		14.3		13.2		13.7
90	Conductivity	83	97		301		441		560		324		490		109		151		75		485		341		70		239
91	Dissolved oxygen	84	1.77		3.24		2.36		0.96		1.21		1.64		6.06		4.49		6.53		1.13		1.52		4.4		1.11
92																											
93																											
94																											
95			NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
96			NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
97			NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
98			NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
99			NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
100			NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
101			NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
102			NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
103			NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
104			NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
105			NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
106			NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
107			NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
108			NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
109			NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
110			NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
111			NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
112			NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
113			NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
114			NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
115			NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
116			NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
117			NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
118			NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
119			NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
120																											
121			NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
122																											
123																											
124																											
125	Naphthalene	118	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
126			NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
127	Acenaphthylene	120	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
128	Acenaphthene	121	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
129	Fluorene	122	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
130	Anthracene	123	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
131			NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA

	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD
74		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
75		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
76		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
77		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
78		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
79		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
80		NA		NA		**256**				**244**		**240**		**237**		**263**		**349**		**277**		**250**		**349**		**306**		**75**	
81		NA		NA		**2.18**				**2.77**		**1.45**		**1.79**		**1.94**		**2.54**		**2.3**		**1.96**		**2.84**		**7.2**		**1.17**	
82		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
83		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
84		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
85		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
86																													
87																													
88		6.44		6.42		6.63		5.92		6.74		6.12		6.12		6.53		6.85		6.69		6.58		6.93		6.73		5.84	
89		15.7		15.7		12.8		15.7		14.1		11.6		11.7		14.5		13.9		14.8		14.8		13		13.8		11.5	
90		367		206		492		277		283		314		314		295		474		440		381		388		345		61	
91		23.19		2.29		1.26		2.32		2.67		1.82		1.79		2.82		1.11		1.08		1.36		1.38		1.34		6.56	
92																													
93																													
94																													
95		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
96		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
97		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
98		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
99		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
100		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
101		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
102		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
103		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
104		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
105		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
106		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
107		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
108		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
109		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
110		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
111		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
112		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
113		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
114		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
115		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
116		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
117		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
118		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
119		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
120																													
121		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
122																													
123																													
124																													
125		NA		NA		**0.369**		NA		0.0557	U	**0.429**		**0.518**		0.0523	U	**0.09**		**0.749**		**0.352**		**0.0843**		**0.0584**		**0.0675**	J
126		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
127		NA		NA		**0.159**		NA		0.0557	U	**0.256**		**0.352**	J	0.0523	U	0.05	U	**0.375**		**0.0771**		**0.116**		0.0584	U	0.0482	UJ
128		NA		NA		**0.857**		NA		0.0557	U	**0.91**	J	**1.19**	J	0.0523	U	**0.16**		**1.56**		**0.639**		**0.0632**		**0.0701**		0.0482	UJ
129		NA		NA		**2.35**		NA		**0.078**		**2.55**	J	**3.52**	J	0.0523	U	**0.06**		**3.96**		**0.738**		**0.432**		0.0584	U	0.0482	UJ
130		NA		NA		0.0498	U	NA		0.0557	U	**0.0716**		**0.0932**		0.0523	U	0.05	U	**0.135**		**0.0771**		0.0527	U	0.0584	U	0.0482	UJ
131		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	

	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF
74	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
75	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
76	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
77	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
78	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
79	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
80	**391**		**98**		**304**		**173**		**101**		**332**		**196**		**105**		**121**		**263**		**350**		**417**		**166**		**269**	
81	**4.25**		**1.03**		**8.36**		**1.35**		**1.08**		**2.77**		**1.71**		**1.39**		**1.29**		**1.53**		**3.97**		**9.75**		**6.03**		**3.04**	
82	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
83	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
84	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
85	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
86																												
87																												
88	7.14		6.65		6.86		6.64		6.15		6.82		6.46		6.18		6.42		6.44		6.45		6.49		5.8		6.55	
89	13		12.7		13.8		13.5		12.8		13.1		12.8		11.7		12.2		13.3		14.2		14.4		11.6		15.5	
90	529		129		450		239		98		474		265		113		142		272		541		482		166		378	
91	2.18		2.33		2		1.22		4.42		2.29		1.65		4.61		5.01		4.29		0.04		1.36		2.27		2.34	
92																												
93																												
94																												
95	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
96	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
97	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
98	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
99	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
100	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
101	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
102	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
103	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
104	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
105	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
106	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
107	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
108	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
109	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
110	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
111	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
112	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
113	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
114	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
115	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
116	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
117	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
118	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
119	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
120																												
121	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
122																												
123																												
124																												
125	0.0489	UJ	0.0489	UJ	0.0506	U	**0.379**		0.0486	UJ	0.0473	UJ	**0.498**	J	0.0483	UJ	0.049	UJ	0.0509	U	NA		NA		NA		NA	
126	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
127	0.0489	UJ	0.0489	UJ	0.0506	U	**0.126**		0.0486	UJ	0.0473	UJ	**0.0976**	J	0.0483	UJ	0.049	UJ	0.0509	U	NA		NA		NA		NA	
128	0.0489	UJ	0.0489	UJ	0.0506	U	**0.864**		0.0486	UJ	0.0473	UJ	**0.38**	J	0.0483	UJ	0.049	UJ	0.0509	U	NA		NA		NA		NA	
129	0.0489	UJ	0.0489	UJ	0.0506	U	**1.38**		0.0486	UJ	0.0473	UJ	**0.488**	J	0.0483	UJ	0.049	UJ	0.0509	U	NA		NA		NA		NA	
130	0.0489	UJ	0.0489	UJ	0.0506	U	**0.0583**		0.0486	UJ	0.0473	UJ	0.0488	UJ	0.0483	UJ	0.049	UJ	0.0509	U	NA		NA		NA		NA	
131	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	

	CG	CH	CI	CJ	CK	CL	CM	CN	CO	CP	CQ	CR	CS	CT	CU	CV	CW	CX	CY	CZ	DA	DB	DC	DD	DE	DF	DG
74	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
75	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
76	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
77	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
78	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
79	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
80	**203**		**263**		**181**		NA		NA		NA		NA		NA		NA		NA		NA		NA		**242**		**239**
81	**5.73**		**3.31**		**1.47**		NA		NA		NA		NA		NA		NA		NA		NA		NA		**4.79**		**3.95**
82	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
83	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
84	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
85	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
86																											
87																											
88	5.97		6.21		6.64		6.52		6.57		6.54		6.27		6.63		6.63		6.57		7.02		6.65		6.68		6.34
89	14.6		14.1		16.3		14.2		13.6		14.1		13.8		12.9		14.4		13.8		14.1		12.8		13.8		14.3
90	300		402		274		270		313		386		242		234		353		393		418		451		343		345
91	1.26		1.26		1.42		1.14		1.48		1.76		2.22		3.16		1.23		2.2		20.49		1.58		1.35		1.32
92																											
93																											
94																											
95	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
96	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
97	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
98	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
99	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
100	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
101	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
102	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
103	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
104	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
105	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
106	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
107	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
108	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
109	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
110	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
111	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
112	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
113	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
114	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
115	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
116	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
117	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
118	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
119	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
120																											
121	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
122																											
123																											
124																											
125	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
126	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
127	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
128	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
129	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
130	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
131	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA

	DH	DI	DJ
74		NA	
75		NA	
76		NA	
77		NA	
78		NA	
79		NA	
80		**237**	
81		**3.8**	
82		NA	
83		NA	
84		NA	
85		NA	
86			
87			
88		6.36	
89		14.3	
90		348	
91		1.48	
92			
93			
94			
95		NA	
96		NA	
97		NA	
98		NA	
99		NA	
100		NA	
101		NA	
102		NA	
103		NA	
104		NA	
105		NA	
106		NA	
107		NA	
108		NA	
109		NA	
110		NA	
111		NA	
112		NA	
113		NA	
114		NA	
115		NA	
116		NA	
117		NA	
118		NA	
119		NA	
120			
121		NA	
122			
123			
124			
125		NA	
126		NA	
127		NA	
128		NA	
129		NA	
130		NA	
131		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1																										
2																										
3			B1		B1		B1		B1		B1		B1		B1		B1		B1		B1		B1		B1	
4			S177D		T176N		U235H		V224R		W371K		Y336A		Z225M		Z960E		AH49B		AU36A		BC30D		9912050-01A	
5			4/2/97		7/16/97		10/22/97		1/29/98		5/19/98		8/18/98		11/12/98		2/17/99		5/18/99		9/21/99		12/8/99		12/8/1999 (d)	
6																										
7	1	**CHLORINATED PHENOLS (µg/L)**																								
8	2	**EPA Method SW8040**																								
9	3	Pentachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA	
10	4	2,4,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA	
11	5	2,3,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA	
12	6	2,4,5-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA	
13	7	2,3,4-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA	
15	9	2,3,4,5-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA	
16	10																									
17	11	**SEMIVOLATILES (µg/L)**																								
18	12	**EPA Method SW8270**																								
19	13	Phenol	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	**3.1**	M	2.0	U	2.0	U	NA	
20	14	4-Methylphenol	**43**		1.0	U	1.0	U	**24**		**39**		**28**		**31**		**35**		**7.1**		1.0	U	**7.0**		NA	
21	15	Isophorone	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	NA	
22	16	2,4-Dimethylphenol	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	NA	
23	17	Benzoic Acid	10	U	10	U	10	U	**10**		10	U	10	U	10	U	10	U	**27**		10	U	10	U	NA	
24	18	Naphthalene	**16**		**12**		**18**		**16**		**20**	J2	**6.8**		**4.4**		**35**		**26**		1.0	U	**12**		NA	
25	19	2-Methylnaphthalene	1.0	U	1.0	U	1.0	U	1.0	U	**1.5**	J2	**1.1**		1.0	U	**6.4**		**3.8**		1.0	U	**2.1**		NA	
26	20	2,4,6-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	NA	
27	21	2,4,5-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	NA	
28	22	Acenaphthene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	NA	
29	23	Dibenzofuran	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	NA	
30	24	Fluorene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	NA	
31	25	Pentachlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	NA	
32	26	bis(2-Ethylhexyl)phthalate	2.9	U	**2.8**	J2	1.0	U	1.0	U	1.0	U	**2.1**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	NA	
33	27																									
34	28	**VOLATILES (µg/L)**																								
35	29	**EPA Method SW8260**																								
36	30	Acetone	**24**		5.0	U	**6.5**		5.0	U	**75**		5.0	U	5.0	U	36	U	230	U	25	U	25	U	NA	
37	31	Carbon Disulfide	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	45	U	5.0	U	5.0	U	NA	
38	32	2-Butanone	5.0	U	5.0	U	5.0	U	**11**		**20**		5.0	U	**51**		**11**		230	U	25	U	25	U	NA	
39	33	Benzene	1.0	U	1.0	U	1.0	U	**250**		**440**		**190**		**160**		**2400**		**210**		**66**		**190**		NA	
40	34	Bromoform	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	45	U	5.0	U	5.0	U	NA	
41	35	Toluene	**6.4**		1.0	U	1.0	U	**4.4**		**1400**		**450**		**190**		**4000**		**3700**		**920**		**290**		NA	
42	36	Ethylbenzene	**5.4**		**5.5**		**1.1**		**1.2**		**11**		**19**		**11**		**140**		**220**		**160**		**32**		NA	
43	37	Styrene	1.0	U	1.0	U	1.0	U	1.0	U	**4.2**		**7.0**		**3.8**		**93**		**130**		5.0	U	**5.0**	U	NA	
44	38	m,p-Xylene	**1.2**		**2.5**		**1.1**		**1.7**		**22**		**50**		**33**		**450**		**730**		**390**		**100**		NA	
45	39	o-Xylene	**1.1**		**1.2**		1.0	U	1.0	U	**7.4**		**22**		**14**		**210**		**360**		**200**		**44**		NA	
46	40	1,3,5-Trimethylbenzene	**2.5**		**3.6**		**12**		**6.4**		**13**		**4.8**		**3.8**		**25**		45	U	**8.8**		**5.2**		NA	
47	41	1,2,4-Trimethylbenzene	**4.6**		**8.8**		**47**	J2	**36**		**110**		**30**		**19**		**140**		**88**		**44**		**24**		NA	
48	42	Isopropylbenzene	**7.7**		**9.5**		**34**	J2	**23**		**34**		**11**		**7.4**		**28**		45	U	**9.1**		**6.2**		NA	
49	43	n-Propylbenzene	**3.1**		**4.9**		**21**		**17**		**29**		**13**		**8.8**		**36**		45	U	**9.7**		**8.2**		NA	
50	44	tert-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	45	U	5.0	U	5.0	U	NA	
51	45	sec-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	UJ	1.0	U	1.0	U	45	U	5.0	U	5.0	U	NA	
52	46	4-Isopropyltoluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	45	U	5.0	U	5.0	U	NA	
53	47	n-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**1.2**		1.0	U	**1.0**		45	U	5.0	U	5.0	U	NA	
54	48	Naphthalene	**25**		**20**	J2	**52**	J2	**23**		**31**		**12**		**11**		**56**		230	U	25	U	25	U	NA	
55	48.5	Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
56	49																									
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																								
58	51	**Method OR-DEQ**																								
59	52	**TPH-Diesel**	**0.68**		**0.75**		**1.1**		**1.2**		**1.2**		**0.51**		**1.0**		**9.5**		**2.0**		**0.37**		**0.46**		NA	
60	53	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
61	54	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
62	55																									
63	56	**PRIORITY POLLUTANT**																								
64	57	**METALS (mg/L)**																								
65	58	Arsenic (7060)	**0.006**		**0.008**		0.05	U	0.05	U	**0.010**		**0.008**		**0.008**		**0.004**		**0.006**		**0.008**		**0.006**		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ
1																											
2																Dup of B1										Dup of B1	
3		B1		B1		B1		B1		B1		B1		B1		X		B1		B1		B1		B1		X	
4		BH96T		BR55M		CB68E		CL03B		CT67H		DE68L		DM30L		DM30K		DW37B		ED23A		EM75J		ES04G		ES04A	
5		2/16/00		5/23/00		8/29/00		11/10/00		2/15/01		6/5/01		8/14/01		8/14/01		11/28/01		2/26/02		6/25/02		08/28/02		08/28/02	
6																											
7	**CHLORINATED PHENOLS (µg/L)**																										
8	**EPA Method SW8040**																										
9	Pentachlorophenol	**0.14**	J1	**0.27**	J2	**0.43**		0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	**0.65**		**1.0**		0.25	U	0.29	U	0.29	U
10	2,4,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
11	2,3,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
12	2,4,5-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
13	2,3,4-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
15	2,3,4,5-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
16																											
17	**SEMIVOLATILES (µg/L)**																										
18	**EPA Method SW8270**																										
19	Phenol	**4.6**		2.0	U	3.0	U	2.0	U	**2.6**		100	UJ	2.0	U	2.0	U	**6.2**		**15**		2.0	U	2.3	U	2.3	U
20	4-Methylphenol	**57**		**20**		**47**		**5.6**		**8.4**		**130**	J	**50**		**54**		**44**		**170**		**46**		1.2	U	**1.3**	
21	Isophorone	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	50	UJ	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.2	U	1.2	U
22	2,4-Dimethylphenol	**7.7**		3.0	U	3.0	U	3.0	U	3.0	U	150	UJ	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	**4.1**		**4.5**	
23	Benzoic Acid	10	U	**160**		**73**		10	U	10	U	500	UJ	10	U	10	U	50	U	50	U	50	U	58	U	58	U
24	Naphthalene	**51**		**34**		**27**		**2.0**		**5.1**		50	UJ	**13**		**14**		1.0	U	**17**		**15**		**2.8**		**3.3**	
25	2-Methylnaphthalene	**19**		**12**		**9.6**		1.0	U	1.0	U	50	UJ	**6.8**		**7.4**		1.0	U	**10**		**5.9**		1.2	U	**1.8**	
26	2,4,6-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	250	UJ	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.8	U	5.8	U
27	2,4,5-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	250	UJ	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.8	U	5.8	U
28	Acenaphthene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	50	UJ	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.2	U	1.2	U
29	Dibenzofuran	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	50	UJ	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.2	U	1.2	U
30	Fluorene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	50	UJ	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.2	U	1.2	U
31	Pentachlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	250	UJ	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.8	U	5.8	U
32	bis(2-Ethylhexyl)phthalate	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	50	UJ	1.0	U	1.0	U	1.0	U	4.0	U	4.0	U	4.7	U	4.7	U
33																											
34	**VOLATILES (µg/L)**																										
35	**EPA Method SW8260**																										
36	Acetone	5.0	U	5.0	U	**410**		5.0	U	**1200**		**1100**		**230**		**280**		37	U	**250**		**18**		25	U	25	U
37	Carbon Disulfide	1.0	U	1.0	U	25	U	1.0	U	30	U	20	U	20	U	20	U	1.0	U	1.0	U	3.0	U	5	U	5	U
38	2-Butanone	55	U	**6.1**		120	U	**28**		**260**		100	U	100	U	**160**		**13**		**54**		15	U	25	U	25	U
39	Benzene	**4700**		**990**		**1100**		**160**		**610**		**560**		**180**	J	**230**	J	**120**		**1000**		**240**		**160**		**130**	
40	Bromoform	1.0	U	1.0	U	25	U	1.0	U	30	U	20	U	20	U	20	U	1.0	U	1.0	U	3.0	U	5	U	5	U
41	Toluene	**4700**		**1800**		**3600**		**1200**		**2000**		**3400**		**1400**	J	**1900**	J	**800**		**2800**		**520**		**210**		**210**	
42	Ethylbenzene	**160**		**110**		**300**		**100**		**160**		**220**		**130**		**150**		**86**		**170**		**97**		**88**		**74**	
43	Styrene	**29**		**8.3**	M	25	U	1.0	U	30	U	20	U	20	U	20	U	1.0	U	**4.3**		3.0	U	5	U	5	U
44	m,p-Xylene	**1000**		**340**		**990**		**320**		**590**		**830**		**450**		**530**		**350**		**290**		**270**		**230**		**210**	
45	o-Xylene	**490**		**180**		**420**		**160**		**240**		**370**		**210**		**250**		**180**		**210**		**150**		**120**		**100**	
46	1,3,5-Trimethylbenzene	**46**		**18**		**37**		**15**		**31**		**37**		**33**		**37**		**29**		**37**		**22**		**18**		**19**	
47	1,2,4-Trimethylbenzene	**150**		**72**		**160**		**61**		**100**		**160**		**110**		**130**		**100**		**94**		**73**		**54**		**56**	
48	Isopropylbenzene	**28**		**10**		25	U	**9.0**		30	U	20	U	20	U	20	U	**11**		**12**		**11**		**7**		**8.5**	
49	n-Propylbenzene	**40**		**17**		**31**		**15**		30	U	**33**		**22**		**24**		**19**		**15**		**16**		**12**		**13**	
50	tert-Butylbenzene	1.0	U	1.0	U	25	U	1.0	U	30	U	20	U	20	U	20	U	1.0	U	1.0	U	3.0	U	5	U	5	U
51	sec-Butylbenzene	**2.8**		**1.4**		25	U	1.0	U	30	U	20	U	20	U	20	U	1.0	U	1.0	U	3.0	U	5	U	5	U
52	4-Isopropyltoluene	**2.7**		**1.1**		25	U	1.0	U	30	U	20	U	20	U	20	U	1.0	U	**1.0**		3.0	U	5	U	5	U
53	n-Butylbenzene	**4.5**		2.0	U	25	U	1.8	U	30	U	20	U	20	U	20	U	3.2	U	**4.0**	M	3.0	U	5	U	5	U
54	Naphthalene	**82**		**36**		120	U	**25**		150	U	100	U	100	U	100	U	**39**		**37**		**24**		25	U	25	U
55	Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
56																											
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																										
58	**Method OR-DEQ**																										
59	**TPH-Diesel**	**4.8**		**0.44**		**1.4**		**0.37**		**2.1**		**47**		**8.7**	J	**6.9**	J	**0.94**		**12**		**1.3**		**0.64**		**0.9**	
60	**TPH-D Motor Oil**	NA		0.50	U	0.50	U	0.50	U	0.50	U	5.0	U	5.0	U	5.0	U	0.5	U	0.50	U	0.50	U	0.5	U	0.5	U
61	**TPH-Gasoline**	NA		**17**		**36**		**8.8**		**15**		**25**		**19**		**19**		**6.8**		**16**		**7.6**		**4.8**	J	**3.4**	J
62																											
63	**PRIORITY POLLUTANT**																										
64	**METALS (mg/L)**																										
65	Arsenic (7060)	**0.006**		**0.004**		**0.007**		**0.007**		**0.007**		**0.010**		**0.009**		**0.009**		**0.007**		**0.006**		**0.006**		**0.004**	J	**0.006**	J

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL
3		B1		B1		B1		B1		B1		B1	
4		EY88C		FF88O		FL41H		FU50E		FY64D		0402099-01	
5		11/11/02		2/13/03		5/7/03		8/29/03		10/20/03		2/19/04	
7	**CHLORINATED PHENOLS (µg/L)**												
8	**EPA Method SW8040**												
9	Pentachlorophenol	0.25	U	0.25	U	0.25	U	0.5	U	0.52	U	**2.46**	J
10	2,4,6-Trichlorophenol	NA		NA		NA		NA		NA		NA	
11	2,3,6-Trichlorophenol	NA		NA		NA		NA		NA		NA	
12	2,4,5-Trichlorophenol	NA		NA		NA		NA		NA		NA	
13	2,3,4-Trichlorophenol	NA		NA		NA		NA		NA		NA	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA		NA		NA		NA		NA	
15	2,3,4,5-Tetrachlorophenol	NA		NA		NA		NA		NA		NA	
16													
17	**SEMIVOLATILES (µg/L)**												
18	**EPA Method SW8270**												
19	Phenol	2.2	U	2	U	**3.1**	M	2	U	2.1	U	1.91	U
20	4-Methylphenol	1.1	U	**36**		**28**		1	U	1	U	**12**	
21	Isophorone	1.1	U	1	U	1	U	1	U	1	U	0.956	U
22	2,4-Dimethylphenol	3.3	U	6.7	U	3	U	3	U	**4.4**		2.87	U
23	Benzoic Acid	54	U	51	U	50	U	50	U	10	U	19.1	U
24	Naphthalene	1.1	U	1	U	**1.8**		**2.7**		**3.5**		**1.23**	
25	2-Methylnaphthalene	1.1	U	1	U	1	U	**1.4**		**3**		0.956	U
26	2,4,6-Trichlorophenol	5.4	U	5.1	U	5	U	5	U	5.2	U	4.78	U
27	2,4,5-Trichlorophenol	5.4	U	5.1	U	5	U	5	U	5.2	U	4.78	U
28	Acenaphthene	1.1	U	1	U	1	U	1	U	1	U	0.956	U
29	Dibenzofuran	1.1	U	1	U	1	U	1	U	1	U	0.956	U
30	Fluorene	1.1	U	1	U	1	U	1	U	1	U	0.956	U
31	Pentachlorophenol	5.4	U	5.1	U	5	U	5	U	5.2	U	4.78	U
32	bis(2-Ethylhexyl)phthalate	4.3	U	1	U	1	U	1	U	**6.3**		0.956	U
33													
34	**VOLATILES (µg/L)**												
35	**EPA Method SW8260**												
36	Acetone	5	U	**78**		**61**	M	**28**		5	U	50	U
37	Carbon Disulfide	1	U	1	U	1	U	1	U	1	U	2	U
38	2-Butanone	5	U	**8.2**	M	**8.1**	M	5	U	5	U	10	U
39	Benzene	**19**		**65**		**82**		**20**		**5.6**		**36.9**	
40	Bromoform	1	U	1	U	1	U	1	U	1	U	1	U
41	Toluene	**61**		**100**		**100**		**22**		**2.1**		**9.07**	
42	Ethylbenzene	**22**		**51**		**130**	J	**80**		**31**		**55.2**	
43	Styrene	1	U	1	U	1	U	1	U	1	U	1	U
44	m,p-Xylene	**71**		**130**		**110**	J	**99**		**40**		**25.2**	
45	o-Xylene	**26**		**75**		**86**	J	**35**		**9.2**		**15.2**	
46	1,3,5-Trimethylbenzene	**9.3**		**18**		**11**	J	**9.3**		**3.6**		**9.64**	
47	1,2,4-Trimethylbenzene	**30**		**57**		**30**	J	**28**		**12**		**26.6**	
48	Isopropylbenzene	**21**		**9.7**		**6.3**	J	**5.2**		**3.3**		**5.53**	
49	n-Propylbenzene	**26**		**15**		**7.6**	J	**7.3**		**4.5**		**8.05**	
50	tert-Butylbenzene	1	U	1	U	1	U	1	U	1	U	1	U
51	sec-Butylbenzene	**2.2**		1	U	**1**	J	**1**		1	U	1	U
52	4-Isopropyltoluene	1	U	**1.1**		1	U	1	U	1	U	1	U
53	n-Butylbenzene	**2.2**		2.8	U	**1.8**	J	**1.6**	M	1	U	1	U
54	Naphthalene	**9.1**		**13**		**5.8**		**7.3**		5	U	**5.47**	
55	Methyl tert-butyl ether	NA		NA		NA		NA		NA		1	U
56													
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**												
58	**Method OR-DEQ**												
59	**TPH-Diesel**	**0.84**		**6.8**		**2.4**		**1.6**		**2.7**		**2.26**	
60	**TPH-D Motor Oil**	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.477	U
61	**TPH-Gasoline**	**2.4**		**4.6**		**4.8**		**3.0**		**1.2**		**2.6**	
62													
63	**PRIORITY POLLUTANT**												
64	**METALS (mg/L)**												
65	Arsenic (7060)	0.05	U	**0.012**		**0.007**		**0.007**		**0.007**		**0.003**	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1																										
2																										
3			B1		B1		B1		B1		B1		B1		B1		B1		B1		B1		B1		B1	
4			S177D		T176N		U235H		V224R		W371K		Y336A		Z225M		Z960E		AH49B		AU36A		BC30D		9912050-01A	
5			4/2/97		7/16/97		10/22/97		1/29/98		5/19/98		8/18/98		11/12/98		2/17/99		5/18/99		9/21/99		12/8/99		12/8/1999 (d)	
66	59	Chromium (6010)	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	NA	
67	60	Copper (6010)	**0.009**		**0.009**		**0.004**		**0.006**		**0.002**		0.002	U	0.002	U	**0.078**		**0.043**		**0.008**		0.002	U	NA	
68	61	Lead (7421)	0.001	U	**0.001**		0.02	U	0.02	U	**0.003**		0.001	U	0.001	U	**0.002**		**0.002**		0.001	U	0.001	U	NA	
69	62	Nickel (6010)	**0.02**		**0.01**		0.01	U	**0.02**		**0.02**		**0.02**		0.01	U	**0.04**		**0.03**		**0.03**		**0.01**		NA	
70	63	Zinc (6010)	0.004	U	**0.009**		**0.027**		**0.004**		**0.006**	J2	**0.011**		**0.005**		**0.017**	J	**0.006**		**0.009**		0.006	U	NA	
71	64																									
72	65	**MAJOR IONS AND CONVENTIONALS**																								
73	66	Calcium (mg/L) (6010)	**42.2**		**25.7**		**16.3**		**26.7**		NA		NA		NA		**16.5**		NA		NA		NA		NA	
74	67	Magnesium (mg/L) (6010)	**16.3**		**9.41**		**6.93**		**9.05**		NA		NA		NA		**3.94**		NA		NA		NA		NA	
75	68	Potassium (mg/L) (6010)	**4.2**		**3.3**		**3.2**		**3.4**		NA		NA		NA		**2.7**		NA		NA		NA		NA	
76	69	Sodium (mg/L) (6010)	**8.65**		**7.49**		**7.88**		**7.63**		NA		NA		NA		**6.29**		NA		NA		NA		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	**190**		**140**	J2	**130**		**170**		NA		NA		NA		**43**		NA		NA		NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		1.0	U	NA		NA		NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	**190**		**140**	J2	**130**		**170**		NA		NA		NA		**43**		NA		NA		NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	NT		**200**	J2	**190**		**290**		**360**		**430**		**260**		**170**		**210**		**160**		**150**		NA	
81	74	Chloride (mg/L) (EPA 325.2)	**5.1**		**5.9**		**5.6**		**4.3**		**3.5**		**3.4**		**2.4**		**2.0**		**7.9**		**3.8**		**6.6**		NA	
82	75	N-Nitrate (mg-N/L) (Calculated)	**0.014**		0.010	U	**0.023**		**0.036**	J2	NA		NA		NA		0.010	U	NA		NA		NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	0.017	J	**0.053**	J2	**0.033**		0.010	UJ	NA		NA		NA		**0.015**		NA		NA		NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	0.031		**0.032**	J2	**0.056**		**0.036**	J2	NA		NA		NA		**0.013**		NA		NA		NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	2.5	U	2.5	U	**5.3**		2.5	U	NA		NA		NA		**2.8**		NA		NA		NA		NA	
86	79																									

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TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ
1																											
2																Dup of B1										Dup of B1	
3		B1		B1		B1		B1		B1		B1		B1		X		B1		B1		B1		B1		X	
4		BH96T		BR55M		CB68E		CL03B		CT67H		DE68L		DM30L		DM30K		DW37B		ED23A		EM75J		ES04G		ES04A	
5		2/16/00		5/23/00		8/29/00		11/10/00		2/15/01		6/5/01		8/14/01		8/14/01		11/28/01		2/26/02		6/25/02		08/28/02		08/28/02	
66	Chromium (6010)	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U
67	Copper (6010)	**0.004**		**0.004**		0.002	U	**0.081**		0.002	U	0.002	U	0.002	U	0.002	U	**0.016**	J	**0.062**		**0.016**		**0.004**		0.002	U
68	Lead (7421)	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	**0.002**		0.001	U	0.001	U	**0.008**		**0.004**		**0.003**		0.001	U	0.001	U
69	Nickel (6010)	**0.06**		**0.03**		**0.01**		0.01	U	0.01	U	**0.12**		0.01	U	0.01	U	0.01	U	**0.08**		**0.07**		0.01	U	0.01	U
70	Zinc (6010)	**0.020**		0.006	U	0.006	U	0.006	U	**0.006**		**0.054**		0.006	U	0.006	U	**0.015**	J	**0.033**		**0.016**		**0.007**		0.006	U
71																											
72	**MAJOR IONS AND CONVENTIONALS**																										
73	Calcium (mg/L) (6010)	NA		NA		NA		NA		**23.9**		**88.1**		**15.2**		**16.4**		**19.2**	J	**35.7**		NA		NA		NA	
74	Magnesium (mg/L) (6010)	NA		NA		NA		NA		**9.46**		**40.8**		**6.11**		**6.64**		**7.26**	J	**15.7**		NA		NA		NA	
75	Potassium (mg/L) (6010)	NA		NA		NA		NA		**2.6**		**5.1**		**2.1**		**2.5**		**2.4**		**4.6**		NA		NA		NA	
76	Sodium (mg/L) (6010)	NA		NA		NA		NA		**8.18**		**13.3**		**6.43**		**6.89**		**7.22**		**12.3**		NA		NA		NA	
77	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		**160**		NA		NA		NA		NA		**140**		NA		NA		NA	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		1.0	U	NA		NA		NA		NA		1.0	U	NA		NA		NA	
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		**160**		NA		NA		NA		NA		**140**		NA		NA		NA	
80	Total Dissolved Solids (mg/L) (EPA 160.1)	**250**		**220**		**170**		**140**		**250**		**1400**		**140**		**130**		**150**		**430**		**330**		**140**		**140**	
81	Chloride (mg/L) (EPA 325.2)	**3.8**		**7.2**		**1.7**		**2.5**		**3.4**	J	**2.8**		**8.0**	J	**6.0**	J	**2.2**		**3.2**		**6.2**		**5.1**		**4**	
82	N-Nitrate (mg-N/L) (Calculated)	NA		NA		NA		NA		0.010	U	NA		NA		NA		NA		0.010	U	NA		NA		NA	
83	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		NA		NA		**0.012**	J	NA		NA		NA		NA		**0.021**		NA		NA		NA	
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		NA		NA		**0.015**		NA		NA		NA		NA		**0.020**	J	NA		NA		NA	
85	Sulfate (mg/L) (EPA 375.2)	NA		NA		NA		NA		**2.8**		NA		NA		NA		NA		2.5	U	NA		NA		NA	
86																											

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL
1													
2													
3		B1		B1		B1		B1		B1		B1	
4		EY88C		FF88O		FL41H		FU50E		FY64D		0402099-01	
5		11/11/02		2/13/03		5/7/03		8/29/03		10/20/03		2/19/04	
66	Chromium (6010)	**0.03**		**0.017**		**0.008**		0.005	U	**0.006**		0.005	U
67	Copper (6010)	**0.073**		**0.107**		**0.041**		**0.004**		**0.015**		**0.0117**	
68	Lead (7421)	**0.03**		**0.028**		**0.009**		0.001	U	**0.005**		**0.0007**	
69	Nickel (6010)	**0.05**		**0.04**		**0.03**		0.01	U	**0.01**		**0.0075**	
70	Zinc (6010)	**0.119**		**0.085**		**0.037**	J	**0.007**		**0.018**		0.01	U
71													
72	**MAJOR IONS AND CONVENTIONALS**												
73	Calcium (mg/L) (6010)	NA		**17.3**		NA		NA		NA		NA	
74	Magnesium (mg/L) (6010)	NA		**8.66**		NA		NA		NA		NA	
75	Potassium (mg/L) (6010)	NA		**3.6**		NA		NA		NA		NA	
76	Sodium (mg/L) (6010)	NA		**7.8**		NA		NA		NA		NA	
77	Alkalinity (mg/L CaCO3) (SM 2320)	NA		**70**		NA		NA		NA		NA	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		1	U	NA		NA		NA		NA	
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		**70**		NA		NA		NA		NA	
80	Total Dissolved Solids (mg/L) (EPA 160.1)	**150**		**170**		**140**		**210**		**210**		**116**	
81	Chloride (mg/L) (EPA 325.2)	**3**		**6.4**		**2.9**		**2.4**		**3**		**3.31**	
82	N-Nitrate (mg-N/L) (Calculated)	NA		**0.029**		NA		NA		NA		NA	
83	N-Nitrite (mg-N/L) (EPA 354.1)	NA		**0.03**		NA		NA		NA		NA	
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		**0.059**		NA		NA		NA		NA	
85	Sulfate (mg/L) (EPA 375.2)	NA		**5.7**		NA		NA		NA		NA	
86													

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

			B1		B1		B1		B1		B1		B1		B1		B1		B1		B1		B1		B1	
			S177D		T176N		U235H		V224R		W371K		Y336A		Z225M		Z960E		AH49B		AU36A		BC30D		9912050-01A	
			4/2/97		7/16/97		10/22/97		1/29/98		5/19/98		8/18/98		11/12/98		2/17/99		5/18/99		9/21/99		12/8/99		12/8/1999 (d)	
87	80	**FIELD PARAMETERS**																								
88	81	pH (avg)	6.59		6.61		6.64		6.41		5.64		5.28		5.37		5.11		5.36		6.18		5.93		NM	
89	82	Temperature (° C) (avg)	13.5		15.3		15.7		14.5		12.6		15.5		14.2		12.8		13.4		15.4		13.0		NM	
90	83	Conductivity (um/hos)	466		359		286		457		392		605		379		363		254		263		306		NM	
91	84	Dissolved oxygen (mg/L) (avg)	NA		NA		NA		NA		1.29		1.83		1.75		2.18		2.20		2.61		1.81		NM	
92	85																									
93	86	**DIOXINS AND FURANS (ng/L)**																								
94	87	**Method 8290**																								
95	88	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
96	89	Total TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
97	90	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
98	91	Total TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
101	94	Total PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
103	96	Total PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
108	101	Total HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
112	105	Total HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
115	108	Total HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
117	110	Total HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
118	111	OCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
119	112	OCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
120	113																									
121	114	**ETHANOL (mg/L)**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		**4200**	J2	**6300**	J2
122	115																									

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TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ
1																											
2																Dup of B1										Dup of B1	
3		B1		B1		B1		B1		B1		B1		B1		X		B1		B1		B1		B1		X	
4		BH96T		BR55M		CB68E		CL03B		CT67H		DE68L		DM30L		DM30K		DW37B		ED23A		EM75J		ES04G		ES04A	
5		2/16/00		5/23/00		8/29/00		11/10/00		2/15/01		6/5/01		8/14/01		8/14/01		11/28/01		2/26/02		6/25/02		08/28/02		08/28/02	
87	**FIELD PARAMETERS**																										
88	pH (avg)	4.81		6.02		6.13		4.89		5.53		4.70		6.43		6.49		6.14		4.97		6.50		6.50		6.50	
89	Temperature (° C) (avg)	12.3		14.9		17.7		13.4		13.1		14.0		15.1		15.2		13.0		13.1		16.4		16.7		16.8	
90	Conductivity (um/hos)	335		297		243		222		297		1883		259		248		270		501		718		432		413	
91	Dissolved oxygen (mg/L) (avg)	2.15		1.55		1.51		0.84		1.08		1.42		1.59		1.61		3.58		5.92		4.21		0.79		0.60	
92																											
93	**DIOXINS AND FURANS (ng/L)**																										
94	**Method 8290**																										
95	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
96	Total TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
97	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
98	Total TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
99	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
100	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
101	Total PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
102	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
103	Total PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
104	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
105	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
106	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
107	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
108	Total HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
109	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
110	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
111	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
112	Total HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
113	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
114	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
115	Total HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
116	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
117	Total HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
118	OCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
119	OCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
120																											
121	**ETHANOL (mg/L)**	**5100**		**16**		5.0	U	5.0	U	**5.0**		NA		NA		NA		NA		NA		NA		NA		NA	
122																											

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL
1													
2													
3		B1		B1		B1		B1		B1		B1	
4		EY88C		FF88O		FL41H		FU50E		FY64D		0402099-01	
5		11/11/02		2/13/03		5/7/03		8/29/03		10/20/03		2/19/04	
87	**FIELD PARAMETERS**												
88	pH (avg)	6.8		6.34		6.23		6.52		6.51		4.99	
89	Temperature (° C) (avg)	15.8		14.2		14.4		16		15.9		14	
90	Conductivity (um/hos)	268		274		170		285		285		97	
91	Dissolved oxygen (mg/L) (avg)	1.64		0		2.54		1.73		1.48		1.77	
92													
93	**DIOXINS AND FURANS (ng/L)**												
94	**Method 8290**												
95	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA	
96	Total TCDF	NA		NA		NA		NA		NA		NA	
97	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA	
98	Total TCDD	NA		NA		NA		NA		NA		NA	
99	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA	
100	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA	
101	Total PeCDF	NA		NA		NA		NA		NA		NA	
102	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA	
103	Total PeCDD	NA		NA		NA		NA		NA		NA	
104	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA	
105	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA	
106	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA	
107	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA	
108	Total HxCDF	NA		NA		NA		NA		NA		NA	
109	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA	
110	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA	
111	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA	
112	Total HxCDD	NA		NA		NA		NA		NA		NA	
113	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA	
114	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA	
115	Total HpCDF	NA		NA		NA		NA		NA		NA	
116	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA	
117	Total HpCDD	NA		NA		NA		NA		NA		NA	
118	OCDF	NA		NA		NA		NA		NA		NA	
119	OCDD	NA		NA		NA		NA		NA		NA	
120													
121	**ETHANOL (mg/L)**	NA		NA		NA		NA		NA		NA	
122													

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1																										
2																										
3			B1		B1		B1		B1		B1		B1		B1		B1		B1		B1		B1		B1	
4			S177D		T176N		U235H		V224R		W371K		Y336A		Z225M		Z960E		AH49B		AU36A		BC30D		9912050-01A	
5			4/2/97		7/16/97		10/22/97		1/29/98		5/19/98		8/18/98		11/12/98		2/17/99		5/18/99		9/21/99		12/8/99		12/8/1999 (d)	
123	116	**PAHs (µg/L)**																								
124	117	**EPA Method SW8270 SIM**																								
125	118	Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
126	119	2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
127	120	Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
128	121	Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
129	122	Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
130	123	Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
131	124	Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ
1																											
2																Dup of B1										Dup of B1	
3		B1		B1		B1		B1		B1		B1		B1		X		B1		B1		B1		B1		X	
4		BH96T		BR55M		CB68E		CL03B		CT67H		DE68L		DM30L		DM30K		DW37B		ED23A		EM75J		ES04G		ES04A	
5		2/16/00		5/23/00		8/29/00		11/10/00		2/15/01		6/5/01		8/14/01		8/14/01		11/28/01		2/26/02		6/25/02		08/28/02		08/28/02	
123	**PAHs (µg/L)**																										
124	**EPA Method SW8270 SIM**																										
125	Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
126	2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
127	Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
128	Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
129	Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
130	Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
131	Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL
1													
2													
3		B1		B1		B1		B1		B1		B1	
4		EY88C		FF88O		FL41H		FU50E		FY64D		0402099-01	
5		11/11/02		2/13/03		5/7/03		8/29/03		10/20/03		2/19/04	
123	**PAHs (µg/L)**												
124	**EPA Method SW8270 SIM**												
125	Naphthalene	NA		NA		NA		NA		NA		NA	
126	2-Methylnaphthalene	NA		NA		NA		NA		NA		NA	
127	Acenaphthylene	NA		NA		NA		NA		NA		NA	
128	Acenaphthene	NA		NA		NA		NA		NA		NA	
129	Fluorene	NA		NA		NA		NA		NA		NA	
130	Anthracene	NA		NA		NA		NA		NA		NA	
131	Dibenzofuran	NA		NA		NA		NA		NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

				D		D		D		D		D		D		D		D		D		D		D	
				S177L		T176B		U235F		V208H		W391B		Y336D		Z225I		Z960I		AH76J		AU22D		BC27N		9912050-02A	
				4/2/97		7/15/97		10/22/97		1/28/98		5/19/98		8/18/98		11/13/98		2/18/99		5/19/99		9/20/99		12/8/99		12/8/1999 (d)	
1																									
2	1	**CHLORINATED PHENOLS (µg/L)**																							
3	2	**EPA Method SW8040**																							
4	3	Pentachlorophenol	0.25	U	0.25	U	**0.25**		0.25	U	**0.45**		0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA	
5	4	2,4,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA	
6	5	2,3,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA	
7	6	2,4,5-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA	
8	7	2,3,4-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA	
9	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA	
10	9	2,3,4,5-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA	
11	10																								
12	11	**SEMIVOLATILES (µg/L)**																							
13	12	**EPA Method SW8270**																							
14	13	Phenol	2.0	U	2.0	U	2.0	U	2.0	UJ	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	NA	
15	14	4-Methylphenol	1.0	U	1.0	U	1.0	U	1.0	UJ	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	NA	
16	15	Isophorone	**3.4**		**5.5**		**5.2**			R	1.0	U	1.0	U	1.0	U	**2.4**		1.0	U	1.0	U	1.0	U	NA	
17	16	2,4-Dimethylphenol	3.0	U	3.0	U	3.0	U	3.0	UJ	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	NA	
18	17	Benzoic Acid	10	U	10	U	10	U	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U	10	U	NA	
19	18	Naphthalene	1.0	U	1.0	U	1.0	U		R	1.0	U	1.0	U	1.0	U	**3.1**		1.0	U	1.0	U	**3.2**		NA	
20	19	2-Methylnaphthalene	1.2		1.0	U	1.0	U		R	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	NA	
21	20	2,4,6-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	UJ	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	NA	
22	21	2,4,5-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	UJ	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	NA	
23	22	Acenaphthene	1.0	U	1.0	U	1.0	U		R	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	NA	
24	23	Dibenzofuran	1.0	U	1.0	U	1.0	U		R	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	NA	
25	24	Fluorene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	NA	
26	25	Pentachlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	NA	
27	26	bis(2-Ethylhexyl)phthalate	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**2.4**		1.0	U	NA	
28	27																								
29	28	**VOLATILES (µg/L)**																							
30	29	**EPA Method SW8260**																							
31	30	Acetone	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	NA	
32	31	Carbon Disulfide	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	NA	
33	32	2-Butanone	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	NA	
34	33	Benzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	NA	
35	34	Bromoform	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	NA	
36	35	Toluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	NA	
37	36	Ethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**3.7**		NA	
38	37	Styrene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	NA	
39	38	m,p-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**1.9**		NA	
40	39	o-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	NA	
41	40	1,3,5-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**2.6**		NA	
42	41	1,2,4-Trimethylbenzene	**2.2**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**1.2**		1.0	U	1.0	U	**15**		NA	
43	42	Isopropylbenzene	**1.6**		**2.7**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**1.7**		1.0	U	1.0	U	**11**		NA	
44	43	n-Propylbenzene	**1.7**		**2.5**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**5.6**		NA	
45	44	tert-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	NA	
46	45	sec-Butylbenzene	**1.6**		**2.1**		1.0	U	1.0	U	1.0	U	1.0	UJ	1.0	U	1.0	U	1.0	U	1.0	U	1.5	U	NA	
47	46	4-Isopropyltoluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	NA	
48	47	n-Butylbenzene	1.0	U	**1.0**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	NA	
49	48	Naphthalene	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	NA	
50	48.5	Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
51	49																								
52	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																							
53	51	**Method OR-DEQ**																							
54	52	**TPH-Diesel**	**0.82**		**0.82**		**0.55**		0.25	U	**0.34**		**0.35**		0.25	U	**0.52**		0.25	U	0.25	U	**0.56**		NA	
55	53	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
56	54	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
57	55																								
58	56	**PRIORITY POLLUTANT**																							
59	57	**METALS (mg/L)**																							
60	58	Arsenic (7060)	**0.013**		**0.013**		0.05	U	0.05	U	**0.016**		**0.014**		**0.018**		**0.021**		**0.015**		**0.016**		**0.015**		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ
3		D		D		D		D		D		D		D		D		D		D		D		D		D	
4		BH96B		BR55E		CB49D		CK77F		CT37F		DE68G		DM30M		DW37E		ED34G		EM85B		ER93P		EZ03C		FF76G	
5		2/17/00		5/22/00		8/28/00		11/7/00		2/12/01		6/4/01		8/14/01		11/28/01		2/28/02		6/26/02		08/27/02		11/12/02		2/12/03	
7	**CHLORINATED PHENOLS (µg/L)**																										
8	**EPA Method SW8040**																										
9	Pentachlorophenol	0.25	U	0.25	UJ	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	**0.55**		**0.32**		**0.38**		0.33	U	0.25	U	0.26	U
10	2,4,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
11	2,3,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
12	2,4,5-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
13	2,3,4-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
15	2,3,4,5-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
16																											
17	**SEMIVOLATILES (µg/L)**																										
18	**EPA Method SW8270**																										
19	Phenol	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.6	U	2.2	U	2.1	U
20	4-Methylphenol	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.3	U	1.1	U	1	U
21	Isophorone	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.3	U	1.1	U	1	U
22	2,4-Dimethylphenol	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.9	U	3.3	U	3.1	U
23	Benzoic Acid	10	U	10	U	10	U	10	U	10	U	10	U	10	U	50	U	50	U	50	U	66	U	54	U	52	U
24	Naphthalene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**3**		1.0	U	1.3	U	1.1	U	1	U
25	2-Methylnaphthalene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.3	U	1.1	U	1	U
26	2,4,6-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	6.6	U	5.4	U	5.2	U
27	2,4,5-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	6.6	U	5.4	U	5.2	U
28	Acenaphthene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.3	U	1.1	U	1	U
29	Dibenzofuran	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.3	U	1.1	U	1	U
30	Fluorene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.3	U	1.1	U	1	U
31	Pentachlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	6.6	U	5.4	U	5.2	U
32	bis(2-Ethylhexyl)phthalate	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**12**		4.0	U	4.0	U	5.3	U	4.3	U	1	U
33																											
34	**VOLATILES (µg/L)**																										
35	**EPA Method SW8260**																										
36	Acetone	5.0	U	5.0	U	5.0	U	5.0	U	7.1	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5	U	5	U	5	U
37	Carbon Disulfide	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U
38	2-Butanone	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5	U	5	U	5	U
39	Benzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U
40	Bromoform	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U
41	Toluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U
42	Ethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**1.6**		**1.7**		1.0	U	1	U	1	U	1	U
43	Styrene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U
44	m,p-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**1.6**		1.0	U	1.0	U	1	U	1	U	1	U
45	o-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U
46	1,3,5-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**2.0**		**1.9**		1.0	U	1	U	1	U	1	U
47	1,2,4-Trimethylbenzene	**1.0**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**23**		**38**		**1.2**		1	U	1	U	1	U
48	Isopropylbenzene	**2.5**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**6.0**		**7.7**		1.0	U	**3**		1	U	1	U
49	n-Propylbenzene	**1.1**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**2.7**		**7.7**		1.0	U	**3.6**		1	U	1	U
50	tert-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U
51	sec-Butylbenzene	**2.0**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**5.3**		1.0	U	**2.1**		1	U	1	U
52	4-Isopropyltoluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**1.8**		1.0	U	1	U	1	U	1	U
53	n-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**1.5**		1.0	U	1	U	1	U	1	U
54	Naphthalene	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	7.5	U	5.0	U	**8.2**		5.0	U	5	U	5	U	5	U
55	Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
56																											
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																										
58	**Method OR-DEQ**																										
59	**TPH-Diesel**	**0.40**		0.25	U	0.25	U	0.25	U	**0.26**		NA		NA		NA		NA		NA		NA		NA		NA	
60	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
61	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
62																											
63	**PRIORITY POLLUTANT**																										
64	**METALS (mg/L)**																										
65	Arsenic (7060)	**0.019**		**0.019**		**0.016**		**0.014**		**0.016**		**0.016**		**0.018**		**0.021**		**0.014**		**0.013**		**0.017**		0.05	U	**0.016**	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BA	BB	BC	BD	BE	BF	BG	BH
1									
2									
3		D		D		D		D	
4		FL58K		FU45C		FY82H		0402105-03	
5		5/8/03		8/28/03		10/23/03		2/20/04	
7	**CHLORINATED PHENOLS (µg/L)**								
8	**EPA Method SW8040**								
9	Pentachlorophenol	0.25	U	**0.86**	J	**0.61**		0.498	U
10	2,4,6-Trichlorophenol	NA		NA		NA		NA	
11	2,3,6-Trichlorophenol	NA		NA		NA		NA	
12	2,4,5-Trichlorophenol	NA		NA		NA		NA	
13	2,3,4-Trichlorophenol	NA		NA		NA		NA	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA		NA		NA	
15	2,3,4,5-Tetrachlorophenol	NA		NA		NA		NA	
16									
17	**SEMIVOLATILES (µg/L)**								
18	**EPA Method SW8270**								
19	Phenol	2	U	2	U	2	U	1.98	U
20	4-Methylphenol	1	U	1	U	1	U	9.91	U
21	Isophorone	1	U	1	U	1	U	0.991	U
22	2,4-Dimethylphenol	3	U	3	U	3	U	2.97	U
23	Benzoic Acid	50	U	50	U	10	U	19.8	U
24	Naphthalene	1	U	1	U	1	U	0.991	U
25	2-Methylnaphthalene	1	U	1	U	1	U	0.991	U
26	2,4,6-Trichlorophenol	5	U	5	U	5.1	U	4.96	U
27	2,4,5-Trichlorophenol	5	U	5	U	5.1	U	4.96	U
28	Acenaphthene	1	U	1	U	1	U	0.991	U
29	Dibenzofuran	1	U	1	U	1	U	0.991	U
30	Fluorene	1	U	1	U	1	U	0.991	U
31	Pentachlorophenol	5	U	5	U	5.1	U	4.96	U
32	bis(2-Ethylhexyl)phthalate	**150**		1	U	1	U	0.991	U
33									
34	**VOLATILES (µg/L)**								
35	**EPA Method SW8260**								
36	Acetone	5	U	5	U	5	U	50	U
37	Carbon Disulfide	1	U	1	U	1	U	2	U
38	2-Butanone	5	U	5	U	5	U	10	U
39	Benzene	1	U	1	U	1	U	0.4	U
40	Bromoform	1	U	1	U	1	U	1	U
41	Toluene	1	U	1	U	1	U	1	U
42	Ethylbenzene	1	U	1	U	1	U	1	U
43	Styrene	1	U	1	U	1	U	1	U
44	m,p-Xylene	1	U	1	U	1	U	2	U
45	o-Xylene	1	U	1	U	1	U	1	U
46	1,3,5-Trimethylbenzene	1	U	1	U	1	U	1	U
47	1,2,4-Trimethylbenzene	1	U	1	U	1	U	1	U
48	Isopropylbenzene	1	U	**3.4**		**1.1**		1	U
49	n-Propylbenzene	1	U	**2.6**		1	U	1	U
50	tert-Butylbenzene	1	U	1	U	1	U	1	U
51	sec-Butylbenzene	1	U	**1.2**		1	U	1	U
52	4-Isopropyltoluene	1	U	1	U	1	U	1	U
53	n-Butylbenzene	1	U	1	U	1	U	1	U
54	Naphthalene	5	U	5	U	5	U	1	U
55	Methyl tert-butyl ether	NA		NA		NA		1	U
56									
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**								
58	**Method OR-DEQ**								
59	**TPH-Diesel**	NA		NA		NA		NA	
60	**TPH-D Motor Oil**	NA		NA		NA		NA	
61	**TPH-Gasoline**	NA		NA		NA		NA	
62									
63	**PRIORITY POLLUTANT**								
64	**METALS (mg/L)**								
65	Arsenic (7060)	**0.022**		**0.017**		**0.018**		**0.021**	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1																										
2																										
3			D		D		D		D		D		D		D		D		D		D		D		D	
4			S177L		T176B		U235F		V208H		W391B		Y336D		Z225I		Z960I		AH76J		AU22D		BC27N		9912050-02A	
5			4/2/97		7/15/97		10/22/97		1/28/98		5/19/98		8/18/98		11/13/98		2/18/99		5/19/99		9/20/99		12/8/99		12/8/1999 (d)	
66	59	Chromium (6010)	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	NA	
67	60	Copper (6010)	**0.003**		0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	**0.004**		0.002	U	0.002	U	0.002	U	NA	
68	61	Lead (7421)	0.001	U	0.001	U	0.02	U	0.02	U	0.001	U	0.001	U	0.001	U	**0.004**		0.001	U	0.001	U	0.001	U	NA	
69	62	Nickel (6010)	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	NA	
70	63	Zinc (6010)	0.004	U	0.004	U	0.004	U	0.004	U	**0.007**	J2	0.004	U	0.004	U	**0.020**	J	0.004	U	0.004	U	0.008	U	NA	
71	64																									
72	65	**MAJOR IONS AND CONVENTIONALS**																								
73	66	Calcium (mg/L) (6010)	**45.0**		**42.8**		**52.4**		**58.0**		NA		NA		NA		**49.1**		NA		NA		NA		NA	
74	67	Magnesium (mg/L) (6010)	**16.2**		**15.4**		**18.8**		**20.9**		NA		NA		NA		**16.9**		NA		NA		NA		NA	
75	68	Potassium (mg/L) (6010)	**2.3**		**2.1**		**2.6**		**2.2**		NA		NA		NA		**2.7**		NA		NA		NA		NA	
76	69	Sodium (mg/L) (6010)	**8.31**		**7.96**		**9.13**		**9.54**		NA		NA		NA		**9.67**		NA		NA		NA		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	**200**		**180**		**220**		**280**		NA		NA		NA		**210**		NA		NA		NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		1.0	U	NA		NA		NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	**200**		**180**		**220**		**280**		NA		NA		NA		**210**		NA		NA		NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	NT		**230**	J2	**240**		**300**		**240**		**240**		**230**		**250**		**260**		**280**		**190**		NA	
81	74	Chloride (mg/L) (EPA 325.2)	**11**		**2.0**		**2.4**		**2.4**		**3.2**		**1.4**		**2.1**		**2.8**		**2.0**		**2.8**		**2.8**		NA	
82	75	N-Nitrate (mg-N/L) (Calculated)	0.010	U	0.010	U	0.010	U	0.010	U	NA		NA		NA		**0.049**		NA		NA		NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	**0.022**	J	0.010	U	0.010	U	**0.011**		NA		NA		NA		**0.015**		NA		NA		NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	**0.03**		0.010	U	0.010	U	**0.014**		NA		NA		NA		**0.064**		NA		NA		NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	2.5	U	2.5	U	**4.7**		2.5	U	NA		NA		NA		**5.8**		NA		NA		NA		NA	
86	79																									

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ
1																											
2																											
3		D		D		D		D		D		D		D		D		D		D		D		D		D	
4		BH96B		BR55E		CB49D		CK77F		CT37F		DE68G		DM30M		DW37E		ED34G		EM85B		ER93P		EZ03C		FF76G	
5		2/17/00		5/22/00		8/28/00		11/7/00		2/12/01		6/4/01		8/14/01		11/28/01		2/28/02		6/26/02		08/27/02		11/12/02		2/12/03	
66	Chromium (6010)	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U
67	Copper (6010)	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	**0.002**		0.002	U	**0.003**		0.002	U	0.002	U
68	Lead (7421)	0.001	U	**0.001**		0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	**0.001**		0.001	U	0.001	U	0.001	U	0.02	U	0.001	U
69	Nickel (6010)	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
70	Zinc (6010)	0.006	U	0.006	U	0.006	U	0.006	U	0.006	U	0.006	U	0.006	U	0.006	U	**0.019**		0.006	U	0.006	U	0.006	U	0.006	U
71																											
72	**MAJOR IONS AND CONVENTIONALS**																										
73	Calcium (mg/L) (6010)	NA		NA		NA		NA		**40.6**		**43.4**		**34.3**		**40.1**	J	**32.2**		NA		NA		NA		**75.2**	
74	Magnesium (mg/L) (6010)	NA		NA		NA		NA		**13.8**		**14.9**		**12.0**		**14.0**	J	**11.3**		NA		NA		NA		**26.1**	
75	Potassium (mg/L) (6010)	NA		NA		NA		NA		**1.8**		**2.2**		**1.9**		**2.2**		**2.0**		NA		NA		NA		**3**	
76	Sodium (mg/L) (6010)	NA		NA		NA		NA		**7.40**		**7.64**		**6.73**		**7.77**		**7.57**		NA		NA		NA		**10.8**	
77	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		**200**		NA		NA		NA		**140**		NA		NA		NA		**350**	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		1.0	U	NA		NA		NA		1.0	U	NA		NA		NA		1	U
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		**200**		NA		NA		NA		**140**		NA		NA		NA		**350**	
80	Total Dissolved Solids (mg/L) (EPA 160.1)	**310**		**290**		**230**		**220**		**240**		**240**		**180**		**220**		**200**		**260**		**320**		**320**		**360**	
81	Chloride (mg/L) (EPA 325.2)	**3.4**		**3.2**		**3.1**		**5.4**		**5.4**		**2.4**		**4.5**		**2.4**		**2.9**		**3.3**		**3**		**3.1**		**4.2**	
82	N-Nitrate (mg-N/L) (Calculated)	NA		NA		NA		NA		0.010	U	NA		NA		NA		**0.020**		NA		NA		NA		**0.19**	
83	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		NA		NA		0.010	U	NA		NA		NA		0.010	U	NA		NA		NA		0.01	U
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		NA		NA		0.010	UJ	NA		NA		NA		**0.020**		NA		NA		NA		**0.19**	
85	Sulfate (mg/L) (EPA 375.2)	NA		NA		NA		NA		**6.1**		NA		NA		NA		**12**		NA		NA		NA		**4**	
86																											

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BA	BB	BC	BD	BE	BF	BG	BH
1									
2									
3		D		D		D		D	
4		FL58K		FU45C		FY82H		0402105-03	
5		5/8/03		8/28/03		10/23/03		2/20/04	
66	Chromium (6010)	0.005	U	0.005	U	0.005	U	**0.0078**	
67	Copper (6010)	0.002	U	0.002	U	0.002	U	0.01	U
68	Lead (7421)	**0.002**		0.001	U	0.001	U	**0.0021**	
69	Nickel (6010)	0.01	U	0.01	U	0.01	U	0.005	U
70	Zinc (6010)	0.006	U	0.006	U	0.006	U	0.01	U
71									
72	**MAJOR IONS AND CONVENTIONALS**								
73	Calcium (mg/L) (6010)	NA		NA		NA		NA	
74	Magnesium (mg/L) (6010)	NA		NA		NA		NA	
75	Potassium (mg/L) (6010)	NA		NA		NA		NA	
76	Sodium (mg/L) (6010)	NA		NA		NA		NA	
77	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA	
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA	
80	Total Dissolved Solids (mg/L) (EPA 160.1)	**350**		**290**		**260**		**291**	
81	Chloride (mg/L) (EPA 325.2)	**3.5**		**1.8**		**2.4**		**3.69**	
82	N-Nitrate (mg-N/L) (Calculated)	NA		NA		NA		NA	
83	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		NA		NA	
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		NA		NA	
85	Sulfate (mg/L) (EPA 375.2)	NA		NA		NA		NA	
86									

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1																										
2																										
3			D		D		D		D		D		D		D		D		D		D		D		D	
4			S177L		T176B		U235F		V208H		W391B		Y336D		Z225I		Z960I		AH76J		AU22D		BC27N		9912050-02A	
5			4/2/97		7/15/97		10/22/97		1/28/98		5/19/98		8/18/98		11/13/98		2/18/99		5/19/99		9/20/99		12/8/99		12/8/1999 (d)	
87	80	**FIELD PARAMETERS**																								
88	81	pH (avg)	6.85		6.68		6.96		6.83		6.44		6.53		6.26		6.74		6.24		6.11		6.53		NM	
89	82	Temperature (° C) (avg)	13.4		14.6		14.7		14.3		14.9		15.1		13.5		12.8		13.1		15.3		13.5		NM	
90	83	Conductivity (um/hos)	391		409		366		487		424		481		415		472		422		414		319		NM	
91	84	Dissolved oxygen (mg/L) (avg)	NA		NA		NA		NA		2.65		1.70		1.70		1.75		2.08		1.69		2.47		NM	
92	85																									
93	86	**DIOXINS AND FURANS (ng/L)**																								
94	87	**Method 8290**																								
95	88	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
96	89	Total TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
97	90	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
98	91	Total TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
101	94	Total PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
103	96	Total PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
108	101	Total HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
112	105	Total HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
115	108	Total HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
117	110	Total HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
118	111	OCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
119	112	OCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
120																										
121		**ETHANOL (mg/L)**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		10	U
122																										

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ
1																											
2																											
3		D		D		D		D		D		D		D		D		D		D		D		D		D	
4		BH96B		BR55E		CB49D		CK77F		CT37F		DE68G		DM30M		DW37E		ED34G		EM85B		ER93P		EZ03C		FF76G	
5		2/17/00		5/22/00		8/28/00		11/7/00		2/12/01		6/4/01		8/14/01		11/28/01		2/28/02		6/26/02		08/27/02		11/12/02		2/12/03	
87	**FIELD PARAMETERS**																										
88	pH (avg)	6.69		6.77		6.47		5.41		6.52		6.65		6.94		6.62		6.58		6.42		6.77		6.63		7.06	
89	Temperature (° C) (avg)	13.7		12.1		15.4		14.3		14.2		14.4		14.5		15.0		11.9		13.8		15.7		14.6		15.6	
90	Conductivity (um/hos)	531		446		357		300		331		344		331		334		260		452		442		532		707	
91	Dissolved oxygen (mg/L) (avg)	5.09		1.99		1.56		2.04		1.29		1.29		1.54		4.01		7.74		4.39		0.69		2.16		0	
92																											
93	**DIOXINS AND FURANS (ng/L)**																										
94	**Method 8290**																										
95	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
96	Total TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
97	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
98	Total TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
99	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
100	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
101	Total PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
102	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
103	Total PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
104	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
105	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
106	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
107	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
108	Total HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
109	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
110	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
111	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
112	Total HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
113	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
114	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
115	Total HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
116	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
117	Total HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
118	OCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
119	OCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
120																											
121	**ETHANOL (mg/L)**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
122																											

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BA	BB	BC	BD	BE	BF	BG	BH
1									
2									
3		D		D		D		D	
4		FL58K		FU45C		FY82H		0402105-03	
5		5/8/03		8/28/03		10/23/03		2/20/04	
87	**FIELD PARAMETERS**								
88	pH (avg)	6.82		6.93		6.71		6.61	
89	Temperature (° C) (avg)	14.5		14.9		15.0		13.1	
90	Conductivity (um/hos)	495		410		382		441	
91	Dissolved oxygen (mg/L) (avg)	2.71		1.84		1.66		2.36	
92									
93	**DIOXINS AND FURANS (ng/L)**								
94	**Method 8290**								
95	2,3,7,8-TCDF	NA		NA		NA		NA	
96	Total TCDF	NA		NA		NA		NA	
97	2,3,7,8-TCDD	NA		NA		NA		NA	
98	Total TCDD	NA		NA		NA		NA	
99	1,2,3,7,8-PeCDF	NA		NA		NA		NA	
100	2,3,4,7,8-PeCDF	NA		NA		NA		NA	
101	Total PeCDF	NA		NA		NA		NA	
102	1,2,3,7,8-PeCDD	NA		NA		NA		NA	
103	Total PeCDD	NA		NA		NA		NA	
104	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA	
105	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA	
106	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA	
107	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA	
108	Total HxCDF	NA		NA		NA		NA	
109	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA	
110	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA	
111	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA	
112	Total HxCDD	NA		NA		NA		NA	
113	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA	
114	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA	
115	Total HpCDF	NA		NA		NA		NA	
116	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA	
117	Total HpCDD	NA		NA		NA		NA	
118	OCDF	NA		NA		NA		NA	
119	OCDD	NA		NA		NA		NA	
120									
121	**ETHANOL (mg/L)**	NA		NA		NA		NA	
122									

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1																										
2																										
3			D		D		D		D		D		D		D		D		D		D		D		D	
4			S177L		T176B		U235F		V208H		W391B		Y336D		Z225I		Z960I		AH76J		AU22D		BC27N		9912050-02A	
5			4/2/97		7/15/97		10/22/97		1/28/98		5/19/98		8/18/98		11/13/98		2/18/99		5/19/99		9/20/99		12/8/99		12/8/1999 (d)	
123		**PAHs (µg/L)**																								
124		**EPA Method SW8270 SIM**																								
125		Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
126		2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
127		Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
128		Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
129		Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
130		Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
131		Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ
1																											
2																											
3		D		D		D		D		D		D		D		D		D		D		D		D		D	
4		BH96B		BR55E		CB49D		CK77F		CT37F		DE68G		DM30M		DW37E		ED34G		EM85B		ER93P		EZ03C		FF76G	
5		2/17/00		5/22/00		8/28/00		11/7/00		2/12/01		6/4/01		8/14/01		11/28/01		2/28/02		6/26/02		08/27/02		11/12/02		2/12/03	
123	**PAHs (µg/L)**																										
124	**EPA Method SW8270 SIM**																										
125	Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
126	2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
127	Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
128	Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
129	Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
130	Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
131	Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BA	BB	BC	BD	BE	BF	BG	BH
1									
2									
3		D		D		D		D	
4		FL58K		FU45C		FY82H		0402105-03	
5		5/8/03		8/28/03		10/23/03		2/20/04	
123	**PAHs (µg/L)**								
124	**EPA Method SW8270 SIM**								
125	Naphthalene	NA		NA		NA		NA	
126	2-Methylnaphthalene	NA		NA		NA		NA	
127	Acenaphthylene	NA		NA		NA		NA	
128	Acenaphthene	NA		NA		NA		NA	
129	Fluorene	NA		NA		NA		NA	
130	Anthracene	NA		NA		NA		NA	
131	Dibenzofuran	NA		NA		NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D
1				
2				
3			F	
4			Y314H	
5			8/18/98	
7	1	**CHLORINATED PHENOLS (µg/L)**		
8	2	**EPA Method SW8040**		
9	3	Pentachlorophenol	0.25	U
10	4	2,4,6-Trichlorophenol	0.25	U
11	5	2,3,6-Trichlorophenol	0.25	U
12	6	2,4,5-Trichlorophenol	0.25	U
13	7	2,3,4-Trichlorophenol	0.25	U
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	0.25	U
15	9	2,3,4,5-Tetrachlorophenol	0.25	U
16	10			
17	11	**SEMIVOLATILES (µg/L)**		
18	12	**EPA Method SW8270**		
19	13	Phenol	2.0	U
20	14	4-Methylphenol	1.0	U
21	15	Isophorone	1.0	U
22	16	2,4-Dimethylphenol	3.0	U
23	17	Benzoic Acid	10	U
24	18	Naphthalene	1.0	U
25	19	2-Methylnaphthalene	1.0	U
26	20	2,4,6-Trichlorophenol	5.0	U
27	21	2,4,5-Trichlorophenol	5.0	U
28	22	Acenaphthene	1.0	U
29	23	Dibenzofuran	1.0	U
30	24	Fluorene	1.0	U
31	25	Pentachlorophenol	5.0	U
32	26	bis(2-Ethylhexyl)phthalate	1.0	U
33	27			
34	28	**VOLATILES (µg/L)**		
35	29	**EPA Method SW8260**		
36	30	Acetone	5.0	U
37	31	Carbon Disulfide	1.0	U
38	32	2-Butanone	5.0	U
39	33	Benzene	1.0	U
40	34	Bromoform	1.0	U
41	35	Toluene	1.0	U
42	36	Ethylbenzene	1.0	U
43	37	Styrene	1.0	U
44	38	m,p-Xylene	1.0	U
45	39	o-Xylene	1.0	U
46	40	1,3,5-Trimethylbenzene	1.0	U
47	41	1,2,4-Trimethylbenzene	1.0	U
48	42	Isopropylbenzene	1.0	U
49	43	n-Propylbenzene	1.0	U
50	44	tert-Butylbenzene	1.0	U
51	45	sec-Butylbenzene	1.0	UJ
52	46	4-Isopropyltoluene	1.0	U
53	47	n-Butylbenzene	1.0	U
54	48	Naphthalene	5.0	U
55	48.5	Methyl tert-butyl ether	NA	
56	49			
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**		
58	51	**Method OR-DEQ**		
59	52	**TPH-Diesel**	0.25	U
60	53	**TPH-D Motor Oil**	NA	
61	54	**TPH-Gasoline**	NA	
62	55			
63	56	**PRIORITY POLLUTANT**		
64	57	**METALS (mg/L)**		
65	58	Arsenic (7060)	**0.034**	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D
1				
2				
3			F	
4			Y314H	
5			8/18/98	
66	59	Chromium (6010)	**0.042**	
67	60	Copper (6010)	**0.016**	
68	61	Lead (7421)	**0.006**	
69	62	Nickel (6010)	**0.03**	
70	63	Zinc (6010)	**0.047**	
71	64			
72	65	**MAJOR IONS AND CONVENTIONALS**		
73	66	Calcium (mg/L) (6010)	NA	
74	67	Magnesium (mg/L) (6010)	NA	
75	68	Potassium (mg/L) (6010)	NA	
76	69	Sodium (mg/L) (6010)	NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	**200**	
81	74	Chloride (mg/L) (EPA 325.2)	**1.1**	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA	
85	78	Sulfate (mg/L) (EPA 375.2)	NA	
86	79			

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D
1				
2				
3			F	
4			Y314H	
5			8/18/98	
87	80	**FIELD PARAMETERS**		
88	81	pH (avg)	6.37	
89	82	Temperature (° C) (avg)	14.2	
90	83	Conductivity (um/hos)	448	
91	84	Dissolved oxygen (mg/L) (avg)	2.30	
92	85			
93	86	**DIOXINS AND FURANS (ng/L)**		
94	87	**Method 8290**		
95	88	2,3,7,8-TCDF	NA	
96	89	Total TCDF	NA	
97	90	2,3,7,8-TCDD	NA	
98	91	Total TCDD	NA	
99	92	1,2,3,7,8-PeCDF	NA	
100	93	2,3,4,7,8-PeCDF	NA	
101	94	Total PeCDF	NA	
102	95	1,2,3,7,8-PeCDD	NA	
103	96	Total PeCDD	NA	
104	97	1,2,3,4,7,8-HxCDF	NA	
105	98	1,2,3,6,7,8-HxCDF	NA	
106	99	2,3,4,6,7,8-HxCDF	NA	
107	100	1,2,3,7,8,9-HxCDF	NA	
108	101	Total HxCDF	NA	
109	102	1,2,3,4,7,8-HxCDD	NA	
110	103	1,2,3,6,7,8-HxCDD	NA	
111	104	1,2,3,7,8,9-HxCDD	NA	
112	105	Total HxCDD	NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA	
115	108	Total HpCDF	NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA	
117	110	Total HpCDD	NA	
118	111	OCDF	NA	
119	112	OCDD	NA	
120				
121		**ETHANOL (mg/L)**	NA	
122				

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D
1				
2				
3			F	
4			Y314H	
5			8/18/98	
123		**PAHs (µg/L)**		
124		**EPA Method SW8270 SIM**		
125		Naphthalene	NA	
126		2-Methylnaphthalene	NA	
127		Acenaphthylene	NA	
128		Acenaphthene	NA	
129		Fluorene	NA	
130		Anthracene	NA	
131		Dibenzofuran	NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
3			H		H		H		H		H		H		H		H		H		H		H		H		H	
4			S177B		T176D		U235V		V208C		W371F		Y314A		Z225V		Z960X		AH27D		AU22A		BB82E		BH75K		BR55N	
5			4/1/97		7/15/97		10/23/97		1/28/98		5/18/98		8/17/98		11/13/98		2/16/99		5/17/99		9/20/99		12/6/99		2/15/00		5/23/00	
7	1	**CHLORINATED PHENOLS (µg/L)**																										
8	2	**EPA Method SW8040**																										
9	3	Pentachlorophenol	0.25	U	**0.16**	J1	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	**0.44**		0.25	U	0.25	U	**0.19**	J1	0.25	U	0.25	UJ
10	4	2,4,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
11	5	2,3,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
12	6	2,4,5-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
13	7	2,3,4-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
15	9	2,3,4,5-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
16	10																											
17	11	**SEMIVOLATILES (µg/L)**																										
18	12	**EPA Method SW8270**																										
19	13	Phenol	2.0	U	2.0	U	2.0	U	2.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
20	14	4-Methylphenol	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
21	15	Isophorone	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
22	16	2,4-Dimethylphenol	3.0	U	3.0	U	3.0	U	3.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
23	17	Benzoic Acid	10	U	10	U	10	U	10	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
24	18	Naphthalene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
25	19	2-Methylnaphthalene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
26	20	2,4,6-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
27	21	2,4,5-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
28	22	Acenaphthene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
29	23	Dibenzofuran	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
30	24	Fluorene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
31	25	Pentachlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
32	26	bis(2-Ethylhexyl)phthalate	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
33	27																											
34	28	**VOLATILES (µg/L)**																										
35	29	**EPA Method SW8260**																										
36	30	Acetone	5.0	U	5.0	U	5.0	U	5.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
37	31	Carbon Disulfide	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
38	32	2-Butanone	5.0	U	5.0	U	5.0	U	5.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
39	33	Benzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
40	34	Bromoform	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
41	35	Toluene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
42	36	Ethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
43	37	Styrene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
44	38	m,p-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
45	39	o-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
46	40	1,3,5-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
47	41	1,2,4-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
48	42	Isopropylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
49	43	n-Propylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
50	44	tert-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
51	45	sec-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
52	46	4-Isopropyltoluene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
53	47	n-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
54	48	Naphthalene	5.0	U	5.0	U	5.0	U	5.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
55	48.5	Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
56	49																											
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																										
58	51	**Method OR-DEQ**																										
59	52	**TPH-Diesel**	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
60	53	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
61	54	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
62	55																											
63	56	**PRIORITY POLLUTANT**																										
64	57	**METALS (mg/L)**																										
65	58	Arsenic (7060)	**0.013**		**0.019**		0.05	U	0.05	U	**0.013**		**0.013**		**0.015**		**0.023**		**0.023**		**0.020**		**0.012**		**0.020**		**0.019**	

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TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AC	AD	AE	AF	AG	AH
1							
2							
3		H		H		H	
4		CT37N		ED16K		FF88N	
5		2/12/01		2/25/02		2/13/03	
6							
7	**CHLORINATED PHENOLS (µg/L)**						
8	**EPA Method SW8040**						
9	Pentachlorophenol	0.25	U	0.26	U	0.25	U
10	2,4,6-Trichlorophenol	NA		NA		NA	
11	2,3,6-Trichlorophenol	NA		NA		NA	
12	2,4,5-Trichlorophenol	NA		NA		NA	
13	2,3,4-Trichlorophenol	NA		NA		NA	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA		NA	
15	2,3,4,5-Tetrachlorophenol	NA		NA		NA	
16							
17	**SEMIVOLATILES (µg/L)**						
18	**EPA Method SW8270**						
19	Phenol	NA		NA		NA	
20	4-Methylphenol	NA		NA		NA	
21	Isophorone	NA		NA		NA	
22	2,4-Dimethylphenol	NA		NA		NA	
23	Benzoic Acid	NA		NA		NA	
24	Naphthalene	NA		NA		NA	
25	2-Methylnaphthalene	NA		NA		NA	
26	2,4,6-Trichlorophenol	NA		NA		NA	
27	2,4,5-Trichlorophenol	NA		NA		NA	
28	Acenaphthene	NA		NA		NA	
29	Dibenzofuran	NA		NA		NA	
30	Fluorene	NA		NA		NA	
31	Pentachlorophenol	NA		NA		NA	
32	bis(2-Ethylhexyl)phthalate	NA		NA		NA	
33							
34	**VOLATILES (µg/L)**						
35	**EPA Method SW8260**						
36	Acetone	NA		NA		NA	
37	Carbon Disulfide	NA		NA		NA	
38	2-Butanone	NA		NA		NA	
39	Benzene	NA		NA		NA	
40	Bromoform	NA		NA		NA	
41	Toluene	NA		NA		NA	
42	Ethylbenzene	NA		NA		NA	
43	Styrene	NA		NA		NA	
44	m,p-Xylene	NA		NA		NA	
45	o-Xylene	NA		NA		NA	
46	1,3,5-Trimethylbenzene	NA		NA		NA	
47	1,2,4-Trimethylbenzene	NA		NA		NA	
48	Isopropylbenzene	NA		NA		NA	
49	n-Propylbenzene	NA		NA		NA	
50	tert-Butylbenzene	NA		NA		NA	
51	sec-Butylbenzene	NA		NA		NA	
52	4-Isopropyltoluene	NA		NA		NA	
53	n-Butylbenzene	NA		NA		NA	
54	Naphthalene	NA		NA		NA	
55	Methyl tert-butyl ether	NA		NA		NA	
56							
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**						
58	**Method OR-DEQ**						
59	**TPH-Diesel**	NA		NA		NA	
60	**TPH-D Motor Oil**	NA		NA		NA	
61	**TPH-Gasoline**	NA		NA		NA	
62							
63	**PRIORITY POLLUTANT**						
64	**METALS (mg/L)**						
65	Arsenic (7060)	**0.015**		**0.021**		**0.017**	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1																												
2																												
3			H		H		H		H		H		H		H		H		H		H		H		H		H	
4			S177B		T176D		U235V		V208C		W371F		Y314A		Z225V		Z960X		AH27D		AU22A		BB82E		BH75K		BR55N	
5			4/1/97		7/15/97		10/23/97		1/28/98		5/18/98		8/17/98		11/13/98		2/16/99		5/17/99		9/20/99		12/6/99		2/15/00		5/23/00	
66	59	Chromium (6010)	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U
67	60	Copper (6010)	**0.003**		**0.006**		0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	**0.010**		**0.011**		0.002	U	0.002	U	0.002	U	**0.003**	
68	61	Lead (7421)	0.001	U	**0.001**		0.02	U	0.02	U	0.001	U	0.001	U	0.001	U	0.001	U	**0.001**		0.001	U	0.001	U	0.001	U	0.001	U
69	62	Nickel (6010)	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
70	63	Zinc (6010)	0.004	U	**0.014**	J2	**0.010**		**0.005**		**0.004**	J2	**0.006**		0.004	U	**0.012**	J	0.019	U	**0.006**		0.006	U	0.006	U	0.006	U
71	64																											
72	65	**MAJOR IONS AND CONVENTIONALS**																										
73	66	Calcium (mg/L) (6010)	**22.4**		**27.7**		**25.4**		**24.9**		NA		NA		NA		NA		NA		NA		NA		NA		NA	
74	67	Magnesium (mg/L) (6010)	**7.80**		**9.86**		**8.80**		**8.27**		NA		NA		NA		NA		NA		NA		NA		NA		NA	
75	68	Potassium (mg/L) (6010)	**2.3**		**2.2**		**2.4**		**2.3**		NA		NA		NA		NA		NA		NA		NA		NA		NA	
76	69	Sodium (mg/L) (6010)	**5.41**		**6.27**		**5.92**		**5.70**		NA		NA		NA		NA		NA		NA		NA		NA		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	**100**		**110**		**110**		**120**		NA		NA		NA		NA		NA		NA		NA		NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	**100**		**110**		**110**		**120**		NA		NA		NA		NA		NA		NA		NA		NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	NT		**160**	J2	**140**		**150**		NA		NA		NA		NA		NA		NA		NA		NA		NA	
81	74	Chloride (mg/L) (EPA 325.2)	**1.5**		**2.0**		**2.7**		**1.6**		NA		NA		NA		NA		NA		NA		NA		NA		NA	
82	75	N-Nitrate (mg-N/L) (Calculated)	**0.016**		0.010	U	**0.011**		0.010	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	0.010	U	0.010	U	0.010	U	0.010	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	**0.016**		0.010	U	**0.011**		0.010	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	**4.8**	J	2.5	U	**3.6**		**6.3**		NA		NA		NA		NA		NA		NA		NA		NA		NA	
86	79																											

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TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AC	AD	AE	AF	AG	AH
1							
2							
3		H		H		H	
4		CT37N		ED16K		FF88N	
5		2/12/01		2/25/02		2/13/03	
66	Chromium (6010)	0.005	U	0.005	U	0.005	U
67	Copper (6010)	**0.004**		**0.007**		**0.004**	
68	Lead (7421)	0.001	U	**0.001**		0.001	U
69	Nickel (6010)	0.01	U	0.01	U	0.01	U
70	Zinc (6010)	0.006	U	**0.008**		**0.01**	
71							
72	**MAJOR IONS AND CONVENTIONALS**						
73	Calcium (mg/L) (6010)	NA		NA		NA	
74	Magnesium (mg/L) (6010)	NA		NA		NA	
75	Potassium (mg/L) (6010)	NA		NA		NA	
76	Sodium (mg/L) (6010)	NA		NA		NA	
77	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		NA	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA	
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA	
80	Total Dissolved Solids (mg/L) (EPA 160.1)	NA		NA		NA	
81	Chloride (mg/L) (EPA 325.2)	NA		NA		NA	
82	N-Nitrate (mg-N/L) (Calculated)	NA		NA		NA	
83	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		NA	
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		NA	
85	Sulfate (mg/L) (EPA 375.2)	NA		NA		NA	
86							

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1																												
2																												
3			H		H		H		H		H		H		H		H		H		H		H		H		H	
4			S177B		T176D		U235V		V208C		W371F		Y314A		Z225V		Z960X		AH27D		AU22A		BB82E		BH75K		BR55N	
5			4/1/97		7/15/97		10/23/97		1/28/98		5/18/98		8/17/98		11/13/98		2/16/99		5/17/99		9/20/99		12/6/99		2/15/00		5/23/00	
87	80	**FIELD PARAMETERS**																										
88	81	pH (avg)	6.77		6.85		7.02		6.85		6.37		6.56		6.41		7.07		7.07		7.07		6.26		6.64		6.58	
89	82	Temperature (° C) (avg)	13.7		15.1		15.1		14.4		15.0		14.8		14.4		14.3		14.3		14.3		14.5		13.5		14.2	
90	83	Conductivity (um/hos)	212		283		225		243		186		251		100		193		193		193		258		223		191	
91	84	Dissolved oxygen (mg/L) (avg)	NA		NA		NA		NA		NA		1.40		1.69		1.60		1.60		1.60		2.34		2.18		2.00	
92	85																											
93	86	**DIOXINS AND FURANS (ng/L)**																										
94	87	**Method 8290**																										
95	88	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
96	89	Total TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
97	90	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
98	91	Total TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
101	94	Total PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
103	96	Total PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
108	101	Total HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
112	105	Total HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
115	108	Total HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
117	110	Total HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
118	111	OCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
119	112	OCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
120																												
121		**ETHANOL (mg/L)**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
122																												

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AC	AD	AE	AF	AG	AH
1							
2							
3		H		H		H	
4		CT37N		ED16K		FF88N	
5		2/12/01		2/25/02		2/13/03	
87	**FIELD PARAMETERS**						
88	pH (avg)	6.54		6.29		7.01	
89	Temperature (° C) (avg)	13.3		13.4		14.9	
90	Conductivity (um/hos)	230		292		369	
91	Dissolved oxygen (mg/L) (avg)	3.06		4.89		0	
92							
93	**DIOXINS AND FURANS (ng/L)**						
94	**Method 8290**						
95	2,3,7,8-TCDF	NA		NA		NA	
96	Total TCDF	NA		NA		NA	
97	2,3,7,8-TCDD	NA		NA		NA	
98	Total TCDD	NA		NA		NA	
99	1,2,3,7,8-PeCDF	NA		NA		NA	
100	2,3,4,7,8-PeCDF	NA		NA		NA	
101	Total PeCDF	NA		NA		NA	
102	1,2,3,7,8-PeCDD	NA		NA		NA	
103	Total PeCDD	NA		NA		NA	
104	1,2,3,4,7,8-HxCDF	NA		NA		NA	
105	1,2,3,6,7,8-HxCDF	NA		NA		NA	
106	2,3,4,6,7,8-HxCDF	NA		NA		NA	
107	1,2,3,7,8,9-HxCDF	NA		NA		NA	
108	Total HxCDF	NA		NA		NA	
109	1,2,3,4,7,8-HxCDD	NA		NA		NA	
110	1,2,3,6,7,8-HxCDD	NA		NA		NA	
111	1,2,3,7,8,9-HxCDD	NA		NA		NA	
112	Total HxCDD	NA		NA		NA	
113	1,2,3,4,6,7,8-HpCDF	NA		NA		NA	
114	1,2,3,4,7,8,9-HpCDF	NA		NA		NA	
115	Total HpCDF	NA		NA		NA	
116	1,2,3,4,6,7,8-HpCDD	NA		NA		NA	
117	Total HpCDD	NA		NA		NA	
118	OCDF	NA		NA		NA	
119	OCDD	NA		NA		NA	
120							
121	**ETHANOL (mg/L)**	NA		NA		NA	
122							

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1																												
2																												
3			H		H		H		H		H		H		H		H		H		H		H		H		H	
4			S177B		T176D		U235V		V208C		W371F		Y314A		Z225V		Z960X		AH27D		AU22A		BB82E		BH75K		BR55N	
5			4/1/97		7/15/97		10/23/97		1/28/98		5/18/98		8/17/98		11/13/98		2/16/99		5/17/99		9/20/99		12/6/99		2/15/00		5/23/00	
123		**PAHs (µg/L)**																										
124		**EPA Method SW8270 SIM**																										
125		Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
126		2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
127		Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
128		Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
129		Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
130		Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
131		Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AC	AD	AE	AF	AG	AH
1							
2							
3		H		H		H	
4		CT37N		ED16K		FF88N	
5		2/12/01		2/25/02		2/13/03	
123	**PAHs (µg/L)**						
124	**EPA Method SW8270 SIM**						
125	Naphthalene	NA		NA		NA	
126	2-Methylnaphthalene	NA		NA		NA	
127	Acenaphthylene	NA		NA		NA	
128	Acenaphthene	NA		NA		NA	
129	Fluorene	NA		NA		NA	
130	Anthracene	NA		NA		NA	
131	Dibenzofuran	NA		NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
1																							
2					Dup of J1								Dup of J1										
3			J1		J1D		J1		J1		J1		J4		J1		J1		J1		J1		J1
4			S177H		S177I		T176P		U235J		V224O		V224K		W371N		Y314I		Z225O		Z960C		AH49C
5			4/2/97		4/2/97		7/16/97		10/22/97		1/29/98		1/29/98		5/19/98		8/18/98		11/12/98		2/17/99		5/18/99
6																							
7	1	**CHLORINATED PHENOLS (µg/L)**																					
8	2	**EPA Method SW8040**																					
9	3	Pentachlorophenol	**32**		**33**		**24**		**7.8**		**7.3**		**8.4**		**7.5**		**5.8**		**2.0**		**8.3**		**4.6**
10	4	2,4,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25
11	5	2,3,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25
12	6	2,4,5-Trichlorophenol	0.4	U	0.25	U	0.27	U	0.67	U	**0.29**		**0.22**	J1	**0.25**		0.25	U	0.25	U	0.25	U	0.25
13	7	2,3,4-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	**3.4**		**3.4**		**3.0**		**1.8**		**0.98**		**1.1**		**0.51**		**0.33**		0.25	U	**0.43**		0.17
15	9	2,3,4,5-Tetrachlorophenol	**0.94**		**0.70**		**0.5**		**0.28**		**0.23**	J1	**0.20**	J1	**0.16**	J1	**0.23**	J1	0.25	U	0.25	U	0.25
16	10																						
17	11	**SEMIVOLATILES (µg/L)**																					
18	12	**EPA Method SW8270**																					
19	13	Phenol	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0
20	14	4-Methylphenol	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
21	15	Isophorone	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
22	16	2,4-Dimethylphenol	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0
23	17	Benzoic Acid	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10
24	18	Naphthalene	1.0	U	1.0	U	**1.1**		**1.9**		**2.5**		**2.4**		**2.8**	J2	**1.4**		1.0	U	**3.6**		**2.4**
25	19	2-Methylnaphthalene	1.0	U	1.0	U	**1.1**		**1.8**		**2.6**		**2.4**		**2.9**	J2	**1.3**		1.0	U	**3.5**		**2.2**
26	20	2,4,6-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0
27	21	2,4,5-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0
28	22	Acenaphthene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
29	23	Dibenzofuran	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
30	24	Fluorene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
31	25	Pentachlorophenol	**44**		**52**		**20**		**11**		**11**		**8.8**		**10**		**6.5**		5.0	U	**12**		**4.4**
32	26	bis(2-Ethylhexyl)phthalate	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
33	27																						
34	28	**VOLATILES (µg/L)**																					
35	29	**EPA Method SW8260**																					
36	30	Acetone	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	9.9	U	5.0
37	31	Carbon Disulfide	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
38	32	2-Butanone	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0
39	33	Benzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
40	34	Bromoform	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
41	35	Toluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
42	36	Ethylbenzene	**6.5**		**5.9**		**12**		**7.5**		**4.0**		**3.3**		**8.4**		**5.5**		**2.5**		**6.2**		**1.9**
43	37	Styrene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
44	38	m,p-Xylene	**4.4**		**4.0**		**6.6**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
45	39	o-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
46	40	1,3,5-Trimethylbenzene	**4.9**		**4.1**		**6.1**		**3.8**		**4.0**	J2	**2.4**	J2	**5.2**		**2.7**		**2.1**		**4.4**		1.0
47	41	1,2,4-Trimethylbenzene	**41**		**36**		**47**		**37**	J2	**26**	J2	**19**	J2	**46**		**29**		**16**		**44**		**8.8**
48	42	Isopropylbenzene	**5.0**		**4.2**		**7.9**		**6.9**	J2	**4.2**	J2	**2.7**	J2	**7.7**		**6.6**		**4.8**		**7.6**		**2.1**
49	43	n-Propylbenzene	**8.7**		**7.2**		**14**		**14**		**8.0**	J2	**5.0**	J2	**14**		**11**		**7.5**		**12**		**3.4**
50	44	tert-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
51	45	sec-Butylbenzene	**1.6**		**1.4**		**2.2**		**1.8**	J2	**1.3**		1.0	U	**2.0**		**1.6**	J2	1.0	U	**2.6**		1.0
52	46	4-Isopropyltoluene	1.0	U	1.0	U	**1.0**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
53	47	n-Butylbenzene	**1.3**		**1.1**		**1.9**		**1.7**	J2	**1.1**		1.0	U	**2.0**		**1.3**		1.0	U	**1.2**		1.0
54	48	Naphthalene	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	**5.4**		5.0
55	48.5	Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
56	49																						
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																					
58	51	**Method OR-DEQ**																					
59	52	**TPH-Diesel**	**0.30**		0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	**0.52**		0.25
60	53	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
61	54	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
62	55																						
63	56	**PRIORITY POLLUTANT**																					
64	57	**METALS (mg/L)**																					
65	58	Arsenic (7060)	**0.007**		**0.006**		**0.006**		0.05	U	0.05	U	0.05	U	**0.008**		**0.007**		**0.008**		**0.007**		**0.006**

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW
3			J1		J1		J1		J1		J1		J1		J1		J1		J1		J1		J1		J1		J1
4			AU22H		BC27K		9912050-03A		BH96R		BR64D		CB49G		CL03H		CT55F		DE68I		DM52B		DW48C		ED23C		EM85D
5			9/20/99		12/8/99		12/8/1999 (d)		2/16/00		5/24/00		8/29/00		11/10/00		2/14/01		6/5/01		8/14/01		11/29/01		2/26/02		6/26/02
7	**CHLORINATED PHENOLS (µg/L)**																										
8	**EPA Method SW8040**																										
9	Pentachlorophenol		**1.7**		**0.94**		NA		**0.81**		**1.7**		0.25	U	0.25	U	**0.50**		**0.36**		0.25	U	**0.25**		NA		**4.4**
10	2,4,6-Trichlorophenol	U	0.25	U	0.25	U	NA		0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA
11	2,3,6-Trichlorophenol	U	0.25	U	0.25	U	NA		0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA
12	2,4,5-Trichlorophenol	U	0.25	U	0.25	U	NA		0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA
13	2,3,4-Trichlorophenol	U	0.25	U	0.25	U	NA		0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	J1	0.25	U	0.25	U	NA		0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA
15	2,3,4,5-Tetrachlorophenol	U	0.25	U	0.25	U	NA		0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA
16																											
17	**SEMIVOLATILES (µg/L)**																										
18	**EPA Method SW8270**																										
19	Phenol	U	2.0	U	2.0	U	NA		2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0
20	4-Methylphenol	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
21	Isophorone	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
22	2,4-Dimethylphenol	U	3.0	U	3.0	U	NA		3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0
23	Benzoic Acid	U	10	U	10	U	NA		10	U	10	U	10	U	10	U	10	U	10	U	10	U	30	U	50	U	50
24	Naphthalene		**1.1**		**0.7**	J1	NA		**1.4**		**3.6**		1.0	U	1.0	U	**2.9**		**1.3**		1.0	U	1.0	U	1.0	U	**1.4**
25	2-Methylnaphthalene		**1.2**		**0.5**	J1	NA		**1.2**		**3.3**		1.0	U	1.0	U	**3.0**		**1.5**		1.0	U	1.0	U	1.0	U	1.0
26	2,4,6-Trichlorophenol	U	5.0	U	5.0	U	NA		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0
27	2,4,5-Trichlorophenol	U	5.0	U	5.0	U	NA		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0
28	Acenaphthene	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
29	Dibenzofuran	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
30	Fluorene	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
31	Pentachlorophenol	J1	5.0	U	5.0	U	NA		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	**280**		5.0
32	bis(2-Ethylhexyl)phthalate	U	1.0	U	**0.6**	J1	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**25**		1.0	U	1.0	U	4.0	U	4.0
33																											
34	**VOLATILES (µg/L)**																										
35	**EPA Method SW8260**																										
36	Acetone	U	5.0	U	5.0	U	NA		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	12	U	5.0	U	5.0	U	5.0	U	**10**
37	Carbon Disulfide	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
38	2-Butanone	U	5.0	U	5.0	U	NA		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0
39	Benzene	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
40	Bromoform	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
41	Toluene	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
42	Ethylbenzene		**1.5**		1.0	U	NA		1.0	U	**3.4**		1.0	U	1.0	U	**1.2**		**1.2**		1.0	U	1.0	U	1.0	U	**1.1**
43	Styrene	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
44	m,p-Xylene	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**1.5**		1.0
45	o-Xylene	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**3.0**		1.0
46	1,3,5-Trimethylbenzene	U	**1.4**		1.0	U	NA		1.0	U	**3.0**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**6.4**		1.0
47	1,2,4-Trimethylbenzene		**6.4**		**2.4**		NA		**2.4**		**7.4**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**50**		1.0
48	Isopropylbenzene		**2.4**		**1.2**		NA		**1.3**		**8.2**		**1.5**		**2.5**		**3.3**		**4.7**		1.0	U	**1.3**		**3.5**		**8.4**
49	n-Propylbenzene		**4.4**		**1.9**		NA		**2.0**		**13**		**3.3**		**3.8**		**5.7**		**8.3**		**1.1**		**2.2**		**4.0**		**12**
50	tert-Butylbenzene	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
51	sec-Butylbenzene	U	1.0	U	1.0	U	NA		1.0	U	**1.6**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**1.0**
52	4-Isopropyltoluene	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**1.2**		1.0
53	n-Butylbenzene	U	1.0	U	1.0	U	NA		1.0	U	**1.4**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
54	Naphthalene	U	5.0	U	5.0	U	NA		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0
55	Methyl tert-butyl ether		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
56																											
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																										
58	**Method OR-DEQ**																										
59	**TPH-Diesel**	U	0.25	U	0.25	U	NA		0.25	U	0.25	(a)	0.25	U	0.25	U	**0.30**	(d)	NA		NA		NA		**2.1**		NA
60	**TPH-D Motor Oil**		NA		NA		NA		NA		NA		NA		0.50	U	NA		NA		NA		NA		NA		NA
61	**TPH-Gasoline**		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
62																											
63	**PRIORITY POLLUTANT**																										
64	**METALS (mg/L)**																										
65	Arsenic (7060)		**0.015**		**0.015**		NA		**0.013**		**0.011**		**0.010**		**0.012**		**0.010**		**0.011**		**0.014**		**0.013**		**0.012**		**0.014**

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TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL
3			J1		J1		J1		J1		J1		J1		J1	
4			ES04F		EZ03K		FF76J		FL58I		FU31A		FY64H		0402105-01	
5			08/28/02		11/12/02		2/12/03		5/8/03		8/27/03		10/21/03		2/20/04	
7	**CHLORINATED PHENOLS (µg/L)**															
8	**EPA Method SW8040**															
9	Pentachlorophenol		**3.1**		**0.57**		**0.35**		**0.73**		**1.3**		**0.65**		**1.13**	
10	2,4,6-Trichlorophenol		NA		NA		NA		NA		NA		NA		NA	
11	2,3,6-Trichlorophenol		NA		NA		NA		NA		NA		NA		NA	
12	2,4,5-Trichlorophenol		NA		NA		NA		NA		NA		NA		NA	
13	2,3,4-Trichlorophenol		NA		NA		NA		NA		NA		NA		NA	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol		NA		NA		NA		NA		NA		NA		NA	
15	2,3,4,5-Tetrachlorophenol		NA		NA		NA		NA		NA		NA		NA	
16																
17	**SEMIVOLATILES (µg/L)**															
18	**EPA Method SW8270**															
19	Phenol	U	2.3	U	2	U	2.1	U	2	U	2	U	2.1	U	1.93	UJ
20	4-Methylphenol	U	1.2	U	1	U	1	U	1	U	1	U	1.1	U	9.63	U
21	Isophorone	U	1.2	U	1	U	1	U	1	U	1	U	1.1	U	0.963	U
22	2,4-Dimethylphenol	U	3.5	U	3	U	3.1	U	3	U	3	U	3.2	U	2.89	U
23	Benzoic Acid	U	58	U	50	U	52	U	50	U	50	U	11	U	19.3	U
24	Naphthalene		1.2	U	**1**		1	U	1	U	**1.5**		**2.1**		**1.41**	
25	2-Methylnaphthalene	U	1.2	U	1	U	1	U	1	U	1	U	**1.4**		**1**	
26	2,4,6-Trichlorophenol	U	5.8	U	5	U	5.2	U	5	U	5	U	5.3	U	4.82	U
27	2,4,5-Trichlorophenol	U	5.8	U	5	U	5.2	U	5	U	5	U	5.3	U	4.82	U
28	Acenaphthene	U	1.2	U	1	U	1	U	1	U	1	U	1.1	U	0.963	U
29	Dibenzofuran	U	1.2	U	1	U	1	U	1	U	1	U	1.1	U	0.963	U
30	Fluorene	U	1.2	U	1	U	1	U	1	U	1	U	1.1	U	0.963	U
31	Pentachlorophenol	U	5.8	U	5	U	5.2	U	5	U	5	U	5.3	U	4.82	U
32	bis(2-Ethylhexyl)phthalate	U	4.7	U	4	U	1	U	1	U	1	U	1.1	U	0.963	U
33																
34	**VOLATILES (µg/L)**															
35	**EPA Method SW8260**															
36	Acetone	M	5	U	5	U	5	U	5	U	5	U	5	U	50	U
37	Carbon Disulfide	U	1	U	1	U	1	U	1	U	1	U	1	U	2	U
38	2-Butanone	U	5	U	5	U	5	U	5	U	5	U	5	U	10	U
39	Benzene	U	1	U	1	U	1	U	1	U	1	U	1	U	0.4	U
40	Bromoform	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
41	Toluene	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
42	Ethylbenzene		1	U	1	U	1	U	1	U	1	U	1	U	**2.82**	
43	Styrene	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
44	m,p-Xylene	U	1	U	1	U	1	U	1	U	1	U	1	U	2	U
45	o-Xylene	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
46	1,3,5-Trimethylbenzene	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
47	1,2,4-Trimethylbenzene	U	1	U	1	U	**4.5**		1	U	1	U	1	U	**6.76**	
48	Isopropylbenzene		**5.2**		**3.5**		**5.4**		**1.1**		**14**		**7.1**		**17**	
49	n-Propylbenzene		**7.8**		**4.9**		**7.9**		**1.5**		**21**		**11**		**21.7**	
50	tert-Butylbenzene	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
51	sec-Butylbenzene		1	U	1	U	**1.6**		1	U	**2**		1	U	**3.14**	
52	4-Isopropyltoluene	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
53	n-Butylbenzene	U	1	U	1	U	1	U	1	U	**1.7**		1	U	**1.74**	
54	Naphthalene	U	5	U	5	U	5	U	5	U	**5**		5	U	**4.77**	
55	Methyl tert-butyl ether		NA		NA		NA		NA		NA		NA		1	U
56																
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**															
58	**Method OR-DEQ**															
59	**TPH-Diesel**		NA		NA		**0.4**		NA		NA		NA		NA	
60	**TPH-D Motor Oil**		NA		NA		NA		NA		NA		NA		NA	
61	**TPH-Gasoline**		NA		NA		NA		NA		NA		NA		NA	
62																
63	**PRIORITY POLLUTANT**															
64	**METALS (mg/L)**															
65	Arsenic (7060)		**0.01**		0.05	U	**0.014**		**0.014**		**0.009**		**0.006**		**0.009**	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
1																							
2					Dup of J1								Dup of J1										
3			J1		J1D		J1		J1		J1		J4		J1		J1		J1		J1		J1
4			S177H		S177I		T176P		U235J		V224O		V224K		W371N		Y314I		Z225O		Z960C		AH49C
5			4/2/97		4/2/97		7/16/97		10/22/97		1/29/98		1/29/98		5/19/98		8/18/98		11/12/98		2/17/99		5/18/99
66	59	Chromium (6010)	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005
67	60	Copper (6010)	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002
68	61	Lead (7421)	0.001	U	0.001	U	0.001	U	0.02	U	0.02	U	0.02	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001
69	62	Nickel (6010)	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01
70	63	Zinc (6010)	0.004	U	0.004	U	0.004	U	0.004	U	**0.005**		**0.006**		0.004	U	**0.004**		0.004	U	**0.008**	J	**0.007**
71	64																						
72	65	**MAJOR IONS AND CONVENTIONALS**																					
73	66	Calcium (mg/L) (6010)	**26.4**		**26.7**		**26.1**		**27.5**		**30.8**		**30.5**		NA		NA		NA		**20.2**		NA
74	67	Magnesium (mg/L) (6010)	**10.1**		**10.2**		**9.96**		**10.1**		**10.9**		**10.8**		NA		NA		NA		**6.67**		NA
75	68	Potassium (mg/L) (6010)	**3.1**		**2.8**		**3.2**		**3.4**		**3.5**		**3.4**		NA		NA		NA		**3.1**		NA
76	69	Sodium (mg/L) (6010)	**7.40**		**7.47**		**8.13**		**8.29**		**8.49**		**8.46**		NA		NA		NA		**8.05**		NA
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	**120**		**120**		**100**	**J2**	**130**		**140**		**140**		NA		NA		NA		**74**		NA
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		1.0	U	NA
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	**120**		**120**		**100**	J2	**130**		**140**		**140**		NA		NA		NA		**74**		NA
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	NT		NT		**160**	J2	**180**		**170**		**170**		180		170		140		**140**		**150**
81	74	Chloride (mg/L) (EPA 325.2)	**4.3**		**5.4**		**3.4**		**2.5**		**2.3**		**2.2**		3.7		1.0	U	1.8		**3.7**		**3.7**
82	75	N-Nitrate (mg-N/L) (Calculated)	**0.057**		**0.011**		0.010	U	**0.025**		**1.8**	J2	**1.4**	J2	NA		NA		NA		**1.8**		NA
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	0.010	U	**0.01**	J	**0.016**	J2	0.010	U	0.010	UJ	0.010	UJ	NA		NA		NA		0.010	U	NA
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	**0.057**		**0.021**		**0.015**	J2	**0.025**		**1.8**	J2	**1.4**	J2	NA		NA		NA		**1.8**		NA
85	78	Sulfate (mg/L) (EPA 375.2)	**7.0**	J	**26**	J	**10**		**8.6**		**9.0**		**12**		NA		NA		NA		**15**		NA
86	79																						

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TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW
1																											
2																											
3			J1		J1		J1		J1		J1		J1		J1		J1		J1		J1		J1		J1		J1
4			AU22H		BC27K		9912050-03A		BH96R		BR64D		CB49G		CL03H		CT55F		DE68I		DM52B		DW48C		ED23C		EM85D
5			9/20/99		12/8/99		12/8/1999 (d)		2/16/00		5/24/00		8/29/00		11/10/00		2/14/01		6/5/01		8/14/01		11/29/01		2/26/02		6/26/02
66	Chromium (6010)	U	0.005	U	0.005	U	NA		0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005
67	Copper (6010)	U	0.002	U	0.002	U	NA		0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	**0.003**		0.002
68	Lead (7421)	U	0.001	U	**0.001**		NA		0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	**0.001**		0.001	U	0.001
69	Nickel (6010)	U	0.01	U	0.01	U	NA		0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	**0.01**		0.01
70	Zinc (6010)		0.004	U	0.006	U	NA		0.006	U	**0.006**		0.006	U	0.006	U	0.006	U	0.006	U	0.006	U	0.006	U	**0.007**		0.006
71																											
72	**MAJOR IONS AND CONVENTIONALS**																										
73	Calcium (mg/L) (6010)		NA		NA		NA		NA		NA		NA		NA		**20.6**		**20.5**		**22.7**		**21.1**		**29.4**		NA
74	Magnesium (mg/L) (6010)		NA		NA		NA		NA		NA		NA		NA		**7.21**		**7.38**		**8.65**		**7.62**		**10.1**		NA
75	Potassium (mg/L) (6010)		NA		NA		NA		NA		NA		NA		NA		**2.3**		**2.4**		**2.6**		**2.6**		**3.4**		NA
76	Sodium (mg/L) (6010)		NA		NA		NA		NA		NA		NA		NA		**6.48**		**6.15**		**6.58**		**6.56**		**8.36**		NA
77	Alkalinity (mg/L CaCO3) (SM 2320)		NA		NA		NA		NA		NA		NA		NA		**100**		NA		NA		NA		**130**		NA
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)		NA		NA		NA		NA		NA		NA		NA		1.0	U	NA		NA		NA		1.0	U	NA
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)		NA		NA		NA		NA		NA		NA		NA		**100**		NA		NA		NA		**130**		NA
80	Total Dissolved Solids (mg/L) (EPA 160.1)		**170**		**160**		NA		**200**		**160**		**160**		**160**		**150**		**160**		**150**		**140**		**210**		**160**
81	Chloride (mg/L) (EPA 325.2)		**2.6**		**3.1**		NA		**4.3**		**2.5**		**2.0**		**2.3**		**3.0**		**2.6**		**6.2**		**2.6**		**8.8**		**3.6**
82	N-Nitrate (mg-N/L) (Calculated)		NA		NA		NA		NA		NA		NA		NA		0.010	U	NA		NA		NA		**2.4**		NA
83	N-Nitrite (mg-N/L) (EPA 354.1)		NA		NA		NA		NA		NA		NA		NA		0.010	U	NA		NA		NA		**0.018**		NA
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)		NA		NA		NA		NA		NA		NA		NA		0.010	U	NA		NA		NA		**2.4**	J	NA
85	Sulfate (mg/L) (EPA 375.2)		NA		NA		NA		NA		NA		NA		NA		**10**		NA		NA		NA		**14**		NA
86																											

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL
1																
2																
3			J1		J1		J1		J1		J1		J1		J1	
4			ES04F		EZ03K		FF76J		FL58I		FU31A		FY64H		0402105-01	
5			08/28/02		11/12/02		2/12/03		5/8/03		8/27/03		10/21/03		2/20/04	
66	Chromium (6010)	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	**0.0232**	J
67	Copper (6010)	U	**0.003**		0.002	U	**0.004**		0.002	U	0.002	U	**0.002**		0.01	U
68	Lead (7421)	U	0.001	U	0.02	U	**0.002**		0.001	U	0.001	U	0.001	U	**0.0004**	
69	Nickel (6010)	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	**0.0151**	
70	Zinc (6010)	U	**0.007**		**0.006**		**0.007**		0.006	U	0.006	U	0.006	U	0.01	U
71																
72	**MAJOR IONS AND CONVENTIONALS**															
73	Calcium (mg/L) (6010)		NA		NA		**43.2**		NA		NA		NA		NA	
74	Magnesium (mg/L) (6010)		NA		NA		**16.8**		NA		NA		NA		NA	
75	Potassium (mg/L) (6010)		NA		NA		**3.1**		NA		NA		NA		NA	
76	Sodium (mg/L) (6010)		NA		NA		**8.7**		NA		NA		NA		NA	
77	Alkalinity (mg/L CaCO3) (SM 2320)		NA		NA		**130**		NA		NA		NA		NA	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)		NA		NA		1	U	NA		NA		NA		NA	
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)		NA		NA		**130**		NA		NA		NA		NA	
80	Total Dissolved Solids (mg/L) (EPA 160.1)		**160**		**180**		**260**		**150**		**220**		**190**		**240**	J
81	Chloride (mg/L) (EPA 325.2)		**3.2**		**3.5**		**2.9**		**3.8**		**2.3**		**2.2**		**2.76**	
82	N-Nitrate (mg-N/L) (Calculated)		NA		NA		**0.039**		NA		NA		NA		NA	
83	N-Nitrite (mg-N/L) (EPA 354.1)		NA		NA		**0.015**		NA		NA		NA		NA	
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)		NA		NA		**0.054**		NA		NA		NA		NA	
85	Sulfate (mg/L) (EPA 375.2)		NA		NA		**110**		NA		NA		NA		NA	
86																

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
1																							
2					Dup of J1								Dup of J1										
3			J1		J1D		J1		J1		J1		J4		J1		J1		J1		J1		J1
4			S177H		S177I		T176P		U235J		V224O		V224K		W371N		Y314I		Z225O		Z960C		AH49C
5			4/2/97		4/2/97		7/16/97		10/22/97		1/29/98		1/29/98		5/19/98		8/18/98		11/12/98		2/17/99		5/18/99
87	80	**FIELD PARAMETERS**																					
88	81	pH (avg)	6.75		6.75		6.62		6.75		6.66		6.65		6.56		6.35		6.17		6.43		5.77
89	82	Temperature (° C) (avg)	12.8		12.8		14.7		15.3		14.5		14.5		12.6		15.5		15.0		13.1		12.9
90	83	Conductivity (um/hos)	319		319		256		239		314		315		289		330		138		207		241
91	84	Dissolved oxygen (mg/L) (avg)	NA		NA		NA		NA		NA		NA		2.85		2.20		1.82		1.84		2.33
92	85																						
93	86	**DIOXINS AND FURANS (ng/L)**																					
94	87	**Method 8290**																					
95	88	2,3,7,8-TCDF	0.0057	U	0.0017	U	0.0023	U	0.0038	U	NA		NA		0.0017	U	0.0019	U	0.0019	U	0.0035	U	0.0011
96	89	Total TCDF	**0.0110**		0.0012-0.0034	U	0.0010-0.0058	U	0.0018-0.0064	U	NA		NA		0.0017	U	0.0019	U	0.0019	U	**0.0024**		0.0011
97	90	2,3,7,8-TCDD	0.0054	U	0.0028	U	0.0029	U	0.0053	U	NA		NA		0.0022	U	0.0050	U	0.0034	U	0.0057	U	0.0044
98	91	Total TCDD	0.0037-0.0087	U	0.0015-0.0049	U	0.0015-0.0050	U	0.0024-0.0087	U	NA		NA		0.0022	U	0.0050	U	**0.0016**		0.0057	U	0.0044
99	92	1,2,3,7,8-PeCDF	0.0029	U	0.0032	U	0.0051	U	0.0031	U	NA		NA		0.0019	U	0.0035	U	0.0020	U	0.0049	U	0.0021
100	93	2,3,4,7,8-PeCDF	0.0035	U	0.0031	U	0.0024	U	0.0046	U	NA		NA		0.0023	U	0.0037	U	0.0027	U	0.0042	U	0.0020
101	94	Total PeCDF	0.0029-0.0064	U	0.0013-0.0047	U	0.0036-0.0067	U	**0.0022**		NA		NA		0.0021	U	0.0036	U	0.0024	U	0.0046	U	0.0021
102	95	1,2,3,7,8-PeCDD	0.0080	U	0.0088	U	0.0048	U	0.0068	U	NA		NA		0.0041	U	0.0046	U	0.0022	U	0.0095	U	0.0027
103	96	Total PeCDD	0.0057-0.016	U	0.0033-0.010	U	0.0027-0.010	U	0.0039-0.012	U	NA		NA		0.0041	U	0.0046	U	0.0022	U	0.0095	U	0.0027
104	97	1,2,3,4,7,8-HxCDF	0.0054	U	0.0025	U	0.0048	U	0.0017	U	NA		NA		**0.0018**		0.0039	U	0.0018	U	0.0059	U	0.0024
105	98	1,2,3,6,7,8-HxCDF	0.0042	U	0.0042	U	0.0020	U	0.0035	U	NA		NA		0.0025	U	0.0036	U	0.0180	U	0.0024	U	**0.0015**
106	99	2,3,4,6,7,8-HxCDF	0.0052	U	0.0050	U	0.0038	U	0.0036	U	NA		NA		0.0041	U	0.0066	U	**0.0031**		0.0044	U	**0.0028**
107	100	1,2,3,7,8,9-HxCDF	0.0044	U	0.0040	U	0.0023	U	0.0026	U	NA		NA		0.0037	U	0.0032	U	0.0025	U	0.0056	U	0.0030
108	101	Total HxCDF	0.0052	U	0.0022-0.0063	U	0.0018-0.0071	U	0.0036	U	NA		NA		0.0072	U	**0.0031**		**0.0047**		0.0046	U	**0.0130**
109	102	1,2,3,4,7,8-HxCDD	0.0100	U	0.0058	U	0.0046	U	0.0072	U	NA		NA		0.0047	U	0.0032	U	0.0017	U	0.0085	U	0.0027
110	103	1,2,3,6,7,8-HxCDD	0.0100	U	0.0084	U	0.0068	U	0.0051	U	NA		NA		0.0039	U	0.0046	U	0.0015	U	0.0071	U	0.0031
111	104	1,2,3,7,8,9-HxCDD	0.0080	U	0.0073	U	0.0044	U	0.0041	U	NA		NA		0.0042	U	0.0037	U	0.0027	U	0.0041	U	0.0015
112	105	Total HxCDD	0.0047-0.014	U	0.0031-0.011	U	0.0025-0.011	U	0.0028-0.015	U	NA		NA		0.0043	U	0.0038	U	0.0020	U	0.0066	U	0.0024
113	106	1,2,3,4,6,7,8-HpCDF	0.0080	U	**0.0050**		**0.0031**		0.0021	U	NA		NA		0.0037	U	0.0180	U	0.0033	U	0.0023	U	**0.0018**
114	107	1,2,3,4,7,8,9-HpCDF	0.0089	U	0.0190	U	0.0063	U	0.0035	U	NA		NA		0.0055	U	0.0077	U	0.0039	U	0.0039	U	0.0023
115	108	Total HpCDF	0.0042-0.015	U	**0.0050**		**0.0110**		0.0011-0.0052	U	NA		NA		0.0046	U	0.0129	U	**0.0055**		0.0031	U	**0.0120**
116	109	1,2,3,4,6,7,8-HpCDD	0.0280	U	0.0250	U	**0.0089**		**0.0100**		NA		NA		0.0067	U	**0.0580**		**0.0067**		**0.0120**		**0.0070**
117	110	Total HpCDD	**0.0410**		0.0250	U	**0.0089**		**0.0100**		NA		NA		0.0067	U	**0.0058**		**0.0150**		**0.0250**		**0.0094**
118	111	OCDF	**0.0320**		**0.0300**		**0.0160**		0.0075	U	NA		NA		0.0110	U	**0.0074**		0.0110	U	**0.0180**		**0.0056**
119	112	OCDD	**0.2500**		**0.2300**		**0.0840**		0.0420	U	NA		NA		0.0210	U	**0.0490**		**0.0580**		**0.1600**		0.0530
120	113																						
121	114	**ETHANOL (mg/L)**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
122	115																						

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW
1																											
2																											
3			J1		J1		J1		J1		J1		J1		J1		J1		J1		J1		J1		J1		J1
4			AU22H		BC27K		9912050-03A		BH96R		BR64D		CB49G		CL03H		CT55F		DE68I		DM52B		DW48C		ED23C		EM85D
5			9/20/99		12/8/99		12/8/1999 (d)		2/16/00		5/24/00		8/29/00		11/10/00		2/14/01		6/5/01		8/14/01		11/29/01		2/26/02		6/26/02
87	**FIELD PARAMETERS**																										
88	pH (avg)		6.33		6.57		NM		6.59		6.38		6.58		5.27		6.17		6.64		6.85		6.60		6.42		6.52
89	Temperature (° C) (avg)		16.6		12.4		NM		14.3		14.8		15.6		14.4		14.3		13.6		15.8		14.6		13.6		15.4
90	Conductivity (um/hos)		222		245		NM		272		291		248		212		202		226		278		241		284		224
91	Dissolved oxygen (mg/L) (avg)		2.24		2.78		NM		1.57		1.74		1.62		1.09		0.57		1.51		1.44		3.88		6.41		4.98
92																											
93	**DIOXINS AND FURANS (ng/L)**																										
94	**Method 8290**																										
95	2,3,7,8-TCDF	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
96	Total TCDF	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
97	2,3,7,8-TCDD	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
98	Total TCDD	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
99	1,2,3,7,8-PeCDF	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
100	2,3,4,7,8-PeCDF	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
101	Total PeCDF	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
102	1,2,3,7,8-PeCDD	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
103	Total PeCDD	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
104	1,2,3,4,7,8-HxCDF	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
105	1,2,3,6,7,8-HxCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
106	2,3,4,6,7,8-HxCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
107	1,2,3,7,8,9-HxCDF	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
108	Total HxCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
109	1,2,3,4,7,8-HxCDD	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
110	1,2,3,6,7,8-HxCDD	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
111	1,2,3,7,8,9-HxCDD	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
112	Total HxCDD	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
113	1,2,3,4,6,7,8-HpCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
114	1,2,3,4,7,8,9-HpCDF	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
115	Total HpCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
116	1,2,3,4,6,7,8-HpCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
117	Total HpCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
118	OCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
119	OCDD	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
120																											
121	**ETHANOL (mg/L)**		NA		NA		10	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
122																											

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL
1																
2																
3			J1		J1		J1		J1		J1		J1		J1	
4			ES04F		EZ03K		FF76J		FL58I		FU31A		FY64H		0402105-01	
5			08/28/02		11/12/02		2/12/03		5/8/03		8/27/03		10/21/03		2/20/04	
87	**FIELD PARAMETERS**															
88	pH (avg)		6.79		6.4		6.9		6.6		6.46		6.80		6.23	
89	Temperature (° C) (avg)		15.7		15.6		13.7		13.7		15.8		17.8		14	
90	Conductivity (um/hos)		241		232		474		223		343		255		324	
91	Dissolved oxygen (mg/L) (avg)		1.34		3.21		0		3.1		2.23		1.65		1.21	
92																
93	**DIOXINS AND FURANS (ng/L)**															
94	**Method 8290**															
95	2,3,7,8-TCDF		NA		NA		NA		NA		NA		NA		NA	
96	Total TCDF		NA		NA		NA		NA		NA		NA		NA	
97	2,3,7,8-TCDD		NA		NA		NA		NA		NA		NA		NA	
98	Total TCDD		NA		NA		NA		NA		NA		NA		NA	
99	1,2,3,7,8-PeCDF		NA		NA		NA		NA		NA		NA		NA	
100	2,3,4,7,8-PeCDF		NA		NA		NA		NA		NA		NA		NA	
101	Total PeCDF		NA		NA		NA		NA		NA		NA		NA	
102	1,2,3,7,8-PeCDD		NA		NA		NA		NA		NA		NA		NA	
103	Total PeCDD		NA		NA		NA		NA		NA		NA		NA	
104	1,2,3,4,7,8-HxCDF		NA		NA		NA		NA		NA		NA		NA	
105	1,2,3,6,7,8-HxCDF		NA		NA		NA		NA		NA		NA		NA	
106	2,3,4,6,7,8-HxCDF		NA		NA		NA		NA		NA		NA		NA	
107	1,2,3,7,8,9-HxCDF		NA		NA		NA		NA		NA		NA		NA	
108	Total HxCDF		NA		NA		NA		NA		NA		NA		NA	
109	1,2,3,4,7,8-HxCDD		NA		NA		NA		NA		NA		NA		NA	
110	1,2,3,6,7,8-HxCDD		NA		NA		NA		NA		NA		NA		NA	
111	1,2,3,7,8,9-HxCDD		NA		NA		NA		NA		NA		NA		NA	
112	Total HxCDD		NA		NA		NA		NA		NA		NA		NA	
113	1,2,3,4,6,7,8-HpCDF		NA		NA		NA		NA		NA		NA		NA	
114	1,2,3,4,7,8,9-HpCDF		NA		NA		NA		NA		NA		NA		NA	
115	Total HpCDF		NA		NA		NA		NA		NA		NA		NA	
116	1,2,3,4,6,7,8-HpCDD		NA		NA		NA		NA		NA		NA		NA	
117	Total HpCDD		NA		NA		NA		NA		NA		NA		NA	
118	OCDF		NA		NA		NA		NA		NA		NA		NA	
119	OCDD		NA		NA		NA		NA		NA		NA		NA	
120																
121	**ETHANOL (mg/L)**		NA		NA		NA		NA		NA		NA		NA	
122																

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
1																							
2					Dup of J1								Dup of J1										
3			J1		J1D		J1		J1		J1		J4		J1		J1		J1		J1		J1
4			S177H		S177I		T176P		U235J		V224O		V224K		W371N		Y314I		Z225O		Z960C		AH49C
5			4/2/97		4/2/97		7/16/97		10/22/97		1/29/98		1/29/98		5/19/98		8/18/98		11/12/98		2/17/99		5/18/99
123	116	**PAHs (µg/L)**																					
124	117	**EPA Method SW8270 SIM**																					
125	118	Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
126	119	2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
127	120	Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
128	121	Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
129	122	Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
130	123	Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
131	124	Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW
1																											
2																											
3			J1		J1		J1		J1		J1		J1		J1		J1		J1		J1		J1		J1		J1
4			AU22H		BC27K		9912050-03A		BH96R		BR64D		CB49G		CL03H		CT55F		DE68I		DM52B		DW48C		ED23C		EM85D
5			9/20/99		12/8/99		12/8/1999 (d)		2/16/00		5/24/00		8/29/00		11/10/00		2/14/01		6/5/01		8/14/01		11/29/01		2/26/02		6/26/02
123	**PAHs (µg/L)**																										
124	**EPA Method SW8270 SIM**																										
125	Naphthalene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
126	2-Methylnaphthalene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
127	Acenaphthylene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
128	Acenaphthene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
129	Fluorene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
130	Anthracene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
131	Dibenzofuran		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL
1																
2																
3			J1		J1		J1		J1		J1		J1		J1	
4			ES04F		EZ03K		FF76J		FL58I		FU31A		FY64H		0402105-01	
5			08/28/02		11/12/02		2/12/03		5/8/03		8/27/03		10/21/03		2/20/04	
123	**PAHs (µg/L)**															
124	**EPA Method SW8270 SIM**															
125	Naphthalene		NA		NA		NA		NA		NA		NA		NA	
126	2-Methylnaphthalene		NA		NA		NA		NA		NA		NA		NA	
127	Acenaphthylene		NA		NA		NA		NA		NA		NA		NA	
128	Acenaphthene		NA		NA		NA		NA		NA		NA		NA	
129	Fluorene		NA		NA		NA		NA		NA		NA		NA	
130	Anthracene		NA		NA		NA		NA		NA		NA		NA	
131	Dibenzofuran		NA		NA		NA		NA		NA		NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
1																											
2													Dup of K								Dup of K						
3			K		K		K		K		K		W		K		K		K		Z		K		K		K
4			S177A		T176U		U235X		V208E		W391J		W391K		Y314L		Z225U		Z960W		Z960V		AH27C		BB82B		BH75J
5			4/1/97		7/16/97		10/23/97		1/28/98		5/19/98		5/19/98		8/17/98		11/13/98		2/16/99		2/16/99		5/17/99		12/6/99		2/15/00
7	1	**CHLORINATED PHENOLS (µg/L)**																									
8	2	**EPA Method SW8040**																									
9	3	Pentachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA
10	4	2,4,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA
11	5	2,3,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA
12	6	2,4,5-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA
13	7	2,3,4-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA
15	9	2,3,4,5-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA
16	10																										
17	11	**SEMIVOLATILES (µg/L)**																									
18	12	**EPA Method SW8270**																									
19	13	Phenol	2.0	UJ	2.0	U	2.0	U	2.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA
20	14	4-Methylphenol	1.0	UJ	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA
21	15	Isophorone	1.0	UJ	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA
22	16	2,4-Dimethylphenol	3.0	UJ	3.0	U	3.0	U	3.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA
23	17	Benzoic Acid	10	UJ	10	U	10	U	10	U	NA		NA		NA		NA		NA		NA		NA		NA		NA
24	18	Naphthalene	1.0	UJ	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA
25	19	2-Methylnaphthalene	1.0	UJ	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA
26	20	2,4,6-Trichlorophenol	5.0	UJ	5.0	U	5.0	U	5.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA
27	21	2,4,5-Trichlorophenol	5.0	UJ	5.0	U	5.0	U	5.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA
28	22	Acenaphthene	1.0	UJ	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA
29	23	Dibenzofuran	1.0	UJ	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA
30	24	Fluorene	1.0	UJ	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA
31	25	Pentachlorophenol	5.0	UJ	5.0	U	5.0	U	5.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA
32	26	bis(2-Ethylhexyl)phthalate	1.0	UJ	1.0	U	3.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA
33	27																										
34	28	**VOLATILES (µg/L)**																									
35	29	**EPA Method SW8260**																									
36	30	Acetone	5.0	U	5.0	U	5.0	U	5.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA
37	31	Carbon Disulfide	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA
38	32	2-Butanone	5.0	U	5.0	U	5.0	U	5.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA
39	33	Benzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA
40	34	Bromoform	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA
41	35	Toluene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA
42	36	Ethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA
43	37	Styrene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA
44	38	m,p-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA
45	39	o-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA
46	40	1,3,5-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA
47	41	1,2,4-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA
48	42	Isopropylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA
49	43	n-Propylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA
50	44	tert-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA				NA
51	45	sec-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA
52	46	4-Isopropyltoluene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA
53	47	n-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA
54	48	Naphthalene	5.0	U	5.0	U	5.0	U	5.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA
55	48.5	Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
56	49																										
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																									
58	51	**Method OR-DEQ**																									
59	52	**TPH-Diesel**	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA
60	53	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
61	54	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
62	55																										
63	56	**PRIORITY POLLUTANT**																									
64	57	**METALS (mg/L)**																									
65	58	Arsenic (7060)	0.001	U	**0.001**		0.05	U	0.05	U	**0.001**		0.001	U	0.001	U	0.001	U	0.001	U	**0.001**		0.001	U	**0.004**		**0.010**

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB
1																												
2																												
3			K		K		K		K		K		K		K		K		K		K		K		K		K	
4			BR55O		CB49K		CK77L		CT37O		DE68D		DM52K		DW29I		ED16H		EM75F		ER92B		EZ03J		FF88G		FL41C	
5			5/23/00		8/28/00		11/7/00		2/12/01		6/4/01		8/15/01		11/27/01		2/25/02		6/25/02		08/26/02		11/12/02		2/13/03		5/7/03	
7	**CHLORINATED PHENOLS (µg/L)**																											
8	**EPA Method SW8040**																											
9	Pentachlorophenol		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
10	2,4,6-Trichlorophenol		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
11	2,3,6-Trichlorophenol		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
12	2,4,5-Trichlorophenol		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
13	2,3,4-Trichlorophenol		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
15	2,3,4,5-Tetrachlorophenol		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
16																												
17	**SEMIVOLATILES (µg/L)**																											
18	**EPA Method SW8270**																											
19	Phenol		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
20	4-Methylphenol		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
21	Isophorone		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
22	2,4-Dimethylphenol		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
23	Benzoic Acid		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
24	Naphthalene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
25	2-Methylnaphthalene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
26	2,4,6-Trichlorophenol		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
27	2,4,5-Trichlorophenol		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
28	Acenaphthene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
29	Dibenzofuran		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
30	Fluorene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
31	Pentachlorophenol		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
32	bis(2-Ethylhexyl)phthalate		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
33																												
34	**VOLATILES (µg/L)**																											
35	**EPA Method SW8260**																											
36	Acetone		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
37	Carbon Disulfide		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
38	2-Butanone		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
39	Benzene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
40	Bromoform		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
41	Toluene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
42	Ethylbenzene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
43	Styrene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
44	m,p-Xylene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
45	o-Xylene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
46	1,3,5-Trimethylbenzene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
47	1,2,4-Trimethylbenzene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
48	Isopropylbenzene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
49	n-Propylbenzene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
50	tert-Butylbenzene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
51	sec-Butylbenzene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
52	4-Isopropyltoluene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
53	n-Butylbenzene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
54	Naphthalene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
55	Methyl tert-butyl ether		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
56																												
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																											
58	**Method OR-DEQ**																											
59	**TPH-Diesel**		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
60	**TPH-D Motor Oil**		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
61	**TPH-Gasoline**		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
62																												
63	**PRIORITY POLLUTANT**																											
64	**METALS (mg/L)**																											
65	Arsenic (7060)		0.001	U	0.001	U	0.001	U	**0.001**		0.001	U	**0.001**		0.001	U	**0.001**		**0.002**		0.001	U	0.05	U	0.001	U	**0.001**	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BC	BD	BE	BF	BG	BH
1							
2							
3		K		K		K	
4		FU45B		FY64G		0402098-01	
5		8/28/03		10/21/03		2/19/04	
6							
7	**CHLORINATED PHENOLS (µg/L)**						
8	**EPA Method SW8040**						
9	Pentachlorophenol	NA		NA		NA	
10	2,4,6-Trichlorophenol	NA		NA		NA	
11	2,3,6-Trichlorophenol	NA		NA		NA	
12	2,4,5-Trichlorophenol	NA		NA		NA	
13	2,3,4-Trichlorophenol	NA		NA		NA	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA		NA	
15	2,3,4,5-Tetrachlorophenol	NA		NA		NA	
16							
17	**SEMIVOLATILES (µg/L)**						
18	**EPA Method SW8270**						
19	Phenol	NA		NA		NA	
20	4-Methylphenol	NA		NA		NA	
21	Isophorone	NA		NA		NA	
22	2,4-Dimethylphenol	NA		NA		NA	
23	Benzoic Acid	NA		NA		NA	
24	Naphthalene	NA		NA		NA	
25	2-Methylnaphthalene	NA		NA		NA	
26	2,4,6-Trichlorophenol	NA		NA		NA	
27	2,4,5-Trichlorophenol	NA		NA		NA	
28	Acenaphthene	NA		NA		NA	
29	Dibenzofuran	NA		NA		NA	
30	Fluorene	NA		NA		NA	
31	Pentachlorophenol	NA		NA		NA	
32	bis(2-Ethylhexyl)phthalate	NA		NA		NA	
33							
34	**VOLATILES (µg/L)**						
35	**EPA Method SW8260**						
36	Acetone	NA		NA		NA	
37	Carbon Disulfide	NA		NA		NA	
38	2-Butanone	NA		NA		NA	
39	Benzene	NA		NA		0.4	U
40	Bromoform	NA		NA		NA	
41	Toluene	NA		NA		1	U
42	Ethylbenzene	NA		NA		1	U
43	Styrene	NA		NA		NA	
44	m,p-Xylene	NA		NA		2	U
45	o-Xylene	NA		NA		1	U
46	1,3,5-Trimethylbenzene	NA		NA		NA	
47	1,2,4-Trimethylbenzene	NA		NA		NA	
48	Isopropylbenzene	NA		NA		NA	
49	n-Propylbenzene	NA		NA		NA	
50	tert-Butylbenzene	NA		NA		NA	
51	sec-Butylbenzene	NA		NA		NA	
52	4-Isopropyltoluene	NA		NA		NA	
53	n-Butylbenzene	NA		NA		NA	
54	Naphthalene	NA		NA		NA	
55	Methyl tert-butyl ether	NA		1	U	NA	
56							
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**						
58	**Method OR-DEQ**						
59	**TPH-Diesel**	NA		NA		NA	
60	**TPH-D Motor Oil**	NA		NA		NA	
61	**TPH-Gasoline**	NA		0.25	U	0.1	U
62							
63	**PRIORITY POLLUTANT**						
64	**METALS (mg/L)**						
65	Arsenic (7060)	**0.002**		0.001	U	NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
1																											
2													Dup of K								Dup of K						
3			K		K		K		K		K		W		K		K		K		Z		K		K		K
4			S177A		T176U		U235X		V208E		W391J		W391K		Y314L		Z225U		Z960W		Z960V		AH27C		BB82B		BH75J
5			4/1/97		7/16/97		10/23/97		1/28/98		5/19/98		5/19/98		8/17/98		11/13/98		2/16/99		2/16/99		5/17/99		12/6/99		2/15/00
66	59	Chromium (6010)	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	**0.028**		**0.117**
67	60	Copper (6010)	**0.006**		**0.008**		0.002	U	**0.013**		**0.005**		**0.005**		**0.003**		0.002	U	**0.007**		**0.006**		**0.004**		**0.011**		**0.042**
68	61	Lead (7421)	0.001	U	0.001	U	0.02	U	0.02	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	**0.007**		**0.010**
69	62	Nickel (6010)	**0.03**		**0.04**		**0.13**		**0.10**		**0.04**		0.03		**0.01**		**0.07**		**0.06**		**0.06**		**0.03**		**0.27**		**0.17**
70	63	Zinc (6010)	**0.025**		**0.042**		**0.051**		**0.128**		**0.045**	J2	**0.045**	J2	**0.008**		**0.036**		**0.052**		**0.053**		0.020	U	**0.111**		**0.155**
71	64																										
72	65	**MAJOR IONS AND CONVENTIONALS**																									
73	66	Calcium (mg/L) (6010)	NA		NA		NA		**36.6**		NA		NA		NA		NA		NA		NA		NA		NA		NA
74	67	Magnesium (mg/L) (6010)	NA		NA		NA		**8.47**		NA		NA		NA		NA		NA		NA		NA		NA		NA
75	68	Potassium (mg/L) (6010)	NA		NA		NA		**5.4**		NA		NA		NA		NA		NA		NA		NA		NA		NA
76	69	Sodium (mg/L) (6010)	NA		NA		NA		**5.50**		NA		NA		NA		NA		NA		NA		NA		NA		NA
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		NA		**370**		NA		NA		NA		NA		NA		NA		NA		NA		NA
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	NT		**130**	J2	**650**		**370**		NA		NA		NA		NA		NA		NA		NA		NA		NA
81	74	Chloride (mg/L) (EPA 325.2)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
82	75	N-Nitrate (mg-N/L) (Calculated)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
85	78	Sulfate (mg/L) (EPA 375.2)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
86	79																										

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB
1																												
2																												
3			K		K		K		K		K		K		K		K		K		K		K		K		K	
4			BR55O		CB49K		CK77L		CT37O		DE68D		DM52K		DW29I		ED16H		EM75F		ER92B		EZ03J		FF88G		FL41C	
5			5/23/00		8/28/00		11/7/00		2/12/01		6/4/01		8/15/01		11/27/01		2/25/02		6/25/02		08/26/02		11/12/02		2/13/03		5/7/03	
66	Chromium (6010)		0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	**0.009**		0.005	U	0.005	U	0.005	U	0.005	U
67	Copper (6010)		**0.002**		**0.004**		**0.004**	J2	**0.002**		0.002	U	**0.002**		**0.003**		**0.012**		**0.010**		**0.004**		**0.006**		**0.003**		**0.007**	
68	Lead (7421)		0.001	U	0.001	U	**0.001**		0.001	U	0.001	U	0.001	U	0.001	U	**0.001**		**0.003**		0.001	U	0.02	U	0.001	U	0.001	U
69	Nickel (6010)		**0.01**		**0.01**		**0.03**		**0.03**		**0.02**		**0.03**		**0.05**		**0.03**		**0.08**		**0.02**		**0.05**		**0.1**		**0.04**	
70	Zinc (6010)		**0.014**		**0.006**		**0.009**		**0.009**		**0.006**		**0.007**		**0.013**		**0.029**		**0.040**		**0.009**		**0.01**		**0.059**		**0.05**	J
71																												
72	**MAJOR IONS AND CONVENTIONALS**																											
73	Calcium (mg/L) (6010)		NA		NA		NA		NA		**65.3**		**40.3**		**79.8**		NA		NA		NA		NA		NA		NA	
74	Magnesium (mg/L) (6010)		NA		NA		NA		NA		**16.0**		**13.7**		**18.2**		NA		NA		NA		NA		NA		NA	
75	Potassium (mg/L) (6010)		NA		NA		NA		NA		**6.9**		**4.4**		**7.6**		NA		NA		NA		NA		NA		NA	
76	Sodium (mg/L) (6010)		NA		NA		NA		NA		**11.2**		**8.24**		**12.2**		NA		NA		NA		NA		NA		NA	
77	Alkalinity (mg/L CaCO3) (SM 2320)		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
80	Total Dissolved Solids (mg/L) (EPA 160.1)		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
81	Chloride (mg/L) (EPA 325.2)		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
82	N-Nitrate (mg-N/L) (Calculated)		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
83	N-Nitrite (mg-N/L) (EPA 354.1)		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
85	Sulfate (mg/L) (EPA 375.2)		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
86																												

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BC	BD	BE	BF	BG	BH
1							
2							
3		K		K		K	
4		FU45B		FY64G		0402098-01	
5		8/28/03		10/21/03		2/19/04	
66	Chromium (6010)	**0.006**		0.005	U	NA	
67	Copper (6010)	**0.012**		**0.006**		NA	
68	Lead (7421)	**0.005**		0.001	U	NA	
69	Nickel (6010)	**0.04**		**0.03**		NA	
70	Zinc (6010)	**0.029**		**0.014**		NA	
71							
72	**MAJOR IONS AND CONVENTIONALS**						
73	Calcium (mg/L) (6010)	NA		NA		NA	
74	Magnesium (mg/L) (6010)	NA		NA		NA	
75	Potassium (mg/L) (6010)	NA		NA		NA	
76	Sodium (mg/L) (6010)	NA		NA		NA	
77	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		NA	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA	
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA	
80	Total Dissolved Solids (mg/L) (EPA 160.1)	NA		NA		NA	
81	Chloride (mg/L) (EPA 325.2)	NA		NA		NA	
82	N-Nitrate (mg-N/L) (Calculated)	NA		NA		NA	
83	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		NA	
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		NA	
85	Sulfate (mg/L) (EPA 375.2)	NA		NA		NA	
86							

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
1																											
2													Dup of K								Dup of K						
3			K		K		K		K		K		W		K		K		K		Z		K		K		K
4			S177A		T176U		U235X		V208E		W391J		W391K		Y314L		Z225U		Z960W		Z960V		AH27C		BB82B		BH75J
5			4/1/97		7/16/97		10/23/97		1/28/98		5/19/98		5/19/98		8/17/98		11/13/98		2/16/99		2/16/99		5/17/99		12/6/99		2/15/00
87	80	**FIELD PARAMETERS**																									
88	81	pH (avg)	5.70		5.88		5.68		5.22		5.14		5.15		5.37		5.23		4.89		4.87		4.86		4.91		5.40
89	82	Temperature (° C) (avg)	12.0		17.4		16.8		12.7		13.9		13.8		17.6		15.2		12.1		11.9		14.1		14.7		11.9
90	83	Conductivity (um/hos)	157		155		677		382		187		185		130		175		184		187		114		1790		259
91	84	Dissolved oxygen (mg/L) (avg)	NA		NA		NA		NA		3.50		3.50		2.23		2.20		2.79		2.79		2.38		2.90		5.01
92	85																										
93	86	**DIOXINS AND FURANS (ng/L)**																									
94	87	**Method 8290**																									
95	88	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
96	89	Total TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
97	90	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
98	91	Total TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
99	92	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
100	93	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
101	94	Total PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
102	95	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
103	96	Total PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
108	101	Total HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
112	105	Total HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
115	108	Total HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
117	110	Total HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
118	111	OCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
119	112	OCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
120																											
121		**ETHANOL (mg/L)**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
122																											

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB
1																												
2																												
3			K		K		K		K		K		K		K		K		K		K		K		K		K	
4			BR55O		CB49K		CK77L		CT37O		DE68D		DM52K		DW29I		ED16H		EM75F		ER92B		EZ03J		FF88G		FL41C	
5			5/23/00		8/28/00		11/7/00		2/12/01		6/4/01		8/15/01		11/27/01		2/25/02		6/25/02		08/26/02		11/12/02		2/13/03		5/7/03	
87	**FIELD PARAMETERS**																											
88	pH (avg)		5.34		5.63		5.05		6.09		6.22		6.92		5.98		5.05		5.83		5.77		6.21		6.35		6.05	
89	Temperature (° C) (avg)		14.0		16.0		15.3		13.0		13.6		15.4		14.6		11.1		15.2		15.8		16		13.9		13.3	
90	Conductivity (um/hos)		157		161		323		694		531		350		645		78		199		157		325		835		143	
91	Dissolved oxygen (mg/L) (avg)		1.99		1.78		2.36		3.15		1.80		3.01		3.35		5.92		4.91		0.91		0.66		0		4.61	
92																												
93	**DIOXINS AND FURANS (ng/L)**																											
94	**Method 8290**																											
95	2,3,7,8-TCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
96	Total TCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
97	2,3,7,8-TCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
98	Total TCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
99	1,2,3,7,8-PeCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
100	2,3,4,7,8-PeCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
101	Total PeCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
102	1,2,3,7,8-PeCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
103	Total PeCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
104	1,2,3,4,7,8-HxCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
105	1,2,3,6,7,8-HxCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
106	2,3,4,6,7,8-HxCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
107	1,2,3,7,8,9-HxCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
108	Total HxCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
109	1,2,3,4,7,8-HxCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
110	1,2,3,6,7,8-HxCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
111	1,2,3,7,8,9-HxCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
112	Total HxCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
113	1,2,3,4,6,7,8-HpCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
114	1,2,3,4,7,8,9-HpCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
115	Total HpCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
116	1,2,3,4,6,7,8-HpCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
117	Total HpCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
118	OCDF		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
119	OCDD		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
120																												
121	**ETHANOL (mg/L)**		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
122																												

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BC	BD	BE	BF	BG	BH
1							
2							
3		K		K		K	
4		FU45B		FY64G		0402098-01	
5		8/28/03		10/21/03		2/19/04	
87	**FIELD PARAMETERS**						
88	pH (avg)	6.25		6.37		5.18	
89	Temperature (° C) (avg)	15.9		17.3		11.4	
90	Conductivity (um/hos)	193		250		109	
91	Dissolved oxygen (mg/L) (avg)	2.26		2.57		6.06	
92							
93	**DIOXINS AND FURANS (ng/L)**						
94	**Method 8290**						
95	2,3,7,8-TCDF	NA		NA		NA	
96	Total TCDF	NA		NA		NA	
97	2,3,7,8-TCDD	NA		NA		NA	
98	Total TCDD	NA		NA		NA	
99	1,2,3,7,8-PeCDF	NA		NA		NA	
100	2,3,4,7,8-PeCDF	NA		NA		NA	
101	Total PeCDF	NA		NA		NA	
102	1,2,3,7,8-PeCDD	NA		NA		NA	
103	Total PeCDD	NA		NA		NA	
104	1,2,3,4,7,8-HxCDF	NA		NA		NA	
105	1,2,3,6,7,8-HxCDF	NA		NA		NA	
106	2,3,4,6,7,8-HxCDF	NA		NA		NA	
107	1,2,3,7,8,9-HxCDF	NA		NA		NA	
108	Total HxCDF	NA		NA		NA	
109	1,2,3,4,7,8-HxCDD	NA		NA		NA	
110	1,2,3,6,7,8-HxCDD	NA		NA		NA	
111	1,2,3,7,8,9-HxCDD	NA		NA		NA	
112	Total HxCDD	NA		NA		NA	
113	1,2,3,4,6,7,8-HpCDF	NA		NA		NA	
114	1,2,3,4,7,8,9-HpCDF	NA		NA		NA	
115	Total HpCDF	NA		NA		NA	
116	1,2,3,4,6,7,8-HpCDD	NA		NA		NA	
117	Total HpCDD	NA		NA		NA	
118	OCDF	NA		NA		NA	
119	OCDD	NA		NA		NA	
120							
121	**ETHANOL (mg/L)**	NA		NA		NA	
122							

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
1																											
2													Dup of K								Dup of K						
3			K		K		K		K		K		W		K		K		K		Z		K		K		K
4			S177A		T176U		U235X		V208E		W391J		W391K		Y314L		Z225U		Z960W		Z960V		AH27C		BB82B		BH75J
5			4/1/97		7/16/97		10/23/97		1/28/98		5/19/98		5/19/98		8/17/98		11/13/98		2/16/99		2/16/99		5/17/99		12/6/99		2/15/00
123		**PAHs (µg/L)**																									
124		**EPA Method SW8270 SIM**																									
125		Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
126		2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
127		Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
128		Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
129		Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
130		Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
131		Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB
1																												
2																												
3			K		K		K		K		K		K		K		K		K		K		K		K		K	
4			BR55O		CB49K		CK77L		CT37O		DE68D		DM52K		DW29I		ED16H		EM75F		ER92B		EZ03J		FF88G		FL41C	
5			5/23/00		8/28/00		11/7/00		2/12/01		6/4/01		8/15/01		11/27/01		2/25/02		6/25/02		08/26/02		11/12/02		2/13/03		5/7/03	
123	**PAHs (µg/L)**																											
124	**EPA Method SW8270 SIM**																											
125	Naphthalene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
126	2-Methylnaphthalene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
127	Acenaphthylene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
128	Acenaphthene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
129	Fluorene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
130	Anthracene		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
131	Dibenzofuran		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BC	BD	BE	BF	BG	BH
1							
2							
3		K		K		K	
4		FU45B		FY64G		0402098-01	
5		8/28/03		10/21/03		2/19/04	
123	**PAHs (µg/L)**						
124	**EPA Method SW8270 SIM**						
125	Naphthalene	NA		0.1	U	NA	
126	2-Methylnaphthalene	NA		0.1	U	NA	
127	Acenaphthylene	NA		0.1	U	NA	
128	Acenaphthene	NA		0.1	U	NA	
129	Fluorene	NA		0.1	U	NA	
130	Anthracene	NA		0.1	U	NA	
131	Dibenzofuran	NA		0.1	U	NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
3			L		L		L		L		L		L		L		L		L		L		L		L		L
4			S167H		T176A		U258B		V232H		W371E		Y336F		Z225F		Z960B		AH49E		AU22C		BC27A		BH75I		BR64H
5			4/1/97		7/15/97		10/23/97		1/30/98		5/18/98		8/18/98		11/13/98		2/16/99		5/18/99		9/20/99		12/7/99		2/15/00		5/24/00
7	1	**CHLORINATED PHENOLS (µg/L)**																									
8	2	**EPA Method SW8040**																									
9	3	Pentachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25
10	4	2,4,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25
11	5	2,3,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25
12	6	2,4,5-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25
13	7	2,3,4-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25
15	9	2,3,4,5-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25
16	10																										
17	11	**SEMIVOLATILES (µg/L)**																									
18	12	**EPA Method SW8270**																									
19	13	Phenol	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0
20	14	4-Methylphenol	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
21	15	Isophorone	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
22	16	2,4-Dimethylphenol	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0
23	17	Benzoic Acid	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10
24	18	Naphthalene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
25	19	2-Methylnaphthalene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
26	20	2,4,6-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0
27	21	2,4,5-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0
28	22	Acenaphthene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
29	23	Dibenzofuran	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
30	24	Fluorene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
31	25	Pentachlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0
32	26	bis(2-Ethylhexyl)phthalate	1.0	UJ	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
33	27																										
34	28	**VOLATILES (µg/L)**																									
35	29	**EPA Method SW8260**																									
36	30	Acetone	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0
37	31	Carbon Disulfide	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
38	32	2-Butanone	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0
39	33	Benzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
40	34	Bromoform	1.0	U	1.0	U	1.0	U	1.0	U	**2.0**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
41	35	Toluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
42	36	Ethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
43	37	Styrene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
44	38	m,p-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
45	39	o-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
46	40	1,3,5-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
47	41	1,2,4-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
48	42	Isopropylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
49	43	n-Propylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
50	44	tert-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
51	45	sec-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	UJ	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
52	46	4-Isopropyltoluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
53	47	n-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
54	48	Naphthalene	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0
55	48.5	Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
56	49																										
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																									
58	51	**Method OR-DEQ**																									
59	52	**TPH-Diesel**	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25
60	53	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
61	54	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
62	55																										
63	56	**PRIORITY POLLUTANT**																									
64	57	**METALS (mg/L)**																									
65	58	Arsenic (7060)	0.001	U	0.001	U	0.05	U	0.05	U	0.001	U	0.001	U	**0.007**		0.001	U	0.001	U	**0.003**		0.001	U	**0.001**		0.001

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AB	AC	AD	AE	AF	AG	AH
1								
2								
3			L		L		L	
4			CT37D		ED16E		FF88K	
5			2/12/01		2/25/02		2/13/03	
7	**CHLORINATED PHENOLS (µg/L)**							
8	**EPA Method SW8040**							
9	Pentachlorophenol	U	0.25	U	0.25	U	0.26	U
10	2,4,6-Trichlorophenol	U	NA		NA		NA	
11	2,3,6-Trichlorophenol	U	NA		NA		NA	
12	2,4,5-Trichlorophenol	U	NA		NA		NA	
13	2,3,4-Trichlorophenol	U	NA		NA		NA	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	U	NA		NA		NA	
15	2,3,4,5-Tetrachlorophenol	U	NA		NA		NA	
16								
17	**SEMIVOLATILES (µg/L)**							
18	**EPA Method SW8270**							
19	Phenol	U	2.0	U	2.0	U	2	U
20	4-Methylphenol	U	1.0	U	1.0	U	1	U
21	Isophorone	U	1.0	U	1.0	U	1	U
22	2,4-Dimethylphenol	U	3.0	U	3.0	U	3.1	U
23	Benzoic Acid	U	10	U	50	U	51	U
24	Naphthalene	U	1.0	U	1.0	U	1	U
25	2-Methylnaphthalene	U	1.0	U	1.0	U	1	U
26	2,4,6-Trichlorophenol	U	5.0	U	5.0	U	5.1	U
27	2,4,5-Trichlorophenol	U	5.0	U	5.0	U	5.1	U
28	Acenaphthene	U	1.0	U	1.0	U	1	U
29	Dibenzofuran	U	1.0	U	1.0	U	1	U
30	Fluorene	U	1.0	U	1.0	U	1	U
31	Pentachlorophenol	U	5.0	U	5.0	U	5.1	U
32	bis(2-Ethylhexyl)phthalate	U	1.0	U	4.0	U	1	U
33								
34	**VOLATILES (µg/L)**							
35	**EPA Method SW8260**							
36	Acetone	U	6.1	U	5.0	U	5	U
37	Carbon Disulfide	U	1.0	U	1.0	U	1	U
38	2-Butanone	U	5.0	U	5.0	U	5	U
39	Benzene	U	1.0	U	1.0	U	1	U
40	Bromoform	U	1.0	U	1.0	U	1	U
41	Toluene	U	1.0	U	1.0	U	1	U
42	Ethylbenzene	U	1.0	U	1.0	U	1	U
43	Styrene	U	1.0	U	1.0	U	1	U
44	m,p-Xylene	U	1.0	U	1.0	U	1	U
45	o-Xylene	U	1.0	U	1.0	U	1	U
46	1,3,5-Trimethylbenzene	U	1.0	U	1.0	U	1	U
47	1,2,4-Trimethylbenzene	U	1.0	U	1.0	U	1	U
48	Isopropylbenzene	U	1.0	U	1.0	U	1	U
49	n-Propylbenzene	U	1.0	U	1.0	U	1	U
50	tert-Butylbenzene	U	1.0	U	1.0	U	1	U
51	sec-Butylbenzene	U	1.0	U	1.0	U	1	U
52	4-Isopropyltoluene	U	1.0	U	1.0	U	1	U
53	n-Butylbenzene	U	1.0	U	1.0	U	1	U
54	Naphthalene	U	5.0	U	5.0	U	5	U
55	Methyl tert-butyl ether		NA		NA		NA	
56								
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**							
58	**Method OR-DEQ**							
59	**TPH-Diesel**	U	0.25	U	0.25	U	0.25	U
60	**TPH-D Motor Oil**		NA		NA		NA	
61	**TPH-Gasoline**		NA		NA		NA	
62								
63	**PRIORITY POLLUTANT**							
64	**METALS (mg/L)**							
65	Arsenic (7060)	U	0.001	U	0.001	U	**0.001**	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
1																											
2																											
3			L		L		L		L		L		L		L		L		L		L		L		L		L
4			S167H		T176A		U258B		V232H		W371E		Y336F		Z225F		Z960B		AH49E		AU22C		BC27A		BH75I		BR64H
5			4/1/97		7/15/97		10/23/97		1/30/98		5/18/98		8/18/98		11/13/98		2/16/99		5/18/99		9/20/99		12/7/99		2/15/00		5/24/00
66	59	Chromium (6010)	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	**0.009**		0.005
67	60	Copper (6010)	**0.003**		**0.003**		**0.003**		0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	**0.008**		**0.003**		**0.002**
68	61	Lead (7421)	**0.001**		0.001	U	0.02	U	0.02	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	**0.002**		0.001	U	0.001
69	62	Nickel (6010)	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	**0.01**		0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01
70	63	Zinc (6010)	**0.004**		**0.004**	J2	**0.005**		**0.005**		**0.005**	J2	**0.005**		**0.004**		**0.051**		**0.004**		**0.008**		0.012	U	0.006	U	0.006
71	64																										
72	65	**MAJOR IONS AND CONVENTIONALS**																									
73	66	Calcium (mg/L) (6010)	**2.77**		**3.56**		**4.93**		**3.76**		NA		NA		NA		**3.24**		NA		NA		NA		NA		NA
74	67	Magnesium (mg/L) (6010)	**0.99**		**1.56**		**1.98**		**1.35**		NA		NA		NA		**1.18**		NA		NA		NA		NA		NA
75	68	Potassium (mg/L) (6010)	**1.2**		**0.8**		**1.6**		**1.1**		NA		NA		NA		**1.0**		NA		NA		NA		NA		NA
76	69	Sodium (mg/L) (6010)	**4.58**		**5.81**		**8.14**		**3.34**		NA		NA		NA		**3.61**		NA		NA		NA		NA		NA
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	**16**		**30**		**28**		**21**		NA		NA		NA		**16**		NA		NA		NA		NA		NA
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		1.0	U	NA		NA		NA		NA		NA
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	**16**		**30**		**28**		**21**		NA		NA		NA		**16**		NA		NA		NA		NA		NA
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	NT		**100**	J2	**57**		**60**	J2	46		74		130		**36**		**57**		**92**		**77**		**65**		**56**
81	74	Chloride (mg/L) (EPA 325.2)	1.0	U	**3.8**		**1.9**		**1.0**		1.0		1.0	U	1.7		1.0	U	**1.5**		**1.5**		**3.4**		**2.0**		**1.8**
82	75	N-Nitrate (mg-N/L) (Calculated)	**0.34**	J	**0.01**		**0.84**		**0.31**	J2	NA		NA		NA		**0.24**	J	NA		NA		NA		NA		NA
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	0.010	U	0.010	U	0.010	U	0.010	UJ	NA		NA		NA		0.010	UJ	NA		NA		NA		NA		NA
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	**0.34**	J	**0.01**		**0.84**		**0.31**	J2	NA		NA		NA		**0.24**	J	NA		NA		NA		NA		NA
85	78	Sulfate (mg/L) (EPA 375.2)	**2.7**	J	**4.8**		**4.0**		**2.8**		NA		NA		NA		**3.6**		NA		NA		NA		NA		NA
86	79																										

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AB	AC	AD	AE	AF	AG	AH
1								
2								
3			L		L		L	
4			CT37D		ED16E		FF88K	
5			2/12/01		2/25/02		2/13/03	
66	Chromium (6010)	U	0.005	U	0.005	U	0.005	U
67	Copper (6010)		0.002	U	0.002	U	**0.004**	
68	Lead (7421)	U	0.001	U	0.001	U	**0.001**	
69	Nickel (6010)	U	0.01	U	0.01	U	0.01	U
70	Zinc (6010)	U	0.006	U	0.006	U	**0.009**	
71								
72	**MAJOR IONS AND CONVENTIONALS**							
73	Calcium (mg/L) (6010)		**11.5**		**3.20**		**2.61**	
74	Magnesium (mg/L) (6010)		**4.04**		**1.34**		**1.19**	
75	Potassium (mg/L) (6010)		**1.4**		**0.8**		**0.7**	
76	Sodium (mg/L) (6010)		**8.26**		**3.29**		**2.5**	
77	Alkalinity (mg/L CaCO3) (SM 2320)		**64**		**21**		**16**	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)		1.0	U	1.0	U	1	U
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)		**64**		**21**		**16**	
80	Total Dissolved Solids (mg/L) (EPA 160.1)		**120**		**57**		**66**	
81	Chloride (mg/L) (EPA 325.2)		**1.4**		**2.4**		**1**	
82	N-Nitrate (mg-N/L) (Calculated)		**0.47**		**0.36**		**0.45**	
83	N-Nitrite (mg-N/L) (EPA 354.1)		0.010	U	0.010	U	0.01	U
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)		**0.47**	J	**0.36**		**0.45**	
85	Sulfate (mg/L) (EPA 375.2)		**4.4**		**3.6**		2.5	U
86								

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
1																											
2																											
3			L		L		L		L		L		L		L		L		L		L		L		L		L
4			S167H		T176A		U258B		V232H		W371E		Y336F		Z225F		Z960B		AH49E		AU22C		BC27A		BH75I		BR64H
5			4/1/97		7/15/97		10/23/97		1/30/98		5/18/98		8/18/98		11/13/98		2/16/99		5/18/99		9/20/99		12/7/99		2/15/00		5/24/00
87	80	**FIELD PARAMETERS**																									
88	81	pH (avg)	6.02		6.18		6.24		7.10		5.49		5.87		5.84		6.26		5.54		5.41		5.72		6.16		5.94
89	82	Temperature (° C) (avg)	9.8		15.5		16.4		9.6		13.1		15.7		13.8		8.9		13.1		15.5		13.0		10.8		13.1
90	83	Conductivity (um/hos)	41		68		81		55		60		95		89		39		42		101		75		50		63
91	84	Dissolved oxygen (mg/L) (avg)	NA		NA		NA		NA		4.51		2.60		1.87		5.67		2.93		2.16		4.48		4.25		3.14
92	85																										
93	86	**DIOXINS AND FURANS (ng/L)**																									
94	87	**Method 8290**																									
95	88	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
96	89	Total TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
97	90	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
98	91	Total TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
99	92	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
100	93	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
101	94	Total PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
102	95	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
103	96	Total PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
108	101	Total HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
112	105	Total HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
115	108	Total HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
117	110	Total HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
118	111	OCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
119	112	OCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
120																											
121		**ETHANOL (mg/L)**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
122																											

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AB	AC	AD	AE	AF	AG	AH
1								
2								
3			L		L		L	
4			CT37D		ED16E		FF88K	
5			2/12/01		2/25/02		2/13/03	
87	**FIELD PARAMETERS**							
88	pH (avg)		6.07		5.89		7.12	
89	Temperature (° C) (avg)		13.2		8.5		11.2	
90	Conductivity (um/hos)		104		37		41	
91	Dissolved oxygen (mg/L) (avg)		2.56		7.55		0	
92								
93	**DIOXINS AND FURANS (ng/L)**							
94	**Method 8290**							
95	2,3,7,8-TCDF		NA		NA		NA	
96	Total TCDF		NA		NA		NA	
97	2,3,7,8-TCDD		NA		NA		NA	
98	Total TCDD		NA		NA		NA	
99	1,2,3,7,8-PeCDF		NA		NA		NA	
100	2,3,4,7,8-PeCDF		NA		NA		NA	
101	Total PeCDF		NA		NA		NA	
102	1,2,3,7,8-PeCDD		NA		NA		NA	
103	Total PeCDD		NA		NA		NA	
104	1,2,3,4,7,8-HxCDF		NA		NA		NA	
105	1,2,3,6,7,8-HxCDF		NA		NA		NA	
106	2,3,4,6,7,8-HxCDF		NA		NA		NA	
107	1,2,3,7,8,9-HxCDF		NA		NA		NA	
108	Total HxCDF		NA		NA		NA	
109	1,2,3,4,7,8-HxCDD		NA		NA		NA	
110	1,2,3,6,7,8-HxCDD		NA		NA		NA	
111	1,2,3,7,8,9-HxCDD		NA		NA		NA	
112	Total HxCDD		NA		NA		NA	
113	1,2,3,4,6,7,8-HpCDF		NA		NA		NA	
114	1,2,3,4,7,8,9-HpCDF		NA		NA		NA	
115	Total HpCDF		NA		NA		NA	
116	1,2,3,4,6,7,8-HpCDD		NA		NA		NA	
117	Total HpCDD		NA		NA		NA	
118	OCDF		NA		NA		NA	
119	OCDD		NA		NA		NA	
120								
121	**ETHANOL (mg/L)**		NA		NA		NA	
122								

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
1																											
2																											
3			L		L		L		L		L		L		L		L		L		L		L		L		L
4			S167H		T176A		U258B		V232H		W371E		Y336F		Z225F		Z960B		AH49E		AU22C		BC27A		BH75I		BR64H
5			4/1/97		7/15/97		10/23/97		1/30/98		5/18/98		8/18/98		11/13/98		2/16/99		5/18/99		9/20/99		12/7/99		2/15/00		5/24/00
123		**PAHs (µg/L)**																									
124		**EPA Method SW8270 SIM**																									
125		Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
126		2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
127		Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
128		Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
129		Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
130		Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
131		Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AB	AC	AD	AE	AF	AG	AH
1								
2								
3			L		L		L	
4			CT37D		ED16E		FF88K	
5			2/12/01		2/25/02		2/13/03	
123	**PAHs (µg/L)**							
124	**EPA Method SW8270 SIM**							
125	Naphthalene		NA		NA		NA	
126	2-Methylnaphthalene		NA		NA		NA	
127	Acenaphthylene		NA		NA		NA	
128	Acenaphthene		NA		NA		NA	
129	Fluorene		NA		NA		NA	
130	Anthracene		NA		NA		NA	
131	Dibenzofuran		NA		NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1																												
2																												
3			LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S	
4			S167K		T176E		U235T		V208F		W371G		Y336I		Z225E		Z960A		AH27G		AU45J		BB82C		BH75G		BR55G	
5			4/1/97		7/15/97		10/23/97		1/28/98		5/18/98		8/19/98		11/13/98		2/17/99		5/17/99		9/23/99		12/6/99		2/15/00		5/23/00	
7	1	**CHLORINATED PHENOLS (µg/L)**																										
8	2	**EPA Method SW8040**																										
9	3	Pentachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	UJ
10	4	2,4,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
11	5	2,3,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
12	6	2,4,5-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
13	7	2,3,4-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
15	9	2,3,4,5-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
16	10																											
17	11	**SEMIVOLATILES (µg/L)**																										
18	12	**EPA Method SW8270**																										
19	13	Phenol	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
20	14	4-Methylphenol	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
21	15	Isophorone	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
22	16	2,4-Dimethylphenol	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U
23	17	Benzoic Acid	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
24	18	Naphthalene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
25	19	2-Methylnaphthalene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
26	20	2,4,6-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
27	21	2,4,5-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
28	22	Acenaphthene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
29	23	Dibenzofuran	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
30	24	Fluorene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
31	25	Pentachlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
32	26	bis(2-Ethylhexyl)phthalate	1.0	UJ	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**1.1**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
33	27																											
34	28	**VOLATILES (µg/L)**																										
35	29	**EPA Method SW8260**																										
36	30	Acetone	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
37	31	Carbon Disulfide	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
38	32	2-Butanone	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
39	33	Benzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
40	34	Bromoform	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
41	35	Toluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
42	36	Ethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
43	37	Styrene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
44	38	m,p-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
45	39	o-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
46	40	1,3,5-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
47	41	1,2,4-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
48	42	Isopropylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
49	43	n-Propylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
50	44	tert-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
51	45	sec-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	UJ	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
52	46	4-Isopropyltoluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
53	47	n-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
54	48	Naphthalene	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
55	48.5	Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
56	49																											
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																										
58	51	**Method OR-DEQ**																										
59	52	**TPH-Diesel**	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
60	53	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
61	54	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
62	55																											
63	56	**PRIORITY POLLUTANT**																										
64	57	**METALS (mg/L)**																										
65	58	Arsenic (7060)	**0.008**		**0.008**		0.05	U	0.05	U	**0.011**		**0.011**		**0.012**		**0.010**		**0.008**		**0.014**		**0.011**		**0.013**		**0.010**	

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TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC
3		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S
4		CB49C		CK77D		CT37B		DE68F		DM52E		DW48M		ED16J		EM75G		ER92C		EY88E		FF88M		FL41F		FU31C		FY64J
5		8/28/00		11/7/00		2/12/01		6/4/01		8/15/01		11/29/01		2/25/02		6/25/02		08/26/02		11/11/02		2/13/03		5/7/03		8/27/03		10/21/03
7	**CHLORINATED PHENOLS (µg/L)**																											
8	**EPA Method SW8040**																											
9	Pentachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.28	U	0.25	U	0.25	U	0.26	U	0.54	U	0.5
10	2,4,6-Trichlorophenol	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
11	2,3,6-Trichlorophenol	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
12	2,4,5-Trichlorophenol	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
13	2,3,4-Trichlorophenol	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
15	2,3,4,5-Tetrachlorophenol	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
16																												
17	**SEMIVOLATILES (µg/L)**																											
18	**EPA Method SW8270**																											
19	Phenol	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.2	U	2	U	2	U	2	U	2.2	U	2
20	4-Methylphenol	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1	U	1	U	1	U	1.1	U	1
21	Isophorone	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1	U	1	U	1	U	1.1	U	1
22	2,4-Dimethylphenol	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.3	U	3	U	3	U	3.1	U	3.3	U	3
23	Benzoic Acid	10	U	10	U	10	U	10	U	10	U	30	U	50	U	50	U	56	U	50	U	50	U	51	U	54	U	10
24	Naphthalene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1	U	1	U	1	U	1.1	U	1
25	2-Methylnaphthalene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1	U	1	U	1	U	1.1	U	1
26	2,4,6-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.6	U	5	U	5	U	5.1	U	5.4	U	5
27	2,4,5-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.6	U	5	U	5	U	5.1	U	5.4	U	5
28	Acenaphthene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1	U	1	U	1	U	1.1	U	1
29	Dibenzofuran	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1	U	1	U	1	U	1.1	U	1
30	Fluorene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1	U	1	U	1	U	1.1	U	1
31	Pentachlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.6	U	5	U	5	U	5.1	U	5.4	U	5
32	bis(2-Ethylhexyl)phthalate	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	4.0	U	4.0	U	4.4	U	4	U	1	U	1	U	1.1	U	1
33																												
34	**VOLATILES (µg/L)**																											
35	**EPA Method SW8260**																											
36	Acetone	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5	U	5	U	5	U	5	U	5	U	5
37	Carbon Disulfide	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1
38	2-Butanone	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5	U	5	U	5	U	5	U	5	U	5
39	Benzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1
40	Bromoform	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1
41	Toluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1
42	Ethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1
43	Styrene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1
44	m,p-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1
45	o-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1
46	1,3,5-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1
47	1,2,4-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1
48	Isopropylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1
49	n-Propylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1
50	tert-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1
51	sec-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1
52	4-Isopropyltoluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1
53	n-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U	1	U	1	U	1
54	Naphthalene	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5	U	5	U	5	U	5	U	5	U	5
55	Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		1
56																												
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																											
58	**Method OR-DEQ**																											
59	**TPH-Diesel**	0.25	U	0.25	U	0.25	U	NA		NA		NA		0.25	U	NA		NA		NA		0.25	U	NA		NA		NA
60	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
61	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		0.25
62																												
63	**PRIORITY POLLUTANT**																											
64	**METALS (mg/L)**																											
65	Arsenic (7060)	**0.010**		**0.011**		**0.010**		**0.009**		**0.011**		**0.012**		**0.023**		**0.010**		**0.011**		0.05	U	**0.014**		**0.007**		**0.009**		**0.008**

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TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BD	BE	BF
1				
2				
3			LW1S	
4			0402098-02	
5			2/19/04	
6				
7	**CHLORINATED PHENOLS (µg/L)**			
8	**EPA Method SW8040**			
9	Pentachlorophenol	U	NA	
10	2,4,6-Trichlorophenol		NA	
11	2,3,6-Trichlorophenol		NA	
12	2,4,5-Trichlorophenol		NA	
13	2,3,4-Trichlorophenol		NA	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol		NA	
15	2,3,4,5-Tetrachlorophenol		NA	
16				
17	**SEMIVOLATILES (µg/L)**			
18	**EPA Method SW8270**			
19	Phenol	U	NA	
20	4-Methylphenol	U	NA	
21	Isophorone	U	NA	
22	2,4-Dimethylphenol	U	NA	
23	Benzoic Acid	U	NA	
24	Naphthalene	U	NA	
25	2-Methylnaphthalene	U	NA	
26	2,4,6-Trichlorophenol	U	NA	
27	2,4,5-Trichlorophenol	U	NA	
28	Acenaphthene	U	NA	
29	Dibenzofuran	U	NA	
30	Fluorene	U	NA	
31	Pentachlorophenol	U	NA	
32	bis(2-Ethylhexyl)phthalate	U	NA	
33				
34	**VOLATILES (µg/L)**			
35	**EPA Method SW8260**			
36	Acetone	U	NA	
37	Carbon Disulfide	U	NA	
38	2-Butanone	U	NA	
39	Benzene	U	0.4	U
40	Bromoform	U	NA	
41	Toluene	U	1	U
42	Ethylbenzene	U	1	U
43	Styrene	U	NA	
44	m,p-Xylene	U	2	U
45	o-Xylene	U	1	U
46	1,3,5-Trimethylbenzene	U	NA	
47	1,2,4-Trimethylbenzene	U	NA	
48	Isopropylbenzene	U	NA	
49	n-Propylbenzene	U	NA	
50	tert-Butylbenzene	U	NA	
51	sec-Butylbenzene	U	NA	
52	4-Isopropyltoluene	U	NA	
53	n-Butylbenzene	U	NA	
54	Naphthalene	U	NA	
55	Methyl tert-butyl ether	U	NA	
56				
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**			
58	**Method OR-DEQ**			
59	**TPH-Diesel**		NA	
60	**TPH-D Motor Oil**		NA	
61	**TPH-Gasoline**	U	0.1	U
62				
63	**PRIORITY POLLUTANT**			
64	**METALS (mg/L)**			
65	Arsenic (7060)		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1																												
2																												
3			LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S	
4			S167K		T176E		U235T		V208F		W371G		Y336I		Z225E		Z960A		AH27G		AU45J		BB82C		BH75G		BR55G	
5			4/1/97		7/15/97		10/23/97		1/28/98		5/18/98		8/19/98		11/13/98		2/17/99		5/17/99		9/23/99		12/6/99		2/15/00		5/23/00	
66	59	Chromium (6010)	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U
67	60	Copper (6010)	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U
68	61	Lead (7421)	0.001	U	0.001	U	0.02	U	0.02	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
69	62	Nickel (6010)	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
70	63	Zinc (6010)	0.004	U	**0.005**	J2	**0.011**		0.004	U	**0.008**	J2	**0.012**		0.004	U	**0.010**	J	0.012	U	**0.005**		0.006	U	**0.007**		0.006	U
71	64																											
72	65	**MAJOR IONS AND CONVENTIONALS**																										
73	66	Calcium (mg/L) (6010)	**16.7**		**19.5**		**20.2**		**20.1**		NA		NA		NA		**18.4**		NA		NA		NA		NA		NA	
74	67	Magnesium (mg/L) (6010)	**5.95**		**6.73**		**7.53**		**7.23**		NA		NA		NA		**6.09**		NA		NA		NA		NA		NA	
75	68	Potassium (mg/L) (6010)	**2.9**		**3.3**		**2.6**		**2.4**		NA		NA		NA		**2.8**		NA		NA		NA		NA		NA	
76	69	Sodium (mg/L) (6010)	**7.70**		**9.08**		**7.22**		**8.08**		NA		NA		NA		**8.54**		NA		NA		NA		NA		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	**80**		**77**		**88**		**94**		NA		NA		NA		**87**		NA		NA		NA		NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		1.0	U	NA		NA		NA		NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	**80**		**77**		**88**		**94**		NA		NA		NA		**87**		NA		NA		NA		NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	NT		**140**	J2	**130**		**140**		110		99		140		**120**		**130**		**140**		**150**		**140**		**130**	
81	74	Chloride (mg/L) (EPA 325.2)	**2.1**	J	**2.3**		**2.5**		**2.4**		2.3		1.0	U	1.8		**1.2**		**1.2**		**2.4**		**3.7**		**2.9**		**3.4**	
82	75	N-Nitrate (mg-N/L) (Calculated)	**0.58**	J	**1.3**		**0.11**		**0.48**		NA		NA		NA		**0.12**		NA		NA		NA		NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	0.010	U	0.010	U	0.010	U	0.010	U	NA		NA		NA		0.010	U	NA		NA		NA		NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	**0.58**	J	**1.3**		**0.11**		**0.48**		NA		NA		NA		**0.12**		NA		NA		NA		NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	**9.3**	J	**13**		**5.5**		**5.1**		NA		NA		NA		**7.2**		NA		NA		NA		NA		NA	
86	79																											

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC
3		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S
4		CB49C		CK77D		CT37B		DE68F		DM52E		DW48M		ED16J		EM75G		ER92C		EY88E		FF88M		FL41F		FU31C		FY64J
5		8/28/00		11/7/00		2/12/01		6/4/01		8/15/01		11/29/01		2/25/02		6/25/02		08/26/02		11/11/02		2/13/03		5/7/03		8/27/03		10/21/03
66	Chromium (6010)	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	**0.007**		0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005
67	Copper (6010)	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	**0.009**		0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	**0.003**
68	Lead (7421)	0.001	U	**0.001**		0.001	U	0.001	U	0.001	U	0.001	U	**0.004**		0.001	U	0.001	U	0.02	U	0.001	U	0.001	U	0.001	U	0.001
69	Nickel (6010)	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01
70	Zinc (6010)	0.006	U	0.006	U	0.006	U	0.006	U	0.006	U	0.006	U	**0.030**		0.006	U	0.006	U	0.006	U	0.006	U	0.006	U	0.006	U	**0.007**
72	**MAJOR IONS AND CONVENTIONALS**																											
73	Calcium (mg/L) (6010)	NA		NA		**25.5**		**28.4**		**25.8**		**27.3**		**30.4**		NA		NA		NA		**36.9**		NA		NA		NA
74	Magnesium (mg/L) (6010)	NA		NA		**9.47**		**10.6**		**10.2**		**10.4**		**11.7**		NA		NA		NA		**13.6**		NA		NA		NA
75	Potassium (mg/L) (6010)	NA		NA		**2.0**		**2.4**		**2.2**		**2.4**		**3.4**		NA		NA		NA		**3.2**		NA		NA		NA
76	Sodium (mg/L) (6010)	NA		NA		**7.23**		**7.87**		**7.24**		**7.20**		**10.2**		NA		NA		NA		**9.8**		NA		NA		NA
77	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		**120**		NA		NA		NA		**120**		NA		NA		NA		**150**		NA		NA		NA
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		1.0	U	NA		NA		NA		1.0	U	NA		NA		NA		1	U	NA		NA		NA
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		**120**		NA		NA		NA		**120**		NA		NA		NA		**150**		NA		NA		NA
80	Total Dissolved Solids (mg/L) (EPA 160.1)	**160**		**170**		**170**		**180**		**160**		**170**		**160**		**200**		**210**		**210**		**180**		**190**		**190**		**200**
81	Chloride (mg/L) (EPA 325.2)	**3.5**		**3.6**		**4.1**		**3.1**		**3.7**		**2.6**		**3.2**		**2.7**		**3.1**		**3**		**3.6**		**2.4**		**3**		**3.2**
82	N-Nitrate (mg-N/L) (Calculated)	NA		NA		**0.17**		NA		NA		NA		**0.91**		NA		NA		NA		**0.66**		NA		NA		NA
83	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		0.010	U	NA		NA		NA		0.010	U	NA		NA		NA		0.01	U	NA		NA		NA
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		**0.17**	J	NA		NA		NA		**0.91**		NA		NA		NA		**0.66**		NA		NA		NA
85	Sulfate (mg/L) (EPA 375.2)	NA		NA		**6.8**		NA		NA		NA		**5.7**		NA		NA		NA		**4.2**		NA		NA		NA

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BD	BE	BF
1				
2				
3			LW1S	
4			0402098-02	
5			2/19/04	
66	Chromium (6010)	U	NA	
67	Copper (6010)		NA	
68	Lead (7421)	U	NA	
69	Nickel (6010)	U	NA	
70	Zinc (6010)		NA	
71				
72	**MAJOR IONS AND CONVENTIONALS**			
73	Calcium (mg/L) (6010)		NA	
74	Magnesium (mg/L) (6010)		NA	
75	Potassium (mg/L) (6010)		NA	
76	Sodium (mg/L) (6010)		NA	
77	Alkalinity (mg/L CaCO3) (SM 2320)		NA	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)		NA	
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)		NA	
80	Total Dissolved Solids (mg/L) (EPA 160.1)			
81	Chloride (mg/L) (EPA 325.2)			
82	N-Nitrate (mg-N/L) (Calculated)		NA	
83	N-Nitrite (mg-N/L) (EPA 354.1)		NA	
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)		NA	
85	Sulfate (mg/L) (EPA 375.2)		NA	
86				

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1																												
2																												
3			LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S	
4			S167K		T176E		U235T		V208F		W371G		Y336I		Z225E		Z960A		AH27G		AU45J		BB82C		BH75G		BR55G	
5			4/1/97		7/15/97		10/23/97		1/28/98		5/18/98		8/19/98		11/13/98		2/17/99		5/17/99		9/23/99		12/6/99		2/15/00		5/23/00	
87	80	**FIELD PARAMETERS**																										
88	81	pH (avg)	6.72		6.83		6.94		6.60		6.32		6.51		6.48		6.84		5.72		6.88		6.24		6.73		6.57	
89	82	Temperature (° C) (avg)	13.4		16.9		15.8		15.4		14.8		15.9		14.5		14.5		14.4		16.1		14.9		14.4		14.3	
90	83	Conductivity (um/hos)	190		203		154		213		195		193		100		174		146		197		212		206		182	
91	84	Dissolved oxygen (mg/L) (avg)	NA		NA		NA		NA		NA		1.73		1.84		3.04		3.91		1.22		2.53		2.34		2.17	
92	85																											
93	86	**DIOXINS AND FURANS (ng/L)**																										
94	87	**Method 8290**																										
95	88	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
96	89	Total TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
97	90	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
98	91	Total TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
101	94	Total PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
103	96	Total PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
108	101	Total HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
112	105	Total HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
115	108	Total HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
117	110	Total HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
118	111	OCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
119	112	OCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
120																												
121		**ETHANOL (mg/L)**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
122																												

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC
1																												
2																												
3		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S
4		CB49C		CK77D		CT37B		DE68F		DM52E		DW48M		ED16J		EM75G		ER92C		EY88E		FF88M		FL41F		FU31C		FY64J
5		8/28/00		11/7/00		2/12/01		6/4/01		8/15/01		11/29/01		2/25/02		6/25/02		08/26/02		11/11/02		2/13/03		5/7/03		8/27/03		10/21/03
87	**FIELD PARAMETERS**																											
88	pH (avg)	6.49		5.21		6.56		6.75		6.94		6.71		6.22		6.57		6.61		6.62		6.94		6.88		6.86		6.77
89	Temperature (° C) (avg)	16.0		15.2		14.9		14.6		15.8		15.4		14.3		16.1		16.3		16		16		14.9		16.8		18.3
90	Conductivity (um/hos)	196		207		217		250		245		245		257		370		265		367		327		233		228		237
91	Dissolved oxygen (mg/L) (avg)	1.80		1.86		1.90		1.99		1.09		3.75		4.77		5.34		0.77		3.86		0		3.28		2.2		1.64
92																												
93	**DIOXINS AND FURANS (ng/L)**																											
94	**Method 8290**																											
95	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
96	Total TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
97	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
98	Total TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
99	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
100	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
101	Total PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
102	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
103	Total PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
104	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
105	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
106	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
107	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
108	Total HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
109	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
110	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
111	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
112	Total HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
113	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
114	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
115	Total HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
116	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
117	Total HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
118	OCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
119	OCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
120																												
121	**ETHANOL (mg/L)**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
122																												

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BD	BE	BF
1				
2				
3			LW1S	
4			0402098-02	
5			2/19/04	
87	**FIELD PARAMETERS**			
88	pH (avg)		5.92	
89	Temperature (° C) (avg)		15.7	
90	Conductivity (um/hos)		277	
91	Dissolved oxygen (mg/L) (avg)		2.32	
92				
93	**DIOXINS AND FURANS (ng/L)**			
94	**Method 8290**			
95	2,3,7,8-TCDF		NA	
96	Total TCDF		NA	
97	2,3,7,8-TCDD		NA	
98	Total TCDD		NA	
99	1,2,3,7,8-PeCDF		NA	
100	2,3,4,7,8-PeCDF		NA	
101	Total PeCDF		NA	
102	1,2,3,7,8-PeCDD		NA	
103	Total PeCDD		NA	
104	1,2,3,4,7,8-HxCDF		NA	
105	1,2,3,6,7,8-HxCDF		NA	
106	2,3,4,6,7,8-HxCDF		NA	
107	1,2,3,7,8,9-HxCDF		NA	
108	Total HxCDF		NA	
109	1,2,3,4,7,8-HxCDD		NA	
110	1,2,3,6,7,8-HxCDD		NA	
111	1,2,3,7,8,9-HxCDD		NA	
112	Total HxCDD		NA	
113	1,2,3,4,6,7,8-HpCDF		NA	
114	1,2,3,4,7,8,9-HpCDF		NA	
115	Total HpCDF		NA	
116	1,2,3,4,6,7,8-HpCDD		NA	
117	Total HpCDD		NA	
118	OCDF		NA	
119	OCDD		NA	
120				
121	**ETHANOL (mg/L)**		NA	
122				

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1																												
2																												
3			LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S	
4			S167K		T176E		U235T		V208F		W371G		Y336I		Z225E		Z960A		AH27G		AU45J		BB82C		BH75G		BR55G	
5			4/1/97		7/15/97		10/23/97		1/28/98		5/18/98		8/19/98		11/13/98		2/17/99		5/17/99		9/23/99		12/6/99		2/15/00		5/23/00	
123		**PAHs (µg/L)**																										
124		**EPA Method SW8270 SIM**																										
125		Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
126		2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
127		Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
128		Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
129		Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
130		Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
131		Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC
1																												
2																												
3		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S		LW1S
4		CB49C		CK77D		CT37B		DE68F		DM52E		DW48M		ED16J		EM75G		ER92C		EY88E		FF88M		FL41F		FU31C		FY64J
5		8/28/00		11/7/00		2/12/01		6/4/01		8/15/01		11/29/01		2/25/02		6/25/02		08/26/02		11/11/02		2/13/03		5/7/03		8/27/03		10/21/03
123	**PAHs (µg/L)**																											
124	**EPA Method SW8270 SIM**																											
125	Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		0.1
126	2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		0.1
127	Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		0.1
128	Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		0.1
129	Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		0.1
130	Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		0.1
131	Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		0.1

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BD	BE	BF
1				
2				
3			LW1S	
4			0402098-02	
5			2/19/04	
123	**PAHs (µg/L)**			
124	**EPA Method SW8270 SIM**			
125	Naphthalene	U	NA	
126	2-Methylnaphthalene	U	NA	
127	Acenaphthylene	U	NA	
128	Acenaphthene	U	NA	
129	Fluorene	U	NA	
130	Anthracene	U	NA	
131	Dibenzofuran	U	NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1																										
2																									Dup of LW4S	
3			LW4S		LW4S		LW4S		LW4S		LW4S (a)		LW4S		LW4S		LW4S		LW4S		LW4S		LW4S		LW40S	
4			S167J		T176G		U235O		V232E		B802035-01		W391F		Y314F		Z225K		Z960L		AH49G		AU45B		AU45A	
5			4/1/97		7/15/97		10/22/97		1/30/98		1/30/98		5/20/98		8/17/98		11/14/98		2/18/99		5/18/99		9/22/99		9/22/99	
7	1	**CHLORINATED PHENOLS (µg/L)**																								
8	2	**EPA Method SW8040**																								
9	3	Pentachlorophenol	**5.3**		**1.7**		**1.2**		**0.43**		**0.282**		**5.3**		**5.9**		**3900**		**0.42**		**6.4**		**22**		**23**	
10	4	2,4,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		0.25	U	0.25	U	**0.85**		0.25	U	0.25	U	0.25	U	0.25	U
11	5	2,3,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
12	6	2,4,5-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		0.25	U	0.25	U	4.4	U	0.25	U	0.25	U	0.29	U	0.29	U
13	7	2,3,4-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	**0.32**		**0.16**	J1	0.25	U	0.25	U	0.250	U	**0.92**		**0.73**		**170**		0.25	U	**0.83**		**3.2**		**3.2**	
15	9	2,3,4,5-Tetrachlorophenol	**0.27**		0.25	U	0.25	U	0.25	U	NA		0.25	U	0.25	U	**15**	J1	0.25	U	0.25	U	0.25	U	0.25	U
16	10																									
17	11	**SEMIVOLATILES (µg/L)**																								
18	12	**EPA Method SW8270**																								
19	13	Phenol	2.0	U	2.0	U	2.0	U	2.0	U	5.00	U	2.0	U	2.0	U	2.0	U	2.0	U	**170**	J2	2.0	U	2.0	U
20	14	4-Methylphenol	1.0	U	1.0	U	1.0	U	1.0	U	5.00	U	1.0	U	1.0	U	1.0	U	1.0	U	**27**		1.0	U	1.0	U
21	15	Isophorone	1.0	U	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
22	16	2,4-Dimethylphenol	3.0	U	3.0	U	3.0	U	3.0	U	10.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U
23	17	Benzoic Acid	10	U	10	U	10	U	10	U	NA		10	U	10	U	10	U	10	U	**29**		10	U	10	U
24	18	Naphthalene	1.0	U	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	**39**		1.0	U	1.0	U
25	19	2-Methylnaphthalene	1.0	U	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	**55**		1.0	U	1.0	U
26	20	2,4,6-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.00	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
27	21	2,4,5-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.00	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
28	22	Acenaphthene	1.0	U	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
29	23	Dibenzofuran	1.0	U	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
30	24	Fluorene	1.0	U	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
31	25	Pentachlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	10.0	U	**5.6**		**8.2**		**4200**		5.0	U	**2.3**	J1	**22**		**21**	
32	26	bis(2-Ethylhexyl)phthalate	**2.0**		**2.8**	J2	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
33	27																									
34	28	**VOLATILES (µg/L)**																								
35	29	**EPA Method SW8260**																								
36	30	Acetone	5.0	U	5.0	U	5.0	U	5.0	U	NA		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
37	31	Carbon Disulfide	1.0	U	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
38	32	2-Butanone	5.0	U	5.0	U	5.0	U	5.0	U	NA		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	**12**		**13**	
39	33	Benzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
40	34	Bromoform	1.0	U	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
41	35	Toluene	1.0	U	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
42	36	Ethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	**1.8**		1.0	U	1.0	U	1.0	U	1.0	U
43	37	Styrene	1.0	U	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
44	38	m,p-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	**3.8**		1.0	U	1.0	U	**1.0**	J1	**1.4**	
45	39	o-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	**20**		1.0	U	**8.1**		**1.4**		**1.9**	
46	40	1,3,5-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	**5.7**		1.0	U	1.0	U	1.0	U	1.0	U
47	41	1,2,4-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	**77**		1.0	U	1.0	U	**10**	J2	**13**	J2
48	42	Isopropylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	**5.3**		1.0	U	1.0	U	1.0	U	**1.1**	
49	43	n-Propylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	**6.0**		1.0	U	1.0	U	1.0	U	1.0	U
50	44	tert-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
51	45	sec-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	UJ	**5.9**		1.0	U	1.0	U	1.0	U	1.0	U
52	46	4-Isopropyltoluene	1.0	U	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
53	47	n-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	**2.5**		1.0	U	1.0	U	1.0	U	1.0	U
54	48	Naphthalene	5.0	U	5.0	U	5.0	U	5.0	U	NA		5.0	U	5.0	U	**7.1**		5.0	U	5.0	U	5.0	U	5.0	U
55	48.5	Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
56	49																									
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																								
58	51	**Method OR-DEQ**																								
59	52	**TPH-Diesel**	0.25	U	0.25	U	0.25	U	0.25	U	NA		**0.44**		**0.32**		**3.6**		0.25	U	0.25	U	**0.42**		**0.56**	
60	53	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
61	54	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
62	55																									
63	56	**PRIORITY POLLUTANT**																								
64	57	**METALS (mg/L)**																								
65	58	Arsenic (7060)	0.001	U	**0.002**		0.05	U	0.05	U	NA		**0.001**		0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ
2				Dup of LW4S																							
3		LW4S		LW40S		LW4S		LW4S		LW4S		LW4S		LW4S		LW4S		LW4S		LW4S		LW4S		LW4S		LW4S	
4		BC27Q		BC27O		BH96D		BR55C		CB68C		CL03F		CT67C		DE87J		DM30C		DW29F		ED30G		EN00G		ER93K	
5		12/9/99		12/9/99		2/17/00		5/22/00		8/30/00		11/9/00		2/15/01		6/6/01		8/13/01		11/27/01		2/27/02		6/27/02		08/27/02	
7	**CHLORINATED PHENOLS (µg/L)**																										
8	**EPA Method SW8040**																										
9	Pentachlorophenol	**5.4**		**5.4**		**2.5**		**740**	J2	**7200**		**48**		0.25	U	0.25	U	0.25	U	0.25	U	**2.0**		NA		NA	
10	2,4,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	**0.35**	J2	**2.2**		0.25	U	NA		NA		NA		NA		NA		NA		NA	
11	2,3,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	**0.27**	J2	**6.1**		0.25	U	NA		NA		NA		NA		NA		NA		NA	
12	2,4,5-Trichlorophenol	0.25	U	0.25	U	0.25	U	**2.7**	J2	37	U	3.8	U	NA		NA		NA		NA		NA		NA		NA	
13	2,3,4-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	**2.9**		0.25	U	NA		NA		NA		NA		NA		NA		NA	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	**0.63**		**0.59**		**0.32**		**190**	J2	**730**		**4.1**		NA		NA		NA		NA		NA		NA		NA	
15	2,3,4,5-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	**1.6**		**130**		**5.9**		NA		NA		NA		NA		NA		NA		NA	
16																											
17	**SEMIVOLATILES (µg/L)**																										
18	**EPA Method SW8270**																										
19	Phenol	2.0	U	2.0	U	2.0	UJ	2.0	U	200	U	**730**		**100**		2.0	U	**3.3**		2.0	U	2.1	U	**56**		**210**	
20	4-Methylphenol	1.0	U	1.0	U	1.0	UJ	1.0	U	**3.6**	M	**120**		**210**		**1.7**		1.0	U	1.0	U	1.1	U	22	U	**50**	
21	Isophorone	1.0	U	1.0	U	1.0	UJ	1.0	U	1.0	U	3.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1.0	U	1.2	U
22	2,4-Dimethylphenol	3.0	U	3.0	U	3.0	UJ	3.0	U	3.0	U	9.0	U	**4.4**		**3.1**		**5.9**		3.0	U	3.2	U	3.0	U	3.8	U
23	Benzoic Acid	10	U	10	U	10	UJ	10	U	**44**		**96**		**200**		10	U	10	U	30	U	53	U	50	U	62	U
24	Naphthalene	1.0	U	1.0	U	1.0	UJ	**15**		**21**		**13**		**8.5**		**19**		**19**		1.0	U	1.1	U	**14**		**5.6**	
25	2-Methylnaphthalene	1.0	U	1.0	U	1.0	UJ	1.0	U	1.0	U	**5.7**		**3.6**		**9.5**		**12**		1.0	U	1.1	U	**7.5**		**2.1**	
26	2,4,6-Trichlorophenol	5.0	U	5.0	U	5.0	UJ	5.0	U	5.0	U	15	U	5.0	U	5.0	U	5.0	U	5.0	U	5.3	U	**17**		**7.7**	
27	2,4,5-Trichlorophenol	5.0	U	5.0	U	5.0	UJ	5.0	U	5.0	U	15	U	5.0	U	5.0	U	5.0	U	5.0	U	5.3	U	**8.9**		6.2	U
28	Acenaphthene	1.0	U	1.0	U	1.0	UJ	1.0	U	1.0	U	3.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1.0	U	1.2	U
29	Dibenzofuran	1.0	U	1.0	U	1.0	UJ	1.0	U	1.0	U	3.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1.0	U	1.2	U
30	Fluorene	1.0	U	1.0	U	1.0	UJ	1.0	U	1.0	U	3.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1.0	U	1.2	U
31	Pentachlorophenol	**4.9**	J1	**4.4**	J1	5.0	UJ	**760**	J2	**9400**	J2	**120**		5.0	U	5.0	U	5.0	U	5.0	U	5.3	U	**2200**		**770**	
32	bis(2-Ethylhexyl)phthalate	1.0	U	1.0	U	1.1	UJ	1.0	U	1.0	U	3.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**120**		4.0	U	5	U
33																											
34	**VOLATILES (µg/L)**																										
35	**EPA Method SW8260**																										
36	Acetone	5.0	U	5.0	U	5.0	U	**25**		**83**		**49**		**41**		5.0	U	15	U	5.0	U	5.0	U	**120**		**320**	
37	Carbon Disulfide	1.0	U	1.0	U	1.0	U	1.0	U	5.0	U	1.0	U	1.0	U	1.0	U	3.0	U	1.0	U	1.0	U	1.0	U	3	U
38	2-Butanone	5.0	U	5.0	U	5.0	U	**18**		25	U	**110**		**100**		5.0	U	15	U	5.0	U	5.0	U	**58**		**27**	
39	Benzene	1.0	U	1.0	U	1.0	U	1.0	U	5.0	U	**7.4**		**110**		**80**		**78**		1.0	U	1.0	U	**4.1**		3	U
40	Bromoform	1.0	U	1.0	U	1.0	U	1.0	U	5.0	U	1.0	U	1.0	U	1.0	U	3.0	U	1.0	U	1.0	U	1.0	U	3	U
41	Toluene	1.0	U	1.0	U	1.0	U	1.0	U	**9.2**		**19**		**25**		**41**		**6.9**		1.0	U	1.0	U	**7.5**		**10**	
42	Ethylbenzene	1.0	U	1.0	U	1.0	U	**9.8**		**94**		**61**		**79**		**190**		**140**		1.0	U	1.0	U	**68**		**94**	J
43	Styrene	1.0	U	1.0	U	1.0	U	1.0	U	5.0	U	1.0	U	1.0	U	1.0	U	3.0	U	1.0	U	1.0	U	1.0	U	3	U
44	m,p-Xylene	1.0	U	1.0	U	1.0	U	**17**		**110**		**170**		**240**		**600**		**460**		1.0	U	1.0	U	**95**		**150**	
45	o-Xylene	1.0	U	1.0	U	1.0	U	**140**		**210**		**88**		**120**		**240**		**180**		1.0	U	1.0	U	**180**		**180**	
46	1,3,5-Trimethylbenzene	1.0	U	1.0	U	1.0	U	**3.2**		**140**		**46**		**58**		**130**		**94**		1.0	U	1.0	U	**58**		**150**	J
47	1,2,4-Trimethylbenzene	1.0	U	1.0	U	1.0	U	**33**		**500**		**160**		**130**		**350**		**280**		**1.5**		1.0	U	**230**		**540**	J
48	Isopropylbenzene	1.0	U	1.0	U	1.0	U	**28**		**48**		**19**		**28**		**62**		**37**		1.0	U	1.0	U	**38**		**63**	J
49	n-Propylbenzene	1.0	U	1.0	U	1.0	U	**9.8**		**79**		**27**		**36**		**79**		**48**		**1.1**		1.0	U	**43**		**94**	J
50	tert-Butylbenzene	1.0	U	1.0	U	1.0	U	**3.4**		5.0	U	1.0	U	1.0	U	1.0	U	3.0	U	1.0	U	1.0	U	**3.1**		3	U
51	sec-Butylbenzene	1.0	U	1.0	U	1.0	U	**26**		**25**		**7.7**		**7.0**		1.0	U	3.0	U	1.0	U	1.0	U	**16**		**21**	J
52	4-Isopropyltoluene	1.0	U	1.0	U	1.0	U	1.0	U	**19**		**4.8**		**4.9**		**9.9**		**6.7**		1.0	U	1.0	U	**8.8**		**16**	
53	n-Butylbenzene	1.0	U	1.0	U	1.0	U	1.6	U	13	U	6.8	U	**6.2**		10	U	7.5	U	1.0	U	1.0	U	7.9		**11**	J
54	Naphthalene	5.0	U	5.0	U	5.0	U	**26**		**31**		**19**		**18**		**48**		**27**		5.0	U	5.0	U	**21**		15	U
55	Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
56																											
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																										
58	**Method OR-DEQ**																										
59	**TPH-Diesel**	0.25	U	0.25	U	0.25	U	**3.6**		**15**		**19**		**3.4**		**7.9**		**4.1**		0.25	U	**0.34**		**25**		**9.9**	
60	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		5.0	U	NA		NA		NA		NA		NA		NA		NA	
61	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
62																											
63	**PRIORITY POLLUTANT**																										
64	**METALS (mg/L)**																										
65	Arsenic (7060)	0.001	U	0.001	U	0.001	U	**0.001**		**0.004**		**0.006**		**0.009**		**0.008**		**0.010**		**0.002**		0.001	U	**0.002**		**0.006**	

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TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL
3		LW4S		LW4S		LW4S		LW4S		LW4S		LW4S	
4		EZ17E		FF65F		FL58F		FU45O		FY82K		0402113-07	
5		11/13/02		2/11/03		5/8/03		8/28/03		10/24/03		2/23/04	
7	**CHLORINATED PHENOLS (µg/L)**												
8	**EPA Method SW8040**												
9	Pentachlorophenol	**1.5**		0.26	U	NA		NA		**3.9**		0.49	U
10	2,4,6-Trichlorophenol	NA		NA		NA		NA		NA		NA	
11	2,3,6-Trichlorophenol	NA		NA		NA		NA		NA		NA	
12	2,4,5-Trichlorophenol	NA		NA		NA		NA		NA		NA	
13	2,3,4-Trichlorophenol	NA		NA		NA		NA		NA		NA	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA		NA		NA		NA		NA	
15	2,3,4,5-Tetrachlorophenol	NA		NA		NA		NA		NA		NA	
16													
17	**SEMIVOLATILES (µg/L)**												
18	**EPA Method SW8270**												
19	Phenol	2.2	U	2	U	2	U	2	U	2	U	2.05	U
20	4-Methylphenol	1.1	U	1	U	1	U	1	U	1	U	10.2	U
21	Isophorone	1.1	U	1	U	1	U	1	U	1	U	1.02	U
22	2,4-Dimethylphenol	3.3	U	3.1	U	3	U	3	U	3	U	3.07	U
23	Benzoic Acid	54	U	51	U	50	U	50	U	10	U	20.5	U
24	Naphthalene	1.1	U	1	U	**4.8**		1	U	1	U	1.02	U
25	2-Methylnaphthalene	1.1	U	1	U	1	U	1	U	1	U	1.02	U
26	2,4,6-Trichlorophenol	5.4	U	5.1	U	5	U	5	U	5	U	5.12	U
27	2,4,5-Trichlorophenol	5.4	U	5.1	U	5	U	5	U	5	U	5.12	U
28	Acenaphthene	1.1	U	1	U	1	U	1	U	1	U	1.02	U
29	Dibenzofuran	1.1	U	1	U	1	U	1	U	1	U	1.02	U
30	Fluorene	1.1	U	1	U	1	U	1	U	1	U	1.02	U
31	Pentachlorophenol	5.4	U	5.1	U	**1400**		**17**		5	U	5.12	U
32	bis(2-Ethylhexyl)phthalate	4.3	U	1	U	**1**		1	U	1	U	1.02	U
33													
34	**VOLATILES (µg/L)**												
35	**EPA Method SW8260**												
36	Acetone	19	U	5	U	**7.2**	M	5	U	5	U	50	U
37	Carbon Disulfide	1	U	1	U	1	U	1	U	1	U	2	U
38	2-Butanone	5	U	5	U	5	U	5	U	5	U	10	U
39	Benzene	1	U	1	U	**3.2**		1	U	1	U	0.4	U
40	Bromoform	1	U	1	U	1	U	1	U	1	U	1	U
41	Toluene	1	U	1	U	1	U	1	U	1	U	1	U
42	Ethylbenzene	**4.8**		1	U	**11**		1	U	1	U	1	U
43	Styrene	1	U	1	U	1	U	1	U	1	U	1	U
44	m,p-Xylene	**3.8**		1	U	**14**		1	U	1	U	2	U
45	o-Xylene	**5.9**		1	U	**59**		1	U	1	U	1	U
46	1,3,5-Trimethylbenzene	**1.7**		1	U	**18**		1	U	1	U	1	U
47	1,2,4-Trimethylbenzene	**19**		1	U	**210**		**1.2**	J	**1.4**		1	U
48	Isopropylbenzene	**4.5**		1	U	**24**		1	U	1	U	1	U
49	n-Propylbenzene	**5.4**		1	U	**27**		1	U	1	U	1	U
50	tert-Butylbenzene	1	U	1	U	**1.7**		1	U	1	U	1	U
51	sec-Butylbenzene	**2**		1	U	**8.3**		1	U	1	U	1	U
52	4-Isopropyltoluene	1	U	1	U	**5.7**		1	U	1	U	1	U
53	n-Butylbenzene	1	U	1	U	**5**	M	1	U	1	U	1	U
54	Naphthalene	5	U	5	U	**42**		5	U	5	U	1	U
55	Methyl tert-butyl ether	NA		NA		NA		NA		NA		1	U
56													
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**												
58	**Method OR-DEQ**												
59	**TPH-Diesel**	**3.2**		0.25	U	**5.3**		**0.36**		**0.26**		0.244	U
60	**TPH-D Motor Oil**	NA		NA		NA		NA		0.5	U	0.487	U
61	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA	
62													
63	**PRIORITY POLLUTANT**												
64	**METALS (mg/L)**												
65	Arsenic (7060)	0.05	U	0.001	U	0.001	U	**0.002**		**0.001**		0.001	U

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1																										
2																									Dup of LW4S	
3			LW4S		LW4S		LW4S		LW4S		LW4S (a)		LW4S		LW4S		LW4S		LW4S		LW4S		LW4S		LW40S	
4			S167J		T176G		U235O		V232E		B802035-01		W391F		Y314F		Z225K		Z960L		AH49G		AU45B		AU45A	
5			4/1/97		7/15/97		10/22/97		1/30/98		1/30/98		5/20/98		8/17/98		11/14/98		2/18/99		5/18/99		9/22/99		9/22/99	
66	59	Chromium (6010)	0.005	U	**0.015**		0.005	U	0.005	U	NA		0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U
67	60	Copper (6010)	**0.004**		**0.015**		0.002	U	**0.004**		NA		0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U
68	61	Lead (7421)	0.001	U	**0.006**		0.02	U	0.02	U	NA		0.001	U	0.001	U	0.001	U	0.001	U	**0.002**		0.001	U	0.001	U
69	62	Nickel (6010)	**0.02**		**0.02**		0.01	U	0.01	U	NA		0.01	U	0.01	U	0.01	U	0.01	U	**0.01**		0.01	U	0.01	U
70	63	Zinc (6010)	**0.008**		**0.035**		0.004	U	**0.009**		NA		**0.005**	J2	0.004	U	**0.005**		**0.009**	J2	**0.011**		**0.007**		0.004	U
71	64																									
72	65	**MAJOR IONS AND CONVENTIONALS**																								
73	66	Calcium (mg/L) (6010)	**20.7**		**20.4**		**16.9**		**15.1**		NA		NA		NA		NA		**10.7**		NA		NA		NA	
74	67	Magnesium (mg/L) (6010)	**5.92**		**7.1**		**4.46**		**4.60**		NA		NA		NA		NA		**2.98**		NA		NA		NA	
75	68	Potassium (mg/L) (6010)	**3.9**		**4.5**		**4.2**		**3.5**		NA		NA		NA		NA		**2.6**		NA		NA		NA	
76	69	Sodium (mg/L) (6010)	**13.2**		**13.7**		**11.6**		**10.0**		NA		NA		NA		NA		**6.10**		NA		NA		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	**75**		**64**		**62**		**64**		NA		NA		NA		NA		**43**		NA		NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		1.0	U	NA		NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	**75**		**64**		**62**		**64**		NA		NA		NA		NA		**43**		NA		NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	NT		**140**	J2	**110**		**140**	J2	NA		160		160		180		**110**		**140**		**150**		**160**	
81	74	Chloride (mg/L) (EPA 325.2)	**4.5**	J	**3.1**		**3.5**		**2.1**		NA		4.5		4.3		13		1.0	U	**2.2**		**7.1**		**6.9**	
82	75	N-Nitrate (mg-N/L) (Calculated)	**11**	J	**3.3**		**5.1**		**4.2**	J2	NA		NA		NA		NA		**1.8**		NA		NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	0.010	U	0.010	U	0.010	U	**0.021**	J2	NA		NA		NA		NA		0.010	U	NA		NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	**11**	J	**3.3**		**5.1**		**4.3**	J2	NA		NA		NA		NA		**1.8**		NA		NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	**13**	J	**15**		**4.5**		**6.8**		NA		NA		NA		NA		**6.5**		NA		NA		NA	
86	79																									

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TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ
1																											
2				Dup of LW4S																							
3		LW4S		LW40S		LW4S		LW4S		LW4S		LW4S		LW4S		LW4S		LW4S		LW4S		LW4S		LW4S		LW4S	
4		BC27Q		BC27O		BH96D		BR55C		CB68C		CL03F		CT67C		DE87J		DM30C		DW29F		ED30G		EN00G		ER93K	
5		12/9/99		12/9/99		2/17/00		5/22/00		8/30/00		11/9/00		2/15/01		6/6/01		8/13/01		11/27/01		2/27/02		6/27/02		08/27/02	
66	Chromium (6010)	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U
67	Copper (6010)	0.002	U	0.002	U	0.002	U	**0.008**		**0.016**		**0.008**		0.002	U	**0.002**		0.002	U	0.002	U	0.002	U	**0.085**		**0.05**	
68	Lead (7421)	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	**0.001**		**0.002**		0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	**0.001**	
69	Nickel (6010)	0.01	U	0.01	U	0.01	U	**0.01**		0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	**0.03**		0.01	U
70	Zinc (6010)	0.008	U	0.006	U	0.006	U	0.006	U	0.006	U	**0.009**		0.006	U	0.006	U	**0.007**		0.006	U	0.006	U	0.006	U	**0.011**	
71																											
72	**MAJOR IONS AND CONVENTIONALS**																										
73	Calcium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		**164**		**149**		**144**		**13.9**		**25.8**		**163**		NA	
74	Magnesium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		**56.0**		**48.2**		**43.6**		**4.06**		**7.66**		**49.6**		NA	
75	Potassium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		**5.6**		**5.9**		**6.4**		**2.5**		**3.5**		**7.9**		NA	
76	Sodium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		**9.87**		**9.35**		**11.5**		**4.35**		**7.39**		**15.0**		NA	
77	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		**810**		NA		NA		NA		**80**		NA		NA	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		1.0	U	NA		NA		NA		1.0	U	NA		NA	
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		**810**		NA		NA		NA		**80**		NA		NA	
80	Total Dissolved Solids (mg/L) (EPA 160.1)	**120**		**120**		**150**		**490**		**420**		**990**		**760**		**720**	J	**580**	J	**95**		**300**		**890**		**380**	
81	Chloride (mg/L) (EPA 325.2)	**4.3**		**4.5**		**3.5**		**9.9**		**4.6**		**7.7**		**7.5**	J	**5.3**		**7.1**		**1.7**		**6.7**	J	**9.4**		**5.2**	
82	N-Nitrate (mg-N/L) (Calculated)	NA		NA		NA		NA		NA		NA		0.010	U	NA		NA		NA		**8.4**		NA		NA	
83	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		NA		NA		NA		NA		**0.013**	J	NA		NA		NA		**0.022**		NA		NA	
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		NA		NA		NA		NA		0.010	U	NA		NA		NA		**8.4**		NA		NA	
85	Sulfate (mg/L) (EPA 375.2)	NA		NA		NA		NA		NA		NA		**8.4**		NA		NA		NA		**18**		NA		NA	
86																											

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL
1													
2													
3		LW4S		LW4S		LW4S		LW4S		LW4S		LW4S	
4		EZ17E		FF65F		FL58F		FU45O		FY82K		0402113-07	
5		11/13/02		2/11/03		5/8/03		8/28/03		10/24/03		2/23/04	
66	Chromium (6010)	**0.07**		0.005	U	0.005	U	0.005	U	**0.006**		**0.0071**	
67	Copper (6010)	**0.163**		**0.002**		**0.028**		**0.003**		**0.006**		0.01	U
68	Lead (7421)	**0.04**		0.001	U	0.001	U	0.001	U	0.001	U	0.0001	U
69	Nickel (6010)	**0.11**		0.01	U	**0.01**		0.01	U	0.01	U	0.005	U
70	Zinc (6010)	**0.17**		0.006	U	0.006	U	0.006	U	**0.009**		0.01	U
71													
72	**MAJOR IONS AND CONVENTIONALS**												
73	Calcium (mg/L) (6010)	NA		**7.7**		NA		NA		NA		NA	
74	Magnesium (mg/L) (6010)	NA		**2.25**		NA		NA		NA		NA	
75	Potassium (mg/L) (6010)	NA		**1.8**		NA		NA		NA		NA	
76	Sodium (mg/L) (6010)	NA		**4**		NA		NA		NA		NA	
77	Alkalinity (mg/L CaCO3) (SM 2320)	NA		**36**		NA		NA		NA		NA	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		1	U	NA		NA		NA		NA	
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		**36**		NA		NA		NA		NA	
80	Total Dissolved Solids (mg/L) (EPA 160.1)	**320**		**66**		**290**		**200**		**140**		**166**	
81	Chloride (mg/L) (EPA 325.2)	**7.3**		1	U	**9.8**		**5.8**		**3**		**6.03**	
82	N-Nitrate (mg-N/L) (Calculated)	NA		**0.76**		NA		NA		NA		NA	
83	N-Nitrite (mg-N/L) (EPA 354.1)	NA		0.01	U	NA		NA		NA		NA	
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		**0.76**		NA		NA		NA		NA	
85	Sulfate (mg/L) (EPA 375.2)	NA		**6.4**		NA		NA		NA		NA	
86													

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1																										
2																									Dup of LW4S	
3			LW4S		LW4S		LW4S		LW4S		LW4S (a)		LW4S		LW4S		LW4S		LW4S		LW4S		LW4S		LW40S	
4			S167J		T176G		U235O		V232E		B802035-01		W391F		Y314F		Z225K		Z960L		AH49G		AU45B		AU45A	
5			4/1/97		7/15/97		10/22/97		1/30/98		1/30/98		5/20/98		8/17/98		11/14/98		2/18/99		5/18/99		9/22/99		9/22/99	
87	80	**FIELD PARAMETERS**																								
88	81	pH (avg)	6.46		6.86		6.76		6.61		6.61		6.08		6.23		6.33		6.31		5.67		6.51		6.49	
89	82	Temperature (° C) (avg)	11.3		17.0		14.9		12.1		12.1		12.6		16.6		14.3		10.0		13.3		15.4		15.4	
90	83	Conductivity (um/hos)	212		212		173		163		163		263		301		111		110		192		229		229	
91	84	Dissolved oxygen (mg/L) (avg)	NA		NA		NA		NA		NA		2.41		2.15		1.75		4.54		2.58		1.74		1.67	
92	85																									
93	86	**DIOXINS AND FURANS (ng/L)**																								
94	87	**Method 8290**																								
95	88	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
96	89	Total TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
97	90	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
98	91	Total TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
101	94	Total PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
103	96	Total PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
108	101	Total HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
112	105	Total HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
115	108	Total HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
117	110	Total HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
118	111	OCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
119	112	OCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
120																										
121		**ETHANOL (mg/L)**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
122																										

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TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ
1																											
2				Dup of LW4S																							
3		LW4S		LW40S		LW4S		LW4S		LW4S		LW4S		LW4S		LW4S		LW4S		LW4S		LW4S		LW4S		LW4S	
4		BC27Q		BC27O		BH96D		BR55C		CB68C		CL03F		CT67C		DE87J		DM30C		DW29F		ED30G		EN00G		ER93K	
5		12/9/99		12/9/99		2/17/00		5/22/00		8/30/00		11/9/00		2/15/01		6/6/01		8/13/01		11/27/01		2/27/02		6/27/02		08/27/02	
87	**FIELD PARAMETERS**																										
88	pH (avg)	6.57		6.57		6.48		6.28		5.70		5.74		6.31		6.80		6.75		6.21		5.64		6.23		6.68	
89	Temperature (° C) (avg)	13.0		12.9		13.1		14.5		15.1		14.3		13.5		14.2		16.2		14.6		12.6		14.4		15.8	
90	Conductivity (um/hos)	177		177		209		478		433		884		809		1400		973		129		253		843		477	
91	Dissolved oxygen (mg/L) (avg)	4.58		4.75		0.93		1.91		1.36		0.62		0.00		0.00		0.84		4		7.53		5.19		0.62	
92																											
93	**DIOXINS AND FURANS (ng/L)**																										
94	**Method 8290**																										
95	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
96	Total TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
97	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
98	Total TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
99	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
100	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
101	Total PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
102	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
103	Total PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
104	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
105	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
106	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
107	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
108	Total HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
109	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
110	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
111	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
112	Total HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
113	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
114	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
115	Total HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
116	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
117	Total HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
118	OCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
119	OCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
120																											
121	**ETHANOL (mg/L)**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
122																											

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL
1													
2													
3		LW4S		LW4S		LW4S		LW4S		LW4S		LW4S	
4		EZ17E		FF65F		FL58F		FU45O		FY82K		0402113-07	
5		11/13/02		2/11/03		5/8/03		8/28/03		10/24/03		2/23/04	
87	**FIELD PARAMETERS**												
88	pH (avg)	6.2		6.59		6.33		6.82		6.65		5.8	
89	Temperature (° C) (avg)	16.1		10.9		13		16.1		15.2		11.6	
90	Conductivity (um/hos)	465		85		383		231		217		166	
91	Dissolved oxygen (mg/L) (avg)	2.03		0		2.4		1.86		2.95		2.27	
92													
93	**DIOXINS AND FURANS (ng/L)**												
94	**Method 8290**												
95	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA	
96	Total TCDF	NA		NA		NA		NA		NA		NA	
97	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA	
98	Total TCDD	NA		NA		NA		NA		NA		NA	
99	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA	
100	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA	
101	Total PeCDF	NA		NA		NA		NA		NA		NA	
102	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA	
103	Total PeCDD	NA		NA		NA		NA		NA		NA	
104	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA	
105	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA	
106	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA	
107	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA	
108	Total HxCDF	NA		NA		NA		NA		NA		NA	
109	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA	
110	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA	
111	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA	
112	Total HxCDD	NA		NA		NA		NA		NA		NA	
113	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA	
114	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA	
115	Total HpCDF	NA		NA		NA		NA		NA		NA	
116	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA	
117	Total HpCDD	NA		NA		NA		NA		NA		NA	
118	OCDF	NA		NA		NA		NA		NA		NA	
119	OCDD	NA		NA		NA		NA		NA		NA	
120													
121	**ETHANOL (mg/L)**	NA		NA		NA		NA		NA		NA	
122													

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1																										
2																									Dup of LW4S	
3			LW4S		LW4S		LW4S		LW4S		LW4S (a)		LW4S		LW4S		LW4S		LW4S		LW4S		LW4S		LW40S	
4			S167J		T176G		U235O		V232E		B802035-01		W391F		Y314F		Z225K		Z960L		AH49G		AU45B		AU45A	
5			4/1/97		7/15/97		10/22/97		1/30/98		1/30/98		5/20/98		8/17/98		11/14/98		2/18/99		5/18/99		9/22/99		9/22/99	
123		**PAHs (µg/L)**																								
124		**EPA Method SW8270 SIM**																								
125		Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
126		2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
127		Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
128		Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
129		Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
130		Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
131		Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ
1																											
2				Dup of LW4S																							
3		LW4S		LW40S		LW4S		LW4S		LW4S		LW4S		LW4S		LW4S		LW4S		LW4S		LW4S		LW4S		LW4S	
4		BC27Q		BC27O		BH96D		BR55C		CB68C		CL03F		CT67C		DE87J		DM30C		DW29F		ED30G		EN00G		ER93K	
5		12/9/99		12/9/99		2/17/00		5/22/00		8/30/00		11/9/00		2/15/01		6/6/01		8/13/01		11/27/01		2/27/02		6/27/02		08/27/02	
123	**PAHs (µg/L)**																										
124	**EPA Method SW8270 SIM**																										
125	Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
126	2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
127	Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
128	Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
129	Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
130	Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
131	Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL
1													
2													
3		LW4S		LW4S		LW4S		LW4S		LW4S		LW4S	
4		EZ17E		FF65F		FL58F		FU45O		FY82K		0402113-07	
5		11/13/02		2/11/03		5/8/03		8/28/03		10/24/03		2/23/04	
123	**PAHs (µg/L)**												
124	**EPA Method SW8270 SIM**												
125	Naphthalene	NA		NA		NA		NA		NA		NA	
126	2-Methylnaphthalene	NA		NA		NA		NA		NA		NA	
127	Acenaphthylene	NA		NA		NA		NA		NA		NA	
128	Acenaphthene	NA		NA		NA		NA		NA		NA	
129	Fluorene	NA		NA		NA		NA		NA		NA	
130	Anthracene	NA		NA		NA		NA		NA		NA	
131	Dibenzofuran	NA		NA		NA		NA		NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1																										
2					Dup of LW5S																					
3			LW5S		LW5D		LW5S		LW5S		LW5S		LW5S		LW5S		LW5S		LW5S		LW5S		LW5S		LW5S	
4			S167E		S167F		T160A		U235G		V232G		W391C		Y336E		Z225G		Z960J		AH49F		AU22E		BC27C	
5			3/31/97		3/31/97		7/14/97		10/22/97		1/30/98		5/19/98		8/18/98		11/13/98		2/18/99		5/18/99		9/20/99		12/7/99	
7	1	**CHLORINATED PHENOLS (µg/L)**																								
8	2	**EPA Method SW8040**																								
9	3	Pentachlorophenol	**0.25**		**0.26**		**0.24**	J1	**0.25**		**0.27**		**0.18**	J1	**0.18**	J1	0.25	U	**0.25**		0.25	U	**0.13**	J1	0.25	U
10	4	2,4,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
11	5	2,3,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
12	6	2,4,5-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
13	7	2,3,4-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
15	9	2,3,4,5-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
16	10																									
17	11	**SEMIVOLATILES (µg/L)**																								
18	12	**EPA Method SW8270**																								
19	13	Phenol	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
20	14	4-Methylphenol	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
21	15	Isophorone	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
22	16	2,4-Dimethylphenol	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U
23	17	Benzoic Acid	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
24	18	Naphthalene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
25	19	2-Methylnaphthalene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
26	20	2,4,6-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
27	21	2,4,5-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
28	22	Acenaphthene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
29	23	Dibenzofuran	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
30	24	Fluorene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
31	25	Pentachlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
32	26	bis(2-Ethylhexyl)phthalate	1.0	UJ	1.0	UJ	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
33	27																									
34	28	**VOLATILES (µg/L)**																								
35	29	**EPA Method SW8260**																								
36	30	Acetone	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
37	31	Carbon Disulfide	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
38	32	2-Butanone	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
39	33	Benzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
40	34	Bromoform	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
41	35	Toluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
42	36	Ethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
43	37	Styrene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
44	38	m,p-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
45	39	o-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
46	40	1,3,5-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
47	41	1,2,4-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
48	42	Isopropylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
49	43	n-Propylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
50	44	tert-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
51	45	sec-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	UJ	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
52	46	4-Isopropyltoluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
53	47	n-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
54	48	Naphthalene	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
55	48.5	Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
56	49																									
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																								
58	51	**Method OR-DEQ**																								
59	52	**TPH-Diesel**	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
60	53	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
61	54	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
62	55																									
63	56	**PRIORITY POLLUTANT**																								
64	57	**METALS (mg/L)**																								
65	58	Arsenic (7060)	**0.001**		**0.002**		**0.002**		0.05	U	0.05	U	**0.003**		**0.003**		**0.003**		**0.008**		**0.003**		**0.003**		**0.002**	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ
3		LW5S		LW5S		LW5S		LW5S		LW5S	
4		BH96C		BR64F		CT37E		ED16F		FF88C	
5		2/17/00		5/24/00		2/12/01		2/25/02		2/13/03	
7	**CHLORINATED PHENOLS (µg/L)**										
8	**EPA Method SW8040**										
9	Pentachlorophenol	**0.18**	J1	0.25	U	0.25	U	0.25	U	0.25	U
10	2,4,6-Trichlorophenol	0.25	U	0.25	U	NA		NA		NA	
11	2,3,6-Trichlorophenol	0.25	U	0.25	U	NA		NA		NA	
12	2,4,5-Trichlorophenol	0.25	U	0.25	U	NA		NA		NA	
13	2,3,4-Trichlorophenol	0.25	U	0.25	U	NA		NA		NA	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	0.25	U	0.25	U	NA		NA		NA	
15	2,3,4,5-Tetrachlorophenol	0.25	U	0.25	U	NA		NA		NA	
17	**SEMIVOLATILES (µg/L)**										
18	**EPA Method SW8270**										
19	Phenol	2.0	U	2.0	U	2.0	U	2.0	U	2	U
20	4-Methylphenol	1.0	U	1.0	U	1.0	U	1.0	U	1	U
21	Isophorone	1.0	U	1.0	U	1.0	U	1.0	U	1	U
22	2,4-Dimethylphenol	3.0	U	3.0	U	3.0	U	3.0	U	3	U
23	Benzoic Acid	10	U	10	U	10	U	50	U	50	U
24	Naphthalene	1.0	U	1.0	U	1.0	U	1.0	U	1	U
25	2-Methylnaphthalene	1.0	U	1.0	U	1.0	U	1.0	U	1	U
26	2,4,6-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5	U
27	2,4,5-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5	U
28	Acenaphthene	1.0	U	1.0	U	1.0	U	1.0	U	1	U
29	Dibenzofuran	1.0	U	1.0	U	1.0	U	1.0	U	1	U
30	Fluorene	1.0	U	1.0	U	1.0	U	1.0	U	1	U
31	Pentachlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5	U
32	bis(2-Ethylhexyl)phthalate	1.0	U	1.0	U	1.0	U	4.0	U	1	U
34	**VOLATILES (µg/L)**										
35	**EPA Method SW8260**										
36	Acetone	5.0	U	5.0	U	6.6	U	5.0	U	5	U
37	Carbon Disulfide	1.0	U	1.0	U	1.0	U	1.0	U	1	U
38	2-Butanone	5.0	U	5.0	U	5.0	U	5.0	U	5	U
39	Benzene	1.0	U	1.0	U	1.0	U	1.0	U	1	U
40	Bromoform	1.0	U	1.0	U	1.0	U	1.0	U	1	U
41	Toluene	1.0	U	1.0	U	1.0	U	1.0	U	1	U
42	Ethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1	U
43	Styrene	1.0	U	1.0	U	1.0	U	1.0	U	1	U
44	m,p-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	1	U
45	o-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	1	U
46	1,3,5-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1	U
47	1,2,4-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1	U
48	Isopropylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1	U
49	n-Propylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1	U
50	tert-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1	U
51	sec-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1	U
52	4-Isopropyltoluene	1.0	U	1.0	U	1.0	U	1.0	U	1	U
53	n-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1	U
54	Naphthalene	5.0	U	5.0	U	5.0	U	5.0	U	5	U
55	Methyl tert-butyl ether	NA		NA		NA		NA		NA	
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**										
58	**Method OR-DEQ**										
59	**TPH-Diesel**	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
60	**TPH-D Motor Oil**	NA		NA		NA		NA		NA	
61	**TPH-Gasoline**	NA		NA		NA		NA		NA	
63	**PRIORITY POLLUTANT**										
64	**METALS (mg/L)**										
65	Arsenic (7060)	**0.003**		**0.003**		**0.002**		**0.003**		**0.003**	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1																										
2					Dup of LW5S																					
3			LW5S		LW5D		LW5S		LW5S		LW5S		LW5S		LW5S		LW5S		LW5S		LW5S		LW5S		LW5S	
4			S167E		S167F		T160A		U235G		V232G		W391C		Y336E		Z225G		Z960J		AH49F		AU22E		BC27C	
5			3/31/97		3/31/97		7/14/97		10/22/97		1/30/98		5/19/98		8/18/98		11/13/98		2/18/99		5/18/99		9/20/99		12/7/99	
66	59	Chromium (6010)	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	**0.028**		0.005	U	0.005	U	0.005	U
67	60	Copper (6010)	**0.004**		**0.004**		0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	**0.027**		0.002	U	0.002	U	0.002	U
68	61	Lead (7421)	**0.004**		**0.003**		**0.002**		0.02	U	0.02	U	0.001	U	0.001	U	0.001	U	**0.036**		0.001	U	0.001	U	0.001	U
69	62	Nickel (6010)	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	**0.02**		0.01	U	0.01	U	0.01	U
70	63	Zinc (6010)	**0.008**		**0.011**		**0.004**		**0.005**		**0.004**		**0.008**	J2	0.004	U	**0.006**		**0.081**		0.004	U	0.004	U	0.006	U
71	64																									
72	65	**MAJOR IONS AND CONVENTIONALS**																								
73	66	Calcium (mg/L) (6010)	**18.5**		**18.8**		**16**		**11.5**		**14.2**		NA		NA		NA		**22.3**		NA		NA		NA	
74	67	Magnesium (mg/L) (6010)	**5.42**		**5.51**		**4.67**		**3.22**		**3.96**		NA		NA		NA		**9.38**		NA		NA		NA	
75	68	Potassium (mg/L) (6010)	**3.5**		**3.5**		**2.7**		**2.8**		**3.0**		NA		NA		NA		**4.8**		NA		NA		NA	
76	69	Sodium (mg/L) (6010)	**11.6**		**11.8**		**10.3**		**10.2**		**10.3**		NA		NA		NA		**13.4**		NA		NA		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	**86**		**82**		**72**		**58**		**77**		NA		NA		NA		**78**		NA		NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		1.0	U	NA		NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	**86**		**82**		**72**		**58**		**77**		NA		NA		NA		**78**		NA		NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	NT		NT		**130**		**100**		**120**	J2	110		97		98		**120**		**160**		**120**		**110**	
81	74	Chloride (mg/L) (EPA 325.2)	1.0	U	**5.6**	J	**1.8**		**1.4**		**1.5**		2.5		1.0	U	1.5		**1.5**		**2.4**		**1.4**		**1.9**	
82	75	N-Nitrate (mg-N/L) (Calculated)	**0.75**	J	0.010	U	**1.3**		**0.40**		**0.044**	J2	NA		NA		NA		**1.0**		NA		NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	0.010	U	**0.022**	J	0.010	U	0.010	U	**0.010**	J2	NA		NA		NA		**0.034**		NA		NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	**0.75**	J	**0.016**	J	**1.3**		**0.40**		**0.054**	J2	NA		NA		NA		**1.0**		NA		NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	**11**	J	**4.0**	J	**10**		**5.7**		**6.7**		NA		NA		NA		**9.5**		NA		NA		NA	
86	79																									

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ
1											
2											
3		LW5S		LW5S		LW5S		LW5S		LW5S	
4		BH96C		BR64F		CT37E		ED16F		FF88C	
5		2/17/00		5/24/00		2/12/01		2/25/02		2/13/03	
66	Chromium (6010)	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U
67	Copper (6010)	0.002	U	0.002	U	0.002	U	0.002	U	**0.013**	
68	Lead (7421)	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
69	Nickel (6010)	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
70	Zinc (6010)	0.006	U	0.006	U	0.006	U	0.006	U	**0.013**	
71											
72	**MAJOR IONS AND CONVENTIONALS**										
73	Calcium (mg/L) (6010)	NA		NA		**16.3**		**22.4**		**20.5**	
74	Magnesium (mg/L) (6010)	NA		NA		**4.44**		**6.49**		**5.99**	
75	Potassium (mg/L) (6010)	NA		NA		**2.6**		**3.4**		**3**	
76	Sodium (mg/L) (6010)	NA		NA		**9.64**		**11.4**		**10.1**	
77	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		**81**		**100**		**88**	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		1.0	U	1.0	U	1	U
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		**81**		**100**		**88**	
80	Total Dissolved Solids (mg/L) (EPA 160.1)	**100**		**97**		**140**		**150**		**140**	
81	Chloride (mg/L) (EPA 325.2)	**1.9**		**1.6**		**6.3**		**1.1**		**2.1**	
82	N-Nitrate (mg-N/L) (Calculated)	NA		NA		**1.2**		**1.6**		**0.73**	
83	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		0.010	U	0.010	U	0.01	U
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		**1.2**	J	**1.6**		**0.73**	
85	Sulfate (mg/L) (EPA 375.2)	NA		NA		**9.1**		**9.0**		**10**	
86											

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1																										
2					Dup of LW5S																					
3			LW5S		LW5D		LW5S		LW5S		LW5S		LW5S		LW5S		LW5S		LW5S		LW5S		LW5S		LW5S	
4			S167E		S167F		T160A		U235G		V232G		W391C		Y336E		Z225G		Z960J		AH49F		AU22E		BC27C	
5			3/31/97		3/31/97		7/14/97		10/22/97		1/30/98		5/19/98		8/18/98		11/13/98		2/18/99		5/18/99		9/20/99		12/7/99	
87	80	**FIELD PARAMETERS**																								
88	81	pH (avg)	6.56		6.56		6.58		6.74		6.86		6.24		6.33		6.19		6.65		5.79		6.43		6.33	
89	82	Temperature (° C) (avg)	11.7		11.7		14.3		14.7		13.8		13.0		16.0		13.3		14.2		12.8		17.2		13.1	
90	83	Conductivity (um/hos)	175		175		197		125		175		177		171		80		169		200		146		133	
91	84	Dissolved oxygen (mg/L) (avg)	NA		NA		NA		NA		NA		3.37		1.83		1.86		5.67		2.40		2.38		2.85	
92	85																									
93	86	**DIOXINS AND FURANS (ng/L)**																								
94	87	**Method 8290**																								
95	88	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
96	89	Total TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
97	90	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
98	91	Total TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
101	94	Total PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
103	96	Total PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
108	101	Total HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
112	105	Total HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
115	108	Total HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
117	110	Total HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
118	111	OCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
119	112	OCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
120																										
121		**ETHANOL (mg/L)**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
122																										

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ
1											
2											
3		LW5S		LW5S		LW5S		LW5S		LW5S	
4		BH96C		BR64F		CT37E		ED16F		FF88C	
5		2/17/00		5/24/00		2/12/01		2/25/02		2/13/03	
87	**FIELD PARAMETERS**										
88	pH (avg)	6.49		6.42		6.17		5.91		6.79	
89	Temperature (° C) (avg)	11.8		14.6		13.7		12.4		13.3	
90	Conductivity (um/hos)	149		144		148		221		208	
91	Dissolved oxygen (mg/L) (avg)	2.51		2.85		2.08		5.42		0	
92											
93	**DIOXINS AND FURANS (ng/L)**										
94	**Method 8290**										
95	2,3,7,8-TCDF	NA		NA		NA		NA		NA	
96	Total TCDF	NA		NA		NA		NA		NA	
97	2,3,7,8-TCDD	NA		NA		NA		NA		NA	
98	Total TCDD	NA		NA		NA		NA		NA	
99	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA	
100	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA	
101	Total PeCDF	NA		NA		NA		NA		NA	
102	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA	
103	Total PeCDD	NA		NA		NA		NA		NA	
104	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA	
105	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA	
106	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA	
107	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA	
108	Total HxCDF	NA		NA		NA		NA		NA	
109	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA	
110	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA	
111	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA	
112	Total HxCDD	NA		NA		NA		NA		NA	
113	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA	
114	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA	
115	Total HpCDF	NA		NA		NA		NA		NA	
116	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA	
117	Total HpCDD	NA		NA		NA		NA		NA	
118	OCDF	NA		NA		NA		NA		NA	
119	OCDD	NA		NA		NA		NA		NA	
120											
121	**ETHANOL (mg/L)**	NA		NA		NA		NA		NA	
122											

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	C	E	G	I	K	M	O	Q	S	U	W	Y
2			Dup of LW5S										
3		LW5S	LW5D	LW5S	LW5S	LW5S	LW5S	LW5S	LW5S	LW5S	LW5S	LW5S	LW5S
4		S167E	S167F	T160A	U235G	V232G	W391C	Y336E	Z225G	Z960J	AH49F	AU22E	BC27C
5		3/31/97	3/31/97	7/14/97	10/22/97	1/30/98	5/19/98	8/18/98	11/13/98	2/18/99	5/18/99	9/20/99	12/7/99
123	**PAHs (µg/L)**												
124	**EPA Method SW8270 SIM**												
125	Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
126	2-Methylnaphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
127	Acenaphthylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
128	Acenaphthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
129	Fluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
130	Anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
131	Dibenzofuran	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ
1											
2											
3		LW5S		LW5S		LW5S		LW5S		LW5S	
4		BH96C		BR64F		CT37E		ED16F		FF88C	
5		2/17/00		5/24/00		2/12/01		2/25/02		2/13/03	
123	**PAHs (µg/L)**										
124	**EPA Method SW8270 SIM**										
125	Naphthalene	NA		NA		NA		NA		NA	
126	2-Methylnaphthalene	NA		NA		NA		NA		NA	
127	Acenaphthylene	NA		NA		NA		NA		NA	
128	Acenaphthene	NA		NA		NA		NA		NA	
129	Fluorene	NA		NA		NA		NA		NA	
130	Anthracene	NA		NA		NA		NA		NA	
131	Dibenzofuran	NA		NA		NA		NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z			
2							Dup of LW7S																						
3			LW7S		LW7S		LW7D		LW7S		LW7S		LW7S		LW7S		LW7S		LW7S		LW7S		LW7S		LW7S				
4			S167M		T176S		T176T		U235W		V208D		W371I		Y314G		Z225R		Z960N		AH27E		AU22F		BB82A				
5			4/1/97		7/16/97		7/16/97		10/23/97		1/28/98		5/18/98		8/17/98		11/12/98		2/17/99		5/17/99		9/20/99		12/6/99				
7	1	**CHLORINATED PHENOLS (µg/L)**																											
8	2	**EPA Method SW8040**																											
9	3	Pentachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U			
10	4	2,4,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U			
11	5	2,3,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U			
12	6	2,4,5-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U			
13	7	2,3,4-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U			
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U			
15	9	2,3,4,5-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U			
16	10																												
17	11	**SEMIVOLATILES (µg/L)**																											
18	12	**EPA Method SW8270**																											
19	13	Phenol	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U			
20	14	4-Methylphenol	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U			
21	15	Isophorone	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U			
22	16	2,4-Dimethylphenol	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U			
23	17	Benzoic Acid	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U			
24	18	Naphthalene	**23**		**43**		**42**		**13**		**13**		**19**	J2	**10**		**6.5**		**4.0**		**17**		**19**		**7.8**				
25	19	2-Methylnaphthalene	**6.9**		**16**		**15**		**7.4**		**4.1**		**5.9**	J2	**4.6**		**3.4**		**1.2**		**4.7**		**11**		**7.4**				
26	20	2,4,6-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U			
27	21	2,4,5-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U			
28	22	Acenaphthene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U			
29	23	Dibenzofuran	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U			
30	24	Fluorene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U			
31	25	Pentachlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U			
32	26	bis(2-Ethylhexyl)phthalate	1.0	UJ	1.0	U	**3.6**	J2	2.7	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U			
33	27																												
34	28	**VOLATILES (µg/L)**																											
35	29	**EPA Method SW8260**																											
36	30	Acetone	5.0	U	20	U	10	U	5.0	U	57	U	5.0	U	5.0	U	**23**		13	U	**29**		5.0	U	5.0	U			
37	31	Carbon Disulfide	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U			
38	32	2-Butanone	**8.8**		**9.0**	J2	**12**	J2	5.0	U	**5.8**		**8.9**		**8.1**		**11**		**10**		**20**		5.0	U	5.0	U			
39	33	Benzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U			
40	34	Bromoform	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U			
41	35	Toluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U			
42	36	Ethylbenzene	**160**		**140**		**160**		**86**		**71**		**62**		**69**		**36**		**14**		**56**		**80**		**40**				
43	37	Styrene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U			
44	38	m,p-Xylene	**110**		**100**		**120**		**37**		**43**		**30**		**33**		**21**		**8.4**		**22**		**28**		**17**				
45	39	o-Xylene	**4.2**		**3.9**		**4.4**		**1.3**		**1.3**		**1.6**		**1.6**		**1.1**		1.0	U	**1.0**		**1.6**		1.0	U			
46	40	1,3,5-Trimethylbenzene	**15**		**24**		**25**		**21**		**6.4**		**9.1**		**5.9**		**8.0**		**2.0**		**8.3**		**4.4**		**2.4**				
47	41	1,2,4-Trimethylbenzene	**81**		**86**		**100**		**30**	J2	**15**		**9.9**		**7.0**		**2.9**		**3.7**		**17**		**6.3**		**2.5**				
48	42	Isopropylbenzene	**22**		**45**		**42**		**60**	J2	**20**		**29**		**33**		**38**		**7.9**		**27**		**36**		**29**				
49	43	n-Propylbenzene	**31**		**64**		60		**78**		**34**		**43**		**46**		**59**		**13**		**42**		**48**		**41**				
50	44	tert-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U			
51	45	sec-Butylbenzene	**2.4**		**4.9**		**4.6**		**5.7**	J2	**3.6**		**3.6**		**4.1**	J2	**4.5**		**1.8**		**3.1**		**4.0**		**3.4**				
52	46	4-Isopropyltoluene	**2.5**		**4.2**		**4.2**		**3.4**	J2	**1.6**		**2.3**		**2.4**		**2.1**		1.0	U	**2.0**		**2.2**		**1.4**				
53	47	n-Butylbenzene	**3.6**		**7.4**		**7.4**		**6.4**	J2	5.0		**4.4**		**5.2**		**5.3**		**2.5**		**3.4**		**5.2**		**4.3**	M			
54	48	Naphthalene	**64**		**66**	J2	**87**	J2	**35**	J2	**37**		**28**		**32**		**22**		**9.1**		**29**		**41**		**9.6**				
55	48.5	Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA				
56	49																												
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																											
58	51	**Method OR-DEQ**																											
59	52	**TPH-Diesel**	**0.48**		**0.54**		**0.48**		**0.56**		0.25	U	**0.40**		**0.28**		0.25	U	0.25	U	**0.27**		**0.54**		**0.40**				
60	53	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA				
61	54	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA				
62	55																												
63	56	**PRIORITY POLLUTANT**																											
64	57	**METALS (mg/L)**																											
65	58	Arsenic (7060)	**0.014**		**0.017**		**0.017**		0.05	U	0.05	U	**0.015**		**0.015**		**0.017**		**0.016**		**0.010**		**0.018**		**0.016**				

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TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ
3		LW7S		LW7S		LW7S		LW7S		LW7S		LW7S		LW7S		LW7S		LW7S		LW7S		LW7S		LW7S		LW7S	
4		BH75E		BR55H		CB49A		CK77C		CT37A		DE68A		DM52J		DW29A		ED16G		EM75E		ER92A		EZ03M		FF88E	
5		2/15/00		5/23/00		8/28/00		11/7/00		2/12/01		6/4/01		8/15/01		11/27/01		2/25/02		6/25/02		08/26/02		11/12/02		2/13/03	
7	**CHLORINATED PHENOLS (µg/L)**																										
8	**EPA Method SW8040**																										
9	Pentachlorophenol	0.25	U	0.25	UJ	0.25	U	0.25	U	0.25	UJ	0.25	U	0.25	U	**0.25**		0.25	U	0.25	U	0.28	U	0.25	U	0.26	U
10	2,4,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
11	2,3,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
12	2,4,5-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
13	2,3,4-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
15	2,3,4,5-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
16																											
17	**SEMIVOLATILES (µg/L)**																										
18	**EPA Method SW8270**																										
19	Phenol	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.2	U	2.3	U	2	U
20	4-Methylphenol	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1.1	U	1	U
21	Isophorone	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1.1	U	1	U
22	2,4-Dimethylphenol	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.3	U	3.4	U	3.1	U
23	Benzoic Acid	10	U	10	U	10	U	10	U	10	U	10	U	10	U	30	U	50	U	50	U	56	U	57	U	51	U
24	Naphthalene	**1.6**		**5.7**		**12**		**5.2**		**3.7**		2.0		**1.8**		**1.3**		1.0	U	**9.0**		**5.2**		**1.8**		**2.1**	
25	2-Methylnaphthalene	1.0	U	**1.2**		**3.7**		**1.6**		**1.4**		1.0	U	1.0	U	1.0	U	1.0	U	**3.0**		**2**		1.1	U	1	U
26	2,4,6-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.6	U	5.7	U	5.1	U
27	2,4,5-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.6	U	5.7	U	5.1	U
28	Acenaphthene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1.1	U	1	U
29	Dibenzofuran	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1.1	U	1	U
30	Fluorene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1.1	U	1	U
31	Pentachlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.6	U	5.7	U	5.1	U
32	bis(2-Ethylhexyl)phthalate	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**4.3**		4.0	U	4.0	U	4.4	U	4.5	U	1	U
33																											
34	**VOLATILES (µg/L)**																										
35	**EPA Method SW8260**																										
36	Acetone	5.0	U	5.0	U	56	U	110	U	83	U	5.0	U	5.0	U	5.0	U	21	U	5.0	U	48	U	86	U	20	U
37	Carbon Disulfide	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U
38	2-Butanone	5.0	U	5.0	U	9.3	U	5.0	U	**8.2**		5.0	U	**7.7**		5.0	U	5.0	U	**13**		6.6	U	**21**	M	**9.3**	M
39	Benzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U
40	Bromoform	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U
41	Toluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U
42	Ethylbenzene	**5.6**		**19**		**40**		**23**		**15**		**4.6**		**18**		**17**		**8.6**		**31**		**42**		**24**		**8.3**	
43	Styrene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U
44	m,p-Xylene	**2.8**		**8.8**		**15**		**19**		**9.1**		**5.4**		**10**		**13**		**3.7**		**15**		**18**		**12**		**6.3**	
45	o-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U
46	1,3,5-Trimethylbenzene	**2.3**		**2.1**		**3.0**		**2.8**		**1.5**		1.0	U	**1.6**		**1.4**		1.0	U	**20**		**4**		**1.4**		**1**	
47	1,2,4-Trimethylbenzene	1.1	U	**4.6**		**3.0**		**1.6**		**1.2**		1.0	U	**2.3**		1.0	U	**1.1**		**6.9**		**4.9**		**1.2**		**2.1**	
48	Isopropylbenzene	**8.1**		**11**		**18**		**22**		**16**		**1.3**		**21**		**20**		**6.1**		**20**		**26**		**26**		**14**	
49	n-Propylbenzene	**15**		**18**		**28**		**33**		**25**		**1.3**		**27**		**27**		**11**		**30**		**40**		**36**		**23**	
50	tert-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U
51	sec-Butylbenzene	**1.7**		**1.4**		**2.3**		**2.6**		**2.3**		1.0	U	**2.2**		**2.3**		1.0	U	**2.6**		**3.3**		**3**		**2.2**	
52	4-Isopropyltoluene	1.0	U	**1.5**		**1.1**		**1.2**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**1.6**		**2.2**		**1.1**		1	U
53	n-Butylbenzene	2.4	U	1.5	U	**2.8**		**3.2**		**2.6**		1.0	U	**2.8**	M	3.1	U	**1.0**		2.6	U	3.7	U	**3.2**	M	**2.5**	M
54	Naphthalene	5.0	U	**12**		**18**		**13**		**5.7**		5.0	U	**7.0**		5.0	U	5.0	U	**14**		**12**		**5.4**		5	U
55	Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
56																											
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																										
58	**Method OR-DEQ**																										
59	**TPH-Diesel**	0.25	U	0.25	U	**0.32**		**0.32**		**0.32**		**20**		**0.26**		**0.42**		0.25	U	**0.31**		**0.53**		**0.5**		**0.31**	
60	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		0.5	U	NA		NA	
61	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
62																											
63	**PRIORITY POLLUTANT**																										
64	**METALS (mg/L)**																										
65	Arsenic (7060)	**0.017**		**0.016**		**0.015**		**0.015**		**0.016**		**0.016**		**0.019**		**0.017**		**0.017**		**0.017**		**0.015**		0.05	U	**0.017**	

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TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BA	BB	BC	BD	BE	BF	BG	BH
1									
2									
3		LW7S		LW7S		LW7S		LW7S	
4		FL41B		FU45A		FY64F		0402099-03	
5		5/7/03		8/28/03		10/20/03		2/19/04	
6									
7	**CHLORINATED PHENOLS (µg/L)**								
8	**EPA Method SW8040**								
9	Pentachlorophenol	0.25	U	0.50	UJ	0.5	U	0.486	U
10	2,4,6-Trichlorophenol	NA		NA		NA		NA	
11	2,3,6-Trichlorophenol	NA		NA		NA		NA	
12	2,4,5-Trichlorophenol	NA		NA		NA		NA	
13	2,3,4-Trichlorophenol	NA		NA		NA		NA	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA		NA		NA	
15	2,3,4,5-Tetrachlorophenol	NA		NA		NA		NA	
16									
17	**SEMIVOLATILES (µg/L)**								
18	**EPA Method SW8270**								
19	Phenol	2	U	2	U	2	U	1.95	U
20	4-Methylphenol	1	U	1	U	1	U	9.75	U
21	Isophorone	1	U	1	U	1	U	0.975	U
22	2,4-Dimethylphenol	3	U	3.1	U	3	U	2.92	U
23	Benzoic Acid	50	U	51	U	10	U	19.5	U
24	Naphthalene	**1.2**		**4.4**		**4.4**		0.975	U
25	2-Methylnaphthalene	1	U	**1.3**		**1.9**		0.975	U
26	2,4,6-Trichlorophenol	5	U	5.1	U	5	U	4.87	U
27	2,4,5-Trichlorophenol	5	U	5.1	U	5	U	4.87	U
28	Acenaphthene	1	U	1	U	1	U	0.975	U
29	Dibenzofuran	1	U	1	U	1	U	0.975	U
30	Fluorene	1	U	1	U	1	U	0.975	U
31	Pentachlorophenol	5	U	5.1	U	5	U	4.87	U
32	bis(2-Ethylhexyl)phthalate	1	U	1	U	1	U	0.975	U
33									
34	**VOLATILES (µg/L)**								
35	**EPA Method SW8260**								
36	Acetone	**36**	M	5	U	5	U	50	U
37	Carbon Disulfide	1	U	1	U	1	U	2	U
38	2-Butanone	**7.6**	M	**18**	M	**17**	M	10	U
39	Benzene	1	U	1	U	1	U	0.4	U
40	Bromoform	1	U	1	U	1	U	1	U
41	Toluene	1	U	1	U	1	U	1	U
42	Ethylbenzene	**10**	J	**42**		**29**		**7.76**	
43	Styrene	1	U	1	U	1	U	1	U
44	m,p-Xylene	**5**	J	**20**	J	**16**		2	U
45	o-Xylene	1	U	1	U	1	U	1	U
46	1,3,5-Trimethylbenzene	1	U	**3.4**		**3.3**		1	U
47	1,2,4-Trimethylbenzene	**1.1**	J	**3.2**	J	**2.2**		1	U
48	Isopropylbenzene	**8.7**	J	**31**		**42**		**13.6**	
49	n-Propylbenzene	**14**	J	**40**		**54**		**27.5**	
50	tert-Butylbenzene	1	U	1	U	1	U	1	U
51	sec-Butylbenzene	**1.5**	J	**2.9**		**3.7**		**2.18**	
52	4-Isopropyltoluene	1	U	**1.2**		**1.6**		1	U
53	n-Butylbenzene	**1.8**	J	**3**		**4.3**		**2.67**	
54	Naphthalene	5	U	**6.6**		**5.5**		1	U
55	Methyl tert-butyl ether	NA		NA		1	U	1	U
56									
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**								
58	**Method OR-DEQ**								
59	**TPH-Diesel**	0.25	U	**0.54**		**0.6**		**0.333**	
60	**TPH-D Motor Oil**	NA		NA		0.5	U	0.476	U
61	**TPH-Gasoline**	NA		NA		**2.1**		**1.2**	
62									
63	**PRIORITY POLLUTANT**								
64	**METALS (mg/L)**								
65	Arsenic (7060)	**0.015**		**0.013**		**0.012**		**0.013**	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1																										
2							Dup of LW7S																			
3			LW7S		LW7S		LW7D		LW7S		LW7S		LW7S		LW7S		LW7S		LW7S		LW7S		LW7S		LW7S	
4			S167M		T176S		T176T		U235W		V208D		W371I		Y314G		Z225R		Z960N		AH27E		AU22F		BB82A	
5			4/1/97		7/16/97		7/16/97		10/23/97		1/28/98		5/18/98		8/17/98		11/12/98		2/17/99		5/17/99		9/20/99		12/6/99	
66	59	Chromium (6010)	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U
67	60	Copper (6010)	**0.004**		**0.002**		**0.002**		0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U
68	61	Lead (7421)	**0.003**		**0.005**		**0.005**		0.02	U	0.02	U	0.001	U	**0.001**		0.001	U	0.001	U	0.001	U	**0.001**		0.001	U
69	62	Nickel (6010)	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
70	63	Zinc (6010)	**0.015**		**0.005**		**0.005**		0.004	U	**0.004**		**0.007**	J2	**0.008**		0.004	U	**0.007**	J	0.006	U	**0.004**		**0.007**	
71	64																									
72	65	**MAJOR IONS AND CONVENTIONALS**																								
73	66	Calcium (mg/L) (6010)	**24.9**		**27.9**		**26.9**		**31.4**		**30.6**		NA		NA		NA		**29.8**		NA		NA		NA	
74	67	Magnesium (mg/L) (6010)	**9.15**		**10.2**		**9.94**		**11.6**		**11.0**		NA		NA		NA		**10.8**		NA		NA		NA	
75	68	Potassium (mg/L) (6010)	**2.7**		**3.0**		**2.9**		**2.9**		**2.5**		NA		NA		NA		**2.9**		NA		NA		NA	
76	69	Sodium (mg/L) (6010)	**8.93**		**9.78**		**9.84**		**9.53**		**9.52**		NA		NA		NA		**9.86**		NA		NA		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	**120**		**93**	**J2**	**130**	**J2**	**160**		**150**		NA		NA		NA		**140**		NA		NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		1.0	U	NA		NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	**120**		**93**	J2	**130**	J2	**160**		**150**		NA		NA		NA		**140**		NA		NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	NT		**180**	J2	**150**	J2	**170**		**180**		130		130		140		**190**		**200**		**180**		**190**	
81	74	Chloride (mg/L) (EPA 325.2)	**3.6**	J	**3.5**		**3.6**		**3.0**		**2.4**		2.8		1.0	U	1.9		**3.0**		**3.0**		**2.6**		**5.0**	
82	75	N-Nitrate (mg-N/L) (Calculated)	**0.23**	J	0.010	U	0.010	U	**0.023**		**0.010**		NA		NA		NA		**0.24**		NA		NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	**0.015**	J	**0.021**	J2	**0.048**	J2	0.010	U	0.010	U	NA		NA		NA		**0.017**		NA		NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	**0.25**	J	**0.016**	J2	**0.027**	J2	**0.023**		**0.010**		NA		NA		NA		**0.26**		NA		NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	**4.3**	J	**2.8**		**2.7**		2.5	U	2.5	U	NA		NA		NA		**7.7**		NA		NA		NA	
86	79																									

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ
1																											
2																											
3		LW7S		LW7S		LW7S		LW7S		LW7S		LW7S		LW7S		LW7S		LW7S		LW7S		LW7S		LW7S		LW7S	
4		BH75E		BR55H		CB49A		CK77C		CT37A		DE68A		DM52J		DW29A		ED16G		EM75E		ER92A		EZ03M		FF88E	
5		2/15/00		5/23/00		8/28/00		11/7/00		2/12/01		6/4/01		8/15/01		11/27/01		2/25/02		6/25/02		08/26/02		11/12/02		2/13/03	
66	Chromium (6010)	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U
67	Copper (6010)	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	**0.008**	
68	Lead (7421)	0.001	U	**0.001**		0.001	U	**0.002**		0.001	U	**0.001**		0.001	U	0.001	U	0.001	U	**0.002**		**0.002**		0.02	U	**0.005**	
69	Nickel (6010)	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	**0.01**	
70	Zinc (6010)	0.006	U	0.006	U	0.006	U	**0.024**		0.006	U	**0.009**		0.006	U	0.006	U	0.006	U	0.006	U	0.006	U	0.006	U	**0.037**	
71																											
72	**MAJOR IONS AND CONVENTIONALS**																										
73	Calcium (mg/L) (6010)	NA		NA		NA		NA		**29.4**		**37.4**		**41.0**		**36.2**		**35.4**		NA		NA		NA		**47.7**	
74	Magnesium (mg/L) (6010)	NA		NA		NA		NA		**10.5**		**13.4**		**15.3**		**13.0**		**13.3**		NA		NA		NA		**18.9**	
75	Potassium (mg/L) (6010)	NA		NA		NA		NA		**2.5**		**3.1**		**3.2**		**3.4**		**3.5**		NA		NA		NA		**4.1**	
76	Sodium (mg/L) (6010)	NA		NA		NA		NA		**13.0**		**15.6**		**18.8**		**18.8**		**19.4**		NA		NA		NA		**17.6**	
77	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		**160**		NA		NA		NA		**180**		NA		NA		NA		**220**	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		1.0	U	NA		NA		NA		1.0	U	NA		NA		NA		1	U
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		**160**		NA		NA		NA		**180**		NA		NA		NA		**220**	
80	Total Dissolved Solids (mg/L) (EPA 160.1)	**190**		**160**		**190**		**210**		**200**		**250**		**250**		**230**		**230**		**260**		**290**		**250**		**240**	
81	Chloride (mg/L) (EPA 325.2)	**3.6**		**3.5**		**2.9**		**4.1**		**2.8**		**3.3**		**5.3**		**2.6**		**3.6**		**3.5**		**7.4**		**4.7**		**5.1**	
82	N-Nitrate (mg-N/L) (Calculated)	NA		NA		NA		NA		0.010	U	NA		NA		NA		0.010	U	NA		NA		NA		**0.053**	
83	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		NA		NA		0.010	U	NA		NA		NA		0.010	U	NA		NA		NA		**0.013**	
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		NA		NA		0.010	UJ	NA		NA		NA		0.010	U	NA		NA		NA		**0.066**	
85	Sulfate (mg/L) (EPA 375.2)	NA		NA		NA		NA		**3.0**		NA		NA		NA		**7.9**		NA		NA		NA		2.5	U
86																											

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BA	BB	BC	BD	BE	BF	BG	BH
1									
2									
3		LW7S		LW7S		LW7S		LW7S	
4		FL41B		FU45A		FY64F		0402099-03	
5		5/7/03		8/28/03		10/20/03		2/19/04	
66	Chromium (6010)	**0.016**		0.005	U	0.005	U	0.005	U
67	Copper (6010)	**0.014**		**0.002**		**0.003**		0.01	U
68	Lead (7421)	**0.006**		**0.001**		0.001	U	**0.0005**	
69	Nickel (6010)	**0.03**		0.01	U	0.01	U	0.005	U
70	Zinc (6010)	**0.108**	J	0.006	U	0.006	U	0.01	U
71									
72	**MAJOR IONS AND CONVENTIONALS**								
73	Calcium (mg/L) (6010)	NA		NA		NA		NA	
74	Magnesium (mg/L) (6010)	NA		NA		NA		NA	
75	Potassium (mg/L) (6010)	NA		NA		NA		NA	
76	Sodium (mg/L) (6010)	NA		NA		NA		NA	
77	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA	
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA	
80	Total Dissolved Solids (mg/L) (EPA 160.1)	**230**		**220**		**220**		**203**	
81	Chloride (mg/L) (EPA 325.2)	**2.1**		**2.5**		**2.9**		**5.73**	
82	N-Nitrate (mg-N/L) (Calculated)	NA		NA		NA		NA	
83	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		NA		NA	
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		NA		NA	
85	Sulfate (mg/L) (EPA 375.2)	NA		NA		NA		NA	
86									

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1																										
2							Dup of LW7S																			
3			LW7S		LW7S		LW7D		LW7S		LW7S		LW7S		LW7S		LW7S		LW7S		LW7S		LW7S		LW7S	
4			S167M		T176S		T176T		U235W		V208D		W371I		Y314G		Z225R		Z960N		AH27E		AU22F		BB82A	
5			4/1/97		7/16/97		7/16/97		10/23/97		1/28/98		5/18/98		8/17/98		11/12/98		2/17/99		5/17/99		9/20/99		12/6/99	
87	80	**FIELD PARAMETERS**																								
88	81	pH (avg)	6.76		6.73		6.74		6.91		6.79		6.35		6.51		6.35		6.84		5.72		6.22		6.13	
89	82	Temperature (° C) (avg)	13.7		16.2		16.0		15.4		15.2		14.4		16.6		14.1		13.7		14.5		16.3		13.6	
90	83	Conductivity (um/hos)	278		299		303		310		323		315		308		121		309		293		267		297	
91	84	Dissolved oxygen (mg/L) (avg)	NA		NA		NA		NA		NA		NA		1.35		1.39		2.13		2.09		1.91		2.84	
92	85																									
93	86	**DIOXINS AND FURANS (ng/L)**																								
94	87	**Method 8290**																								
95	88	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
96	89	Total TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
97	90	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
98	91	Total TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
101	94	Total PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
103	96	Total PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
108	101	Total HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
112	105	Total HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
115	108	Total HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
117	110	Total HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
118	111	OCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
119	112	OCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
120																										
121		**ETHANOL (mg/L)**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
122																										

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TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ
1																											
2																											
3		LW7S		LW7S		LW7S		LW7S		LW7S		LW7S		LW7S		LW7S		LW7S		LW7S		LW7S		LW7S		LW7S	
4		BH75E		BR55H		CB49A		CK77C		CT37A		DE68A		DM52J		DW29A		ED16G		EM75E		ER92A		EZ03M		FF88E	
5		2/15/00		5/23/00		8/28/00		11/7/00		2/12/01		6/4/01		8/15/01		11/27/01		2/25/02		6/25/02		08/26/02		11/12/02		2/13/03	
87	**FIELD PARAMETERS**																										
88	pH (avg)	6.73		6.52		6.36		5.18		6.46		6.70		6.93		6.60		6.21		6.56		6.66		6.6		6.99	
89	Temperature (° C) (avg)	15.5		14.5		15.5		14.9		14.2		14.1		15.2		15.1		14.1		15.1		15.5		15.6		14.7	
90	Conductivity (um/hos)	296		263		299		302		300		419		433		378		351		408		364		352		492	
91	Dissolved oxygen (mg/L) (avg)	1.20		0.87		1.66		2.02		2.78		1.37		1.06		3.24		4.55		5.27		1.46		0.41		0	
92																											
93	**DIOXINS AND FURANS (ng/L)**																										
94	**Method 8290**																										
95	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
96	Total TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
97	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
98	Total TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
99	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
100	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
101	Total PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
102	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
103	Total PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
104	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
105	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
106	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
107	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
108	Total HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
109	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
110	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
111	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
112	Total HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
113	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
114	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
115	Total HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
116	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
117	Total HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
118	OCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
119	OCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
120																											
121	**ETHANOL (mg/L)**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
122																											

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BA	BB	BC	BD	BE	BF	BG	BH
1									
2									
3		LW7S		LW7S		LW7S		LW7S	
4		FL41B		FU45A		FY64F		0402099-03	
5		5/7/03		8/28/03		10/20/03		2/19/04	
87	**FIELD PARAMETERS**								
88	pH (avg)	7.1		6.8		6.77		5.97	
89	Temperature (° C) (avg)	14.4		15.7		15.6		14.6	
90	Conductivity (um/hos)	320		308		308		300	
91	Dissolved oxygen (mg/L) (avg)	5.9		2.76		1.08		1.26	
92									
93	**DIOXINS AND FURANS (ng/L)**								
94	**Method 8290**								
95	2,3,7,8-TCDF	NA		NA		NA		NA	
96	Total TCDF	NA		NA		NA		NA	
97	2,3,7,8-TCDD	NA		NA		NA		NA	
98	Total TCDD	NA		NA		NA		NA	
99	1,2,3,7,8-PeCDF	NA		NA		NA		NA	
100	2,3,4,7,8-PeCDF	NA		NA		NA		NA	
101	Total PeCDF	NA		NA		NA		NA	
102	1,2,3,7,8-PeCDD	NA		NA		NA		NA	
103	Total PeCDD	NA		NA		NA		NA	
104	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA	
105	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA	
106	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA	
107	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA	
108	Total HxCDF	NA		NA		NA		NA	
109	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA	
110	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA	
111	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA	
112	Total HxCDD	NA		NA		NA		NA	
113	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA	
114	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA	
115	Total HpCDF	NA		NA		NA		NA	
116	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA	
117	Total HpCDD	NA		NA		NA		NA	
118	OCDF	NA		NA		NA		NA	
119	OCDD	NA		NA		NA		NA	
120									
121	**ETHANOL (mg/L)**	NA		NA		NA		NA	
122									

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1																										
2							Dup of LW7S																			
3			LW7S		LW7S		LW7D		LW7S		LW7S		LW7S		LW7S		LW7S		LW7S		LW7S		LW7S		LW7S	
4			S167M		T176S		T176T		U235W		V208D		W371I		Y314G		Z225R		Z960N		AH27E		AU22F		BB82A	
5			4/1/97		7/16/97		7/16/97		10/23/97		1/28/98		5/18/98		8/17/98		11/12/98		2/17/99		5/17/99		9/20/99		12/6/99	
123		**PAHs (µg/L)**																								
124		**EPA Method SW8270 SIM**																								
125		Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		**4.0**		NA		NA		NA	
126		2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		**1.3**		NA		NA		NA	
127		Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		0.10	U	NA		NA		NA	
128		Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		0.10	U	NA		NA		NA	
129		Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		0.10	U	NA		NA		NA	
130		Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		0.10	U	NA		NA		NA	
131		Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		0.10	U	NA		NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ
1																											
2																											
3		LW7S		LW7S		LW7S		LW7S		LW7S		LW7S		LW7S		LW7S		LW7S		LW7S		LW7S		LW7S		LW7S	
4		BH75E		BR55H		CB49A		CK77C		CT37A		DE68A		DM52J		DW29A		ED16G		EM75E		ER92A		EZ03M		FF88E	
5		2/15/00		5/23/00		8/28/00		11/7/00		2/12/01		6/4/01		8/15/01		11/27/01		2/25/02		6/25/02		08/26/02		11/12/02		2/13/03	
123	**PAHs (µg/L)**																										
124	**EPA Method SW8270 SIM**																										
125	Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
126	2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
127	Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
128	Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
129	Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
130	Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
131	Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	BA	BB	BC	BD	BE	BF	BG	BH
1									
2									
3		LW7S		LW7S		LW7S		LW7S	
4		FL41B		FU45A		FY64F		0402099-03	
5		5/7/03		8/28/03		10/20/03		2/19/04	
123	**PAHs (µg/L)**								
124	**EPA Method SW8270 SIM**								
125	Naphthalene	NA		NA		4.1		NA	
126	2-Methylnaphthalene	NA		NA		1.6		NA	
127	Acenaphthylene	NA		NA		0.1	U	NA	
128	Acenaphthene	NA		NA		0.1	U	NA	
129	Fluorene	NA		NA		0.1	U	NA	
130	Anthracene	NA		NA		0.1	U	NA	
131	Dibenzofuran	NA		NA		0.1	U	NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X
1																								
2													Dup of LW8S						Dup of LW8S					
3			LW8S		LW8S		LW8S		LW8S		LW8S		Z		LW8S		LW8S		W		LW8S		LW8S	
4			AH27K		AU36D		BC30G		9912050-05A		BH96W		BH96V		BR64N		CB68F		CB68H		CL03A		CT67J	
5			5/17/99		9/21/99		12/8/99		12/8/1999 (d)		2/16/00		2/16/00		5/25/00		8/30/00		8/30/00		11/9/00		2/15/01	
7	1	**CHLORINATED PHENOLS (µg/L)**																						
8	2	**EPA Method SW8040**																						
9	3	Pentachlorophenol	0.25	U	0.25	U	**1.2**		NA		**0.13**	J1,J2	**0.27**	J2	**0.51**		0.25	U	0.25	U	0.25	U	0.25	U
10	4	2,4,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	NA		0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA	
11	5	2,3,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	NA		0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA	
12	6	2,4,5-Trichlorophenol	0.25	U	0.25	U	0.25	U	NA		**0.14**	J1	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA	
13	7	2,3,4-Trichlorophenol	0.25	U	0.25	U	0.25	U	NA		0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	0.25	U	0.25	U	**0.21**	J1	NA		0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA	
15	9	2,3,4,5-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	NA		0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	NA	
16	10																							
17	11	**SEMIVOLATILES (µg/L)**																						
18	12	**EPA Method SW8270**																						
19	13	Phenol	**2.7**		2.0	U	2.0	U	NA		**3.1**		2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
20	14	4-Methylphenol	**32**		1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
21	15	Isophorone	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
22	16	2,4-Dimethylphenol	3.0	U	3.0	U	3.0	U	NA		3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U
23	17	Benzoic Acid	10	U	10	U	10	U	NA		10	U	10	U	10	U	10	U	10	U	10	U	10	U
24	18	Naphthalene	**99**		**74**		**120**		NA		**55**		**54**		**70**		**40**		**38**		**4.3**		**6.7**	
25	19	2-Methylnaphthalene	**76**		**58**		**72**		NA		**71**		**73**		**77**		**30**		**30**		**4.7**		**7.0**	
26	20	2,4,6-Trichlorophenol	5.0	U	5.0	U	5.0	U	NA		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
27	21	2,4,5-Trichlorophenol	5.0	U	5.0	U	5.0	U	NA		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
28	22	Acenaphthene	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
29	23	Dibenzofuran	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
30	24	Fluorene	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
31	25	Pentachlorophenol	5.0	U	5.0	U	5.0	U	NA		5.0	U	5.0	U	**6.9**		5.0	U	**5.8**		5.0	U	5.0	U
32	26	bis(2-Ethylhexyl)phthalate	1.0	U	1.0	U	**6.8**		NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
33	27																							
34	28	**VOLATILES (µg/L)**																						
35	29	**EPA Method SW8260**																						
36	30	Acetone	5.0	U	5.0	U	5.0	U	NA		5.0	U	5.0	U	5.0	U	5.0	U	12	J2	5.0	U	5.0	U
37	31	Carbon Disulfide	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
38	32	2-Butanone	**11**		5.0	U	5.0	U	NA		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	**12**		5.0	U
39	33	Benzene	**110**		**55**		**49**		NA		**62**		**60**		**77**		**29**		**29**		**5.0**		**9.1**	
40	34	Bromoform	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
41	35	Toluene	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
42	36	Ethylbenzene	**180**		**160**		**170**		NA		**110**		**98**		**140**		**130**		**120**		**8.5**		**22**	
43	37	Styrene	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
44	38	m,p-Xylene	**290**		**320**		**260**		NA		**160**		**130**		**180**		**200**		**200**		**2.2**		**4.7**	
45	39	o-Xylene	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
46	40	1,3,5-Trimethylbenzene	**62**		**120**		**100**		NA		**57**	J2	**45**	J2	**52**		**81**		**81**		1.0	U	**4.1**	
47	41	1,2,4-Trimethylbenzene	**280**		**180**		**180**		NA		**140**		**120**		**130**		**130**		**120**		**2.6**		**6.4**	
48	42	Isopropylbenzene	**290**		**130**		**160**		NA		**190**		**180**		**250**		**120**		**120**		**100**		**100**	
49	43	n-Propylbenzene	**190**		**110**		**140**		NA		**150**		**150**		**170**		**100**		**98**		**56**		**83**	
50	44	tert-Butylbenzene	**5.7**		**5.6**		**6.6**		NA		**8.8**		**8.7**		**7.3**		**5.5**		**5.5**		**4.9**		**5.7**	
51	45	sec-Butylbenzene	**22**		**23**		**25**		NA		**30**		**29**		**28**		**20**		20		**11**		**14**	
52	46	4-Isopropyltoluene	**5.1**		**10**		**5.4**		NA		**4.2**		**3.4**		**3.9**		1.0	U	1.0	U	1.0	U	1.0	U
53	47	n-Butylbenzene	**12**		**18**		16	U	NA		**15**		**14**		**15**		**14**		13		**4.1**		**6.8**	
54	48	Naphthalene	**150**		**120**		**160**		NA		**180**		**160**		**150**		**110**		**100**		**6.6**		**19**	
55	48.5	Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
56	49																							
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																						
58	51	**Method OR-DEQ**																						
59	52	**TPH-Diesel**	**1.9**		**2.1**		**2.0**		NA		**2.2**	J2	**3.2**	J2	**2.6**		**1.6**		**1.6**		**2.3**		**3.4**	
60	53	**TPH-D Motor Oil**	0.50	U	0.50	U	0.50	U	NA		0.50	UJ	**1.3**	J2	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
61	54	**TPH-Gasoline**	**9.8**		**9.4**		**10**		NA		**9.5**		**10**		**15**		**13**		**13**		**3.9**		**4.6**	
62	55																							
63	56	**PRIORITY POLLUTANT**																						
64	57	**METALS (mg/L)**																						
65	58	Arsenic (7060)	**0.022**		**0.025**		**0.025**		NA		**0.027**		**0.027**		0.023		**0.022**		**0.023**		**0.022**		**0.022**	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV
2		Dup of LW8S								Dup of LW8S								Dup of LW8S							
3		W		LW8S		LW8S		LW8S		X		LW8S		LW8S		LW8S		X		LW8S		LW8S		LW8S	
4		CT67I		DE68N		DM30J		ED23J		ED23K		EM85G		ER92E		EZ17G		EZ17A		FF65C		FL58B		FU45I	
5		2/15/01		6/4/01		8/14/01		2/26/02		2/26/02		6/26/02		08/26/02		11/13/02		11/13/02		2/11/03		5/8/03		8/28/03	
7	**CHLORINATED PHENOLS (µg/L)**																								
8	**EPA Method SW8040**																								
9	Pentachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.27	U	0.25	U	0.25	U	1.2	U	0.26	U	**2.1**	J
10	2,4,6-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
11	2,3,6-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
12	2,4,5-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
13	2,3,4-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
15	2,3,4,5-Tetrachlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
16																									
17	**SEMIVOLATILES (µg/L)**																								
18	**EPA Method SW8270**																								
19	Phenol	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.2	U	2.3	U	2.3	U	2	U	2	UJ	2	U
20	4-Methylphenol	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1.2	U	1.1	U	1	U	1	UJ	1	U
21	Isophorone	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1.2	U	1.1	U	1	U	1	UJ	1	U
22	2,4-Dimethylphenol	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.3	U	3.5	U	3.4	U	3	U	3.1	UJ	3.1	U
23	Benzoic Acid	10	U	10	U	10	U	50	U	50	U	50	U	54	U	58	U	57	U	50	U	51	UJ	51	U
24	Naphthalene	**6.4**		**22**		**2.3**		**54**		**57**		**57**		**62**		**11**		**11**		**44**		**24**	J	**39**	
25	2-Methylnaphthalene	**6.8**		**14**		**2.6**		**69**		**74**		**51**		**44**		**22**		**25**		**47**		**49**	J	**31**	
26	2,4,6-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.4	U	5.8	U	5.7	U	5	U	5.1	UJ	5.1	U
27	2,4,5-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.4	U	5.8	U	5.7	U	5	U	5.1	UJ	5.1	U
28	Acenaphthene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1.2	U	1.1	U	1	U	1	UJ	1	U
29	Dibenzofuran	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1.2	U	1.1	U	1	U	1	UJ	1	U
30	Fluorene	1.0	U	1.0	U	1.0	U	**1.3**		**1.2**		1.0	U	1.1	U	1.2	U	1.1	U	1	U	1	UJ	2	U
31	Pentachlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.4	U	5.8	U	5.7	U	5	U	5.1	UJ	5.1	U
32	bis(2-Ethylhexyl)phthalate	1.0	U	**1.5**		1.0	U	**5.0**		4.0	U	4.0	U	4.3	U	4.7	U	4.5	U	1	U	1	UJ	1	U
33																									
34	**VOLATILES (µg/L)**																								
35	**EPA Method SW8260**																								
36	Acetone	5.0	U	5.0	U	8.2	U	5.0	U	5.0	U	**14**	M	15	U	**7.2**		**7.4**	M	**7.7**		**21**	M	**16**	J
37	Carbon Disulfide	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	3	U	1	U	1	U	1	U	3	U	3	U
38	2-Butanone	5.0	U	5.0	U	5.3	U	5.0	U	5.0	U	5.9	U	15	U	5	U	5	U	5	U	15	U	15	U
39	Benzene	**9.1**		**9.0**		**2.0**		**30**		**30**		**91**	J	**35**		**2.5**		**2.4**		**15**		**31**		**19**	
40	Bromoform	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	3	U	1	U	1	U	1	U	3	U	3	U
41	Toluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	3	U	1	U	1	U	1	U	3	U	3	U
42	Ethylbenzene	**23**		**61**		**11**		**420**	J	**390**		**300**	J	**280**		**37**		**33**		**240**		**270**		**180**	
43	Styrene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	3	U	1	U	1	U	1	U	3	U	3	U
44	m,p-Xylene	**5.0**		**17**		1.0	U	**56**		**60**		**44**	J	**37**		**1**		1	U	**4.6**		**8.2**		**11**	J
45	o-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	3	U	1	U	1	U	1	U	3	U	3	U
46	1,3,5-Trimethylbenzene	**5.0**		**15**		**1.7**		**62**		**64**		**67**	J	**68**		**7.7**		**6.3**		**9.1**		**9.6**		**13**	J
47	1,2,4-Trimethylbenzene	**7.1**		**23**		**1.8**		**130**		**140**		**150**	J	**170**		**13**		**11**		**23**		**29**		**28**	J
48	Isopropylbenzene	**130**		**130**		**67**		**240**	J	**240**		**260**	J	**240**		**180**		**170**		**240**		**340**		**260**	
49	n-Propylbenzene	**100**		**110**		**40**		**210**	J	**210**		**250**	J	**220**		**160**		**150**		**200**		**260**		**230**	
50	tert-Butylbenzene	**6.2**		**6.0**		**4.7**		**10**		**10**		**12**	MJ	**8.4**		**7.6**		**7.1**		**9.4**		**12**		**9.1**	
51	sec-Butylbenzene	**15**		**16**		**8.7**		**31**		**32**		**40**	J	**24**		**24**		**23**		**29**		**33**		**28**	
52	4-Isopropyltoluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	3	U	1	U	1	U	1	U	3	U	3	U
53	n-Butylbenzene	**7.1**		8.0	U	**3.2**	M	**18**		**18**		**20**	MJ	**16**	M	**14**	M	**13**	M	**13**	M	**14**		**14**	
54	Naphthalene	**20**		**35**		5.0	U	**180**		**100**		**140**		**150**		**19**		**17**		**76**		**51**		**83**	
55	Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
56																									
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																								
58	**Method OR-DEQ**																								
59	**TPH-Diesel**	**3.2**		**4.4**		**4.0**		**7.1**		**7.6**		**4.0**		**4.5**		**4.3**		**4.2**		**11**		**7.4**		**4.3**	
60	**TPH-D Motor Oil**	0.50	U	0.50	U	2.5	U	0.50	U	0.50	U	0.50	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
61	**TPH-Gasoline**	**4.9**		**4.7**		**3.9**		**12**	J	**12**		**11**		**10**		**7.8**		**8.6**		**9.8**		**9.5**	J	**7.4**	
62																									
63	**PRIORITY POLLUTANT**																								
64	**METALS (mg/L)**																								
65	Arsenic (7060)	**0.022**		**0.024**		**0.028**		**0.027**		**0.030**		**0.025**		**0.028**		0.05	U	0.05	U	**0.024**		**0.026**		**0.021**	

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TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AW	AX	AY	AZ	BA	BB
1							
2		Dup of LW8S					
3		X		LW8S		LW8S	
4		FU45H		FY64L		0402113-09	
5		8/28/03		10/21/03		2/23/04	
7	**CHLORINATED PHENOLS (µg/L)**						
8	**EPA Method SW8040**						
9	Pentachlorophenol	**6.3**	J	0.55	U	0.504	U
10	2,4,6-Trichlorophenol	NA		NA		NA	
11	2,3,6-Trichlorophenol	NA		NA		NA	
12	2,4,5-Trichlorophenol	NA		NA		NA	
13	2,3,4-Trichlorophenol	NA		NA		NA	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA		NA	
15	2,3,4,5-Tetrachlorophenol	NA		NA		NA	
16							
17	**SEMIVOLATILES (µg/L)**						
18	**EPA Method SW8270**						
19	Phenol	2.1	U	2.2	U	2.06	U
20	4-Methylphenol	1.1	U	1.1	U	10.3	U
21	Isophorone	1.1	U	1.1	U	1.03	U
22	2,4-Dimethylphenol	3.2	U	3.3	U	3.1	U
23	Benzoic Acid	53	U	11	U	20.6	U
24	Naphthalene	**40**		**2.2**		**15.2**	
25	2-Methylnaphthalene	**34**		**3.1**		**20.3**	
26	2,4,6-Trichlorophenol	5.3	U	5.5	U	5.16	U
27	2,4,5-Trichlorophenol	5.3	U	5.5	U	5.16	U
28	Acenaphthene	1.1	U	1.1	U	1.03	U
29	Dibenzofuran	1.1	U	1.1	U	1.03	U
30	Fluorene	1.6	U	1.1	U	1.03	U
31	Pentachlorophenol	5.3	U	5.5	U	5.16	U
32	bis(2-Ethylhexyl)phthalate	1.1	U	1.1	U	1.03	U
33							
34	**VOLATILES (µg/L)**						
35	**EPA Method SW8260**						
36	Acetone	5	U	5	U	50	U
37	Carbon Disulfide	1	U	1	U	2	U
38	2-Butanone	5	U	5	U	10	U
39	Benzene	**23**		1	U	**5.11**	
40	Bromoform	1	U	1	U	1	U
41	Toluene	1	U	1	U	1	U
42	Ethylbenzene	**220**		**7.2**		**184**	
43	Styrene	1	U	1	U	1	U
44	m,p-Xylene	**15**	J	1	U	2	U
45	o-Xylene	1	U	1	U	1	U
46	1,3,5-Trimethylbenzene	**16**	J	1	U	1	U
47	1,2,4-Trimethylbenzene	**36**	J	1	U	1	U
48	Isopropylbenzene	**280**		**140**		**239**	
49	n-Propylbenzene	**260**		**94**		**205**	
50	tert-Butylbenzene	**10**		**7.4**		**6.52**	
51	sec-Butylbenzene	**32**		**19**		**23.1**	
52	4-Isopropyltoluene	**2**		1	U	1	U
53	n-Butylbenzene	**16**		**9**		**8.07**	
54	Naphthalene	**120**		5	U	**24.5**	
55	Methyl tert-butyl ether	NA		NA		1	U
56							
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**						
58	**Method OR-DEQ**						
59	**TPH-Diesel**	**4.2**		**3.5**		**11.7**	
60	**TPH-D Motor Oil**	0.5	U	0.5	U	0.504	U
61	**TPH-Gasoline**	**7.5**		**4.6**		**9.2**	
62							
63	**PRIORITY POLLUTANT**						
64	**METALS (mg/L)**						
65	Arsenic (7060)	**0.024**		**0.021**		**0.025**	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X
1																								
2													Dup of LW8S						Dup of LW8S					
3			LW8S		LW8S		LW8S		LW8S		LW8S		Z		LW8S		LW8S		W		LW8S		LW8S	
4			AH27K		AU36D		BC30G		9912050-05A		BH96W		BH96V		BR64N		CB68F		CB68H		CL03A		CT67J	
5			5/17/99		9/21/99		12/8/99		12/8/1999 (d)		2/16/00		2/16/00		5/25/00		8/30/00		8/30/00		11/9/00		2/15/01	
66	59	Chromium (6010)	0.005	U	0.005	U	0.005	U	NA		0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U
67	60	Copper (6010)	0.002	U	0.002	U	0.002	U	NA		0.002	U	0.002	U	**0.003**		0.002	U	0.002	U	0.002	U	0.002	U
68	61	Lead (7421)	0.001	U	0.001	U	0.001	U	NA		**0.001**		0.001	U	0.001	U	0.001	U	0.001	U	**0.005**		0.001	U
69	62	Nickel (6010)	0.01	U	0.01	U	0.01	U	NA		0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
70	63	Zinc (6010)	0.008	U	**0.008**		**0.006**		NA		0.006	U	0.006	U	**0.007**		0.006	U	**0.007**		**0.041**		0.006	U
71	64																							
72	65	**MAJOR IONS AND CONVENTIONALS**																						
73	66	Calcium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		**25.5**	
74	67	Magnesium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		**6.81**	
75	68	Potassium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		**2.6**	
76	69	Sodium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		**7.52**	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		**170**	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		1.0	U
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		**170**	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	**220**		**200**		**210**		NA		**190**		**210**		**180**		**210**		**210**		**190**		**220**	
81	74	Chloride (mg/L) (EPA 325.2)	**5.4**		**4.1**		**4.6**		NA		**4.1**		**3.4**		**3.7**		**2.2**		**2.3**		**4.2**		**3.4**	J2
82	75	N-Nitrate (mg-N/L) (Calculated)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		0.010	U
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		**0.051**	J2
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		**0.041**	
85	78	Sulfate (mg/L) (EPA 375.2)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		**2.8**	
86	79																							

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV
1																									
2		Dup of LW8S								Dup of LW8S								Dup of LW8S							
3		W		LW8S		LW8S		LW8S		X		LW8S		LW8S		LW8S		X		LW8S		LW8S		LW8S	
4		CT67I		DE68N		DM30J		ED23J		ED23K		EM85G		ER92E		EZ17G		EZ17A		FF65C		FL58B		FU45I	
5		2/15/01		6/4/01		8/14/01		2/26/02		2/26/02		6/26/02		08/26/02		11/13/02		11/13/02		2/11/03		5/8/03		8/28/03	
66	Chromium (6010)	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	**0.017**		0.005	U	0.005	U	0.005	U	0.005	U	0.005	U
67	Copper (6010)	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	**0.029**		0.002	U	0.002	U	**0.004**		0.002	U	0.002	U
68	Lead (7421)	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	**0.006**		0.02	U	0.02	U	**0.002**		0.001	U	0.001	U
69	Nickel (6010)	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	**0.04**		0.01	U	0.01	U	**0.01**		0.01	U	0.01	U
70	Zinc (6010)	0.006	U	**0.007**		0.006	U	0.006	U	0.006	U	0.006	U	**0.096**		**0.009**		0.006	U	**0.013**		**0.582**		0.006	U
71																									
72	**MAJOR IONS AND CONVENTIONALS**																								
73	Calcium (mg/L) (6010)	**25.6**		**31.1**		**27.5**		**41.6**		**38.6**		NA		NA		NA		NA		**33.8**		NA		NA	
74	Magnesium (mg/L) (6010)	**6.85**		**8.18**		**7.58**		**9.98**		**9.30**		NA		NA		NA		NA		**8.4**		NA		NA	
75	Potassium (mg/L) (6010)	**2.5**		**2.8**		**2.8**		**4.2**		**4.0**		NA		NA		NA		NA		**3.4**		NA		NA	
76	Sodium (mg/L) (6010)	**7.55**		**8.47**		**7.86**		**9.95**		**9.31**		NA		NA		NA		NA		**7.8**		NA		NA	
77	Alkalinity (mg/L CaCO3) (SM 2320)	**160**		NA		NA		**220**		**230**		NA		NA		NA		NA		**190**		NA		NA	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	1.0	U	NA		NA		1.0	U	1.0	U	NA		NA		NA		NA		1	U	NA		NA	
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	**160**		NA		NA		**220**		**230**		NA		NA		NA		NA		**190**		NA		NA	
80	Total Dissolved Solids (mg/L) (EPA 160.1)	**210**		**250**		**200**		**300**		**290**		**240**		**220**		**200**		**200**		**280**		**260**		**250**	
81	Chloride (mg/L) (EPA 325.2)	**4.9**	J	**2.8**		**5.3**		**4.2**		**3.6**		**4.4**		**2.7**		**2.9**		**2.9**		**3.7**		**2.3**		**2.3**	
82	N-Nitrate (mg-N/L) (Calculated)	0.010	U	NA		NA		0.010	U	**0.012**		NA		NA		NA		NA		0.01	U	NA		NA	
83	N-Nitrite (mg-N/L) (EPA 354.1)	**0.035**	J	NA		NA		**0.059**		**0.054**		NA		NA		NA		NA		**0.072**		NA		NA	
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	**0.035**		NA		NA		**0.044**	J	**0.066**	J	NA		NA		NA		NA		**0.062**		NA		NA	
85	Sulfate (mg/L) (EPA 375.2)	2.5	U	NA		NA		2.5	U	**3.2**		NA		NA		NA		NA		**3.8**		NA		NA	
86																									

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TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AW	AX	AY	AZ	BA	BB
1							
2		Dup of LW8S					
3		X		LW8S		LW8S	
4		FU45H		FY64L		0402113-09	
5		8/28/03		10/21/03		2/23/04	
66	Chromium (6010)	0.005	U	**0.007**		**0.0064**	
67	Copper (6010)	**0.002**		**0.007**		0.01	U
68	Lead (7421)	0.001	U	**0.002**		**0.0001**	
69	Nickel (6010)	0.01	U	**0.02**		0.005	U
70	Zinc (6010)	0.006	U	**0.027**		0.01	U
71							
72	**MAJOR IONS AND CONVENTIONALS**						
73	Calcium (mg/L) (6010)	NA		NA		NA	
74	Magnesium (mg/L) (6010)	NA		NA		NA	
75	Potassium (mg/L) (6010)	NA		NA		NA	
76	Sodium (mg/L) (6010)	NA		NA		NA	
77	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		NA	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA	
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA	
80	Total Dissolved Solids (mg/L) (EPA 160.1)	**250**		**260**		**263**	
81	Chloride (mg/L) (EPA 325.2)	**2.2**		**4.8**		**3.31**	
82	N-Nitrate (mg-N/L) (Calculated)	NA		NA		NA	
83	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		NA	
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		NA	
85	Sulfate (mg/L) (EPA 375.2)	NA		NA		NA	
86							

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X
1																								
2													Dup of LW8S						Dup of LW8S					
3			LW8S		LW8S		LW8S		LW8S		LW8S		Z		LW8S		LW8S		W		LW8S		LW8S	
4			AH27K		AU36D		BC30G		9912050-05A		BH96W		BH96V		BR64N		CB68F		CB68H		CL03A		CT67J	
5			5/17/99		9/21/99		12/8/99		12/8/1999 (d)		2/16/00		2/16/00		5/25/00		8/30/00		8/30/00		11/9/00		2/15/01	
87	80	**FIELD PARAMETERS**																						
88	81	pH (avg)	5.55		6.10		6.28		NM		6.57		6.56		6.44		4.89		4.89		5.74		6.26	
89	82	Temperature (° C) (avg)	14.0		17.2		13.0		NM		13.2		13.2		13.4		15.2		15.3		14.7		13.6	
90	83	Conductivity (um/hos)	357		303		328		NM		351		351		354		330		330		352		404	
91	84	Dissolved oxygen (mg/L) (avg)	2.14		2.13		2.06		NM		0.83		0.82		1.55		1.12		1.13		0.53		0.57	
92	85																							
93	86	**DIOXINS AND FURANS (ng/L)**																						
94	87	**Method 8290**																						
95	88	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
96	89	Total TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
97	90	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
98	91	Total TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
101	94	Total PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
103	96	Total PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
108	101	Total HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
112	105	Total HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
115	108	Total HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
117	110	Total HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
118	111	OCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
119	112	OCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
120																								
121		**ETHANOL (mg/L)**	NA		NA		NA		10	U	NA		NA		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
122																								

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV
1																									
2		Dup of LW8S								Dup of LW8S								Dup of LW8S							
3		W		LW8S		LW8S		LW8S		X		LW8S		LW8S		LW8S		X		LW8S		LW8S		LW8S	
4		CT67I		DE68N		DM30J		ED23J		ED23K		EM85G		ER92E		EZ17G		EZ17A		FF65C		FL58B		FU45I	
5		2/15/01		6/4/01		8/14/01		2/26/02		2/26/02		6/26/02		08/26/02		11/13/02		11/13/02		2/11/03		5/8/03		8/28/03	
87	**FIELD PARAMETERS**																								
88	pH (avg)	6.28		6.49		6.61		6.37		6.37		6.23		6.42		6.17		6.16		6.74		6.58		6.64	
89	Temperature (° C) (avg)	13.6		14.4		15.0		13.6		13.6		15.3		16.1		14.7		14.6		15.2		12.9		16.5	
90	Conductivity (um/hos)	403		402		467		489		490		405		330		353		351		503		397		349	
91	Dissolved oxygen (mg/L) (avg)	0.53		1.58		1.85		6.71		6.75		3.92		0.87		1.82		1.94		1.29		3.35		1.61	
92																									
93	**DIOXINS AND FURANS (ng/L)**																								
94	**Method 8290**																								
95	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
96	Total TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
97	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
98	Total TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
99	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
100	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
101	Total PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
102	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
103	Total PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
104	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
105	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
106	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
107	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
108	Total HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
109	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
110	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
111	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
112	Total HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
113	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
114	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
115	Total HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
116	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
117	Total HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
118	OCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
119	OCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
120																									
121	**ETHANOL (mg/L)**	5.0	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
122																									

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AW	AX	AY	AZ	BA	BB
1							
2		Dup of LW8S					
3		X		LW8S		LW8S	
4		FU45H		FY64L		0402113-09	
5		8/28/03		10/21/03		2/23/04	
87	**FIELD PARAMETERS**						
88	pH (avg)	6.65		6.57		6.21	
89	Temperature (° C) (avg)	16.5		19.0		14.1	
90	Conductivity (um/hos)	348		352		402	
91	Dissolved oxygen (mg/L) (avg)	1.57		1.03		1.26	
92							
93	**DIOXINS AND FURANS (ng/L)**						
94	**Method 8290**						
95	2,3,7,8-TCDF	NA		NA		NA	
96	Total TCDF	NA		NA		NA	
97	2,3,7,8-TCDD	NA		NA		NA	
98	Total TCDD	NA		NA		NA	
99	1,2,3,7,8-PeCDF	NA		NA		NA	
100	2,3,4,7,8-PeCDF	NA		NA		NA	
101	Total PeCDF	NA		NA		NA	
102	1,2,3,7,8-PeCDD	NA		NA		NA	
103	Total PeCDD	NA		NA		NA	
104	1,2,3,4,7,8-HxCDF	NA		NA		NA	
105	1,2,3,6,7,8-HxCDF	NA		NA		NA	
106	2,3,4,6,7,8-HxCDF	NA		NA		NA	
107	1,2,3,7,8,9-HxCDF	NA		NA		NA	
108	Total HxCDF	NA		NA		NA	
109	1,2,3,4,7,8-HxCDD	NA		NA		NA	
110	1,2,3,6,7,8-HxCDD	NA		NA		NA	
111	1,2,3,7,8,9-HxCDD	NA		NA		NA	
112	Total HxCDD	NA		NA		NA	
113	1,2,3,4,6,7,8-HpCDF	NA		NA		NA	
114	1,2,3,4,7,8,9-HpCDF	NA		NA		NA	
115	Total HpCDF	NA		NA		NA	
116	1,2,3,4,6,7,8-HpCDD	NA		NA		NA	
117	Total HpCDD	NA		NA		NA	
118	OCDF	NA		NA		NA	
119	OCDD	NA		NA		NA	
120							
121	**ETHANOL (mg/L)**	NA		NA		NA	
122							

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X
1																								
2													Dup of LW8S						Dup of LW8S					
3			LW8S		LW8S		LW8S		LW8S		LW8S		Z		LW8S		LW8S		W		LW8S		LW8S	
4			AH27K		AU36D		BC30G		9912050-05A		BH96W		BH96V		BR64N		CB68F		CB68H		CL03A		CT67J	
5			5/17/99		9/21/99		12/8/99		12/8/1999 (d)		2/16/00		2/16/00		5/25/00		8/30/00		8/30/00		11/9/00		2/15/01	
123		**PAHs (µg/L)**																						
124		**EPA Method SW8270 SIM**																						
125		Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
126		2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
127		Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
128		Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
129		Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
130		Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
131		Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV
1																									
2		Dup of LW8S								Dup of LW8S								Dup of LW8S							
3		W		LW8S		LW8S		LW8S		X		LW8S		LW8S		LW8S		X		LW8S		LW8S		LW8S	
4		CT67I		DE68N		DM30J		ED23J		ED23K		EM85G		ER92E		EZ17G		EZ17A		FF65C		FL58B		FU45I	
5		2/15/01		6/4/01		8/14/01		2/26/02		2/26/02		6/26/02		08/26/02		11/13/02		11/13/02		2/11/03		5/8/03		8/28/03	
123	**PAHs (µg/L)**																								
124	**EPA Method SW8270 SIM**																								
125	Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
126	2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
127	Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
128	Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
129	Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
130	Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
131	Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AW	AX	AY	AZ	BA	BB
1							
2		Dup of LW8S					
3		X		LW8S		LW8S	
4		FU45H		FY64L		0402113-09	
5		8/28/03		10/21/03		2/23/04	
123	**PAHs (µg/L)**						
124	**EPA Method SW8270 SIM**						
125	Naphthalene	NA		NA		NA	
126	2-Methylnaphthalene	NA		NA		NA	
127	Acenaphthylene	NA		NA		NA	
128	Acenaphthene	NA		NA		NA	
129	Fluorene	NA		NA		NA	
130	Anthracene	NA		NA		NA	
131	Dibenzofuran	NA		NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
1																				
2																				
3			LW10S		LW10S		LW10S		LW10S		LW10S		LW10S		LW10S		LW10S		LW10S	
4			AH76O		BC30A		BH96G		BR64K		ED30B		EN00B		FF76B		FL41M		0402113-01	
5			5/19/99		12/8/99		2/17/00		5/25/00		2/27/02		6/27/02		2/12/03		5/7/03		2/23/04	
6																				
7	1	**CHLORINATED PHENOLS (µg/L)**																		
8	2	**EPA Method SW8040**																		
9	3	Pentachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	**0.33**		0.493	U
10	4	2,4,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA	
11	5	2,3,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA	
12	6	2,4,5-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA	
13	7	2,3,4-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA	
15	9	2,3,4,5-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA	
16	10																			
17	11	**SEMIVOLATILES (µg/L)**																		
18	12	**EPA Method SW8270**																		
19	13	Phenol	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2	U	2	U	1.98	U
20	14	4-Methylphenol	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	9.9	U
21	15	Isophorone	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	0.99	U
22	16	2,4-Dimethylphenol	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3	U	3	U	2.97	U
23	17	Benzoic Acid	10	U	10	U	10	U	10	U	50	U	50	U	50	U	50	U	19.8	U
24	18	Naphthalene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	0.99	U
25	19	2-Methylnaphthalene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	0.99	U
26	20	2,4,6-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5	U	5	U	4.95	U
27	21	2,4,5-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5	U	5	U	4.95	U
28	22	Acenaphthene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	0.99	U
29	23	Dibenzofuran	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	0.99	U
30	24	Fluorene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	0.99	U
31	25	Pentachlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5	U	5	U	4.95	U
32	26	bis(2-Ethylhexyl)phthalate	1.0	U	**22**		1.0	U	1.0	U	4.0	U	4.0	U	1	U	1	U	0.99	U
33	27																			
34	28	**VOLATILES (µg/L)**																		
35	29	**EPA Method SW8260**																		
36	30	Acetone	5.0	U	NA		5.0	U	5.0	U	5.0	U	5.0	U	5	U	5	U	50	U
37	31	Carbon Disulfide	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	2	U
38	32	2-Butanone	5.0	U	NA		5.0	U	5.0	U	5.0	U	5.0	U	5	U	5	U	10	U
39	33	Benzene	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	0.4	U
40	34	Bromoform	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U
41	35	Toluene	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U
42	36	Ethylbenzene	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U
43	37	Styrene	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U
44	38	m,p-Xylene	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	2	U
45	39	o-Xylene	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U
46	40	1,3,5-Trimethylbenzene	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U
47	41	1,2,4-Trimethylbenzene	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U
48	42	Isopropylbenzene	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U
49	43	n-Propylbenzene	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U
50	44	tert-Butylbenzene	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U
51	45	sec-Butylbenzene	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U
52	46	4-Isopropyltoluene	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U
53	47	n-Butylbenzene	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1	U	1	U	1	U
54	48	Naphthalene	5.0	U	NA		5.0	U	5.0	U	5.0	U	5.0	U	5	U	5	U	1	U
55	48.5	Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		1	U
56	49																			
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																		
58	51	**Method OR-DEQ**																		
59	52	**TPH-Diesel**	0.25	U	NA		0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
60	53	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		NA		NA		NA		0.501	U
61	54	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA		NA		NA	
62	55																			
63	56	**PRIORITY POLLUTANT**																		
64	57	**METALS (mg/L)**																		
65	58	Arsenic (7060)	0.001	U	NA		**0.004**		**0.001**		**0.002**		**0.001**		0.001	U	0.001	U	0.001	U

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
1																				
2																				
3			LW10S		LW10S		LW10S		LW10S		LW10S		LW10S		LW10S		LW10S		LW10S	
4			AH76O		BC30A		BH96G		BR64K		ED30B		EN00B		FF76B		FL41M		0402113-01	
5			5/19/99		12/8/99		2/17/00		5/25/00		2/27/02		6/27/02		2/12/03		5/7/03		2/23/04	
66	59	Chromium (6010)	0.005	U	NA		0.005	U	0.005	U	0.005	U	**0.007**		0.005	U	0.005	U	0.005	U
67	60	Copper (6010)	0.002	U	NA		**0.004**		0.002	U	0.002	U	**0.012**		**0.003**		0.002	U	0.01	U
68	61	Lead (7421)	0.001	U	NA		**0.003**		**0.001**		**0.001**		**0.001**		0.001	U	0.001	U	**0.0004**	
69	62	Nickel (6010)	0.01	U	NA		0.01	U	0.01	U	0.01	U	**0.02**		0.01	U	0.01	U	0.005	U
70	63	Zinc (6010)	**0.004**		NA		**0.016**		**0.007**		**0.008**	J	**0.043**		**0.01**		0.006	U	0.01	U
71	64																			
72	65	**MAJOR IONS AND CONVENTIONALS**																		
73	66	Calcium (mg/L) (6010)	NA		NA		NA		NA		**11.1**		**26.2**		**9.5**		NA		NA	
74	67	Magnesium (mg/L) (6010)	NA		NA		NA		NA		**3.27**		**9.50**		**2.58**		NA		NA	
75	68	Potassium (mg/L) (6010)	NA		NA		NA		NA		**2.5**		**3.9**		**2.5**		NA		NA	
76	69	Sodium (mg/L) (6010)	NA		NA		NA		NA		**5.27**		**8.31**		**6**		NA		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		**34**		NA		**36**		NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		1.0	U	NA		1	U	NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		**34**		NA		**36**		NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	**84**		NA		**100**		**90**		**100**		**120**		**74**		**74**		**81**	
81	74	Chloride (mg/L) (EPA 325.2)	**1.3**		NA		**3.2**		**2.2**		**1.4**	J	**2.3**		**1.2**		**1.6**		**1.04**	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA		NA		NA		NA		**3.4**		NA		**2.1**		NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		NA		NA		**0.014**		NA		0.01	U	NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		NA		NA		**3.4**		NA		**2.1**		NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	NA		NA		NA		NA		**12**		NA		**5.6**		NA		NA	
86	79																			

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
1																				
2																				
3			LW10S		LW10S		LW10S		LW10S		LW10S		LW10S		LW10S		LW10S		LW10S	
4			AH76O		BC30A		BH96G		BR64K		ED30B		EN00B		FF76B		FL41M		0402113-01	
5			5/19/99		12/8/99		2/17/00		5/25/00		2/27/02		6/27/02		2/12/03		5/7/03		2/23/04	
87	80	**FIELD PARAMETERS**																		
88	81	pH (avg)	6.01		NM		6.66		6.45		6.09		6.44		7.19		6.78		6.17	
89	82	Temperature (° C) (avg)	13.6		NM		13.4		13.0		12.6		14.3		11.9		13		13.9	
90	83	Conductivity (um/hos)	93		NM		111		129		109		149		110		88		75	
91	84	Dissolved oxygen (mg/L) (avg)	5.76		NM		2.87		4.30		8.85		7.22		7.33		9.77		6.53	
92	85																			
93	86	**DIOXINS AND FURANS (ng/L)**																		
94	87	**Method 8290**																		
95	88	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA	
96	89	Total TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA	
97	90	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA	
98	91	Total TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA	
101	94	Total PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA	
103	96	Total PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA	
108	101	Total HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA	
112	105	Total HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA	
115	108	Total HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA	
117	110	Total HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA	
118	111	OCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA	
119	112	OCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA	
120																				
121		**ETHANOL (mg/L)**	NA		NA		NA		NA		NA		NA		NA		NA		NA	
122																				

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
1																				
2																				
3			LW10S		LW10S		LW10S		LW10S		LW10S		LW10S		LW10S		LW10S		LW10S	
4			AH76O		BC30A		BH96G		BR64K		ED30B		EN00B		FF76B		FL41M		0402113-01	
5			5/19/99		12/8/99		2/17/00		5/25/00		2/27/02		6/27/02		2/12/03		5/7/03		2/23/04	
123		**PAHs (µg/L)**																		
124		**EPA Method SW8270 SIM**																		
125		Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA	
126		2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA	
127		Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		NA	
128		Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA	
129		Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA	
130		Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		NA	
131		Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X
2					Dup of LW11S												Dup of LW11S							
3			LW11S		LW110S		LW11S		LW11S		LW11S		LW11S		LW11S		X		LW11S		LW11S		LW11S	
4			AH76E		AH76D		AU36F		BC27J		9912050-06A		BH96U		BR55L		BR55K		CB49J		CK77K		CT55H	
5			5/20/99		5/20/99		9/21/99		12/8/99		12/8/1999 (d)		2/17/00		5/23/00		5/23/00		8/28/00		11/8/00		2/14/01	
7	1	**CHLORINATED PHENOLS (µg/L)**																						
8	2	**EPA Method SW8040**																						
9	3	Pentachlorophenol	**15000**		**15000**		**9400**		**7200**		NA		**9700**		**7700**	J2	**7600**	J2	**3900**		NA		**320**	J
10	4	2,4,6-Trichlorophenol	**2.9**		**2.8**		**1.3**		**1.0**		NA		**1.8**		**1.4**		**1.2**		**0.68**		NA		NA	
11	5	2,3,6-Trichlorophenol	**0.13**	J1	0.25	U	0.25	U	**0.12**	J1	NA		**0.13**	J1	0.25	U	0.25	U	0.25	U	NA		NA	
12	6	2,4,5-Trichlorophenol	1.0	U	0.25	U	**0.32**		0.25	U	NA		**0.61**		**0.96**		**0.95**		0.72	U	NA		NA	
13	7	2,3,4-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		0.25	U	0.25	U	0.25	U	0.32	U	NA		NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	**750**		**750**		**450**		**360**		NA		**560**		**940**		**850**		**250**		NA		NA	
15	9	2,3,4,5-Tetrachlorophenol	**7.5**		**6.8**		**3.7**		**2.4**		NA		**6.2**		**4.2**		**4.4**		**2.5**		NA		NA	
16	10																							
17	11	**SEMIVOLATILES (µg/L)**																						
18	12	**EPA Method SW8270**																						
19	13	Phenol	2.0	U	2.0	U	2.0	U	2.0	U	NA		2.0	U	2.0	U	2.0	U	2.0	U	NA		**10**	
20	14	4-Methylphenol	**3.5**	M	**2.8**	M	1.0	U	**1.4**	MJ1	NA		1.0	U	1.0	U	1.0	U	**3.5**		NA		**3.7**	
21	15	Isophorone	1.0	U	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1.0	U
22	16	2,4-Dimethylphenol	3.0	U	3.0	U	3.0	U	3.0	U	NA		3.0	U	3.0	U	3.0	U	3.0	U	NA		3.0	U
23	17	Benzoic Acid	10	U	10	U	10	U	10	U	NA		10	U	10	U	10	U	10	U	NA		10	U
24	18	Naphthalene	**41**		**38**		**20**		**12**		NA		**23**		**22**		**20**		**13**		NA		**5.7**	
25	19	2-Methylnaphthalene	**14**		**13**		**8.9**		**5.7**		NA		**9.0**		**9.0**		**9.4**		**4.9**		NA		**3.9**	
26	20	2,4,6-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	NA		5.0	U	5.0	U	5.0	U	5.0	U	NA		5.0	U
27	21	2,4,5-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	NA		5.0	U	5.0	U	5.0	U	5.0	U	NA		5.0	U
28	22	Acenaphthene	1.0	U	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1.0	U
29	23	Dibenzofuran	1.0	U	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1.0	U
30	24	Fluorene	1.0	U	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1.0	U
31	25	Pentachlorophenol	**24000**		**20000**		**8000**		**5400**		NA		**11000**		**6800**	J2	**6500**	J2	**3600**		NA		**460**	J
32	26	bis(2-Ethylhexyl)phthalate	1.0	U	1.0	U	1.0	U	**0.8**	J1	NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1.0	U
33	27																							
34	28	**VOLATILES (µg/L)**																						
35	29	**EPA Method SW8260**																						
36	30	Acetone	**18**		**21**		5.0	U	**29**		NA		11	U	9.8	U	5.0	U	**11**		NA			R
37	31	Carbon Disulfide	1.0	U	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		2.0	U
38	32	2-Butanone	**6.1**		**6.3**		**27**		5.0	U	NA		**40**	M	5.0	U	5.0	U	5.0	U	NA		10	U
39	33	Benzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		2.0	U
40	34	Bromoform	1.0	U	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		2.0	U
41	35	Toluene	**51**		**48**		**23**		**14**		NA		**17**		**37**		**36**		**15**		NA		**2.4**	
42	36	Ethylbenzene	**160**		**150**		**86**		**54**		NA		**75**		**110**		**110**		**69**		NA		**24**	
43	37	Styrene	1.0	U	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		2.0	U
44	38	m,p-Xylene	**360**		**350**		**160**		**96**		NA		**140**		**220**		**210**		**120**		NA		**53**	
45	39	o-Xylene	**300**		**290**		**170**		**96**		NA		**130**		**240**		**210**		**120**		NA		**40**	
46	40	1,3,5-Trimethylbenzene	**100**		**92**		**68**		**43**		NA		**62**		**88**		**89**		**53**		NA		**48**	
47	41	1,2,4-Trimethylbenzene	**410**		**430**		**180**		**130**		NA		**200**		**370**		**320**		**180**		NA		**150**	
48	42	Isopropylbenzene	**50**	J2	**40**	J2	**27**		**18**		NA		**27**		**40**		**38**		**22**		NA		**13**	
49	43	n-Propylbenzene	**66**		**56**		**40**		**26**		NA		**42**		**53**		**52**		**32**		NA		**24**	
50	44	tert-Butylbenzene	**2.8**		**2.3**		1.0	U	1.0	U	NA		**1.9**	M	2.3	U	2.2	U	**1.5**	M	NA		2.0	U
51	45	sec-Butylbenzene	**15**		**13**		**10**		**9.1**		NA		**14**		**14**		**13**		**8.8**		NA		**7.5**	
52	46	4-Isopropyltoluene	**11**		**9.9**		1.0	U	1.0	U	NA		**10**		**9.8**		**9.4**		**5.9**		NA		**7.1**	
53	47	n-Butylbenzene	**12**		**10**		**8.0**		5.3	U	NA		**11**		10	U	9.9	U	**7.0**	M	NA		**8.4**	M
54	48	Naphthalene	**46**		**38**		**19**		**15**		NA		**25**		**45**		**44**		**22**		NA		10	U
55	48.5	Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
56	49																							
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																						
58	51	**Method OR-DEQ**																						
59	52	**TPH-Diesel**	**14**		**13**		**10**		**8.8**		NA		**12**		**10**		**9.6**		**5.9**		NA		**2.2**	
60	53	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		**1.1**		**0.50**		**0.77**		NA		NA		0.50	U
61	54	**TPH-Gasoline**	NA		NA		NA		NA		NA		**11**		**24**		**20**		**14**		NA		**4.8**	
62	55																							
63	56	**PRIORITY POLLUTANT**																						
64	57	**METALS (mg/L)**																						
65	58	Arsenic (7060)	**0.007**		**0.008**		**0.006**		**0.007**		NA		**0.007**		**0.008**		**0.008**		**0.007**		NA		**0.007**	

BZTO104(e)019183

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV
2												Dup of LW11S						Dup of LW11S							
3		LW11S		LW11S		LW11S		LW11S		LW11S		OX005S		LW11S		LW11S		X		LW11S		LW11S		LW11S	
4		DE68M		ED34D		EM66C		ES04D		EX87C		EX87A		EZ03I		FF76H		FF76L		FL58H		FU45D		FY72I	
5		6/4/01		2/28/02		6/24/02		08/28/02		10/29/02		10/29/02		11/12/02		2/12/03		2/12/03		5/8/03		8/28/03		10/22/03	
7	**CHLORINATED PHENOLS (µg/L)**																								
8	**EPA Method SW8040**																								
9	Pentachlorophenol	NA		NA		NA		NA		**3600**		**3700**		NA		NA		NA		NA		NA		NA	
10	2,4,6-Trichlorophenol	NA		NA		NA		NA		**1.3**		**1.3**		NA		NA		NA		NA		NA		NA	
11	2,3,6-Trichlorophenol	NA		NA		NA		NA		**0.4**		**0.37**		NA		NA		NA		NA		NA		NA	
12	2,4,5-Trichlorophenol	NA		NA		NA		NA		0.58	U	0.6	U	NA		NA		NA		NA		NA		NA	
13	2,3,4-Trichlorophenol	NA		NA		NA		NA		0.25	U	0.29	U	NA		NA		NA		NA		NA		NA	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA		NA		NA		**380**		**380**		NA		NA		NA		NA		NA		NA	
15	2,3,4,5-Tetrachlorophenol	NA		NA		NA		NA		**3.2**	J	**4.2**	J	NA		NA		NA		NA		NA		NA	
16																									
17	**SEMIVOLATILES (µg/L)**																								
18	**EPA Method SW8270**																								
19	Phenol	**2.6**		2.0	U	2.0	U	2.2	U	NA		NA		2.2	U	2	U	2	U	2	U	2.1	U	2	U
20	4-Methylphenol	**2.3**		**1.9**		**1.0**		1.1	U	NA		NA		1.1	U	**1.2**	M	**1.3**	M	**5.4**		1.1	U	1	U
21	Isophorone	1.0	U	1.0	U	1.0	U	1.1	U	NA		NA		1.1	U	1	U	1	U	1	U	1.1	U	1	U
22	2,4-Dimethylphenol	3.0	U	3.0	U	3.0	U	3.3	U	NA		NA		3.3	U	3.1	U	3.1	U	3	U	3.2	U	3	U
23	Benzoic Acid	10	U	50	U	50	U	54	U	NA		NA		56	U	51	U	51	U	50	U	53	U	10	U
24	Naphthalene	**3.1**		**5.3**		**6.7**		**4.9**		NA		NA		**4.7**		**4.9**		**5.1**		**10**		**5.6**		**3.2**	
25	2-Methylnaphthalene	**2.0**		**1.7**		**2.6**		**1.7**		NA		NA		**2.8**		**3.6**		**3.7**		**4.5**		**3.7**		**2.9**	
26	2,4,6-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.4	U	NA		NA		5.6	U	5.1	U	5.1	U	5	U	**8.3**	M	5.1	U
27	2,4,5-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.4	U	NA		NA		5.6	U	5.1	U	5.1	U	5	U	5.3	U	5.1	U
28	Acenaphthene	1.0	U	1.0	U	1.0	U	1.1	U	NA		NA		1.1	U	1	U	1	U	1	U	1.1	U	1	U
29	Dibenzofuran	1.0	U	1.0	U	1.0	U	1.1	U	NA		NA		1.1	U	1	U	1	U	1	U	1.1	U	1	U
30	Fluorene	1.0	U	1.0	U	1.0	U	1.1	U	NA		NA		1.1	U	1	U	1	U	1	U	1.1	U	1	U
31	Pentachlorophenol	**560**		**4700**		**4000**		**2600**		NA		NA		**2200**		**1600**	J	**2000**	J	**3800**		**1700**		**900**	
32	bis(2-Ethylhexyl)phthalate	1.0	U	4.0	U	4.0	U	4.3	U	NA		NA		4.4	U	1	U	1	U	1	U	1.1	U	1	U
33																									
34	**VOLATILES (µg/L)**																								
35	**EPA Method SW8260**																								
36	Acetone	**17**		**28**		5.0	U	11	UJ	**99**	M	**110**		**46**	M	**18**	M	**22**	M	**23**	M	**10**	MJ	**7**	M
37	Carbon Disulfide	1.0	U	1.0	U	1.0	U	1	UJ	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
38	2-Butanone	5.0	U	**13**		5.0	U	**23**	J	**12**		**14**		**7.4**		5	U	5	U	5	U	**9.5**	M	**7.5**	M
39	Benzene	**1.7**		**6.6**		**12**		**9.1**		**2.9**		**2.6**		**2.7**		**11**	J	**14**	J	**18**		**5.4**		**2.1**	
40	Bromoform	1.0	U	1.0	U	1.0	U	1	UJ	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
41	Toluene	**5.3**		**9.1**		**10**		**3.6**	J	**3**		**2.8**		**1.3**		**3.9**	J	**4.8**	J	**6.4**		**1.2**		1	U
42	Ethylbenzene	**33**		**36**		**56**		**44**		**56**		**55**		**25**		**34**		**39**		**75**		**29**		**14**	
43	Styrene	1.0	U	1.0	U	1.0	U	1	UJ	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
44	m,p-Xylene	**57**		**71**		**100**		**69**	J	**67**		**67**		**26**		**52**		**62**		**120**		**48**	J	**20**	
45	o-Xylene	**50**		**77**		**94**		**68**	J	**88**		**83**		**37**		**48**		**55**		**130**		**50**		**23**	
46	1,3,5-Trimethylbenzene	**32**		**29**		**35**		**28**		**28**	J	**22**	J	**8.3**		**16**		**19**		**46**		**28**		**16**	
47	1,2,4-Trimethylbenzene	**120**		**140**		**150**		**120**		**160**		**150**		**84**		**95**		**110**		**210**		**120**	J	**73**	
48	Isopropylbenzene	**12**		**14**		**16**		**16**		**22**		**18**		**10**		**12**		**14**		**27**		**15**		**7.6**	
49	n-Propylbenzene	**21**		**20**		**24**		**24**		**31**		**27**		**15**		**20**		**23**		**37**		**20**		**13**	
50	tert-Butylbenzene	**1.3**	M	**1.4**		**2.8**	J	**1.8**		**2**		**1.8**		**1.3**	M	**1.5**	M	**1.6**	M	**2.4**		**1.6**		**1**	
51	sec-Butylbenzene	**7.3**		**6.9**		**7.4**		**5.8**		**10**		**9.3**		**5.6**		**7.4**		**7.8**		**11**		**7.9**		**4.7**	
52	4-Isopropyltoluene	**6.6**		**3.9**		**6.0**		**5.8**	J	**7**		**6.4**		**3.2**		**5.2**		**5.8**		**7.4**		**4.6**		**3.2**	
53	n-Butylbenzene	7.6	U	**4.1**		5.0	U	**6.8**	M	**7.6**	M	**7.2**	M	**3.8**	M	**6**	M	**6.6**	M	**8.2**		**5.2**		**3.7**	M
54	Naphthalene	**11**		**12**		**17**		**15**	J	**22**		**19**		**7.8**		**10**		**12**		**22**		**9.4**		5	U
55	Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
56																									
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																								
58	**Method OR-DEQ**																								
59	**TPH-Diesel**	**1.7**		**7.4**		**8.0**		**7.9**		NA		NA		**4.7**		**4.5**		**4.4**		**8.6**		**4**		**2.3**	
60	**TPH-D Motor Oil**	0.50	U	0.50	U	0.50	U	0.5	U	NA		NA		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
61	**TPH-Gasoline**	**2.9**		8.9		**9.7**		**7.3**		NA		NA		**6.1**		**7.1**		**7.7**		**8.6**	J	**4.8**		**2.8**	
62																									
63	**PRIORITY POLLUTANT**																								
64	**METALS (mg/L)**																								
65	Arsenic (7060)	**0.007**		**0.006**		**0.006**		**0.006**		NA		NA		0.05	U	**0.004**		**0.004**		**0.005**		**0.005**		**0.006**	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AW	AX
1			
2			
3		LW11S	
4		0402086-06	
5		2/18/04	
6			
7	**CHLORINATED PHENOLS (µg/L)**		
8	**EPA Method SW8040**		
9	Pentachlorophenol	NA	
10	2,4,6-Trichlorophenol	NA	
11	2,3,6-Trichlorophenol	NA	
12	2,4,5-Trichlorophenol	NA	
13	2,3,4-Trichlorophenol	NA	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA	
15	2,3,4,5-Tetrachlorophenol	NA	
16			
17	**SEMIVOLATILES (µg/L)**		
18	**EPA Method SW8270**		
19	Phenol	1.96	U
20	4-Methylphenol	9.8	U
21	Isophorone	0.98	U
22	2,4-Dimethylphenol	2.94	U
23	Benzoic Acid	19.6	U
24	Naphthalene	**9.22**	
25	2-Methylnaphthalene	**4.2**	
26	2,4,6-Trichlorophenol	4.9	U
27	2,4,5-Trichlorophenol	4.9	U
28	Acenaphthene	0.98	U
29	Dibenzofuran	0.98	U
30	Fluorene	0.98	U
31	Pentachlorophenol	**6350**	
32	bis(2-Ethylhexyl)phthalate	0.98	U
33			
34	**VOLATILES (µg/L)**		
35	**EPA Method SW8260**		
36	Acetone	50	UJ
37	Carbon Disulfide	2	UJ
38	2-Butanone	10	UJ
39	Benzene	**30.3**	J
40	Bromoform	1	UJ
41	Toluene	1	UJ
42	Ethylbenzene	**71.6**	J
43	Styrene	1	UJ
44	m,p-Xylene	**61.6**	J
45	o-Xylene	**123**	J
46	1,3,5-Trimethylbenzene	**34.8**	J
47	1,2,4-Trimethylbenzene	**160**	J
48	Isopropylbenzene	**15.9**	J
49	n-Propylbenzene	**18.6**	J
50	tert-Butylbenzene	1	UJ
51	sec-Butylbenzene	**7.19**	J
52	4-Isopropyltoluene	**4.32**	J
53	n-Butylbenzene	**3.41**	J
54	Naphthalene	**15.1**	J
55	Methyl tert-butyl ether	NA	
56			
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**		
58	**Method OR-DEQ**		
59	**TPH-Diesel**	**3.07**	
60	**TPH-D Motor Oil**	**0.573**	
61	**TPH-Gasoline**	**6.8**	
62			
63	**PRIORITY POLLUTANT**		
64	**METALS (mg/L)**		
65	Arsenic (7060)	**0.004**	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X
1																								
2					Dup of LW11S												Dup of LW11S							
3			LW11S		LW110S		LW11S		LW11S		LW11S		LW11S		LW11S		X		LW11S		LW11S		LW11S	
4			AH76E		AH76D		AU36F		BC27J		9912050-06A		BH96U		BR55L		BR55K		CB49J		CK77K		CT55H	
5			5/20/99		5/20/99		9/21/99		12/8/99		12/8/1999 (d)		2/17/00		5/23/00		5/23/00		8/28/00		11/8/00		2/14/01	
66	59	Chromium (6010)	0.005	U	0.005	U	0.005	U	0.005	U	NA		0.005	U	0.005	U	0.005	U	0.005	U	NA		0.005	U
67	60	Copper (6010)	**0.002**		**0.003**		0.002	U	0.002	U	NA		**0.005**		0.002	U	0.002	U	0.002	U	NA		0.002	U
68	61	Lead (7421)	0.001	U	0.001	U	0.001	U	0.001	U	NA		**0.002**		0.001	U	0.001	U	0.001	U	NA		0.001	U
69	62	Nickel (6010)	0.01	U	0.01	U	0.01	U	0.01	U	NA		0.01	U	0.01	U	0.01	U	0.01	U	NA		0.01	U
70	63	Zinc (6010)	**0.010**		**0.010**		0.004	U	0.006	U	NA		**0.011**		0.006	U	0.006	U	0.006	U	NA		0.006	U
71	64																							
72	65	**MAJOR IONS AND CONVENTIONALS**																						
73	66	Calcium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		**20.3**	
74	67	Magnesium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		**6.41**	
75	68	Potassium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		**1.6**	
76	69	Sodium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		**4.03**	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		**140**	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		1.0	U
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		**140**	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	**230**		**240**		**150**		**200**		NA		**160**		**160**		**170**		**220**		NA		**190**	
81	74	Chloride (mg/L) (EPA 325.2)	**2.3**		**2.2**		**3.3**		**5.3**		NA		**5.2**		**5.8**	J2	**12**	J2	**6.5**		NA		**3.1**	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		0.010	U
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		0.010	U
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		0.010	U
85	78	Sulfate (mg/L) (EPA 375.2)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		**5.6**	
86	79																							

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV
1																									
2												Dup of LW11S						Dup of LW11S							
3		LW11S		LW11S		LW11S		LW11S		LW11S		OX005S		LW11S		LW11S		X		LW11S		LW11S		LW11S	
4		DE68M		ED34D		EM66C		ES04D		EX87C		EX87A		EZ03I		FF76H		FF76L		FL58H		FU45D		FY72I	
5		6/4/01		2/28/02		6/24/02		08/28/02		10/29/02		10/29/02		11/12/02		2/12/03		2/12/03		5/8/03		8/28/03		10/22/03	
66	Chromium (6010)	0.005	U	0.005	U	0.005	U	0.005	U	NA		NA		0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U
67	Copper (6010)	0.002	U	**0.003**		0.002	U	0.002	U	NA		NA		0.002	U	0.002	UJ	**0.007**	J	**0.002**		**0.004**		**0.002**	
68	Lead (7421)	0.001	U	0.001	U	0.001	U	0.001	U	NA		NA		0.02	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
69	Nickel (6010)	0.01	U	0.01	U	0.01	U	0.01	U	NA		NA		**0.12**		0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
70	Zinc (6010)	0.006	U	0.006	U	0.006	U	0.006	U	NA		NA		**0.019**		**0.009**		**0.011**		0.006	U	0.006	U	0.006	U
71																									
72	**MAJOR IONS AND CONVENTIONALS**																								
73	Calcium (mg/L) (6010)	**28.6**		**59.0**		NA		NA		NA		NA		NA		**22.5**		**23.1**		NA		NA		NA	
74	Magnesium (mg/L) (6010)	**9.34**		**18.2**		NA		NA		NA		NA		NA		**7.52**		**7.8**		NA		NA		NA	
75	Potassium (mg/L) (6010)	**2.7**		**4.0**		NA		NA		NA		NA		NA		**2.9**		**3**		NA		NA		NA	
76	Sodium (mg/L) (6010)	**6.10**		**8.55**		NA		NA		NA		NA		NA		**12.5**		**12.9**		NA		NA		NA	
77	Alkalinity (mg/L CaCO3) (SM 2320)	NA		**230**		NA		NA		140		**140**		NA		**120**		**120**		NA		NA		NA	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		1.0	U	NA		NA		1	U	1	U	NA		1	U	1	U	NA		NA		NA	
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		**230**		NA		NA		140		**140**		NA		**120**		**120**		NA		NA		NA	
80	Total Dissolved Solids (mg/L) (EPA 160.1)	**190**		**410**		**180**		**160**		NA		NA		**560**		**170**		**160**		**190**		**270**		**240**	
81	Chloride (mg/L) (EPA 325.2)	**3.2**		**58**		**2.7**		**3.8**		NA		NA		**4.7**		**3.1**		**3**		**4.9**		**3.3**		**4**	
82	N-Nitrate (mg-N/L) (Calculated)	NA		0.010	U	NA		NA		NA		NA		NA		**0.042**	J	**0.031**	J	NA		NA		NA	
83	N-Nitrite (mg-N/L) (EPA 354.1)	NA		**0.031**		NA		NA		NA		NA		NA		0.01	U	0.01	U	NA		NA		NA	
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		**0.040**		NA		NA		NA		NA		NA		**0.042**	J	**0.031**	J	NA		NA		NA	
85	Sulfate (mg/L) (EPA 375.2)	NA		**13**		NA		NA		NA		NA		NA		**24**		**26**		NA		NA		NA	
86																									

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TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AW	AX
1			
2			
3		LW11S	
4		0402086-06	
5		2/18/04	
66	Chromium (6010)	**0.0069**	
67	Copper (6010)	0.01	U
68	Lead (7421)	**0.0002**	
69	Nickel (6010)	0.005	U
70	Zinc (6010)	0.01	U
71			
72	**MAJOR IONS AND CONVENTIONALS**		
73	Calcium (mg/L) (6010)	NA	
74	Magnesium (mg/L) (6010)	NA	
75	Potassium (mg/L) (6010)	NA	
76	Sodium (mg/L) (6010)	NA	
77	Alkalinity (mg/L CaCO3) (SM 2320)	NA	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA	
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA	
80	Total Dissolved Solids (mg/L) (EPA 160.1)	**274**	
81	Chloride (mg/L) (EPA 325.2)	**3.13**	
82	N-Nitrate (mg-N/L) (Calculated)	NA	
83	N-Nitrite (mg-N/L) (EPA 354.1)	NA	
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA	
85	Sulfate (mg/L) (EPA 375.2)	NA	
86			

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X
1																								
2					Dup of LW11S												Dup of LW11S							
3			LW11S		LW110S		LW11S		LW11S		LW11S		LW11S		LW11S		X		LW11S		LW11S		LW11S	
4			AH76E		AH76D		AU36F		BC27J		9912050-06A		BH96U		BR55L		BR55K		CB49J		CK77K		CT55H	
5			5/20/99		5/20/99		9/21/99		12/8/99		12/8/1999 (d)		2/17/00		5/23/00		5/23/00		8/28/00		11/8/00		2/14/01	
87	80	**FIELD PARAMETERS**																						
88	81	pH (avg)	6.55		6.56		5.83		6.50		NM		6.52		6.52		6.53		6.27		NM		6.25	
89	82	Temperature (° C) (avg)	14.1		14.1		15.0		12.2		NM		15.0		14.0		14.0		15.1		NM		13.2	
90	83	Conductivity (um/hos)	285		286		226		323		NM		291		234		234		346		NM		296	
91	84	Dissolved oxygen (mg/L) (avg)	2.09		2.21		2.45		2.72		NM		0.11		2.02		2.02		1.37		NM		0.61	
92	85																							
93	86	**DIOXINS AND FURANS (ng/L)**																						
94	87	**Method 8290**																						
95	88	2,3,7,8-TCDF	NA		NA		0.0055	U	0.00130	U	NA		0.0025	U	NA		NA		NA		NA		NA	
96	89	Total TCDF	NA		NA		**0.018**		**0.0011**	J1	NA		**0.0064**		NA		NA		NA		NA		NA	
97	90	2,3,7,8-TCDD	NA		NA		0.0056	U	0.00130	U	NA		0.0044	U	NA		NA		NA		NA		NA	
98	91	Total TCDD	NA		NA		0.0056	U	0.00130	U	NA		0.0044	U	NA		NA		NA		NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA		0.0320	UE	0.00160	U	NA		0.11	U	NA		NA		NA		NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA		0.0120	U	0.00130	U	NA		0.0026	U	NA		NA		NA		NA		NA	
101	94	Total PeCDF	NA		NA		0.0220	U	0.00140	U	NA		0.0034	U	NA		NA		NA		NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA		0.0061	U	0.00160	U	NA		0.0044	U	NA		NA		NA		NA		NA	
103	96	Total PeCDD	NA		NA		0.0061	U	0.00160	U	NA		0.0044	U	NA		NA		NA		NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA		0.0083	U	0.00120	U	NA		0.54	U	NA		NA		NA		NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA		0.0079	U	0.018	U	NA		0.0036	U	NA		NA		NA		NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA		0.0067	U	0.0032	U	NA		0.0038	U	NA		NA		NA		NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA		0.0130	U	0.00140	U	NA		0.0058	U	NA		NA		NA		NA		NA	
108	101	Total HxCDF	NA		NA		**0.015**		0.0170	U	NA		**0.1600**		NA		NA		NA		NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA		0.0076	U	0.00260	U	NA		0.0069	U	NA		NA		NA		NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA		**0.015**		**0.0025**	J1	NA		**0.0230**	J1	NA		NA		NA		NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA		0.0100	U	0.00130	U	NA		0.0078	U	NA		NA		NA		NA		NA	
112	105	Total HxCDD	NA		NA		**0.035**		**0.0068**	J1	NA		**0.0310**		NA		NA		NA		NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		**0.043**		**0.0071**	J1	NA		0.14	U	NA		NA		NA		NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		0.0094	U	0.00200	U	NA		0.0120	U	NA		NA		NA		NA		NA	
115	108	Total HpCDF	NA		NA		**0.043**		**0.0320**	J1	NA		**0.3800**		NA		NA		NA		NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		**0.270**		**0.0500**	J1	NA		**0.6900**		NA		NA		NA		NA		NA	
117	110	Total HpCDD	NA		NA		**0.410**		**0.0780**		NA		**1.1000**		NA		NA		NA		NA		NA	
118	111	OCDF	NA		NA		0.220	U	**0.0280**	J1	NA		**0.5100**		NA		NA		NA		NA		NA	
119	112	OCDD	NA		NA		**1.900**		**0.2800**		NA		**5.3000**		NA		NA		NA		NA		NA	
120																								
121		**ETHANOL (mg/L)**	NA		NA		NA		NA		10	U	**11**		5.0	U	5.0	U	5.0	U	NA		5.0	U
122																								

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TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV
1																									
2												Dup of LW11S						Dup of LW11S							
3		LW11S		LW11S		LW11S		LW11S		LW11S		OX005S		LW11S		LW11S		X		LW11S		LW11S		LW11S	
4		DE68M		ED34D		EM66C		ES04D		EX87C		EX87A		EZ03I		FF76H		FF76L		FL58H		FU45D		FY72I	
5		6/4/01		2/28/02		6/24/02		08/28/02		10/29/02		10/29/02		11/12/02		2/12/03		2/12/03		5/8/03		8/28/03		10/22/03	
87	**FIELD PARAMETERS**																								
88	pH (avg)	6.50		6.29		6.14		6.44		6.47		6.48		6.21		6.9		6.92		6.6		6.65		6.65	
89	Temperature (° C) (avg)	14.1		13.6		15.6		16.4		16.4		16.4		15.5		14.6		14.7		13.7		14.3		15.8	
90	Conductivity (um/hos)	270		460		205		218		554		554		528		323		324		248		356		300	
91	Dissolved oxygen (mg/L) (avg)	0.96		7.46		4.17		1.31		0		0		0		0		0		2.96		1.61		1.97	
92																									
93	**DIOXINS AND FURANS (ng/L)**																								
94	**Method 8290**																								
95	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		**6.88**	J
96	Total TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		**7.91**	
97	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		3.08	U
98	Total TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		3.08	U
99	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		**30.1**	
100	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		**23.8**	J
101	Total PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		**664**	
102	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		5.19	U
103	Total PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		**144**	
104	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		**185**	
105	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		**101**	
106	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		**141**	
107	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		11	U
108	Total HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		**6013**	
109	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		**31**	
110	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		**812**	
111	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		**111**	
112	Total HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		**2769**	
113	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		**5015**	
114	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		**335**	
115	Total HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		**23730**	
116	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		**34761**	J
117	Total HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		**53330**	
118	OCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		**25345**	J
119	OCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		**276444**	J
120																									
121	**ETHANOL (mg/L)**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
122																									

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AW	AX
1			
2			
3		LW11S	
4		0402086-06	
5		2/18/04	
87	**FIELD PARAMETERS**		
88	pH (avg)	6.53	
89	Temperature (° C) (avg)	14.3	
90	Conductivity (um/hos)	341	
91	Dissolved oxygen (mg/L) (avg)	1.52	
92			
93	**DIOXINS AND FURANS (ng/L)**		
94	**Method 8290**		
95	2,3,7,8-TCDF	NA	
96	Total TCDF	NA	
97	2,3,7,8-TCDD	NA	
98	Total TCDD	NA	
99	1,2,3,7,8-PeCDF	NA	
100	2,3,4,7,8-PeCDF	NA	
101	Total PeCDF	NA	
102	1,2,3,7,8-PeCDD	NA	
103	Total PeCDD	NA	
104	1,2,3,4,7,8-HxCDF	NA	
105	1,2,3,6,7,8-HxCDF	NA	
106	2,3,4,6,7,8-HxCDF	NA	
107	1,2,3,7,8,9-HxCDF	NA	
108	Total HxCDF	NA	
109	1,2,3,4,7,8-HxCDD	NA	
110	1,2,3,6,7,8-HxCDD	NA	
111	1,2,3,7,8,9-HxCDD	NA	
112	Total HxCDD	NA	
113	1,2,3,4,6,7,8-HpCDF	NA	
114	1,2,3,4,7,8,9-HpCDF	NA	
115	Total HpCDF	NA	
116	1,2,3,4,6,7,8-HpCDD	NA	
117	Total HpCDD	NA	
118	OCDF	NA	
119	OCDD	NA	
120			
121	**ETHANOL (mg/L)**	NA	
122			

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X
1																								
2					Dup of LW11S												Dup of LW11S							
3			LW11S		LW110S		LW11S		LW11S		LW11S		LW11S		LW11S		X		LW11S		LW11S		LW11S	
4			AH76E		AH76D		AU36F		BC27J		9912050-06A		BH96U		BR55L		BR55K		CB49J		CK77K		CT55H	
5			5/20/99		5/20/99		9/21/99		12/8/99		12/8/1999 (d)		2/17/00		5/23/00		5/23/00		8/28/00		11/8/00		2/14/01	
123		**PAHs (µg/L)**																						
124		**EPA Method SW8270 SIM**																						
125		Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
126		2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
127		Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
128		Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
129		Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
130		Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
131		Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV
1																									
2												Dup of LW11S						Dup of LW11S							
3		LW11S		LW11S		LW11S		LW11S		LW11S		OX005S		LW11S		LW11S		X		LW11S		LW11S		LW11S	
4		DE68M		ED34D		EM66C		ES04D		EX87C		EX87A		EZ03I		FF76H		FF76L		FL58H		FU45D		FY72I	
5		6/4/01		2/28/02		6/24/02		08/28/02		10/29/02		10/29/02		11/12/02		2/12/03		2/12/03		5/8/03		8/28/03		10/22/03	
123	**PAHs (µg/L)**																								
124	**EPA Method SW8270 SIM**																								
125	Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
126	2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
127	Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
128	Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
129	Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
130	Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
131	Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AW	AX
1			
2			
3		LW11S	
4		0402086-06	
5		2/18/04	
123	**PAHs (µg/L)**		
124	**EPA Method SW8270 SIM**		
125	Naphthalene	NA	
126	2-Methylnaphthalene	NA	
127	Acenaphthylene	NA	
128	Acenaphthene	NA	
129	Fluorene	NA	
130	Anthracene	NA	
131	Dibenzofuran	NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
1																												
2																												Dup of LW13S
3			LW13S		LW13S		LW13S		LW13S		LW13S		LW13S		LW13S		LW13S		LW13S		LW13S		LW13S		LW13S		LW13S		Y
4			BR64S		CB68A		CL03U		CT67O		DE87F		DM30R		DW29K		ED30F		EN00F		ER93H		EZ03N		FF65H		FF65J
5			5/25/00		8/30/00		11/9/00		2/15/01		6/6/01		8/13/01		11/27/01		2/27/02		6/27/02		08/27/02		11/12/02		2/11/03		2/11/03
6																												
7	1	**CHLORINATED PHENOLS (µg/L)**																										
8	2	**EPA Method SW8040**																										
9	3	Pentachlorophenol	**0.60**		**0.89**		**1.4**		**9.3**		**4.4**		**6.9**		0.25	U	0.26	U	0.25	U	0.26	U	**0.49**		0.25	U	0.25
10	4	2,4,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
11	5	2,3,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
12	6	2,4,5-Trichlorophenol	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
13	7	2,3,4-Trichlorophenol	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
15	9	2,3,4,5-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
16	10																											
17	11	**SEMIVOLATILES (µg/L)**																										
18	12	**EPA Method SW8270**																										
19	13	Phenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
20	14	4-Methylphenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
21	15	Isophorone	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
22	16	2,4-Dimethylphenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
23	17	Benzoic Acid	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
24	18	Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
25	19	2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
26	20	2,4,6-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
27	21	2,4,5-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
28	22	Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
29	23	Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
30	24	Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
31	25	Pentachlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
32	26	bis(2-Ethylhexyl)phthalate	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
33	27																											
34	28	**VOLATILES (µg/L)**																										
35	29	**EPA Method SW8260**																										
36	30	Acetone	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
37	31	Carbon Disulfide	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
38	32	2-Butanone	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
39	33	Benzene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
40	34	Bromoform	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
41	35	Toluene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
42	36	Ethylbenzene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
43	37	Styrene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
44	38	m,p-Xylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
45	39	o-Xylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
46	40	1,3,5-Trimethylbenzene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
47	41	1,2,4-Trimethylbenzene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
48	42	Isopropylbenzene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
49	43	n-Propylbenzene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
50	44	tert-Butylbenzene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
51	45	sec-Butylbenzene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
52	46	4-Isopropyltoluene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
53	47	n-Butylbenzene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
54	48	Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
55	48.5	Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
56	49																											
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																										
58	51	**Method OR-DEQ**																										
59	52	**TPH-Diesel**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
60	53	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
61	54	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
62	55																											
63	56	**PRIORITY POLLUTANT**																										
64	57	**METALS (mg/L)**																										
65	58	Arsenic (7060)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AB	AC	AD	AE	AF	AG	AH	AI	AJ
1										
2										
3			LW13S		LW13S		LW13S		LW13S	
4			FL58C		FU45M		FY82E		0402113-06	
5			5/8/03		8/28/03		10/23/03		2/23/04	
6										
7	**CHLORINATED PHENOLS (µg/L)**									
8	**EPA Method SW8040**									
9	Pentachlorophenol	U	0.25	U	**1.1**	J	**1.0**		0.482	U
10	2,4,6-Trichlorophenol		NA		NA		NA		NA	
11	2,3,6-Trichlorophenol		NA		NA		NA		NA	
12	2,4,5-Trichlorophenol		NA		NA		NA		NA	
13	2,3,4-Trichlorophenol		NA		NA		NA		NA	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol		NA		NA		NA		NA	
15	2,3,4,5-Tetrachlorophenol		NA		NA		NA		NA	
16										
17	**SEMIVOLATILES (µg/L)**									
18	**EPA Method SW8270**									
19	Phenol		NA		NA		NA		NA	
20	4-Methylphenol		NA		NA		NA		NA	
21	Isophorone		NA		NA		NA		NA	
22	2,4-Dimethylphenol		NA		NA		NA		NA	
23	Benzoic Acid		NA		NA		NA		NA	
24	Naphthalene		NA		NA		NA		NA	
25	2-Methylnaphthalene		NA		NA		NA		NA	
26	2,4,6-Trichlorophenol		NA		NA		NA		NA	
27	2,4,5-Trichlorophenol		NA		NA		NA		NA	
28	Acenaphthene		NA		NA		NA		NA	
29	Dibenzofuran		NA		NA		NA		NA	
30	Fluorene		NA		NA		NA		NA	
31	Pentachlorophenol		NA		NA		NA		NA	
32	bis(2-Ethylhexyl)phthalate		NA		NA		NA		NA	
33										
34	**VOLATILES (µg/L)**									
35	**EPA Method SW8260**									
36	Acetone		NA		NA		NA		NA	
37	Carbon Disulfide		NA		NA		NA		NA	
38	2-Butanone		NA		NA		NA		NA	
39	Benzene		NA		NA		NA		NA	
40	Bromoform		NA		NA		NA		NA	
41	Toluene		NA		NA		NA		NA	
42	Ethylbenzene		NA		NA		NA		NA	
43	Styrene		NA		NA		NA		NA	
44	m,p-Xylene		NA		NA		NA		NA	
45	o-Xylene		NA		NA		NA		NA	
46	1,3,5-Trimethylbenzene		NA		NA		NA		NA	
47	1,2,4-Trimethylbenzene		NA		NA		NA		NA	
48	Isopropylbenzene		NA		NA		NA		NA	
49	n-Propylbenzene		NA		NA		NA		NA	
50	tert-Butylbenzene		NA		NA		NA		NA	
51	sec-Butylbenzene		NA		NA		NA		NA	
52	4-Isopropyltoluene		NA		NA		NA		NA	
53	n-Butylbenzene		NA		NA		NA		NA	
54	Naphthalene		NA		NA		NA		NA	
55	Methyl tert-butyl ether		NA		NA		NA		NA	
56										
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**									
58	**Method OR-DEQ**									
59	**TPH-Diesel**		NA		NA		NA		NA	
60	**TPH-D Motor Oil**		NA		NA		NA		NA	
61	**TPH-Gasoline**		NA		NA		NA		NA	
62										
63	**PRIORITY POLLUTANT**									
64	**METALS (mg/L)**									
65	Arsenic (7060)		NA		NA		NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
1																											
2																											Dup of LW13S
3			LW13S		LW13S		LW13S		LW13S		LW13S		LW13S		LW13S		LW13S		LW13S		LW13S		LW13S		LW13S		Y
4			BR64S		CB68A		CL03U		CT67O		DE87F		DM30R		DW29K		ED30F		EN00F		ER93H		EZ03N		FF65H		FF65J
5			5/25/00		8/30/00		11/9/00		2/15/01		6/6/01		8/13/01		11/27/01		2/27/02		6/27/02		08/27/02		11/12/02		2/11/03		2/11/03
66	59	Chromium (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
67	60	Copper (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
68	61	Lead (7421)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
69	62	Nickel (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
70	63	Zinc (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
71	64																										
72	65	**MAJOR IONS AND CONVENTIONALS**																									
73	66	Calcium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
74	67	Magnesium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
75	68	Potassium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
76	69	Sodium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
81	74	Chloride (mg/L) (EPA 325.2)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
82	75	N-Nitrate (mg-N/L) (Calculated)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
85	78	Sulfate (mg/L) (EPA 375.2)	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
86	79																										

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AB	AC	AD	AE	AF	AG	AH	AI	AJ
1										
2										
3			LW13S		LW13S		LW13S		LW13S	
4			FL58C		FU45M		FY82E		0402113-06	
5			5/8/03		8/28/03		10/23/03		2/23/04	
66	Chromium (6010)		NA		NA		NA		NA	
67	Copper (6010)		NA		NA		NA		NA	
68	Lead (7421)		NA		NA		NA		NA	
69	Nickel (6010)		NA		NA		NA		NA	
70	Zinc (6010)		NA		NA		NA		NA	
71										
72	**MAJOR IONS AND CONVENTIONALS**									
73	Calcium (mg/L) (6010)		NA		NA		NA		NA	
74	Magnesium (mg/L) (6010)		NA		NA		NA		NA	
75	Potassium (mg/L) (6010)		NA		NA		NA		NA	
76	Sodium (mg/L) (6010)		NA		NA		NA		NA	
77	Alkalinity (mg/L CaCO3) (SM 2320)		NA		NA		NA		NA	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)		NA		NA		NA		NA	
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)		NA		NA		NA		NA	
80	Total Dissolved Solids (mg/L) (EPA 160.1)		NA		NA		NA		NA	
81	Chloride (mg/L) (EPA 325.2)		NA		NA		NA		NA	
82	N-Nitrate (mg-N/L) (Calculated)		NA		NA		NA		NA	
83	N-Nitrite (mg-N/L) (EPA 354.1)		NA		NA		NA		NA	
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)		NA		NA		NA		NA	
85	Sulfate (mg/L) (EPA 375.2)		NA		NA		NA		NA	
86										

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
1																											
2																											Dup of LW13S
3			LW13S		LW13S		LW13S		LW13S		LW13S		LW13S		LW13S		LW13S		LW13S		LW13S		LW13S		LW13S		Y
4			BR64S		CB68A		CL03U		CT67O		DE87F		DM30R		DW29K		ED30F		EN00F		ER93H		EZ03N		FF65H		FF65J
5			5/25/00		8/30/00		11/9/00		2/15/01		6/6/01		8/13/01		11/27/01		2/27/02		6/27/02		08/27/02		11/12/02		2/11/03		2/11/03
87	80	**FIELD PARAMETERS**																									
88	81	pH (avg)	6.22		5.57		5.62		6.34		6.54		6.82		6.56		6.35		6.43		6.32		6.43		6.77		6.76
89	82	Temperature (° C) (avg)	12.0		13.5		10.7		12.2		12.8		15.2		13.8		11.2		12.7		14.1		14.1		12.8		12.8
90	83	Conductivity (um/hos)	128		149		272		149		336		383		214		89		180		146		141		71		71
91	84	Dissolved oxygen (mg/L) (avg)	5.81		3.67		1.47		0.94		2.62		1.49		5.86		9.57		7.00		2.31		2.27		0		0
92	85																										
93	86	**DIOXINS AND FURANS (ng/L)**																									
94	87	**Method 8290**																									
95	88	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
96	89	Total TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
97	90	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
98	91	Total TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
99	92	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
100	93	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
101	94	Total PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
102	95	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
103	96	Total PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
108	101	Total HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
112	105	Total HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
115	108	Total HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
117	110	Total HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
118	111	OCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
119	112	OCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
120																											
121		**ETHANOL (mg/L)**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
122																											

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AB	AC	AD	AE	AF	AG	AH	AI	AJ
1										
2										
3			LW13S		LW13S		LW13S		LW13S	
4			FL58C		FU45M		FY82E		0402113-06	
5			5/8/03		8/28/03		10/23/03		2/23/04	
87	**FIELD PARAMETERS**									
88	pH (avg)		6.36		6.67		6.38		6.23	
89	Temperature (° C) (avg)		11.9		15.6		14.7		13.2	
90	Conductivity (um/hos)		81		131		119		70	
91	Dissolved oxygen (mg/L) (avg)		6.14		3.68		5.65		4.4	
92										
93	**DIOXINS AND FURANS (ng/L)**									
94	**Method 8290**									
95	2,3,7,8-TCDF		NA		NA		NA		NA	
96	Total TCDF		NA		NA		NA		NA	
97	2,3,7,8-TCDD		NA		NA		NA		NA	
98	Total TCDD		NA		NA		NA		NA	
99	1,2,3,7,8-PeCDF		NA		NA		NA		NA	
100	2,3,4,7,8-PeCDF		NA		NA		NA		NA	
101	Total PeCDF		NA		NA		NA		NA	
102	1,2,3,7,8-PeCDD		NA		NA		NA		NA	
103	Total PeCDD		NA		NA		NA		NA	
104	1,2,3,4,7,8-HxCDF		NA		NA		NA		NA	
105	1,2,3,6,7,8-HxCDF		NA		NA		NA		NA	
106	2,3,4,6,7,8-HxCDF		NA		NA		NA		NA	
107	1,2,3,7,8,9-HxCDF		NA		NA		NA		NA	
108	Total HxCDF		NA		NA		NA		NA	
109	1,2,3,4,7,8-HxCDD		NA		NA		NA		NA	
110	1,2,3,6,7,8-HxCDD		NA		NA		NA		NA	
111	1,2,3,7,8,9-HxCDD		NA		NA		NA		NA	
112	Total HxCDD		NA		NA		NA		NA	
113	1,2,3,4,6,7,8-HpCDF		NA		NA		NA		NA	
114	1,2,3,4,7,8,9-HpCDF		NA		NA		NA		NA	
115	Total HpCDF		NA		NA		NA		NA	
116	1,2,3,4,6,7,8-HpCDD		NA		NA		NA		NA	
117	Total HpCDD		NA		NA		NA		NA	
118	OCDF		NA		NA		NA		NA	
119	OCDD		NA		NA		NA		NA	
120										
121	**ETHANOL (mg/L)**		NA		NA		NA		NA	
122										

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
1																											
2																											Dup of LW13S
3			LW13S		LW13S		LW13S		LW13S		LW13S		LW13S		LW13S		LW13S		LW13S		LW13S		LW13S		LW13S		Y
4			BR64S		CB68A		CL03U		CT67O		DE87F		DM30R		DW29K		ED30F		EN00F		ER93H		EZ03N		FF65H		FF65J
5			5/25/00		8/30/00		11/9/00		2/15/01		6/6/01		8/13/01		11/27/01		2/27/02		6/27/02		08/27/02		11/12/02		2/11/03		2/11/03
123		**PAHs (µg/L)**																									
124		**EPA Method SW8270 SIM**																									
125		Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
126		2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
127		Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
128		Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
129		Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
130		Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
131		Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AB	AC	AD	AE	AF	AG	AH	AI	AJ
1										
2										
3			LW13S		LW13S		LW13S		LW13S	
4			FL58C		FU45M		FY82E		0402113-06	
5			5/8/03		8/28/03		10/23/03		2/23/04	
123	**PAHs (µg/L)**									
124	**EPA Method SW8270 SIM**									
125	Naphthalene		NA		NA		NA		NA	
126	2-Methylnaphthalene		NA		NA		NA		NA	
127	Acenaphthylene		NA		NA		NA		NA	
128	Acenaphthene		NA		NA		NA		NA	
129	Fluorene		NA		NA		NA		NA	
130	Anthracene		NA		NA		NA		NA	
131	Dibenzofuran		NA		NA		NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F
1						
2						
3			LW19S		LW19S	
4			FZ04O		0402115-04	
5			10/28/03		2/24/04	
7	1	**CHLORINATED PHENOLS (µg/L)**				
8	2	**EPA Method SW8040**				
9	3	Pentachlorophenol	NA		NA	
10	4	2,4,6-Trichlorophenol	NA		NA	
11	5	2,3,6-Trichlorophenol	NA		NA	
12	6	2,4,5-Trichlorophenol	NA		NA	
13	7	2,3,4-Trichlorophenol	NA		NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA	
15	9	2,3,4,5-Tetrachlorophenol	NA		NA	
16	10					
17	11	**SEMIVOLATILES (µg/L)**				
18	12	**EPA Method SW8270**				
19	13	Phenol	2	U	2	U
20	14	4-Methylphenol	1	U	10	U
21	15	Isophorone	1	U	1	U
22	16	2,4-Dimethylphenol	3	U	3	U
23	17	Benzoic Acid	10	U	20	U
24	18	Naphthalene	1	U	1	U
25	19	2-Methylnaphthalene	1	U	1	U
26	20	2,4,6-Trichlorophenol	5	U	5	U
27	21	2,4,5-Trichlorophenol	5	U	5	U
28	22	Acenaphthene	**1.1**		**1.18**	
29	23	Dibenzofuran	**1.5**		**1.02**	
30	24	Fluorene	**3.5**		**2.82**	
31	25	Pentachlorophenol	5	U	5	U
32	26	bis(2-Ethylhexyl)phthalate	1	U	1	U
33	27					
34	28	**VOLATILES (µg/L)**				
35	29	**EPA Method SW8260**				
36	30	Acetone	**5.1**	M	50	U
37	31	Carbon Disulfide	1	U	2	U
38	32	2-Butanone	5	U	10	U
39	33	Benzene	1	U	0.4	U
40	34	Bromoform	1	U	1	U
41	35	Toluene	1	U	1	U
42	36	Ethylbenzene	1	U	1	U
43	37	Styrene	1	U	1	U
44	38	m,p-Xylene	1	U	2	U
45	39	o-Xylene	1	U	1	U
46	40	1,3,5-Trimethylbenzene	1	U	1	U
47	41	1,2,4-Trimethylbenzene	1	U	1	U
48	42	Isopropylbenzene	**6.5**		**6.65**	
49	43	n-Propylbenzene	**8.9**		**9.37**	
50	44	tert-Butylbenzene	1	U	1	U
51	45	sec-Butylbenzene	**4.7**		**4.92**	
52	46	4-Isopropyltoluene	1	U	1	U
53	47	n-Butylbenzene	**2.9**	M	**2.78**	
54	48	Naphthalene	5	U	1	U
55	48.5	Methyl tert-butyl ether	1	U	1	U
56	49					
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**				
58	51	**Method OR-DEQ**				
59	52	**TPH-Diesel**	**4.4**		**7.53**	
60	53	**TPH-D Motor Oil**	0.5	U	**1.07**	
61	54	**TPH-Gasoline**	**1.1**		**1.3**	
62	55					
63	56	**PRIORITY POLLUTANT**				
64	57	**METALS (mg/L)**				
65	58	Arsenic (7060)	**0.046**		**0.040**	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F
1						
2						
3			LW19S		LW19S	
4			FZ04O		0402115-04	
5			10/28/03		2/24/04	
66	59	Chromium (6010)	0.005	U	**0.0095**	
67	60	Copper (6010)	0.002	U	0.01	U
68	61	Lead (7421)	**0.001**		**0.0005**	
69	62	Nickel (6010)	0.01	U	0.005	U
70	63	Zinc (6010)	0.006	U	0.01	U
71	64					
72	65	**MAJOR IONS AND CONVENTIONALS**				
73	66	Calcium (mg/L) (6010)	NA		NA	
74	67	Magnesium (mg/L) (6010)	NA		NA	
75	68	Potassium (mg/L) (6010)	NA		NA	
76	69	Sodium (mg/L) (6010)	NA		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	**140**		**256**	
81	74	Chloride (mg/L) (EPA 325.2)	**1.1**		**2.18**	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	NA		NA	
86	79					

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F
1						
2						
3			LW19S		LW19S	
4			FZ04O		0402115-04	
5			10/28/03		2/24/04	
87	80	**FIELD PARAMETERS**				
88	81	pH (avg)	6.65		6.63	
89	82	Temperature (° C) (avg)	14.4		12.8	
90	83	Conductivity (um/hos)	506		492	
91	84	Dissolved oxygen (mg/L) (avg)	1.72		1.26	
92	85					
93	86	**DIOXINS AND FURANS (ng/L)**				
94	87	**Method 8290**				
95	88	2,3,7,8-TCDF	NA		NA	
96	89	Total TCDF	NA		NA	
97	90	2,3,7,8-TCDD	NA		NA	
98	91	Total TCDD	NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA	
101	94	Total PeCDF	NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA	
103	96	Total PeCDD	NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA	
108	101	Total HxCDF	NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA	
112	105	Total HxCDD	NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA	
115	108	Total HpCDF	NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA	
117	110	Total HpCDD	NA		NA	
118	111	OCDF	NA		NA	
119	112	OCDD	NA		NA	
120						
121		**ETHANOL (mg/L)**	NA		NA	
122						

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F
1						
2						
3			LW19S		LW19S	
4			FZ04O		0402115-04	
5			10/28/03		2/24/04	
123		**PAHs (µg/L)**				
124		**EPA Method SW8270 SIM**				
125		Naphthalene	0.1	U	**0.369**	
126		2-Methylnaphthalene	0.1	U	NA	
127		Acenaphthylene	0.1	U	**0.159**	
128		Acenaphthene	0.84		**0.857**	
129		Fluorene	2.5		**2.35**	
130		Anthracene	0.1	U	0.0498	U
131		Dibenzofuran	0.77		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2							Dup of LW20S	
3			LW20S		LW20S		X	
4			FZ04M		0402115-02		0402115-01	
5			10/28/03		2/24/04		2/24/04	
7	1	**CHLORINATED PHENOLS (µg/L)**						
8	2	**EPA Method SW8040**						
9	3	Pentachlorophenol	NA		NA		NA	
10	4	2,4,6-Trichlorophenol	NA		NA		NA	
11	5	2,3,6-Trichlorophenol	NA		NA		NA	
12	6	2,4,5-Trichlorophenol	NA		NA		NA	
13	7	2,3,4-Trichlorophenol	NA		NA		NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA		NA	
15	9	2,3,4,5-Tetrachlorophenol	NA		NA		NA	
16	10							
17	11	**SEMIVOLATILES (µg/L)**						
18	12	**EPA Method SW8270**						
19	13	Phenol	2.2	U	2.02	U	2.1	U
20	14	4-Methylphenol	1.1	U	10.1	U	10.5	U
21	15	Isophorone	1.1	U	1.01	U	1.05	U
22	16	2,4-Dimethylphenol	3.3	U	3.03	U	3.15	U
23	17	Benzoic Acid	11	U	20.2	U	21	U
24	18	Naphthalene	1.1	U	1.01	U	1.05	U
25	19	2-Methylnaphthalene	1.1	U	1.01	U	1.05	U
26	20	2,4,6-Trichlorophenol	5.6	U	5.05	U	5.25	U
27	21	2,4,5-Trichlorophenol	5.6	U	5.05	U	5.25	U
28	22	Acenaphthene	**1.4**		**1.25**		1.05	U
29	23	Dibenzofuran	1.1	U	**1.43**		**1.49**	
30	24	Fluorene	**3.8**		**3.7**		**3.53**	
31	25	Pentachlorophenol	5.6	U	5.05	U	5.25	U
32	26	bis(2-Ethylhexyl)phthalate	1.1	U	1.01	U	1.05	U
33	27							
34	28	**VOLATILES (µg/L)**						
35	29	**EPA Method SW8260**						
36	30	Acetone	5	U	50	UJ	50	U
37	31	Carbon Disulfide	1	U	2	UJ	2	U
38	32	2-Butanone	5	U	10	UJ	10	U
39	33	Benzene	1	U	**0.95**	J	**0.85**	J
40	34	Bromoform	1	U	1	UJ	1	U
41	35	Toluene	1	U	1	UJ	1	U
42	36	Ethylbenzene	1	U	1	UJ	1	U
43	37	Styrene	1	U	1	UJ	1	U
44	38	m,p-Xylene	1	U	2	UJ	2	U
45	39	o-Xylene	1	U	1	UJ	1	U
46	40	1,3,5-Trimethylbenzene	1	U	1	UJ	1	U
47	41	1,2,4-Trimethylbenzene	1	U	1	UJ	1	U
48	42	Isopropylbenzene	**7**		**7.89**	J	**5.82**	J
49	43	n-Propylbenzene	**9.2**		**10.8**	J	**9.94**	
50	44	tert-Butylbenzene	1	U	1	UJ	1	U
51	45	sec-Butylbenzene	**5.1**		**6.27**	J	**5.19**	
52	46	4-Isopropyltoluene	1	U	1	UJ	1	U
53	47	n-Butylbenzene	**2.2**		**3.43**	J	**2.78**	
54	48	Naphthalene	5	U	1	UJ	1	U
55	48.5	Methyl tert-butyl ether	1	U	1	UJ	1	U
56	49							
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**						
58	51	**Method OR-DEQ**						
59	52	**TPH-Diesel**	**5.4**		**6.77**		**6.29**	
60	53	**TPH-D Motor Oil**	0.5	U	**1.06**		**0.998**	
61	54	**TPH-Gasoline**	**0.96**		**1.4**		**1.2**	
62	55							
63	56	**PRIORITY POLLUTANT**						
64	57	**METALS (mg/L)**						
65	58	Arsenic (7060)	**0.04**		**0.020**		**0.019**	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2							Dup of LW20S	
3			LW20S		LW20S		X	
4			FZ04M		0402115-02		0402115-01	
5			10/28/03		2/24/04		2/24/04	
66	59	Chromium (6010)	0.005	U	**0.013**		**0.0123**	J
67	60	Copper (6010)	0.002	U	0.01	U	0.01	U
68	61	Lead (7421)	0.001	U	**0.0005**	J	**0.0007**	J
69	62	Nickel (6010)	0.01	U	0.005	U	**0.016**	
70	63	Zinc (6010)	**0.01**		0.01	U	0.01	U
71	64							
72	65	**MAJOR IONS AND CONVENTIONALS**						
73	66	Calcium (mg/L) (6010)	NA		NA		NA	
74	67	Magnesium (mg/L) (6010)	NA		NA		NA	
75	68	Potassium (mg/L) (6010)	NA		NA		NA	
76	69	Sodium (mg/L) (6010)	NA		NA		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	**270**		**240**		**237**	
81	74	Chloride (mg/L) (EPA 325.2)	**2**		**1.45**		**1.79**	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA		NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	NA		NA		NA	
86	79							

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2							Dup of LW20S	
3			LW20S		LW20S		X	
4			FZ04M		0402115-02		0402115-01	
5			10/28/03		2/24/04		2/24/04	
87	80	**FIELD PARAMETERS**						
88	81	pH (avg)	6.33		6.12		6.12	
89	82	Temperature (° C) (avg)	16.5		11.6		11.7	
90	83	Conductivity (um/hos)	445		314		314	
91	84	Dissolved oxygen (mg/L) (avg)	1.79		1.82		1.79	
92	85							
93	86	**DIOXINS AND FURANS (ng/L)**						
94	87	**Method 8290**						
95	88	2,3,7,8-TCDF	NA		NA		NA	
96	89	Total TCDF	NA		NA		NA	
97	90	2,3,7,8-TCDD	NA		NA		NA	
98	91	Total TCDD	NA		NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA		NA	
101	94	Total PeCDF	NA		NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA		NA	
103	96	Total PeCDD	NA		NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA	
108	101	Total HxCDF	NA		NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA	
112	105	Total HxCDD	NA		NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA	
115	108	Total HpCDF	NA		NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA	
117	110	Total HpCDD	NA		NA		NA	
118	111	OCDF	NA		NA		NA	
119	112	OCDD	NA		NA		NA	
120								
121		**ETHANOL (mg/L)**	NA		NA		NA	
122								

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2							Dup of LW20S	
3			LW20S		LW20S		X	
4			FZ04M		0402115-02		0402115-01	
5			10/28/03		2/24/04		2/24/04	
123		**PAHs (µg/L)**						
124		**EPA Method SW8270 SIM**						
125		Naphthalene	0.11	U	**0.429**		**0.518**	
126		2-Methylnaphthalene	0.11	U	NA		NA	
127		Acenaphthylene	0.11	U	**0.256**		**0.352**	
128		Acenaphthene	1.3		**0.91**	J	**1.19**	J
129		Fluorene	3.3		**2.55**	J	**3.52**	J
130		Anthracene	0.14		**0.0716**		**0.0932**	
131		Dibenzofuran	0.59		NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D
1				
2				
3			LW21S	
4			FZ04Q	
5			10/28/03	
7	1	**CHLORINATED PHENOLS (µg/L)**		
8	2	**EPA Method SW8040**		
9	3	Pentachlorophenol	NA	
10	4	2,4,6-Trichlorophenol	NA	
11	5	2,3,6-Trichlorophenol	NA	
12	6	2,4,5-Trichlorophenol	NA	
13	7	2,3,4-Trichlorophenol	NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA	
15	9	2,3,4,5-Tetrachlorophenol	NA	
16	10			
17	11	**SEMIVOLATILES (µg/L)**		
18	12	**EPA Method SW8270**		
19	13	Phenol	**11**	
20	14	4-Methylphenol	1.2	U
21	15	Isophorone	1.2	U
22	16	2,4-Dimethylphenol	**5.4**	
23	17	Benzoic Acid	12	U
24	18	Naphthalene	**100**	
25	19	2-Methylnaphthalene	**46**	
26	20	2,4,6-Trichlorophenol	6	U
27	21	2,4,5-Trichlorophenol	6	U
28	22	Acenaphthene	1.2	U
29	23	Dibenzofuran	1.2	U
30	24	Fluorene	**1.9**	
31	25	Pentachlorophenol	6	U
32	26	bis(2-Ethylhexyl)phthalate	1.2	U
33	27			
34	28	**VOLATILES (µg/L)**		
35	29	**EPA Method SW8260**		
36	30	Acetone	5	U
37	31	Carbon Disulfide	1	U
38	32	2-Butanone	5	U
39	33	Benzene	**1600**	
40	34	Bromoform	1	U
41	35	Toluene	**72**	
42	36	Ethylbenzene	**940**	
43	37	Styrene	1	U
44	38	m,p-Xylene	**2400**	
45	39	o-Xylene	**770**	
46	40	1,3,5-Trimethylbenzene	**120**	
47	41	1,2,4-Trimethylbenzene	**540**	
48	42	Isopropylbenzene	**72**	
49	43	n-Propylbenzene	**110**	
50	44	tert-Butylbenzene	1	U
51	45	sec-Butylbenzene	1	U
52	46	4-Isopropyltoluene	1	U
53	47	n-Butylbenzene	**8**	
54	48	Naphthalene	**190**	
55	48.5	Methyl tert-butyl ether	**7.5**	M
56	49			
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**		
58	51	**Method OR-DEQ**		
59	52	**TPH-Diesel**	**4.3**	
60	53	**TPH-D Motor Oil**	0.5	U
61	54	**TPH-Gasoline**	**24**	
62	55			
63	56	**PRIORITY POLLUTANT**		
64	57	**METALS (mg/L)**		
65	58	Arsenic (7060)	**0.025**	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D
1				
2				
3			LW21S	
4			FZ04Q	
5			10/28/03	
66	59	Chromium (6010)	0.005	U
67	60	Copper (6010)	**0.005**	
68	61	Lead (7421)	**0.005**	
69	62	Nickel (6010)	0.01	U
70	63	Zinc (6010)	**0.012**	
71	64			
72	65	**MAJOR IONS AND CONVENTIONALS**		
73	66	Calcium (mg/L) (6010)	NA	
74	67	Magnesium (mg/L) (6010)	NA	
75	68	Potassium (mg/L) (6010)	NA	
76	69	Sodium (mg/L) (6010)	NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	**240**	
81	74	Chloride (mg/L) (EPA 325.2)	**2.7**	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA	
85	78	Sulfate (mg/L) (EPA 375.2)	NA	
86	79			

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D
1				
2				
3			LW21S	
4			FZ04Q	
5			10/28/03	
87	80	**FIELD PARAMETERS**		
88	81	pH (avg)	6.54	
89	82	Temperature (° C) (avg)	16.4	
90	83	Conductivity (um/hos)	373	
91	84	Dissolved oxygen (mg/L) (avg)	1.25	
92	85			
93	86	**DIOXINS AND FURANS (ng/L)**		
94	87	**Method 8290**		
95	88	2,3,7,8-TCDF	NA	
96	89	Total TCDF	NA	
97	90	2,3,7,8-TCDD	NA	
98	91	Total TCDD	NA	
99	92	1,2,3,7,8-PeCDF	NA	
100	93	2,3,4,7,8-PeCDF	NA	
101	94	Total PeCDF	NA	
102	95	1,2,3,7,8-PeCDD	NA	
103	96	Total PeCDD	NA	
104	97	1,2,3,4,7,8-HxCDF	NA	
105	98	1,2,3,6,7,8-HxCDF	NA	
106	99	2,3,4,6,7,8-HxCDF	NA	
107	100	1,2,3,7,8,9-HxCDF	NA	
108	101	Total HxCDF	NA	
109	102	1,2,3,4,7,8-HxCDD	NA	
110	103	1,2,3,6,7,8-HxCDD	NA	
111	104	1,2,3,7,8,9-HxCDD	NA	
112	105	Total HxCDD	NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA	
115	108	Total HpCDF	NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA	
117	110	Total HpCDD	NA	
118	111	OCDF	NA	
119	112	OCDD	NA	
120				
121		**ETHANOL (mg/L)**	NA	
122				

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D
1				
2				
3			LW21S	
4			FZ04Q	
5			10/28/03	
123		**PAHs (µg/L)**		
124		**EPA Method SW8270 SIM**		
125		Naphthalene	100	
126		2-Methylnaphthalene	46	
127		Acenaphthylene	0.12	U
128		Acenaphthene	0.8	
129		Fluorene	2.1	
130		Anthracene	0.12	U
131		Dibenzofuran	0.57	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D
1				
2				
3			LW27S	
4			FZ04R	
5			10/28/03	
7	1	**CHLORINATED PHENOLS (µg/L)**		
8	2	**EPA Method SW8040**		
9	3	Pentachlorophenol	NA	
10	4	2,4,6-Trichlorophenol	NA	
11	5	2,3,6-Trichlorophenol	NA	
12	6	2,4,5-Trichlorophenol	NA	
13	7	2,3,4-Trichlorophenol	NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA	
15	9	2,3,4,5-Tetrachlorophenol	NA	
16	10			
17	11	**SEMIVOLATILES (µg/L)**		
18	12	**EPA Method SW8270**		
19	13	Phenol	2.4	U
20	14	4-Methylphenol	1.2	U
21	15	Isophorone	1.2	U
22	16	2,4-Dimethylphenol	3.7	U
23	17	Benzoic Acid	12	U
24	18	Naphthalene	1.2	U
25	19	2-Methylnaphthalene	1.2	U
26	20	2,4,6-Trichlorophenol	6.1	U
27	21	2,4,5-Trichlorophenol	6.1	U
28	22	Acenaphthene	**1.2**	
29	23	Dibenzofuran	1.2	U
30	24	Fluorene	**2.3**	
31	25	Pentachlorophenol	6.1	U
32	26	bis(2-Ethylhexyl)phthalate	1.2	U
33	27			
34	28	**VOLATILES (µg/L)**		
35	29	**EPA Method SW8260**		
36	30	Acetone	**6**	
37	31	Carbon Disulfide	1	U
38	32	2-Butanone	5	U
39	33	Benzene	1	U
40	34	Bromoform	1	U
41	35	Toluene	1	U
42	36	Ethylbenzene	1	U
43	37	Styrene	1	U
44	38	m,p-Xylene	1	U
45	39	o-Xylene	1	U
46	40	1,3,5-Trimethylbenzene	1	U
47	41	1,2,4-Trimethylbenzene	1	U
48	42	Isopropylbenzene	**12**	
49	43	n-Propylbenzene	**13**	
50	44	tert-Butylbenzene	1	U
51	45	sec-Butylbenzene	**4**	
52	46	4-Isopropyltoluene	1	U
53	47	n-Butylbenzene	**3.3**	
54	48	Naphthalene	5	U
55	48.5	Methyl tert-butyl ether	1	U
56	49			
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**		
58	51	**Method OR-DEQ**		
59	52	**TPH-Diesel**	**4.4**	
60	53	**TPH-D Motor Oil**	0.5	U
61	54	**TPH-Gasoline**	**1.6**	
62	55			
63	56	**PRIORITY POLLUTANT**		
64	57	**METALS (mg/L)**		
65	58	Arsenic (7060)	**0.038**	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D
1				
2				
3			LW27S	
4			FZ04R	
5			10/28/03	
66	59	Chromium (6010)	0.005	U
67	60	Copper (6010)	**0.002**	
68	61	Lead (7421)	**0.002**	
69	62	Nickel (6010)	0.01	U
70	63	Zinc (6010)	**0.008**	
71	64			
72	65	**MAJOR IONS AND CONVENTIONALS**		
73	66	Calcium (mg/L) (6010)	NA	
74	67	Magnesium (mg/L) (6010)	NA	
75	68	Potassium (mg/L) (6010)	NA	
76	69	Sodium (mg/L) (6010)	NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	**270**	
81	74	Chloride (mg/L) (EPA 325.2)	**1.9**	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA	
85	78	Sulfate (mg/L) (EPA 375.2)	NA	
86	79			

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D
1				
2				
3			LW27S	
4			FZ04R	
5			10/28/03	
87	80	**FIELD PARAMETERS**		
88	81	pH (avg)	6.62	
89	82	Temperature (° C) (avg)	14.9	
90	83	Conductivity (um/hos)	400	
91	84	Dissolved oxygen (mg/L) (avg)	1.53	
92	85			
93	86	**DIOXINS AND FURANS (ng/L)**		
94	87	**Method 8290**		
95	88	2,3,7,8-TCDF	NA	
96	89	Total TCDF	NA	
97	90	2,3,7,8-TCDD	NA	
98	91	Total TCDD	NA	
99	92	1,2,3,7,8-PeCDF	NA	
100	93	2,3,4,7,8-PeCDF	NA	
101	94	Total PeCDF	NA	
102	95	1,2,3,7,8-PeCDD	NA	
103	96	Total PeCDD	NA	
104	97	1,2,3,4,7,8-HxCDF	NA	
105	98	1,2,3,6,7,8-HxCDF	NA	
106	99	2,3,4,6,7,8-HxCDF	NA	
107	100	1,2,3,7,8,9-HxCDF	NA	
108	101	Total HxCDF	NA	
109	102	1,2,3,4,7,8-HxCDD	NA	
110	103	1,2,3,6,7,8-HxCDD	NA	
111	104	1,2,3,7,8,9-HxCDD	NA	
112	105	Total HxCDD	NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA	
115	108	Total HpCDF	NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA	
117	110	Total HpCDD	NA	
118	111	OCDF	NA	
119	112	OCDD	NA	
120				
121		**ETHANOL (mg/L)**	NA	
122				

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D
1				
2				
3			LW27S	
4			FZ04R	
5			10/28/03	
123		**PAHs (µg/L)**		
124		**EPA Method SW8270 SIM**		
125		Naphthalene	0.12	U
126		2-Methylnaphthalene	0.12	U
127		Acenaphthylene	0.12	U
128		Acenaphthene	1.1	
129		Fluorene	2.3	
130		Anthracene	0.16	
131		Dibenzofuran	0.71	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D
1				
2				
3			LW28S	
4			0402080-02	
5			2/17/04	
7	1	**CHLORINATED PHENOLS (µg/L)**		
8	2	**EPA Method SW8040**		
9	3	Pentachlorophenol	NA	
10	4	2,4,6-Trichlorophenol	NA	
11	5	2,3,6-Trichlorophenol	NA	
12	6	2,4,5-Trichlorophenol	NA	
13	7	2,3,4-Trichlorophenol	NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA	
15	9	2,3,4,5-Tetrachlorophenol	NA	
16	10			
17	11	**SEMIVOLATILES (µg/L)**		
18	12	**EPA Method SW8270**		
19	13	Phenol	1.92	U
20	14	4-Methylphenol	9.62	U
21	15	Isophorone	0.962	U
22	16	2,4-Dimethylphenol	2.89	U
23	17	Benzoic Acid	19.2	U
24	18	Naphthalene	0.962	U
25	19	2-Methylnaphthalene	0.962	U
26	20	2,4,6-Trichlorophenol	4.81	U
27	21	2,4,5-Trichlorophenol	4.81	U
28	22	Acenaphthene	0.962	U
29	23	Dibenzofuran	0.962	U
30	24	Fluorene	0.962	U
31	25	Pentachlorophenol	4.81	U
32	26	bis(2-Ethylhexyl)phthalate	0.962	U
33	27			
34	28	**VOLATILES (µg/L)**		
35	29	**EPA Method SW8260**		
36	30	Acetone	50	U
37	31	Carbon Disulfide	2	U
38	32	2-Butanone	10	U
39	33	Benzene	0.4	U
40	34	Bromoform	1	U
41	35	Toluene	1	U
42	36	Ethylbenzene	1	U
43	37	Styrene	1	U
44	38	m,p-Xylene	2	U
45	39	o-Xylene	1	U
46	40	1,3,5-Trimethylbenzene	1	U
47	41	1,2,4-Trimethylbenzene	1	U
48	42	Isopropylbenzene	1	U
49	43	n-Propylbenzene	1	U
50	44	tert-Butylbenzene	1	U
51	45	sec-Butylbenzene	1	U
52	46	4-Isopropyltoluene	1	U
53	47	n-Butylbenzene	1	U
54	48	Naphthalene	1	U
55	48.5	Methyl tert-butyl ether	1	U
56	49			
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**		
58	51	**Method OR-DEQ**		
59	52	**TPH-Diesel**	0.242	U
60	53	**TPH-D Motor Oil**	0.484	U
61	54	**TPH-Gasoline**	0.1	U
62	55			
63	56	**PRIORITY POLLUTANT**		
64	57	**METALS (mg/L)**		
65	58	Arsenic (7060)	0.001	U

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D
1				
2				
3			LW28S	
4			0402080-02	
5			2/17/04	
66	59	Chromium (6010)	0.005	U
67	60	Copper (6010)	0.01	U
68	61	Lead (7421)	0.0001	U
69	62	Nickel (6010)	0.005	U
70	63	Zinc (6010)	0.01	U
71	64			
72	65	**MAJOR IONS AND CONVENTIONALS**		
73	66	Calcium (mg/L) (6010)	NA	
74	67	Magnesium (mg/L) (6010)	NA	
75	68	Potassium (mg/L) (6010)	NA	
76	69	Sodium (mg/L) (6010)	NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	**75**	
81	74	Chloride (mg/L) (EPA 325.2)	**1.17**	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA	
85	78	Sulfate (mg/L) (EPA 375.2)	NA	
86	79			

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D
1				
2				
3			LW28S	
4			0402080-02	
5			2/17/04	
87	80	**FIELD PARAMETERS**		
88	81	pH (avg)	5.84	
89	82	Temperature (° C) (avg)	11.5	
90	83	Conductivity (um/hos)	61	
91	84	Dissolved oxygen (mg/L) (avg)	6.56	
92	85			
93	86	**DIOXINS AND FURANS (ng/L)**		
94	87	**Method 8290**		
95	88	2,3,7,8-TCDF	NA	
96	89	Total TCDF	NA	
97	90	2,3,7,8-TCDD	NA	
98	91	Total TCDD	NA	
99	92	1,2,3,7,8-PeCDF	NA	
100	93	2,3,4,7,8-PeCDF	NA	
101	94	Total PeCDF	NA	
102	95	1,2,3,7,8-PeCDD	NA	
103	96	Total PeCDD	NA	
104	97	1,2,3,4,7,8-HxCDF	NA	
105	98	1,2,3,6,7,8-HxCDF	NA	
106	99	2,3,4,6,7,8-HxCDF	NA	
107	100	1,2,3,7,8,9-HxCDF	NA	
108	101	Total HxCDF	NA	
109	102	1,2,3,4,7,8-HxCDD	NA	
110	103	1,2,3,6,7,8-HxCDD	NA	
111	104	1,2,3,7,8,9-HxCDD	NA	
112	105	Total HxCDD	NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA	
115	108	Total HpCDF	NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA	
117	110	Total HpCDD	NA	
118	111	OCDF	NA	
119	112	OCDD	NA	
120				
121		**ETHANOL (mg/L)**	NA	
122				

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D
1				
2				
3			LW28S	
4			0402080-02	
5			2/17/04	
123		**PAHs (µg/L)**		
124		**EPA Method SW8270 SIM**		
125		Naphthalene	**0.0675**	J
126		2-Methylnaphthalene	NA	
127		Acenaphthylene	0.0482	UJ
128		Acenaphthene	0.0482	UJ
129		Fluorene	0.0482	UJ
130		Anthracene	0.0482	UJ
131		Dibenzofuran	NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F
1						
2						
3			LW29S		LW29S	
4			FZ04C		0402080-08	
5			10/27/03		2/17/04	
7	1	**CHLORINATED PHENOLS (µg/L)**				
8	2	**EPA Method SW8040**				
9	3	Pentachlorophenol	NA		NA	
10	4	2,4,6-Trichlorophenol	NA		NA	
11	5	2,3,6-Trichlorophenol	NA		NA	
12	6	2,4,5-Trichlorophenol	NA		NA	
13	7	2,3,4-Trichlorophenol	NA		NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA	
15	9	2,3,4,5-Tetrachlorophenol	NA		NA	
16	10					
17	11	**SEMIVOLATILES (µg/L)**				
18	12	**EPA Method SW8270**				
19	13	Phenol	2	U	1.96	U
20	14	4-Methylphenol	1	U	9.79	U
21	15	Isophorone	1	U	0.979	U
22	16	2,4-Dimethylphenol	3	U	2.94	U
23	17	Benzoic Acid	10	U	19.6	U
24	18	Naphthalene	1	U	0.979	U
25	19	2-Methylnaphthalene	1	U	0.979	U
26	20	2,4,6-Trichlorophenol	5	U	4.9	U
27	21	2,4,5-Trichlorophenol	5	U	4.9	U
28	22	Acenaphthene	1	U	0.979	U
29	23	Dibenzofuran	1	U	0.979	U
30	24	Fluorene	1	U	0.979	U
31	25	Pentachlorophenol	5	U	4.9	U
32	26	bis(2-Ethylhexyl)phthalate	1	U	0.979	U
33	27					
34	28	**VOLATILES (µg/L)**				
35	29	**EPA Method SW8260**				
36	30	Acetone	5	U	50	U
37	31	Carbon Disulfide	1	U	2	U
38	32	2-Butanone	5	U	10	U
39	33	Benzene	1	U	0.4	U
40	34	Bromoform	1	U	1	U
41	35	Toluene	1	U	1	U
42	36	Ethylbenzene	1	U	1	U
43	37	Styrene	1	U	1	U
44	38	m,p-Xylene	1	U	2	U
45	39	o-Xylene	1	U	1	U
46	40	1,3,5-Trimethylbenzene	1	U	1	U
47	41	1,2,4-Trimethylbenzene	1	U	1	U
48	42	Isopropylbenzene	1	U	1	U
49	43	n-Propylbenzene	1	U	1	U
50	44	tert-Butylbenzene	1	U	1	U
51	45	sec-Butylbenzene	1	U	1	U
52	46	4-Isopropyltoluene	1	U	1	U
53	47	n-Butylbenzene	1	U	1	U
54	48	Naphthalene	5	U	1	U
55	48.5	Methyl tert-butyl ether	1	U	1	U
56	49					
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**				
58	51	**Method OR-DEQ**				
59	52	**TPH-Diesel**	0.25	U	0.243	U
60	53	**TPH-D Motor Oil**	0.5	U	0.485	U
61	54	**TPH-Gasoline**	0.25	U	0.1	U
62	55					
63	56	**PRIORITY POLLUTANT**				
64	57	**METALS (mg/L)**				
65	58	Arsenic (7060)	**0.002**		**0.002**	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F
1						
2						
3			LW29S		LW29S	
4			FZ04C		0402080-08	
5			10/27/03		2/17/04	
66	59	Chromium (6010)	0.005	U	0.005	U
67	60	Copper (6010)	0.002	U	0.01	U
68	61	Lead (7421)	0.001	U	0.0001	U
69	62	Nickel (6010)	0.01	U	0.005	U
70	63	Zinc (6010)	**0.007**		0.01	U
71	64					
72	65	**MAJOR IONS AND CONVENTIONALS**				
73	66	Calcium (mg/L) (6010)	NA		NA	
74	67	Magnesium (mg/L) (6010)	NA		NA	
75	68	Potassium (mg/L) (6010)	NA		NA	
76	69	Sodium (mg/L) (6010)	NA		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	**91**		**98**	
81	74	Chloride (mg/L) (EPA 325.2)	**1.8**		**1.03**	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	NA		NA	
86	79					

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F
1						
2						
3			LW29S		LW29S	
4			FZ04C		0402080-08	
5			10/27/03		2/17/04	
87	80	**FIELD PARAMETERS**				
88	81	pH (avg)	6.56		6.65	
89	82	Temperature (° C) (avg)	14.7		12.7	
90	83	Conductivity (um/hos)	112		129	
91	84	Dissolved oxygen (mg/L) (avg)	1.44		2.33	
92	85					
93	86	**DIOXINS AND FURANS (ng/L)**				
94	87	**Method 8290**				
95	88	2,3,7,8-TCDF	NA		NA	
96	89	Total TCDF	NA		NA	
97	90	2,3,7,8-TCDD	NA		NA	
98	91	Total TCDD	NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA	
101	94	Total PeCDF	NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA	
103	96	Total PeCDD	NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA	
108	101	Total HxCDF	NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA	
112	105	Total HxCDD	NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA	
115	108	Total HpCDF	NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA	
117	110	Total HpCDD	NA		NA	
118	111	OCDF	NA		NA	
119	112	OCDD	NA		NA	
120						
121		**ETHANOL (mg/L)**	NA		NA	
122						

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F
1						
2						
3			LW29S		LW29S	
4			FZ04C		0402080-08	
5			10/27/03		2/17/04	
123		**PAHs (µg/L)**				
124		**EPA Method SW8270 SIM**				
125		Naphthalene	0.1	U	0.0489	UJ
126		2-Methylnaphthalene	0.1	U	NA	
127		Acenaphthylene	0.1	U	0.0489	UJ
128		Acenaphthene	0.1	U	0.0489	UJ
129		Fluorene	0.1	U	0.0489	UJ
130		Anthracene	0.1	U	0.0489	UJ
131		Dibenzofuran	0.1	U	NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2					Dup of LW30S			
3			LW30S		X		LW30S	
4			FZ04E		FZ04L		0402085-01	
5			10/27/03		10/27/03		2/18/04	
7	1	**CHLORINATED PHENOLS (µg/L)**						
8	2	**EPA Method SW8040**						
9	3	Pentachlorophenol	NA		NA		NA	
10	4	2,4,6-Trichlorophenol	NA		NA		NA	
11	5	2,3,6-Trichlorophenol	NA		NA		NA	
12	6	2,4,5-Trichlorophenol	NA		NA		NA	
13	7	2,3,4-Trichlorophenol	NA		NA		NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA		NA	
15	9	2,3,4,5-Tetrachlorophenol	NA		NA		NA	
16	10							
17	11	**SEMIVOLATILES (µg/L)**						
18	12	**EPA Method SW8270**						
19	13	Phenol	2.2	U	2.2	U	1.95	U
20	14	4-Methylphenol	1.1	U	1.1	U	9.75	U
21	15	Isophorone	1.1	U	1.1	U	0.975	U
22	16	2,4-Dimethylphenol	3.3	U	3.3	U	2.92	U
23	17	Benzoic Acid	11	U	11	U	19.5	U
24	18	Naphthalene	1.1	U	1.1	U	0.975	U
25	19	2-Methylnaphthalene	1.1	U	1.1	U	0.975	U
26	20	2,4,6-Trichlorophenol	5.5	U	5.4	U	4.87	U
27	21	2,4,5-Trichlorophenol	5.5	U	5.4	U	4.87	U
28	22	Acenaphthene	1.1	U	1.1	U	0.975	U
29	23	Dibenzofuran	1.1	U	1.1	U	0.975	U
30	24	Fluorene	**1.4**		**1.5**		**1.39**	
31	25	Pentachlorophenol	5.5	U	5.4	U	4.87	U
32	26	bis(2-Ethylhexyl)phthalate	1.1	U	**1.7**		0.975	U
33	27							
34	28	**VOLATILES (µg/L)**						
35	29	**EPA Method SW8260**						
36	30	Acetone	5	U	5	U	50	U
37	31	Carbon Disulfide	1	U	1	U	2	U
38	32	2-Butanone	5	U	5	U	10	U
39	33	Benzene	1	U	1	U	0.4	U
40	34	Bromoform	1	U	1	U	1	U
41	35	Toluene	1	U	1	U	1	U
42	36	Ethylbenzene	1	U	1	U	1	U
43	37	Styrene	1	U	1	U	1	U
44	38	m,p-Xylene	1	U	**1**		2	U
45	39	o-Xylene	1	U	1	U	1	U
46	40	1,3,5-Trimethylbenzene	1	U	**1.3**		1	U
47	41	1,2,4-Trimethylbenzene	1	U	1	U	1	U
48	42	Isopropylbenzene	**9.8**		**9.6**		**7.32**	
49	43	n-Propylbenzene	**25**		**23**		**26.7**	
50	44	tert-Butylbenzene	1	U	1	U	1	U
51	45	sec-Butylbenzene	**2.5**		**2.4**		**1.64**	
52	46	4-Isopropyltoluene	1	U	1	U	1	U
53	47	n-Butylbenzene	**3.5**		**3.2**	M	**3.13**	
54	48	Naphthalene	5	U	5	U	1	U
55	48.5	Methyl tert-butyl ether	1	U	1	U	1	U
56	49							
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**						
58	51	**Method OR-DEQ**						
59	52	**TPH-Diesel**	**0.87**		**0.86**		**2.06**	
60	53	**TPH-D Motor Oil**	0.5	U	0.5	U	0.486	U
61	54	**TPH-Gasoline**	**0.84**		**0.89**		**0.90**	
62	55							
63	56	**PRIORITY POLLUTANT**						
64	57	**METALS (mg/L)**						
65	58	Arsenic (7060)	**0.013**		**0.013**		**0.018**	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2					Dup of LW30S			
3			LW30S		X		LW30S	
4			FZ04E		FZ04L		0402085-01	
5			10/27/03		10/27/03		2/18/04	
66	59	Chromium (6010)	0.005	U	0.005	U	**0.008**	
67	60	Copper (6010)	0.002	U	0.002	U	0.01	U
68	61	Lead (7421)	0.001	U	0.001	U	**0.0015**	
69	62	Nickel (6010)	0.01	U	0.01	U	0.005	U
70	63	Zinc (6010)	0.006	U	**0.007**		0.01	U
71	64							
72	65	**MAJOR IONS AND CONVENTIONALS**						
73	66	Calcium (mg/L) (6010)	NA		NA		NA	
74	67	Magnesium (mg/L) (6010)	NA		NA		NA	
75	68	Potassium (mg/L) (6010)	NA		NA		NA	
76	69	Sodium (mg/L) (6010)	NA		NA		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	**130**		**140**		**173**	
81	74	Chloride (mg/L) (EPA 325.2)	**1.3**		**1.3**		**1.35**	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA		NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	NA		NA		NA	
86	79							

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2					Dup of LW30S			
3			LW30S		X		LW30S	
4			FZ04E		FZ04L		0402085-01	
5			10/27/03		10/27/03		2/18/04	
87	80	**FIELD PARAMETERS**						
88	81	pH (avg)	6.59		6.59		6.64	
89	82	Temperature (° C) (avg)	14.7		14.7		13.5	
90	83	Conductivity (um/hos)	192		193		239	
91	84	Dissolved oxygen (mg/L) (avg)	2.46		2.27		1.22	
92	85							
93	86	**DIOXINS AND FURANS (ng/L)**						
94	87	**Method 8290**						
95	88	2,3,7,8-TCDF	NA		NA		NA	
96	89	Total TCDF	NA		NA		NA	
97	90	2,3,7,8-TCDD	NA		NA		NA	
98	91	Total TCDD	NA		NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA		NA	
101	94	Total PeCDF	NA		NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA		NA	
103	96	Total PeCDD	NA		NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA	
108	101	Total HxCDF	NA		NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA	
112	105	Total HxCDD	NA		NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA	
115	108	Total HpCDF	NA		NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA	
117	110	Total HpCDD	NA		NA		NA	
118	111	OCDF	NA		NA		NA	
119	112	OCDD	NA		NA		NA	
120								
121		**ETHANOL (mg/L)**	NA		NA		NA	
122								

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2					Dup of LW30S			
3			LW30S		X		LW30S	
4			FZ04E		FZ04L		0402085-01	
5			10/27/03		10/27/03		2/18/04	
123		**PAHs (µg/L)**						
124		**EPA Method SW8270 SIM**						
125		Naphthalene	0.11	U	0.11	U	**0.379**	
126		2-Methylnaphthalene	0.11	U	0.11	U	NA	
127		Acenaphthylene	0.11	U	0.11	U	**0.126**	
128		Acenaphthene	0.84		0.84		**0.864**	
129		Fluorene	1.6		1.7		**1.38**	
130		Anthracene	0.11	U	0.11	U	**0.0583**	
131		Dibenzofuran	0.8		0.82		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F
1						
2						
3			LW31S		LW31S	
4			FZ04G		0402080-03	
5			10/27/03		2/17/04	
7	1	**CHLORINATED PHENOLS (µg/L)**				
8	2	**EPA Method SW8040**				
9	3	Pentachlorophenol	NA		NA	
10	4	2,4,6-Trichlorophenol	NA		NA	
11	5	2,3,6-Trichlorophenol	NA		NA	
12	6	2,4,5-Trichlorophenol	NA		NA	
13	7	2,3,4-Trichlorophenol	NA		NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA	
15	9	2,3,4,5-Tetrachlorophenol	NA		NA	
16	10					
17	11	**SEMIVOLATILES (µg/L)**				
18	12	**EPA Method SW8270**				
19	13	Phenol	2	U	1.93	U
20	14	4-Methylphenol	1	U	9.66	U
21	15	Isophorone	1	U	0.966	U
22	16	2,4-Dimethylphenol	3	U	2.9	U
23	17	Benzoic Acid	10	U	19.3	U
24	18	Naphthalene	1	U	0.966	U
25	19	2-Methylnaphthalene	1	U	0.966	U
26	20	2,4,6-Trichlorophenol	5.1	U	4.83	U
27	21	2,4,5-Trichlorophenol	5.1	U	4.83	U
28	22	Acenaphthene	1	U	0.966	U
29	23	Dibenzofuran	1	U	0.966	U
30	24	Fluorene	1	U	0.966	U
31	25	Pentachlorophenol	5.1	U	4.83	U
32	26	bis(2-Ethylhexyl)phthalate	**2.4**		0.966	U
33	27					
34	28	**VOLATILES (µg/L)**				
35	29	**EPA Method SW8260**				
36	30	Acetone	5	U	50	UJ
37	31	Carbon Disulfide	1	U	2	UJ
38	32	2-Butanone	5	U	10	UJ
39	33	Benzene	1	U	0.4	UJ
40	34	Bromoform	1	U	1	UJ
41	35	Toluene	1	U	1	UJ
42	36	Ethylbenzene	1	U	1	UJ
43	37	Styrene	1	U	1	UJ
44	38	m,p-Xylene	1	U	2	UJ
45	39	o-Xylene	1	U	1	UJ
46	40	1,3,5-Trimethylbenzene	1	U	1	UJ
47	41	1,2,4-Trimethylbenzene	1	U	1	UJ
48	42	Isopropylbenzene	1	U	1	UJ
49	43	n-Propylbenzene	1	U	1	UJ
50	44	tert-Butylbenzene	1	U	1	UJ
51	45	sec-Butylbenzene	1	U	1	UJ
52	46	4-Isopropyltoluene	1	U	1	UJ
53	47	n-Butylbenzene	1	U	1	UJ
54	48	Naphthalene	5	U	1	UJ
55	48.5	Methyl tert-butyl ether	1	U	1	UJ
56	49					
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**				
58	51	**Method OR-DEQ**				
59	52	**TPH-Diesel**	**0.59**		0.242	U
60	53	**TPH-D Motor Oil**	0.5	U	0.483	U
61	54	**TPH-Gasoline**	0.25	U	0.1	U
62	55					
63	56	**PRIORITY POLLUTANT**				
64	57	**METALS (mg/L)**				
65	58	Arsenic (7060)	0.001	U	0.001	U

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F
1						
2						
3			LW31S		LW31S	
4			FZ04G		0402080-03	
5			10/27/03		2/17/04	
66	59	Chromium (6010)	0.005	U	0.005	U
67	60	Copper (6010)	0.002	U	0.01	U
68	61	Lead (7421)	0.001	U	0.0001	U
69	62	Nickel (6010)	0.01	U	0.005	U
70	63	Zinc (6010)	**0.008**		0.01	U
71	64					
72	65	**MAJOR IONS AND CONVENTIONALS**				
73	66	Calcium (mg/L) (6010)	NA		NA	
74	67	Magnesium (mg/L) (6010)	NA		NA	
75	68	Potassium (mg/L) (6010)	NA		NA	
76	69	Sodium (mg/L) (6010)	NA		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	**140**		**101**	
81	74	Chloride (mg/L) (EPA 325.2)	**1.7**		**1.08**	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	NA		NA	
86	79					

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F
1						
2						
3			LW31S		LW31S	
4			FZ04G		0402080-03	
5			10/27/03		2/17/04	
87	80	**FIELD PARAMETERS**				
88	81	pH (avg)	5.90		6.15	
89	82	Temperature (° C) (avg)	14.7		12.8	
90	83	Conductivity (um/hos)	187		98	
91	84	Dissolved oxygen (mg/L) (avg)	3.10		4.42	
92	85					
93	86	**DIOXINS AND FURANS (ng/L)**				
94	87	**Method 8290**				
95	88	2,3,7,8-TCDF	NA		NA	
96	89	Total TCDF	NA		NA	
97	90	2,3,7,8-TCDD	NA		NA	
98	91	Total TCDD	NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA	
101	94	Total PeCDF	NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA	
103	96	Total PeCDD	NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA	
108	101	Total HxCDF	NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA	
112	105	Total HxCDD	NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA	
115	108	Total HpCDF	NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA	
117	110	Total HpCDD	NA		NA	
118	111	OCDF	NA		NA	
119	112	OCDD	NA		NA	
120						
121		**ETHANOL (mg/L)**	NA		NA	
122						

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F
1						
2						
3			LW31S		LW31S	
4			FZ04G		0402080-03	
5			10/27/03		2/17/04	
123		**PAHs (µg/L)**				
124		**EPA Method SW8270 SIM**				
125		Naphthalene	0.1	U	0.0486	UJ
126		2-Methylnaphthalene	0.1	U	NA	
127		Acenaphthylene	0.1	U	0.0486	UJ
128		Acenaphthene	0.1	U	0.0486	UJ
129		Fluorene	0.1	U	0.0486	UJ
130		Anthracene	0.1	U	0.0486	UJ
131		Dibenzofuran	0.1	U	NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F
1						
2						
3			LW32S		LW32S	
4			FZ04H		0402080-05	
5			10/27/03		2/17/04	
7	1	**CHLORINATED PHENOLS (µg/L)**				
8	2	**EPA Method SW8040**				
9	3	Pentachlorophenol	NA		NA	
10	4	2,4,6-Trichlorophenol	NA		NA	
11	5	2,3,6-Trichlorophenol	NA		NA	
12	6	2,4,5-Trichlorophenol	NA		NA	
13	7	2,3,4-Trichlorophenol	NA		NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA	
15	9	2,3,4,5-Tetrachlorophenol	NA		NA	
16	10					
17	11	**SEMIVOLATILES (µg/L)**				
18	12	**EPA Method SW8270**				
19	13	Phenol	2.1	U	1.96	U
20	14	4-Methylphenol	1	U	9.8	U
21	15	Isophorone	1	U	0.98	U
22	16	2,4-Dimethylphenol	3.1	U	2.94	U
23	17	Benzoic Acid	10	U	19.6	U
24	18	Naphthalene	1	U	0.98	U
25	19	2-Methylnaphthalene	1	U	0.98	U
26	20	2,4,6-Trichlorophenol	5.2	U	4.9	U
27	21	2,4,5-Trichlorophenol	5.2	U	4.9	U
28	22	Acenaphthene	1	U	0.98	U
29	23	Dibenzofuran	1	U	0.98	U
30	24	Fluorene	1	U	0.98	U
31	25	Pentachlorophenol	5.2	U	4.9	U
32	26	bis(2-Ethylhexyl)phthalate	**2.1**		0.98	U
33	27					
34	28	**VOLATILES (µg/L)**				
35	29	**EPA Method SW8260**				
36	30	Acetone	5	U	50	UJ
37	31	Carbon Disulfide	1	U	2	UJ
38	32	2-Butanone	5	U	10	UJ
39	33	Benzene	1	U	0.4	UJ
40	34	Bromoform	1	U	1	UJ
41	35	Toluene	1	U	1	UJ
42	36	Ethylbenzene	1	U	1	UJ
43	37	Styrene	1	U	1	UJ
44	38	m,p-Xylene	1	U	2	UJ
45	39	o-Xylene	1	U	1	UJ
46	40	1,3,5-Trimethylbenzene	1	U	1	UJ
47	41	1,2,4-Trimethylbenzene	1	U	1	UJ
48	42	Isopropylbenzene	**18**		**4.27**	J
49	43	n-Propylbenzene	**20**		**4.87**	J
50	44	tert-Butylbenzene	**1**		1	UJ
51	45	sec-Butylbenzene	**6.5**		**2.52**	J
52	46	4-Isopropyltoluene	1	U	1	UJ
53	47	n-Butylbenzene	**6.1**		**2.24**	J
54	48	Naphthalene	5	U	1	UJ
55	48.5	Methyl tert-butyl ether	1	U	1	UJ
56	49					
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**				
58	51	**Method OR-DEQ**				
59	52	**TPH-Diesel**	**3.3**		**1.84**	
60	53	**TPH-D Motor Oil**	0.5	U	0.488	U
61	54	**TPH-Gasoline**	**1.8**		**1.1**	
62	55					
63	56	**PRIORITY POLLUTANT**				
64	57	**METALS (mg/L)**				
65	58	Arsenic (7060)	**0.034**		**0.023**	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F
1						
2						
3			LW32S		LW32S	
4			FZ04H		0402080-05	
5			10/27/03		2/17/04	
66	59	Chromium (6010)	0.005	U	**0.0124**	
67	60	Copper (6010)	0.002	U	0.01	U
68	61	Lead (7421)	0.001	U	0.0001	U
69	62	Nickel (6010)	0.01	U	0.005	U
70	63	Zinc (6010)	**0.008**		0.01	U
71	64					
72	65	**MAJOR IONS AND CONVENTIONALS**				
73	66	Calcium (mg/L) (6010)	NA		NA	
74	67	Magnesium (mg/L) (6010)	NA		NA	
75	68	Potassium (mg/L) (6010)	NA		NA	
76	69	Sodium (mg/L) (6010)	NA		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	**250**		**196**	
81	74	Chloride (mg/L) (EPA 325.2)	**2.8**		**1.71**	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	NA		NA	
86	79					

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F
1						
2						
3			LW32S		LW32S	
4			FZ04H		0402080-05	
5			10/27/03		2/17/04	
87	80	**FIELD PARAMETERS**				
88	81	pH (avg)	6.35		6.46	
89	82	Temperature (° C) (avg)	14.6		12.8	
90	83	Conductivity (um/hos)	409		265	
91	84	Dissolved oxygen (mg/L) (avg)	1.65		1.65	
92	85					
93	86	**DIOXINS AND FURANS (ng/L)**				
94	87	**Method 8290**				
95	88	2,3,7,8-TCDF	NA		NA	
96	89	Total TCDF	NA		NA	
97	90	2,3,7,8-TCDD	NA		NA	
98	91	Total TCDD	NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA	
101	94	Total PeCDF	NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA	
103	96	Total PeCDD	NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA	
108	101	Total HxCDF	NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA	
112	105	Total HxCDD	NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA	
115	108	Total HpCDF	NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA	
117	110	Total HpCDD	NA		NA	
118	111	OCDF	NA		NA	
119	112	OCDD	NA		NA	
120						
121		**ETHANOL (mg/L)**				
122						

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F
1						
2						
3			LW32S		LW32S	
4			FZ04H		0402080-05	
5			10/27/03		2/17/04	
123		**PAHs (µg/L)**				
124		**EPA Method SW8270 SIM**				
125		Naphthalene	0.1	U	**0.498**	J
126		2-Methylnaphthalene	0.1	U	NA	
127		Acenaphthylene	0.1	U	**0.0976**	J
128		Acenaphthene	0.52		**0.38**	J
129		Fluorene	0.67		**0.488**	J
130		Anthracene	0.1	U	0.0488	UJ
131		Dibenzofuran	0.38		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D
1				
2				
3			LW33S	
4			0402080-04	
5			2/17/04	
7	1	**CHLORINATED PHENOLS (µg/L)**		
8	2	**EPA Method SW8040**		
9	3	Pentachlorophenol	NA	
10	4	2,4,6-Trichlorophenol	NA	
11	5	2,3,6-Trichlorophenol	NA	
12	6	2,4,5-Trichlorophenol	NA	
13	7	2,3,4-Trichlorophenol	NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA	
15	9	2,3,4,5-Tetrachlorophenol	NA	
16	10			
17	11	**SEMIVOLATILES (µg/L)**		
18	12	**EPA Method SW8270**		
19	13	Phenol	1.94	U
20	14	4-Methylphenol	9.68	U
21	15	Isophorone	0.968	U
22	16	2,4-Dimethylphenol	2.9	U
23	17	Benzoic Acid	19.4	U
24	18	Naphthalene	0.968	U
25	19	2-Methylnaphthalene	0.968	U
26	20	2,4,6-Trichlorophenol	4.84	U
27	21	2,4,5-Trichlorophenol	4.84	U
28	22	Acenaphthene	0.968	U
29	23	Dibenzofuran	0.968	U
30	24	Fluorene	0.968	U
31	25	Pentachlorophenol	4.84	U
32	26	bis(2-Ethylhexyl)phthalate	0.968	U
33	27			
34	28	**VOLATILES (µg/L)**		
35	29	**EPA Method SW8260**		
36	30	Acetone	50	U
37	31	Carbon Disulfide	2	U
38	32	2-Butanone	10	U
39	33	Benzene	0.4	U
40	34	Bromoform	1	U
41	35	Toluene	1	U
42	36	Ethylbenzene	1	U
43	37	Styrene	1	U
44	38	m,p-Xylene	2	U
45	39	o-Xylene	1	U
46	40	1,3,5-Trimethylbenzene	1	U
47	41	1,2,4-Trimethylbenzene	1	U
48	42	Isopropylbenzene	1	U
49	43	n-Propylbenzene	1	U
50	44	tert-Butylbenzene	1	U
51	45	sec-Butylbenzene	1	U
52	46	4-Isopropyltoluene	1	U
53	47	n-Butylbenzene	1	U
54	48	Naphthalene	1	U
55	48.5	Methyl tert-butyl ether	1	U
56	49			
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**		
58	51	**Method OR-DEQ**		
59	52	**TPH-Diesel**	0.247	U
60	53	**TPH-D Motor Oil**	0.494	U
61	54	**TPH-Gasoline**	0.1	U
62	55			
63	56	**PRIORITY POLLUTANT**		
64	57	**METALS (mg/L)**		
65	58	Arsenic (7060)	0.001	U

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D
1				
2				
3			LW33S	
4			0402080-04	
5			2/17/04	
66	59	Chromium (6010)	**0.0113**	
67	60	Copper (6010)	0.01	U
68	61	Lead (7421)	0.0001	U
69	62	Nickel (6010)	0.005	U
70	63	Zinc (6010)	**0.0111**	
71	64			
72	65	**MAJOR IONS AND CONVENTIONALS**		
73	66	Calcium (mg/L) (6010)	NA	
74	67	Magnesium (mg/L) (6010)	NA	
75	68	Potassium (mg/L) (6010)	NA	
76	69	Sodium (mg/L) (6010)	NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	**105**	
81	74	Chloride (mg/L) (EPA 325.2)	**1.39**	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA	
85	78	Sulfate (mg/L) (EPA 375.2)	NA	
86	79			

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D
1				
2				
3			LW33S	
4			0402080-04	
5			2/17/04	
87	80	**FIELD PARAMETERS**		
88	81	pH (avg)	6.18	
89	82	Temperature (° C) (avg)	11.7	
90	83	Conductivity (um/hos)	113	
91	84	Dissolved oxygen (mg/L) (avg)	4.61	
92	85			
93	86	**DIOXINS AND FURANS (ng/L)**		
94	87	**Method 8290**		
95	88	2,3,7,8-TCDF	NA	
96	89	Total TCDF	NA	
97	90	2,3,7,8-TCDD	NA	
98	91	Total TCDD	NA	
99	92	1,2,3,7,8-PeCDF	NA	
100	93	2,3,4,7,8-PeCDF	NA	
101	94	Total PeCDF	NA	
102	95	1,2,3,7,8-PeCDD	NA	
103	96	Total PeCDD	NA	
104	97	1,2,3,4,7,8-HxCDF	NA	
105	98	1,2,3,6,7,8-HxCDF	NA	
106	99	2,3,4,6,7,8-HxCDF	NA	
107	100	1,2,3,7,8,9-HxCDF	NA	
108	101	Total HxCDF	NA	
109	102	1,2,3,4,7,8-HxCDD	NA	
110	103	1,2,3,6,7,8-HxCDD	NA	
111	104	1,2,3,7,8,9-HxCDD	NA	
112	105	Total HxCDD	NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA	
115	108	Total HpCDF	NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA	
117	110	Total HpCDD	NA	
118	111	OCDF	NA	
119	112	OCDD	NA	
120				
121		**ETHANOL (mg/L)**	NA	
122				

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D
1				
2				
3			LW33S	
4			0402080-04	
5			2/17/04	
123		**PAHs (µg/L)**		
124		**EPA Method SW8270 SIM**		
125		Naphthalene	0.0483	UJ
126		2-Methylnaphthalene	NA	
127		Acenaphthylene	0.0483	UJ
128		Acenaphthene	0.0483	UJ
129		Fluorene	0.0483	UJ
130		Anthracene	0.0483	UJ
131		Dibenzofuran	NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F
1						
2						
3			LW34S		LW34S	
4			FZ04J		0402080-01	
5			10/27/03		2/17/04	
7	1	**CHLORINATED PHENOLS (µg/L)**				
8	2	**EPA Method SW8040**				
9	3	Pentachlorophenol	NA		NA	
10	4	2,4,6-Trichlorophenol	NA		NA	
11	5	2,3,6-Trichlorophenol	NA		NA	
12	6	2,4,5-Trichlorophenol	NA		NA	
13	7	2,3,4-Trichlorophenol	NA		NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA	
15	9	2,3,4,5-Tetrachlorophenol	NA		NA	
16	10					
17	11	**SEMIVOLATILES (µg/L)**				
18	12	**EPA Method SW8270**				
19	13	Phenol	2	U	1.93	U
20	14	4-Methylphenol	1	U	9.65	U
21	15	Isophorone	1	U	0.965	U
22	16	2,4-Dimethylphenol	3.1	U	2.9	U
23	17	Benzoic Acid	10	U	19.3	U
24	18	Naphthalene	1	U	0.965	U
25	19	2-Methylnaphthalene	1	U	0.965	U
26	20	2,4,6-Trichlorophenol	5.1	U	4.83	U
27	21	2,4,5-Trichlorophenol	5.1	U	4.83	U
28	22	Acenaphthene	1	U	0.965	U
29	23	Dibenzofuran	1	U	0.965	U
30	24	Fluorene	1	U	0.965	U
31	25	Pentachlorophenol	5.1	U	4.83	U
32	26	bis(2-Ethylhexyl)phthalate	**4.9**		0.965	U
33	27					
34	28	**VOLATILES (µg/L)**				
35	29	**EPA Method SW8260**				
36	30	Acetone	5	U	50	U
37	31	Carbon Disulfide	1	U	2	U
38	32	2-Butanone	5	U	10	U
39	33	Benzene	1	U	0.4	U
40	34	Bromoform	1	U	1	U
41	35	Toluene	1	U	1	U
42	36	Ethylbenzene	1	U	1	U
43	37	Styrene	1	U	1	U
44	38	m,p-Xylene	1	U	2	U
45	39	o-Xylene	1	U	1	U
46	40	1,3,5-Trimethylbenzene	1	U	1	U
47	41	1,2,4-Trimethylbenzene	1	U	1	U
48	42	Isopropylbenzene	1	U	1	U
49	43	n-Propylbenzene	1	U	1	U
50	44	tert-Butylbenzene	1	U	1	U
51	45	sec-Butylbenzene	1	U	1	U
52	46	4-Isopropyltoluene	1	U	1	U
53	47	n-Butylbenzene	1	U	1	U
54	48	Naphthalene	5	U	1	U
55	48.5	Methyl tert-butyl ether	1	U	1	U
56	49					
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**				
58	51	**Method OR-DEQ**				
59	52	**TPH-Diesel**	0.25	U	0.242	U
60	53	**TPH-D Motor Oil**	0.5	U	0.484	U
61	54	**TPH-Gasoline**	0.25	U	0.1	U
62	55					
63	56	**PRIORITY POLLUTANT**				
64	57	**METALS (mg/L)**				
65	58	Arsenic (7060)	**0.001**		0.001	U

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F
1						
2						
3			LW34S		LW34S	
4			FZ04J		0402080-01	
5			10/27/03		2/17/04	
66	59	Chromium (6010)	0.005	U	0.005	U
67	60	Copper (6010)	0.002	U	0.01	U
68	61	Lead (7421)	0.001	U	0.0001	U
69	62	Nickel (6010)	0.01	U	0.005	U
70	63	Zinc (6010)	**0.009**		0.01	U
71	64					
72	65	**MAJOR IONS AND CONVENTIONALS**				
73	66	Calcium (mg/L) (6010)	NA		NA	
74	67	Magnesium (mg/L) (6010)	NA		NA	
75	68	Potassium (mg/L) (6010)	NA		NA	
76	69	Sodium (mg/L) (6010)	NA		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	**180**		**121**	
81	74	Chloride (mg/L) (EPA 325.2)	**2.9**		**1.29**	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	NA		NA	
86	79					

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F
1						
2						
3			LW34S		LW34S	
4			FZ04J		0402080-01	
5			10/27/03		2/17/04	
87	80	**FIELD PARAMETERS**				
88	81	pH (avg)	6.01		6.42	
89	82	Temperature (° C) (avg)	15.4		12.2	
90	83	Conductivity (um/hos)	234		142	
91	84	Dissolved oxygen (mg/L) (avg)	2.62		5.01	
92	85					
93	86	**DIOXINS AND FURANS (ng/L)**				
94	87	**Method 8290**				
95	88	2,3,7,8-TCDF	NA		NA	
96	89	Total TCDF	NA		NA	
97	90	2,3,7,8-TCDD	NA		NA	
98	91	Total TCDD	NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA	
101	94	Total PeCDF	NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA	
103	96	Total PeCDD	NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA	
108	101	Total HxCDF	NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA	
112	105	Total HxCDD	NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA	
115	108	Total HpCDF	NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA	
117	110	Total HpCDD	NA		NA	
118	111	OCDF	NA		NA	
119	112	OCDD	NA		NA	
120						
121		**ETHANOL (mg/L)**	NA		NA	
122						

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F
1						
2						
3			LW34S		LW34S	
4			FZ04J		0402080-01	
5			10/27/03		2/17/04	
123		**PAHs (µg/L)**				
124		**EPA Method SW8270 SIM**				
125		Naphthalene	0.1	U	0.049	UJ
126		2-Methylnaphthalene	0.1	U	NA	
127		Acenaphthylene	0.1	U	0.049	UJ
128		Acenaphthene	0.1	U	0.049	UJ
129		Fluorene	0.1	U	0.049	UJ
130		Anthracene	0.1	U	0.049	UJ
131		Dibenzofuran	0.1	U	NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1																
2																
3			OX1S		OX1S		OX1S		OX1S		OX1S		OX1S		OX1S	
4			EM65A		EX87D		FF48G		FL41I		FU45F		FY72G		0402086-07	
5			6/24/02		10/29/02		2/10/03		5/7/03		8/28/03		10/22/03		2/18/04	
6																
7	1	**CHLORINATED PHENOLS (µg/L)**														
8	2	**EPA Method SW8040**														
9	3	Pentachlorophenol	NA		**200**		**620**		**67**		**19**	J	**0.69**		**62.1**	
10	4	2,4,6-Trichlorophenol	NA		**1.1**		NA		NA		NA		NA		NA	
11	5	2,3,6-Trichlorophenol	NA		**0.56**		NA		NA		NA		NA		NA	
12	6	2,4,5-Trichlorophenol	NA		25	U	NA		NA		NA		NA		NA	
13	7	2,3,4-Trichlorophenol	NA		0.25	U	NA		NA		NA		NA		NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		**70**		NA		NA		NA		NA		NA	
15	9	2,3,4,5-Tetrachlorophenol	NA		**6.9**		NA		NA		NA		NA		NA	
16	10															
17	11	**SEMIVOLATILES (µg/L)**														
18	12	**EPA Method SW8270**														
19	13	Phenol	NA		NA		NA		NA		NA		NA		NA	
20	14	4-Methylphenol	NA		NA		NA		NA		NA		NA		NA	
21	15	Isophorone	NA		NA		NA		NA		NA		NA		NA	
22	16	2,4-Dimethylphenol	NA		NA		NA		NA		NA		NA		NA	
23	17	Benzoic Acid	NA		NA		NA		NA		NA		NA		NA	
24	18	Naphthalene	NA		NA		NA		NA		NA		NA		NA	
25	19	2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA	
26	20	2,4,6-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA	
27	21	2,4,5-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA	
28	22	Acenaphthene	NA		NA		NA		NA		NA		NA		NA	
29	23	Dibenzofuran	NA		NA		NA		NA		NA		NA		NA	
30	24	Fluorene	NA		NA		NA		NA		NA		NA		NA	
31	25	Pentachlorophenol	NA		NA		NA		NA		NA		NA		NA	
32	26	bis(2-Ethylhexyl)phthalate	NA		NA		NA		NA		NA		NA		NA	
33	27															
34	28	**VOLATILES (µg/L)**														
35	29	**EPA Method SW8260**														
36	30	Acetone	**19**		**56**		NA		NA		NA		NA		NA	
37	31	Carbon Disulfide	1.0	U	1	U	NA		NA		NA		NA		NA	
38	32	2-Butanone	6.8	U	**5.4**		NA		NA		NA		NA		NA	
39	33	Benzene	**320**		**65**		NA		NA		NA		NA		NA	
40	34	Bromoform	1.0	U	1	U	NA		NA		NA		NA		NA	
41	35	Toluene	**29**		**3.9**		NA		NA		NA		NA		NA	
42	36	Ethylbenzene	**180**		**43**		NA		NA		NA		NA		NA	
43	37	Styrene	1.0	U	1	U	NA		NA		NA		NA		NA	
44	38	m,p-Xylene	**740**		**110**		NA		NA		NA		NA		NA	
45	39	o-Xylene	**280**		**42**		NA		NA		NA		NA		NA	
46	40	1,3,5-Trimethylbenzene	**160**		**54**		NA		NA		NA		NA		NA	
47	41	1,2,4-Trimethylbenzene	**460**		**160**		NA		NA		NA		NA		NA	
48	42	Isopropylbenzene	**140**		**27**		NA		NA		NA		NA		NA	
49	43	n-Propylbenzene	1.0	U	**38**		NA		NA		NA		NA		NA	
50	44	tert-Butylbenzene	**100**		1	U	NA		NA		NA		NA		NA	
51	45	sec-Butylbenzene	1.0	U	**6.8**		NA		NA		NA		NA		NA	
52	46	4-Isopropyltoluene	**29**		**6.9**		NA		NA		NA		NA		NA	
53	47	n-Butylbenzene	28	U	**6.1**	M	NA		NA		NA		NA		NA	
54	48	Naphthalene	**83**		**15**		NA		NA		NA		NA		NA	
55	48.5	Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA	
56	49															
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**														
58	51	**Method OR-DEQ**														
59	52	**TPH-Diesel**	NA		NA		NA		NA		NA		NA		NA	
60	53	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		NA		NA	
61	54	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA	
62	55															
63	56	**PRIORITY POLLUTANT**														
64	57	**METALS (mg/L)**														
65	58	Arsenic (7060)	**0.02**		NA		NA		NA		NA		NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1																
2																
3			OX1S		OX1S		OX1S		OX1S		OX1S		OX1S		OX1S	
4			EM65A		EX87D		FF48G		FL41I		FU45F		FY72G		0402086-07	
5			6/24/02		10/29/02		2/10/03		5/7/03		8/28/03		10/22/03		2/18/04	
66	59	Chromium (6010)	0.005	U	NA		NA		NA		NA		NA		NA	
67	60	Copper (6010)	0.002	U	NA		NA		NA		NA		NA		NA	
68	61	Lead (7421)	0.001	U	NA		NA		NA		NA		NA		NA	
69	62	Nickel (6010)	0.01	U	NA		NA		NA		NA		NA		NA	
70	63	Zinc (6010)	**0.009**		NA		NA		NA		NA		NA		NA	
71	64															
72	65	**MAJOR IONS AND CONVENTIONALS**														
73	66	Calcium (mg/L) (6010)	**32.4**		NA		NA		NA		NA		NA		NA	
74	67	Magnesium (mg/L) (6010)	**8.55**		NA		NA		NA		NA		NA		NA	
75	68	Potassium (mg/L) (6010)	**3.4**		NA		NA		NA		NA		NA		NA	
76	69	Sodium (mg/L) (6010)	**7.45**		NA		NA		NA		NA		NA		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	**160**		**190**		NA		NA		NA		NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	1.0	U	1	U	NA		NA		NA		NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	**160**		**190**		NA		NA		NA		NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	**240**		NA		NA		NA		NA		NA		NA	
81	74	Chloride (mg/L) (EPA 325.2)	NA		NA		NA		NA		NA		NA		NA	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA		NA		NA		NA		NA		NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		NA		NA		NA		NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		NA		NA		NA		NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	NA		NA		NA		NA		NA		NA		NA	
86	79															

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1																
2																
3			OX1S		OX1S		OX1S		OX1S		OX1S		OX1S		OX1S	
4			EM65A		EX87D		FF48G		FL41I		FU45F		FY72G		0402086-07	
5			6/24/02		10/29/02		2/10/03		5/7/03		8/28/03		10/22/03		2/18/04	
87	80	**FIELD PARAMETERS**														
88	81	pH (avg)	5.99		6.52		6.53		6.74		6.71		6.57		6.52	
89	82	Temperature (° C) (avg)	14.3		16.4		15		13		14.9		15.9		14.2	
90	83	Conductivity (um/hos)	302		427		369		274		262		317		270	
91	84	Dissolved oxygen (mg/L) (avg)	3.97		0.7		0.79		3.39		2.08		1.26		1.14	
92	85															
93	86	**DIOXINS AND FURANS (ng/L)**														
94	87	**Method 8290**														
95	88	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA	
96	89	Total TCDF	NA		NA		NA		NA		NA		NA		NA	
97	90	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA	
98	91	Total TCDD	NA		NA		NA		NA		NA		NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA	
101	94	Total PeCDF	NA		NA		NA		NA		NA		NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA	
103	96	Total PeCDD	NA		NA		NA		NA		NA		NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA	
108	101	Total HxCDF	NA		NA		NA		NA		NA		NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA	
112	105	Total HxCDD	NA		NA		NA		NA		NA		NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA	
115	108	Total HpCDF	NA		NA		NA		NA		NA		NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA	
117	110	Total HpCDD	NA		NA		NA		NA		NA		NA		NA	
118	111	OCDF	NA		NA		NA		NA		NA		NA		NA	
119	112	OCDD	NA		NA		NA		NA		NA		NA		NA	
120																
121		**ETHANOL (mg/L)**	NA		NA		NA		NA		NA		NA		NA	
122																

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1																
2																
3			OX1S		OX1S		OX1S		OX1S		OX1S		OX1S		OX1S	
4			EM65A		EX87D		FF48G		FL41I		FU45F		FY72G		0402086-07	
5			6/24/02		10/29/02		2/10/03		5/7/03		8/28/03		10/22/03		2/18/04	
123		**PAHs (µg/L)**														
124		**EPA Method SW8270 SIM**														
125		Naphthalene	NA		NA		NA		NA		NA		NA		NA	
126		2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA	
127		Acenaphthylene	NA		NA		NA		NA		NA		NA		NA	
128		Acenaphthene	NA		NA		NA		NA		NA		NA		NA	
129		Fluorene	NA		NA		NA		NA		NA		NA		NA	
130		Anthracene	NA		NA		NA		NA		NA		NA		NA	
131		Dibenzofuran	NA		NA		NA		NA		NA		NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1														
2														
3			OX2S		OX2S		OX2S		OX2S		OX2S		OX2S	
4			EM65B		EX87B		FF48H		FL58G		FU45E		0402086-09	
5			6/24/02		10/29/02		2/10/03		5/8/03		8/28/03		2/18/04	
6														
7	1	**CHLORINATED PHENOLS (µg/L)**												
8	2	**EPA Method SW8040**												
9	3	Pentachlorophenol	NA		**1200**		**5400**		**6700**		**5800**	J	**5320**	
10	4	2,4,6-Trichlorophenol	NA		0.26	U	NA		NA		NA		NA	
11	5	2,3,6-Trichlorophenol	NA		**0.28**		NA		NA		NA		NA	
12	6	2,4,5-Trichlorophenol	NA		0.94	U	NA		NA		NA		NA	
13	7	2,3,4-Trichlorophenol	NA		0.26	U	NA		NA		NA		NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		**110**		NA		NA		NA		NA	
15	9	2,3,4,5-Tetrachlorophenol	NA		**6.5**		NA		NA		NA		NA	
16	10													
17	11	**SEMIVOLATILES (µg/L)**												
18	12	**EPA Method SW8270**												
19	13	Phenol	NA		NA		NA		NA		NA		NA	
20	14	4-Methylphenol	NA		NA		NA		NA		NA		NA	
21	15	Isophorone	NA		NA		NA		NA		NA		NA	
22	16	2,4-Dimethylphenol	NA		NA		NA		NA		NA		NA	
23	17	Benzoic Acid	NA		NA		NA		NA		NA		NA	
24	18	Naphthalene	NA		NA		NA		NA		NA		NA	
25	19	2-Methylnaphthalene	NA		NA		NA		NA		NA		NA	
26	20	2,4,6-Trichlorophenol	NA		NA		NA		NA		NA		NA	
27	21	2,4,5-Trichlorophenol	NA		NA		NA		NA		NA		NA	
28	22	Acenaphthene	NA		NA		NA		NA		NA		NA	
29	23	Dibenzofuran	NA		NA		NA		NA		NA		NA	
30	24	Fluorene	NA		NA		NA		NA		NA		NA	
31	25	Pentachlorophenol	NA		NA		NA		NA		NA		NA	
32	26	bis(2-Ethylhexyl)phthalate	NA		NA		NA		NA		NA		NA	
33	27													
34	28	**VOLATILES (µg/L)**												
35	29	**EPA Method SW8260**												
36	30	Acetone	**16**		**22**	M	NA		NA		NA		NA	
37	31	Carbon Disulfide	3.0	U	1	U	NA		NA		NA		NA	
38	32	2-Butanone	15	U	5	U	NA		NA		NA		NA	
39	33	Benzene	3.0	U	**1.1**		NA		NA		NA		NA	
40	34	Bromoform	3.0	U	1	U	NA		NA		NA		NA	
41	35	Toluene	**6.7**		1	U	NA		NA		NA		NA	
42	36	Ethylbenzene	**43**		**24**		NA		NA		NA		NA	
43	37	Styrene	3.0	U	1	U	NA		NA		NA		NA	
44	38	m,p-Xylene	**72**		**29**		NA		NA		NA		NA	
45	39	o-Xylene	**79**		**36**		NA		NA		NA		NA	
46	40	1,3,5-Trimethylbenzene	**46**		**21**		NA		NA		NA		NA	
47	41	1,2,4-Trimethylbenzene	**190**		**110**		NA		NA		NA		NA	
48	42	Isopropylbenzene	**18**		**14**		NA		NA		NA		NA	
49	43	n-Propylbenzene	**28**		**25**		NA		NA		NA		NA	
50	44	tert-Butylbenzene	3.0	U	**1.8**		NA		NA		NA		NA	
51	45	sec-Butylbenzene	3.0	U	**8.4**		NA		NA		NA		NA	
52	46	4-Isopropyltoluene	**5.2**		**6.3**		NA		NA		NA		NA	
53	47	n-Butylbenzene	5.8	U	**6.7**	M	NA		NA		NA		NA	
54	48	Naphthalene	15	U	**11**		NA		NA		NA		NA	
55	48.5	Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA	
56	49													
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**												
58	51	**Method OR-DEQ**												
59	52	**TPH-Diesel**	NA		NA		NA		NA		NA		NA	
60	53	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		NA	
61	54	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA	
62	55													
63	56	**PRIORITY POLLUTANT**												
64	57	**METALS (mg/L)**												
65	58	Arsenic (7060)	**0.01**		NA		NA		NA		NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1														
2														
3			OX2S		OX2S		OX2S		OX2S		OX2S		OX2S	
4			EM65B		EX87B		FF48H		FL58G		FU45E		0402086-09	
5			6/24/02		10/29/02		2/10/03		5/8/03		8/28/03		2/18/04	
66	59	Chromium (6010)	0.005	U	NA		NA		NA		NA		NA	
67	60	Copper (6010)	0.002	U	NA		NA		NA		NA		NA	
68	61	Lead (7421)	0.001	U	NA		NA		NA		NA		NA	
69	62	Nickel (6010)	0.01	U	NA		NA		NA		NA		NA	
70	63	Zinc (6010)	**0.009**		NA		NA		NA		NA		NA	
71	64													
72	65	**MAJOR IONS AND CONVENTIONALS**												
73	66	Calcium (mg/L) (6010)	**33**		NA		NA		NA		NA		NA	
74	67	Magnesium (mg/L) (6010)	**10.7**		NA		NA		NA		NA		NA	
75	68	Potassium (mg/L) (6010)	**2.7**		NA		NA		NA		NA		NA	
76	69	Sodium (mg/L) (6010)	**6.06**		NA		NA		NA		NA		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	**120**		**200**		NA		NA		NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	1.0	U	1	U	NA		NA		NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	**120**		**200**		NA		NA		NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	**220**		NA		NA		NA		NA		NA	
81	74	Chloride (mg/L) (EPA 325.2)	NA		NA		NA		NA		NA		NA	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA		NA		NA		NA		NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		NA		NA		NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		NA		NA		NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	NA		NA		NA		NA		NA		NA	
86	79													

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1														
2														
3			OX2S		OX2S		OX2S		OX2S		OX2S		OX2S	
4			EM65B		EX87B		FF48H		FL58G		FU45E		0402086-09	
5			6/24/02		10/29/02		2/10/03		5/8/03		8/28/03		2/18/04	
87	80	**FIELD PARAMETERS**												
88	81	pH (avg)	6.15		6.40		6.7		6.49		6.66		6.57	
89	82	Temperature (° C) (avg)	15.5		15.9		14.2		13.6		14.9		13.6	
90	83	Conductivity (um/hos)	249		599		222		267		263		313	
91	84	Dissolved oxygen (mg/L) (avg)	4.10		0		1.49		2.21		1.43		1.48	
92	85													
93	86	**DIOXINS AND FURANS (ng/L)**												
94	87	**Method 8290**												
95	88	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA	
96	89	Total TCDF	NA		NA		NA		NA		NA		NA	
97	90	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA	
98	91	Total TCDD	NA		NA		NA		NA		NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA	
101	94	Total PeCDF	NA		NA		NA		NA		NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA	
103	96	Total PeCDD	NA		NA		NA		NA		NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA	
108	101	Total HxCDF	NA		NA		NA		NA		NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA	
112	105	Total HxCDD	NA		NA		NA		NA		NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA	
115	108	Total HpCDF	NA		NA		NA		NA		NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA	
117	110	Total HpCDD	NA		NA		NA		NA		NA		NA	
118	111	OCDF	NA		NA		NA		NA		NA		NA	
119	112	OCDD	NA		NA		NA		NA		NA		NA	
120														
121		**ETHANOL (mg/L)**	NA		NA		NA		NA		NA		NA	
122														

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1														
2														
3			OX2S		OX2S		OX2S		OX2S		OX2S		OX2S	
4			EM65B		EX87B		FF48H		FL58G		FU45E		0402086-09	
5			6/24/02		10/29/02		2/10/03		5/8/03		8/28/03		2/18/04	
123		**PAHs (µg/L)**												
124		**EPA Method SW8270 SIM**												
125		Naphthalene	NA		NA		NA		NA		NA		NA	
126		2-Methylnaphthalene	NA		NA		NA		NA		NA		NA	
127		Acenaphthylene	NA		NA		NA		NA		NA		NA	
128		Acenaphthene	NA		NA		NA		NA		NA		NA	
129		Fluorene	NA		NA		NA		NA		NA		NA	
130		Anthracene	NA		NA		NA		NA		NA		NA	
131		Dibenzofuran	NA		NA		NA		NA		NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1																
2																
3			OX3S		OX3S		OX3S		OX3S		OX3S		OX3S		OX3S	
4			EM65C		EX87E		FF48F		FL41J		FU45G		FY72H		0402086-08	
5			6/24/02		10/29/02		2/10/03		5/7/03		8/28/03		10/22/03		2/18/04	
6																
7	1	**CHLORINATED PHENOLS (µg/L)**														
8	2	**EPA Method SW8040**														
9	3	Pentachlorophenol	NA		**1200**	J	**5700**		**2600**		**1400**	J	**130**		**344**	
10	4	2,4,6-Trichlorophenol	NA		**2.4**	J	NA		NA		NA		NA		NA	
11	5	2,3,6-Trichlorophenol	NA		**1.3**	J	NA		NA		NA		NA		NA	
12	6	2,4,5-Trichlorophenol	NA		9.2	UJ	NA		NA		NA		NA		NA	
13	7	2,3,4-Trichlorophenol	NA		0.25	UJ	NA		NA		NA		NA		NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		**320**	J	NA		NA		NA		NA		NA	
15	9	2,3,4,5-Tetrachlorophenol	NA		**29**	J	NA		NA		NA		NA		NA	
16	10															
17	11	**SEMIVOLATILES (µg/L)**														
18	12	**EPA Method SW8270**														
19	13	Phenol	NA		NA		NA		NA		NA		NA		NA	
20	14	4-Methylphenol	NA		NA		NA		NA		NA		NA		NA	
21	15	Isophorone	NA		NA		NA		NA		NA		NA		NA	
22	16	2,4-Dimethylphenol	NA		NA		NA		NA		NA		NA		NA	
23	17	Benzoic Acid	NA		NA		NA		NA		NA		NA		NA	
24	18	Naphthalene	NA		NA		NA		NA		NA		NA		NA	
25	19	2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA	
26	20	2,4,6-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA	
27	21	2,4,5-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA	
28	22	Acenaphthene	NA		NA		NA		NA		NA		NA		NA	
29	23	Dibenzofuran	NA		NA		NA		NA		NA		NA		NA	
30	24	Fluorene	NA		NA		NA		NA		NA		NA		NA	
31	25	Pentachlorophenol	NA		NA		NA		NA		NA		NA		NA	
32	26	bis(2-Ethylhexyl)phthalate	NA		NA		NA		NA		NA		NA		NA	
33	27															
34	28	**VOLATILES (µg/L)**														
35	29	**EPA Method SW8260**														
36	30	Acetone	120	U	**240**		NA		NA		NA		NA		NA	
37	31	Carbon Disulfide	25	U	1	U	NA		NA		NA		NA		NA	
38	32	2-Butanone	120	U	**20**		NA		NA		NA		NA		NA	
39	33	Benzene	**66**		**94**		NA		NA		NA		NA		NA	
40	34	Bromoform	25	U	1	U	NA		NA		NA		NA		NA	
41	35	Toluene	**63**		**31**		NA		NA		NA		NA		NA	
42	36	Ethylbenzene	**280**		**110**		NA		NA		NA		NA		NA	
43	37	Styrene	25	U	1	U	NA		NA		NA		NA		NA	
44	38	m,p-Xylene	**820**		**430**		NA		NA		NA		NA		NA	
45	39	o-Xylene	**370**		**150**		NA		NA		NA		NA		NA	
46	40	1,3,5-Trimethylbenzene	**160**		**120**		NA		NA		NA		NA		NA	
47	41	1,2,4-Trimethylbenzene	**520**		**350**		NA		NA		NA		NA		NA	
48	42	Isopropylbenzene	**57**		**56**		NA		NA		NA		NA		NA	
49	43	n-Propylbenzene	**83**		**75**		NA		NA		NA		NA		NA	
50	44	tert-Butylbenzene	25	U	1	U	NA		NA		NA		NA		NA	
51	45	sec-Butylbenzene	25	U	**13**		NA		NA		NA		NA		NA	
52	46	4-Isopropyltoluene	25	U	**13**		NA		NA		NA		NA		NA	
53	47	n-Butylbenzene	25	U	**11**	M	NA		NA		NA		NA		NA	
54	48	Naphthalene	120	U	**37**		NA		NA		NA		NA		NA	
55	48.5	Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA	
56	49															
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**														
58	51	**Method OR-DEQ**														
59	52	**TPH-Diesel**	NA		NA		NA		NA		NA		NA		NA	
60	53	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		NA		NA	
61	54	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA	
62	55															
63	56	**PRIORITY POLLUTANT**														
64	57	**METALS (mg/L)**														
65	58	Arsenic (7060)	**0.02**		NA		NA		NA		NA		NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1																
2																
3			OX3S		OX3S		OX3S		OX3S		OX3S		OX3S		OX3S	
4			EM65C		EX87E		FF48F		FL41J		FU45G		FY72H		0402086-08	
5			6/24/02		10/29/02		2/10/03		5/7/03		8/28/03		10/22/03		2/18/04	
66	59	Chromium (6010)	0.005	U	NA		NA		NA		NA		NA		NA	
67	60	Copper (6010)	**0.002**		NA		NA		NA		NA		NA		NA	
68	61	Lead (7421)	0.001	U	NA		NA		NA		NA		NA		NA	
69	62	Nickel (6010)	0.01	U	NA		NA		NA		NA		NA		NA	
70	63	Zinc (6010)	**0.012**		NA		NA		NA		NA		NA		NA	
71	64															
72	65	**MAJOR IONS AND CONVENTIONALS**														
73	66	Calcium (mg/L) (6010)	**40.2**		NA		NA		NA		NA		NA		NA	
74	67	Magnesium (mg/L) (6010)	**11**		NA		NA		NA		NA		NA		NA	
75	68	Potassium (mg/L) (6010)	**3.8**		NA		NA		NA		NA		NA		NA	
76	69	Sodium (mg/L) (6010)	**8.75**		NA		NA		NA		NA		NA		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	**160**		**270**		NA		NA		NA		NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	1.0	U	1	U	NA		NA		NA		NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	**160**		**270**		NA		NA		NA		NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	**270**		NA		NA		NA		NA		NA		NA	
81	74	Chloride (mg/L) (EPA 325.2)	NA		NA		NA		NA		NA		NA		NA	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA		NA		NA		NA		NA		NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		NA		NA		NA		NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		NA		NA		NA		NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	NA		NA		NA		NA		NA		NA		NA	
86	79															

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1																
2																
3			OX3S		OX3S		OX3S		OX3S		OX3S		OX3S		OX3S	
4			EM65C		EX87E		FF48F		FL41J		FU45G		FY72H		0402086-08	
5			6/24/02		10/29/02		2/10/03		5/7/03		8/28/03		10/22/03		2/18/04	
87	80	**FIELD PARAMETERS**														
88	81	pH (avg)	5.94		6.44		6.59		6.73		6.7		6.65		6.54	
89	82	Temperature (° C) (avg)	14.4		15.3		15.1		13.5		15.2		16.2		14.1	
90	83	Conductivity (um/hos)	342		502		381		340		287		318		386	
91	84	Dissolved oxygen (mg/L) (avg)	4.34		0		1.24		2.93		2.07		2.14		1.76	
92	85															
93	86	**DIOXINS AND FURANS (ng/L)**														
94	87	**Method 8290**														
95	88	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA	
96	89	Total TCDF	NA		NA		NA		NA		NA		NA		NA	
97	90	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA	
98	91	Total TCDD	NA		NA		NA		NA		NA		NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA	
101	94	Total PeCDF	NA		NA		NA		NA		NA		NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA	
103	96	Total PeCDD	NA		NA		NA		NA		NA		NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA	
108	101	Total HxCDF	NA		NA		NA		NA		NA		NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA	
112	105	Total HxCDD	NA		NA		NA		NA		NA		NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA	
115	108	Total HpCDF	NA		NA		NA		NA		NA		NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA	
117	110	Total HpCDD	NA		NA		NA		NA		NA		NA		NA	
118	111	OCDF	NA		NA		NA		NA		NA		NA		NA	
119	112	OCDD	NA		NA		NA		NA		NA		NA		NA	
120																
121		**ETHANOL (mg/L)**	NA		NA		NA		NA		NA		NA		NA	
122																

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1																
2																
3			OX3S		OX3S		OX3S		OX3S		OX3S		OX3S		OX3S	
4			EM65C		EX87E		FF48F		FL41J		FU45G		FY72H		0402086-08	
5			6/24/02		10/29/02		2/10/03		5/7/03		8/28/03		10/22/03		2/18/04	
123		**PAHs (µg/L)**														
124		**EPA Method SW8270 SIM**														
125		Naphthalene	NA		NA		NA		NA		NA		NA		NA	
126		2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA	
127		Acenaphthylene	NA		NA		NA		NA		NA		NA		NA	
128		Acenaphthene	NA		NA		NA		NA		NA		NA		NA	
129		Fluorene	NA		NA		NA		NA		NA		NA		NA	
130		Anthracene	NA		NA		NA		NA		NA		NA		NA	
131		Dibenzofuran	NA		NA		NA		NA		NA		NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1														
2														
3			OX4S		OX4S		OX4S		OX4S		OX4S		OX4S	
4			EM65D		EX87F		FF48I		FL41K		FU45J		0402086-11	
5			6/24/02		10/29/02		2/10/03		5/7/03		8/28/03		2/18/04	
7	1	**CHLORINATED PHENOLS (µg/L)**												
8	2	**EPA Method SW8040**												
9	3	Pentachlorophenol	NA		**1200**	J	**880**		**8300**		**2200**	J	**1410**	
10	4	2,4,6-Trichlorophenol	NA		**2.7**	J	NA		NA		NA		NA	
11	5	2,3,6-Trichlorophenol	NA		**0.81**	J	NA		NA		NA		NA	
12	6	2,4,5-Trichlorophenol	NA		11	UJ	NA		NA		NA		NA	
13	7	2,3,4-Trichlorophenol	NA		0.25	UJ	NA		NA		NA		NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		**320**	J	NA		NA		NA		NA	
15	9	2,3,4,5-Tetrachlorophenol	NA		**32**	J	NA		NA		NA		NA	
16	10													
17	11	**SEMIVOLATILES (µg/L)**												
18	12	**EPA Method SW8270**												
19	13	Phenol	NA		NA		NA		NA		NA		NA	
20	14	4-Methylphenol	NA		NA		NA		NA		NA		NA	
21	15	Isophorone	NA		NA		NA		NA		NA		NA	
22	16	2,4-Dimethylphenol	NA		NA		NA		NA		NA		NA	
23	17	Benzoic Acid	NA		NA		NA		NA		NA		NA	
24	18	Naphthalene	NA		NA		NA		NA		NA		NA	
25	19	2-Methylnaphthalene	NA		NA		NA		NA		NA		NA	
26	20	2,4,6-Trichlorophenol	NA		NA		NA		NA		NA		NA	
27	21	2,4,5-Trichlorophenol	NA		NA		NA		NA		NA		NA	
28	22	Acenaphthene	NA		NA		NA		NA		NA		NA	
29	23	Dibenzofuran	NA		NA		NA		NA		NA		NA	
30	24	Fluorene	NA		NA		NA		NA		NA		NA	
31	25	Pentachlorophenol	NA		NA		NA		NA		NA		NA	
32	26	bis(2-Ethylhexyl)phthalate	NA		NA		NA		NA		NA		NA	
33	27													
34	28	**VOLATILES (µg/L)**												
35	29	**EPA Method SW8260**												
36	30	Acetone	120	U	**12**	M	NA		NA		NA		NA	
37	31	Carbon Disulfide	25	U	**1.3**		NA		NA		NA		NA	
38	32	2-Butanone	120	U	5	U	NA		NA		NA		NA	
39	33	Benzene	25	U	**24**		NA		NA		NA		NA	
40	34	Bromoform	25	U	1	U	NA		NA		NA		NA	
41	35	Toluene	**71**		**23**		NA		NA		NA		NA	
42	36	Ethylbenzene	**440**		**330**		NA		NA		NA		NA	
43	37	Styrene	25	U	1	U	NA		NA		NA		NA	
44	38	m,p-Xylene	**1300**		**820**		NA		NA		NA		NA	
45	39	o-Xylene	**500**		**430**		NA		NA		NA		NA	
46	40	1,3,5-Trimethylbenzene	**220**		**200**		NA		NA		NA		NA	
47	41	1,2,4-Trimethylbenzene	**590**		**580**		NA		NA		NA		NA	
48	42	Isopropylbenzene	**86**		**120**		NA		NA		NA		NA	
49	43	n-Propylbenzene	**110**		**120**		NA		NA		NA		NA	
50	44	tert-Butylbenzene	25	U	1	U	NA		NA		NA		NA	
51	45	sec-Butylbenzene	25	U	**22**		NA		NA		NA		NA	
52	46	4-Isopropyltoluene	25	U	**24**		NA		NA		NA		NA	
53	47	n-Butylbenzene	25	U	**25**	M	NA		NA		NA		NA	
54	48	Naphthalene	120	U	**99**		NA		NA		NA		NA	
55	48.5	Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA	
56	49													
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**												
58	51	**Method OR-DEQ**												
59	52	**TPH-Diesel**	NA		NA		NA		NA		NA		NA	
60	53	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		NA	
61	54	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA	
62	55													
63	56	**PRIORITY POLLUTANT**												
64	57	**METALS (mg/L)**												
65	58	Arsenic (7060)	**0.021**		NA		NA		NA		NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1														
2														
3			OX4S		OX4S		OX4S		OX4S		OX4S		OX4S	
4			EM65D		EX87F		FF48I		FL41K		FU45J		0402086-11	
5			6/24/02		10/29/02		2/10/03		5/7/03		8/28/03		2/18/04	
66	59	Chromium (6010)	0.005	U	NA		NA		NA		NA		NA	
67	60	Copper (6010)	0.002	U	NA		NA		NA		NA		NA	
68	61	Lead (7421)	0.001	U	NA		NA		NA		NA		NA	
69	62	Nickel (6010)	0.01	U	NA		NA		NA		NA		NA	
70	63	Zinc (6010)	**0.008**		NA		NA		NA		NA		NA	
71	64													
72	65	**MAJOR IONS AND CONVENTIONALS**												
73	66	Calcium (mg/L) (6010)	**37.9**		NA		NA		NA		NA		NA	
74	67	Magnesium (mg/L) (6010)	**10.4**		NA		NA		NA		NA		NA	
75	68	Potassium (mg/L) (6010)	**3.6**		NA		NA		NA		NA		NA	
76	69	Sodium (mg/L) (6010)	**8.42**		NA		NA		NA		NA		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	**160**		**240**		NA		NA		NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	1.0	U	1	U	NA		NA		NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	**160**		**240**		NA		NA		NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	**250**		NA		NA		NA		NA		NA	
81	74	Chloride (mg/L) (EPA 325.2)	NA		NA		NA		NA		NA		NA	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA		NA		NA		NA		NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		NA		NA		NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		NA		NA		NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	NA		NA		NA		NA		NA		NA	
86	79													

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1														
2														
3			OX4S		OX4S		OX4S		OX4S		OX4S		OX4S	
4			EM65D		EX87F		FF48I		FL41K		FU45J		0402086-11	
5			6/24/02		10/29/02		2/10/03		5/7/03		8/28/03		2/18/04	
87	80	**FIELD PARAMETERS**												
88	81	pH (avg)	6.74		NM		6.39		6.09		6.41		6.27	
89	82	Temperature (° C) (avg)	14.5		NM		14.7		14		18		13.8	
90	83	Conductivity (um/hos)	326		NM		336		142		262		242	
91	84	Dissolved oxygen (mg/L) (avg)	4.42		NM		2.19		2.47		2.16		2.22	
92	85													
93	86	**DIOXINS AND FURANS (ng/L)**												
94	87	**Method 8290**												
95	88	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA	
96	89	Total TCDF	NA		NA		NA		NA		NA		NA	
97	90	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA	
98	91	Total TCDD	NA		NA		NA		NA		NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA	
101	94	Total PeCDF	NA		NA		NA		NA		NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA	
103	96	Total PeCDD	NA		NA		NA		NA		NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA	
108	101	Total HxCDF	NA		NA		NA		NA		NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA	
112	105	Total HxCDD	NA		NA		NA		NA		NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA	
115	108	Total HpCDF	NA		NA		NA		NA		NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA	
117	110	Total HpCDD	NA		NA		NA		NA		NA		NA	
118	111	OCDF	NA		NA		NA		NA		NA		NA	
119	112	OCDD	NA		NA		NA		NA		NA		NA	
120														
121		**ETHANOL (mg/L)**	NA		NA		NA		NA		NA		NA	
122														

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1														
2														
3			OX4S		OX4S		OX4S		OX4S		OX4S		OX4S	
4			EM65D		EX87F		FF48I		FL41K		FU45J		0402086-11	
5			6/24/02		10/29/02		2/10/03		5/7/03		8/28/03		2/18/04	
123		**PAHs (µg/L)**												
124		**EPA Method SW8270 SIM**												
125		Naphthalene	NA		NA		NA		NA		NA		NA	
126		2-Methylnaphthalene	NA		NA		NA		NA		NA		NA	
127		Acenaphthylene	NA		NA		NA		NA		NA		NA	
128		Acenaphthene	NA		NA		NA		NA		NA		NA	
129		Fluorene	NA		NA		NA		NA		NA		NA	
130		Anthracene	NA		NA		NA		NA		NA		NA	
131		Dibenzofuran	NA		NA		NA		NA		NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F
1						
2						
3			OX5S		OX5S	
4			FY72A		0402086-01	
5			10/22/03		2/18/04	
7	1	**CHLORINATED PHENOLS (µg/L)**				
8	2	**EPA Method SW8040**				
9	3	Pentachlorophenol	0.5	U	0.482	U
10	4	2,4,6-Trichlorophenol	NA		NA	
11	5	2,3,6-Trichlorophenol	NA		NA	
12	6	2,4,5-Trichlorophenol	NA		NA	
13	7	2,3,4-Trichlorophenol	NA		NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA	
15	9	2,3,4,5-Tetrachlorophenol	NA		NA	
16	10					
17	11	**SEMIVOLATILES (µg/L)**				
18	12	**EPA Method SW8270**				
19	13	Phenol	NA		NA	
20	14	4-Methylphenol	NA		NA	
21	15	Isophorone	NA		NA	
22	16	2,4-Dimethylphenol	NA		NA	
23	17	Benzoic Acid	NA		NA	
24	18	Naphthalene	NA		NA	
25	19	2-Methylnaphthalene	NA		NA	
26	20	2,4,6-Trichlorophenol	NA		NA	
27	21	2,4,5-Trichlorophenol	NA		NA	
28	22	Acenaphthene	NA		NA	
29	23	Dibenzofuran	NA		NA	
30	24	Fluorene	NA		NA	
31	25	Pentachlorophenol	NA		NA	
32	26	bis(2-Ethylhexyl)phthalate	NA		NA	
33	27					
34	28	**VOLATILES (µg/L)**				
35	29	**EPA Method SW8260**				
36	30	Acetone	NA		NA	
37	31	Carbon Disulfide	NA		NA	
38	32	2-Butanone	NA		NA	
39	33	Benzene	NA		NA	
40	34	Bromoform	NA		NA	
41	35	Toluene	NA		NA	
42	36	Ethylbenzene	NA		NA	
43	37	Styrene	NA		NA	
44	38	m,p-Xylene	NA		NA	
45	39	o-Xylene	NA		NA	
46	40	1,3,5-Trimethylbenzene	NA		NA	
47	41	1,2,4-Trimethylbenzene	NA		NA	
48	42	Isopropylbenzene	NA		NA	
49	43	n-Propylbenzene	NA		NA	
50	44	tert-Butylbenzene	NA		NA	
51	45	sec-Butylbenzene	NA		NA	
52	46	4-Isopropyltoluene	NA		NA	
53	47	n-Butylbenzene	NA		NA	
54	48	Naphthalene	NA		NA	
55	48.5	Methyl tert-butyl ether	NA		NA	
56	49					
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**				
58	51	**Method OR-DEQ**				
59	52	**TPH-Diesel**	NA		NA	
60	53	**TPH-D Motor Oil**	NA		NA	
61	54	**TPH-Gasoline**	NA		NA	
62	55					
63	56	**PRIORITY POLLUTANT**				
64	57	**METALS (mg/L)**				
65	58	Arsenic (7060)	NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F
1						
2						
3			OX5S		OX5S	
4			FY72A		0402086-01	
5			10/22/03		2/18/04	
66	59	Chromium (6010)	NA		NA	
67	60	Copper (6010)	NA		NA	
68	61	Lead (7421)	NA		NA	
69	62	Nickel (6010)	NA		NA	
70	63	Zinc (6010)	NA		NA	
71	64					
72	65	**MAJOR IONS AND CONVENTIONALS**				
73	66	Calcium (mg/L) (6010)	NA		NA	
74	67	Magnesium (mg/L) (6010)	NA		NA	
75	68	Potassium (mg/L) (6010)	NA		NA	
76	69	Sodium (mg/L) (6010)	NA		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	NA		NA	
81	74	Chloride (mg/L) (EPA 325.2)	NA		NA	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	NA		NA	
86	79					

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F
1						
2						
3			OX5S		OX5S	
4			FY72A		0402086-01	
5			10/22/03		2/18/04	
87	80	**FIELD PARAMETERS**				
88	81	pH (avg)	6.59		6.63	
89	82	Temperature (° C) (avg)	16.5		12.9	
90	83	Conductivity (um/hos)	288		234	
91	84	Dissolved oxygen (mg/L) (avg)	1.18		3.16	
92	85					
93	86	**DIOXINS AND FURANS (ng/L)**				
94	87	**Method 8290**				
95	88	2,3,7,8-TCDF	NA		NA	
96	89	Total TCDF	NA		NA	
97	90	2,3,7,8-TCDD	NA		NA	
98	91	Total TCDD	NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA	
101	94	Total PeCDF	NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA	
103	96	Total PeCDD	NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA	
108	101	Total HxCDF	NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA	
112	105	Total HxCDD	NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA	
115	108	Total HpCDF	NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA	
117	110	Total HpCDD	NA		NA	
118	111	OCDF	NA		NA	
119	112	OCDD	NA		NA	
120						
121		**ETHANOL (mg/L)**	NA		NA	
122						

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F
1						
2						
3			OX5S		OX5S	
4			FY72A		0402086-01	
5			10/22/03		2/18/04	
123		**PAHs (µg/L)**				
124		**EPA Method SW8270 SIM**				
125		Naphthalene	NA		NA	
126		2-Methylnaphthalene	NA		NA	
127		Acenaphthylene	NA		NA	
128		Acenaphthene	NA		NA	
129		Fluorene	NA		NA	
130		Anthracene	NA		NA	
131		Dibenzofuran	NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F
1						
2						
3			OX6S		OX6S	
4			FY72B		0402086-02	
5			10/22/03		2/18/04	
7	1	**CHLORINATED PHENOLS (µg/L)**				
8	2	**EPA Method SW8040**				
9	3	Pentachlorophenol	**2100**		**527**	
10	4	2,4,6-Trichlorophenol	NA		NA	
11	5	2,3,6-Trichlorophenol	NA		NA	
12	6	2,4,5-Trichlorophenol	NA		NA	
13	7	2,3,4-Trichlorophenol	NA		NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA	
15	9	2,3,4,5-Tetrachlorophenol	NA		NA	
16	10					
17	11	**SEMIVOLATILES (µg/L)**				
18	12	**EPA Method SW8270**				
19	13	Phenol	NA		NA	
20	14	4-Methylphenol	NA		NA	
21	15	Isophorone	NA		NA	
22	16	2,4-Dimethylphenol	NA		NA	
23	17	Benzoic Acid	NA		NA	
24	18	Naphthalene	NA		NA	
25	19	2-Methylnaphthalene	NA		NA	
26	20	2,4,6-Trichlorophenol	NA		NA	
27	21	2,4,5-Trichlorophenol	NA		NA	
28	22	Acenaphthene	NA		NA	
29	23	Dibenzofuran	NA		NA	
30	24	Fluorene	NA		NA	
31	25	Pentachlorophenol	NA		NA	
32	26	bis(2-Ethylhexyl)phthalate	NA		NA	
33	27					
34	28	**VOLATILES (µg/L)**				
35	29	**EPA Method SW8260**				
36	30	Acetone	NA		NA	
37	31	Carbon Disulfide	NA		NA	
38	32	2-Butanone	NA		NA	
39	33	Benzene	NA		NA	
40	34	Bromoform	NA		NA	
41	35	Toluene	NA		NA	
42	36	Ethylbenzene	NA		NA	
43	37	Styrene	NA		NA	
44	38	m,p-Xylene	NA		NA	
45	39	o-Xylene	NA		NA	
46	40	1,3,5-Trimethylbenzene	NA		NA	
47	41	1,2,4-Trimethylbenzene	NA		NA	
48	42	Isopropylbenzene	NA		NA	
49	43	n-Propylbenzene	NA		NA	
50	44	tert-Butylbenzene	NA		NA	
51	45	sec-Butylbenzene	NA		NA	
52	46	4-Isopropyltoluene	NA		NA	
53	47	n-Butylbenzene	NA		NA	
54	48	Naphthalene	NA		NA	
55	48.5	Methyl tert-butyl ether	NA		NA	
56	49					
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**				
58	51	**Method OR-DEQ**				
59	52	**TPH-Diesel**	NA		NA	
60	53	**TPH-D Motor Oil**	NA		NA	
61	54	**TPH-Gasoline**	NA		NA	
62	55					
63	56	**PRIORITY POLLUTANT**				
64	57	**METALS (mg/L)**				
65	58	Arsenic (7060)	NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F
1						
2						
3			OX6S		OX6S	
4			FY72B		0402086-02	
5			10/22/03		2/18/04	
66	59	Chromium (6010)	NA		NA	
67	60	Copper (6010)	NA		NA	
68	61	Lead (7421)	NA		NA	
69	62	Nickel (6010)	NA		NA	
70	63	Zinc (6010)	NA		NA	
71	64					
72	65	**MAJOR IONS AND CONVENTIONALS**				
73	66	Calcium (mg/L) (6010)	NA		NA	
74	67	Magnesium (mg/L) (6010)	NA		NA	
75	68	Potassium (mg/L) (6010)	NA		NA	
76	69	Sodium (mg/L) (6010)	NA		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	NA		NA	
81	74	Chloride (mg/L) (EPA 325.2)	NA		NA	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	NA		NA	
86	79					

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F
1						
2						
3			OX6S		OX6S	
4			FY72B		0402086-02	
5			10/22/03		2/18/04	
87	80	**FIELD PARAMETERS**				
88	81	pH (avg)	6.67		6.63	
89	82	Temperature (° C) (avg)	16.3		14.4	
90	83	Conductivity (um/hos)	352		353	
91	84	Dissolved oxygen (mg/L) (avg)	2.63		1.23	
92	85					
93	86	**DIOXINS AND FURANS (ng/L)**				
94	87	**Method 8290**				
95	88	2,3,7,8-TCDF	NA		NA	
96	89	Total TCDF	NA		NA	
97	90	2,3,7,8-TCDD	NA		NA	
98	91	Total TCDD	NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA	
101	94	Total PeCDF	NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA	
103	96	Total PeCDD	NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA	
108	101	Total HxCDF	NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA	
112	105	Total HxCDD	NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA	
115	108	Total HpCDF	NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA	
117	110	Total HpCDD	NA		NA	
118	111	OCDF	NA		NA	
119	112	OCDD	NA		NA	
120						
121		**ETHANOL (mg/L)**	NA		NA	
122						

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F
1						
2						
3			OX6S		OX6S	
4			FY72B		0402086-02	
5			10/22/03		2/18/04	
123		**PAHs (µg/L)**				
124		**EPA Method SW8270 SIM**				
125		Naphthalene	NA		NA	
126		2-Methylnaphthalene	NA		NA	
127		Acenaphthylene	NA		NA	
128		Acenaphthene	NA		NA	
129		Fluorene	NA		NA	
130		Anthracene	NA		NA	
131		Dibenzofuran	NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F
1						
2						
3			OX7S		OX7S	
4			FY72C		0402086-03	
5			10/22/03		2/18/04	
7	1	**CHLORINATED PHENOLS (µg/L)**				
8	2	**EPA Method SW8040**				
9	3	Pentachlorophenol	**720**		**166**	
10	4	2,4,6-Trichlorophenol	NA		NA	
11	5	2,3,6-Trichlorophenol	NA		NA	
12	6	2,4,5-Trichlorophenol	NA		NA	
13	7	2,3,4-Trichlorophenol	NA		NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA	
15	9	2,3,4,5-Tetrachlorophenol	NA		NA	
16	10					
17	11	**SEMIVOLATILES (µg/L)**				
18	12	**EPA Method SW8270**				
19	13	Phenol	NA		NA	
20	14	4-Methylphenol	NA		NA	
21	15	Isophorone	NA		NA	
22	16	2,4-Dimethylphenol	NA		NA	
23	17	Benzoic Acid	NA		NA	
24	18	Naphthalene	NA		NA	
25	19	2-Methylnaphthalene	NA		NA	
26	20	2,4,6-Trichlorophenol	NA		NA	
27	21	2,4,5-Trichlorophenol	NA		NA	
28	22	Acenaphthene	NA		NA	
29	23	Dibenzofuran	NA		NA	
30	24	Fluorene	NA		NA	
31	25	Pentachlorophenol	NA		NA	
32	26	bis(2-Ethylhexyl)phthalate	NA		NA	
33	27					
34	28	**VOLATILES (µg/L)**				
35	29	**EPA Method SW8260**				
36	30	Acetone	NA		NA	
37	31	Carbon Disulfide	NA		NA	
38	32	2-Butanone	NA		NA	
39	33	Benzene	NA		NA	
40	34	Bromoform	NA		NA	
41	35	Toluene	NA		NA	
42	36	Ethylbenzene	NA		NA	
43	37	Styrene	NA		NA	
44	38	m,p-Xylene	NA		NA	
45	39	o-Xylene	NA		NA	
46	40	1,3,5-Trimethylbenzene	NA		NA	
47	41	1,2,4-Trimethylbenzene	NA		NA	
48	42	Isopropylbenzene	NA		NA	
49	43	n-Propylbenzene	NA		NA	
50	44	tert-Butylbenzene	NA		NA	
51	45	sec-Butylbenzene	NA		NA	
52	46	4-Isopropyltoluene	NA		NA	
53	47	n-Butylbenzene	NA		NA	
54	48	Naphthalene	NA		NA	
55	48.5	Methyl tert-butyl ether	NA		NA	
56	49					
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**				
58	51	**Method OR-DEQ**				
59	52	**TPH-Diesel**	NA		NA	
60	53	**TPH-D Motor Oil**	NA		NA	
61	54	**TPH-Gasoline**	NA		NA	
62	55					
63	56	**PRIORITY POLLUTANT**				
64	57	**METALS (mg/L)**				
65	58	Arsenic (7060)	NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F
1						
2						
3			OX7S		OX7S	
4			FY72C		0402086-03	
5			10/22/03		2/18/04	
66	59	Chromium (6010)	NA		NA	
67	60	Copper (6010)	NA		NA	
68	61	Lead (7421)	NA		NA	
69	62	Nickel (6010)	NA		NA	
70	63	Zinc (6010)	NA		NA	
71	64					
72	65	**MAJOR IONS AND CONVENTIONALS**				
73	66	Calcium (mg/L) (6010)	NA		NA	
74	67	Magnesium (mg/L) (6010)	NA		NA	
75	68	Potassium (mg/L) (6010)	NA		NA	
76	69	Sodium (mg/L) (6010)	NA		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	NA		NA	
81	74	Chloride (mg/L) (EPA 325.2)	NA		NA	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	NA		NA	
86	79					

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F
1						
2						
3			OX7S		OX7S	
4			FY72C		0402086-03	
5			10/22/03		2/18/04	
87	80	**FIELD PARAMETERS**				
88	81	pH (avg)	6.60		6.57	
89	82	Temperature (° C) (avg)	16.1		13.8	
90	83	Conductivity (um/hos)	326		393	
91	84	Dissolved oxygen (mg/L) (avg)	1.76		2.2	
92	85					
93	86	**DIOXINS AND FURANS (ng/L)**				
94	87	**Method 8290**				
95	88	2,3,7,8-TCDF	NA		NA	
96	89	Total TCDF	NA		NA	
97	90	2,3,7,8-TCDD	NA		NA	
98	91	Total TCDD	NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA	
101	94	Total PeCDF	NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA	
103	96	Total PeCDD	NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA	
108	101	Total HxCDF	NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA	
112	105	Total HxCDD	NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA	
115	108	Total HpCDF	NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA	
117	110	Total HpCDD	NA		NA	
118	111	OCDF	NA		NA	
119	112	OCDD	NA		NA	
120						
121		**ETHANOL (mg/L)**	NA		NA	
122						

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F
1						
2						
3			OX7S		OX7S	
4			FY72C		0402086-03	
5			10/22/03		2/18/04	
123		**PAHs (µg/L)**				
124		**EPA Method SW8270 SIM**				
125		Naphthalene	NA		NA	
126		2-Methylnaphthalene	NA		NA	
127		Acenaphthylene	NA		NA	
128		Acenaphthene	NA		NA	
129		Fluorene	NA		NA	
130		Anthracene	NA		NA	
131		Dibenzofuran	NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2					Dup of OX8S			
3			OX8S		Y		OX8S	
4			FY72E		FY72D		0402086-04	
5			10/22/03		10/22/03		2/18/04	
7	1	**CHLORINATED PHENOLS (µg/L)**						
8	2	**EPA Method SW8040**						
9	3	Pentachlorophenol	**260**		**300**		**56.4**	
10	4	2,4,6-Trichlorophenol	NA		NA		NA	
11	5	2,3,6-Trichlorophenol	NA		NA		NA	
12	6	2,4,5-Trichlorophenol	NA		NA		NA	
13	7	2,3,4-Trichlorophenol	NA		NA		NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA		NA	
15	9	2,3,4,5-Tetrachlorophenol	NA		NA		NA	
16	10							
17	11	**SEMIVOLATILES (µg/L)**						
18	12	**EPA Method SW8270**						
19	13	Phenol	NA		NA		NA	
20	14	4-Methylphenol	NA		NA		NA	
21	15	Isophorone	NA		NA		NA	
22	16	2,4-Dimethylphenol	NA		NA		NA	
23	17	Benzoic Acid	NA		NA		NA	
24	18	Naphthalene	NA		NA		NA	
25	19	2-Methylnaphthalene	NA		NA		NA	
26	20	2,4,6-Trichlorophenol	NA		NA		NA	
27	21	2,4,5-Trichlorophenol	NA		NA		NA	
28	22	Acenaphthene	NA		NA		NA	
29	23	Dibenzofuran	NA		NA		NA	
30	24	Fluorene	NA		NA		NA	
31	25	Pentachlorophenol	NA		NA		NA	
32	26	bis(2-Ethylhexyl)phthalate	NA		NA		NA	
33	27							
34	28	**VOLATILES (µg/L)**						
35	29	**EPA Method SW8260**						
36	30	Acetone	NA		NA		NA	
37	31	Carbon Disulfide	NA		NA		NA	
38	32	2-Butanone	NA		NA		NA	
39	33	Benzene	NA		NA		NA	
40	34	Bromoform	NA		NA		NA	
41	35	Toluene	NA		NA		NA	
42	36	Ethylbenzene	NA		NA		NA	
43	37	Styrene	NA		NA		NA	
44	38	m,p-Xylene	NA		NA		NA	
45	39	o-Xylene	NA		NA		NA	
46	40	1,3,5-Trimethylbenzene	NA		NA		NA	
47	41	1,2,4-Trimethylbenzene	NA		NA		NA	
48	42	Isopropylbenzene	NA		NA		NA	
49	43	n-Propylbenzene	NA		NA		NA	
50	44	tert-Butylbenzene	NA		NA		NA	
51	45	sec-Butylbenzene	NA		NA		NA	
52	46	4-Isopropyltoluene	NA		NA		NA	
53	47	n-Butylbenzene	NA		NA		NA	
54	48	Naphthalene	NA		NA		NA	
55	48.5	Methyl tert-butyl ether	NA		NA		NA	
56	49							
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**						
58	51	**Method OR-DEQ**						
59	52	**TPH-Diesel**	NA		NA		NA	
60	53	**TPH-D Motor Oil**	NA		NA		NA	
61	54	**TPH-Gasoline**	NA		NA		NA	
62	55							
63	56	**PRIORITY POLLUTANT**						
64	57	**METALS (mg/L)**						
65	58	Arsenic (7060)	NA		NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2					Dup of OX8S			
3			OX8S		Y		OX8S	
4			FY72E		FY72D		0402086-04	
5			10/22/03		10/22/03		2/18/04	
66	59	Chromium (6010)	NA		NA		NA	
67	60	Copper (6010)	NA		NA		NA	
68	61	Lead (7421)	NA		NA		NA	
69	62	Nickel (6010)	NA		NA		NA	
70	63	Zinc (6010)	NA		NA		NA	
71	64							
72	65	**MAJOR IONS AND CONVENTIONALS**						
73	66	Calcium (mg/L) (6010)	NA		NA		NA	
74	67	Magnesium (mg/L) (6010)	NA		NA		NA	
75	68	Potassium (mg/L) (6010)	NA		NA		NA	
76	69	Sodium (mg/L) (6010)	NA		NA		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	NA		NA		NA	
81	74	Chloride (mg/L) (EPA 325.2)	NA		NA		NA	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA		NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	NA		NA		NA	
86	79							

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2					Dup of OX8S			
3			OX8S		Y		OX8S	
4			FY72E		FY72D		0402086-04	
5			10/22/03		10/22/03		2/18/04	
87	80	**FIELD PARAMETERS**						
88	81	pH (avg)	6.65		6.65		6.65	
89	82	Temperature (° C) (avg)	16.3		16.3		12.8	
90	83	Conductivity (um/hos)	337		337		451	
91	84	Dissolved oxygen (mg/L) (avg)	2.26		2.3		1.58	
92	85							
93	86	**DIOXINS AND FURANS (ng/L)**						
94	87	**Method 8290**						
95	88	2,3,7,8-TCDF	3.8	U	NA		NA	
96	89	Total TCDF	3.8	U	NA		NA	
97	90	2,3,7,8-TCDD	3.5	U	NA		NA	
98	91	Total TCDD	3.5	U	NA		NA	
99	92	1,2,3,7,8-PeCDF	2.8	U	NA		NA	
100	93	2,3,4,7,8-PeCDF	2.6	U	NA		NA	
101	94	Total PeCDF	2.6	U	NA		NA	
102	95	1,2,3,7,8-PeCDD	3.2	U	NA		NA	
103	96	Total PeCDD	3.2	U	NA		NA	
104	97	1,2,3,4,7,8-HxCDF	2.3	U	NA		NA	
105	98	1,2,3,6,7,8-HxCDF	2.1	U	NA		NA	
106	99	2,3,4,6,7,8-HxCDF	2.3	U	NA		NA	
107	100	1,2,3,7,8,9-HxCDF	2.5	U	NA		NA	
108	101	Total HxCDF	**9.2**		NA		NA	
109	102	1,2,3,4,7,8-HxCDD	2.9	U	NA		NA	
110	103	1,2,3,6,7,8-HxCDD	2.2	U	NA		NA	
111	104	1,2,3,7,8,9-HxCDD	2.5	U	NA		NA	
112	105	Total HxCDD	2.2	U	NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	**7.5**	J	NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	3.8	U	NA		NA	
115	108	Total HpCDF	**34**		NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	**36**		NA		NA	
117	110	Total HpCDD	**57**		NA		NA	
118	111	OCDF	**35**	J	NA		NA	
119	112	OCDD	**230**		NA		NA	
120								
121		**ETHANOL (mg/L)**						
122								

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H
1								
2					Dup of OX8S			
3			OX8S		Y		OX8S	
4			FY72E		FY72D		0402086-04	
5			10/22/03		10/22/03		2/18/04	
123		**PAHs (µg/L)**						
124		**EPA Method SW8270 SIM**						
125		Naphthalene	NA		NA		NA	
126		2-Methylnaphthalene	NA		NA		NA	
127		Acenaphthylene	NA		NA		NA	
128		Acenaphthene	NA		NA		NA	
129		Fluorene	NA		NA		NA	
130		Anthracene	NA		NA		NA	
131		Dibenzofuran	NA		NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F
1						
2						
3			PZ1		PZ1	
4			EM65E		FF48K	
5			6/24/02		2/10/03	
7	1	**CHLORINATED PHENOLS (µg/L)**				
8	2	**EPA Method SW8040**				
9	3	Pentachlorophenol	NA		**700**	
10	4	2,4,6-Trichlorophenol	NA		NA	
11	5	2,3,6-Trichlorophenol	NA		NA	
12	6	2,4,5-Trichlorophenol	NA		NA	
13	7	2,3,4-Trichlorophenol	NA		NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA	
15	9	2,3,4,5-Tetrachlorophenol	NA		NA	
16	10					
17	11	**SEMIVOLATILES (µg/L)**				
18	12	**EPA Method SW8270**				
19	13	Phenol	NA		NA	
20	14	4-Methylphenol	NA		NA	
21	15	Isophorone	NA		NA	
22	16	2,4-Dimethylphenol	NA		NA	
23	17	Benzoic Acid	NA		NA	
24	18	Naphthalene	NA		NA	
25	19	2-Methylnaphthalene	NA		NA	
26	20	2,4,6-Trichlorophenol	NA		NA	
27	21	2,4,5-Trichlorophenol	NA		NA	
28	22	Acenaphthene	NA		NA	
29	23	Dibenzofuran	NA		NA	
30	24	Fluorene	NA		NA	
31	25	Pentachlorophenol	NA		NA	
32	26	bis(2-Ethylhexyl)phthalate	NA		NA	
33	27					
34	28	**VOLATILES (µg/L)**				
35	29	**EPA Method SW8260**				
36	30	Acetone	250	U	NA	
37	31	Carbon Disulfide	50	U	NA	
38	32	2-Butanone	250	U	NA	
39	33	Benzene	50	U	NA	
40	34	Bromoform	50	U	NA	
41	35	Toluene	**80**		NA	
42	36	Ethylbenzene	**470**		NA	
43	37	Styrene	50	U	NA	
44	38	m,p-Xylene	**1000**		NA	
45	39	o-Xylene	**710**		NA	
46	40	1,3,5-Trimethylbenzene	**290**		NA	
47	41	1,2,4-Trimethylbenzene	**870**		NA	
48	42	Isopropylbenzene	**120**		NA	
49	43	n-Propylbenzene	**170**		NA	
50	44	tert-Butylbenzene	50	U	NA	
51	45	sec-Butylbenzene	50	U	NA	
52	46	4-Isopropyltoluene	50	U	NA	
53	47	n-Butylbenzene	50	U	NA	
54	48	Naphthalene	250	U	NA	
55	48.5	Methyl tert-butyl ether	NA		NA	
56	49					
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**				
58	51	**Method OR-DEQ**				
59	52	**TPH-Diesel**	NA		NA	
60	53	**TPH-D Motor Oil**	NA		NA	
61	54	**TPH-Gasoline**	NA		NA	
62	55					
63	56	**PRIORITY POLLUTANT**				
64	57	**METALS (mg/L)**				
65	58	Arsenic (7060)	**0.005**		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F
1						
2						
3			PZ1		PZ1	
4			EM65E		FF48K	
5			6/24/02		2/10/03	
66	59	Chromium (6010)	**0.035**		NA	
67	60	Copper (6010)	**0.011**		NA	
68	61	Lead (7421)	**0.001**		NA	
69	62	Nickel (6010)	**0.04**		NA	
70	63	Zinc (6010)	**0.087**		NA	
71	64					
72	65	**MAJOR IONS AND CONVENTIONALS**				
73	66	Calcium (mg/L) (6010)	**42.3**		NA	
74	67	Magnesium (mg/L) (6010)	**13.6**		NA	
75	68	Potassium (mg/L) (6010)	**3.3**		NA	
76	69	Sodium (mg/L) (6010)	**5.25**		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	**180**		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	1.0	U	NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	**180**		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	**250**		NA	
81	74	Chloride (mg/L) (EPA 325.2)	NA		NA	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	NA		NA	
86	79					

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F
1						
2						
3			PZ1		PZ1	
4			EM65E		FF48K	
5			6/24/02		2/10/03	
87	80	**FIELD PARAMETERS**				
88	81	pH (avg)	6.02		6.61	
89	82	Temperature (° C) (avg)	15.3		14.9	
90	83	Conductivity (um/hos)	278		376	
91	84	Dissolved oxygen (mg/L) (avg)	5.09		1.01	
92	85					
93	86	**DIOXINS AND FURANS (ng/L)**				
94	87	**Method 8290**				
95	88	2,3,7,8-TCDF	NA		NA	
96	89	Total TCDF	NA		NA	
97	90	2,3,7,8-TCDD	NA		NA	
98	91	Total TCDD	NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA	
101	94	Total PeCDF	NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA	
103	96	Total PeCDD	NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA	
108	101	Total HxCDF	NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA	
112	105	Total HxCDD	NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA	
115	108	Total HpCDF	NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA	
117	110	Total HpCDD	NA		NA	
118	111	OCDF	NA		NA	
119	112	OCDD	NA		NA	
120						
121		**ETHANOL (mg/L)**	NA		NA	
122						

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F
1						
2						
3			PZ1		PZ1	
4			EM65E		FF48K	
5			6/24/02		2/10/03	
123		**PAHs (µg/L)**				
124		**EPA Method SW8270 SIM**				
125		Naphthalene	NA		NA	
126		2-Methylnaphthalene	NA		NA	
127		Acenaphthylene	NA		NA	
128		Acenaphthene	NA		NA	
129		Fluorene	NA		NA	
130		Anthracene	NA		NA	
131		Dibenzofuran	NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D
1				
2				
3			PZ2	
4			FF48J	
5			2/10/03	
7	1	**CHLORINATED PHENOLS (µg/L)**		
8	2	**EPA Method SW8040**		
9	3	Pentachlorophenol	**590**	
10	4	2,4,6-Trichlorophenol	NA	
11	5	2,3,6-Trichlorophenol	NA	
12	6	2,4,5-Trichlorophenol	NA	
13	7	2,3,4-Trichlorophenol	NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA	
15	9	2,3,4,5-Tetrachlorophenol	NA	
16	10			
17	11	**SEMIVOLATILES (µg/L)**		
18	12	**EPA Method SW8270**		
19	13	Phenol	NA	
20	14	4-Methylphenol	NA	
21	15	Isophorone	NA	
22	16	2,4-Dimethylphenol	NA	
23	17	Benzoic Acid	NA	
24	18	Naphthalene	NA	
25	19	2-Methylnaphthalene	NA	
26	20	2,4,6-Trichlorophenol	NA	
27	21	2,4,5-Trichlorophenol	NA	
28	22	Acenaphthene	NA	
29	23	Dibenzofuran	NA	
30	24	Fluorene	NA	
31	25	Pentachlorophenol	NA	
32	26	bis(2-Ethylhexyl)phthalate	NA	
33	27			
34	28	**VOLATILES (µg/L)**		
35	29	**EPA Method SW8260**		
36	30	Acetone	NA	
37	31	Carbon Disulfide	NA	
38	32	2-Butanone	NA	
39	33	Benzene	NA	
40	34	Bromoform	NA	
41	35	Toluene	NA	
42	36	Ethylbenzene	NA	
43	37	Styrene	NA	
44	38	m,p-Xylene	NA	
45	39	o-Xylene	NA	
46	40	1,3,5-Trimethylbenzene	NA	
47	41	1,2,4-Trimethylbenzene	NA	
48	42	Isopropylbenzene	NA	
49	43	n-Propylbenzene	NA	
50	44	tert-Butylbenzene	NA	
51	45	sec-Butylbenzene	NA	
52	46	4-Isopropyltoluene	NA	
53	47	n-Butylbenzene	NA	
54	48	Naphthalene	NA	
55	48.5	Methyl tert-butyl ether	NA	
56	49			
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**		
58	51	**Method OR-DEQ**		
59	52	**TPH-Diesel**	NA	
60	53	**TPH-D Motor Oil**	NA	
61	54	**TPH-Gasoline**	NA	
62	55			
63	56	**PRIORITY POLLUTANT**		
64	57	**METALS (mg/L)**		
65	58	Arsenic (7060)	NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D
1				
2				
3			PZ2	
4			FF48J	
5			2/10/03	
66	59	Chromium (6010)	NA	
67	60	Copper (6010)	NA	
68	61	Lead (7421)	NA	
69	62	Nickel (6010)	NA	
70	63	Zinc (6010)	NA	
71	64			
72	65	**MAJOR IONS AND CONVENTIONALS**		
73	66	Calcium (mg/L) (6010)	NA	
74	67	Magnesium (mg/L) (6010)	NA	
75	68	Potassium (mg/L) (6010)	NA	
76	69	Sodium (mg/L) (6010)	NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	NA	
81	74	Chloride (mg/L) (EPA 325.2)	NA	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA	
85	78	Sulfate (mg/L) (EPA 375.2)	NA	
86	79			

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D
1				
2				
3			PZ2	
4			FF48J	
5			2/10/03	
87	80	**FIELD PARAMETERS**		
88	81	pH (avg)	6.46	
89	82	Temperature (° C) (avg)	15.2	
90	83	Conductivity (um/hos)	483	
91	84	Dissolved oxygen (mg/L) (avg)	0.89	
92	85			
93	86	**DIOXINS AND FURANS (ng/L)**		
94	87	**Method 8290**		
95	88	2,3,7,8-TCDF	NA	
96	89	Total TCDF	NA	
97	90	2,3,7,8-TCDD	NA	
98	91	Total TCDD	NA	
99	92	1,2,3,7,8-PeCDF	NA	
100	93	2,3,4,7,8-PeCDF	NA	
101	94	Total PeCDF	NA	
102	95	1,2,3,7,8-PeCDD	NA	
103	96	Total PeCDD	NA	
104	97	1,2,3,4,7,8-HxCDF	NA	
105	98	1,2,3,6,7,8-HxCDF	NA	
106	99	2,3,4,6,7,8-HxCDF	NA	
107	100	1,2,3,7,8,9-HxCDF	NA	
108	101	Total HxCDF	NA	
109	102	1,2,3,4,7,8-HxCDD	NA	
110	103	1,2,3,6,7,8-HxCDD	NA	
111	104	1,2,3,7,8,9-HxCDD	NA	
112	105	Total HxCDD	NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA	
115	108	Total HpCDF	NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA	
117	110	Total HpCDD	NA	
118	111	OCDF	NA	
119	112	OCDD	NA	
120				
121		**ETHANOL (mg/L)**	NA	
122				

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D
1				
2				
3			PZ2	
4			FF48J	
5			2/10/03	
123		**PAHs (µg/L)**		
124		**EPA Method SW8270 SIM**		
125		Naphthalene	NA	
126		2-Methylnaphthalene	NA	
127		Acenaphthylene	NA	
128		Acenaphthene	NA	
129		Fluorene	NA	
130		Anthracene	NA	
131		Dibenzofuran	NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D
1				
2				
3			PZ3	
4			FF65B	
5			2/11/03	
7	1	**CHLORINATED PHENOLS (µg/L)**		
8	2	**EPA Method SW8040**		
9	3	Pentachlorophenol	1.2	U
10	4	2,4,6-Trichlorophenol	NA	
11	5	2,3,6-Trichlorophenol	NA	
12	6	2,4,5-Trichlorophenol	NA	
13	7	2,3,4-Trichlorophenol	NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA	
15	9	2,3,4,5-Tetrachlorophenol	NA	
16	10			
17	11	**SEMIVOLATILES (µg/L)**		
18	12	**EPA Method SW8270**		
19	13	Phenol	NA	
20	14	4-Methylphenol	NA	
21	15	Isophorone	NA	
22	16	2,4-Dimethylphenol	NA	
23	17	Benzoic Acid	NA	
24	18	Naphthalene	NA	
25	19	2-Methylnaphthalene	NA	
26	20	2,4,6-Trichlorophenol	NA	
27	21	2,4,5-Trichlorophenol	NA	
28	22	Acenaphthene	NA	
29	23	Dibenzofuran	NA	
30	24	Fluorene	NA	
31	25	Pentachlorophenol	NA	
32	26	bis(2-Ethylhexyl)phthalate	NA	
33	27			
34	28	**VOLATILES (µg/L)**		
35	29	**EPA Method SW8260**		
36	30	Acetone	NA	
37	31	Carbon Disulfide	NA	
38	32	2-Butanone	NA	
39	33	Benzene	NA	
40	34	Bromoform	NA	
41	35	Toluene	NA	
42	36	Ethylbenzene	NA	
43	37	Styrene	NA	
44	38	m,p-Xylene	NA	
45	39	o-Xylene	NA	
46	40	1,3,5-Trimethylbenzene	NA	
47	41	1,2,4-Trimethylbenzene	NA	
48	42	Isopropylbenzene	NA	
49	43	n-Propylbenzene	NA	
50	44	tert-Butylbenzene	NA	
51	45	sec-Butylbenzene	NA	
52	46	4-Isopropyltoluene	NA	
53	47	n-Butylbenzene	NA	
54	48	Naphthalene	NA	
55	48.5	Methyl tert-butyl ether	NA	
56	49			
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**		
58	51	**Method OR-DEQ**		
59	52	**TPH-Diesel**	NA	
60	53	**TPH-D Motor Oil**	NA	
61	54	**TPH-Gasoline**	NA	
62	55			
63	56	**PRIORITY POLLUTANT**		
64	57	**METALS (mg/L)**		
65	58	Arsenic (7060)	NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D
1				
2				
3			PZ3	
4			FF65B	
5			2/11/03	
66	59	Chromium (6010)	NA	
67	60	Copper (6010)	NA	
68	61	Lead (7421)	NA	
69	62	Nickel (6010)	NA	
70	63	Zinc (6010)	NA	
71	64			
72	65	**MAJOR IONS AND CONVENTIONALS**		
73	66	Calcium (mg/L) (6010)	NA	
74	67	Magnesium (mg/L) (6010)	NA	
75	68	Potassium (mg/L) (6010)	NA	
76	69	Sodium (mg/L) (6010)	NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	NA	
81	74	Chloride (mg/L) (EPA 325.2)	NA	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA	
85	78	Sulfate (mg/L) (EPA 375.2)	NA	
86	79			

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D
1				
2				
3			PZ3	
4			FF65B	
5			2/11/03	
87	80	**FIELD PARAMETERS**		
88	81	pH (avg)	5.24	
89	82	Temperature (° C) (avg)	15.7	
90	83	Conductivity (um/hos)	62	
91	84	Dissolved oxygen (mg/L) (avg)	1.66	
92	85			
93	86	**DIOXINS AND FURANS (ng/L)**		
94	87	**Method 8290**		
95	88	2,3,7,8-TCDF	NA	
96	89	Total TCDF	NA	
97	90	2,3,7,8-TCDD	NA	
98	91	Total TCDD	NA	
99	92	1,2,3,7,8-PeCDF	NA	
100	93	2,3,4,7,8-PeCDF	NA	
101	94	Total PeCDF	NA	
102	95	1,2,3,7,8-PeCDD	NA	
103	96	Total PeCDD	NA	
104	97	1,2,3,4,7,8-HxCDF	NA	
105	98	1,2,3,6,7,8-HxCDF	NA	
106	99	2,3,4,6,7,8-HxCDF	NA	
107	100	1,2,3,7,8,9-HxCDF	NA	
108	101	Total HxCDF	NA	
109	102	1,2,3,4,7,8-HxCDD	NA	
110	103	1,2,3,6,7,8-HxCDD	NA	
111	104	1,2,3,7,8,9-HxCDD	NA	
112	105	Total HxCDD	NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA	
115	108	Total HpCDF	NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA	
117	110	Total HpCDD	NA	
118	111	OCDF	NA	
119	112	OCDD	NA	
120				
121		**ETHANOL (mg/L)**	NA	
122				

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D
1				
2				
3			PZ3	
4			FF65B	
5			2/11/03	
123		**PAHs (µg/L)**		
124		**EPA Method SW8270 SIM**		
125		Naphthalene	NA	
126		2-Methylnaphthalene	NA	
127		Acenaphthylene	NA	
128		Acenaphthene	NA	
129		Fluorene	NA	
130		Anthracene	NA	
131		Dibenzofuran	NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1																										
2																	Dup of RW1						Dup of RW1			
3			RW1		RW1		RW1		RW1		RW1		RW1		RW1		W		RW1		RW1		W		RW1	
4			AH76F		AU36E		BC21U		BH96X		BR64O		CB68G		CK77B		CK77A		CT67K		DE87Q		DE87M		DM30G	
5			5/20/99		9/21/99		12/7/99		2/16/00		5/25/00		8/30/00		11/7/00		11/7/00		2/15/01		6/6/01		6/6/01		8/13/01	
7	1	**CHLORINATED PHENOLS (µg/L)**																								
8	2	**EPA Method SW8040**																								
9	3	Pentachlorophenol	**130**		**3100**		**3400**		**6400**		**11000**		**6300**		**3400**		**3400**		**11000**	J	NA		NA		NA	
10	4	2,4,6-Trichlorophenol	**0.22**	J1	**0.77**		**1.7**		**3.1**		**2.4**		**2.3**		**1.1**		**1.1**		NA		NA		NA		NA	
11	5	2,3,6-Trichlorophenol	**0.12**	J1	0.25	U	**0.33**		**0.54**		0.53	U	**0.53**		0.44	U	0.48	U	NA		NA		NA		NA	
12	6	2,4,5-Trichlorophenol	3.1	U	14	U	20	U	3.0	U	6.2	U	22	U	30	U	32	U	NA		NA		NA		NA	
13	7	2,3,4-Trichlorophenol	0.25	U	0.27	U	0.25	U	0.25	U	0.25	U	**0.79**		0.25	U	0.25	U	NA		NA		NA		NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	**48**		**250**		**620**		**530**		**580**		**1100**		**630**		**640**		NA		NA		NA		NA	
15	9	2,3,4,5-Tetrachlorophenol	**1.1**		**7.3**		**9.3**		**9.3**		**21**		**24**		**16**		**16**		NA		NA		NA		NA	
16	10																									
17	11	**SEMIVOLATILES (µg/L)**																								
18	12	**EPA Method SW8270**																								
19	13	Phenol	2.0	U	**5.7**		**4.0**		**6.5**		2.0	U	**15**		**8.2**	J2	**14**	J2	**60**		**12**		**12**		**32**	
20	14	4-Methylphenol	1.0	U	**1.4**		2.0	U	**7.0**		1.0	U	**1.6**	M	1.0	U	1.0	U	**16**		**1.7**		**1.8**		**2.1**	
21	15	Isophorone	1.0	U	1.0	U	2.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
22	16	2,4-Dimethylphenol	3.0	U	3.0	U	6.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U
23	17	Benzoic Acid	10	U	10	U	20	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
24	18	Naphthalene	1.0	U	**2.5**		**4.2**		**2.8**		**12**		**12**		**7.1**		**5.8**		**13**		**9.3**		**9.8**		**2.7**	
25	19	2-Methylnaphthalene	1.0	U	1.0	U	2.0	U	1.0	U	**2.0**		**3.4**		**2.2**		**1.7**		**5.2**		**3.7**		**4.0**		1.0	U
26	20	2,4,6-Trichlorophenol	5.0	U	5.0	U	10	U	5.0	U	**6.2**		**6.8**		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
27	21	2,4,5-Trichlorophenol	5.0	U	5.0	U	**35**		5.0	U	5.0	U	5.0	U	**40**		**31**		**17**		**13**		**13**		**6.9**	
28	22	Acenaphthene	1.0	U	1.0	U	2.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
29	23	Dibenzofuran	1.0	U	1.0	U	2.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
30	24	Fluorene	1.0	U	1.0	U	2.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
31	25	Pentachlorophenol	**150**		**3100**		**4100**		**2800**		**7300**		**5400**		**4000**		**3900**		**1400**	J	**1900**		**2000**		**410**	
32	26	bis(2-Ethylhexyl)phthalate	1.0	U	1.0	U	2.0	U	1.0	U	1.0	U	1.0	U	**1.1**		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
33	27																									
34	28	**VOLATILES (µg/L)**																								
35	29	**EPA Method SW8260**																								
36	30	Acetone	5.0	U	5.0	U	**30**		5.0	U	**39**	M	30	U	**16**		**14**		**28**		**13**		**13**		**7.2**	M
37	31	Carbon Disulfide	1.0	U	1.0	U	1.0	U	1.0	U	5.0	U	6.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
38	32	2-Butanone	**7.9**		**29**		**47**		**80**		25	U	30	U	**7.4**	J2	**41**	J2	5.0	U	**5.7**		**6.4**		**5.6**	
39	33	Benzene	1.0	U	1.0	U	1.0	U	1.0	U	5.0	U	6.0	U	**1.0**		1.0	U	**9.0**		**3.4**		**3.4**		**11**	
40	34	Bromoform	1.0	U	1.0	U	1.0	U	1.0	U	5.0	U	6.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
41	35	Toluene	1.0	U	**6.6**		**1.8**		**1.1**		**20**		**14**		**9.1**		**8.2**		**18**		**14**		**15**		**18**	
42	36	Ethylbenzene	**1.3**		**51**		**34**		**31**		**130**		**120**		**96**		**86**		**80**		**71**		**72**		**82**	
43	37	Styrene	1.0	U	1.0	U	1.0	U	1.0	U	5.0	U	6.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
44	38	m,p-Xylene	**1.6**		**52**		**23**		**32**		**170**		**150**		**92**		**82**		**160**		**140**		**140**		**200**	
45	39	o-Xylene	**1.6**		**130**		**71**		**73**		**250**		**240**		**160**		**150**		**110**		**100**		**100**		**120**	
46	40	1,3,5-Trimethylbenzene	1.0	U	**41**		**12**		**38**		**120**		**64**		**29**		**25**		**58**		**37**		**38**		**40**	
47	41	1,2,4-Trimethylbenzene	**2.2**		**160**		**75**		**170**		**500**		**320**		**240**		**250**		**160**		**160**		**160**		**150**	
48	42	Isopropylbenzene	**3.5**		**36**		**23**		**21**		**58**		**47**		**26**		**21**		**28**		**28**		**28**		**29**	
49	43	n-Propylbenzene	**1.5**		**37**		**24**		**35**		**82**		**61**		**36**		**31**		**45**		**34**		**36**		**36**	
50	44	tert-Butylbenzene	1.0	U	**2.6**		**1.6**		**2.0**	M	5.0	U	6.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
51	45	sec-Butylbenzene	**3.2**		**17**		**8.6**		**14**		**21**		**16**		**11**		**10**		**10**		**7.7**		**7.8**		**6.8**	
52	46	4-Isopropyltoluene	1.0	U	1.0	U	**1.6**		**7.2**		**13**		**8.6**		**5.2**		**4.6**		**5.9**		**4.1**		**4.2**		**3.8**	
53	47	n-Butylbenzene	1.0	U	**4.7**		2.3	U	**5.8**	M	5.0	U	7.7	U	**6.0**		**6.0**		**9.2**	M	6.0	U	6.2	U	4.8	U
54	48	Naphthalene	5.0	U	**7.1**		**7.3**		**8.9**		25	U	30	U	**11**		**12**		**29**		**25**		**28**		**14**	
55	48.5	Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
56	49																									
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																								
58	51	**Method OR-DEQ**																								
59	52	**TPH-Diesel**	**1.0**		**7.5**		**5.7**		**5.1**		**12**		**13**		**6.4**		**5.7**		**4.1**		**4.9**		**4.5**		**4.3**	
60	53	**TPH-D Motor Oil**	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	2.0	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	2.5	U
61	54	**TPH-Gasoline**	**0.63**		**6.6**		**5.1**		**4.5**		**29**		**26**		**9.7**		**9.9**		**7.1**		**5.4**		**5.3**		**7.7**	
62	55																									
63	56	**PRIORITY POLLUTANT**																								
64	57	**METALS (mg/L)**																								
65	58	Arsenic (7060)	**0.002**		**0.005**		**0.006**		**0.004**		**0.004**		**0.006**		**0.006**		**0.006**		**0.007**		**0.007**		**0.007**		**0.008**	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX
2				Dup of RW1						Dup of RW1										Dup of RW1					
3		RW1		X		RW1		RW1		X		RW1		RW1		RW1		RW1		RW1		RW1		RW1	
4		DW37D		DW37A		ED34A		EM66B		EM66A		ER93J		EZ17H		FF65D		FL41L		FL41P		FU50C		FY72J	
5		11/28/01		11/28/01		2/28/02		6/24/02		6/24/02		08/27/02		11/13/02		2/11/03		5/7/03		5/7/03		8/29/03		10/22/03	
7	**CHLORINATED PHENOLS (µg/L)**																								
8	**EPA Method SW8040**																								
9	Pentachlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
10	2,4,6-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
11	2,3,6-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
12	2,4,5-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
13	2,3,4-Trichlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
15	2,3,4,5-Tetrachlorophenol	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
16																									
17	**SEMIVOLATILES (µg/L)**																								
18	**EPA Method SW8270**																								
19	Phenol	**2.1**		2.0	U	**66**		**57**	J	**76**	J	**16**		**10**		**8.9**		2.1	U	2	U	**24**		**3.7**	M
20	4-Methylphenol	1.0	U	1.0	U	**4.6**		**21**		**25**		**5.4**		1.2	U	**6.9**		1	U	1	U	**5.3**		1	U
21	Isophorone	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1.2	U	1	U	1	U	1	U	1	U	1	U
22	2,4-Dimethylphenol	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	**53**		3.5	U	**3.8**		3.1	U	3.1	U	13	U	6.4	U
23	Benzoic Acid	50	U	50	U	50	U	50	U	50	U	54	U	58	U	50	U	52	U	51	U	50	U	10	U
24	Naphthalene	**13**		**12**		**6.9**		**11**	J	**15**	J	**16**		**8.6**		**14**		**3.7**		**3.7**		**9**		**5.1**	
25	2-Methylnaphthalene	**3.7**		**3.3**		**2.3**		**5.1**		**6.1**		**6**		**4.4**		**6.5**		**1.6**		**1.6**		**2.8**		1	U
26	2,4,6-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.4	U	5.8	U	5	U	5.2	U	5.1	U	**13**		5.1	U
27	2,4,5-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	**5.8**	M	**20**		5.8	U	**9.2**	M	5.2	U	5.1	U	**20**		**33**	
28	Acenaphthene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1.2	U	1	U	1	U	1	U	1	U	1	U
29	Dibenzofuran	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1.2	U	1	U	1	U	1	U	1	U	1	U
30	Fluorene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1.2	U	1	U	1	U	1	U	1	U	1	U
31	Pentachlorophenol	**17**		**17**		**1200**		**880**	J	**1100**	J	**2600**		**5400**		**2800**		**1700**		**1600**		**1400**		**350**	
32	bis(2-Ethylhexyl)phthalate	4.0	U	4.0	U	4.0	U	4.0	U	4.0	U	4.3	U	4.7	U	1	U	**9.8**	J	**3.3**	J	1	U	1	U
33																									
34	**VOLATILES (µg/L)**																								
35	**EPA Method SW8260**																								
36	Acetone	**8.4**		**7.6**		**110**	J	50	U	48	U	15	U	5	U	**16**	M	**20**		**24**	M	**26**	MJ	**15**	M
37	Carbon Disulfide	1.0	U	1.0	U	1.0	U	3.0	U	1.0	U	3	U	1	U	1	U	1	U	1	U	1	U	1	U
38	2-Butanone	**30**		**30**	M	**47**	J	15	U	**16**	J	**32**	M	5	U	5	U	5	U	5	U	5	U	**46**	M
39	Benzene	**24**		**23**		**1.9**	J	3.0	U	3.0	U	**4.8**		**22**		**12**		**1**		**2**		**4.9**	J	**4.9**	
40	Bromoform	1.0	U	1.0	U	1.0	U	3.0	U	1.0	U	3	U	1	U	1	U	1	U	1	U	1	U	1	U
41	Toluene	**5.7**		**5.3**		**12**	J	**16**		**14**	J	**15**		**13**		1	U	1	U	1	U	**3**	J	1	U
42	Ethylbenzene	**74**		**74**		**81**	J	**140**		**120**	J	**120**		**130**		**57**		**14**	J	**37**	J	**68**	J	**64**	
43	Styrene	1.0	U	1.0	U	1.0	U	3.0	U	1.0	U	3	U	1	U	1	U	1	U	1	U	1	U	1	U
44	m,p-Xylene	**270**		**280**		**97**	J	**310**		**250**	J	**230**		**160**		**41**		**12**	J	**34**	J	**90**	J	**62**	
45	o-Xylene	**87**		**87**		**170**	J	**220**		**190**	J	**200**		**200**		**73**		**25**	J	**66**		**120**	J	**90**	
46	1,3,5-Trimethylbenzene	**53**		**52**		**40**	J	**100**		**100**	J	**97**		**87**		**19**		**9.8**	J	**30**	J	**67**	J	**31**	
47	1,2,4-Trimethylbenzene	**200**		**200**		**170**	J	**370**		**310**	J	**380**		**410**		**110**		**64**	J	**160**	J	**230**		**170**	
48	Isopropylbenzene	**26**		**26**		**29**	J	**42**		**47**	J	**53**		**60**		**20**		**12**	J	**24**	J	**42**	J	**34**	
49	n-Propylbenzene	**32**		**31**		**34**	J	**63**		**64**	J	**72**		**80**		**29**		**14**	J	**32**	J	**52**	J	**40**	
50	tert-Butylbenzene	1.0	U	1.0	U	**1.8**	J	3.0	U	3.0	U	3	U	**3**		**1**		**1.7**		**2.3**		**3.1**	J	**2**	
51	sec-Butylbenzene	1.0	U	1.0	U	**8.9**	J	3.0	U	3.0	U	3	U	**16**		**5.5**		**5.7**	J	**9.3**	J	**17**	J	**11**	
52	4-Isopropyltoluene	**5.5**		**5.4**		4.5	U	**9.3**		**8.8**	J	**11**		**9.5**		**2.6**		**1.2**	J	**6.2**	J	**6.9**	J	**3.6**	
53	n-Butylbenzene	**4.7**	M	**4.7**	M	**6.8**	J	10	U	8.2	U	**14**	M	**9**		**4**	M	**2.2**	MJ	**4.5**	J	**7.3**	MJ	**4.7**	M
54	Naphthalene	**24**		**22**		**21**	J	**19**		**20**	J	**45**		**19**		**19**		5	U	**10**		**19**	J	**13**	
55	Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
56																									
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																								
58	**Method OR-DEQ**																								
59	**TPH-Diesel**	**4.7**		**5.0**		**4.9**		**6.8**	J	**17**	J	**9.4**		**13**		**6.8**		**5.1**		**5.4**		**8.1**		**5.8**	
60	**TPH-D Motor Oil**	2.0	U	0.50	U	0.50	U	0.50	U	0.50	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
61	**TPH-Gasoline**	**5.2**		**5.3**		12		**13**		**14**		**14**		**18**		**6.9**		**5.2**	J	**6.7**	J	**8.2**		**7**	
62																									
63	**PRIORITY POLLUTANT**																								
64	**METALS (mg/L)**																								
65	Arsenic (7060)	**0.009**		**0.008**		**0.008**		**0.006**		**0.006**		**0.008**		0.05	U	**0.004**		**0.005**		**0.005**		**0.006**		**0.005**	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AY	AZ	BA	BB
1					
2				Dup of RW1	
3		RW1		W	
4		0402086-10		0402113-05	
5		2/18/04		2/23/04	
7	**CHLORINATED PHENOLS (µg/L)**				
8	**EPA Method SW8040**				
9	Pentachlorophenol	NA		NA	
10	2,4,6-Trichlorophenol	NA		NA	
11	2,3,6-Trichlorophenol	NA		NA	
12	2,4,5-Trichlorophenol	NA		NA	
13	2,3,4-Trichlorophenol	NA		NA	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA		NA	
15	2,3,4,5-Tetrachlorophenol	NA		NA	
16					
17	**SEMIVOLATILES (µg/L)**				
18	**EPA Method SW8270**				
19	Phenol	1.96	U	1.96	U
20	4-Methylphenol	9.8	U	9.78	U
21	Isophorone	0.98	U	0.978	U
22	2,4-Dimethylphenol	2.94	U	2.93	U
23	Benzoic Acid	19.6	U	19.6	U
24	Naphthalene	**15.6**		**3.63**	
25	2-Methylnaphthalene	**6.33**		**10.4**	
26	2,4,6-Trichlorophenol	**14.8**		4.89	U
27	2,4,5-Trichlorophenol	4.9	U	4.89	U
28	Acenaphthene	0.98	U	0.978	U
29	Dibenzofuran	0.98	U	0.978	U
30	Fluorene	0.98	U	0.978	U
31	Pentachlorophenol	**2630**		**8.69**	
32	bis(2-Ethylhexyl)phthalate	0.98	U	0.978	U
33					
34	**VOLATILES (µg/L)**				
35	**EPA Method SW8260**				
36	Acetone	50	U	50	U
37	Carbon Disulfide	2	U	2	U
38	2-Butanone	10	U	10	U
39	Benzene	**7.42**		**5.96**	
40	Bromoform	1	U	1	U
41	Toluene	1	U	1	U
42	Ethylbenzene	**106**		**11.9**	
43	Styrene	1	U	1	U
44	m,p-Xylene	**45.6**		**5.89**	
45	o-Xylene	**142**		**2.22**	
46	1,3,5-Trimethylbenzene	**55.2**		**20.8**	
47	1,2,4-Trimethylbenzene	**180**		**67.9**	
48	Isopropylbenzene	**43.9**		**40.8**	
49	n-Propylbenzene	**57.2**		**61.9**	
50	tert-Butylbenzene	**1.15**		1	U
51	sec-Butylbenzene	**12.9**		**8.99**	
52	4-Isopropyltoluene	**5.2**		**2.19**	
53	n-Butylbenzene	**5.52**		**5.23**	
54	Naphthalene	**27.6**		**4.49**	
55	Methyl tert-butyl ether	NA		1	U
56					
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**				
58	**Method OR-DEQ**				
59	**TPH-Diesel**	**11.2**	J	**1.08**	
60	**TPH-D Motor Oil**	**1.22**	J	0.492	U
61	**TPH-Gasoline**	**6.3**		**2.4**	
62					
63	**PRIORITY POLLUTANT**				
64	**METALS (mg/L)**				
65	Arsenic (7060)	**0.004**		**0.021**	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1																										
2																	Dup of RW1						Dup of RW1			
3			RW1		RW1		RW1		RW1		RW1		RW1		RW1		W		RW1		RW1		W		RW1	
4			AH76F		AU36E		BC21U		BH96X		BR64O		CB68G		CK77B		CK77A		CT67K		DE87Q		DE87M		DM30G	
5			5/20/99		9/21/99		12/7/99		2/16/00		5/25/00		8/30/00		11/7/00		11/7/00		2/15/01		6/6/01		6/6/01		8/13/01	
66	59	Chromium (6010)	0.005	U	0.005	U	**0.007**		**0.011**		0.005	U	0.005	U	**0.015**		**0.010**		0.005	U	0.005	U	0.005	U	0.005	U
67	60	Copper (6010)	**0.018**		**0.003**		**0.013**		**0.024**		**0.005**		0.002	U	**0.020**	J2	**0.016**	J2	0.002	U	0.002	U	0.002	U	0.002	U
68	61	Lead (7421)	**0.003**		0.001	U	**0.004**		**0.005**		0.001	U	0.001	U	**0.006**		**0.004**		0.001	U	0.001	U	0.001	U	0.001	U
69	62	Nickel (6010)	0.01	U	0.01	U	0.01	U	**0.02**		0.01	U	0.01	U	**0.01**		**0.01**		0.01	U	0.01	U	0.01	U	0.01	U
70	63	Zinc (6010)	**0.020**		0.004	U	**0.028**		**0.046**		0.006	U	0.006	U	**0.054**		**0.048**		**0.017**		0.006	U	0.006	U	0.006	U
71	64																									
72	65	**MAJOR IONS AND CONVENTIONALS**																								
73	66	Calcium (mg/L) (6010)	**37.3**		NA		NA		NA		NA		NA		NA		NA		**49.1**		**36.1**		**37.3**		**45.3**	
74	67	Magnesium (mg/L) (6010)	**11.7**		NA		NA		NA		NA		NA		NA		NA		**15.2**		**11.9**		**12.2**		**15.2**	
75	68	Potassium (mg/L) (6010)	**4.0**		NA		NA		NA		NA		NA		NA		NA		**4.0**		**2.8**		**3.4**		**3.5**	
76	69	Sodium (mg/L) (6010)	**6.03**		NA		NA		NA		NA		NA		NA		NA		**6.67**		**6.01**		**5.59**		**6.62**	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	**140**		NA		NA		NA		NA		NA		NA		NA		**230**		NA		NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	1.0	U	NA		NA		NA		NA		NA		NA		NA		1.0	U	NA		NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	**140**		NA		NA		NA		NA		NA		NA		NA		**230**		NA		NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	**180**		**210**		**170**		**200**		**350**		**240**		**220**		**230**		**320**		**220**	J	**220**	J	**220**	J
81	74	Chloride (mg/L) (EPA 325.2)	**2.9**		**3.8**		**6.7**		**12**		**4.2**		**13**		**7.3**		**6.2**		**5.9**	J	**4.7**		**5.1**		**7.6**	
82	75	N-Nitrate (mg-N/L) (Calculated)	0.010	U	NA		NA		NA		NA		NA		NA		NA		0.010	U	NA		NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	0.010	U	NA		NA		NA		NA		NA		NA		NA		**0.023**	J	NA		NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	0.010	U	NA		NA		NA		NA		NA		NA		NA		**0.030**		NA		NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	**3.8**		NA		NA		NA		NA		NA		NA		NA		**3.0**		NA		NA		NA	
86	79																									

BZTO104(e)019294

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX
1																									
2				Dup of RW1						Dup of RW1										Dup of RW1					
3		RW1		X		RW1		RW1		X		RW1		RW1		RW1		RW1		X		RW1		RW1	
4		DW37D		DW37A		ED34A		EM66B		EM66A		ER93J		EZ17H		FF65D		FL41L		FL41P		FU50C		FY72J	
5		11/28/01		11/28/01		2/28/02		6/24/02		6/24/02		08/27/02		11/13/02		2/11/03		5/7/03		5/7/03		8/29/03		10/22/03	
66	Chromium (6010)	**0.008**	J	**0.014**	J	**0.015**		0.005	U	0.005	U	0.005	U	**0.013**		0.005	U	0.005	U	0.005	U	0.005	U	0.005	U
67	Copper (6010)	**0.008**	J	**0.013**	J	**0.028**		**0.005**		**0.006**		**0.004**		**0.018**		**0.006**		**0.004**		**0.005**		**0.003**		**0.005**	
68	Lead (7421)	**0.002**	J	**0.004**	J	**0.006**		**0.001**		0.001	U	**0.001**		0.02	U	0.001	U	0.001	U	**0.001**		0.001	U	0.001	U
69	Nickel (6010)	0.01	U	**0.01**		**0.02**		0.01	U	0.01	U	0.01	U	**0.02**		**0.11**		0.01	U	**0.01**		0.01	U	0.01	U
70	Zinc (6010)	**0.026**	J	**0.038**	J	**0.054**		**0.016**		**0.020**		0.006	U	**0.055**		**0.008**		**0.065**	J	**0.013**	J	**0.009**		**0.01**	
71																									
72	**MAJOR IONS AND CONVENTIONALS**																								
73	Calcium (mg/L) (6010)	**58.7**	J	**65.4**	J	**152**		NA		NA		NA		NA		**31.7**		NA		NA		NA		NA	
74	Magnesium (mg/L) (6010)	**19.5**	J	**21.8**	J	**51.9**		NA		NA		NA		NA		**10.6**		NA		NA		NA		NA	
75	Potassium (mg/L) (6010)	**4.2**		**5.1**		**6.7**		NA		NA		NA		NA		**3.6**		NA		NA		NA		NA	
76	Sodium (mg/L) (6010)	**8.18**		**9.48**		**12.0**		NA		NA		NA		NA		**7.9**		NA		NA		NA		NA	
77	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		**480**		NA		NA		NA		NA		**130**		NA		NA		NA		NA	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		1.0	U	NA		NA		NA		NA		1	U	NA		NA		NA		NA	
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		**480**		NA		NA		NA		NA		**130**		NA		NA		NA		NA	
80	Total Dissolved Solids (mg/L) (EPA 160.1)	**290**		**280**		**1100**		**1900**		**2000**		**230**		**260**		**230**		**240**		**240**		**320**		**320**	
81	Chloride (mg/L) (EPA 325.2)	**8.4**		**8.3**		**11**		**8.8**		**8.0**		**6.4**		**7.0**		**5.4**		**6**		**6**		**5.9**		**7.8**	
82	N-Nitrate (mg-N/L) (Calculated)	NA		NA		**0.044**		NA		NA		NA		NA		**0.043**		NA		NA		NA		NA	
83	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		0.010	U	NA		NA		NA		NA		**0.043**		NA		NA		NA		NA	
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		**0.044**		NA		NA		NA		NA		**0.086**		NA		NA		NA		NA	
85	Sulfate (mg/L) (EPA 375.2)	NA		NA		**5.7**		NA		NA		NA		NA		**46**		NA		NA		NA		NA	
86																									

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AY	AZ	BA	BB
1					
2				Dup of RW1	
3		RW1		W	
4		0402086-10		0402113-05	
5		2/18/04		2/23/04	
66	Chromium (6010)	**0.0093**		**0.0077**	
67	Copper (6010)	**0.0172**		0.01	U
68	Lead (7421)	**0.0005**		0.0001	U
69	Nickel (6010)	0.005	U	0.005	U
70	Zinc (6010)	0.01	U	0.01	U
71					
72	**MAJOR IONS AND CONVENTIONALS**				
73	Calcium (mg/L) (6010)	NA		NA	
74	Magnesium (mg/L) (6010)	NA		NA	
75	Potassium (mg/L) (6010)	NA		NA	
76	Sodium (mg/L) (6010)	NA		NA	
77	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA	
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA	
80	Total Dissolved Solids (mg/L) (EPA 160.1)	**242**		**239**	
81	Chloride (mg/L) (EPA 325.2)	**4.79**		**3.95**	
82	N-Nitrate (mg-N/L) (Calculated)	NA		NA	
83	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA	
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA	
85	Sulfate (mg/L) (EPA 375.2)	NA		NA	
86					

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1																										
2																	Dup of RW1						Dup of RW1			
3			RW1		RW1		RW1		RW1		RW1		RW1		RW1		W		RW1		RW1		W		RW1	
4			AH76F		AU36E		BC21U		BH96X		BR64O		CB68G		CK77B		CK77A		CT67K		DE87Q		DE87M		DM30G	
5			5/20/99		9/21/99		12/7/99		2/16/00		5/25/00		8/30/00		11/7/00		11/7/00		2/15/01		6/6/01		6/6/01		8/13/01	
87	80	**FIELD PARAMETERS**																								
88	81	pH (avg)	6.54		6.14		6.18		6.44		6.46		5.69		5.28		5.27		6.35		6.62		6.61		6.54	
89	82	Temperature (° C) (avg)	14.0		17.3		17.2		14.6		13.2		14.8		14.2		14.1		12.7		14.4		14.4		16.4	
90	83	Conductivity (um/hos)	244		271		273		211		440		314		305		303		506		377		377		389	
91	84	Dissolved oxygen (mg/L) (avg)	1.52		2.09		1.72		0.76		1.00		0.87		0.69		0.72		0.32		0.97		0.94		1.10	
92	85																									
93	86	**DIOXINS AND FURANS (ng/L)**																								
94	87	**Method 8290**																								
95	88	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
96	89	Total TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
97	90	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
98	91	Total TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
101	94	Total PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
103	96	Total PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
108	101	Total HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
112	105	Total HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
115	108	Total HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
117	110	Total HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
118	111	OCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
119	112	OCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
120																										
121		**ETHANOL (mg/L)**	NA		NA		NA		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	NA		NA		NA	
122																										

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX
1																									
2				Dup of RW1						Dup of RW1										Dup of RW1					
3		RW1		X		RW1		RW1		X		RW1		RW1		RW1		RW1		X		RW1		RW1	
4		DW37D		DW37A		ED34A		EM66B		EM66A		ER93J		EZ17H		FF65D		FL41L		FL41P		FU50C		FY72J	
5		11/28/01		11/28/01		2/28/02		6/24/02		6/24/02		08/27/02		11/13/02		2/11/03		5/7/03		5/7/03		8/29/03		10/22/03	
87	**FIELD PARAMETERS**																								
88	pH (avg)	6.51		6.5		6.15		6.16		6.14		6.71		6.03		6.4		6.82		6.84		6.65		6.73	
89	Temperature (° C) (avg)	13.7		13.5		12.8		15.6		15.6		15.6		17.3		15.3		14.2		14.2		15.4		17.5	
90	Conductivity (um/hos)	584		583		878		803		805		291		394		366		308		308		430		415	
91	Dissolved oxygen (mg/L) (avg)	3.36		3.43		7.27		3.86		3.54		0.00		0.00		0		1.79		1.75		1.59		2.65	
92																									
93	**DIOXINS AND FURANS (ng/L)**																								
94	**Method 8290**																								
95	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		3.0	U
96	Total TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		3.0	U
97	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		4.1	U
98	Total TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		2.4	U
99	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		2.9	U
100	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		2.7	U
101	Total PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		2.7	U
102	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		2.9	U
103	Total PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		**6.5**	
104	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		2.2	U
105	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		1.9	U
106	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		2.1	U
107	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		2.3	U
108	Total HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		**20.2**	
109	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		2.8	U
110	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		3.0	U
111	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		2.4	U
112	Total HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		**19.9**	
113	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		**18.1**	J
114	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		4.3	U
115	Total HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		**86**	
116	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		**125**	
117	Total HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		**211**	
118	OCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		**119**	
119	OCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		**1226**	
120																									
121	**ETHANOL (mg/L)**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
122																									

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TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AY	AZ	BA	BB
1					
2				Dup of RW1	
3		RW1		W	
4		0402086-10		0402113-05	
5		2/18/04		2/23/04	
87	**FIELD PARAMETERS**				
88	pH (avg)	6.68		6.34	
89	Temperature (° C) (avg)	13.8		14.3	
90	Conductivity (um/hos)	343		345	
91	Dissolved oxygen (mg/L) (avg)	1.35		1.32	
92					
93	**DIOXINS AND FURANS (ng/L)**				
94	**Method 8290**				
95	2,3,7,8-TCDF	NA		NA	
96	Total TCDF	NA		NA	
97	2,3,7,8-TCDD	NA		NA	
98	Total TCDD	NA		NA	
99	1,2,3,7,8-PeCDF	NA		NA	
100	2,3,4,7,8-PeCDF	NA		NA	
101	Total PeCDF	NA		NA	
102	1,2,3,7,8-PeCDD	NA		NA	
103	Total PeCDD	NA		NA	
104	1,2,3,4,7,8-HxCDF	NA		NA	
105	1,2,3,6,7,8-HxCDF	NA		NA	
106	2,3,4,6,7,8-HxCDF	NA		NA	
107	1,2,3,7,8,9-HxCDF	NA		NA	
108	Total HxCDF	NA		NA	
109	1,2,3,4,7,8-HxCDD	NA		NA	
110	1,2,3,6,7,8-HxCDD	NA		NA	
111	1,2,3,7,8,9-HxCDD	NA		NA	
112	Total HxCDD	NA		NA	
113	1,2,3,4,6,7,8-HpCDF	NA		NA	
114	1,2,3,4,7,8,9-HpCDF	NA		NA	
115	Total HpCDF	NA		NA	
116	1,2,3,4,6,7,8-HpCDD	NA		NA	
117	Total HpCDD	NA		NA	
118	OCDF	NA		NA	
119	OCDD	NA		NA	
120					
121	**ETHANOL (mg/L)**	NA		NA	
122					

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1																										
2																	Dup of RW1						Dup of RW1			
3			RW1		RW1		RW1		RW1		RW1		RW1		RW1		W		RW1		RW1		W		RW1	
4			AH76F		AU36E		BC21U		BH96X		BR64O		CB68G		CK77B		CK77A		CT67K		DE87Q		DE87M		DM30G	
5			5/20/99		9/21/99		12/7/99		2/16/00		5/25/00		8/30/00		11/7/00		11/7/00		2/15/01		6/6/01		6/6/01		8/13/01	
123		**PAHs (µg/L)**																								
124		**EPA Method SW8270 SIM**																								
125		Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
126		2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
127		Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
128		Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
129		Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
130		Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
131		Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX
1																									
2				Dup of RW1						Dup of RW1										Dup of RW1					
3		RW1		X		RW1		RW1		X		RW1		RW1		RW1		RW1		X		RW1		RW1	
4		DW37D		DW37A		ED34A		EM66B		EM66A		ER93J		EZ17H		FF65D		FL41L		FL41P		FU50C		FY72J	
5		11/28/01		11/28/01		2/28/02		6/24/02		6/24/02		08/27/02		11/13/02		2/11/03		5/7/03		5/7/03		8/29/03		10/22/03	
123	**PAHs (µg/L)**																								
124	**EPA Method SW8270 SIM**																								
125	Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
126	2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
127	Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
128	Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
129	Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
130	Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
131	Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AY	AZ	BA	BB
1					
2				Dup of RW1	
3		RW1		W	
4		0402086-10		0402113-05	
5		2/18/04		2/23/04	
123	**PAHs (µg/L)**				
124	**EPA Method SW8270 SIM**				
125	Naphthalene	NA		NA	
126	2-Methylnaphthalene	NA		NA	
127	Acenaphthylene	NA		NA	
128	Acenaphthene	NA		NA	
129	Fluorene	NA		NA	
130	Anthracene	NA		NA	
131	Dibenzofuran	NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F
1						
2						
3			RW3		RW3	
4			BC30H		9912050-07A	
5			12/8/99		12/8/1999 (d)	
7	1	**CHLORINATED PHENOLS (µg/L)**				
8	2	**EPA Method SW8040**				
9	3	Pentachlorophenol	**590**		NA	
10	4	2,4,6-Trichlorophenol	**0.19**	J1	NA	
11	5	2,3,6-Trichlorophenol	**0.13**	J1	NA	
12	6	2,4,5-Trichlorophenol	0.25	U	NA	
13	7	2,3,4-Trichlorophenol	0.25	U	NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	**110**		NA	
15	9	2,3,4,5-Tetrachlorophenol	**3.0**		NA	
16	10					
17	11	**SEMIVOLATILES (µg/L)**				
18	12	**EPA Method SW8270**				
19	13	Phenol	2.0	U	NA	
20	14	4-Methylphenol	1.0	U	NA	
21	15	Isophorone	1.0	U	NA	
22	16	2,4-Dimethylphenol	3.0	U	NA	
23	17	Benzoic Acid	10	U	NA	
24	18	Naphthalene	**14**		NA	
25	19	2-Methylnaphthalene	1.0	U	NA	
26	20	2,4,6-Trichlorophenol	5.0	U	NA	
27	21	2,4,5-Trichlorophenol	5.0	U	NA	
28	22	Acenaphthene	1.0	U	NA	
29	23	Dibenzofuran	1.0	U	NA	
30	24	Fluorene	1.0	U	NA	
31	25	Pentachlorophenol	**720**		NA	
32	26	bis(2-Ethylhexyl)phthalate	**1.4**		NA	
33	27					
34	28	**VOLATILES (µg/L)**				
35	29	**EPA Method SW8260**				
36	30	Acetone	5.0	U	NA	
37	31	Carbon Disulfide	1.0	U	NA	
38	32	2-Butanone	**9.1**		NA	
39	33	Benzene	1.0	U	NA	
40	34	Bromoform	1.0	U	NA	
41	35	Toluene	1.0	U	NA	
42	36	Ethylbenzene	**8.3**		NA	
43	37	Styrene	1.0	U	NA	
44	38	m,p-Xylene	**12**		NA	
45	39	o-Xylene	**34**		NA	
46	40	1,3,5-Trimethylbenzene	**57**		NA	
47	41	1,2,4-Trimethylbenzene	**160**		NA	
48	42	Isopropylbenzene	**10**		NA	
49	43	n-Propylbenzene	**19**		NA	
50	44	tert-Butylbenzene	1.0	U	NA	
51	45	sec-Butylbenzene	**9.2**		NA	
52	46	4-Isopropyltoluene	**9.8**		NA	
53	47	n-Butylbenzene	8.9	U	NA	
54	48	Naphthalene	**15**		NA	
55	48.5	Methyl tert-butyl ether	NA		NA	
56	49					
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**				
58	51	**Method OR-DEQ**				
59	52	**TPH-Diesel**	**3.5**		NA	
60	53	**TPH-D Motor Oil**	0.50	U	NA	
61	54	**TPH-Gasoline**	**2.5**		NA	
62	55					
63	56	**PRIORITY POLLUTANT**				
64	57	**METALS (mg/L)**				
65	58	Arsenic (7060)	**0.014**		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F
1						
2						
3			RW3		RW3	
4			BC30H		9912050-07A	
5			12/8/99		12/8/1999 (d)	
66	59	Chromium (6010)	0.005	U	NA	
67	60	Copper (6010)	0.002	U	NA	
68	61	Lead (7421)	0.001	U	NA	
69	62	Nickel (6010)	0.01	U	NA	
70	63	Zinc (6010)	0.006	U	NA	
71	64					
72	65	**MAJOR IONS AND CONVENTIONALS**				
73	66	Calcium (mg/L) (6010)	NA		NA	
74	67	Magnesium (mg/L) (6010)	NA		NA	
75	68	Potassium (mg/L) (6010)	NA		NA	
76	69	Sodium (mg/L) (6010)	NA		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	**150**		NA	
81	74	Chloride (mg/L) (EPA 325.2)	**3.9**		NA	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	NA		NA	
86	79					

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F
1						
2						
3			RW3		RW3	
4			BC30H		9912050-07A	
5			12/8/99		12/8/1999 (d)	
87	80	**FIELD PARAMETERS**				
88	81	pH (avg)	6.52		NM	
89	82	Temperature (° C) (avg)	12.9		NM	
90	83	Conductivity (um/hos)	231		NM	
91	84	Dissolved oxygen (mg/L) (avg)	1.76		NM	
92	85					
93	86	**DIOXINS AND FURANS (ng/L)**				
94	87	**Method 8290**				
95	88	2,3,7,8-TCDF	NA		NA	
96	89	Total TCDF	NA		NA	
97	90	2,3,7,8-TCDD	NA		NA	
98	91	Total TCDD	NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA	
101	94	Total PeCDF	NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA	
103	96	Total PeCDD	NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA	
108	101	Total HxCDF	NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA	
112	105	Total HxCDD	NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA	
115	108	Total HpCDF	NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA	
117	110	Total HpCDD	NA		NA	
118	111	OCDF	NA		NA	
119	112	OCDD	NA		NA	
120						
121		**ETHANOL (mg/L)**	5.0	U	10	U
122						

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F
1						
2						
3			RW3		RW3	
4			BC30H		9912050-07A	
5			12/8/99		12/8/1999 (d)	
123		**PAHs (µg/L)**				
124		**EPA Method SW8270 SIM**				
125		Naphthalene	NA		NA	
126		2-Methylnaphthalene	NA		NA	
127		Acenaphthylene	NA		NA	
128		Acenaphthene	NA		NA	
129		Fluorene	NA		NA	
130		Anthracene	NA		NA	
131		Dibenzofuran	NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1																						
2									Dup of LW2S													
3			LW2S		LW2S		LW2S		LW2D		LW2S		LW2S		LW2S		LW2S		LW2S		LW2S	
4			S177G		T176C		U235M		U235E		V224N		W391A		Y336G		Z225A		Z960Q		AH27F	
5			4/2/97		7/15/97		10/22/97		10/22/97		1/29/98		5/19/98		8/19/98		11/13/98		2/18/99		5/17/99	
7	1	**CHLORINATED PHENOLS (µg/L)**																				
8	2	**EPA Method SW8040**																				
9	3	Pentachlorophenol	**2600**		**2900**		**4400**		**4800**		**7600**		**8500**		**5000**		**3800**		**6000**		**560**	
10	4	2,4,6-Trichlorophenol	**0.46**		0.43	U	0.34	U	0.38	U	**0.56**		**0.57**		**0.34**		**0.34**		0.46		0.25	U
11	5	2,3,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
12	6	2,4,5-Trichlorophenol	0.86	U	0.25	U	0.49	U	0.51	U	0.25	U	**0.57**		**0.61**		0.25	U	0.60	U	0.25	U
13	7	2,3,4-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	**0.13**	J1	**0.18**	J1	0.25	U	0.25	U	0.25	U
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	**150**		**150**		**190**		**190**		**290**		**370**		**180**		**130**		**300**		**20**	
15	9	2,3,4,5-Tetrachlorophenol	**2.5**		**3.4**		**4.8**		**4.7**		**4.4**		**6.6**		**8.6**		**2.8**		**3.2**		**1.1**	
16	10																					
17	11	**SEMIVOLATILES (µg/L)**																				
18	12	**EPA Method SW8270**																				
19	13	Phenol	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
20	14	4-Methylphenol	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
21	15	Isophorone	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
22	16	2,4-Dimethylphenol	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U
23	17	Benzoic Acid	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
24	18	Naphthalene	**5.5**		**2.3**		**20**		**17**		**13**		**10**	J2	**13**		**14**		**8.4**		1.0	U
25	19	2-Methylnaphthalene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
26	20	2,4,6-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
27	21	2,4,5-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
28	22	Acenaphthene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
29	23	Dibenzofuran	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
30	24	Fluorene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
31	25	Pentachlorophenol	**3900**		**3000**		**6000**		**7300**		**7900**		**7300**		**4200**		**4100**		**5400**		**500**	
32	26	bis(2-Ethylhexyl)phthalate	1.0	U	1.0	U	**1.9**		1.0	U	1.0	U	**12**		1.0	U	1.0	U	**1.6**		**1.3**	
33	27																					
34	28	**VOLATILES (µg/L)**																				
35	29	**EPA Method SW8260**																				
36	30	Acetone	10	U	5.0	U	6.9		45	U	5.0	U	**7.4**		5.0	U	**35**		15	U	5.0	U
37	31	Carbon Disulfide	2.0	U	1.0	U	1.0	U	9.0	U	1.0	U	1.0	U	1.0	U	1.0	U	3.0	U	1.0	U
38	32	2-Butanone	10	U	5.0	U	5.0	U	45	U	5.0	U	5.0	U	5.0	U	**7.4**		15	U	**9.4**	
39	33	Benzene	2.0	U	1.0	U	1.0	U	9.0	U	1.0	U	1.0	U	1.0	U	1.0	U	3.0	U	1.0	U
40	34	Bromoform	2.0	U	1.0	U	1.0	U	9.0	U	1.0	U	1.0	U	1.0	U	1.0	U	3.0	U	1.0	U
41	35	Toluene	2.0	U	**2.0**		**1.1**		9.0	U	1.0	U	1.0	U	**1.4**		**1.3**		3.0	U	1.0	U
42	36	Ethylbenzene	**5.7**		**11**		**32**		**32**		**17**		**5.1**		**9.7**		**12**		**11**		**2.0**	
43	37	Styrene	2.0	U	1.0	U	1.0	U	9.0	U	1.0	U	1.0	U	1.0	U	1.0	U	3.0	U	1.0	U
44	38	m,p-Xylene	**13**		**16**		**37**		**36**		**32**		**12**		**17**		**24**		**18**		**2.6**	
45	39	o-Xylene	**23**		**35**		**91**		**92**		**63**		**23**		**39**		**61**		**42**		**6.9**	
46	40	1,3,5-Trimethylbenzene	**53**		**49**		**130**		**110**		**80**		**34**		**54**		**62**		**93**		**8.7**	
47	41	1,2,4-Trimethylbenzene	**210**		**200**		**640**	J2	**790**	J2	**490**		**160**		**180**		**280**		**330**		**44**	
48	42	Isopropylbenzene	**7.5**		**14**		**62**	J2	**49**	J2	**19**		**6.4**		**10**		**12**		**16**		**2.2**	
49	43	n-Propylbenzene	**16**		**26**		**110**		**90**		**38**		**15**		**21**		**22**		**35**		**4.8**	
50	44	tert-Butylbenzene	2.0	U	**1.8**	MJ	**5.7**		9.0	U	**2.7**		1.0	U	1.0	U	1.0	U	3.0		1.0	U
51	45	sec-Butylbenzene	**7.6**		**11**		**40**	J2	**27**	J2	**22**		**8.2**		**12**	J2	**12**		**15**		**2.9**	
52	46	4-Isopropyltoluene	**9.6**		**9.6**		**31**	J2	**22**	J2	**21**		**9.1**		**12**		**12**		**12**		**2.0**	
53	47	n-Butylbenzene	**8.5**		**8.4**	M	**29**	J2	**18**	J2	**16**		**7.7**		**10**		**10**		**12**		**1.9**	
54	48	Naphthalene	**12.0**		**14**		**75**	J2	**58**	J2	**31**		**14**		**19**		**18**		**22**		5.0	U
55	48.5	Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
56	49																					
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																				
58	51	**Method OR-DEQ**																				
59	52	**TPH-Diesel**	**4.4**		**5.0**		**11**		**11**		**10**		**5.6**		**5.2**		**5.0**		**6.2**		**1.1**	
60	53	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
61	54	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
62	55																					
63	56	**PRIORITY POLLUTANT**																				
64	57	**METALS (mg/L)**																				
65	58	Arsenic (7060)	**0.008**		**0.012**		0.05	U	0.05	U	0.05	U	**0.011**		**0.011**		**0.017**		**0.007**		**0.005**	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT
3		LW2S		LW2S		LW2S		LW2S		LW2S		LW2S		LW2S		LW2S		LW2S		LW2S		LW2S		LW2S	
4		AU22G		BC27H		9912050-04A		BH75F		BR64C		CB49I		CK77I		CT55G		DE68C		DM52I		DW48K		ED23E	
5		9/20/99		12/8/99		12/8/1999 (d)		2/15/00		5/24/00		8/29/00		11/8/00		2/14/01		6/5/01		8/15/01		11/29/01		2/26/02	
7	**CHLORINATED PHENOLS (µg/L)**																								
8	**EPA Method SW8040**																								
9	Pentachlorophenol	**1500**		**1300**		NA		**2100**		**1000**		**720**		**1100**		**650**	J	NA		NA		NA		NA	
10	2,4,6-Trichlorophenol	**0.16**	J1	**0.12**	J1	NA		**0.42**		0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA	
11	2,3,6-Trichlorophenol	0.25	U	0.25	U	NA		0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA	
12	2,4,5-Trichlorophenol	0.57	U	0.33	U	NA		0.37	U	0.25	U	0.74	U	0.33	U	NA		NA		NA		NA		NA	
13	2,3,4-Trichlorophenol	0.25	U	0.25	U	NA		0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		NA		NA		NA	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	**47**		**36**		NA		**84**		**28**		**28**		**47**		NA		NA		NA		NA		NA	
15	2,3,4,5-Tetrachlorophenol	**2.2**		**1.6**		NA		**2.2**		**2.1**		**1.0**		**1.5**		NA		NA		NA		NA		NA	
16																									
17	**SEMIVOLATILES (µg/L)**																								
18	**EPA Method SW8270**																								
19	Phenol	2.0	U	2.0	U	NA		2.0	U	2.0	U	2.0	U	**2.4**	J2	2.0	U	2.0	U	2.0	U	**2.8**		2.0	U
20	4-Methylphenol	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	**3.0**		1.0	U
21	Isophorone	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
22	2,4-Dimethylphenol	3.0	U	3.0	U	NA		3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U
23	Benzoic Acid	10	U	10	U	NA		10	U	10	U	10	U	10	U	10	U	10	U	10	U	30	U	50	U
24	Naphthalene	**4.3**		**36**		NA		**8.2**		**5.2**		**1.4**		**9.2**		**12**		**21**		**6.8**		**14**		1.0	U
25	2-Methylnaphthalene	1.0	U	**1.2**		NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
26	2,4,6-Trichlorophenol	5.0	U	5.0	U	NA		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
27	2,4,5-Trichlorophenol	5.0	U	5.0	U	NA		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
28	Acenaphthene	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
29	Dibenzofuran	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
30	Fluorene	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
31	Pentachlorophenol	**1600**		**1800**		NA		**2100**		**1300**	J2	**200**		**1500**		**1200**	J	**1300**		**700**		**8000**		**320**	
32	bis(2-Ethylhexyl)phthalate	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	**1.4**		1.0	U	1.0	U	**1.5**		4.0	U
33																									
34	**VOLATILES (µg/L)**																								
35	**EPA Method SW8260**																								
36	Acetone	5.0	U	**29**		NA		5.0	U	5.0	U	5.0	U	**27**			R	**33**		**20**		**39**		5.0	U
37	Carbon Disulfide	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	3.0	U	2.0	U	1.0	U	1.0	U	1.0	U	1.0	U
38	2-Butanone	**28**		**6.7**	M	NA		**32**		**22**		5.0	U	15	U	10	U	34	U	**32**		5.0	U	**5.2**	
39	Benzene	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	3.0	U	2.0	U	1.0	U	1.0	U	1.0	U	1.0	U
40	Bromoform	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	3.0	U	2.0	U	1.0	U	1.0	U	1.0	U	1.0	U
41	Toluene	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	3.0	U	2.0	U	**1.1**		1.0	U	1.0	U	1.0	U
42	Ethylbenzene	**6.3**		**22**		NA		**11**		**5.3**		**1.6**		**11**		**9.7**		**26**		1.0	U	**15**		1.0	U
43	Styrene	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	3.0	U	2.0	U	1.0	U	1.0	U	1.0	U	1.0	U
44	m,p-Xylene	**11**		**18**		NA		**18**		**9.9**		**3.0**		**15**		**18**		**36**		**14**		**35**		**1.2**	
45	o-Xylene	**29**		**97**		NA		**45**		**25**		**8.1**		**36**		**49**		**87**		**36**		**84**		**3.0**	
46	1,3,5-Trimethylbenzene	**45**		**80**		NA		**69**		**38**		**16**		**47**		**61**		**94**		**34**		**130**		**5.7**	
47	1,2,4-Trimethylbenzene	**120**		**540**		NA		**330**		**160**		**66**		**250**		**320**		**490**		**200**		**420**		**25**	
48	Isopropylbenzene	**7.0**		**38**		NA		**23**		**7.3**		**2.2**		**9.1**		**19**		**32**		**13**		**16**		1.0	U
49	n-Propylbenzene	**15**		**60**		NA		**48**		**16**		**5.8**		**20**		**36**		**67**		**28**		**32**		**2.0**	
50	tert-Butylbenzene	1.0	U	1.0	U	NA		3.1	U	**1.2**		1.0	U	3.0	U	**3.2**		1.0	U	1.0	U	**68**		1.0	U
51	sec-Butylbenzene	**8.0**		**27**		NA		**24**		**8.2**		**3.9**		**9.3**		**20**		**30**		**15**		1.0	U	**1.4**	
52	4-Isopropyltoluene	**8.8**		**20**		NA		**15**		**7.4**		**3.8**		**8.5**		**17**		**25**		**13**		**22**		**1.5**	
53	n-Butylbenzene	**7.0**		15	U	NA		17	U	**6.5**	M	**3.7**	M	**9.5**		**15**	M	**21**		**12**	M	**18**		**1.2**	
54	Naphthalene	**16**		**54**		NA		**26**		**10**		5.0	U	**27**		**23**		**60**		**28**		**54**		5.0	U
55	Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
56																									
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																								
58	**Method OR-DEQ**																								
59	**TPH-Diesel**	**2.3**		**9.4**		NA		**5.5**		**3.5**		**1.8**		**4.0**		**9.1**		**9.4**		**5.4**		10		**1.5**	
60	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
61	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
62																									
63	**PRIORITY POLLUTANT**																								
64	**METALS (mg/L)**																								
65	Arsenic (7060)	**0.008**		**0.011**		NA		**0.011**		**0.011**		**0.011**		**0.017**		**0.013**		**0.018**		**0.019**		**0.013**		**0.015**	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AU	AV
1			
2			
3		LW2S	
4		EM85F	
5		6/26/02	
7	**CHLORINATED PHENOLS (µg/L)**		
8	**EPA Method SW8040**		
9	Pentachlorophenol	NA	
10	2,4,6-Trichlorophenol	NA	
11	2,3,6-Trichlorophenol	NA	
12	2,4,5-Trichlorophenol	NA	
13	2,3,4-Trichlorophenol	NA	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA	
15	2,3,4,5-Tetrachlorophenol	NA	
16			
17	**SEMIVOLATILES (µg/L)**		
18	**EPA Method SW8270**		
19	Phenol	2.0	U
20	4-Methylphenol	1.0	U
21	Isophorone	1.0	U
22	2,4-Dimethylphenol	3.0	U
23	Benzoic Acid	50	U
24	Naphthalene	**6.2**	
25	2-Methylnaphthalene	1.0	U
26	2,4,6-Trichlorophenol	5.0	U
27	2,4,5-Trichlorophenol	5.0	U
28	Acenaphthene	1.0	U
29	Dibenzofuran	1.0	U
30	Fluorene	1.0	U
31	Pentachlorophenol	**950**	
32	bis(2-Ethylhexyl)phthalate	4.0	U
33			
34	**VOLATILES (µg/L)**		
35	**EPA Method SW8260**		
36	Acetone	**8.2**	
37	Carbon Disulfide	1.0	U
38	2-Butanone	**13**	
39	Benzene	1.0	U
40	Bromoform	1.0	U
41	Toluene	1.0	U
42	Ethylbenzene	**4.7**	
43	Styrene	1.0	U
44	m,p-Xylene	**7.3**	
45	o-Xylene	**18**	
46	1,3,5-Trimethylbenzene	**24**	
47	1,2,4-Trimethylbenzene	**110**	
48	Isopropylbenzene	**6.8**	
49	n-Propylbenzene	**14**	
50	tert-Butylbenzene	1.0	U
51	sec-Butylbenzene	**7.5**	
52	4-Isopropyltoluene	**6.6**	
53	n-Butylbenzene	5.7	U
54	Naphthalene	**11**	
55	Methyl tert-butyl ether	NA	
56			
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**		
58	**Method OR-DEQ**		
59	**TPH-Diesel**	**2.8**	
60	**TPH-D Motor Oil**	NA	
61	**TPH-Gasoline**	NA	
62			
63	**PRIORITY POLLUTANT**		
64	**METALS (mg/L)**		
65	Arsenic (7060)	**0.014**	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1																						
2									Dup of LW2S													
3			LW2S		LW2S		LW2S		LW2D		LW2S		LW2S		LW2S		LW2S		LW2S		LW2S	
4			S177G		T176C		U235M		U235E		V224N		W391A		Y336G		Z225A		Z960Q		AH27F	
5			4/2/97		7/15/97		10/22/97		10/22/97		1/29/98		5/19/98		8/19/98		11/13/98		2/18/99		5/17/99	
66	59	Chromium (6010)	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	**0.006**		0.005	U
67	60	Copper (6010)	0.002	U	**0.002**		0.002	U	0.002	U	0.002	U	0.002	U	**0.002**		0.002	U	**0.007**		0.002	U
68	61	Lead (7421)	0.001	U	**0.001**		0.02	U	0.02	U	0.02	U	0.001	U	**0.007**		0.001	U	**0.004**		0.001	U
69	62	Nickel (6010)	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
70	63	Zinc (6010)	**0.004**		**0.006**	J2	**0.007**		**0.004**		**0.004**		**0.004**	J2	**0.098**		**0.006**		**0.026**		0.005	U
71	64																					
72	65	**MAJOR IONS AND CONVENTIONALS**																				
73	66	Calcium (mg/L) (6010)	NA		NA		**18.4**		**18.2**		**9.13**		NA		NA		NA		**7.23**		NA	
74	67	Magnesium (mg/L) (6010)	NA		NA		**5.15**		**5.12**		**2.30**		NA		NA		NA		**2.52**		NA	
75	68	Potassium (mg/L) (6010)	NA		NA		**2.8**		**2.8**		**1.6**		NA		NA		NA		**1.9**		NA	
76	69	Sodium (mg/L) (6010)	NA		NA		**4.77**		**4.74**		**2.54**		NA		NA		NA		**3.69**		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		**62**		**61**		**52**		NA		NA		NA		**25**		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		1.0	U	1.0	U	1.0	U	NA		NA		NA		1.0	U	NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		**62**		**61**		**52**		NA		NA		NA		**25**		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	NT		**170**	J2	**130**		**140**		**66**		160		140		220		**76**		**160**	
81	74	Chloride (mg/L) (EPA 325.2)	NA		NA		**15**		**15**		**1.9**		3.9		4.6		26		**1.9**		**1.8**	
82	75	N-Nitrate (mg-N/L) (Calculated)	NA		NA		**0.023**		**0.017**		0.010	UJ	NA		NA		NA		**0.040**		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		0.010	U	0.010	U	0.010	UJ	NA		NA		NA		**0.016**		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		**0.023**		**0.017**		0.010	UJ	NA		NA		NA		**0.056**		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	NA		NA		**5.3**		**5.9**		**6.5**		NA		NA		NA		**9.4**		NA	
86	79																					

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT
3		LW2S		LW2S		LW2S		LW2S		LW2S		LW2S		LW2S		LW2S		LW2S		LW2S		LW2S		LW2S	
4		AU22G		BC27H		9912050-04A		BH75F		BR64C		CB49I		CK77I		CT55G		DE68C		DM52I		DW48K		ED23E	
5		9/20/99		12/8/99		12/8/1999 (d)		2/15/00		5/24/00		8/29/00		11/8/00		2/14/01		6/5/01		8/15/01		11/29/01		2/26/02	
66	Chromium (6010)	0.005	U	0.005	U	NA		0.005	U	0.005	U	**0.005**		0.005	U	0.005	U	0.05	U	0.005	U	0.005	U	0.005	U
67	Copper (6010)	0.002	U	**0.002**		NA		**0.003**		**0.003**		**0.007**		**0.005**	J2	0.002	U	0.002	U	**0.004**		0.004	U	**0.003**	
68	Lead (7421)	0.001	U	0.001	U	NA		0.001	U	0.001	U	**0.003**		**0.003**		0.001	U	0.001	U	**0.001**		**0.004**		0.001	U
69	Nickel (6010)	0.01	U	0.01	U	NA		0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
70	Zinc (6010)	**0.008**		0.009	U	NA		**0.010**		**0.006**		**0.016**		**0.013**		**0.011**		0.006	U	**0.012**		**0.012**		**0.006**	
71																									
72	**MAJOR IONS AND CONVENTIONALS**																								
73	Calcium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		**35.6**		**42.2**		**24.3**		**23.3**		**12.3**	
74	Magnesium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		**9.27**		**10.1**		**7.63**		**7.65**		**3.88**	
75	Potassium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		**2.7**		**3.4**		**3.1**		**2.9**		**2.0**	
76	Sodium (mg/L) (6010)	NA		NA		NA		NA		NA		NA		NA		**5.10**		**5.23**		**5.84**		**5.14**		**3.46**	
77	Alkalinity (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		**140**		NA		NA		NA		**67**	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		1.0	U	NA		NA		NA		1.0	U
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA		NA		NA		NA		NA		NA		NA		**140**		NA		NA		NA		**67**	
80	Total Dissolved Solids (mg/L) (EPA 160.1)	**160**		**170**		NA		**84**		**140**		**180**		**220**		**210**		**300**		**210**		**190**		**120**	
81	Chloride (mg/L) (EPA 325.2)	**3.1**		**7.5**		NA		**1.8**		**2.5**		**2.8**		**26**		**15**		**38**		**26**		**9.7**		**4.1**	
82	N-Nitrate (mg-N/L) (Calculated)	NA		NA		NA		NA		NA		NA		NA		**0.010**		NA		NA		NA		0.010	U
83	N-Nitrite (mg-N/L) (EPA 354.1)	NA		NA		NA		NA		NA		NA		NA		0.010	U	NA		NA		NA		**0.026**	
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA		NA		NA		NA		NA		NA		NA		**0.010**		NA		NA		NA		**0.033**	J
85	Sulfate (mg/L) (EPA 375.2)	NA		NA		NA		NA		NA		NA		NA		**5.7**		NA		NA		NA		**4.3**	
86																									

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AU	AV
1			
2			
3		LW2S	
4		EM85F	
5		6/26/02	
66	Chromium (6010)	0.005	U
67	Copper (6010)	0.002	U
68	Lead (7421)	0.001	U
69	Nickel (6010)	0.01	U
70	Zinc (6010)	**0.012**	
71			
72	**MAJOR IONS AND CONVENTIONALS**		
73	Calcium (mg/L) (6010)	NA	
74	Magnesium (mg/L) (6010)	NA	
75	Potassium (mg/L) (6010)	NA	
76	Sodium (mg/L) (6010)	NA	
77	Alkalinity (mg/L CaCO3) (SM 2320)	NA	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA	
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	NA	
80	Total Dissolved Solids (mg/L) (EPA 160.1)	**110**	
81	Chloride (mg/L) (EPA 325.2)	**3.3**	
82	N-Nitrate (mg-N/L) (Calculated)	NA	
83	N-Nitrite (mg-N/L) (EPA 354.1)	NA	
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	NA	
85	Sulfate (mg/L) (EPA 375.2)	NA	
86			

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1																						
2									Dup of LW2S													
3			LW2S		LW2S		LW2S		LW2D		LW2S		LW2S		LW2S		LW2S		LW2S		LW2S	
4			S177G		T176C		U235M		U235E		V224N		W391A		Y336G		Z225A		Z960Q		AH27F	
5			4/2/97		7/15/97		10/22/97		10/22/97		1/29/98		5/19/98		8/19/98		11/13/98		2/18/99		5/17/99	
87	80	**FIELD PARAMETERS**																				
88	81	pH (avg)	6.69		6.62		6.77		6.78		6.83		6.19		6.18		5.9300		6.21		5.62	
89	82	Temperature (° C) (avg)	10.0		15		15.7		15.7		10.8		12.6		14.4		14.7000		8.6		11.2	
90	83	Conductivity (um/hos)	291		258		168		167		108		244		299		148.0000		57		221	
91	84	Dissolved oxygen (mg/L) (avg)	NA		NA		NA		NA		NA		2.71		1.43		1.31		1.47		3.08	
92	85																					
93	86	**DIOXINS AND FURANS (ng/L)**																				
94	87	**Method 8290**																				
95	88	2,3,7,8-TCDF	**0.0040**		0.0045	U	**0.036**		NA		**0.0052**	(c)	**0.0045**	(c)	**0.012**	(c)	**0.0080**	(c)	**0.0079**	(c)	**0.0045**	(c)
96	89	Total TCDF	**0.0180**		0.0016-0.0048	U	**0.310**		NA		**0.0190**		**0.0280**		**0.060**		**0.0370**		**0.0079**		**0.0230**	
97	90	2,3,7,8-TCDD	0.0042	U	0.0034	U	0.049	U	NA		0.0051	U	0.0025	U	0.0062	U	0.0044	U	**0.0280**		0.0035	U
98	91	Total TCDD	0.0014-0.0042	U	0.0011-0.0036	U	**0.940**		NA		**0.0044**		0.0025	U	0.0062	U	0.0044	U	**0.3000**		**0.0025**	
99	92	1,2,3,7,8-PeCDF	0.0340	U	0.2600	U	0.075	U	NA		**0.0077**		**0.0150**		2.0000	U (b)	**0.0200**		3.00	U,E	**0.0130**	
100	93	2,3,4,7,8-PeCDF	**0.0120**		0.0190	U	**0.110**		NA		0.0160	U	**0.0110**		0.1200	U (b)	**0.0430**		**0.2600**		**0.0240**	
101	94	Total PeCDF	**0.2400**		**0.120**		**1.300**		NA		**0.2200**		**0.1900**		**0.470**		**0.3000**		**0.4200**		**0.1600**	
102	95	1,2,3,7,8-PeCDD	0.0120	U	0.0072	U	**0.360**		NA		0.0160	U	**0.0049**		**0.014**		**0.0110**		**0.2800**		0.0045	U
103	96	Total PeCDD	0.0032-0.0077	U	0.0025-0.014	U	**3.000**		NA		0.0160	U	**0.0049**		**0.014**		**0.0110**		**1.5000**		**0.0019**	
104	97	1,2,3,4,7,8-HxCDF	**0.0590**		**0.019**		1.900	U	NA		0.1300	UE	0.1100	U	**0.180**		0.8400	U	0.50	U,E	**0.0280**	
105	98	1,2,3,6,7,8-HxCDF	**0.0300**		0.0160	U	**0.260**		NA		**0.0470**		**0.0260**		**0.120**		**0.0660**		**0.0870**		0.1900	U,E
106	99	2,3,4,6,7,8-HxCDF	**0.0580**		**0.033**		**0.620**		NA		**0.0740**		**0.0610**	J2	**0.220**		**0.0840**		**0.5700**		**0.0430**	
107	100	1,2,3,7,8,9-HxCDF	**0.0280**		**0.013**		**0.260**		NA		**0.0340**		0.0220	U	**0.078**		**0.0380**		0.53	U,E	**0.0220**	
108	101	Total HxCDF	**0.8800**		**0.370**		**14.000**		NA		**0.9700**		**2.0000**	J2	**2.700**		**1.6000**		**14.0000**		**1.5000**	
109	102	1,2,3,4,7,8-HxCDD	**0.0120**		0.0110	U	**0.630**		NA		**0.0180**		**0.0170**		**0.045**		**0.0310**		**0.2600**		**0.0110**	
110	103	1,2,3,6,7,8-HxCDD	**0.3400**		**0.150**		**3.400**		NA		**0.4000**		**0.4000**	J2	**1.200**		**0.5900**		**3.0000**		**0.1800**	
111	104	1,2,3,7,8,9-HxCDD	**0.0280**		**0.012**		**0.960**		NA		**0.0410**		**0.0400**		**0.110**		**0.0540**		**0.4900**		**0.0170**	
112	105	Total HxCDD	**0.7900**		**0.350**		**14.000**		NA		**0.9500**		**1.0000**	J2	**2.800**		**1.5000**		**10.0000**		**0.4200**	
113	106	1,2,3,4,6,7,8-HpCDF	**1.5000**		**0.600**		**9.700**		NA		**1.5000**		**1.4000**		**4.500**		**2.6000**		**11.0000**		**0.4800**	
114	107	1,2,3,4,7,8,9-HpCDF	**0.0980**		**0.039**		**0.990**		NA		**0.1000**		**0.0990**		**0.340**		**0.1800**		**0.8300**		**0.0440**	
115	108	Total HpCDF	**6.7000**		**0.640**		**43.000**		NA		**4.8000**		**6.3000**		**4.800**		**13.0000**		**65.0000**		**2.8000**	
116	109	1,2,3,4,6,7,8-HpCDD	**10.0000**		**3.800**		**54.000**		NA		**9.9000**		**8.4000**		**28.000**	J2	**17.0000**		**56.0000**		**4.0000**	
117	110	Total HpCDD	**15.0000**		**5.700**		**82.000**		NA		**15.0000**		**13.0000**		**39.000**	J2	**26.0000**		**84.0000**		**5.6000**	
118	111	OCDF	**8.8000**		**2.600**		**40.000**		NA		**7.0000**		**6.9000**		**20.000**		**12.0000**		**43.0000**		**3.1000**	
119	112	OCDD	**76.0000**		**25.000**		**350.000**		NA		**65.0000**		**58.0000**	J2	**190.000**	J2	**110.0000**		**320.0000**		**25.0000**	
120																						
121		**ETHANOL (mg/L)**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
122																						

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT
1																									
2																									
3		LW2S		LW2S		LW2S		LW2S		LW2S		LW2S		LW2S		LW2S		LW2S		LW2S		LW2S		LW2S	
4		AU22G		BC27H		9912050-04A		BH75F		BR64C		CB49I		CK77I		CT55G		DE68C		DM52I		DW48K		ED23E	
5		9/20/99		12/8/99		12/8/1999 (d)		2/15/00		5/24/00		8/29/00		11/8/00		2/14/01		6/5/01		8/15/01		11/29/01		2/26/02	
87	**FIELD PARAMETERS**																								
88	pH (avg)	6.06		6.25		NM		6.42		6.23		6.59		5.58		6.01		6.33		6.54		6.22		4.96	
89	Temperature (° C) (avg)	16.6		12.6		NM		10.8		12.8		15.5		15.3		11.3		12.7		15.5		14.5		11.1	
90	Conductivity (um/hos)	221		267		NM		91		267		268		302		305		427		299		321		124	
91	Dissolved oxygen (mg/L) (avg)	1.58		2.34		NM		0.95		1.22		1.73		0.98		0.59		1.32		3.04		3.76		7.98	
92																									
93	**DIOXINS AND FURANS (ng/L)**																								
94	**Method 8290**																								
95	2,3,7,8-TCDF	**0.0060**	(c)	0.00330	U	NA		0.086	U	NA		NA		NA		NA		NA		NA		NA		NA	
96	Total TCDF	**0.0510**		**0.0280**		NA		**0.0540**		NA		NA		NA		NA		NA		NA		NA		NA	
97	2,3,7,8-TCDD	0.0054	U	0.00079	U	NA		0.0047	U	NA		NA		NA		NA		NA		NA		NA		NA	
98	Total TCDD	0.0054	U	0.00079	U	NA		0.0047	U	NA		NA		NA		NA		NA		NA		NA		NA	
99	1,2,3,7,8-PeCDF	0.1800	UE	0.00170	U	NA		2.400	U	NA		NA		NA		NA		NA		NA		NA		NA	
100	2,3,4,7,8-PeCDF	**0.1100**		**0.0160**	J1	NA		**0.0260**	J1	NA		NA		NA		NA		NA		NA		NA		NA	
101	Total PeCDF	**0.6700**		**0.1000**		NA		**0.1200**		NA		NA		NA		NA		NA		NA		NA		NA	
102	1,2,3,7,8-PeCDD	**0.0130**		**0.0049**	J1	NA		**0.0068**	J1	NA		NA		NA		NA		NA		NA		NA		NA	
103	Total PeCDD	**0.0200**		**0.0074**	J1	NA		**0.0110**		NA		NA		NA		NA		NA		NA		NA		NA	
104	1,2,3,4,7,8-HxCDF	**0.1800**		**0.0690**		NA		0.860	U	NA		NA		NA		NA		NA		NA		NA		NA	
105	1,2,3,6,7,8-HxCDF	**0.1200**		0.720	U	NA		0.0460	U	NA		NA		NA		NA		NA		NA		NA		NA	
106	2,3,4,6,7,8-HxCDF	**0.1600**		**0.0330**	J1	NA		**0.0420**	J1	NA		NA		NA		NA		NA		NA		NA		NA	
107	1,2,3,7,8,9-HxCDF	**0.0950**		0.011	U	NA		0.0100	U	NA		NA		NA		NA		NA		NA		NA		NA	
108	Total HxCDF	**14.0000**		**2.1000**		NA		**2.9000**		NA		NA		NA		NA		NA		NA		NA		NA	
109	1,2,3,4,7,8-HxCDD	**0.0620**		0.020	U	NA		0.012	U	NA		NA		NA		NA		NA		NA		NA		NA	
110	1,2,3,6,7,8-HxCDD	**1.2000**		**0.4800**		NA		**0.4400**		NA		NA		NA		NA		NA		NA		NA		NA	
111	1,2,3,7,8,9-HxCDD	**0.1200**		**0.0410**	J1	NA		**0.0290**	J1	NA		NA		NA		NA		NA		NA		NA		NA	
112	Total HxCDD	**2.8000**		**1.1000**		NA		**1.2000**		NA		NA		NA		NA		NA		NA		NA		NA	
113	1,2,3,4,6,7,8-HpCDF	**4.8000**		**2.2000**		NA		**1.7000**		NA		NA		NA		NA		NA		NA		NA		NA	
114	1,2,3,4,7,8,9-HpCDF	**0.3300**		**0.1200**		NA		**0.1200**		NA		NA		NA		NA		NA		NA		NA		NA	
115	Total HpCDF	**5.1000**		**10.0000**		NA		**9.2000**		NA		NA		NA		NA		NA		NA		NA		NA	
116	1,2,3,4,6,7,8-HpCDD	**30.0000**		**14.0000**		NA		**11.0000**		NA		NA		NA		NA		NA		NA		NA		NA	
117	Total HpCDD	**45.0000**		**20.0000**		NA		**17.0000**		NA		NA		NA		NA		NA		NA		NA		NA	
118	OCDF	**29.0000**		**11.0000**		NA		**9.0000**		NA		NA		NA		NA		NA		NA		NA		NA	
119	OCDD	**210.0000**		**100.0000**	N2	NA		**76.0000**		NA		NA		NA		NA		NA		NA		NA		NA	
120																									
121	**ETHANOL (mg/L)**	NA		NA		10	U	NA		NA		NA		NA		NA		NA		NA		NA		NA	
122																									

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AU	AV
1			
2			
3		LW2S	
4		EM85F	
5		6/26/02	
87	**FIELD PARAMETERS**		
88	pH (avg)	6.39	
89	Temperature (° C) (avg)	15.2	
90	Conductivity (um/hos)	150	
91	Dissolved oxygen (mg/L) (avg)	3.67	
92			
93	**DIOXINS AND FURANS (ng/L)**		
94	**Method 8290**		
95	2,3,7,8-TCDF	NA	
96	Total TCDF	NA	
97	2,3,7,8-TCDD	NA	
98	Total TCDD	NA	
99	1,2,3,7,8-PeCDF	NA	
100	2,3,4,7,8-PeCDF	NA	
101	Total PeCDF	NA	
102	1,2,3,7,8-PeCDD	NA	
103	Total PeCDD	NA	
104	1,2,3,4,7,8-HxCDF	NA	
105	1,2,3,6,7,8-HxCDF	NA	
106	2,3,4,6,7,8-HxCDF	NA	
107	1,2,3,7,8,9-HxCDF	NA	
108	Total HxCDF	NA	
109	1,2,3,4,7,8-HxCDD	NA	
110	1,2,3,6,7,8-HxCDD	NA	
111	1,2,3,7,8,9-HxCDD	NA	
112	Total HxCDD	NA	
113	1,2,3,4,6,7,8-HpCDF	NA	
114	1,2,3,4,7,8,9-HpCDF	NA	
115	Total HpCDF	NA	
116	1,2,3,4,6,7,8-HpCDD	NA	
117	Total HpCDD	NA	
118	OCDF	NA	
119	OCDD	NA	
120			
121	**ETHANOL (mg/L)**	NA	
122			

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1																						
2									Dup of LW2S													
3			LW2S		LW2S		LW2S		LW2D		LW2S		LW2S		LW2S		LW2S		LW2S		LW2S	
4			S177G		T176C		U235M		U235E		V224N		W391A		Y336G		Z225A		Z960Q		AH27F	
5			4/2/97		7/15/97		10/22/97		10/22/97		1/29/98		5/19/98		8/19/98		11/13/98		2/18/99		5/17/99	
123		**PAHs (µg/L)**																				
124		**EPA Method SW8270 SIM**																				
125		Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		**8.2**		NA	
126		2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		**0.41**		NA	
127		Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		0.10	U	NA	
128		Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		**0.11**	M	NA	
129		Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		0.10	U	NA	
130		Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		0.10	U	NA	
131		Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		0.10	U	NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT
1																									
2																									
3		LW2S		LW2S		LW2S		LW2S		LW2S		LW2S		LW2S		LW2S		LW2S		LW2S		LW2S		LW2S	
4		AU22G		BC27H		9912050-04A		BH75F		BR64C		CB49I		CK77I		CT55G		DE68C		DM52I		DW48K		ED23E	
5		9/20/99		12/8/99		12/8/1999 (d)		2/15/00		5/24/00		8/29/00		11/8/00		2/14/01		6/5/01		8/15/01		11/29/01		2/26/02	
123	**PAHs (µg/L)**																								
124	**EPA Method SW8270 SIM**																								
125	Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
126	2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
127	Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
128	Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
129	Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
130	Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
131	Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AU	AV
1			
2			
3		LW2S	
4		EM85F	
5		6/26/02	
123	**PAHs (µg/L)**		
124	**EPA Method SW8270 SIM**		
125	Naphthalene	NA	
126	2-Methylnaphthalene	NA	
127	Acenaphthylene	NA	
128	Acenaphthene	NA	
129	Fluorene	NA	
130	Anthracene	NA	
131	Dibenzofuran	NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1																										
2																										
3			LW101S		LW101S		LW101S		LW101S		LW101S		LW101S		LW101S		LW101S		LW101S		LW101S		LW101S		LW101S	
4			S167C		T160D		U235C		V208B		W371C		Z960T		AH76M		BH75A		CT37J		ED16C		EM75C		FF48D	
5			3/31/97		7/14/97		10/21/97		1/28/98		5/18/98		2/16/99		5/19/99		2/15/00		2/13/01		2/25/02		6/25/02		2/10/03	
7	1	**CHLORINATED PHENOLS (µg/L)**																								
8	2	**EPA Method SW8040**																								
9	3	Pentachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		0.25	U	0.25	U	0.25	U	**0.86**		0.25	U	0.25	U
10	4	2,4,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		0.25	U	0.25	U	NA		NA		NA		NA	
11	5	2,3,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		0.25	U	0.25	U	NA		NA		NA		NA	
12	6	2,4,5-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		0.25	U	0.25	U	NA		NA		NA		NA	
13	7	2,3,4-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		0.25	U	0.25	U	NA		NA		NA		NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		0.25	U	0.25	U	NA		NA		NA		NA	
15	9	2,3,4,5-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		0.25	U	0.25	U	NA		NA		NA		NA	
16	10																									
17	11	**SEMIVOLATILES (µg/L)**																								
18	12	**EPA Method SW8270**																								
19	13	Phenol	2.0	U	2.0	U	2.0	U	2.0	U	NA		2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	NA		2	U
20	14	4-Methylphenol	1.0	U	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	NA		1	U
21	15	Isophorone	1.0	U	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	NA		1	U
22	16	2,4-Dimethylphenol	3.0	U	3.0	U	3.0	U	3.0	U	NA		3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	NA		3	U
23	17	Benzoic Acid	10	U	10	U	10	U	10	U	NA		10	U	10	U	10	U	10	U	50	U	NA		50	U
24	18	Naphthalene	1.0	U	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	NA		1	U
25	19	2-Methylnaphthalene	1.0	U	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	NA		1	U
26	20	2,4,6-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	NA		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	NA		5	U
27	21	2,4,5-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	NA		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	NA		5	U
28	22	Acenaphthene	1.0	U	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	NA		1	U
29	23	Dibenzofuran	1.0	U	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	NA		1	U
30	24	Fluorene	1.0	U	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	NA		1	U
31	25	Pentachlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	NA		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	NA		5	U
32	26	bis(2-Ethylhexyl)phthalate	1.0	UJ	1.0	U	1.0	U	1.0	U	NA		1.0	U	1.0	U	1.0	U	1.0	U	4.0	U	NA		1	U
33	27																									
34	28	**VOLATILES (µg/L)**																								
35	29	**EPA Method SW8260**																								
36	30	Acetone	5.0	U	5.0	U	5.0	U	5.0	U	NA		NA		5.0	U	5.0	U	14	U	5.0	U	NA		5	U
37	31	Carbon Disulfide	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1	U
38	32	2-Butanone	5.0	U	5.0	U	5.0	U	5.0	U	NA		NA		5.0	U	5.0	U	5.0	U	**5.7**		NA		5	U
39	33	Benzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1	U
40	34	Bromoform	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1	U
41	35	Toluene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1	U
42	36	Ethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1	U
43	37	Styrene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1	U
44	38	m,p-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1	U
45	39	o-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1	U
46	40	1,3,5-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1	U
47	41	1,2,4-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1	U
48	42	Isopropylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1	U
49	43	n-Propylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1	U
50	44	tert-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1	U
51	45	sec-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1	U
52	46	4-Isopropyltoluene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1	U
53	47	n-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1	U
54	48	Naphthalene	5.0	U	5.0	U	5.0	U	5.0	U	NA		NA		5.0	U	5.0	U	5.0	U	5.0	U	NA		5	U
55	48.5	Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
56	49																									
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																								
58	51	**Method OR-DEQ**																								
59	52	**TPH-Diesel**	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		0.25	U	0.25	U	0.25	U	0.25	U	NA		0.25	U
60	53	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
61	54	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
62	55																									
63	56	**PRIORITY POLLUTANT**																								
64	57	**METALS (mg/L)**																								
65	58	Arsenic (7060)	**0.001**		**0.002**		0.05	U	0.05	U	**0.002**		0.001	U	0.001	U	0.001	U	**0.002**		**0.005**		NA		0.001	U

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1																										
2																										
3			LW101S		LW101S		LW101S		LW101S		LW101S		LW101S		LW101S		LW101S		LW101S		LW101S		LW101S		LW101S	
4			S167C		T160D		U235C		V208B		W371C		Z960T		AH76M		BH75A		CT37J		ED16C		EM75C		FF48D	
5			3/31/97		7/14/97		10/21/97		1/28/98		5/18/98		2/16/99		5/19/99		2/15/00		2/13/01		2/25/02		6/25/02		2/10/03	
66	59	Chromium (6010)	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	NA		0.005	U
67	60	Copper (6010)	**0.002**		**0.002**		0.002	U	**0.003**		**0.004**		**0.002**		**0.003**		**0.003**		0.002	U	**0.008**		NA		**0.005**	
68	61	Lead (7421)	**0.001**		**0.002**		0.02	U	0.02	U	**0.002**		0.001	U	**0.001**		**0.001**		0.001	U	**0.002**		NA		**0.001**	
69	62	Nickel (6010)	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	NA		0.01	U
70	63	Zinc (6010)	**0.006**		**0.012**		**0.004**		**0.007**		**0.012**	J2	**0.017**	J	**0.010**		**0.006**		0.006	U	**0.017**		NA		**0.011**	
71	64																									
72	65	**MAJOR IONS AND CONVENTIONALS**																								
73	66	Calcium (mg/L) (6010)	**12.5**		**12.8**		**12.0**		**5.13**		NA		NA		NA		NA		NA		**7.22**		NA		**2.58**	
74	67	Magnesium (mg/L) (6010)	**3.83**		**3.71**		**2.94**		**1.64**		NA		NA		NA		NA		NA		**2.44**		NA		**1.03**	
75	68	Potassium (mg/L) (6010)	**2.2**		**3.0**		**3.1**		**1.4**		NA		NA		NA		NA		NA		**1.7**		NA		**0.8**	
76	69	Sodium (mg/L) (6010)	**7.77**		**4.6**		**4.80**		**4.86**		NA		NA		NA		NA		NA		**7.44**		NA		**7**	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	**46**		**39**		**34**		**28**		NA		NA		NA		NA		NA		**38**		NA		**15**	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		1.0	U	NA		1	U
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	**46**		**39**		**34**		**28**		NA		NA		NA		NA		NA		**38**		NA		**15**	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	NT		**110**		**94**		**61**	J2	NA		NA		**75**		**67**		**100**		**72**		NA		**84**	
81	74	Chloride (mg/L) (EPA 325.2)	**2.1**	J	**2.1**		**1.2**		**1.0**		NA		NA		**1.7**		**1.6**		**1.8**		**1.0**		NA		**1.6**	
82	75	N-Nitrate (mg-N/L) (Calculated)	**1.3**	J	**2.2**		**1.8**		**0.17**		NA		NA		NA		NA		NA		**0.098**		NA		**0.91**	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	**0.016**	J	**0.021**		0.010	U	**0.013**		NA		NA		NA		NA		NA		0.010	U	NA		**0.017**	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	**1.3**	J	**2.2**		**1.8**		**0.18**		NA		NA		NA		NA		NA		**0.098**		NA		**0.93**	
85	78	Sulfate (mg/L) (EPA 375.2)	**19**	J	**14**		**14**		**3.4**		NA		NA		NA		NA		NA		**5.2**		NA		**6.2**	
86	79																									

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TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1																										
2																										
3			LW101S		LW101S		LW101S		LW101S		LW101S		LW101S		LW101S		LW101S		LW101S		LW101S		LW101S		LW101S	
4			S167C		T160D		U235C		V208B		W371C		Z960T		AH76M		BH75A		CT37J		ED16C		EM75C		FF48D	
5			3/31/97		7/14/97		10/21/97		1/28/98		5/18/98		2/16/99		5/19/99		2/15/00		2/13/01		2/25/02		6/25/02		2/10/03	
87	80	**FIELD PARAMETERS**																								
88	81	pH (avg)	6.75		6.44		6.52		6.89		5.89		6.61		5.91		6.69		6.36		6.00		5.43		6.64	
89	82	Temperature (° C) (avg)	10.5		18.4		16.1		9.5		11.9		8.6		13.1		9.8		10.6		9.0		13.6		10.8	
90	83	Conductivity (um/hos)	138		147		115		0.63		93		78		64		66		133		73		174		41	
91	84	Dissolved oxygen (mg/L) (avg)									4.88		5.21		3.12		4.83		3.47		5.49		4.62		4.71	
92	85																									
93	86	**DIOXINS AND FURANS (ng/L)**																								
94	87	**Method 8290**																								
95	88	2,3,7,8-TCDF	**0.0088**		0.0025	U	0.0066	U	0.0017	U	NA		NA		NA		NA		NA		NA		NA		NA	
96	89	Total TCDF	0.0044-0.016	U	0.0011-0.0037	U	0.0025-0.0081	U	0.0017	U	NA		NA		NA		NA		NA		NA		NA		NA	
97	90	2,3,7,8-TCDD	0.0160	U	0.0023	U	0.0074	U	0.0023	U	NA		NA		NA		NA		NA		NA		NA		NA	
98	91	Total TCDD	0.0032-0.025	U	0.0012-0.0052	U	0.0018-0.0099	U	**0.0035**		NA		NA		NA		NA		NA		NA		NA		NA	
99	92	1,2,3,7,8-PeCDF	0.0083	U	0.0058	U	**0.0100**		0.0015	U	NA		NA		NA		NA		NA		NA		NA		NA	
100	93	2,3,4,7,8-PeCDF	0.0120	U	0.0021	U	0.0062	U	0.0017	U	NA		NA		NA		NA		NA		NA		NA		NA	
101	94	Total PeCDF	0.0026-0.018	U	0.0015-0.0064	U	**0.0960**		0.0016	U	NA		NA		NA		NA		NA		NA		NA		NA	
102	95	1,2,3,7,8-PeCDD	0.0260	U	0.0100	U	0.0120	U	0.0030	U	NA		NA		NA		NA		NA		NA		NA		NA	
103	96	Total PeCDD	0.010-0.034	U	0.0020-0.0100	U	0.0056-0.013	U	0.0030	U	NA		NA		NA		NA		NA		NA		NA		NA	
104	97	1,2,3,4,7,8-HxCDF	0.0044	U	0.0017	U	0.0083	U	0.0018	U	NA		NA		NA		NA		NA		NA		NA		NA	
105	98	1,2,3,6,7,8-HxCDF	0.0057	U	0.0034	U	0.0049	U	0.0021	U	NA		NA		NA		NA		NA		NA		NA		NA	
106	99	2,3,4,6,7,8-HxCDF	0.0080	U	0.0076	U	0.0064	U	0.0041	U	NA		NA		NA		NA		NA		NA		NA		NA	
107	100	1,2,3,7,8,9-HxCDF	0.0160	U	0.0045	U	0.0068	U	0.0020	U	NA		NA		NA		NA		NA		NA		NA		NA	
108	101	Total HxCDF	0.0048-0.017	U	0.0017-0.0076	U	0.0270	U	0.0041	U	NA		NA		NA		NA		NA		NA		NA		NA	
109	102	1,2,3,4,7,8-HxCDD	0.0250	U	0.0078	U	0.0080	U	0.0025	U	NA		NA		NA		NA		NA		NA		NA		NA	
110	103	1,2,3,6,7,8-HxCDD	0.0180	U	0.0072	U	**0.0089**		0.0041	U	NA		NA		NA		NA		NA		NA		NA		NA	
111	104	1,2,3,7,8,9-HxCDD	0.0160	U	0.0032	U	0.0120	U	0.0030	U	NA		NA		NA		NA		NA		NA		NA		NA	
112	105	Total HxCDD	0.011-0.031	U	0.0025-0.0078	U	**0.0230**		0.0032	U	NA		NA		NA		NA		NA		NA		NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	0.0160	U	0.0046	U	**0.0240**		0.0130	U	NA		NA		NA		NA		NA		NA		NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	0.0280	U	0.0057	U	0.0039	U	0.0035	U	NA		NA		NA		NA		NA		NA		NA		NA	
115	108	Total HpCDF	0.012-0.028	U	0.0014-0.0058	U	0.0280	U	0.0083	U	NA		NA		NA		NA		NA		NA		NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	0.0230	U	0.0068	U	**0.3000**		0.0064	U	NA		NA		NA		NA		NA		NA		NA		NA	
117	110	Total HpCDD	0.013-0.038	U	0.0021-0.0080	U	**0.4400**		0.0064	U	NA		NA		NA		NA		NA		NA		NA		NA	
118	111	OCDF	0.0520	U	0.0079	U	**0.1800**		0.0041	U	NA		NA		NA		NA		NA		NA		NA		NA	
119	112	OCDD	0.0500	U	0.0300	U	**1.2000**		0.0210	U	NA		NA		NA		NA		NA		NA		NA		NA	
120																										
121		**ETHANOL (mg/L)**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
122																										

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1																										
2																										
3			LW101S		LW101S		LW101S		LW101S		LW101S		LW101S		LW101S		LW101S		LW101S		LW101S		LW101S		LW101S	
4			S167C		T160D		U235C		V208B		W371C		Z960T		AH76M		BH75A		CT37J		ED16C		EM75C		FF48D	
5			3/31/97		7/14/97		10/21/97		1/28/98		5/18/98		2/16/99		5/19/99		2/15/00		2/13/01		2/25/02		6/25/02		2/10/03	
123		**PAHs (µg/L)**																								
124		**EPA Method SW8270 SIM**																								
125		Naphthalene	NA		NA		NA		NA		NA		0.10	U	NA		NA		NA		NA		NA		NA	
126		2-Methylnaphthalene	NA		NA		NA		NA		NA		0.10	U	NA		NA		NA		NA		NA		NA	
127		Acenaphthylene	NA		NA		NA		NA		NA		0.10	U	NA		NA		NA		NA		NA		NA	
128		Acenaphthene	NA		NA		NA		NA		NA		0.10	U	NA		NA		NA		NA		NA		NA	
129		Fluorene	NA		NA		NA		NA		NA		0.10	U	NA		NA		NA		NA		NA		NA	
130		Anthracene	NA		NA		NA		NA		NA		0.10	U	NA		NA		NA		NA		NA		NA	
131		Dibenzofuran	NA		NA		NA		NA		NA		0.10	U	NA		NA		NA		NA		NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y
1																									
2																									
3			LW102S		LW102S		LW102S		LW102S		LW102S		LW102S		LW102S		LW102S		LW102S		LW102S		LW102S		LW102S
4			S167D		T160E		U235B		V211B		W371B		Z960S		AH76L		BH75B		CT37H		ED16B		EM75B		FF48C
5			3/31/97		7/14/97		10/21/97		1/27/98		5/18/98		2/16/99		5/19/99		2/15/00		2/13/01		2/25/02		6/25/02		2/10/03
7	1	**CHLORINATED PHENOLS (µg/L)**																							
8	2	**EPA Method SW8040**																							
9	3	Pentachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		**0.66**		**0.31**		0.25	U	**0.28**		0.25	U	0.25
10	4	2,4,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		0.25	U	0.25	U	NA		NA		NA		NA
11	5	2,3,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		0.25	U	0.25	U	NA		NA		NA		NA
12	6	2,4,5-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		0.25	U	0.25	U	NA		NA		NA		NA
13	7	2,3,4-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		0.25	U	0.25	U	NA		NA		NA		NA
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		0.25	U	0.25	U	NA		NA		NA		NA
15	9	2,3,4,5-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		0.25	U	0.25	U	NA		NA		NA		NA
16	10																								
17	11	**SEMIVOLATILES (µg/L)**																							
18	12	**EPA Method SW8270**																							
19	13	Phenol	2.0	U	2.0	U	2.0	UJ	2.0	U	NA		NA		2.0	U	2.0	U	2.0	U	2.0	U	NA		2
20	14	4-Methylphenol	1.0	U	1.0	U	1.0	UJ	1.0	U	NA		NA		1.0	U	1.0	U	**3.5**		1.0	U	NA		**6.8**
21	15	Isophorone	1.0	U	1.0	U	1.0	UJ	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1
22	16	2,4-Dimethylphenol	3.0	U	3.0	U	3.0	UJ	3.0	U	NA		NA		3.0	U	3.0	U	3.0	U	3.0	U	NA		3
23	17	Benzoic Acid	10	U	10	U	10	UJ	10	U	NA		NA		10	U	10	U	10	U	50	U	NA		50
24	18	Naphthalene	1.0	U	1.0	U	1.0	UJ	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1
25	19	2-Methylnaphthalene	1.0	U	1.0	U	1.0	UJ	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1
26	20	2,4,6-Trichlorophenol	5.0	U	5.0	U	5.0	UJ	5.0	U	NA		NA		5.0	U	5.0	U	5.0	U	5.0	U	NA		5
27	21	2,4,5-Trichlorophenol	5.0	U	5.0	U	5.0	UJ	5.0	U	NA		NA		5.0	U	5.0	U	5.0	U	5.0	U	NA		5
28	22	Acenaphthene	1.0	U	1.0	U	1.0	UJ	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1
29	23	Dibenzofuran	1.0	U	1.0	U	1.0	UJ	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1
30	24	Fluorene	1.0	U	1.0	U	1.0	UJ	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1
31	25	Pentachlorophenol	5.0	U	5.0	U	5.0	UJ	5.0	U	NA		NA		5.0	U	5.0	U	5.0	U	5.0	U	NA		5
32	26	bis(2-Ethylhexyl)phthalate	1.0	UJ	1.0	U	1.3	UJ	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	4.0	U	NA		1
33	27																								
34	28	**VOLATILES (µg/L)**																							
35	29	**EPA Method SW8260**																							
36	30	Acetone	5.0	U	5.0	U	5.0	U	5.0	U	NA		NA		5.0	U	5.0	U	160	U	**7.9**		NA		**15**
37	31	Carbon Disulfide	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1
38	32	2-Butanone	5.0	U	5.0	U	5.0	U	5.0	U	NA		NA		5.0	U	5.0	U	5.0	U	5.0	U	NA		5
39	33	Benzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1
40	34	Bromoform	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1
41	35	Toluene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1
42	36	Ethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1
43	37	Styrene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1
44	38	m,p-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1
45	39	o-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1
46	40	1,3,5-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1
47	41	1,2,4-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1
48	42	Isopropylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1
49	43	n-Propylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1
50	44	tert-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1
51	45	sec-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1
52	46	4-Isopropyltoluene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1
53	47	n-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1
54	48	Naphthalene	5.0	U	5.0	U	5.0	U	5.0	U	NA		NA		5.0	U	5.0	U	5.0	U	5.0	U	NA		5
55	48.5	Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
56	49																								
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																							
58	51	**Method OR-DEQ**																							
59	52	**TPH-Diesel**	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		0.25	U	0.25	U	0.25	U	0.25	U	NA		0.25
60	53	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
61	54	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
62	55																								
63	56	**PRIORITY POLLUTANT**																							
64	57	**METALS (mg/L)**																							
65	58	Arsenic (7060)	0.001	U	**0.002**		0.05	U	0.05	U	**0.001**		0.001	U	0.001	U	0.001	U	**0.001**		0.001	U	NA		0.001

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	Z
1		
2		
3		
4		
5		
7	**CHLORINATED PHENOLS (µg/L)**	
8	**EPA Method SW8040**	
9	Pentachlorophenol	U
10	2,4,6-Trichlorophenol	
11	2,3,6-Trichlorophenol	
12	2,4,5-Trichlorophenol	
13	2,3,4-Trichlorophenol	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	
15	2,3,4,5-Tetrachlorophenol	
16		
17	**SEMIVOLATILES (µg/L)**	
18	**EPA Method SW8270**	
19	Phenol	U
20	4-Methylphenol	
21	Isophorone	U
22	2,4-Dimethylphenol	U
23	Benzoic Acid	U
24	Naphthalene	U
25	2-Methylnaphthalene	U
26	2,4,6-Trichlorophenol	U
27	2,4,5-Trichlorophenol	U
28	Acenaphthene	U
29	Dibenzofuran	U
30	Fluorene	U
31	Pentachlorophenol	U
32	bis(2-Ethylhexyl)phthalate	U
33		
34	**VOLATILES (µg/L)**	
35	**EPA Method SW8260**	
36	Acetone	
37	Carbon Disulfide	U
38	2-Butanone	U
39	Benzene	U
40	Bromoform	U
41	Toluene	U
42	Ethylbenzene	U
43	Styrene	U
44	m,p-Xylene	U
45	o-Xylene	U
46	1,3,5-Trimethylbenzene	U
47	1,2,4-Trimethylbenzene	U
48	Isopropylbenzene	U
49	n-Propylbenzene	U
50	tert-Butylbenzene	U
51	sec-Butylbenzene	U
52	4-Isopropyltoluene	U
53	n-Butylbenzene	U
54	Naphthalene	U
55	Methyl tert-butyl ether	
56		
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**	
58	**Method OR-DEQ**	
59	**TPH-Diesel**	U
60	**TPH-D Motor Oil**	
61	**TPH-Gasoline**	
62		
63	**PRIORITY POLLUTANT**	
64	**METALS (mg/L)**	
65	Arsenic (7060)	U

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y
1																									
2																									
3			LW102S		LW102S		LW102S		LW102S		LW102S		LW102S		LW102S		LW102S		LW102S		LW102S		LW102S		LW102S
4			S167D		T160E		U235B		V211B		W371B		Z960S		AH76L		BH75B		CT37H		ED16B		EM75B		FF48C
5			3/31/97		7/14/97		10/21/97		1/27/98		5/18/98		2/16/99		5/19/99		2/15/00		2/13/01		2/25/02		6/25/02		2/10/03
66	59	Chromium (6010)	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	NA		0.005
67	60	Copper (6010)	**0.003**		**0.002**		0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	**0.002**		0.002	U	0.002	U	NA		**0.005**
68	61	Lead (7421)	0.001	U	**0.002**		0.02	U	0.02	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	NA		0.001
69	62	Nickel (6010)	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	NA		0.01
70	63	Zinc (6010)	**0.008**		**0.009**		0.004	U	0.004	U	**0.014**	J2	**0.008**	J	0.004	U	0.006	U	0.006	U	0.006	U	NA		0.006
71	64																								
72	65	**MAJOR IONS AND CONVENTIONALS**																							
73	66	Calcium (mg/L) (6010)	**14.6**		**14.1**		**12.6**		**18.5**		NA		NA		NA		NA		NA		**8.93**		NA		**9.42**
74	67	Magnesium (mg/L) (6010)	**5.39**		**5.64**		**4.87**		**6.76**		NA		NA		NA		NA		NA		**3.65**		NA		**3.85**
75	68	Potassium (mg/L) (6010)	**2.4**		**2.6**		**2.5**		**2.0**		NA		NA		NA		NA		NA		**1.6**		NA		**1.5**
76	69	Sodium (mg/L) (6010)	**6.16**		**5.94**		**6.18**		**7.92**		NA		NA		NA		NA		NA		**5.36**		NA		**5.2**
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	**62**		**67**		**61**		**110**		NA		NA		NA		NA		NA		**46**		NA		**47**
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		1.0	U	NA		1
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	**62**		**67**		**61**		**110**		NA		NA		NA		NA		NA		**46**		NA		**47**
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	NT		**110**		**120**		**120**		NA		NA		**83**		**72**		**120**		**80**		NA		**84**
81	74	Chloride (mg/L) (EPA 325.2)	**4.2**	J	**3.0**		**1.9**		**4.4**		NA		NA		**1.6**		**1.5**		**1.3**		**2.5**		NA		**2.2**
82	75	N-Nitrate (mg-N/L) (Calculated)	**0.12**	J	**0.083**		**0.023**		**0.78**	J2	NA		NA		NA		NA		NA		**0.21**		NA		**0.66**
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	0.010	U	0.010	U	0.010	U	0.010	UJ	NA		NA		NA		NA		NA		0.010	U	NA		0.01
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	**0.12**	J	**0.083**		**0.023**		**0.78**	J2	NA		NA		NA		NA		NA		**0.21**		NA		**0.66**
85	78	Sulfate (mg/L) (EPA 375.2)	**4.5**	J	**4.7**		**3.2**		**6.0**		NA		NA		NA		NA		NA		**5.1**		NA		**6.1**
86	79																								

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	Z
1		
2		
3		
4		
5		
66	Chromium (6010)	U
67	Copper (6010)	
68	Lead (7421)	U
69	Nickel (6010)	U
70	Zinc (6010)	U
71		
72	**MAJOR IONS AND CONVENTIONALS**	
73	Calcium (mg/L) (6010)	
74	Magnesium (mg/L) (6010)	
75	Potassium (mg/L) (6010)	
76	Sodium (mg/L) (6010)	
77	Alkalinity (mg/L CaCO3) (SM 2320)	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	U
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	
80	Total Dissolved Solids (mg/L) (EPA 160.1)	
81	Chloride (mg/L) (EPA 325.2)	
82	N-Nitrate (mg-N/L) (Calculated)	
83	N-Nitrite (mg-N/L) (EPA 354.1)	U
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	
85	Sulfate (mg/L) (EPA 375.2)	
86		

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y
1																									
2																									
3			LW102S		LW102S		LW102S		LW102S		LW102S		LW102S		LW102S		LW102S		LW102S		LW102S		LW102S		LW102S
4			S167D		T160E		U235B		V211B		W371B		Z960S		AH76L		BH75B		CT37H		ED16B		EM75B		FF48C
5			3/31/97		7/14/97		10/21/97		1/27/98		5/18/98		2/16/99		5/19/99		2/15/00		2/13/01		2/25/02		6/25/02		2/10/03
87	80	**FIELD PARAMETERS**																							
88	81	pH (avg)	6.63		6.60		6.76		6.60		6.06		6.71		6.04		6.59		5.63		6.13		5.24		6.74
89	82	Temperature (° C) (avg)	10.6		19.0		16.8		9.8		14.4		9.3		13.5		10.0		9.5		9.1		14.5		11
90	83	Conductivity (um/hos)	136		158		133		188		129		100		87		94		127		90		91		104
91	84	Dissolved oxygen (mg/L) (avg)									2.82		5.70		3.14		3.51		1.74		7.06		4.96		2.17
92	85																								
93	86	**DIOXINS AND FURANS (ng/L)**																							
94	87	**Method 8290**																							
95	88	2,3,7,8-TCDF	0.0026	U	0.0011	U	0.0024	U	0.0018	U	NA		NA		NA		NA		NA		NA		NA		NA
96	89	Total TCDF	0.0013-0.0048	U	0.0006-0.0058	U	0.0012-0.0052	U	0.0018	U	NA		NA		NA		NA		NA		NA		NA		NA
97	90	2,3,7,8-TCDD	0.0033	U	0.0023	U	0.0055	U	0.0037	U	NA		NA		NA		NA		NA		NA		NA		NA
98	91	Total TCDD	0.0023-0.0075	U	0.008-0.0068	U	0.0018-0.0090	U	0.0037	U	NA		NA		NA		NA		NA		NA		NA		NA
99	92	1,2,3,7,8-PeCDF	0.0027	U	0.0045	U	0.0020	U	0.0018	U	NA		NA		NA		NA		NA		NA		NA		NA
100	93	2,3,4,7,8-PeCDF	0.0025	U	0.0031	U	0.0021	U	0.0024	U	NA		NA		NA		NA		NA		NA		NA		NA
101	94	Total PeCDF	0.0013-0.0078	U	0.0014-0.0088	U	0.0015-0.0068	U	0.0021	U	NA		NA		NA		NA		NA		NA		NA		NA
102	95	1,2,3,7,8-PeCDD	0.0061	U	0.0077	U	0.0040	U	0.0057	U	NA		NA		NA		NA		NA		NA		NA		NA
103	96	Total PeCDD	0.0030-0.011	U	0.0023-0.0093	U	0.0016-0.0092	U	0.0057	U	NA		NA		NA		NA		NA		NA		NA		NA
104	97	1,2,3,4,7,8-HxCDF	0.0031	U	0.0034	U	0.0067	U	0.0021	U	NA		NA		NA		NA		NA		NA		NA		NA
105	98	1,2,3,6,7,8-HxCDF	0.0043	U	0.0031	U	0.0048	U	0.0019	U	NA		NA		NA		NA		NA		NA		NA		NA
106	99	2,3,4,6,7,8-HxCDF	0.0053	U	0.0031	U	0.0048	U	0.0036	U	NA		NA		NA		NA		NA		NA		NA		NA
107	100	1,2,3,7,8,9-HxCDF	0.0049	U	0.0049	U	0.0020	U	0.0031	U	NA		NA		NA		NA		NA		NA		NA		NA
108	101	Total HxCDF	0.0053	U	0.0020-0.0066	U	0.0048	U	0.0057	U	NA		NA		NA		NA		NA		NA		NA		NA
109	102	1,2,3,4,7,8-HxCDD	0.0054	U	0.0030	U	0.0073	U	0.0034	U	NA		NA		NA		NA		NA		NA		NA		NA
110	103	1,2,3,6,7,8-HxCDD	0.0068	U	0.0056	U	0.0084	U	0.0041	U	NA		NA		NA		NA		NA		NA		NA		NA
111	104	1,2,3,7,8,9-HxCDD	0.0073	U	0.0084	U	0.0039	U	0.0019	U	NA		NA		NA		NA		NA		NA		NA		NA
112	105	Total HxCDD	0.0030-0.010	U	0.0023-0.0084	U	0.0029-0.013	U	0.0031	U	NA		NA		NA		NA		NA		NA		NA		NA
113	106	1,2,3,4,6,7,8-HpCDF	0.0044	U	**0.0016**		0.0047	U	0.0160	U	NA		NA		NA		NA		NA		NA		NA		NA
114	107	1,2,3,4,7,8,9-HpCDF	0.0073	U	0.0063	U	0.0077	U	0.0052	U	NA		NA		NA		NA		NA		NA		NA		NA
115	108	Total HpCDF	**0.0062**		**0.0043**		0.0150	U	0.0106	U	NA		NA		NA		NA		NA		NA		NA		NA
116	109	1,2,3,4,6,7,8-HpCDD	0.0110	U	0.0065	U	**0.0180**		0.0070	U	NA		NA		NA		NA		NA		NA		NA		NA
117	110	Total HpCDD	0.0170	U	0.0024-0.0092	U	**0.0310**		0.0070	U	NA		NA		NA		NA		NA		NA		NA		NA
118	111	OCDF	**0.0100**		**0.0062**		0.0170	U	**0.0074**		NA		NA		NA		NA		NA		NA		NA		NA
119	112	OCDD	0.0710	U	0.0280	U	**0.1200**		0.0390	U	NA		NA		NA		NA		NA		NA		NA		NA
120																									
121		**ETHANOL (mg/L)**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
122																									

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	Z
1		
2		
3		
4		
5		
87	**FIELD PARAMETERS**	
88	pH (avg)	
89	Temperature (° C) (avg)	
90	Conductivity (um/hos)	
91	Dissolved oxygen (mg/L) (avg)	
92		
93	**DIOXINS AND FURANS (ng/L)**	
94	**Method 8290**	
95	2,3,7,8-TCDF	
96	Total TCDF	
97	2,3,7,8-TCDD	
98	Total TCDD	
99	1,2,3,7,8-PeCDF	
100	2,3,4,7,8-PeCDF	
101	Total PeCDF	
102	1,2,3,7,8-PeCDD	
103	Total PeCDD	
104	1,2,3,4,7,8-HxCDF	
105	1,2,3,6,7,8-HxCDF	
106	2,3,4,6,7,8-HxCDF	
107	1,2,3,7,8,9-HxCDF	
108	Total HxCDF	
109	1,2,3,4,7,8-HxCDD	
110	1,2,3,6,7,8-HxCDD	
111	1,2,3,7,8,9-HxCDD	
112	Total HxCDD	
113	1,2,3,4,6,7,8-HpCDF	
114	1,2,3,4,7,8,9-HpCDF	
115	Total HpCDF	
116	1,2,3,4,6,7,8-HpCDD	
117	Total HpCDD	
118	OCDF	
119	OCDD	
120		
121	**ETHANOL (mg/L)**	
122		

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y
1																									
2																									
3			LW102S		LW102S		LW102S		LW102S		LW102S		LW102S		LW102S		LW102S		LW102S		LW102S		LW102S		LW102S
4			S167D		T160E		U235B		V211B		W371B		Z960S		AH76L		BH75B		CT37H		ED16B		EM75B		FF48C
5			3/31/97		7/14/97		10/21/97		1/27/98		5/18/98		2/16/99		5/19/99		2/15/00		2/13/01		2/25/02		6/25/02		2/10/03
123		**PAHs (µg/L)**																							
124		**EPA Method SW8270 SIM**																							
125		Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
126		2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
127		Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
128		Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
129		Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
130		Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
131		Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	Z
1		
2		
3		
4		
5		
123	**PAHs (µg/L)**	
124	**EPA Method SW8270 SIM**	
125	Naphthalene	
126	2-Methylnaphthalene	
127	Acenaphthylene	
128	Acenaphthene	
129	Fluorene	
130	Anthracene	
131	Dibenzofuran	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1																										
2																									Dup of LW103S	
3			LW103S		LW103S		LW103S		LW103S		LW103S		LW103S		LW103S		LW103S		LW103S		LW103S		LW103S		LW13D	
4			S167B		T160C		U235D		V211A		W371D		Z960U		AH76N		BH75C		CT37K		ED16D		EM75D		EM75I	
5			3/31/97		7/14/97		10/21/97		1/27/98		5/18/98		2/16/99		5/19/99		2/15/00		2/13/01		2/25/02		6/25/02		6/25/02	
7	1	**CHLORINATED PHENOLS (µg/L)**																								
8	2	**EPA Method SW8040**																								
9	3	Pentachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		0.25	U	0.25	U	0.25	U	**0.58**		0.25	U	0.25	U
10	4	2,4,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		0.25	U	0.25	U	NA		NA		NA		NA	
11	5	2,3,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		0.25	U	0.25	U	NA		NA		NA		NA	
12	6	2,4,5-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		0.25	U	0.25	U	NA		NA		NA		NA	
13	7	2,3,4-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		0.25	U	0.25	U	NA		NA		NA		NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		0.25	U	0.25	U	NA		NA		NA		NA	
15	9	2,3,4,5-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		0.25	U	0.25	U	NA		NA		NA		NA	
16	10																									
17	11	**SEMIVOLATILES (µg/L)**																								
18	12	**EPA Method SW8270**																								
19	13	Phenol	2.0	U	2.0	U	2.0	U	2.0	U	NA		NA		2.0	U	2.0	U	2.0	U	2.0	U	NA		NA	
20	14	4-Methylphenol	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		NA	
21	15	Isophorone	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		NA	
22	16	2,4-Dimethylphenol	3.0	U	3.0	U	3.0	U	3.0	U	NA		NA		3.0	U	3.0	U	3.0	U	3.0	U	NA		NA	
23	17	Benzoic Acid	10	U	10	U	10	U	10	U	NA		NA		10	U	10	U	10	U	50	U	NA		NA	
24	18	Naphthalene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		NA	
25	19	2-Methylnaphthalene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		NA	
26	20	2,4,6-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	NA		NA		5.0	U	5.0	U	5.0	U	5.0	U	NA		NA	
27	21	2,4,5-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	NA		NA		5.0	U	5.0	U	5.0	U	5.0	U	NA		NA	
28	22	Acenaphthene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		NA	
29	23	Dibenzofuran	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		NA	
30	24	Fluorene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		NA	
31	25	Pentachlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	NA		NA		5.0	U	5.0	U	5.0	U	5.0	U	NA		NA	
32	26	bis(2-Ethylhexyl)phthalate	1.0	UJ	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	4.0	U	NA		NA	
33	27																									
34	28	**VOLATILES (µg/L)**																								
35	29	**EPA Method SW8260**																								
36	30	Acetone	5.0	U	5.0	U	5.0	U	5.0	U	NA		NA		5.0	U	5.0	U	9.1	U	5.0	U	NA		NA	
37	31	Carbon Disulfide	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		NA	
38	32	2-Butanone	5.0	U	5.0	U	5.0	U	5.0	U	NA		NA		5.0	U	5.0	U	5.0	U	5.0	U	NA		NA	
39	33	Benzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		NA	
40	34	Bromoform	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		NA	
41	35	Toluene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		NA	
42	36	Ethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		NA	
43	37	Styrene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		NA	
44	38	m,p-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		NA	
45	39	o-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		NA	
46	40	1,3,5-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		NA	
47	41	1,2,4-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		NA	
48	42	Isopropylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		NA	
49	43	n-Propylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		NA	
50	44	tert-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		NA	
51	45	sec-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		NA	
52	46	4-Isopropyltoluene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		NA	
53	47	n-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		NA	
54	48	Naphthalene	5.0	U	5.0	U	5.0	U	5.0	U	NA		NA		5.0	U	5.0	U	5.0	U	5.0	U	NA		NA	
55	48.5	Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
56	49																									
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																								
58	51	**Method OR-DEQ**																								
59	52	**TPH-Diesel**	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		0.25	U	0.25	U	0.25	U	0.25	U	NA		NA	
60	53	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
61	54	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
62	55																									
63	56	**PRIORITY POLLUTANT**																								
64	57	**METALS (mg/L)**																								
65	58	Arsenic (7060)	**0.007**		**0.011**		0.05	U	0.05	U	**0.010**		**0.009**		**0.011**		**0.019**		**0.008**		**0.013**		NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AA	AB
1			
2			
3		LW103S	
4		FF48E	
5		2/10/03	
7	**CHLORINATED PHENOLS (µg/L)**		
8	**EPA Method SW8040**		
9	Pentachlorophenol	0.25	U
10	2,4,6-Trichlorophenol	NA	
11	2,3,6-Trichlorophenol	NA	
12	2,4,5-Trichlorophenol	NA	
13	2,3,4-Trichlorophenol	NA	
14	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	NA	
15	2,3,4,5-Tetrachlorophenol	NA	
16			
17	**SEMIVOLATILES (µg/L)**		
18	**EPA Method SW8270**		
19	Phenol	2	U
20	4-Methylphenol	1	U
21	Isophorone	1	U
22	2,4-Dimethylphenol	3	U
23	Benzoic Acid	50	U
24	Naphthalene	1	U
25	2-Methylnaphthalene	1	U
26	2,4,6-Trichlorophenol	5	U
27	2,4,5-Trichlorophenol	5	U
28	Acenaphthene	1	U
29	Dibenzofuran	1	U
30	Fluorene	1	U
31	Pentachlorophenol	5	U
32	bis(2-Ethylhexyl)phthalate	1	U
33			
34	**VOLATILES (µg/L)**		
35	**EPA Method SW8260**		
36	Acetone	5	U
37	Carbon Disulfide	1	U
38	2-Butanone	5	U
39	Benzene	1	U
40	Bromoform	1	U
41	Toluene	1	U
42	Ethylbenzene	1	U
43	Styrene	1	U
44	m,p-Xylene	1	U
45	o-Xylene	1	U
46	1,3,5-Trimethylbenzene	1	U
47	1,2,4-Trimethylbenzene	1	U
48	Isopropylbenzene	1	U
49	n-Propylbenzene	1	U
50	tert-Butylbenzene	1	U
51	sec-Butylbenzene	1	U
52	4-Isopropyltoluene	1	U
53	n-Butylbenzene	1	U
54	Naphthalene	5	U
55	Methyl tert-butyl ether	NA	
56			
57	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**		
58	**Method OR-DEQ**		
59	**TPH-Diesel**	0.25	U
60	**TPH-D Motor Oil**	NA	
61	**TPH-Gasoline**	NA	
62			
63	**PRIORITY POLLUTANT**		
64	**METALS (mg/L)**		
65	Arsenic (7060)	**0.008**	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

1																										
2																										Dup of LW103S
3			LW103S		LW103S		LW103S		LW103S		LW103S		LW103S		LW103S		LW103S		LW103S		LW103S		LW103S		LW103S	LW13D
4			S167B		T160C		U235D		V211A		W371D		Z960U		AH76N		BH75C		CT37K		ED16D		EM75D		EM75I	
5			3/31/97		7/14/97		10/21/97		1/27/98		5/18/98		2/16/99		5/19/99		2/15/00		2/13/01		2/25/02		6/25/02		6/25/02	
66	59	Chromium (6010)	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	NA		NA	
67	60	Copper (6010)	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	**0.007**		0.002	U	**0.003**		NA		NA	
68	61	Lead (7421)	0.001	U	**0.001**		0.02	U	0.02	U	0.001	U	0.001	U	0.001	U	**0.003**		0.001	U	0.001	U	NA		NA	
69	62	Nickel (6010)	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	NA		NA	
70	63	Zinc (6010)	**0.005**		**0.008**		**0.004**		**0.005**		**0.006**	J2	**0.007**	J	0.004	U	**0.010**		0.006	U	0.006	U	NA		NA	
71	64																									
72	65	**MAJOR IONS AND CONVENTIONALS**																								
73	66	Calcium (mg/L) (6010)	**13.5**		**19**		**15.6**		**16.0**		NA		NA		NA		NA		NA		**17.0**		NA		NA	
74	67	Magnesium (mg/L) (6010)	**5.02**		**6.95**		**5.65**		**5.89**		NA		NA		NA		NA		NA		**6.51**		NA		NA	
75	68	Potassium (mg/L) (6010)	**1.8**		**2.0**		**2.0**		**1.3**		NA		NA		NA		NA		NA		**1.7**		NA		NA	
76	69	Sodium (mg/L) (6010)	**4.93**		**5.35**		**5.11**		**5.99**		NA		NA		NA		NA		NA		**5.57**		NA		NA	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	**95**		**84**		**71**		**84**		NA		NA		NA		NA		NA		**83**		NA		NA	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		1.0	U	NA		NA	
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	**95**		**84**		**71**		**84**		NA		NA		NA		NA		NA		**83**		NA		NA	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	NT		**130**		**100**		**110**		NA		NA		**110**		**97**		**130**		**110**		NA		NA	
81	74	Chloride (mg/L) (EPA 325.2)	**2.2**	J	**2.5**		**1.7**		**1.3**		NA		NA		**1.7**		**2.3**		**2.5**		**2.3**		NA		NA	
82	75	N-Nitrate (mg-N/L) (Calculated)	0.010	U	0.010	U	**0.036**		**0.057**	J2	NA		NA		NA		NA		NA		**0.093**		NA		NA	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	0.010	U	**0.017**		**0.016**		0.010	UJ	NA		NA		NA		NA		NA		0.010	U	NA		NA	
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	0.010	U	0.010	U	**0.052**		**0.057**	J2	NA		NA		NA		NA		NA		**0.093**		NA		NA	
85	78	Sulfate (mg/L) (EPA 375.2)	**5.5**	J	**4.6**		**2.6**		2.5	U	NA		NA		NA		NA		NA		**2.9**		NA		NA	
86	79																									

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AA	AB
1			
2			
3		LW103S	
4		FF48E	
5		2/10/03	
66	Chromium (6010)	0.005	U
67	Copper (6010)	0.002	U
68	Lead (7421)	0.001	U
69	Nickel (6010)	0.01	U
70	Zinc (6010)	0.006	U
71			
72	**MAJOR IONS AND CONVENTIONALS**		
73	Calcium (mg/L) (6010)	**15.4**	
74	Magnesium (mg/L) (6010)	**5.89**	
75	Potassium (mg/L) (6010)	**1.4**	
76	Sodium (mg/L) (6010)	**6.7**	
77	Alkalinity (mg/L CaCO3) (SM 2320)	**100**	
78	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	1	U
79	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	**100**	
80	Total Dissolved Solids (mg/L) (EPA 160.1)	**110**	
81	Chloride (mg/L) (EPA 325.2)	**2.8**	
82	N-Nitrate (mg-N/L) (Calculated)	**0.2**	
83	N-Nitrite (mg-N/L) (EPA 354.1)	0.01	U
84	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	**0.2**	
85	Sulfate (mg/L) (EPA 375.2)	**8.6**	
86			

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1																										
2																									Dup of LW103S	
3			LW103S		LW103S		LW103S		LW103S		LW103S		LW103S		LW103S		LW103S		LW103S		LW103S		LW103S		LW13D	
4			S167B		T160C		U235D		V211A		W371D		Z960U		AH76N		BH75C		CT37K		ED16D		EM75D		EM75I	
5			3/31/97		7/14/97		10/21/97		1/27/98		5/18/98		2/16/99		5/19/99		2/15/00		2/13/01		2/25/02		6/25/02		6/25/02	
87	80	**FIELD PARAMETERS**																								
88	81	pH (avg)	6.74		6.75		6.77		6.73		6.37		7.02		6.14		6.74		6.52		6.17		6.47		6.47	
89	82	Temperature (° C) (avg)	10.9		14.6		14.7		12.2		13.2		10.8		12.4		11.0		11.5		10.7		13.5		13.5	
90	83	Conductivity (um/hos)	157		222		180		198		214		128		174		135		160		170		187		188	
91	84	Dissolved oxygen (mg/L) (avg)									1.47		2.98		2.79		2.56		3.55		5.73		5.70		5.74	
92	85																									
93	86	**DIOXINS AND FURANS (ng/L)**																								
94	87	**Method 8290**																								
95	88	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
96	89	Total TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
97	90	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
98	91	Total TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
101	94	Total PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
103	96	Total PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
108	101	Total HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
112	105	Total HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
115	108	Total HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
117	110	Total HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
118	111	OCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
119	112	OCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
120																										
121		**ETHANOL (mg/L)**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
122																										

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AA	AB
1			
2			
3		LW103S	
4		FF48E	
5		2/10/03	
87	**FIELD PARAMETERS**		
88	pH (avg)	7.12	
89	Temperature (° C) (avg)	12.2	
90	Conductivity (um/hos)	184	
91	Dissolved oxygen (mg/L) (avg)	1.79	
92			
93	**DIOXINS AND FURANS (ng/L)**		
94	**Method 8290**		
95	2,3,7,8-TCDF	NA	
96	Total TCDF	NA	
97	2,3,7,8-TCDD	NA	
98	Total TCDD	NA	
99	1,2,3,7,8-PeCDF	NA	
100	2,3,4,7,8-PeCDF	NA	
101	Total PeCDF	NA	
102	1,2,3,7,8-PeCDD	NA	
103	Total PeCDD	NA	
104	1,2,3,4,7,8-HxCDF	NA	
105	1,2,3,6,7,8-HxCDF	NA	
106	2,3,4,6,7,8-HxCDF	NA	
107	1,2,3,7,8,9-HxCDF	NA	
108	Total HxCDF	NA	
109	1,2,3,4,7,8-HxCDD	NA	
110	1,2,3,6,7,8-HxCDD	NA	
111	1,2,3,7,8,9-HxCDD	NA	
112	Total HxCDD	NA	
113	1,2,3,4,6,7,8-HpCDF	NA	
114	1,2,3,4,7,8,9-HpCDF	NA	
115	Total HpCDF	NA	
116	1,2,3,4,6,7,8-HpCDD	NA	
117	Total HpCDD	NA	
118	OCDF	NA	
119	OCDD	NA	
120			
121	**ETHANOL (mg/L)**	NA	
122			

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1																										
2																									Dup of LW103S	
3			LW103S		LW103S		LW103S		LW103S		LW103S		LW103S		LW103S		LW103S		LW103S		LW103S		LW103S		LW13D	
4			S167B		T160C		U235D		V211A		W371D		Z960U		AH76N		BH75C		CT37K		ED16D		EM75D		EM75I	
5			3/31/97		7/14/97		10/21/97		1/27/98		5/18/98		2/16/99		5/19/99		2/15/00		2/13/01		2/25/02		6/25/02		6/25/02	
123		**PAHs (µg/L)**																								
124		**EPA Method SW8270 SIM**																								
125		Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
126		2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
127		Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
128		Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
129		Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
130		Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
131		Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	B	AA	AB
1			
2			
3		LW103S	
4		FF48E	
5		2/10/03	
123	**PAHs (µg/L)**		
124	**EPA Method SW8270 SIM**		
125	Naphthalene	NA	
126	2-Methylnaphthalene	NA	
127	Acenaphthylene	NA	
128	Acenaphthene	NA	
129	Fluorene	NA	
130	Anthracene	NA	
131	Dibenzofuran	NA	

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1																										
2																										
3			LW104S		LW104S		LW104S		LW104S		LW104S		LW104S		LW104S		LW104S		LW104S		LW104S		LW104S		LW104S	
4			S167A		T160B		U235A		V208A		W371A		Z960R		AH76K		BH75D		CT37G		ED16A		EM75A		FF48B	
5			3/31/97		7/14/97		10/21/97		1/28/98		5/18/98		2/16/99		5/19/99		2/15/00		2/13/01		2/25/02		6/25/02		2/10/03	
7	1	**CHLORINATED PHENOLS (µg/L)**																								
8	2	**EPA Method SW8040**																								
9	3	Pentachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		0.25	U	0.25	U	0.25	U	**0.77**		0.25	U	0.25	U
10	4	2,4,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		0.25	U	0.25	U	NA		NA		NA		NA	
11	5	2,3,6-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		0.25	U	0.25	U	NA		NA		NA		NA	
12	6	2,4,5-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		0.25	U	0.25	U	NA		NA		NA		NA	
13	7	2,3,4-Trichlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		0.25	U	0.25	U	NA		NA		NA		NA	
14	8	2,3,5,6- and 2,3,4,6-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		0.25	U	0.25	U	NA		NA		NA		NA	
15	9	2,3,4,5-Tetrachlorophenol	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		0.25	U	0.25	U	NA		NA		NA		NA	
16	10																									
17	11	**SEMIVOLATILES (µg/L)**																								
18	12	**EPA Method SW8270**																								
19	13	Phenol	2.0	U	2.0	U	2.0	U	2.0	U	NA		NA		2.0	U	2.0	U	2.0	U	2.0	U	NA		2	U
20	14	4-Methylphenol	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1	U
21	15	Isophorone	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1	U
22	16	2,4-Dimethylphenol	3.0	U	3.0	U	3.0	U	3.0	U	NA		NA		3.0	U	3.0	U	3.0	U	3.0	U	NA		3	U
23	17	Benzoic Acid	10	U	10	U	10	U	10	U	NA		NA		10	U	10	U	10	U	50	U	NA		50	U
24	18	Naphthalene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1	U
25	19	2-Methylnaphthalene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1	U
26	20	2,4,6-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	NA		NA		5.0	U	5.0	U	5.0	U	5.0	U	NA		5	U
27	21	2,4,5-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	NA		NA		5.0	U	5.0	U	5.0	U	5.0	U	NA		5	U
28	22	Acenaphthene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1	U
29	23	Dibenzofuran	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1	U
30	24	Fluorene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1	U
31	25	Pentachlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	NA		NA		5.0	U	5.0	U	5.0	U	5.0	U	NA		5	U
32	26	bis(2-Ethylhexyl)phthalate	1.0	UJ	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	**2.0**		**10**		NA		1	U
33	27																									
34	28	**VOLATILES (µg/L)**																								
35	29	**EPA Method SW8260**																								
36	30	Acetone	5.0	U	5.0	U	5.0	U	5.0	U	NA		NA		5.0	U	5.0	U	8.9	U	5.0	U	NA		5	U
37	31	Carbon Disulfide	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1	U
38	32	2-Butanone	5.0	U	5.0	U	5.0	U	5.0	U	NA		NA		5.0	U	5.0	U	5.0	U	5.0	U	NA		5	U
39	33	Benzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1	U
40	34	Bromoform	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1	U
41	35	Toluene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1	U
42	36	Ethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1	U
43	37	Styrene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1	U
44	38	m,p-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1	U
45	39	o-Xylene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1	U
46	40	1,3,5-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1	U
47	41	1,2,4-Trimethylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1	U
48	42	Isopropylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1	U
49	43	n-Propylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1	U
50	44	tert-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1	U
51	45	sec-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1	U
52	46	4-Isopropyltoluene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1	U
53	47	n-Butylbenzene	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		1.0	U	1.0	U	1.0	U	1.0	U	NA		1	U
54	48	Naphthalene	5.0	U	5.0	U	5.0	U	5.0	U	NA		NA		5.0	U	5.0	U	5.0	U	5.0	U	NA		5	U
55	48.5	Methyl tert-butyl ether	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
56	49																									
57	50	**TOTAL PETROLEUM HYDROCARBONS (mg/L)**																								
58	51	**Method OR-DEQ**																								
59	52	**TPH-Diesel**	0.25	U	0.25	U	0.25	U	0.25	U	NA		NA		0.25	U	0.25	U	**0.32**		0.25	U	NA		0.25	U
60	53	**TPH-D Motor Oil**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
61	54	**TPH-Gasoline**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
62	55																									
63	56	**PRIORITY POLLUTANT**																								
64	57	**METALS (mg/L)**																								
65	58	Arsenic (7060)	**0.002**		**0.003**		0.05	U	0.05	U	**0.002**		**0.002**		**0.001**		**0.002**		**0.002**		**0.002**		NA		**0.002**	

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TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1																										
2																										
3			LW104S		LW104S		LW104S		LW104S		LW104S		LW104S		LW104S		LW104S		LW104S		LW104S		LW104S		LW104S	
4			S167A		T160B		U235A		V208A		W371A		Z960R		AH76K		BH75D		CT37G		ED16A		EM75A		FF48B	
5			3/31/97		7/14/97		10/21/97		1/28/98		5/18/98		2/16/99		5/19/99		2/15/00		2/13/01		2/25/02		6/25/02		2/10/03	
66	59	Chromium (6010)	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	NA		0.005	U
67	60	Copper (6010)	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	NA		**0.028**	
68	61	Lead (7421)	0.001	U	0.001	U	0.02	U	0.02	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	NA		0.001	U
69	62	Nickel (6010)	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	NA		0.01	U
70	63	Zinc (6010)	0.004	U	**0.005**		0.004	U	0.004	U	0.004	U	**0.019**	J	0.004	U	**0.008**		0.006	U	0.006	U	NA		**0.018**	
71	64																									
72	65	**MAJOR IONS AND CONVENTIONALS**																								
73	66	Calcium (mg/L) (6010)	**17.6**		**16.1**		**20.9**		**13.0**		NA		NA		NA		NA		NA		**9.25**		NA		**15.7**	
74	67	Magnesium (mg/L) (6010)	**4.63**		**4.26**		**5.48**		**3.66**		NA		NA		NA		NA		NA		**2.88**		NA		**4.9**	
75	68	Potassium (mg/L) (6010)	**2.5**		**2.8**		**3.4**		**1.8**		NA		NA		NA		NA		NA		**1.8**		NA		**2.3**	
76	69	Sodium (mg/L) (6010)	**11.4**		**12.1**		**12.6**		**9.60**		NA		NA		NA		NA		NA		**7.09**		NA		**9.5**	
77	70	Alkalinity (mg/L CaCO3) (SM 2320)	**92**		**86**		**100**		**81**		NA		NA		NA		NA		NA		**53**		NA		**88**	
78	71	Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	1.0	U	1.0	U	1.0	U	1.0	U	NA		NA		NA		NA		NA		1.0	U	NA		1	U
79	72	Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	**92**		**86**		**100**		**81**		NA		NA		NA		NA		NA		**53**		NA		**88**	
80	73	Total Dissolved Solids (mg/L) (EPA 160.1)	NT		**140**		**160**	J2	**110**		NA		NA		**110**		**83**		**160**		**99**		NA		**120**	
81	74	Chloride (mg/L) (EPA 325.2)	**3.8**	J	**2.8**		**2.5**		**2.2**		NA		NA		**2.1**		**1.9**		**1.4**		**2.8**		NA		**3.3**	
82	75	N-Nitrate (mg-N/L) (Calculated)	0.010	U	0.010	U	**0.031**		**0.011**		NA		NA		NA		NA		NA		0.010	U	NA		**0.021**	
83	76	N-Nitrite (mg-N/L) (EPA 354.1)	0.010	U	**0.019**		0.010	U	0.010	U	NA		NA		NA		NA		NA		0.010	U	NA		0.01	U
84	77	Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	0.010	U	**0.011**		**0.031**		**0.011**		NA		NA		NA		NA		NA		0.010	U	NA		**0.021**	
85	78	Sulfate (mg/L) (EPA 375.2)	**4.2**	J	**5.7**		2.5	U	**8.0**		NA		NA		NA		NA		NA		**9.3**		NA		**9.3**	
86	79																									

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1																										
2																										
3			LW104S		LW104S		LW104S		LW104S		LW104S		LW104S		LW104S		LW104S		LW104S		LW104S		LW104S		LW104S	
4			S167A		T160B		U235A		V208A		W371A		Z960R		AH76K		BH75D		CT37G		ED16A		EM75A		FF48B	
5			3/31/97		7/14/97		10/21/97		1/28/98		5/18/98		2/16/99		5/19/99		2/15/00		2/13/01		2/25/02		6/25/02		2/10/03	
87	80	**FIELD PARAMETERS**																								
88	81	pH (avg)	6.75		6.80		6.77		6.85		6.39		7.19		6.32		6.88		6.05		6.15		5.43		7.28	
89	82	Temperature (° C) (avg)	9.7		15.1		15.9		11.9		12.1		10.7		12.4		10.5		11.4		11.1		13.8		12.3	
90	83	Conductivity (um/hos)	198		223		228		185		197		131		167		99		238		111		123		196	
91	84	Dissolved oxygen (mg/L) (avg)									1.75		1.45		1.45		2.00		1.48		5.18		4.26		1.67	
92	85																									
93	86	**DIOXINS AND FURANS (ng/L)**																								
94	87	**Method 8290**																								
95	88	2,3,7,8-TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
96	89	Total TCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
97	90	2,3,7,8-TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
98	91	Total TCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
99	92	1,2,3,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
100	93	2,3,4,7,8-PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
101	94	Total PeCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
102	95	1,2,3,7,8-PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
103	96	Total PeCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
104	97	1,2,3,4,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
105	98	1,2,3,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
106	99	2,3,4,6,7,8-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
107	100	1,2,3,7,8,9-HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
108	101	Total HxCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
109	102	1,2,3,4,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
110	103	1,2,3,6,7,8-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
111	104	1,2,3,7,8,9-HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
112	105	Total HxCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
113	106	1,2,3,4,6,7,8-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
114	107	1,2,3,4,7,8,9-HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
115	108	Total HpCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
116	109	1,2,3,4,6,7,8-HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
117	110	Total HpCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
118	111	OCDF	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
119	112	OCDD	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
120																										
121		**ETHANOL (mg/L)**	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
122																										

TABLE F-10
PHASE II REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
DETECTED CONSTITUENTS
APRIL 1997 - OCTOBER 2003
TIME OIL - NORTHWEST TERMINAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1																										
2																										
3			LW104S		LW104S		LW104S		LW104S		LW104S		LW104S		LW104S		LW104S		LW104S		LW104S		LW104S		LW104S	
4			S167A		T160B		U235A		V208A		W371A		Z960R		AH76K		BH75D		CT37G		ED16A		EM75A		FF48B	
5			3/31/97		7/14/97		10/21/97		1/28/98		5/18/98		2/16/99		5/19/99		2/15/00		2/13/01		2/25/02		6/25/02		2/10/03	
123		**PAHs (µg/L)**																								
124		**EPA Method SW8270 SIM**																								
125		Naphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
126		2-Methylnaphthalene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
127		Acenaphthylene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
128		Acenaphthene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
129		Fluorene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
130		Anthracene	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
131		Dibenzofuran	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	

	A	B	C
1			
2			
3			
4			
5			
6			
7		**CHLORINATED PHENOLS (µg/L)**	
8		**EPA Method SW8040**	
9	Pentachlorophenol	Pentachlorophenol	3
10		2,4,6-Trichlorophenol	
11		2,3,6-Trichlorophenol	
12		2,4,5-Trichlorophenol	
13		2,3,4-Trichlorophenol	
14		2,3,5,6- and 2,3,4,6-Tetrachlorophenol	
15		2,3,4,5-Tetrachlorophenol	
16			
17		**SEMIVOLATILES (µg/L)**	
18		**EPA Method SW8270**	
19	Phenol	Phenol	13
20	4-Methylphenol	4-Methylphenol	14
21	Isophorone	Isophorone	15
22	2,4-Dimethylphenol	2,4-Dimethylphenol	16
23	Benzoic Acid	Benzoic Acid	17
24	Naphthalene	Naphthalene	18
25	2-Methylnaphthalene	2-Methylnaphthalene	19
26	2,4,6-Trichlorophenol	2,4,6-Trichlorophenol	20
27	2,4,5-Trichlorophenol	2,4,5-Trichlorophenol	21
28	Acenaphthene	Acenaphthene	22
29	Dibenzofuran	Dibenzofuran	23
30	Fluorene	Fluorene	24
31	Pentachlorophenol	Pentachlorophenol	25
32	bis(2-Ethylhexyl)phthalate	bis(2-Ethylhexyl)phthalate	26
33			
34		**VOLATILES (µg/L)**	
35		**EPA Method SW8260**	
36	Acetone	Acetone	30
37	Carbon Disulfide	Carbon Disulfide	31
38	2-Butanone	2-Butanone	32
39	Benzene	Benzene	33
40	Bromoform	Bromoform	34
41	Toluene	Toluene	35
42	Ethylbenzene	Ethylbenzene	36
43	Styrene	Styrene	37
44	m,p-Xylene	m,p-Xylene	38
45	o-Xylene	o-Xylene	39
46	1,3,5-Trimethylbenzene	1,3,5-Trimethylbenzene	40
47	1,2,4-Trimethylbenzene	1,2,4-Trimethylbenzene	41
48	Isopropylbenzene	Isopropylbenzene	42
49	n-Propylbenzene	n-Propylbenzene	43
50	tert-Butylbenzene	tert-Butylbenzene	44
51	sec-Butylbenzene	sec-Butylbenzene	45
52	4-Isopropyltoluene	4-Isopropyltoluene	46
53	n-Butylbenzene	n-Butylbenzene	47
54	Naphthalene	Naphthalene	48
55	Methyl tert-butyl ether	Methyl tert-butyl ether	48.5
56			
57		**TOTAL PETROLEUM HYDROCARBONS (mg/L)**	
58		**Method OR-DEQ**	
59	Diesel Range Hydrocarbons	**TPH-Diesel**	52
60	Motor Oil	**TPH-D Motor Oil**	53
61	Gasoline Range Hydrocarbons	**TPH-Gasoline**	54
62			
63		**PRIORITY POLLUTANT**	
64		**METALS (mg/L)**	
65	Arsenic	Arsenic (7060)	58
66	Chromium	Chromium (6010)	59
67	Copper	Copper (6010)	60
68	Lead	Lead (7421)	61
69	Nickel	Nickel (6010)	62
70	Zinc	Zinc (6010)	63
71			
72		**MAJOR IONS AND CONVENTIONALS**	
73		Calcium (mg/L) (6010)	

	A	B	C
74		Magnesium (mg/L) (6010)	
75		Potassium (mg/L) (6010)	
76		Sodium (mg/L) (6010)	
77		Alkalinity (mg/L CaCO3) (SM 2320)	
78		Carbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	
79		Bicarbonate (Alkalinity) (mg/L CaCO3) (SM 2320)	
80	Total Dissolved Solids	Total Dissolved Solids (mg/L) (EPA 160.1)	73
81	Chloride	Chloride (mg/L) (EPA 325.2)	74
82		N-Nitrate (mg-N/L) (Calculated)	
83		N-Nitrite (mg-N/L) (EPA 354.1)	
84		Nitrate + Nitrite (NO2+NO3) (mg-N/L) (EPA 353.2)	
85		Sulfate (mg/L) (EPA 375.2)	
86			
87		**FIELD PARAMETERS**	
88	pH	pH (avg)	81
89	Temperature	Temperature (° C) (avg)	82
90	Conductivity	Conductivity (um/hos)	83
91	Dissolved oxygen	Dissolved oxygen (mg/L) (avg)	84
92			
93		**DIOXINS AND FURANS (ng/L)**	
94		**Method 8290**	
95		2,3,7,8-TCDF	88
96		TotalTCDF	89
97		2,3,7,8-TCDD	90
98		TotalTCDD	91
99		1,2,3,7,8-PeCDF	92
100		2,3,4,7,8-PeCDF	93
101		TotalPeCDF	94
102		1,2,3,7,8-PeCDD	95
103		TotalPeCDD	96
104		1,2,3,4,7,8-HxCDF	97
105		1,2,3,6,7,8-HxCDF	98
106		2,3,4,6,7,8-HxCDF	99
107		1,2,3,7,8,9-HxCDF	100
108		TotalHxCDF	101
109		1,2,3,4,7,8-HxCDD	102
110		1,2,3,6,7,8-HxCDD	103
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First Quarter 2004 Groundwater Monitoring and Groundwater Interim Action Status Report Time Oil Northwest Terminal Portland, Oregon

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1.0 INTRODUCTION

This report provides the results of the first quarter 2004 groundwater monitoring event conducted as part of the ongoing Phase II and III remedial investigation (RI) activities at the Time Oil Northwest Terminal (terminal) in Portland, Oregon. This report also provides performance and status information for the Phase II groundwater interim action currently ongoing at the terminal. Prior to the fourth quarter 2003 event, groundwater monitoring was focused on wells drilled for the Phase II RI at locations within and downgradient of the former pentachlorophenol (PCP) mixing area. Starting with the fourth quarter 2003 event, groundwater monitoring data were also collected from wells installed as part of the Phase III RI within the Main Terminal tank farm and Bell Terminal tank farm areas and other areas of the terminal not covered under previous investigations. Data from the quarterly monitoring events are used to assess contaminant distribution and groundwater level trends across the terminal. Additional discussion of the Phase III activities is provided in the draft Phase III RI report (Landau Associates 2004a).

The terminal is a former bulk petroleum storage and transfer facility owned by Time Oil Co. (Time Oil) that is located in the industrialized Rivergate area of north Portland, Oregon (Figure 1). Time Oil ceased operations at the terminal on October 31, 2001. Quarterly groundwater monitoring of the Phase II wells has been ongoing at the terminal since April 1997 and since October 2003 for the Phase III wells. Groundwater monitoring is conducted in accordance with the *Phase I/II Remedial Investigation/Feasibility Study (RI/FS)* work plan (Landau Associates 1996), and the Phase III Remedial Investigation (RI) Work Plan (Landau Associates 2001). The groundwater monitoring locations at the terminal are shown on Figure 2.

The first quarter 2004 groundwater monitoring event incorporated modifications to the Phase II RI well locations as outlined in a letter to the Oregon Department of Environmental Quality (DEQ), dated February 2, 2004 (Landau Associates 2004b) and approved by email from Tom Roick of DEQ on February 3, 2004 (Roick 2004). Modifications included:

- Elimination of eight wells from the Phase II sampling program for future events. These wells included five upper zone wells (H, K, L, LW-1S, and LW-5S), and three lower zone wells (O, R, and LW-1D).

- Reduction of the monitoring frequency for selected Phase II wells from quarterly to semiannually. These wells include: B1, B2, D, J1, J2, LW-3D, LW-4S, LW-4D, LW-11S, LW-11D, LW-13S, LW-14D, LW-17D, LW-18D, OX-1S through OX-8S, OX-8D, and RW-1. Semiannual sampling of these wells will be conducted during the first and third quarter sampling events.

The first quarter 2004 groundwater monitoring event was conducted from February 17 through February 24, 2004. This report summarizes groundwater elevation and groundwater quality data for the first quarter 2004, transmits analytical laboratory data packages and the associated data validation report,

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and presents an evaluation of data collected during the first quarter 2004 (January 1 through March 31, 2004) for the groundwater interim action in the upper and lower water-bearing zones relative to compliance with defined performance criteria.

The chemical analyses conducted during this monitoring event for each groundwater sampling location are summarized in Appendix A, Table A-1. Groundwater level measurements collected at the terminal for the first quarter 2004 event and for the previous RI quarterly events since March 1997 are provided in Appendix A, Table A-2. Groundwater quality data for the first quarter 2004 event are provided in Tables A-3 and A-4 for the upper and lower zone wells, respectively. Product analysis results are included in Table A-5. Data validation qualifiers included in Tables A-3 and A-4 are defined in Table A-6. A summary of the first quarter 2004 groundwater interim action recovery data is provided in Appendix B. Procedures for collection of water level measurements and groundwater samples and methods for evaluation are provided in Appendix C. A summary of all modifications to the Phase II groundwater quality sampling and analysis requirements, as approved by DEQ, are documented and referenced in Appendix D. The data validation report for the first quarter 2004 data is provided in Appendix E. Laboratory data packages for these data are provided in Appendix F.

As requested by DEQ, a summary of the quarterly water quality data (detected constituents) since March 1997 for the upper and lower zone wells is being provided to DEQ either electronically or on computer diskette. These tables will continue to be updated following each quarterly event.

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2.0 FIRST QUARTER 2004 GROUNDWATER MONITORING EVENT

The first quarter 2004 groundwater monitoring event was conducted from February 17 through February 24, 2004. The quarterly event included measurement of groundwater levels at all monitoring wells and well points, recovery wells at the terminal, and a river gauge established on the south side of the dock extending into the Willamette River (Figure 2); measurement of product thickness in all terminal wells, if observed; and collection of groundwater quality samples. The first quarter 2004 event included the sampling of the routine Phase II monitoring wells; selected monitoring wells associated with the Phase II *in situ* chemical oxidation (ISCO) activities (OX-1S through OX-8S and OX-8D, LW-11S, and RW-1); wells monitored as part of the Phase II groundwater interim action (LW-13S, LW-14D, LW-17D, and LW-18D); and monitoring of wells from the Phase III RI. Because the Phase II and Phase III wells were installed to monitor groundwater quality from different areas of the terminal, the Phase II and Phase III groundwater quality data are discussed in separate sections (Sections 2.2 and 2.3, respectively). For discussion purposes, Phase II refers to monitoring locations within and downgradient of the former PCP mixing area and warehouse, and Phase III refers to monitoring locations within and downgradient of the Main Terminal and Bell Terminal tank farms and associated petroleum storage operation areas.

For reference, the monitoring wells are grouped as follows:

- Phase II: B1, B2, D, G1A, J1, J2, -3D, -4S, -4D, -6D, -7S, -8S, -9S/D, -10S/D, -11S/D, -13S, -14D, -17D, -18D, OX-1S through OX-7S, OX-8S/D, RW-1, RW-2, and HRW-1.

- Phase III: K, LW-1S, LW-19S, -20S/D, -21S, -22D, -23D, -24D, -25D, -26D, -27S/D, -28S, -29S/D, -30S/D, -31S, -32S/D, -33S, -34S, and -35D.

A summary of the analyses conducted at each sample location for the first quarter 2004 event are provided in Table A-1. Monitoring wells K, and LW-1S previously included as Phase II wells, have been incorporated into the list of Phase III wells because of their proximity to the petroleum operations at the terminal; however, the analyte list has been reduced to include only petroleum-related constituents per the recommendations to DEQ for reduction of sample frequency for Phase II (Landau Associates 2004b). Section 2.1 presents a summary of the results for the groundwater level measurements for all monitoring locations at the terminal. The groundwater quality data and evaluations of groundwater flow and contaminant occurrence and trends for the Phase II wells and the Phase III wells are presented in Sections 2.2 and 2.3, respectively. The performance and status of the groundwater interim action are discussed in Section 3.0.

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2.1 GROUNDWATER LEVEL AND PRODUCT MEASUREMENTS

Groundwater levels were measured at each well for the first quarter 2004 event on February 19, 2004. Each well was also checked for the presence of product. The measurement and evaluation results are provided in the following sections. The measurement and evaluation procedures are provided in Appendix C. The groundwater measurement locations are shown on Figure 2. Groundwater level measurements conducted for the quarterly groundwater sampling events since March 1997 are provided in Table A-2. Historical (pre-Phase II RI) groundwater level measurements conducted from 1993 through 1996 were provided in the Phase II RI report (Landau Associates 2000a).

2.1.1 PRODUCT MEASUREMENTS AND PRODUCT RECOVERY

During the first quarter 2004 event, a trace amount of product was noted in well Q. Measurable product was observed at wells LW-21S and LW-27S, located within the Main Terminal tank farm area at thicknesses of 1.03 ft and 0.69 ft, respectively. Product recovery is being conducted at wells LW-21S and LW-27S using Keck passive product recovery bailers. To date, approximately 2.5 gallons of product have been removed from LW-21S and approximately 2 gallons have been removed from well LW-27S. The recovered product is contained in a 55-gal drum onsite for appropriate offsite disposal. On April 14, 2004, individual product samples were collected from LW-21S and LW-27S and analyzed for total petroleum hydrocarbons (TPH) for characterization by NWTPH-HCID. The product sample from well LW-21S was also analyzed for volatile organic compounds (VOCs) by U.S. Environmental Protection Agency (EPA) Method 8260. The analytical results are presented in Tables A-5a and A-5b. The TPH results indicate that both well locations contained detectable concentrations of TPH in the diesel, gasoline, and motor oil ranges. The VOCs detected at well LW-21S include benzene, toluene, ethylbenzene, and xylenes, which were commonly associated with petroleum products. Wells LW-21S and LW-27S and all monitoring wells at the terminal, will continue to be monitored for the presence of product during future quarterly monitoring events.

2.1.2 UPPER WATER-BEARING ZONE

Groundwater elevations measured in the shallow wells were used to estimate groundwater flow conditions in the upper water-bearing zone (upper zone). Groundwater elevation contours for the upper zone are presented on Figure 3. Groundwater elevations measured in the Phase II and the additional Phase III wells support that groundwater flow is generally to the west-southwest toward the Willamette River in the upper zone across the Main Terminal and Bell Terminal tank farm areas. The localized southward shift in groundwater flow that is apparent within and downgradient of the former PCP mixing

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area appears to be due to the influence of the east-west trending storm drain located about 170 ft north of the southern property boundary (Figure 2). The overall groundwater flow pattern observed in the upper zone does not show significant seasonal variation. Groundwater elevations measured at Phase III wells located along the confining unit boundary in the western portion of the terminal reflect the change from two water-bearing zones (upper and lower) to a single unconfined water-bearing zone. For example, during the summer and fall months, well LW-10S and piezometers PZ-3 and PZ-4 are typically dry because they are located near the extent of the confining unit. Also, in the Bell Terminal area, wells LW-28S and LW-33S, which are located where the confining unit is thin and likely discontinuous, were dry during the October 2003 groundwater sampling event. At Phase III RI well LW-27S, the water level appears to represent an intermediate groundwater elevation between the upper zone and lower zone, thereby indicating the edge of the confining unit and the transition from two groundwater zones to one in this area. The groundwater flow patterns in this area mirror the western extent of the confining unit boundary and groundwater gradients increase sharply where the upper and lower zones converge.

2.1.3 LOWER WATER-BEARING ZONE

Groundwater elevations measured in the deep wells were used to estimate groundwater flow conditions in the lower water-bearing zone (lower zone) and in the area where the confining zone is absent. Groundwater elevation contours for the lower zone are presented on Figure 4. Well RW-2 pumped continuously during the first quarter 2004 for the groundwater interim action, except for periodic shutdowns for system maintenance. The contours indicate that pumping of recovery well RW-2 has modified groundwater flow in the lower zone in proximity to the pumping well, such that hydraulic capture is achieved to the west near well LW-18D and to the south between wells LW-16D and LW-10D. Groundwater flow outside the well RW-2 capture zone is generally toward the west/southwest toward the Willamette River. Groundwater levels measured for this quarterly event appear to be affected by recharge to the lower zone from the river due to diurnal river stage fluctuations.

2.2 PHASE II GROUNDWATER QUALITY

Analytical results for groundwater collected from the Phase II wells are used to evaluate groundwater quality within and downgradient of the former PCP mixing area and warehouse. The contaminants associated with historical operations in these areas predominantly include PCP and associated carrier compounds. For the first quarter 2004 event, groundwater from 18 upper zone Phase II wells and 14 lower zone Phase II wells were sampled and analyzed. Monitoring well LW-9S was dry and not sampled as part of this event. Except as shown in Table A-1, all groundwater samples were analyzed

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for the following constituents: semivolatile organic compounds (SVOCs; EPA Method 8270); VOCs (EPA Method 8260) including methyl tert-butyl ether (MTBE) at well LW-7S, six priority pollutant metals (arsenic, chromium, copper, lead, nickel, and zinc; EPA Methods 6010/7000 series); total dissolved solids (TDS; EPA Method 160.1); chloride (EPA Method 325.2); and field parameters (pH, conductivity, dissolved oxygen, turbidity, and temperature). PCP (EPA Method 8270 SIM) was also analyzed for samples collected from Phase II wells that contained nondetect concentrations of PCP using EPA Method 8270. Additionally, groundwater from eight monitoring wells was analyzed for diesel- and motor oil-range TPH (NWTPH-Dx). Samples from wells B1, LW-7S, LW-8S, LW-11S, RW-1, and RW-2 were also analyzed for gasoline-range TPH (NWTPH-G). Laboratory analyses were conducted by Specialty Analytical, Inc., in Tualatin, Oregon.

Analytical results for the first quarter 2004 event are provided in Tables A-3a through A-3f for the upper zone wells and in Tables A-4a through A-4f for the lower zone wells. A summary of the Phase II results are provided in the following sections. Data qualifier definitions are included in Table A-6.

2.2.1 Upper Water-Bearing Zone

The first quarter 2004 analytical results for the Phase II upper zone wells indicate that samples from 11 wells contained concentrations of PCP greater than the laboratory reporting limits (Figure 11). The highest concentrations were detected in the samples from wells LW-11S and OX-2S [6,350 and 5,320 micrograms per liter (µg/L), respectively], located downgradient of the former PCP mixing area. In addition, groundwater from downgradient monitoring wells OX-1S, -3S, -4S, -6S, -7S, -8S, B1, J1, and RW-1 contained PCP concentrations ranging from 1.13 (well J1) to 2,630 (well RW-1) µg/L. During the previous quarterly event, the highest detections were in samples from wells OX-6S (2,100 µg/L) and LW-11S (900 µg/L).

Other SVOCs were detected at low concentrations; however, none were greater than 15.6 µg/L (naphthalene at well RW-1). The highest concentrations of VOCs (ethylbenzene; isopropylbenzene; 1,2,4-trimethylbenzene; n-propylbenzene; naphthalene, and xylenes) were detected in samples collected at wells B1, LW-8S, LW-11S and RW-1. The highest concentrations of TPH (diesel range) and TPH (gasoline range) were observed at well LW-8S [11.7 milligrams per liter (mg/L) and 9.2 mg/L, respectively]. The highest concentrations of metals (arsenic and lead) were detected in samples collected at wells D, LW-7S and LW-8S. Arsenic concentrations from the upper zone Phase II wells ranged from nondetect at wells LW-4S and -10S to 25 µg/L at well LW-8S. Lead concentrations in the same wells ranged nondetect at well LW-4S to 2.11 µg/L at well D.

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2.2.2 LOWER WATER-BEARING ZONE

During this quarter, PCP was detected in four lower zone wells: LW-4D, LW-11D, OX-8D, and RW-2 (Figure 12). Concentrations in these wells ranged from 1.31 µg/L (in well OX-8D) to 8.95 µg/L (in well LW-4D). PCP was not detected at wells LW-6D and LW-10D this quarter following three consecutive quarterly detections of PCP at these well locations. None of the other SVOCs detected were at concentrations greater than 11.7 µg/L (2-methylnapthalene at LW-4D). The highest concentrations of VOCs were detected in the samples collected from wells G1A and RW-2; however, none of the detected concentrations were greater than 67.9 µg/L (1,2,4-trimethylbenzene at RW-2). The highest detected concentration of TPH was estimated at 2.4 mg/L (gasoline-range TPH at RW-2). The highest concentrations of metals (arsenic and lead) were detected in samples collected from wells G1A, LW-9D, and LW-10D. Arsenic concentrations from the lower zone Phase II wells ranged from 5.07 µg/L at well B2 to 32.4 µg/L at well G1A. Lead concentrations in the same wells ranged from nondetect at well B1 to 1.88 µg/L at well LW-11D.

2.2.3 WATER LEVEL AND CONTAMINANT TRENDS

Potential trends between water levels and detected concentrations of selected Phase II constituents were evaluated by generating time versus groundwater elevation and time versus concentration plots for the period covered by the Phase II RI quarterly sampling events (April 1997 or first available through the current quarterly event). Plots of PCP concentrations (maximum concentrations of EPA Methods 8270 and 8040 for events prior to the second quarter 2001 event) versus time for selected upper zone wells (LW-4S, LW-11S, LW-13S, and RW-1); selected lower zone wells (LW-4D, LW-11D, and RW-2); and paired wells (LW-4S and LW-4D) are provided on Figures 5 through 7. Plots of groundwater elevations and PCP concentrations for upper zone wells LW-4S and LW-11S are shown on Figures 8 and 9. Figure 10 shows groundwater elevations and PCP concentrations at lower zone well LW-4D plotted with the Willamette River stage.

As shown on Figure 5, the PCP concentrations in the selected upper zone wells show variable concentration trends over time (note the logarithmic scale). The PCP concentration at RW-1 (2630 µg/L) increased compared to the previous three quarterly events, but is similar to the PCP concentration detected for the first quarter 2003 event and is still below the historic high PCP concentration recorded at this well in February 2001 (11,000 µg/L). Well LW-11S also increased compared to the previous quarterly events (6,350 µg/L). The recent PCP concentration is lower than the historical high detected during the second quarter 1999 (25,000 µg/L), but is the highest concentration detected at this well since May 2000. The PCP concentrations detected at well LW-11S during recent quarters appear to reflect a response to seasonal groundwater fluctuations. The PCP

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concentration at LW-13S has been reported at or near the detection limit since the fourth quarter 2001 event, but the detected concentration increased to slightly greater than 1 µg/L during the summer and fall 2003 sampling events and then decreased to less than the detection limit for this quarterly event (0.5 µg/L). At well LW-4S, the decreasing trend observed since the 1,400 µg/L detection in the first quarter of 2003 continued for this quarter with a nondetect concentration (note that, with the change in laboratories for the quarterly groundwater analyses, the laboratory reporting limit of PCP using EPA Method 8270 SIM has increased to about 0.5 µg/L). Historically, well LW-4S has shown intermittent increases in PCP concentrations. The information from the second quarter 2004 event will indicate whether these increases in PCP concentrations will continue to reflect seasonal changes in groundwater elevation and resulting changes in PCP concentrations upgradient at locations followed by downgradient migration of PCP (Figure 8).

As shown on Figure 6 (note the logarithmic scale), the PCP concentrations in the lower zone at RW-2 have generally decreased since June 2002, but are greater than the historic low PCP concentration recorded at this well in June 2001 (0.68 µg/L). The PCP concentration at RW-2 for this quarter (8.69 µg/L) is approximately equal to the concentration observed during last quarter (8.1 µg/L). The detected PCP concentrations at wells LW-11D and LW-4D continue to show an increasing trend since May 2003 when concentrations in both wells were nondetect, but are still lower than the historical highs observed at these locations.

As in previous quarters, the PCP concentrations detected this quarter at selected lower zone well locations where PCP has historically been detected are generally lower than the concentrations in the upper zone wells at the same location or similar locations. The PCP concentration trends for paired wells LW-4S and LW-4D (Figure 7) indicate that contamination observed in the lower zone at this location does not appear to be related to the upper zone at the same location. Overall, PCP concentrations at lower zone well LW-4D have decreased over time, with concentrations below the detection limit mainly observed since groundwater recovery began at nearby well RW-2 in October 2000, except for the last three quarters where PCP concentrations have increased to approximately 8 µg/L. However, at adjacent upper zone well LW-4S, intermittent increases in PCP concentration have been observed, as shown on Figure 5 and discussed earlier.

Fluctuations in groundwater elevations in the upper zone reflect typical seasonal variability with seasonal lows during the fall months (October-November) and seasonal highs during the winter and early spring months (January-March) since monitoring began in March 1997. The groundwater levels during the past year are similar to those observed during 2000 and 2002. Trends in PCP concentrations can be correlated with groundwater elevations at some locations. Figure 8 shows that there appears to be a correlation between the water levels and PCP concentrations in the upper zone at well LW-4S since the first quarter of 2002, as discussed earlier. Figure 9 shows that the PCP concentration in the upper zone at

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well LW-11S generally follows the water level trends in that zone over time. In the lower zone, groundwater levels show similar trends with seasonal fluctuations in the Willamette River, as shown by the plot of groundwater elevations at LW-4D with river stage on Figure 10. However, there appears to be no correlation between PCP concentrations and groundwater/river stage elevations at LW-4D.

Contaminant and groundwater level trends will continue to be evaluated and discussed for future quarterly events.

2.3 PHASE III GROUNDWATER QUALITY

Analytical results for groundwater collected from the Phase III wells are used to evaluate groundwater quality in the former petroleum operations areas of the terminal, mainly focused in the Main Terminal tank farm and Bell Terminal tank farm areas. The contaminants associated with historical operations in these areas predominantly include petroleum hydrocarbons (gasoline- and diesel-range); volatile compounds (e.g., BETX), PAHs, and other associated petroleum-related compounds. For the first quarter 2004 event, groundwater from 11 upper zone Phase III wells and 11 lower zone Phase III wells was sampled and analyzed. These wells are indicated in Table A-1. Monitoring wells LW-21S and LW-27S were not sampled due to the presence of product at these well locations. Except as shown in Table A-1, all groundwater samples were analyzed for the following constituents: SVOCs (EPA Method 8270); VOCs (EPA Method 8260) including MTBE; polycyclic aromatic hydrocarbons (PAH, EPA Method 8270 SIM); TPH diesel, motor oil, and gasoline ranges (NWTPH-Dx and NWTPH-G); six priority pollutant metals (arsenic, chromium, copper, lead, nickel, and zinc; EPA Methods 6010/7000 series); total dissolved solids (TDS; EPA Method 160.1); chloride (EPA Method 325.2); and field parameters (pH, conductivity, dissolved oxygen, turbidity, and temperature).

Product samples from wells LW-21S and LW-27S were collected and analyzed for TPH-HCID, and for VOCs (EPA Method 8260) at well LW-21S. As mentioned earlier, monitoring wells K and LW-1S were analyzed for BETX and TPH (gasoline range) only. The laboratory analyses were conducted by Specialty Analytical, Inc.

Analytical results for the first quarter 2004 event are provided in Tables A-3a through A-3f and Tables 5a and 5b for the upper zone wells and Tables A-4a through A-4f for the lower zone wells. A summary of the Phase III results are provided in the following sections. Data qualifier definitions are included in Table A-6.

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2.3.1 UPPER WATER-BEARING ZONE

The results of the second quarterly 2004 event for the Phase III monitoring wells installed in the upper zone indicate the following:

- TPH (diesel and gasoline range) was detected at well locations LW-19S and LW-20S within the Main Terminal tank farm area and wells LW-30S and LW-32S within the Bell Terminal. The highest TPH (diesel range) concentration was detected at well LW-19S (7.53 mg/L) and the highest TPH (gasoline range) concentration was detected at well LW-20S (1.4 mg/L).

- VOCs (benzene; isopropylbenzene; n-butylbenzene; n-propylbenzene; sec-butylbenzene) were detected in 4 of the 12 wells sampled for these constituents. The detected VOC concentrations ranged from about 0.95J µg/L (benzene) at well LW-20S to 26.7 µg/L (n-propylbenzene) at well LW-30S. MTBE was nondetect in all upper zone wells where analyzed.

- PAH detections were observed in a majority of the monitoring wells within the Phase III area with the highest detections noted at wells LW-19S, -20S, and -30S. PAH detections ranged from 0.0716 µg/L (anthracene at well LW-20S) to about 3.52J µg/L (fluorene at well LW-20S).

- Other SVOC detections were limited to dibenzofuran ranging from 1.02 µg/L at well LW-19S to 1.49 µg/L at well LW-20S.

- The highest detected metals concentrations occurred at wells LW-19S (arsenic 40.2 µg/L and lead 0.468 µg/L) and LW-32S (arsenic 23.3 µg/L and chromium 0.0124 mg/L).

2.3.2 LOWER WATER-BEARING ZONE

The results of the second quarterly 2004 event for the Phase III monitoring wells installed in the lower zone indicate the following:

- The highest concentrations of TPH (diesel range) and TPH (motor oil range) detected in the lower zone Phase III monitoring wells were at LW-25D (6.67 and 1.32 mg/L, respectively). Monitoring well LW-24D continued the highest TPH (gasoline range) concentration (1.46 mg/L).

- The highest concentrations of VOCs (benzene, isopropylbenzene, n-propylbenzene, and sec-butylbenzene) ranged from 1.12 µg/L to 22.9 µg/L at wells LW-23D, LW-24D, and LW-25D. MTBE was only detected in Phase III lower zone well LW-23D (17.4 µg/L), which is located within the Main Terminal tank farm area.

- PAHs were detected in six Phase III lower zone wells with individual concentrations ranging from 0.06 µg/L (fluorene at well LW-23D) to 3.96 µg/L (fluorene at well LW-24D).

- Other SVOC detections were not observed in the Phase III lower zone monitoring wells.

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- Arsenic was detected in all Phase III lower zone wells at concentrations ranging from 1.68 to 66.4 µg/L. The other metals analyzed were all detected in a portion of the lower zone wells.

2.3.3 CONTAMINANT TRENDS

The analytes detected in the Phase III wells during the first quarter 2004 are predominantly constituents commonly associated with petroleum products. The contaminant trends discussion focuses on petroleum hydrocarbons (gasoline and diesel range) and VOCs (benzene and ethylbenzene) because these constituents are related to former petroleum operations at the terminal and will likely drive cleanup activities; however, other constituents were detected, as described in the previous section. The diesel-range and gasoline-range petroleum hydrocarbons, benzene, and ethylbenzene concentrations for the upper and lower water-bearing zones are plotted on Figures 13 through 20. Note that the groundwater concentrations contours contained in the Phase III RI report included data from monitoring wells sampled during the fourth quarter 2003 event, as well as data collected from single event direct-push locations; subsequent quarterly events, including this event, only contain data from the monitoring wells.

Concentrations of TPH (diesel rangel) and TPH (gasoline range) within the upper and lower zone Phase III wells were similar to those detected during the previous quarter, with the exception of upper zone wells LW-21S, LW-27S, and Q, located within the Main Terminal tank farm area. These wells contained measurable product, as noted earlier. Based on information collected for the Phase III RI, the potential sources of this product within the Main Terminal tank farm area include a diesel spill resulting from the rupture of Tank 29508 in 1975; an unleaded gasoline spill in the vicinity of wells N,P, and Q in 1994; and incidental leakage along conveyance pipelines. Also, diesel-range petroleum hydrocarbons increased slightly at wells LW-8S and RW-1 between the fourth quarter 2003 and first quarter 2004 events. The overall lower concentrations of gasoline- and diesel-range petroleum hydrocarbons, particularly in the western portion of the Bell Terminal, may reflect the difference in data coverage between the Phase III RI report and the quarterly monitoring. The distribution of diesel- and gasoline-range petroleum hydrocarbons is shown on Figures 13 and 14 for the upper zone and Figures 17 and 18 for the lower zone.

Benzene and ethylbenzene concentrations presented on Figures 15 and 16 for the upper zone and Figures 19 and 20 for the lower zone indicate that the overall distribution of benzene remains unchanged in the areas where data were available for the fourth quarter 2003 and first quarter 2004 events. Product was observed at well LW-21S during the first quarter 2004 event and, therefore, was not sampled for groundwater; thus, the elevated concentrations of benzene and ethylbenzene observed in this area in October 2003 are not reflected in this quarter's data. Also, upper zone ethylbenzene concentrations (Figure 16) within the southeast corner of the Main Terminal tank farm area increased significantly with

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concentrations at well LW-8S increasing from 7.2 to 184 µg/L and increased concentrations also observed at RW-1, B1, and LW-11S. Of the lower zone well locations sampled, RW-2 continued to exhibit the only detection of ethylbenzene (11.9 µg/L) above the laboratory reporting limit.

As with the previous quarterly event, metals were detected at each of the Phase III lower zone wells. Metals detections within the upper zone wells are consistent with concentrations observed within the Phase II upper zone monitoring wells and are generally less than the lower zone well concentrations. This distribution of metals concentrations indicates that the concentrations observed in the lower zone are unlikely to be related to operations at the terminal.

Future quarterly reports will address water level and contaminant trends following the collection of additional data from the Phase III areas.

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3.0 GROUNDWATER INTERIM ACTION

This section presents a summary of the performance and status of the groundwater interim action system at the terminal for the first quarter of 2004 (January 1 through March 31, 2004). System operation data for the groundwater interim action were evaluated in accordance with the startup monitoring plan (Landau Associates 2000b) to determine compliance with performance criteria for the upper zone and the lower zone at the terminal. Specific performance criteria include: 1) groundwater recovery from an upper zone recovery well (HRW-1) when the pump is operating or when sufficient groundwater is present in the upper zone; 2) continuous pumping from a lower zone recovery well (RW-2), except for brief periods of system maintenance (or as described below); 3) groundwater flow toward HRW-1 and RW-2 from the downgradient and upgradient directions; 4) reversal of the lower zone groundwater flow direction at the leading edge of the PCP plume; 5) chemical confirmation that continued migration of PCP in groundwater downgradient of RW-2 and HRW-1 is not occurring; and 6) compliance with the requirements of the existing discharge permit. In addition to the six criteria listed above, information is also presented in this section regarding the operation of an upper zone groundwater intercept system implemented in a storm drain (SDM-1) at the site.

Specific operational information for the first quarter 2004, as it relates to the criteria identified above, is as follows:

- As discussed in Section 2.1, groundwater elevation data were collected from the upper zone monitoring wells on February 19, 2004. The groundwater elevation data are summarized in Table A-2 and presented on Figure 3.

- During the first quarter 2004, extraction pump HRW-1 was not in operation due to seasonal low groundwater elevations and a lack of recoverable groundwater. A summary of historical groundwater recovery for HRW-1 is included in Appendix B, Table B-1. It is anticipated that groundwater extraction at HRW-1 will resume during the second quarter of 2004.

- With the exception of periodic shutdowns for system maintenance, groundwater was extracted continuously from the lower zone during the period from January 1 through March 31, 2004 by operating the groundwater recovery pump in RW-2. A total of approximately 863,258 gallons of groundwater was recorded as being recovered from RW-2 during the first quarter of 2004 at an estimated average rate of 8.6 gpm. The recovery pump in RW-2 operated for approximately 1,662 hours and discharged water to Tank 16804 for temporary storage until treated by the wastewater treatment system located at the terminal and subsequent discharge to the sanitary sewer under a permit with the City of Portland. A summary of the groundwater recovery for RW-2 is included in Appendix B, Table B-1.

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- As discussed in Section 2.1, groundwater elevation data were collected from the lower zone wells on February 19, 2004. The groundwater elevation data are summarized in Table A-2 and presented on Figure 4. Based on the groundwater elevation data collected, the groundwater flow direction was reversed locally downgradient of the leading edge of the PCP plume in the lower zone when RW-2 was in operation during this quarter.

- As previously discussed in Section 2.2, groundwater samples were collected at the site on February 17 through February 24, 2004. Historically, the extent of groundwater impact has been estimated based on the extent of dissolved-phase PCP. The extent of PCP in the upper and lower zones is depicted on Figures 11 and 12, respectively, based on data collected during the February 2004 groundwater sampling event. The extent of PCP in the upper zone is consistent with previous quarterly events. The first quarter lower zone analytical data indicate that monitoring well LW-10D, located approximately 100 ft downgradient from RW-2, and well LW-18D, located west of RW-2, did not contain concentrations of PCP greater that the laboratory reporting limit for this sampling event.

- Between January 1 and March 31, 2004, 356,632 gallons of groundwater were recorded as being pumped by the groundwater intercept system at storm drain manhole SDM-1 to Tank 16804 for treatment. During operation, the pump extracted water from SDM-1 at a rate of approximately 2.7 gpm. Groundwater collected from the storm drain contained a PCP concentration of 791 µg/L on February 23, 2004 (Appendix B, Table B-1).

The industrial wastewater discharge permit (City of Portland Permit No. 400.121) for discharge of the extracted groundwater following treatment at the terminal's wastewater treatment plant includes the following discharge limitations:

Parameter	Permitted Limit
PCP	40 µg/L
Benzene	50 µg/L
BTEX (1)	750 µg/L
PH	5 to 11.5

(1) Benzene, Ethylbenzene, Toluene, Xylenes (BETX).

Samples of the treated groundwater discharge were collected periodically during the first quarter 2004 for analyses of PCP following discharge exceedances that occurred during this quarter. Sampling results indicated that PCP concentrations ranged from 6.23 µg/L to 113 µg/L during the first quarter 2004. Currently, Landau Associates and Time Oil Co. are monitoring the discharge more frequently, in addition to increasing the hydrogen peroxide dosage rate to decrease the PCP in the treatment system discharge. The analytical results for PCP are provided in Appendix B, Table B-1.

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4.0 FUTURE GROUNDWATER TASKS

The second quarter 2004 groundwater sampling event was conducted during the week of June 7, 2004. The groundwater monitoring and analytical program for the second quarter 2004 event included the following: 1) monitoring at Phase II quarterly well locations per the approved modifications from February 2004 discussed in Section 1.0, 2) monitoring of ISCO injection monitoring wells as per the ISCO work plan (Landau Associates 2004c); and 3) monitoring of the Phase III RI monitoring wells installed in September 2003. The results for the Phase II and Phase III second quarter 2004 groundwater monitoring event and the second quarter groundwater interim action status will be provided in the *Second Quarter 2004 Groundwater Monitoring and Groundwater Interim Action Status Report.*

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5.0 USE OF THIS REPORT

This quarterly groundwater report has been prepared by Landau Associates for the exclusive use of Time Oil Co. for specific application to the Northwest Terminal. Services for this project were conducted in accordance with the Environmental Services Contract between Time Oil Co. and Landau Associates, Inc. Landau Associates has performed our services in accordance with generally accepted engineering and consulting standards for environmental work in effect at the time and locality services were performed. The reuse of information, conclusions, and recommendations provided herein by Time Oil Co. or others in connection with any site other than the Northwest Terminal without Landau Associates' written permission shall be at the sole risk of Time Oil Co. and without liability to Landau Associates.

This document was prepared under the supervision and direction of the following key staff.

LANDAU ASSOCIATES, INC.

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Project Manager

Timothy L. Syverson, R.G.
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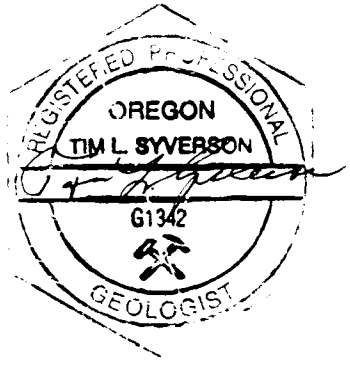

Christy L. Johnson
Project Engineer

TLS/CLJ/tam

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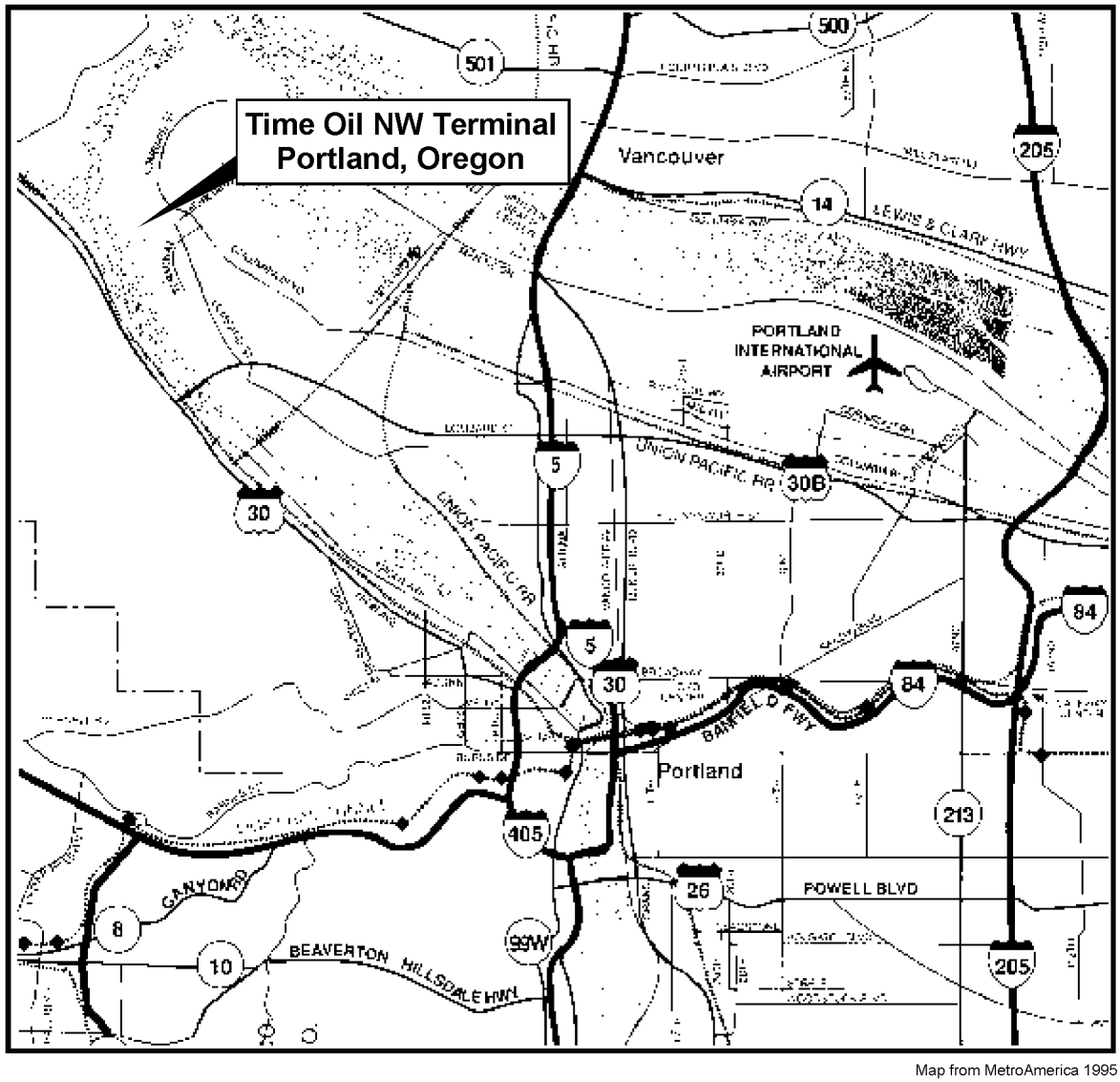
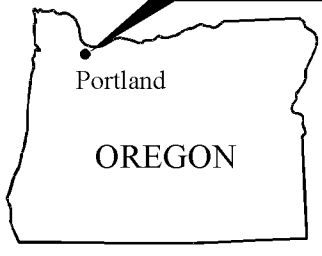
Roick, T.E. 2004. E-mail message from Thomas E. Roick, Oregon Department of Environmental Quality, to Rebekah Brooks, Landau Associates. Re: *Recommendation for Reduction of Sampling Frequency, Phase II Monitoring Wells, Time Oil Northwest Terminal.* February 3.

BZTO104(e)019364



Map from MetroAmerica 1995

SITE LOCATION
(see enlarged map area above)



0 2 4
Approximate Scale in Miles

Time Oil | T:\231\001\Vicinity Map.cdr (C) 05/10/2002

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Time Oil NW Terminal Portland, Oregon	**Vicinity Map**	Figure 1

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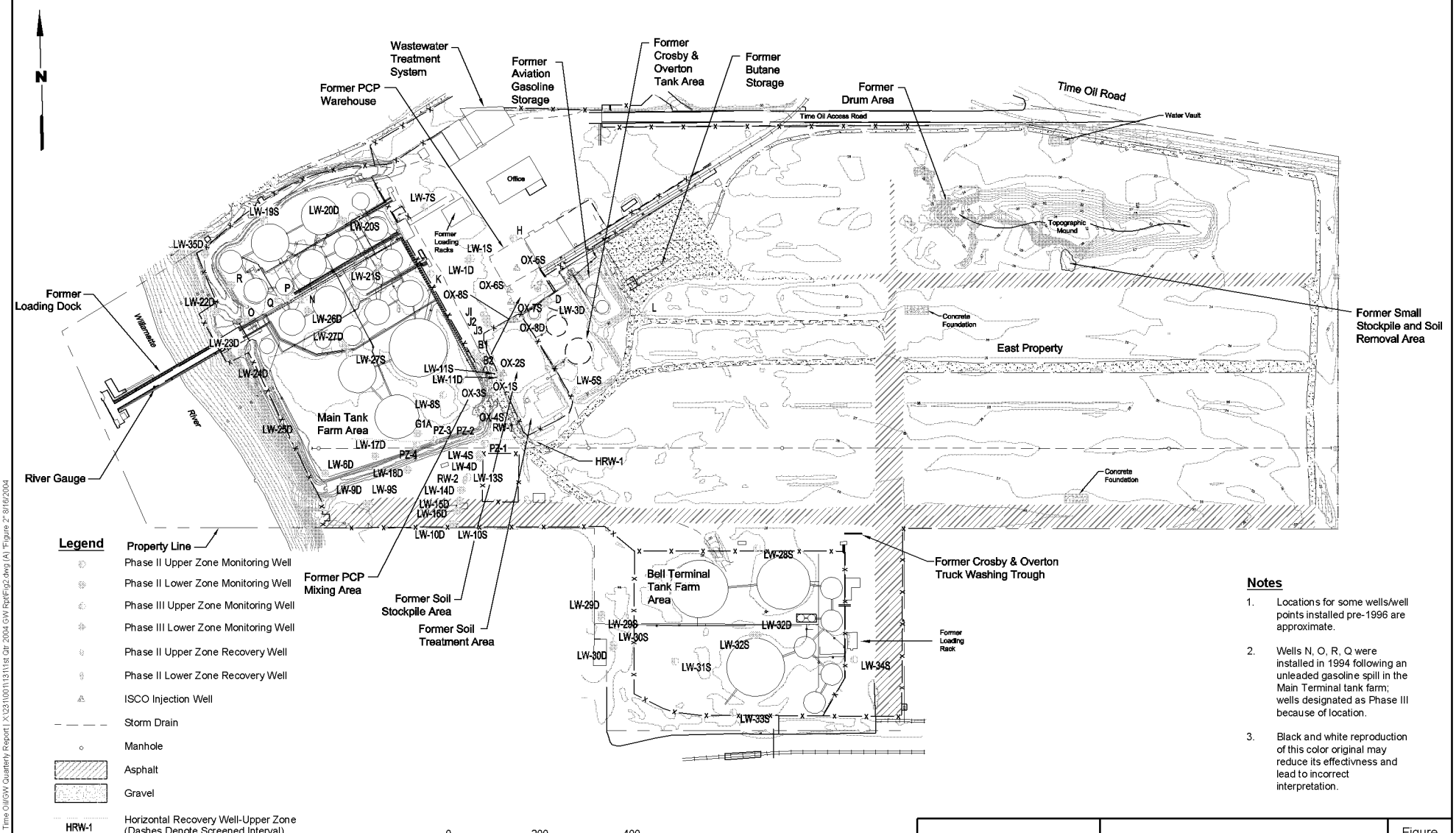

Notes

1. Locations for some wells/well points installed pre-1996 are approximate.
2. Wells N, O, R, Q were installed in 1994 following an unleaded gasoline spill in the Main Terminal tank farm; wells designated as Phase III because of location.
3. Black and white reproduction of this color original may reduce its effectivness and lead to incorrect interpretation.

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Time Oil NW Terminal Portland, Oregon	**Well Locations**	Figure 2

Time Oil/GW Quarterly Report | X:\231\001\131\1st Qtr 2004 GW Rpt\Fig2.dwg (A) "Figure 2" 8/16/2004

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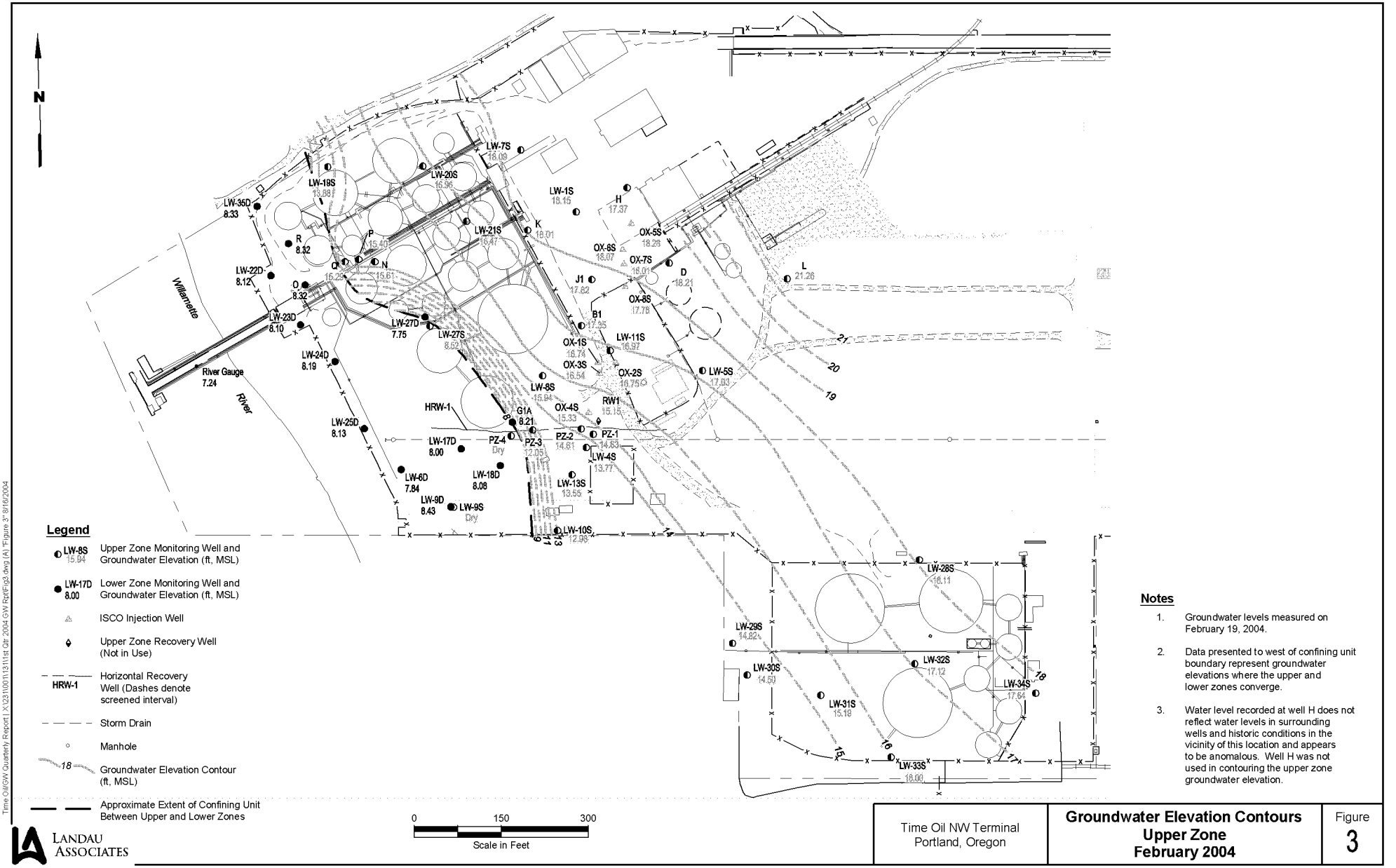

Notes

1. Groundwater levels measured on February 19, 2004.
2. Data presented to west of confining unit boundary represent groundwater elevations where the upper and lower zones converge.
3. Water level recorded at well H does not reflect water levels in surrounding wells and historic conditions in the vicinity of this location and appears to be anomalous. Well H was not used in contouring the upper zone groundwater elevation.

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Time Oil NW Terminal Portland, Oregon	**Groundwater Elevation Contours Upper Zone February 2004**	Figure 3

Time Oil\GW Quarterly Report \ X:\231\001\13\11st Qtr 2004 GW Rpt\Fig3.dwg (A) "Figure 3" 9/16/2004

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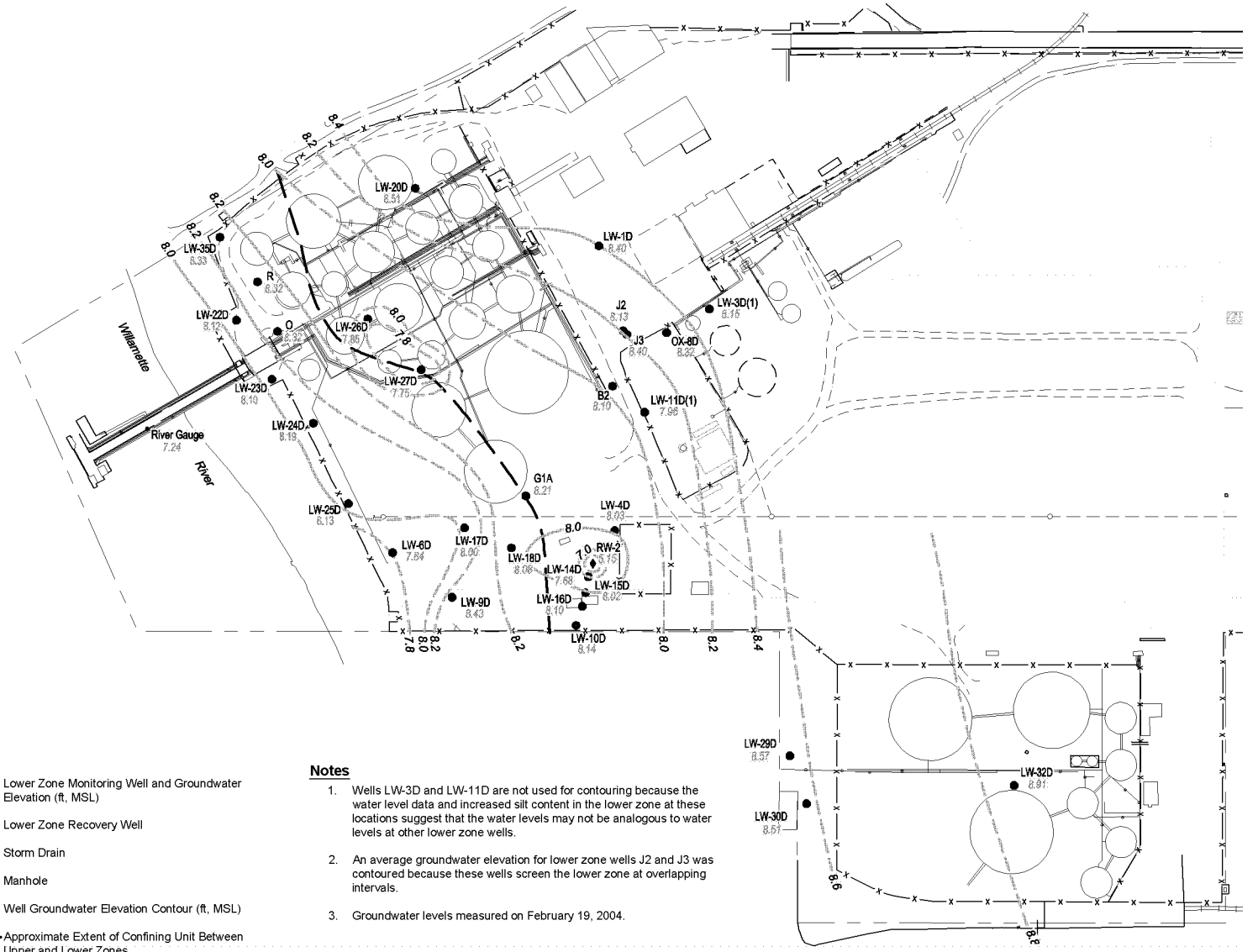

Legend

- G1A 8.21 — Lower Zone Monitoring Well and Groundwater Elevation (ft, MSL)
- Lower Zone Recovery Well
- Storm Drain
- Manhole
- 7.8 — Well Groundwater Elevation Contour (ft, MSL)
- Approximate Extent of Confining Unit Between Upper and Lower Zones

Notes

1. Wells LW-3D and LW-11D are not used for contouring because the water level data and increased silt content in the lower zone at these locations suggest that the water levels may not be analogous to water levels at other lower zone wells.
2. An average groundwater elevation for lower zone wells J2 and J3 was contoured because these wells screen the lower zone at overlapping intervals.
3. Groundwater levels measured on February 19, 2004.

0 150 300
Scale in Feet

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Time Oil NW Terminal Portland, Oregon	**Groundwater Elevation Contours Lower Zone February 2004**	Figure 4

Time Oil\GW Quarterly Report \ X:\231\00\13\11st Qtr 2004 GW Rpt\Fig4.dwg (A) "Figure 4" 8/16/2004

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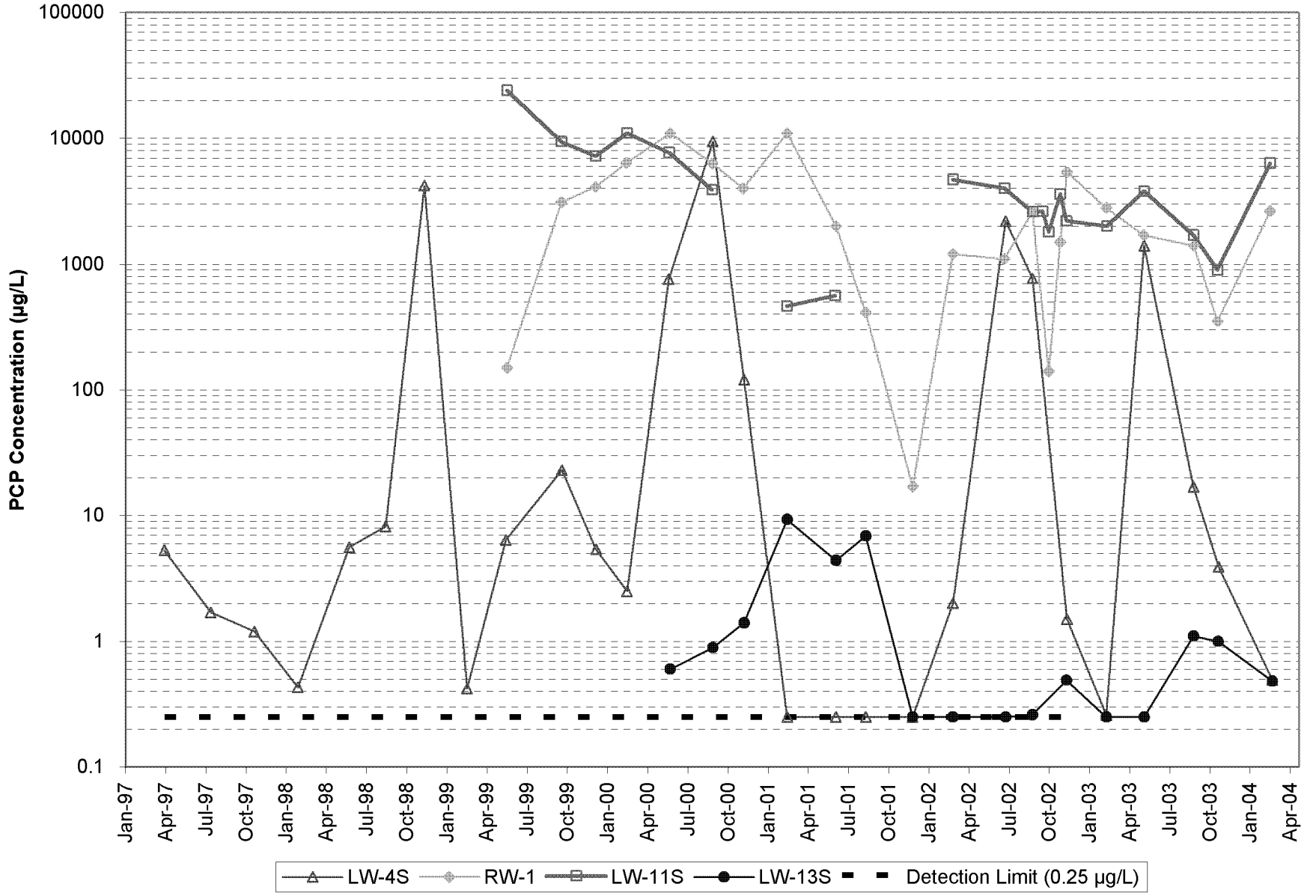

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Time Oil NW Terminal
Portland, Oregon

**PCP Concentrations,
Selected Upper Zone Wells
April 1997 – February 2004**

Figure
5

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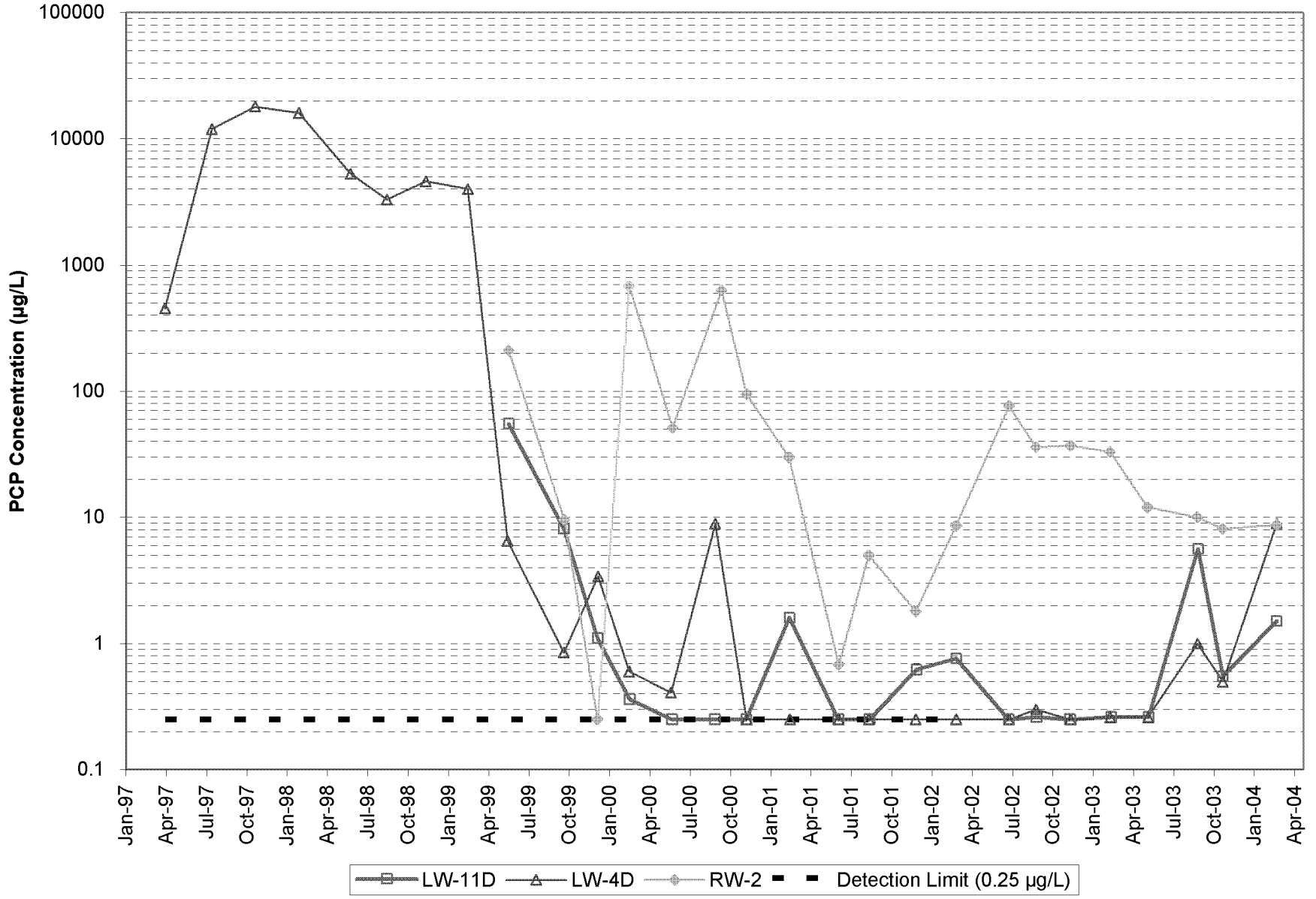

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Time Oil NW Terminal
Portland, Oregon

**PCP Concentrations,
Selected Lower Zone Wells
April 1997 – February 2004**

Figure
6

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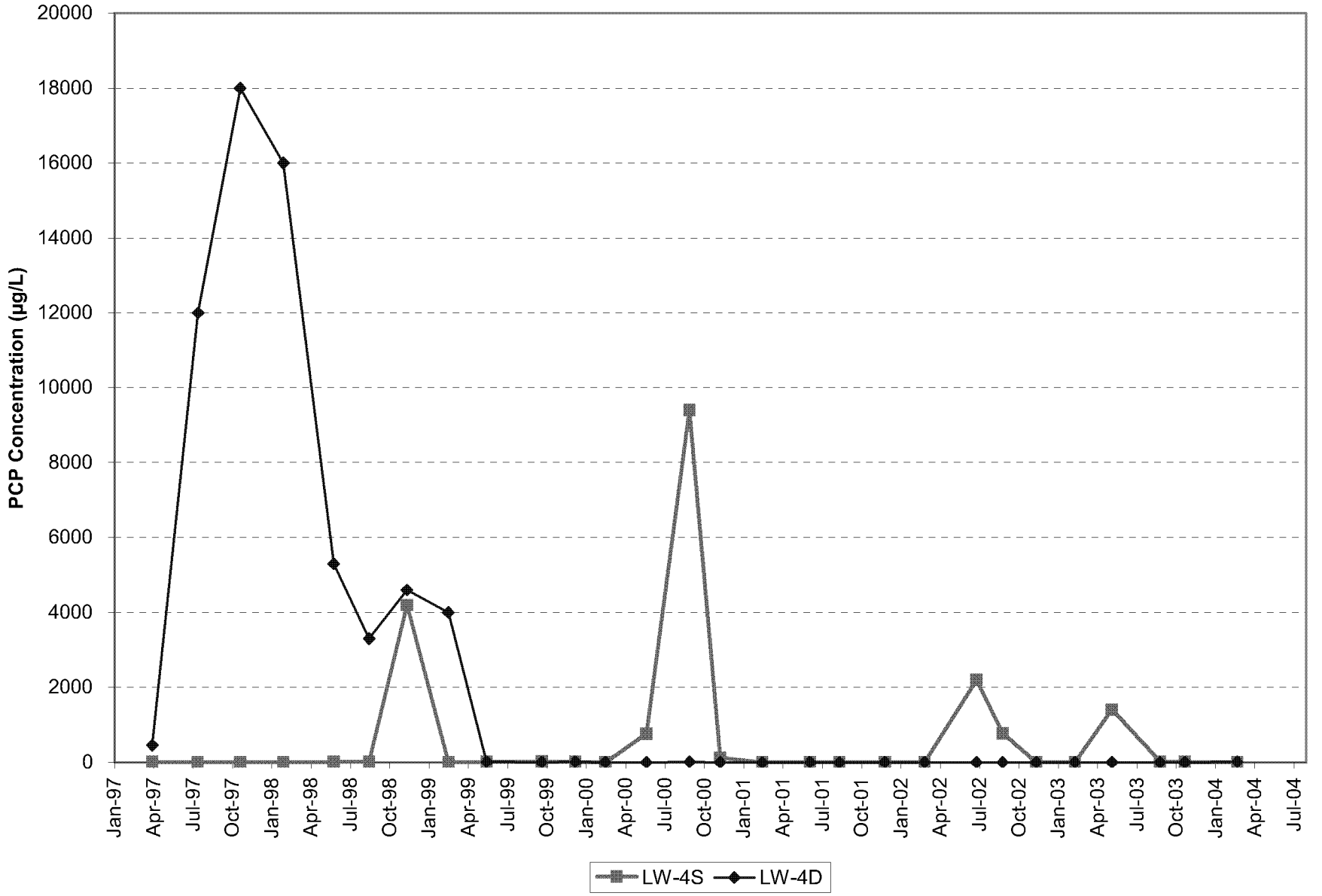

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Time Oil NW Terminal	**PCP Concentrations, Wells LW-4S and LW-4D, April 1997 – February 2004**	Figure 7

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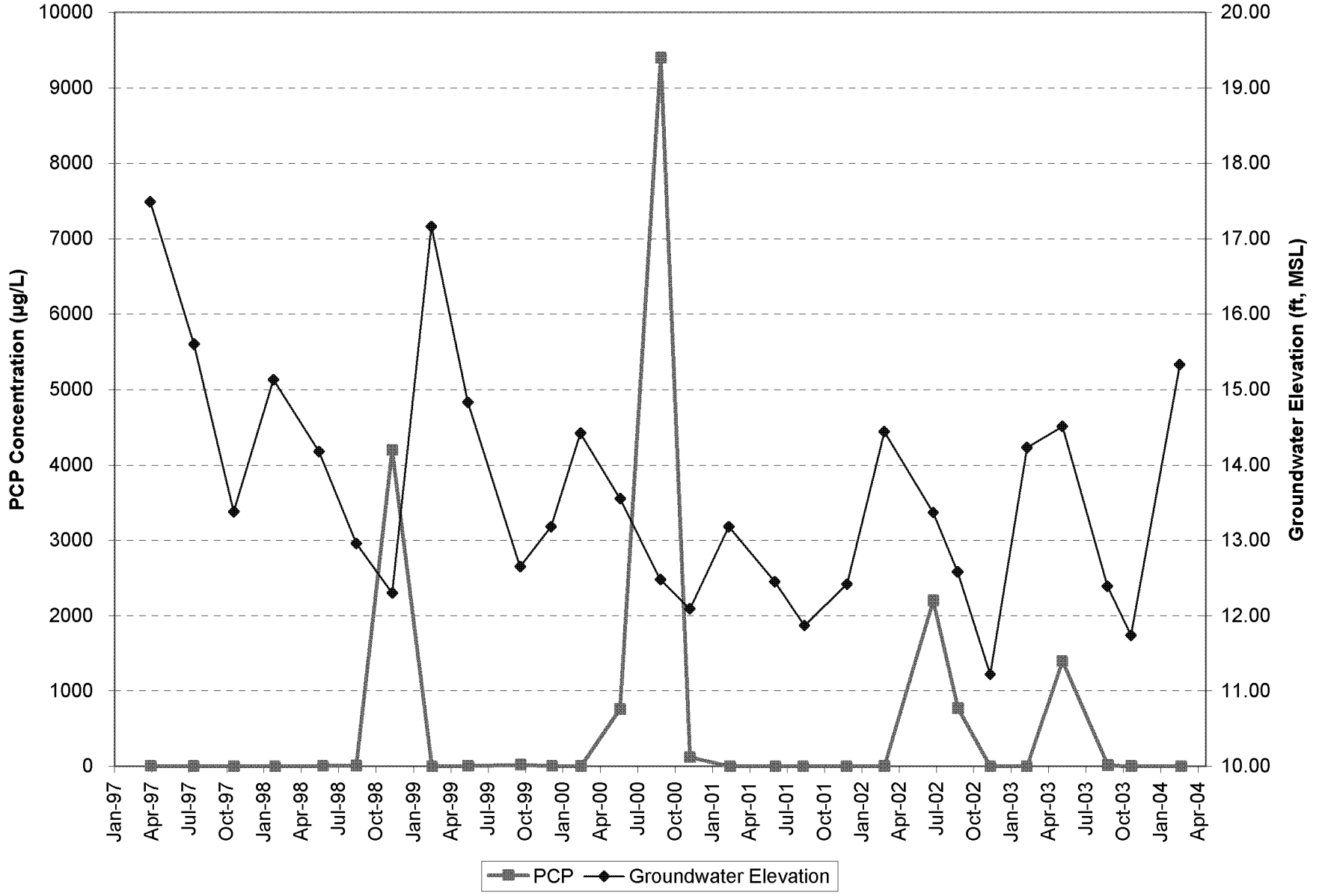

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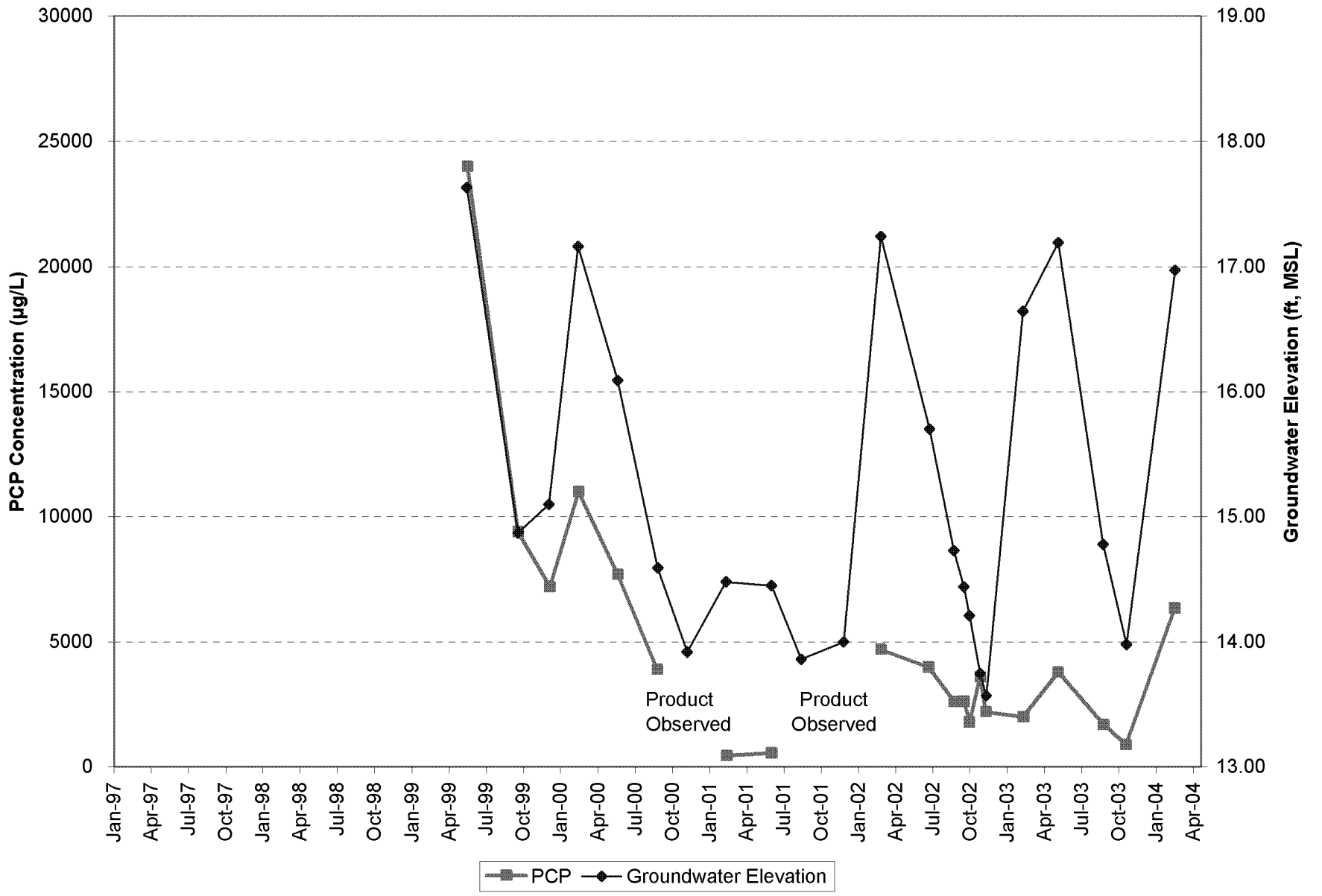
Time Oil NW Terminal Portland, Oregon	**PCP Concentrations and Groundwater Elevations, LW-4S April 1997 – February 2004**	Figure 8

BZTO104(e)019372



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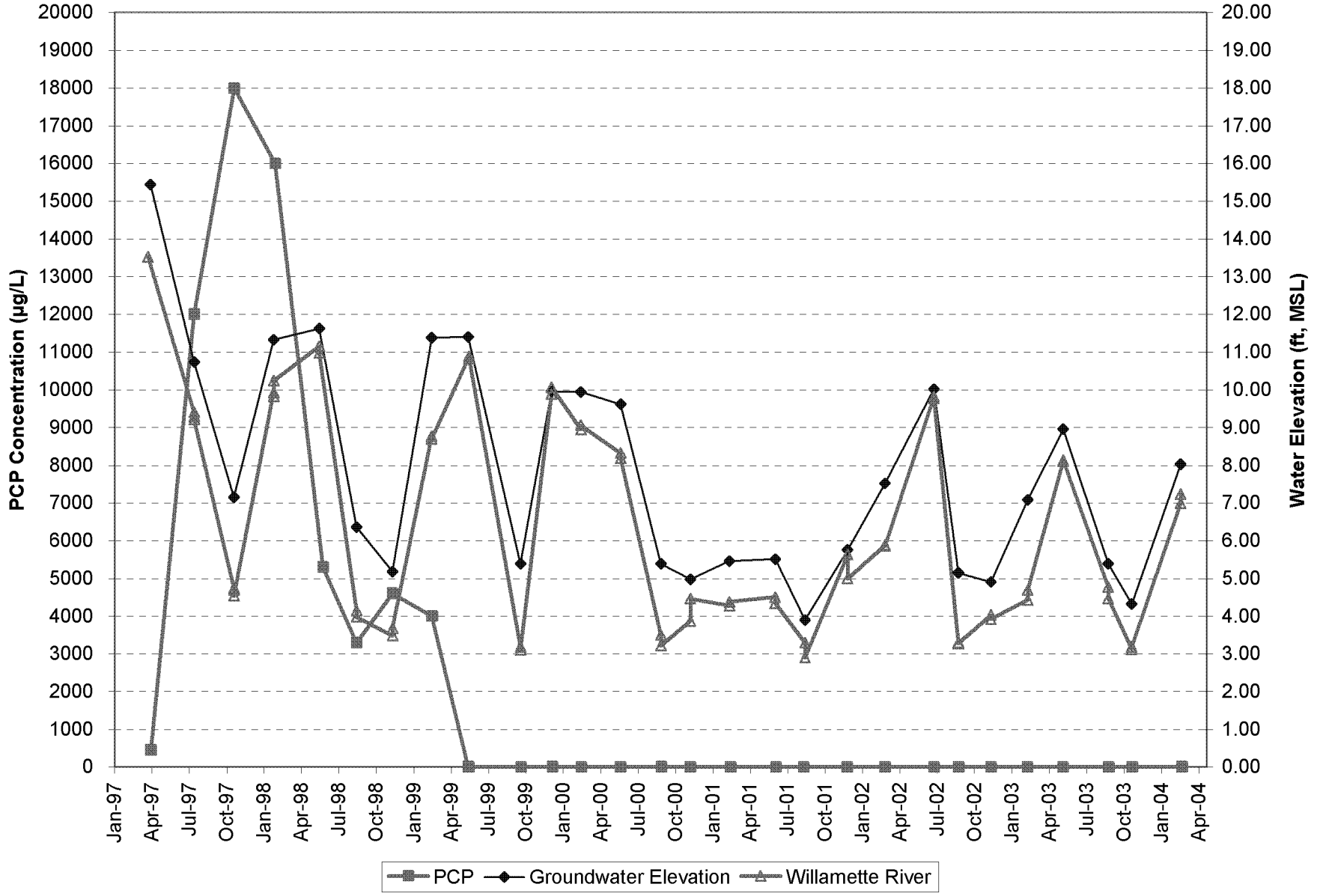
Time Oil NW Terminal
Portland, Oregon

PCP Concentrations and Groundwater Elevations, LW-11S
April 1997 – February 2004

Figure
9



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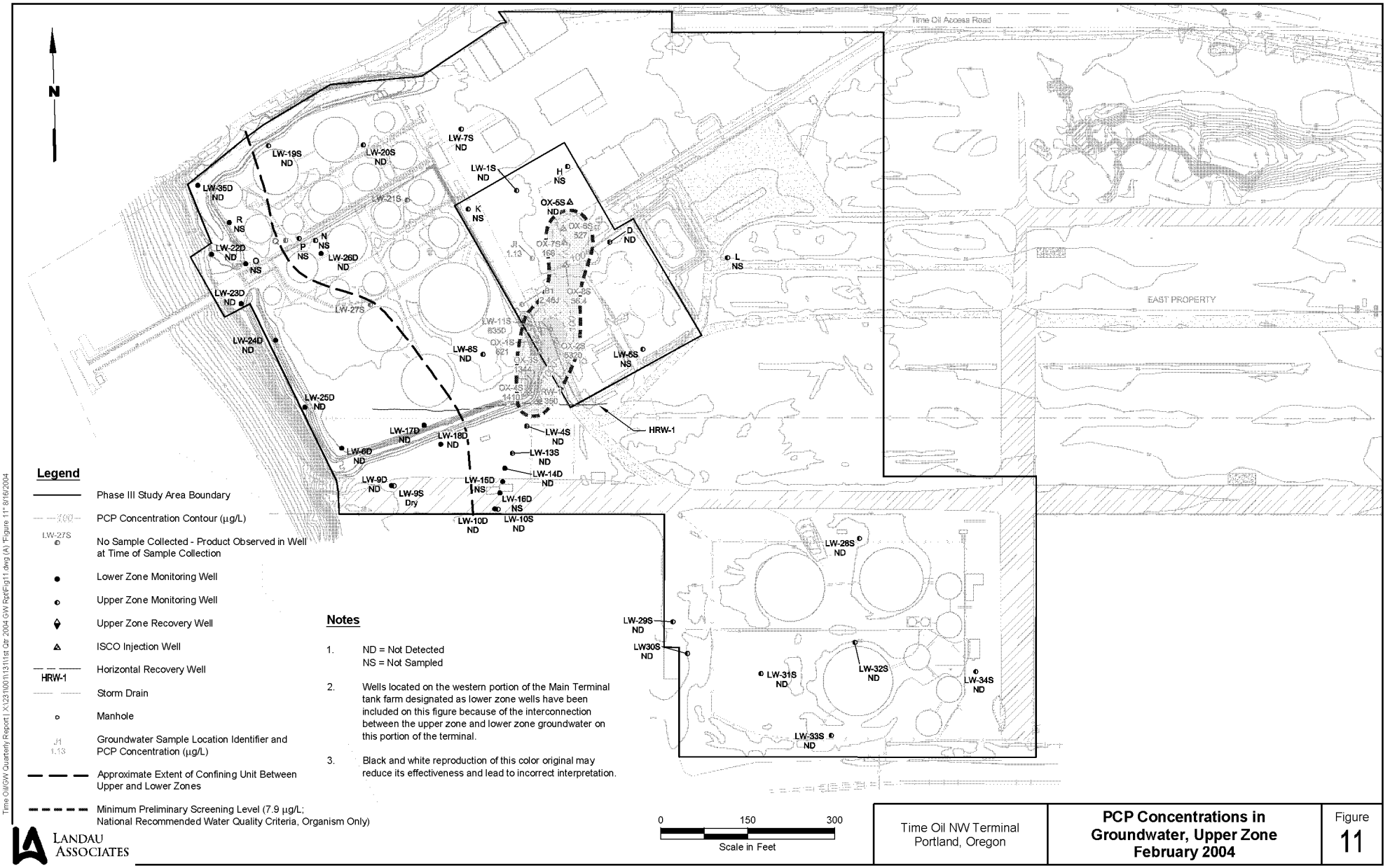
Time Oil NW Terminal
Portland, Oregon

PCP Concentrations, Groundwater Elevations, and River Stage, LW-4D
April 1997 – February 2004

Figure
10



Legend

- Phase III Study Area Boundary
- PCP Concentration Contour (µg/L)
- LW-27S — No Sample Collected - Product Observed in Well at Time of Sample Collection
- Lower Zone Monitoring Well
- Upper Zone Monitoring Well
- Upper Zone Recovery Well
- ISCO Injection Well
- HRW-1 — Horizontal Recovery Well
- Storm Drain
- Manhole
- J1 1.13 — Groundwater Sample Location Identifier and PCP Concentration (µg/L)
- Approximate Extent of Confining Unit Between Upper and Lower Zones
- Minimum Preliminary Screening Level (7.9 µg/L; National Recommended Water Quality Criteria, Organism Only)

Notes

1. ND = Not Detected
   NS = Not Sampled
2. Wells located on the western portion of the Main Terminal tank farm designated as lower zone wells have been included on this figure because of the interconnection between the upper zone and lower zone groundwater on this portion of the terminal.
3. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

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Time Oil NW Terminal
Portland, Oregon

PCP Concentrations in Groundwater, Upper Zone February 2004

Figure 11

Time Oil\GW Quarterly Report [X:\231\001\131\1st Qtr 2004 GW Rpt\Fig11.dwg (A)\"Figure 11" 8/16/2004

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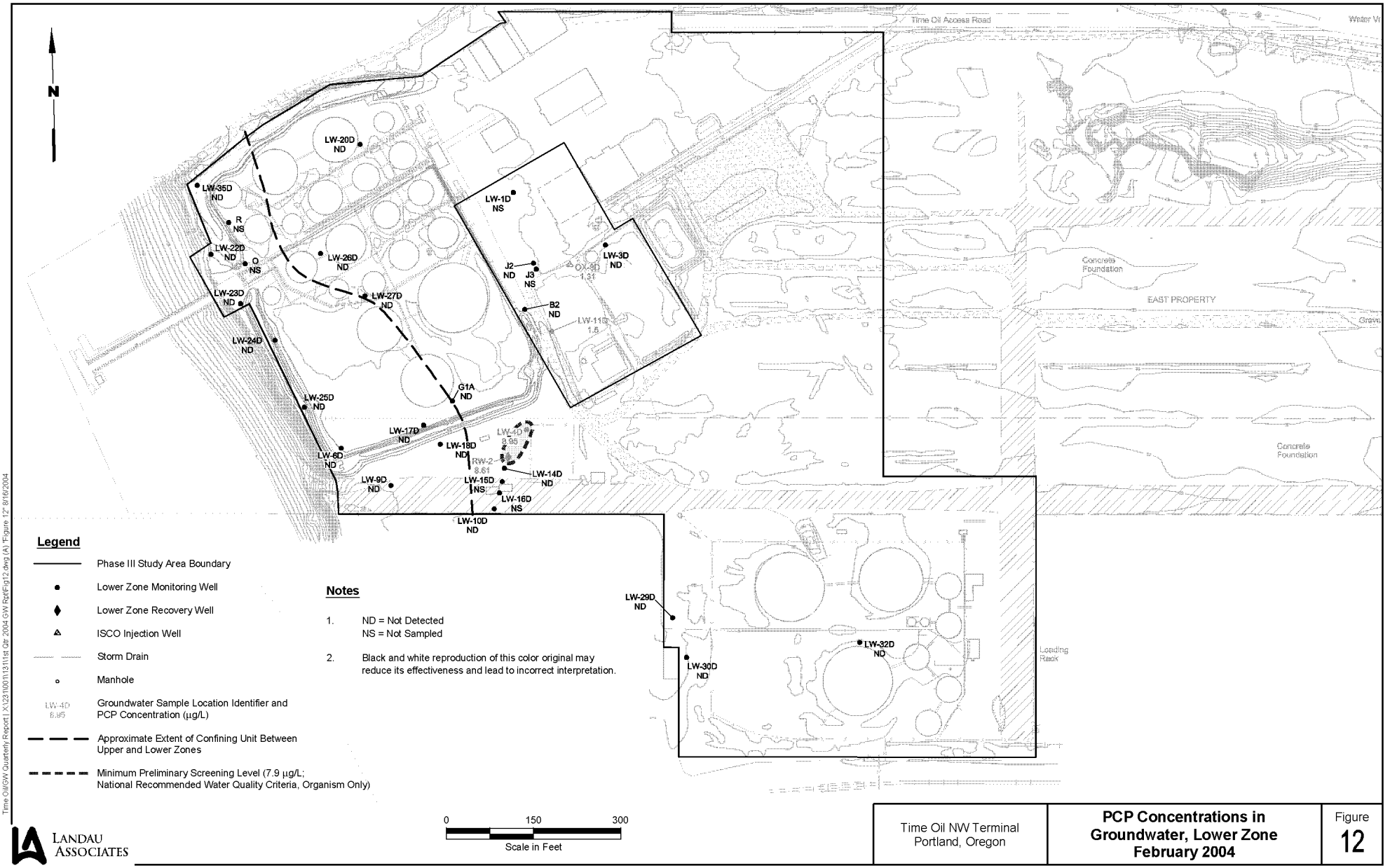

Time Oil\GW Quarterly Report I X:\23\00\13\11\st Qtr 2004 GW Rpt\Fig12.dwg (A) "Figure 12" 8/16/2004

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Time Oil NW Terminal Portland, Oregon	**PCP Concentrations in Groundwater, Lower Zone February 2004**	Figure **12**

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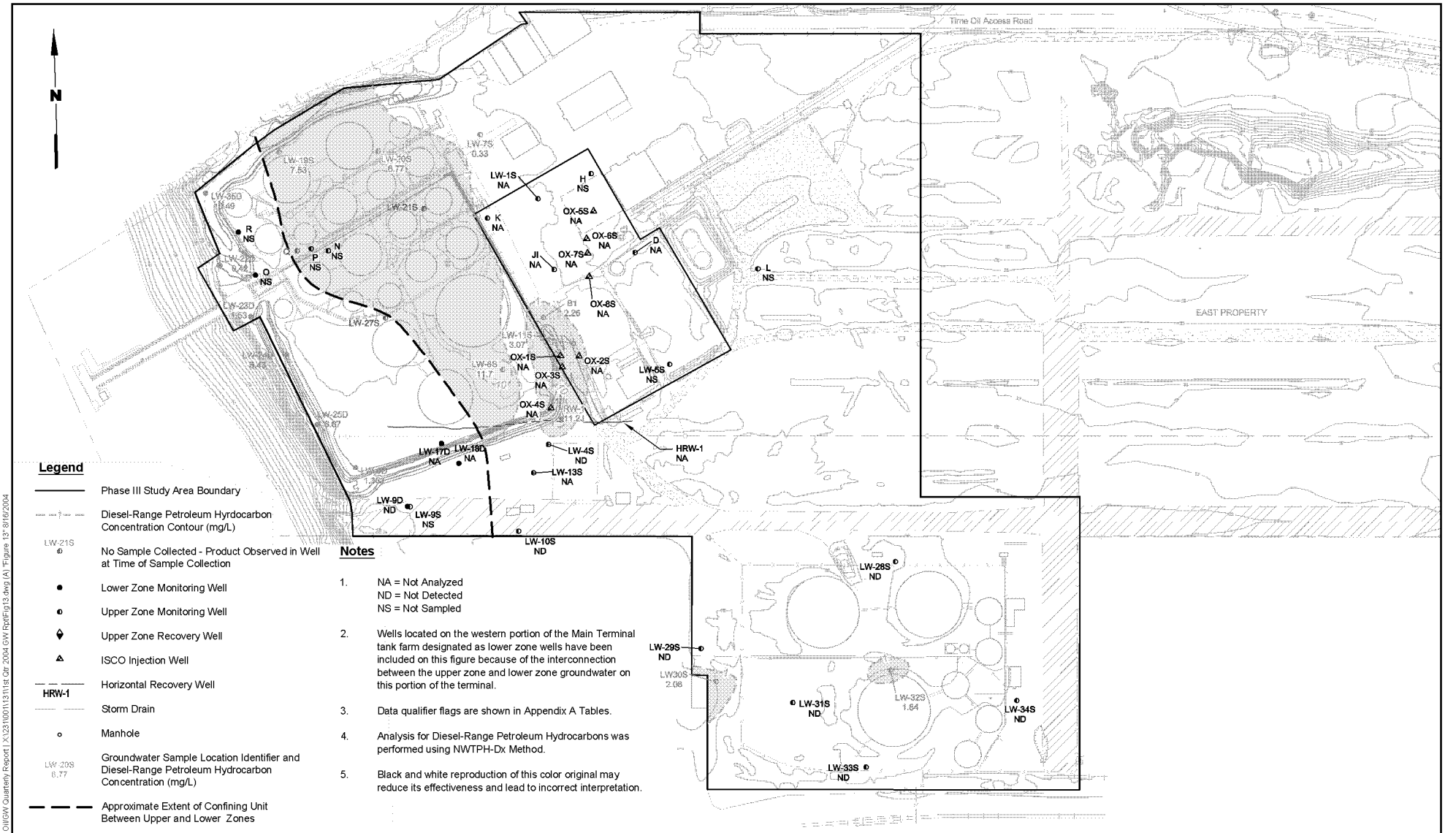

Legend

- Phase III Study Area Boundary
- Diesel-Range Petroleum Hyrdocarbon Concentration Contour (mg/L)
- LW-21S — No Sample Collected - Product Observed in Well at Time of Sample Collection
- Lower Zone Monitoring Well
- Upper Zone Monitoring Well
- Upper Zone Recovery Well
- ISCO Injection Well
- HRW-1 — Horizontal Recovery Well
- Storm Drain
- Manhole
- LW-20S 6.77 — Groundwater Sample Location Identifier and Diesel-Range Petroleum Hydrocarbon Concentration (mg/L)
- Approximate Extent of Confining Unit Between Upper and Lower Zones

Notes

1. NA = Not Analyzed
   ND = Not Detected
   NS = Not Sampled
2. Wells located on the western portion of the Main Terminal tank farm designated as lower zone wells have been included on this figure because of the interconnection between the upper zone and lower zone groundwater on this portion of the terminal.
3. Data qualifier flags are shown in Appendix A Tables.
4. Analysis for Diesel-Range Petroleum Hydrocarbons was performed using NWTPH-Dx Method.
5. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

0 150 300
Scale in Feet

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Time Oil NW Terminal
Portland, Oregon

Diesel-Range Petroleum Hydrocarbons in Groundwater Upper Zone, February 2004

Figure 13

Time Oil/GW Quarterly Report I X:\231\001\13\11st Qtr 2004 GW Rpt\Fig13.dwg (A) 'Figure 13' 8/16/2004

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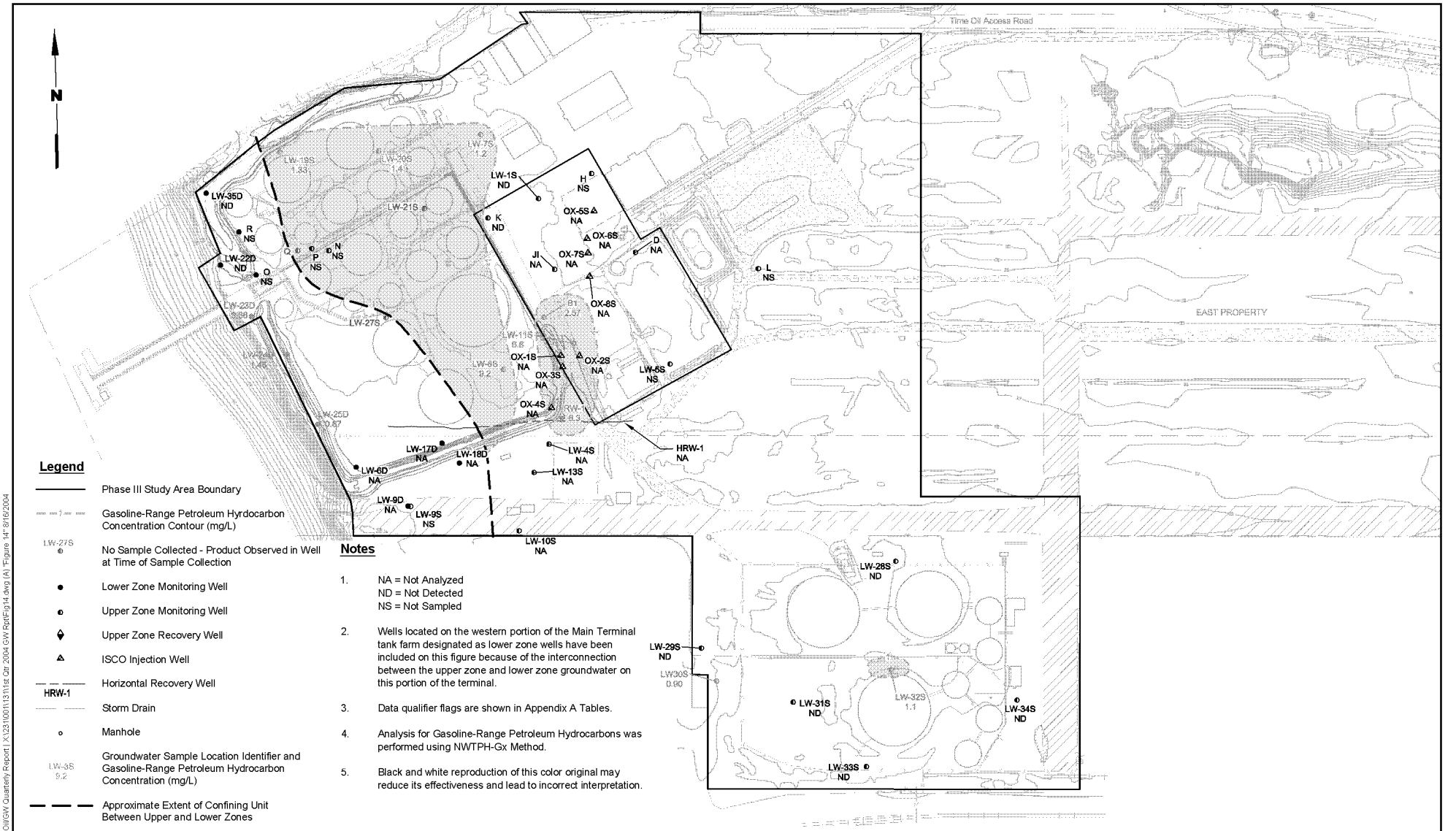

Time Oil/GW Quarterly Report I:\X23\100\113\1st Qtr 2004 GW Rpt\Fig14.dwg (A) "Figure 14" 8/16/2004

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Time Oil NW Terminal Portland, Oregon	**Gasoline-Range Petroleum Hydrocarbons in Groundwater Upper Zone, February 2004**	Figure 14

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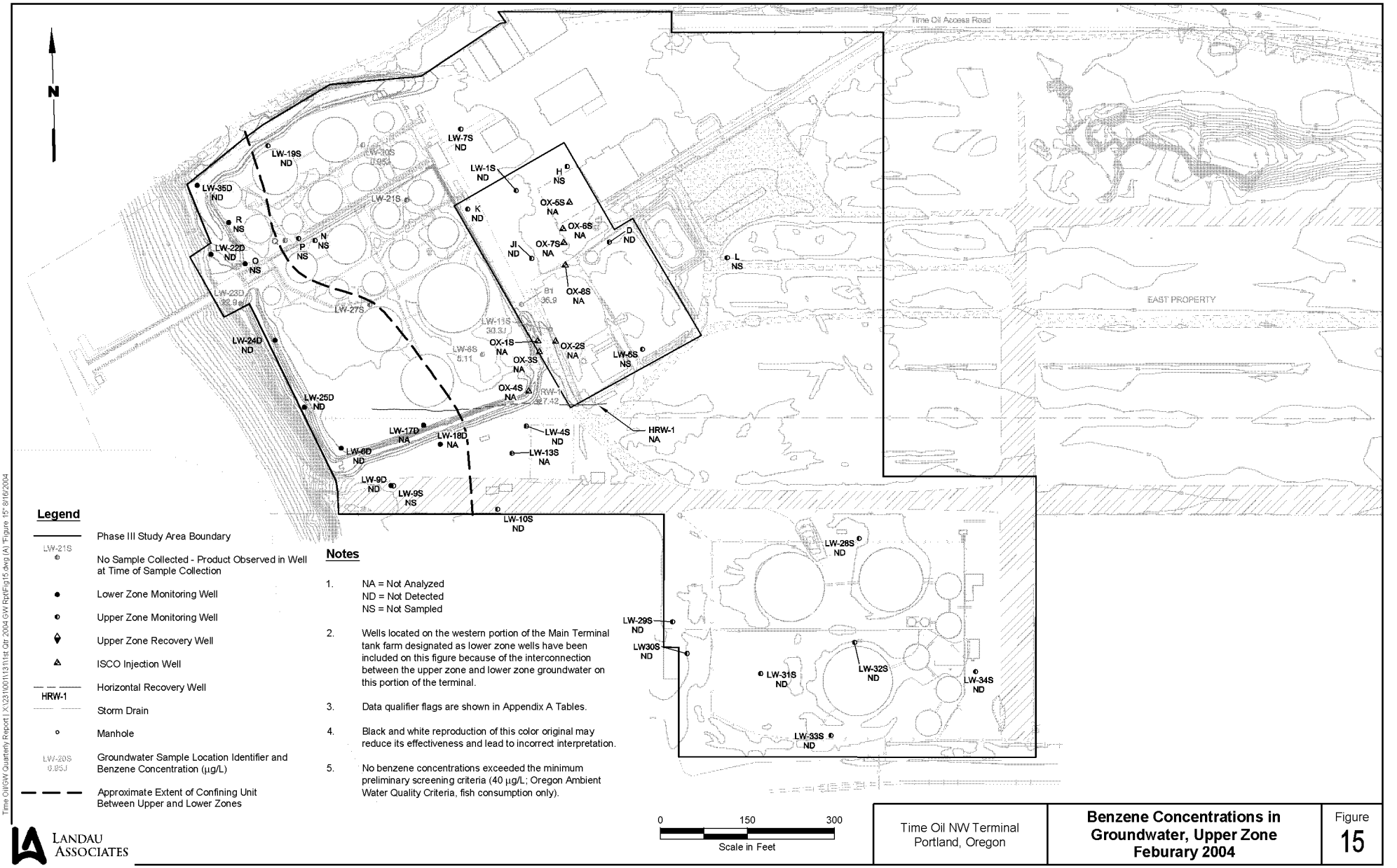

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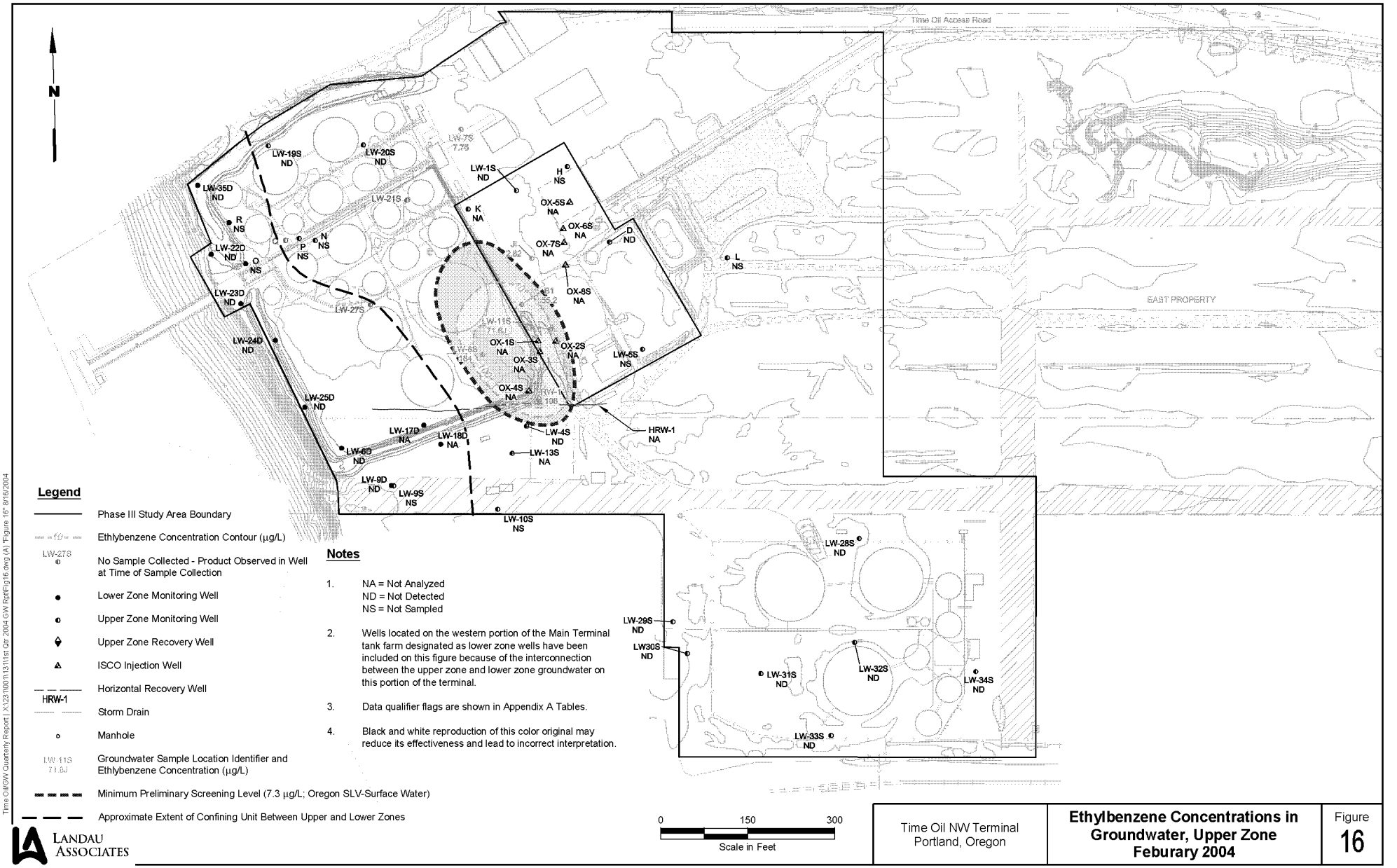

Legend

- Phase III Study Area Boundary
- Ethylbenzene Concentration Contour (µg/L)
- LW-27S — No Sample Collected - Product Observed in Well at Time of Sample Collection
- Lower Zone Monitoring Well
- Upper Zone Monitoring Well
- Upper Zone Recovery Well
- ISCO Injection Well
- Horizontal Recovery Well
- HRW-1 — Storm Drain
- Manhole
- LW-11S 71.6J — Groundwater Sample Location Identifier and Ethylbenzene Concentration (µg/L)
- Minimum Preliminary Screening Level (7.3 µg/L; Oregon SLV-Surface Water)
- Approximate Extent of Confining Unit Between Upper and Lower Zones

Notes

1. NA = Not Analyzed
   ND = Not Detected
   NS = Not Sampled
2. Wells located on the western portion of the Main Terminal tank farm designated as lower zone wells have been included on this figure because of the interconnection between the upper zone and lower zone groundwater on this portion of the terminal.
3. Data qualifier flags are shown in Appendix A Tables.
4. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

0 150 300
Scale in Feet

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Time Oil NW Terminal
Portland, Oregon

Ethylbenzene Concentrations in Groundwater, Upper Zone Feburary 2004

Figure 16

Time Oil/GW Quarterly Report [X:\231\00\13\11st Qtr 2004 GW Rpt\Fig16.dwg (A)\"Figure 16" 8/16/2004

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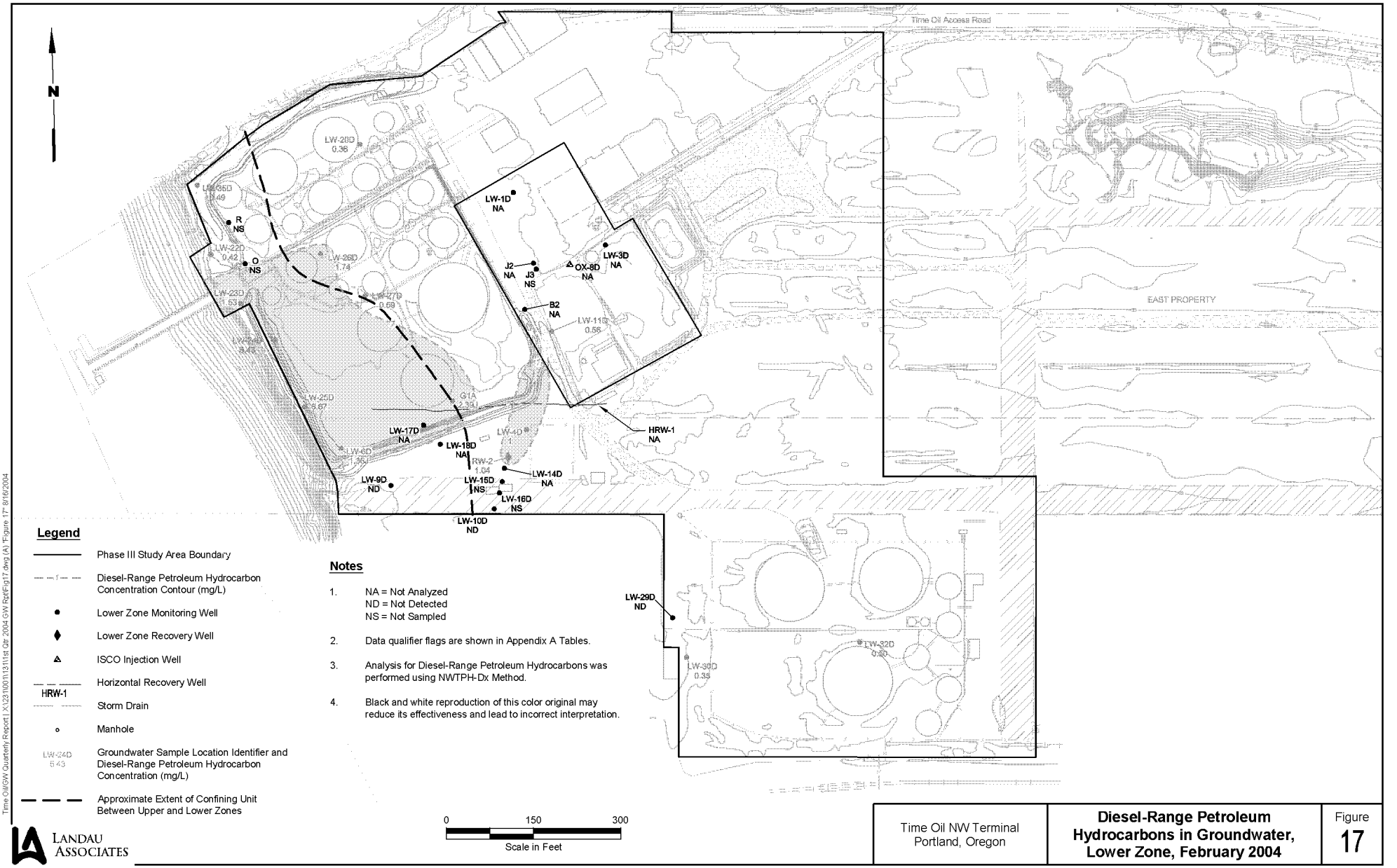

Legend

- Phase III Study Area Boundary
- Diesel-Range Petroleum Hydrocarbon Concentration Contour (mg/L)
- Lower Zone Monitoring Well
- Lower Zone Recovery Well
- ISCO Injection Well
- Horizontal Recovery Well
- HRW-1 Storm Drain
- Manhole
- LW-24D 5.43 Groundwater Sample Location Identifier and Diesel-Range Petroleum Hydrocarbon Concentration (mg/L)
- Approximate Extent of Confining Unit Between Upper and Lower Zones

Notes

1. NA = Not Analyzed
   ND = Not Detected
   NS = Not Sampled
2. Data qualifier flags are shown in Appendix A Tables.
3. Analysis for Diesel-Range Petroleum Hydrocarbons was performed using NWTPH-Dx Method.
4. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

0 150 300
Scale in Feet

Time Oil/GW Quarterly Report | X:\231\001\131\1st Qtr 2004 GW Rpt\Fig17.dwg (A) "Figure 17" 8/16/2004

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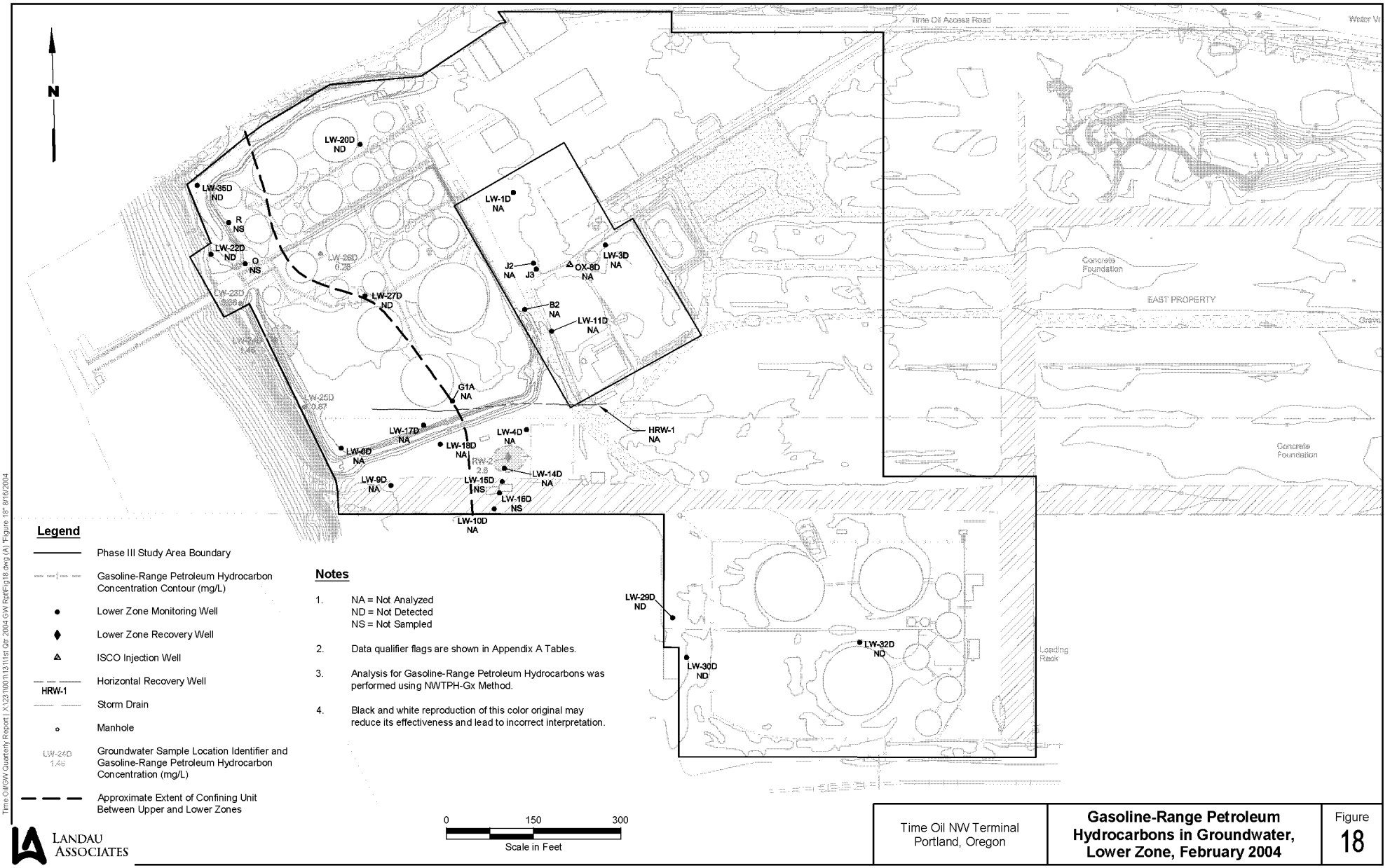
Time Oil NW Terminal Portland, Oregon	**Diesel-Range Petroleum Hydrocarbons in Groundwater, Lower Zone, February 2004**	Figure 17

BZTO104(e)019381



Time Oil\GW Quarterly Report \ X:\231\001\13\11st Qtr 2004 GW Rpt\Fig18.dwg (A) "Figure 18" 8/16/2004

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Time Oil NW Terminal Portland, Oregon	**Gasoline-Range Petroleum Hydrocarbons in Groundwater, Lower Zone, February 2004**	Figure 18

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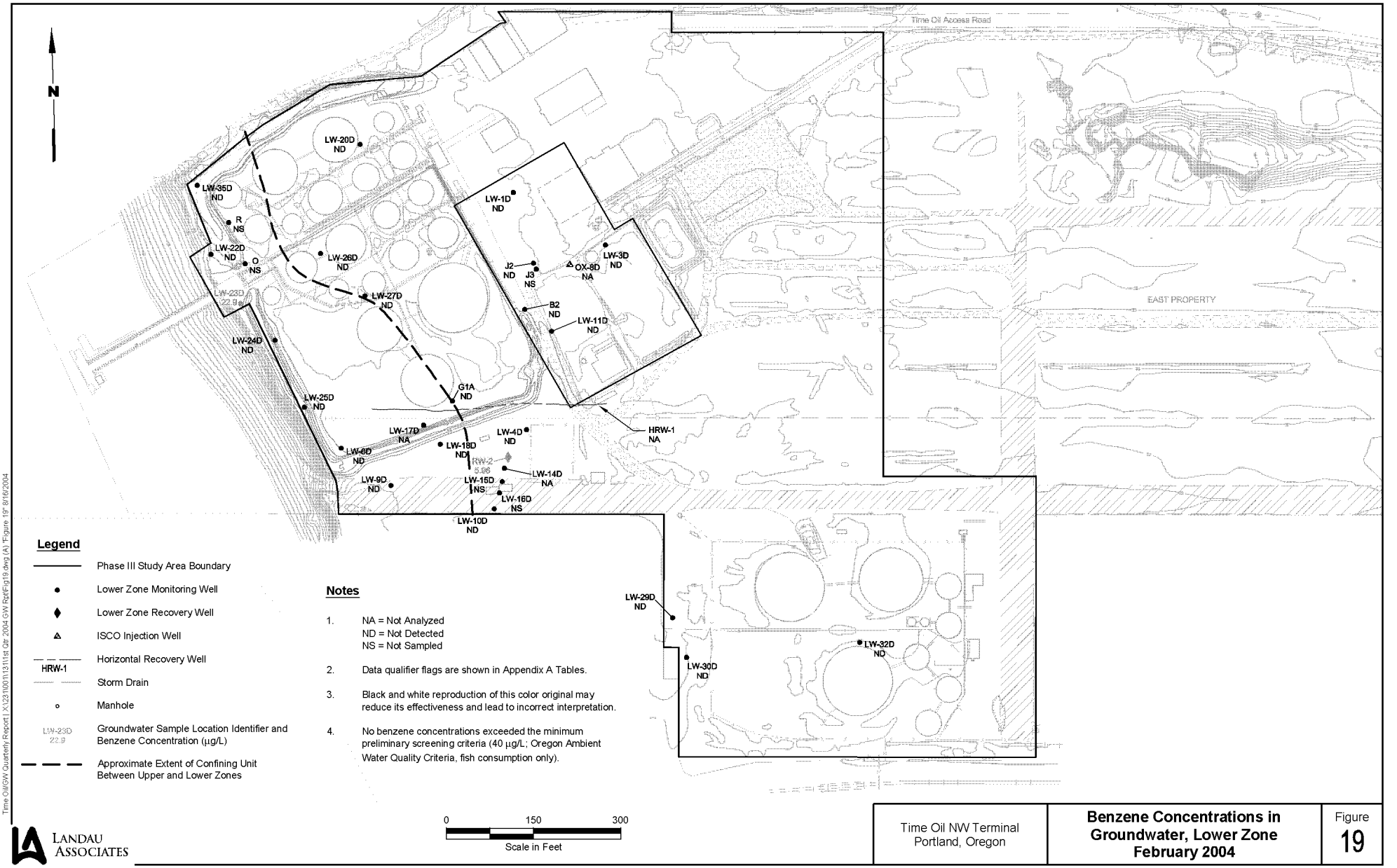

Legend

- Phase III Study Area Boundary
- Lower Zone Monitoring Well
- Lower Zone Recovery Well
- ISCO Injection Well
- Horizontal Recovery Well
- HRW-1 Storm Drain
- Manhole
- LW-23D 22.9 Groundwater Sample Location Identifier and Benzene Concentration (µg/L)
- Approximate Extent of Confining Unit Between Upper and Lower Zones

Notes

1. NA = Not Analyzed
   ND = Not Detected
   NS = Not Sampled
2. Data qualifier flags are shown in Appendix A Tables.
3. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.
4. No benzene concentrations exceeded the minimum preliminary screening criteria (40 µg/L; Oregon Ambient Water Quality Criteria, fish consumption only).

0 150 300
Scale in Feet

LANDAU ASSOCIATES

Time Oil NW Terminal Portland, Oregon	**Benzene Concentrations in Groundwater, Lower Zone February 2004**	Figure 19

Time Oil/GW Quarterly Report | X:\231\001\131\1st Qtr 2004 GW Rpt\Fig19.dwg (A) "Figure 19" 8/16/2004

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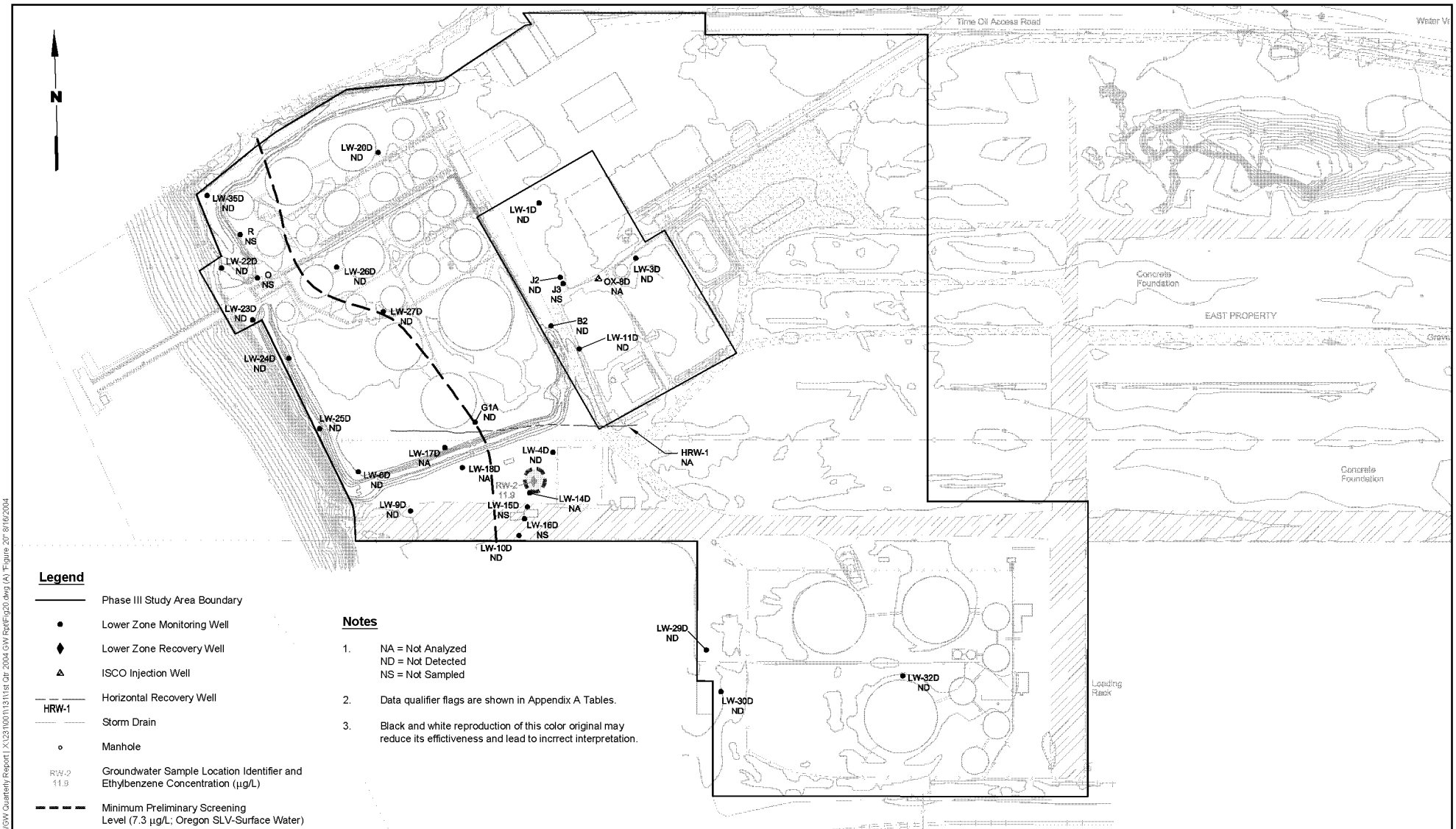

Legend

- Phase III Study Area Boundary
- Lower Zone Monitoring Well
- Lower Zone Recovery Well
- ISCO Injection Well
- Horizontal Recovery Well (HRW-1)
- Storm Drain
- Manhole
- RW-2 11.9 — Groundwater Sample Location Identifier and Ethylbenzene Concentration (µg/L)
- Minimum Preliminary Screening Level (7.3 µg/L; Oregon SLV-Surface Water)
- Approximate Extent of Confining Unit Between Upper and Lower Zones

Notes

1. NA = Not Analyzed
   ND = Not Detected
   NS = Not Sampled
2. Data qualifier flags are shown in Appendix A Tables.
3. Black and white reproduction of this color original may reduce its effictiveness and lead to incrrect interpretation.

0 150 300
Scale in Feet

LANDAU ASSOCIATES

Time Oil NW Terminal Portland, Oregon	**Ethylbenzene Concentrations in Groundwater, Lower Zone February 2004**	Figure 20

Time Oil/GW Quarterly Report | X:\231\001\131\1st Qtr 2004 GW Rpt\Fig20.dwg (A) "Figure 20" 8/16/2004

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APPENDIX A

Groundwater Level Measurements And Quality Data

TABLE A-1
GROUNDWATER MONITORING LOCATIONS AND ANALYTICAL METHODS
FIRST QUARTER EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

Well	Semivolatiles (8270)	Volatiles (8260)	MTBE (8260)	BETX -8260	PCP (8270 SIM)	PAH (8270 SIM)	TPH-Dx (NWTPH-Dx)	TPH-Gx (NWTPH-G)	PP Metals (a) (6010/7000)	TDS (160.1)	Chloride (325.2)
B1	X	X			X		X	X	X	X	X
B2	X	X			X				X	X	X
D	X	X			X				X	X	X
G1A	X	X			X		X		X	X	X
J1	X	X			X				X	X	X
J2	X	X			X				X	X	X
K				X				X			
LW-1S				X				X			
LW-3D	X	X			X				X	X	X
LW-4S	X	X			X		X		X	X	X
LW-4D	X	X			X		X		X	X	X
LW-6D	X	X			X		X		X	X	X
LW-7S	X	X	X		X	X	X	X	X	X	X
LW-8S	X	X			X		X	X	X	X	X
LW-9S (b)	X	X			X		X		X	X	X
LW9D	X	X			X		X		X	X	X
LW-10S	X	X			X		X		X	X	X
LW-10D	X	X			X		X		X	X	X
LW-11S	X	X			X		X	X	X	X	X
LW-11D	X	X			X		X		X	X	X
LW-13S					X						
LW-14D					X						
LW-17D					X						
LW-18D					X						
LW-19S	X	X	X			X	X	X	X	X	X
LW-20S	X	X	X			X	X	X	X	X	X
LW-20D	X	X	X			X	X	X	X	X	X
LW-21S (c)	X	X	X			X	X	X	X	X	X
LW-22D	X	X	X			X	X	X	X	X	X
LW-23D	X	X	X			X	X	X	X	X	X
LW-24D	X	X	X			X	X	X	X	X	X
LW-25D	X	X	X			X	X	X	X	X	X
LW-26D	X	X	X			X	X	X	X	X	X
LW-27S (c)	X	X	X			X	X	X	X	X	X
LW-27D	X	X	X			X	X	X	X	X	X
LW-28S	X	X	X			X	X	X	X	X	X
LW-29S	X	X	X			X	X	X	X	X	X
LW-29D	X	X	X			X	X	X	X	X	X
LW-30S	X	X	X			X	X	X	X	X	X
LW-30D	X	X	X			X	X	X	X	X	X
LW-31S	X	X	X			X	X	X	X	X	X
LW-32S	X	X	X			X	X	X	X	X	X

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TABLE A-1
GROUNDWATER MONITORING LOCATIONS AND ANALYTICAL METHODS
FIRST QUARTER EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

Well	Semivolatiles (8270)	Volatiles (8260)	MTBE (8260)	BETX -8260	PCP (8270 SIM)	PAH (8270 SIM)	TPH-Dx (NWTPH-Dx)	TPH-Gx (NWTPH-G)	PP Metals (a) (6010/7000)	TDS (160.1)	Chloride (325.2)
LW-32D	X	X	X			X	X	X	X	X	X
LW-33S	X	X	X			X	X	X	X	X	X
LW-34S	X	X	X			X	X	X	X	X	X
LW-35D	X	X	X			X	X	X	X	X	X
RW1	X	X			X		X	X	X	X	X
RW2	X	X			X		X	X	X	X	X
OX-1S					X						
OX-2S					X						
OX-3S					X						
OX-4S					X						
OX-5S					X						
OX-6S					X						
OX-7S					X						
OX-8S					X						
OX-8D					X						
HRW-1					X						

Note: Well locations in regular text are part of the Phase II RI sampling program, wells in bold text are part of the Phase III RI sampling program.

(a) Metals analyzed include: arsenic, chromium, copper, nickel, lead, and zinc
(b) Well dry and not sampled
(c) Well contained product and not sampled

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TABLE A-2
GROUNDWATER LEVEL MEASUREMENTS
QUARTERLY SAMPLING EVENTS, MARCH 1997 - FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

Well	Date	Time	Reference Elevation (ft) (a)	DTW (ft) (b)	GW Elevation (ft) (c)	LNAPL Thickness (ft)	NOTES
Shallow Wells:							
B	03/25/1997	----	29.04	NM	----	NM	Couldn't remove cap
B	03/31/1997	----	29.04	NM	----	NM	Couldn't remove cap
B	07/16/1997	08:30	29.04	11.02	18.02	----	
B	10/21/1997	16:35	29.04	13.39	15.65	----	
B	01/27/1998	12:15	29.04	11.53	17.51	----	
B	05/18/1998	17:56	29.04	12.51	16.53	----	
B	08/17/1998	11:02	29.04	14.40	14.64	----	
B	11/13/1998	10:24	29.04	14.38	14.66	----	
B	02/16/1999	13:36	29.04	9.69	19.35	----	
B	05/18/1999	15:52	29.04	11.72	17.32	----	
B	09/21/1999	12:21	29.04	15.18	13.86	----	
B	12/06/1999	14:37	29.04	13.00	16.04	----	
B	02/16/2000	10:57	29.04	11.84	17.20	----	
B	05/23/2000	17:31	29.04	13.22	15.82	----	
B	08/29/2000	14:23	29.04	15.32	13.72	----	
B	11/09/2000	13:31	29.04	15.29	13.75	----	
B	02/12/2001	15:25	29.04	13.68	15.36	----	
B	06/04/2001	12:49	29.04	14.18	14.86	----	
B	08/16/2001	11:54	29.04	15.80	13.24	----	
B	11/28/2001	12:44	29.04	13.80	15.24	----	
B	02/27/2002	14:33	29.04	12.27	16.77	----	
B	06/27/2002	15:05	29.04	13.38	15.66	----	
B	08/26/2002	16:59	29.04	14.02	15.02	----	
B	11/13/2002	09:01	29.04	13.90	15.14	----	
B	02/11/2003	10:13	29.04	12.85	16.19	----	
B	05/08/2003	08:11	29.04	12.27	16.77	----	
B	08/27/2003	15:30	29.04	14.70	14.34	----	
B1	03/25/1997	10:48	29.74	----	----	----	Couldn't remove cap
B1	03/31/1997	----	29.74	----	----	----	Couldn't remove cap
B1	07/16/1997	07:49	29.74	11.01	18.73	----	
B1	10/21/1997	16:33	29.74	13.56	16.18	----	
B1	01/27/1998	12:10	29.74	11.68	18.06	----	
B1	05/18/1998	17:55	29.74	12.76	16.98	----	
B1	08/17/1998	11:04	29.74	14.15	15.59	----	
B1	11/13/1998	10:21	29.74	15.05	14.69	----	
B1	02/16/1999	13:33	29.74	9.59	20.15	----	
B1	05/18/1999	15:51	29.74	11.79	17.95	----	
B1	09/21/1999	12:19	29.74	14.63	15.11	----	
B1	12/06/1999	14:38	29.74	14.25	15.49	----	
B1	02/16/2000	10:55	29.74	12.20	17.54	----	
B1	05/23/2000	17:32	29.74	13.25	16.49	----	
B1	08/29/2000	14:22	29.74	14.93	14.81	----	
B1	11/09/2000	13:30	29.74	15.56	14.18	----	
B1	02/12/2001	15:26	29.74	15.19	14.55	----	
B1	06/04/2001	12:50	29.74	15.06	14.68	----	
B1	08/16/2001	11:55	29.74	15.72	14.02	----	
B1	11/28/2001	12:45	29.74	15.47	14.27	----	
B1	02/27/2002	14:34	29.74	12.15	17.59	----	
B1	03/05/2002	11:06	29.74	12.28	17.46	----	
B1	04/05/2002	08:42	29.74	12.40	17.34	----	
B1	05/29/2002	00:00	29.74	13.20	16.54	----	
B1	06/27/2002	15:06	29.74	13.77	15.97	----	
B1	08/26/2002	17:00	29.74	14.79	14.95	----	
B1	11/13/2002	09:02	29.74	16.00	13.74	----	
B1	02/11/2003	10:15	29.74	12.86	16.88	----	
B1	05/08/2003	08:12	29.74	12.25	17.49	----	
B1	08/27/2003	15:31	29.74	14.79	14.95	----	
B1	10/23/2003	14:07	29.74	15.61	14.13	----	
B1	02/19/2004	14:13	29.74	12.39	17.35	----	
C	03/25/1997	12:32	28.89	5.56	23.33	----	
C	03/31/1997	11:38	28.89	6.16	22.73	----	
C	07/16/1997	08:47	28.89	8.28	20.61	----	
C	10/21/1997	15:15	28.89	10.00	18.89	----	
C	01/27/1998	13:41	28.89	7.98	20.91	----	
C	05/18/1998	18:08	28.89	9.54	19.35	----	

TABLE A-2
GROUNDWATER LEVEL MEASUREMENTS
QUARTERLY SAMPLING EVENTS, MARCH 1997 - FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

Well	Date	Time	Reference Elevation (ft) (a)	DTW (ft) (b)	GW Elevation (ft) (c)	LNAPL Thickness (ft)	NOTES
C	08/17/1998	11:11	28.89	dry	----	----	
C	11/13/1998	10:36	28.89	10.36	18.53	----	
C	02/16/1999	13:58	28.89	5.91	22.98	----	
C	05/18/1999	16:04	28.89	7.90	20.99	----	
C	09/21/1999	12:44	28.89	dry	----	----	
C	12/06/1999	14:50	28.89	9.82	----	----	Water in endcap
C	02/16/2000	09:51	28.89	8.78	20.11	----	
C	05/23/2000	17:55	28.89	dry	----	----	
C	08/29/2000	14:33	28.89	dry	----	----	
C	11/09/2000	13:47	28.89	9.94	18.95	----	Dry?
C	02/12/2001	15:08	28.89	dry	----	----	
C	06/04/2001	13:25	28.89	dry	----	----	
C	08/16/2001	12:11	28.89	dry	----	----	
C	11/28/2001	13:03	28.89	dry	----	----	
C	02/27/2002	14:44	28.89	8.94	19.95	----	
C	06/27/2002	15:36	28.89	dry	----	----	
C	08/26/2002	17:31	28.89	dry	----	----	
C	11/13/2002	09:25	28.89	dry	----	----	
C	02/11/2003	10:46	28.89	dry	----	----	1" water
C	05/08/2003	08:35	28.89	8.53	20.36	----	
C	08/27/2003	15:08	28.89	dry	----	----	
D	03/25/1997	12:25	30.04	8.32	21.72	----	
D	03/31/1997	11:31	30.04	8.66	21.38	----	
D	07/16/1997	08:35	30.04	10.45	19.59	----	
D	10/21/1997	17:10	30.04	13.27	16.77	----	
D	01/27/1998	13:31	30.04	10.72	19.32	----	
D	05/18/1998	17:36	30.04	12.23	17.81	----	
D	08/17/1998	10:57	30.04	13.83	16.21	----	
D	11/13/1998	09:05	30.04	15.01	15.03	----	
D	02/16/1999	13:45	30.04	8.50	21.54	----	
D	05/18/1999	15:59	30.04	11.00	19.04	----	
D	09/21/1999	12:37	30.04	14.41	15.63	----	
D	12/06/1999	14:46	30.04	14.04	16.00	----	
D	02/16/2000	09:55	30.04	11.50	18.54	----	
D	05/23/2000	12:56	30.04	12.74	17.30	----	
D	08/29/2000	14:35	30.04	14.70	15.34	----	
D	11/09/2000	13:43	30.04	15.49	14.55	----	
D	02/12/2001	15:12	30.04	14.99	15.05	----	
D	06/04/2001	12:35	30.04	14.95	15.09	----	
D	08/16/2001	11:46	30.04	15.64	14.40	----	
D	11/28/2001	12:43	30.04	15.45	14.59	----	
D	02/27/2002	14:21	30.04	11.37	18.67	----	
D	03/05/2002	11:00	30.04	11.51	18.53	----	
D	04/05/2002	08:45	30.04	11.65	18.39	----	
D	05/29/2002	00:00	30.04	12.73	17.31	----	
D	06/27/2002	15:00	30.04	13.43	16.61	----	
D	08/26/2002	17:04	30.04	14.68	15.36	----	
D	11/13/2002	09:19	30.04	15.96	14.08	----	
D	02/11/2003	10:41	30.04	12.10	17.94	----	
D	05/08/2003	08:30	30.04	11.48	18.56	----	
D	08/27/2003	15:03	30.04	14.60	15.44	----	
D	10/23/2003	13:50	30.04	15.54	14.50	----	
D	02/19/2004	14:22	30.04	11.83	18.21	----	
F	08/18/1998	08:10	NA	14.77	NA		
F							Abandoned August 2003
G	03/25/1997	11:57	30.24	14.49	15.75	----	
G	03/31/1997	09:13	30.24	14.01	16.23	----	
G	07/16/1997	07:37	30.24	14.30	15.94	----	
G	10/21/1997	16:20	30.24	dry	----	----	
G	01/27/1998	11:49	30.24	dry	----	----	
G	05/18/1998	17:30	30.24	dry	----	----	
G	08/17/1998	11:06	30.24	dry	----	----	
G	11/13/1998	09:53	30.24	dry	----	----	
G	02/16/1999	13:14	30.24	dry	----	----	
G	05/18/1999	14:50	30.24	dry	----	----	
G	09/21/1999	11:30	30.24	dry	----	----	

TABLE A-2
GROUNDWATER LEVEL MEASUREMENTS
QUARTERLY SAMPLING EVENTS, MARCH 1997 - FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

Well	Date	Time	Reference Elevation (ft) (a)	DTW (ft) (b)	GW Elevation (ft) (c)	LNAPL Thickness (ft)	NOTES
G	12/06/1999	14:07	30.24	dry	----	----	
G	02/16/2000	10:19	30.24	dry	----	----	
G	05/23/2000	16:33	30.24	dry	----	----	
G	08/29/2000	13:18	30.24	dry	----	----	
G	11/09/2000	12:30	30.24	dry	----	----	
G	02/12/2001	16:02	30.24	dry	----	----	
G	06/04/2001	11:41	30.24	dry	----	----	
G	08/16/2001	10:50	30.24	dry	----	----	
G	11/28/2001	11:33	30.24	dry	----	----	
G	02/27/2002	13:38	30.24	dry	----	----	
G	06/27/2002	14:13	30.24	dry	----	----	
G	08/26/2002	16:05	30.24	dry	----	----	
G	11/13/2002	07:37	30.24	dry	----	----	
G	02/11/2003	08:58	30.24	dry	----	----	
G	05/08/2003	06:57	30.24	dry	----	----	
G	08/27/2003	13:38	30.24	dry	----	----	
G	10/23/2003	12:38	30.24	dry	----	----	
G	02/19/2004	12:58	30.24	dry	----	----	
H	03/31/1997	11:51	27.08	5.42	21.66	----	
H	07/16/1997	08:44	27.08	7.29	19.79	----	
H	10/21/1997	17:45	27.08	10.08	17.00	----	
H	01/27/1998	13:45	27.08	7.56	19.52	----	
H	05/18/1998	17:50	27.08	9.06	18.02	----	
H	08/17/1998	09:15	27.08	10.68	16.40	----	
H	11/13/1998	10:54	27.08	11.84	15.24	----	
H	02/16/1999	13:50	27.08	5.35	21.73	----	
H	05/18/1999	15:41	27.08	7.78	19.30	----	
H	09/21/1999	12:15	27.08	11.23	15.85	----	
H	12/06/1999	15:13	27.08	10.91	16.17	----	
H	02/16/2000	10:52	27.08	8.28	18.80	----	
H	05/23/2000	17:20	27.08	9.48	17.60	----	
H	08/29/2000	14:06	27.08	11.55	15.53	----	
H	11/09/2000	13:23	27.08	12.34	14.74	----	
H	02/12/2001	15:36	27.08	11.88	15.20	----	
H	06/04/2001	12:27	27.08	11.81	15.27	----	
H	08/16/2001	11:41	27.08	12.57	14.51	----	
H	11/28/2001	12:34	27.08	12.39	14.69	----	
H	02/27/2002	14:18	27.08	8.14	18.94	----	
H	03/05/2002	10:58	27.08	8.28	18.80	----	
H	04/05/2002	09:10	27.08	8.45	18.63	----	
H	05/29/2002	00:00	27.08	9.38	17.70	----	
H	06/27/2002	14:51	27.08	10.25	16.83	----	
H	08/26/2002	17:00	27.08	11.54	15.54	----	
H	11/13/2002	09:12	27.08	12.83	14.25	----	
H	02/11/2003	10:33	27.08	8.96	18.12	----	
H	05/08/2003	08:24	27.08	8.24	18.84	----	
H	08/27/2003	15:02	27.08	11.48	15.60	----	
H	10/23/2003	13:42	27.08	12.41	14.67	----	
H	02/19/2004	14:35	27.08	9.71	17.37	----	
J1	03/25/1997	12:15	29.70	8.78	20.92	----	Orange/brown algae
J1	03/31/1997	11:19	29.70	9.02	20.68	----	
J1	07/16/1997	08:22	29.70	10.49	19.21	----	
J1	10/21/1997	16:58	29.70	13.10	16.60	----	
J1	01/27/1998	13:15	29.70	11.03	18.67	----	
J1	05/18/1998	18:01	29.70	12.27	17.43	----	
J1	08/17/1998	11:00	29.70	13.78	15.92	----	
J1	11/13/1998	10:30	29.70	14.77	14.93	----	
J1	02/16/1999	13:37	29.70	8.91	20.79	----	
J1	05/18/1999	15:46	29.70	11.19	18.51	----	
J1	09/21/1999	12:28	29.70	14.36	15.34	----	
J1	12/06/1999	15:07	29.70	13.95	15.75	----	
J1	02/16/2000	11:05	29.70	11.67	18.03	----	
J1	05/23/2000	17:27	29.70	12.78	16.92	----	
J1	08/29/2000	14:14	29.70	14.58	15.12	----	
J1	11/09/2000	13:25	29.70	15.30	14.40	----	
J1	02/12/2001	15:22	29.70	14.87	14.83	----	

TABLE A-2
GROUNDWATER LEVEL MEASUREMENTS
QUARTERLY SAMPLING EVENTS, MARCH 1997 - FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

Well	Date	Time	Reference Elevation (ft) (a)	DTW (ft) (b)	GW Elevation (ft) (c)	LNAPL Thickness (ft)	NOTES
J1	06/04/2001	12:39	29.70	14.83	14.87	----	
J1	08/16/2001	11:52	29.70	15.48	14.22	----	
J1	11/28/2001	12:35	29.70	15.23	14.47	----	
J1	02/27/2002	14:30	29.70	11.62	18.08	----	
J1	03/05/2002	11:04	29.70	11.76	17.94	----	
J1	04/05/2002	08:40	29.70	11.87	17.83	----	
J1	05/29/2002	00:00	29.70	12.77	16.93	----	
J1	06/27/2002	15:02	29.70	13.40	16.30	----	
J1	08/26/2002	16:54	29.70	14.51	15.19	----	
J1	11/13/2002	09:00	29.70	15.71	13.99	----	
J1	02/11/2003	10:18	29.70	12.33	17.37	----	
J1	05/08/2003	08:14	29.70	11.65	18.05	----	
J1	08/27/2003	14:47	29.70	14.46	15.24	----	
J1	10/23/2003	13:52	29.70	15.31	14.39	----	
J1	02/19/2004	14:18	29.70	11.88	17.82	----	
K	03/25/1997	12:08	29.42	8.20	21.22	----	
K	03/31/1997	09:32	29.42	8.46	20.96	----	
K	07/16/1997	08:00	29.42	10.03	19.39	----	
K	10/21/1997	16:45	29.42	12.71	16.71	----	
K	01/27/1998	12:37	29.42	10.46	18.96	----	
K	05/18/1998	17:52	29.42	11.77	17.65	----	
K	08/17/1998	10:50	29.42	13.34	16.08	----	
K	11/13/1998	10:14	29.42	14.30	15.12	----	
K	02/16/1999	13:55	29.42	8.41	21.01	----	
K	05/18/1999	15:30	29.42	10.68	18.74	----	
K	09/21/1999	12:08	29.42	13.91	15.51	----	
K	12/06/1999	14:32	29.42	13.44	15.98	----	
K	02/16/2000	10:48	29.42	11.15	18.27	----	
K	05/23/2000	17:12	29.42	12.25	17.17	----	
K	08/29/2000	13:56	29.42	14.16	15.26	----	
K	11/09/2000	13:16	29.42	14.84	14.58	----	
K	02/12/2001	15:41	29.42	14.35	15.07	----	
K	06/04/2001	12:20	29.42	14.22	15.20	----	
K	08/16/2001	11:35	29.42	15.12	14.30	----	
K	11/28/2001	12:26	29.42	14.68	14.74	----	
K	02/27/2002	14:17	29.42	11.05	18.37	----	
K	03/05/2002	10:55	29.42	11.25	18.17	----	
K	04/05/2002	08:55	29.42	11.30	18.12	----	
K	05/29/2002	00:00	29.42	12.22	17.20	----	
K	06/27/2002	14:47	29.42	12.92	16.50	----	
K	08/26/2002	17:17	29.42	14.12	15.30	----	
K	11/13/2002	09:11	29.42	15.18	14.24	----	
K	02/11/2003	10:29	29.42	11.80	17.62	----	
K	05/08/2003	08:21	29.42	11.14	18.28	----	
K	08/27/2003	14:52	29.42	14.08	15.34	----	
K	10/23/2003	13:40	29.42	14.91	14.51	----	
K	02/19/2004	14:39	29.42	11.41	18.01	----	
L	03/25/1997	12:35	28.10	4.98	23.12	----	
L	03/31/1997	11:40	28.10	5.24	22.86	----	
L	07/16/1997	08:49	28.10	7.50	20.60	----	
L	10/21/1997	15:18	28.10	9.55	18.55	----	
L	01/27/1998	13:39	28.10	6.45	21.65	----	
L	05/18/1998	18:07	28.10	9.21	18.89	----	
L	08/17/1998	11:10	28.10	11.59	16.51	----	
L	11/13/1998	10:35	28.10	13.02	15.08	----	
L	02/16/1999	13:57	28.10	4.78	23.32	----	
L	05/18/1999	16:03	28.10	7.62	20.48	----	
L	09/21/1999	12:43	28.10	12.30	15.80	----	
L	12/06/1999	14:49	28.10	9.51	18.59	----	
L	02/16/2000	09:49	28.10	7.13	20.97	----	
L	05/23/2000	17:54	28.10	9.11	18.99	----	
L	08/29/2000	14:32	28.10	12.66	15.44	----	
L	11/09/2000	13:46	28.10	13.56	14.54	----	
L	02/12/2001	15:07	28.10	13.04	15.06	----	
L	06/04/2001	13:24	28.10	12.78	15.32	----	
L	08/16/2001	12:10	28.10	13.66	14.44	----	

TABLE A-2
GROUNDWATER LEVEL MEASUREMENTS
QUARTERLY SAMPLING EVENTS, MARCH 1997 - FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

Well	Date	Time	Reference Elevation (ft) (a)	DTW (ft) (b)	GW Elevation (ft) (c)	LNAPL Thickness (ft)	NOTES
L	11/28/2001	13:02	28.10	12.34	15.76	----	
L	02/27/2002	14:42	28.10	7.16	20.94	----	
L	03/05/2002	11:12	28.10	7.39	20.71	----	
L	04/05/2002	08:39	28.10	7.63	20.47	----	
L	05/29/2002	00:00	28.10	9.09	19.01	----	
L	06/27/2002	10:38	28.10	10.11	17.99	----	
L	08/26/2002	17:30	28.10	12.56	15.54	----	
L	11/13/2002	09:26	28.10	14.00	14.10	----	
L	02/11/2003	10:47	28.10	7.17	20.93	----	
L	05/08/2003	08:34	28.10	7.01	21.09	----	
L	08/27/2003	15:09	28.10	15.20	12.90	----	
L	10/23/2003	14:20	28.10	13.56	14.54	----	
L	02/19/2004	13:57	28.10	6.84	21.26	----	
N	03/25/1997	11:48	31.40	14.05	17.35	----	
N	03/31/1997	08:59	31.40	14.26	17.14	----	Hydrocarbon odor, product
N	07/16/1997	07:20	31.40	16.03	16.33	1.20	Light brown color; thick coating on probe
N	10/21/1997	16:09	31.40	16.46	14.94	----	No product - strong petroleum odor
N	10/23/1997	17:20	31.40	16.48	14.92	----	No product - strong petroleum odor
N	01/27/1998	11:13	31.40	15.01	16.41	0.02	
N	05/18/1998	17:20	31.40	16.39	15.06	0.06	
N	08/17/1998	10:40	31.40	17.16	14.26	0.02	Thin coat of thick product
N	11/13/1998	09:48	31.40	17.83	13.58	0.01	
N	02/16/1999	12:55	31.40	14.09	17.53	0.27	Strong petroleum odor
N	05/18/1999	14:47	31.40	15.79	15.64	0.04	
N	09/21/1999	11:23	31.40	17.39	14.02	0.01	
N	12/06/1999	14:00	31.40	16.57	14.83	----	
N	02/16/2000	10:10	31.40	15.69	15.71	----	
N	05/23/2000	16:24	31.40	16.42	14.98	----	Strong petroleum odor, no product
N	08/29/2000	13:07	31.40	17.61	13.79	----	
N	11/09/2000	12:26	31.40	18.23	13.19	0.03	
N	02/12/2001	15:49	31.40	17.64	13.76	----	
N	06/04/2001	11:31	31.40	17.58	13.82	----	
N	08/16/2001	10:29	31.40	18.08	13.32	----	Trace product
N	11/28/2001	11:27	31.40	18.06	13.34	----	Trace product
N	02/27/2002	13:25	31.40	15.76	15.64	----	
N	04/05/2002	08:09	31.40	15.88	15.52	----	
N	05/29/2002	00:00	31.40	16.42	14.98	----	
N	06/27/2002	14:12	31.40	16.80	14.60	----	
N	08/26/2002	15:56	31.40	17.51	13.89	----	
N	11/13/2002	07:27	31.40	18.44	12.98	0.03	Product present
N	02/11/2003	08:49	31.40	15.33	16.07	----	
N	05/08/2003	06:51	31.40	15.71	15.69	----	
N	08/27/2003	13:33	31.40	17.54	13.86	----	
N	10/23/2003	12:08	31.40	18.18	13.22	----	
N	02/19/2004	12:21	31.40	15.79	15.61	----	
P	03/25/1997	11:45	29.96	12.88	17.08	----	
P	03/31/1997	08:55	29.96	12.94	17.02	----	Hydrocarbon odor, product
P	07/16/1997	07:15	29.96	14.02	16.08	0.17	Light coating on probe; light brown color
P	10/21/1997	16:05	29.96	15.23	14.73	----	No product - strong petroleum odor
P	10/23/1997	17:25	29.96	15.21	14.75	----	No product - strong petroleum odor
P	01/27/1998	11:09	29.96	13.87	16.09	----	
P	05/18/1998	17:18	29.96	13.08	16.88	----	Trace of product on probe
P	08/17/1998	10:37	29.96	15.82	14.15	0.01	Sheen on probe, strong petroleum odor
P	11/13/1998	09:46	29.96	16.63	13.37	0.05	Strong gasoline odor
P	02/16/1999	12:52	29.96	12.91	17.10	0.06	Strong petroleum odor
P	05/18/1999	14:43	29.96	14.68	15.38	0.13	
P	09/21/1999	11:20	29.96	16.08	13.89	0.01	
P	12/06/1999	13:55	29.96	15.41	14.55	----	
P	02/16/2000	10:08	29.96	14.51	15.45	----	
P	05/23/2000	16:21	29.96	15.15	14.81	----	Trace of product on surface
P	08/29/2000	13:04	29.96	16.26	13.71	0.01	
P	11/09/2000	12:24	29.96	16.98	13.00	0.03	
P	02/12/2001	15:46	29.96	16.31	13.65	----	
P	06/04/2001	11:27	29.96	16.26	13.70	----	Trace product
P	08/16/2001	10:28	29.96	16.75	13.21	----	
P	11/28/2001	11:24	29.96	17.01	12.95	----	

TABLE A-2
GROUNDWATER LEVEL MEASUREMENTS
QUARTERLY SAMPLING EVENTS, MARCH 1997 - FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

Well	Date	Time	Reference Elevation (ft) (a)	DTW (ft) (b)	GW Elevation (ft) (c)	LNAPL Thickness (ft)	NOTES
P	02/27/2002	13:22	29.96	14.60	15.44	0.10	Strong ethanol-like odor
P	04/05/2002	08:07	29.96	14.70	15.34	0.10	
P	05/29/2002	00:00	29.96	15.00	14.96	----	Trace product
P	06/27/2002	14:11	29.96	15.49	14.47	----	
P	08/26/2002	15:54	29.96	16.15	13.81	----	
P	11/13/2002	07:25	29.96	16.99	13.00	0.04	Product present
P	02/11/2003	08:44	29.96	14.13	15.84	0.01	Product present
P	05/08/2003	06:47	29.96	15.53	14.44	0.01	Product barely present
P	08/27/2003	13:30	29.96	16.19	13.77	----	
P	10/23/2003	12:05	29.96	16.60	13.38	0.02	Trace product
P	02/19/2004	12:19	29.96	14.56	15.40	----	
Q	03/25/1997	11:42	30.36	13.55	16.81	----	
Q	03/31/1997	08:52	30.36	13.54	16.82	----	Hydrocarbon odor
Q	07/16/1997	07:10	30.36	14.55	15.83	0.02	Light coating on probe; light brown color
Q	10/21/1997	16:04	30.36	15.70	14.66	----	No product - strong petroleum odor
Q	10/23/1997	17:29	30.36	15.69	14.67	----	No product - strong petroleum odor
Q	01/27/1998	11:05	30.36	14.48	15.88	----	
Q	05/18/1998	17:16	30.36	15.58	14.78	----	
Q	08/17/1998	10:35	30.36	16.27	14.09	----	Slight sheen on probe; no product, strong petroleum odor
Q	11/13/1998	09:44	30.36	17.01	13.36	0.01	Strong gasoline odor
Q	02/16/1999	12:49	30.36	13.61	16.76	0.01	Strong petroleum odor
Q	05/18/1999	14:40	30.36	15.13	15.23	----	Strong odor when cap removed
Q	09/21/1999	11:17	30.36	16.51	13.85	----	
Q	12/06/1999	13:53	30.36	15.88	14.48	----	
Q	02/16/2000	10:06	30.36	15.02	15.34	----	Film of product
Q	05/23/2000	16:19	30.36	15.64	14.72	----	Strong petroleum odor, no product
Q	08/29/2000	13:01	30.36	16.69	13.67	----	
Q	11/09/2000	12:23	30.36	17.50	12.86	----	Trace of product
Q	02/12/2001	15:45	30.36	16.71	13.65	----	
Q	06/04/2001	11:25	30.36	16.66	13.70	----	
Q	08/16/2001	10:26	30.36	17.15	13.21	----	Trace product
Q	11/28/2001	11:21	30.36	17.76	12.94	0.42	
Q	02/27/2002	13:20	30.36	15.07	15.29	----	Strong petroleum odor, no product
Q	04/05/2002	08:05	30.36	15.23	15.13	----	Trace product
Q	05/29/2002	00:00	30.36	15.53	14.83	----	Trace product
Q	06/27/2002	14:10	30.36	15.95	14.41	----	Trace product
Q	08/26/2002	15:52	30.36	16.60	13.76	----	
Q	11/13/2002	07:30	30.36	17.50	12.87	0.01	Product present
Q	02/11/2003	08:47	30.36	14.67	15.69	----	
Q	05/08/2003	06:48	30.36	15.00	15.54	0.22	
Q	08/27/2003	13:28	30.36	16.60	13.76	----	
Q	10/23/2003	12:03	30.36	17.50	13.05	0.24	
Q	02/19/2004	12:17	30.36	15.07	15.29	----	Trace product
LW001S	03/31/1997	11:12	27.96	6.65	21.31		
LW001S	07/16/1997	08:15	27.96	8.34	19.62	----	
LW001S	10/21/1997	16:53	27.96	11.02	16.94	----	
LW001S	01/27/1998	13:00	27.96	8.75	19.21	----	
LW001S	05/18/1998	17:40	27.96	9.15	18.81	----	
LW001S	08/17/1998	10:54	27.96	11.67	16.29	----	
LW001S	11/13/1998	10:02	27.96	12.76	15.20	----	
LW001S	02/16/1999	13:24	27.96	6.60	21.36	----	
LW001S	05/18/1999	15:38	27.96	8.92	19.04	----	
LW001S	09/21/1999	12:10	27.96	12.20	15.76	----	
LW001S	12/06/1999	14:33	27.96	11.86	16.10	----	
LW001S	02/16/2000	10:50	27.96	9.42	18.54	----	
LW001S	05/23/2000	17:18	27.96	10.52	17.44	----	
LW001S	08/29/2000	13:58	27.96	12.51	15.45	----	
LW001S	11/09/2000	13:17	27.96	13.26	14.70	----	
LW001S	02/12/2001	15:33	27.96	12.82	15.14	----	
LW001S	06/04/2001	12:24	27.96	12.77	15.19	----	
LW001S	08/16/2001	11:37	27.96	13.45	14.51	----	
LW001S	11/28/2001	12:28	27.96	13.25	14.71	----	
LW001S	02/27/2002	14:19	27.96	9.31	18.65	----	
LW001S	03/05/2002	10:56	27.96	9.45	18.51	----	
LW001S	04/05/2002	09:08	27.96	9.60	18.36	----	
LW001S	05/29/2002	00:00	27.96	10.49	17.47	----	

TABLE A-2
GROUNDWATER LEVEL MEASUREMENTS
QUARTERLY SAMPLING EVENTS, MARCH 1997 - FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

Well	Date	Time	Reference Elevation (ft) (a)	DTW (ft) (b)	GW Elevation (ft) (c)	LNAPL Thickness (ft)	NOTES
LW001S	06/27/2002	14:50	27.96	11.26	16.70	----	
LW001S	08/26/2002	17:11	27.96	12.47	15.49	----	
LW001S	11/13/2002	09:07	27.96	13.72	14.24	----	
LW001S	02/11/2003	10:25	27.96	10.11	17.85	----	
LW001S	05/08/2003	08:20	27.96	9.41	18.55	----	
LW001S	08/27/2003	14:51	27.96	12.46	15.50	----	
LW001S	10/23/2003	13:58	27.96	13.32	14.64	----	
LW001S	02/19/2004	14:28	27.96	9.81	18.15	----	
LW002S	03/25/1997	12:22	29.56	8.06	21.50	----	
LW002S	03/31/1997	11:27	29.56	8.34	21.22	----	
LW002S	07/16/1997	08:33	29.56	10.05	19.51	----	
LW002S	10/21/1997	17:04	29.56	12.77	16.79	----	
LW002S	01/27/1998	13:25	29.56	10.39	19.17	----	
LW002S	05/18/1998	18:02	29.56	11.78	17.78	----	
LW002S	08/17/1998	10:56	29.56	13.38	16.18	----	
LW002S	11/13/1998	10:32	29.56	14.47	15.09	----	
LW002S	02/16/1999	13:42	29.56	8.27	21.29	----	
LW002S	05/18/1999	15:45	29.56	10.63	18.93	----	
LW002S	09/21/1999	12:34	29.56	13.95	15.61	----	
LW002S	12/06/1999	15:11	29.56	13.54	16.02	----	
LW002S	02/16/2000	10:38	29.56	11.08	18.48	----	
LW002S	05/23/2000	17:24	29.56	12.29	17.27	----	
LW002S	08/29/2000	14:12	29.56	14.23	15.33	----	
LW002S	11/09/2000	13:04	29.56	15.00	14.56	----	
LW002S	02/12/2001	15:30	29.56	14.52	15.04	----	
LW002S	06/04/2001	12:34	29.56	14.46	15.10	----	
LW002S	08/16/2001	11:45	29.56	15.16	14.40	----	
LW002S	11/28/2001	12:41	29.56	14.90	14.66	----	
LW002S	02/27/2002	14:19	29.56	11.02	18.54	----	
LW002S	03/05/2002	10:59	29.56	11.17	18.39	----	
LW002S	04/05/2002	08:47	29.56	11.33	18.23	----	
LW002S	05/29/2002	00:00	29.56	12.22	17.34	----	
LW002S	06/27/2002	14:56	29.56	13.00	16.56	----	
LW004S	03/31/1997	09:20	30.26	12.77	17.49	----	
LW004S	07/16/1997	07:40	30.26	14.66	15.60	----	
LW004S	10/21/1997	16:25	30.26	16.88	13.38	----	
LW004S	01/27/1998	12:00	30.26	15.13	15.13	----	
LW004S	05/18/1998	17:32	30.26	16.08	14.18	----	
LW004S	08/17/1998	11:07	30.26	17.30	12.96	----	
LW004S	11/13/1998	09:56	30.26	17.96	12.30	----	
LW004S	02/16/1999	13:16	30.26	13.10	17.16	----	
LW004S	05/18/1999	15:03	30.26	15.43	14.83	----	
LW004S	09/21/1999	11:44	30.26	17.61	12.65	----	
LW004S	12/06/1999	14:19	30.26	17.08	13.18	----	
LW004S	02/16/2000	10:31	30.26	15.84	14.42	----	
LW004S	05/23/2000	16:55	30.26	16.71	13.55	----	
LW004S	08/29/2000	13:39	30.26	17.78	12.48	----	
LW004S	11/09/2000	12:53	30.26	18.17	12.09	----	
LW004S	02/12/2001	16:38	30.26	17.08	13.18	----	
LW004S	06/04/2001	12:08	30.26	17.81	12.45	----	
LW004S	08/16/2001	11:14	30.26	18.39	11.87	----	
LW004S	11/28/2001	12:05	30.26	17.84	12.42	----	
LW004S	02/27/2002	14:01	30.26	15.82	14.44	----	
LW004S	03/05/2002	11:35	30.26	15.95	14.31	----	
LW004S	04/05/2002	08:20	30.26	16.02	14.24	----	
LW004S	05/29/2002	00:00	30.26	16.74	13.52	----	
LW004S	06/27/2002	14:39	30.26	16.89	13.37	----	
LW004S	08/26/2002	16:31	30.26	17.68	12.58	----	
LW004S	11/13/2002	08:22	30.26	19.04	11.22	----	
LW004S	02/11/2003	09:31	30.26	16.03	14.23	----	
LW004S	05/08/2003	07:43	30.26	15.75	14.51	----	
LW004S	08/27/2003	13:59	30.26	17.87	12.39	----	
LW004S	10/23/2003	13:18	30.26	18.52	11.74	----	
LW004S	02/19/2004	13:46	30.26	16.49	13.77	----	
LW005S	03/25/1997	12:29	30.79	10.57	20.22	----	

TABLE A-2
GROUNDWATER LEVEL MEASUREMENTS
QUARTERLY SAMPLING EVENTS, MARCH 1997 - FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

Well	Date	Time	Reference Elevation (ft) (a)	DTW (ft) (b)	GW Elevation (ft) (c)	LNAPL Thickness (ft)	NOTES
LW005S	03/31/1997	11:35	30.79	10.84	19.95	----	
LW005S	07/16/1997	08:53	30.79	12.29	18.50	----	
LW005S	10/21/1997	15:16	30.79	15.00	15.79	----	
LW005S	01/27/1998	13:36	30.79	12.90	17.89	----	
LW005S	05/18/1998	18:05	30.79	14.19	16.60	----	
LW005S	08/17/1998	11:09	30.79	15.54	15.25	----	
LW005S	11/13/1998	10:38	30.79	16.55	14.24	----	
LW005S	02/16/1999	13:16	30.79	10.59	20.20	----	
LW005S	05/18/1999	16:01	30.79	13.12	17.67	----	
LW005S	09/21/1999	12:40	30.79	16.00	14.79	----	
LW005S	12/06/1999	14:47	30.79	15.64	15.15	----	
LW005S	02/16/2000	09:56	30.79	13.54	17.25	----	
LW005S	05/23/2000	17:51	30.79	14.80	15.99	----	
LW005S	08/29/2000	14:37	30.79	16.35	14.44	----	
LW005S	11/09/2000	13:45	30.79	16.98	13.81	----	
LW005S	02/12/2001	15:13	30.79	16.51	14.28	----	
LW005S	06/04/2001	13:23	30.79	16.43	14.36	----	
LW005S	08/16/2001	12:07	30.79	17.03	13.76	----	
LW005S	11/28/2001	13:01	30.79	16.94	13.85	----	
LW005S	02/27/2002	14:39	30.79	13.48	17.31	----	
LW005S	03/05/2002	11:13	30.79	13.62	17.17	----	
LW005S	04/05/2002	08:38	30.79	13.60	17.19	----	
LW005S	05/29/2002	00:00	30.79	14.81	15.98	----	
LW005S	06/27/2002	10:43	30.79	15.15	15.64	----	
LW005S	08/26/2002	17:08	30.79	16.12	14.67	----	
LW005S	11/13/2002	09:22	30.79	17.39	13.40	----	
LW005S	02/11/2003	10:43	30.79	13.95	16.84	----	
LW005S	05/08/2003	08:32	30.79	13.58	17.21	----	
LW005S	08/27/2003	15:07	30.79	16.11	14.68	----	
LW005S	10/23/2003	14:17	30.79	16.92	13.87	----	
LW005S	02/19/2004	14:00	30.79	13.76	17.03	----	
LW007S	03/31/1997	11:05	28.10	6.75	21.35	----	
LW007S	07/16/1997	08:05	28.10	8.62	19.48	----	
LW007S	10/21/1997	16:45	28.10	11.26	16.84	----	
LW007S	01/27/1998	12:47	28.10	8.85	19.25	----	
LW007S	05/18/1998	17:48	28.10	10.34	17.76	----	
LW007S	08/17/1998	10:48	28.10	11.85	16.25	----	
LW007S	11/13/1998	10:12	28.10	12.90	15.20	----	Strong gasoline odor
LW007S	02/16/1999	13:53	28.10	6.81	21.29	----	
LW007S	05/18/1999	15:23	28.10	9.14	18.96	----	
LW007S	09/21/1999	12:03	28.10	12.37	15.73	----	
LW007S	12/06/1999	14:27	28.10	12.00	16.10	----	
LW007S	02/16/2000	10:46	28.10	9.60	18.50	----	
LW007S	05/23/2000	17:09	28.10	10.70	17.40	----	
LW007S	08/29/2000	13:53	28.10	12.64	15.46	----	
LW007S	11/09/2000	13:14	28.10	13.36	14.74	----	
LW007S	02/12/2001	15:39	28.10	12.94	15.16	----	
LW007S	06/04/2001	12:17	28.10	12.87	15.23	----	
LW007S	08/16/2001	11:33	28.10	13.58	14.52	----	
LW007S	11/28/2001	12:22	28.10	13.34	14.76	----	
LW007S	02/27/2002	14:15	28.10	9.47	18.63	----	
LW007S	03/05/2002	10:52	28.10	9.62	18.48	----	
LW007S	04/05/2002	08:57	28.10	9.73	18.37	----	
LW007S	05/29/2002	00:00	28.10	10.63	17.47	----	
LW007S	06/27/2002	14:45	28.10	11.36	16.74	----	
LW007S	08/26/2002	17:18	28.10	12.69	15.41	----	
LW007S	11/13/2002	09:16	28.10	13.82	14.28	----	
LW007S	02/11/2003	10:37	28.10	10.18	17.92	----	
LW007S	05/08/2003	08:27	28.10	9.54	18.56	----	
LW007S	08/27/2003	14:58	28.10	12.62	15.48	----	
LW007S	10/23/2003	13:39	28.10	13.45	14.65	----	
LW007S	02/19/2004	14:42	28.10	10.01	18.09	----	
LW008S	05/18/1999	14:55	31.28	14.84	16.44	----	
LW008S	09/21/1999	12:24	31.28	16.94	14.34	----	
LW008S	12/06/1999	14:40	31.28	16.63	14.65	----	
LW008S	02/16/2000	10:16	31.28	15.18	16.10	----	

TABLE A-2
GROUNDWATER LEVEL MEASUREMENTS
QUARTERLY SAMPLING EVENTS, MARCH 1997 - FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

Well	Date	Time	Reference Elevation (ft) (a)	DTW (ft) (b)	GW Elevation (ft) (c)	LNAPL Thickness (ft)	NOTES
LW008S	05/23/2000	17:42	31.28	15.88	15.40	----	
LW008S	08/29/2000	14:26	31.28	17.06	14.22	----	
LW008S	11/09/2000	13:32	31.28	17.55	13.73	----	
LW008S	02/12/2001	15:58	31.28	17.24	14.04	----	
LW008S	06/04/2001	13:05	31.28	17.14	14.14	----	
LW008S	08/16/2001	12:00	31.28	17.70	13.58	----	
LW008S	11/28/2001	12:57	31.28	17.63	13.68	0.04	
LW008S	02/27/2002	14:37	31.28	15.12	16.16	----	
LW008S	03/05/2002	11:09	31.28	15.26	16.02	----	
LW008S	04/05/2002	08:17	31.28	15.34	15.94	----	
LW008S	05/29/2002	00:00	31.28	15.91	15.37	----	
LW008S	06/27/2002	15:21	31.28	16.21	15.07	----	
LW008S	08/26/2002	16:38	31.28	16.95	14.33	----	
LW008S	11/13/2002	08:50	31.28	17.88	13.40	----	
LW008S	02/11/2003	09:48	31.28	15.57	15.71	----	
LW008S	05/08/2003	08:00	31.28	15.11	16.17	----	
LW008S	08/27/2003	14:25	31.28	16.97	14.31	----	
LW008S	10/23/2003	12:42	31.28	17.54	13.74	----	
LW008S	02/19/2004	15:03	31.28	15.34	15.94	----	
LW009S	05/18/1999	14:57	31.04	19.58	11.46	----	Water level appears to be more representative of lower zone
LW009S	09/21/1999	11:36	31.04	dry	----	----	
LW009S	12/06/1999	14:13	31.04	19.64	----	----	Water in endcap
LW009S	02/16/2000	10:24	31.04	19.59	----	----	Water in endcap
LW009S	05/23/2000	16:39	31.04	dry	----	----	
LW009S	08/29/2000	13:28	31.04	dry	----	----	
LW009S	11/09/2000	12:42	31.04	dry	----	----	
LW009S	02/12/2001	16:12	31.04	dry	----	----	
LW009S	06/04/2001	11:50	31.04	dry	----	----	
LW009S	08/16/2001	11:01	31.04	dry	----	----	
LW009S	11/28/2001	11:52	31.04	dry	----	----	
LW009S	02/27/2002	13:48	31.04	dry	----	----	
LW009S	03/05/2002	11:15	31.04	dry	----	----	
LW009S	04/05/2002	08:26	31.04	dry	----	----	
LW009S	05/29/2002	00:00	31.04	dry	----	----	
LW009S	06/27/2002	14:24	31.04	dry	----	----	
LW009S	08/26/2002	16:09	31.04	dry	----	----	
LW009S	11/13/2002	07:49	31.04	dry	----	----	
LW009S	02/11/2003	09:06	31.04	dry	----	----	Recorded DTW of 19.58; well most likely dry
LW009S	05/08/2003	07:11	31.04	dry	----	----	
LW009S	08/27/2003	13:48	31.04	dry	----	----	
LW009S	10/23/2003	12:46	31.04	dry	----	----	
LW009S	02/19/2004	13:04	31.04	dry	----	----	
LW010S	05/18/1999	14:59	30.75	17.24	13.51	----	
LW010S	09/21/1999	11:38	30.75	19.13	11.62	----	
LW010S	12/06/1999	14:14	30.75	18.54	12.21	----	
LW010S	02/16/2000	10:26	30.75	17.62	13.13	----	
LW010S	05/23/2000	16:41	30.75	18.25	12.50	----	
LW010S	08/29/2000	13:30	30.75	dry	----	----	
LW010S	11/09/2000	12:45	30.75	dry	----	----	
LW010S	02/12/2001	16:14	30.75	dry	----	----	
LW010S	06/04/2001	11:53	30.75	dry	----	----	
LW010S	08/16/2001	11:03	30.75	dry	----	----	
LW010S	11/28/2001	11:54	30.75	dry	----	----	
LW010S	02/27/2002	13:50	30.75	17.77	12.98	----	
LW010S	03/05/2002	11:32	30.75	17.84	12.91	----	
LW010S	04/05/2002	08:24	30.75	17.82	12.93	----	
LW010S	05/29/2002	00:00	30.75	18.22	12.53	----	
LW010S	06/27/2002	14:28	30.75	18.27	12.48	----	
LW010S	08/26/2002	16:15	30.75	dry	----	----	
LW010S	11/13/2002	08:00	30.75	dry	----	----	
LW010S	02/11/2003	09:20	30.75	17.50	13.25	----	
LW010S	05/08/2003	07:32	30.75	17.68	13.07	----	
LW010S	08/27/2003	13:51	30.75	dry	----	----	
LW010S	10/23/2003	12:51	30.75	dry	----	----	
LW010S	02/19/2004	13:26	30.75	17.77	12.98	----	

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GROUNDWATER LEVEL MEASUREMENTS
QUARTERLY SAMPLING EVENTS, MARCH 1997 - FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

Well	Date	Time	Reference Elevation (ft) (a)	DTW (ft) (b)	GW Elevation (ft) (c)	LNAPL Thickness (ft)	NOTES
LW011S	05/18/1999	15:10	29.10	11.47	17.63	----	
LW011S	09/21/1999	11:51	29.10	14.23	14.87	----	
LW011S	12/06/1999	15:05	29.10	14.00	15.10	----	
LW011S	02/16/2000	11:01	29.10	11.94	17.16	----	
LW011S	05/23/2000	11:01	29.10	13.01	16.09	----	
LW011S	08/29/2000	14:55	29.10	14.51	14.59	----	
LW011S	11/09/2000	13:36	29.10	15.48	13.92	0.37	First occurrence of product in well.
LW011S	02/12/2001	15:18	29.10	14.62	14.48	----	
LW011S	06/04/2001	13:12	29.10	14.65	14.45	----	
LW011S	08/16/2001	11:24	29.10	15.46	13.86	0.28	
LW011S	11/28/2001	12:51	29.10	15.10	14.00	----	Trace product
LW011S	02/27/2002	14:59	29.10	11.86	17.24	----	
LW011S	03/05/2002	11:40	29.10	11.96	17.14	----	
LW011S	04/05/2002	08:34	29.10	12.07	17.03	----	
LW011S	05/29/2002	00:00	29.10	13.00	16.10	----	
LW011S	06/27/2002	15:09	29.10	13.40	15.70	----	
LW011S	08/26/2002	16:48	29.10	14.37	14.73	----	
LW011S	11/13/2002	08:54	29.10	15.53	13.57	----	
LW011S	02/11/2003	10:03	29.10	12.46	16.64	----	
LW011S	05/08/2003	08:07	29.10	11.91	17.19	----	
LW011S	08/27/2003	14:36	29.10	14.32	14.78	----	
LW011S	10/23/2003	14:12	29.10	15.12	13.98	----	
LW011S	02/19/2004	14:02	29.10	12.13	16.97	----	
LW013S	05/23/2000	16:51	30.17	17.23	12.94	----	
LW013S	08/29/2000	13:37	30.17	18.27	11.90	----	
LW013S	11/09/2000	12:51	30.17	18.75	11.42	----	
LW013S	02/12/2001	16:30	30.17	18.26	11.91	----	
LW013S	06/04/2001	12:06	30.17	18.30	11.87	----	
LW013S	08/16/2001	11:13	30.17	18.81	11.36	----	
LW013S	11/28/2001	12:03	30.17	18.37	11.80	----	
LW013S	02/27/2002	13:58	30.17	16.60	13.57	----	
LW013S	03/05/2002	11:33	30.17	16.68	13.49	----	
LW013S	04/05/2002	08:22	30.17	16.73	13.44	----	
LW013S	05/29/2002	00:00	30.17	17.30	12.87	----	
LW013S	06/27/2002	14:37	30.17	17.38	12.79	----	
LW013S	08/26/2002	16:30	30.17	18.11	12.06	----	
LW013S	11/13/2002	08:14	30.17	19.04	11.13	----	
LW013S	02/11/2003	09:30	30.17	16.57	13.60	----	
LW013S	05/08/2003	07:41	30.17	16.53	13.64	----	
LW013S	08/27/2003	13:57	30.17	18.27	11.90	----	
LW013S	10/23/2003	13:14	30.17	18.81	11.36	----	
LW013S	02/19/2004	13:40	30.17	16.62	13.55	----	
LW019S	10/23/2003	11:54	27.72	16.62	11.10	----	
LW019S	02/19/2004	15:00	27.72	13.84	13.88	----	
LW020S	10/23/2003	12:14	29.51	14.86	14.65	----	
LW020S	02/19/2004	14:45	29.51	12.55	16.96	----	
LW021S	10/23/2003	12:16	30.29	16.57	13.72	----	
LW021S	02/19/2004	14:54	30.29	13.82	17.29	1.03	
LW027S	10/23/2003	12:20	30.59	25.40	5.19	----	
LW027S	02/19/2004	12:44	30.59	22.07	9.07	0.69	
LW028S	10/23/2003	14:26	30.98	dry	----	----	
LW028S	02/19/2004	15:17	30.98	12.87	18.11	----	
LW029S	10/23/2003	14:39	31.34	18.88	12.46	----	
LW029S	02/19/2004	15:30	31.34	16.52	14.82	----	
LW030S	10/23/2003	14:41	30.08	17.91	12.17	----	
LW030S	02/19/2004	15:32	30.08	15.58	14.50	----	
LW031S	10/23/2003	14:30	31.26	18.87	12.39	----	
LW031S	02/19/2004	15:21	31.26	16.07	15.19	----	

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QUARTERLY SAMPLING EVENTS, MARCH 1997 - FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

Well	Date	Time	Reference Elevation (ft) (a)	DTW (ft) (b)	GW Elevation (ft) (c)	LNAPL Thickness (ft)	NOTES
LW032S	10/23/2003	14:32	30.71	17.02	13.69	----	
LW032S	02/19/2004	15:29	30.71	13.59	17.12	----	
LW033S	10/23/2003	14:35	29.89	dry	----	----	
LW033S	02/19/2004	15:23	29.89	13.89	16.00	----	
LW034S	10/23/2003	14:24	30.93	16.99	13.94	----	
LW034S	02/19/2004	15:15	30.93	13.29	17.64	----	
LW101S	03/31/1997	09:54	29.41	4.51	24.90	----	
LW101S	07/16/1997	09:01	29.41	6.81	22.60	----	
LW101S	10/21/1997	18:01	29.41	7.28	22.13	----	
LW101S	01/27/1998	14:15	29.41	4.10	25.31	----	
LW101S	05/18/1998	18:18	29.41	6.68	22.73	----	
LW101S	08/17/1998	11:21	29.41	8.14	21.27	----	
LW101S	11/13/1998	10:48	29.41	8.61	20.80	----	
LW101S	02/16/1999	14:11	29.41	3.21	26.20	----	
LW101S	05/18/1999	16:17	29.41	6.00	23.41	----	
LW101S	09/21/1999	12:54	29.41	8.60	20.81	----	
LW101S	12/06/1999	14:58	29.41	6.98	22.43	----	
LW101S	02/16/2000	09:44	29.41	4.96	24.45	----	
LW101S	05/23/2000	18:06	29.41	6.83	22.58	----	
LW101S	08/29/2000	14:47	29.41	8.67	20.74	----	
LW101S	11/09/2000	13:56	29.41	9.39	20.02	----	
LW101S	02/12/2001	15:02	29.41	8.02	21.39	----	
LW101S	06/04/2001	13:35	29.41	8.40	21.01	----	
LW101S	08/16/2001	12:20	29.41	9.44	19.97	----	
LW101S	11/28/2001	13:12	29.41	8.58	20.83	----	
LW101S	02/27/2002	14:52	29.41	5.70	23.71	----	
LW101S	06/27/2002	15:32	29.41	7.80	21.61	----	
LW101S	08/26/2002	17:34	29.41	8.85	20.56	----	
LW101S	11/13/2002	09:35	29.41	9.92	19.49	----	
LW101S	02/11/2003	10:59	29.41	5.27	24.14	----	
LW101S	05/08/2003	08:43	29.41	5.40	24.01	----	
LW101S	08/27/2003	15:14	29.41	8.59	20.82	----	
LW102S	03/31/1997	10:01	25.77	1.86	23.91	----	
LW102S	07/16/1997	09:09	25.77	3.91	21.86	----	
LW102S	10/21/1997	17:59	25.77	4.03	21.74	----	
LW102S	01/27/1998	14:07	25.77	1.26	24.51	----	
LW102S	05/18/1998	18:15	25.77	3.57	22.20	----	
LW102S	08/17/1998	11:18	25.77	4.88	20.89	----	
LW102S	11/13/1998	10:45	25.77	5.14	20.63	----	
LW102S	02/16/1999	14:08	25.77	0.45	25.32	----	
LW102S	05/18/1999	16:12	25.77	3.24	22.53	----	
LW102S	09/21/1999	12:52	25.77	5.33	20.44	----	
LW102S	12/06/1999	14:56	25.77	3.67	22.10	----	
LW102S	02/16/2000	09:41	25.77	1.91	23.86	----	
LW102S	05/23/2000	18:03	25.77	3.72	22.05	----	
LW102S	08/29/2000	14:45	25.77	5.40	20.37	----	
LW102S	11/09/2000	13:53	25.77	5.94	19.83	----	
LW102S	02/12/2001	15:00	25.77	4.52	21.25	----	
LW102S	06/04/2001	13:32	25.77	4.93	20.84	----	
LW102S	08/16/2001	12:17	25.77	5.96	19.81	----	
LW102S	11/28/2001	13:10	25.77	5.15	20.62	----	
LW102S	02/27/2002	14:48	25.77	2.14	23.63	----	
LW102S	06/27/2002	15:30	25.77	4.50	21.27	----	
LW102S	08/26/2002	17:39	25.77	5.48	20.29	----	
LW102S	11/13/2002	09:32	25.77	6.50	19.27	----	
LW102S	02/11/2003	10:55	25.77	1.88	23.89	----	
LW102S	05/08/2003	08:40	25.77	2.22	23.55	----	
LW102S	08/27/2003	15:17	25.77	5.24	20.53	----	
LW103S	03/31/1997	09:50	29.07	5.50	23.57	----	
LW103S	07/16/1997	08:59	29.07	6.93	22.14	----	
LW103S	10/21/1997	18:03	29.07	7.08	21.99	----	
LW103S	01/27/1998	14:20	29.07	5.11	23.96	----	
LW103S	05/18/1998	18:21	29.07	6.57	22.50	----	

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GROUNDWATER LEVEL MEASUREMENTS
QUARTERLY SAMPLING EVENTS, MARCH 1997 - FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

Well	Date	Time	Reference Elevation (ft) (a)	DTW (ft) (b)	GW Elevation (ft) (c)	LNAPL Thickness (ft)	NOTES
LW103S	08/17/1998	11:24	29.07	7.80	21.27	----	
LW103S	11/13/1998	10:51	29.07	7.91	21.16	----	
LW103S	02/16/1999	14:14	29.07	4.54	24.53	----	
LW103S	05/18/1999	16:20	29.07	6.20	22.87	----	
LW103S	09/21/1999	12:57	29.07	8.30	20.77	----	
LW103S	12/06/1999	15:00	29.07	6.60	22.47	----	
LW103S	02/16/2000	09:46	29.07	5.50	23.57	----	
LW103S	05/23/2000	18:10	29.07	6.64	22.43	----	
LW103S	08/29/2000	14:50	29.07	8.41	20.66	----	
LW103S	11/09/2000	13:58	29.07	8.78	20.29	----	
LW103S	02/12/2001	15:04	29.07	7.39	21.68	----	
LW103S	06/04/2001	13:37	29.07	7.83	21.24	----	
LW103S	08/16/2001	12:23	29.07	9.07	20.00	----	
LW103S	11/28/2001	13:16	29.07	8.02	21.05	----	
LW103S	02/27/2002	14:50	29.07	5.26	23.81	----	
LW103S	06/27/2002	15:34	29.07	7.42	21.65	----	
LW103S	08/26/2002	17:36	29.07	8.57	20.50	----	
LW103S	11/13/2002	09:37	29.07	9.48	19.59	----	
LW103S	02/11/2003	11:03	29.07	5.65	23.42	----	
LW103S	05/08/2003	08:46	29.07	5.86	23.21	----	
LW103S	08/27/2003	15:15	29.07	8.33	20.74	----	
LW104S	03/31/1997	10:06	26.57	3.55	23.02	----	
LW104S	07/16/1997	08:54	26.57	5.71	20.86	----	
LW104S	10/21/1997	16:22	26.57	5.71	20.86	----	
LW104S	01/27/1998	14:00	26.57	2.84	23.73	----	
LW104S	05/18/1998	18:11	26.57	5.17	21.40	----	
LW104S	08/17/1998	11:15	26.57	6.64	19.93	----	
LW104S	11/13/1998	10:41	26.57	6.72	19.85	----	
LW104S	02/16/1999	14:03	26.57	2.11	24.46	----	
LW104S	05/18/1999	16:08	26.57	4.97	21.60	----	
LW104S	09/21/1999	12:48	26.57	7.18	19.39	----	
LW104S	12/06/1999	14:54	26.57	5.00	21.57	----	
LW104S	02/16/2000	09:39	26.57	3.61	22.96	----	
LW104S	05/23/2000	17:59	26.57	5.61	20.96	----	
LW104S	08/29/2000	14:43	26.57	7.08	19.49	----	
LW104S	11/09/2000	13:51	26.57	7.49	19.08	----	
LW104S	02/12/2001	14:57	26.57	6.28	20.29	----	
LW104S	06/04/2001	13:30	26.57	6.64	19.93	----	
LW104S	08/16/2001	12:15	26.57	7.56	19.01	----	
LW104S	11/28/2001	13:06	26.57	6.30	20.27	----	
LW104S	02/27/2002	14:46	26.57	4.07	22.50	----	
LW104S	06/27/2002	15:27	26.57	6.28	20.29	----	
LW104S	08/26/2002	17:41	26.57	7.13	19.44	----	
LW104S	11/13/2002	09:30	26.57	7.85	18.72	----	
LW104S	02/11/2003	10:51	26.57	3.72	22.85	----	
LW104S	05/08/2003	08:38	26.57	4.94	21.63	----	
LW104S	08/27/2003	15:19	26.57	6.87	19.70	----	
RW1	05/18/1999	15:06	31.46	15.70	15.76	----	
RW1	09/21/1999	11:46	31.46	18.02	13.44	----	
RW1	12/06/1999	14:43	31.46	17.73	13.73	----	
RW1	02/16/2000	10:33	31.46	16.14	15.32	----	
RW1	05/23/2000	17:46	31.46	17.09	14.37	----	
RW1	08/29/2000	14:28	31.46	18.29	13.17	----	
RW1	11/09/2000	12:57	31.46	18.67	12.79	----	
RW1	02/12/2001	16:44	31.46	18.30	13.16	----	
RW1	06/04/2001	13:17	31.46	18.22	13.24	----	
RW1	08/16/2001	10:55	31.46		31.46	----	Vapor/water recovery system test running - not measured
RW1	11/28/2001	12:02	31.46	18.55	12.91	----	
RW1	02/27/2002	14:03	31.46	16.12	15.34	----	
RW1	03/05/2002	11:38	31.46	16.33	15.13	----	
RW1	04/05/2002	08:27	31.46	16.28	15.18	----	
RW1	05/29/2002	00:00	31.46	17.00	14.46	----	
RW1	06/27/2002	15:16	31.46	17.33	14.13	----	
RW1	08/26/2002	16:40	31.46	18.00	13.46	----	
RW1	11/13/2002	08:26	31.46	18.85	12.61	----	
RW1	02/11/2003	09:34	31.46	16.50	14.96	----	

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GROUNDWATER LEVEL MEASUREMENTS
QUARTERLY SAMPLING EVENTS, MARCH 1997 - FEBRUARY 2004
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Well	Date	Time	Reference Elevation (ft) (a)	DTW (ft) (b)	GW Elevation (ft) (c)	LNAPL Thickness (ft)	NOTES
RW1	05/08/2003	07:46	31.46	16.23	15.23	----	
RW1	08/27/2003	14:04	31.46	18.09	13.37	----	
RW1	10/23/2003	13:23	31.46	18.55	12.91	----	
RW1	02/19/2004	13:52	31.46	16.31	15.15	----	
RW3	12/06/1999	15:24	29.96	14.20	15.76	----	
RW3	02/16/2000	10:37	29.96	11.88	18.08	----	
RW3	05/23/2000	17:26	29.96	13.02	16.94	----	
RW3	08/29/2000	13:42	29.96	14.88	15.08	----	
RW3	11/09/2000	13:03	29.96	15.58	14.38	----	
RW3	02/12/2001	15:28	29.96	15.13	14.83	----	
RW3	06/04/2001	12:30	29.96	15.09	14.87	----	
RW3	08/16/2001	11:44	29.96	15.74	14.22	----	
RW3	11/28/2001	12:40	29.96	15.52	14.44	----	
RW3	02/27/2002	14:26	29.96	11.80	18.16	----	
RW3	03/05/2002	11:02	29.96	11.94	18.02	----	
RW3	04/05/2002	08:44	29.96	12.06	17.90	----	
RW3	05/29/2002	00:00	29.96	13.00	16.96	----	
RW3	06/27/2002	14:59	29.96	13.64	16.32	----	
RW3							Abandoned August 2003
PZ1	05/23/2000	17:47	28.04	14.21	13.83	----	
PZ1	08/29/2000	14:30	28.04	15.33	12.71	----	
PZ1	11/09/2000	12:55	28.04	15.68	12.36	----	
PZ1	02/12/2001	16:42	28.04	15.30	12.74	----	
PZ1	06/04/2001	13:20	28.04	15.29	12.75	----	
PZ1	08/16/2001	11:17	28.04	15.94	12.10	----	
PZ1	11/28/2001	12:09	28.04	15.48	12.56	----	
PZ1	02/27/2002	14:02	28.04	13.28	14.76	----	
PZ1	03/05/2002	11:34	28.04	13.40	14.64	----	
PZ1	04/05/2002	08:32	28.04	13.44	14.60	----	
PZ1	05/29/2002	00:00	28.04	14.16	13.88	----	
PZ1	06/27/2002	15:17	28.04	14.50	13.54	----	
PZ1	08/26/2002	16:33	28.04	15.17	12.87	----	
PZ1	11/13/2002	08:42	28.04	15.83	12.21	----	
PZ1	02/11/2003	09:36	28.04	13.58	14.46	----	
PZ1	05/08/2003	07:58	28.04	13.25	14.79	----	
PZ1	08/27/2003	14:20	28.04	15.32	12.72	----	
PZ1	10/23/2003	13:19	28.04	15.75	12.29	----	
PZ1	02/19/2004	13:56	28.04	13.41	14.63	----	
PZ2	06/27/2002	15:18	31.97	18.31	13.66	----	
PZ2	08/26/2002	16:34	31.97	18.88	13.09	----	
PZ2	11/13/2002	08:25	31.97	19.40	12.57	----	
PZ2	02/11/2003	09:44	31.97	17.46	14.51	----	
PZ2	05/08/2003	07:45	31.97	17.15	14.82	----	
PZ2	08/27/2003	14:03	31.97	19.02	12.95	----	
PZ2	10/23/2003	13:21	31.97	19.27	12.75	0.06	
PZ2	02/19/2004	13:50	31.97	17.36	14.61	----	
PZ3	06/27/2002	15:19	31.12	19.35	11.77	----	
PZ3	08/26/2002	16:35	31.12	19.74	11.38	----	
PZ3	11/13/2002	08:45	31.12	16.87	----	----	
PZ3	02/11/2003	09:40	31.12	19.05	12.07	----	
PZ3	05/08/2003	07:53	31.12	18.95	12.17	----	
PZ3	08/27/2003	14:26	31.12	19.82	11.30	----	
PZ3	10/23/2003	12:39	31.12	dry	----	----	
PZ3	02/19/2004	15:09	31.12	19.07	12.05	----	
PZ4	06/27/2002	15:20	28.47	dry	----	----	
PZ4	08/26/2002	16:36	28.47	dry	----	----	
PZ4	11/13/2002	08:48	28.47	16.87	11.60	----	
PZ4	02/11/2003	09:41	28.47	dry	----	----	
PZ4	05/08/2003	07:52	28.47	17.78	10.69	----	
PZ4	08/27/2003	14:27	28.47	dry	----	----	
PZ4	10/23/2003	12:36	28.47	dry	----	----	
PZ4	02/19/2004	15:08	28.47	dry	----	----	

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QUARTERLY SAMPLING EVENTS, MARCH 1997 - FEBRUARY 2004
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Well	Date	Time	Reference Elevation (ft) (a)	DTW (ft) (b)	GW Elevation (ft) (c)	LNAPL Thickness (ft)	NOTES
OX001S	06/27/2002	15:13	33.38	17.85	15.53	----	
OX001S	08/26/2002	16:45	33.38	18.75	14.63	----	
OX001S	11/13/2002	08:30	33.38	19.92	13.46	----	
OX001S	02/11/2003	09:59	33.38	16.96	16.42	----	
OX001S	05/08/2003	08:04	33.38	16.48	16.90	----	
OX001S	08/27/2003	14:38	33.38	18.76	14.62	----	
OX001S	10/23/2003	14:09	33.38	19.51	13.87	----	
OX001S	02/19/2004	14:10	33.38	16.64	16.74	----	
OX002S	06/27/2002	15:12	28.69	13.22	15.47	----	
OX002S	08/26/2002	16:44	28.69	14.26	14.43	----	
OX002S	11/13/2002	08:33	28.81	15.39	13.42	----	New reference elevation September 2002
OX002S	02/11/2003	10:06	28.81	12.39	16.42	----	
OX002S	05/08/2003	08:09	28.81	11.90	16.91	----	
OX002S	08/27/2003	14:33	28.81	14.55	14.26	----	
OX002S	10/23/2003	14:14	28.81	15.22	13.84	0.31	
OX002S	02/19/2004	14:07	28.81	12.06	16.75	----	
OX003S	06/27/2002	15:14	30.01	14.65	15.36	----	
OX003S	08/26/2002	16:42	30.01	15.50	14.51	----	
OX003S	11/13/2002	08:31	30.01	16.65	13.36	----	
OX003S	02/11/2003	09:58	30.01	13.78	16.23	----	
OX003S	05/08/2003	08:03	30.01	13.30	16.71	----	
OX003S	08/27/2003	14:40	30.01	15.52	14.49	----	
OX003S	10/23/2003	14:10	30.01	16.22	13.79	----	
OX003S	02/19/2004	14:09	30.01	13.47	16.54	----	
OX004S	06/27/2002	15:15	33.42	19.07	14.35	----	
OX004S	08/26/2002	16:39	33.42	19.74	13.68	----	
OX004S	11/13/2002	08:24	33.54	20.73	12.81	----	New reference elevation September 2002
OX004S	02/11/2003	09:38	33.54	18.39	15.15	----	
OX004S	05/08/2003	07:47	33.54	19.07	14.47	----	
OX004S	08/27/2003	14:07	33.54	19.95	13.59	----	
OX004S	10/23/2003	12:43	33.54	dry	----	----	
OX004S	02/19/2004	13:54	33.54	18.21	15.33	----	
OX005S	10/23/2003	13:44	30.74	16.15	14.59	----	
OX005S	02/19/2004	14:25	30.74	12.46	18.28	----	
OX006S	10/23/2003	13:45	30.92	16.43	14.49	----	
OX006S	02/19/2004	14:24	30.92	12.85	18.07	----	
OX007S	10/23/2003	13:46	30.68	16.25	14.43	----	
OX007S	02/19/2004	14:23	30.68	12.67	18.01	----	
OX008S	10/23/2003	13:47	30.74	16.41	14.33	----	
OX008S	02/19/2004	14:19	30.74	12.96	17.78	----	
Deep Wells:							
B2	08/11/1993	10:02	30.31	25.44	4.87	----	Slight sheen, slight to mod solvent-like odor
B2	10/26/1993	13:32	30.31	25.25	5.06	----	
B2	11/17/1993	13:32	30.31	25.23	5.08	----	
B2	12/17/1993	12:59	30.31	23.88	6.43	----	
B2	01/17/1994	13:12	30.31	23.99	6.32	----	
B2	02/18/1994	14:20	30.31	23.73	6.58	----	
B2	03/18/1994	12:59	30.31	23.15	7.16	----	
B2	04/18/1994	14:42	30.31	24.35	5.96	----	
B2	05/18/1994	15:22	30.31	23.12	7.19	----	
B2	06/17/1994	14:54	30.31	22.90	7.41	----	
B2	07/19/1994	09:20	30.31	24.38	5.93	----	
B2	08/17/1994	07:35	30.31	25.22	5.09	----	
B2	09/16/1994	07:27	30.31	25.89	4.42	----	
B2	10/17/1994	09:03	30.31	25.43	4.88	----	
B2	11/21/1994	11:51	30.31	24.56	5.75	----	
B2	12/19/1994	11:10	30.31	21.82	8.49	----	
B2	01/18/1995	11:18	30.31	18.93	11.38	----	
B2	02/21/1995	13:23	30.31	17.12	13.19	----	
B2	03/21/1995	13:05	30.31	20.37	9.94	----	

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Well	Date	Time	Reference Elevation (ft) (a)	DTW (ft) (b)	GW Elevation (ft) (c)	LNAPL Thickness (ft)	NOTES
B2	04/19/1995	12:48	30.31	21.21	9.10	----	
B2	05/19/1995	13:38	30.31	19.30	11.01	----	
B2	07/17/1995	13:55	30.31	22.72	7.59	----	
B2	08/22/1995	07:53	30.31	24.42	5.89	----	
B2	09/22/1995	08:28	30.31	25.28	5.03	----	
B2	11/20/1995	07:57	30.31	22.02	8.29	----	
B2	12/01/1995	08:29	30.31	13.63	16.68	----	
B2	12/19/1995	07:26	30.31	15.57	14.74	----	
B2	01/19/1996	08:38	30.31	16.48	13.83	----	
B2	02/20/1996	10:42	30.31	10.63	19.68	----	
B2	03/19/1996	09:23	30.31	16.61	13.70	----	
B2	04/19/1996	11:53	30.31	16.20	14.11	----	
B2	07/22/1996	14:24	30.31	22.29	8.02	----	
B2	08/20/1996	14:20	30.31	23.43	6.88	----	
B2	09/24/1996	08:11	30.31	24.30	6.01	----	
B2	10/28/1996	11:09	30.31	23.76	6.55	----	
B2	12/13/1996	10:47	30.31	16.70	13.61	----	
B2	03/25/1997	12:02	30.31	15.85	14.46	----	
B2	03/31/1997	09:27	30.31	14.91	15.40	----	
B2	07/16/1997	07:45	30.31	19.91	10.40	----	
B2	10/21/1997	16:30	30.31	23.56	6.75	----	
B2	01/27/1998	12:06	30.31	19.32	10.99	----	
B2	05/18/1998	17:54	30.31	18.80	11.51	----	
B2	08/17/1998	10:23	30.31	24.38	5.93	----	
B2	11/13/1998	10:17	30.31	25.33	4.98	----	
B2	02/16/1999	13:34	30.31	19.64	10.67	----	
B2	05/18/1999	15:50	30.31	19.04	11.27	----	
B2	09/21/1999	12:18	30.31	25.34	4.97	----	
B2	12/06/1999	14:39	30.31	20.25	10.06	----	
B2	02/16/2000	10:56	30.31	20.57	9.74	----	
B2	05/23/2000	17:33	30.31	20.99	9.32	----	
B2	08/29/2000	14:20	30.31	25.38	4.93	----	
B2	11/09/2000	13:29	30.31	25.31	5.00	----	
B2	02/12/2001	15:27	30.31	24.62	5.69	----	
B2	06/04/2001	13:04	30.31	24.84	5.47	----	
B2	08/16/2001	11:58	30.31	26.75	3.56	----	
B2	11/28/2001	12:46	30.31	24.14	6.17	----	
B2	02/27/2002	14:35	30.31	22.90	7.41	----	
B2	06/27/2002	15:07	30.31	20.16	10.15	----	
B2	08/26/2002	17:01	30.31	25.32	4.99	----	
B2	11/13/2002	09:03	30.31	25.28	5.03	----	
B2	02/11/2003	10:14	30.31	23.58	6.73	----	
B2	05/08/2003	08:13	30.31	21.33	8.98	----	
B2	08/27/2003	15:32	30.31	24.25	6.06	----	
B2	10/23/2003	14:08	30.31	25.85	4.46	----	
B2	02/19/2004	14:12	30.31	22.21	8.10	----	
G1A	03/25/1997	11:55	29.72	14.84	14.88	----	
G1A	03/31/1997	09:11	29.72	14.28	15.44	----	
G1A	07/16/1997	07:33	29.72	18.94	10.78	----	
G1A	10/21/1997	16:18	29.72	22.44	7.28	----	
G1A	01/27/1998	11:46	29.72	18.42	11.30	----	
G1A	05/18/1998	17:31	29.72	18.05	11.67	----	
G1A	08/17/1998	10:07	29.72	23.35	6.37	----	
G1A	11/13/1998	09:54	29.72	24.59	5.13	----	
G1A	02/16/1999	13:14	29.72	18.28	11.44	----	
G1A	05/18/1999	14:51	29.72	18.42	11.30	----	
G1A	09/21/1999	11:29	29.72	24.32	5.40	----	
G1A	12/06/1999	14:05	29.72	19.82	9.90	----	
G1A	02/16/2000	10:18	29.72	19.81	9.91	----	
G1A	05/23/2000	16:31	29.72	20.08	9.64	----	Replaced lock and tubing
G1A	08/29/2000	13:13	29.72	24.36	5.36	----	
G1A	11/09/2000	12:32	29.72	24.85	4.87	----	
G1A	02/12/2001	16:01	29.72	24.08	5.64	----	
G1A	06/04/2001	11:40	29.72	24.10	5.62	----	
G1A	08/16/2001	10:52	29.72	25.51	4.21	----	
G1A	11/28/2001	11:32	29.72	23.84	5.88	----	
G1A	02/27/2002	13:39	29.72	21.96	7.76	----	

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QUARTERLY SAMPLING EVENTS, MARCH 1997 - FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

Well	Date	Time	Reference Elevation (ft) (a)	DTW (ft) (b)	GW Elevation (ft) (c)	LNAPL Thickness (ft)	NOTES
G1A	06/27/2002	14:17	29.72	19.48	10.24	----	
G1A	08/26/2002	16:06	29.72	24.36	5.36	----	
G1A	11/13/2002	07:35	29.72	24.60	5.12	----	
G1A	02/11/2003	08:59	29.72	22.32	7.40	----	
G1A	05/08/2003	06:58	29.72	20.51	9.21	----	
G1A	08/27/2003	13:36	29.72	24.16	5.56	----	
G1A	10/23/2003	12:37	29.72	25.20	4.52	----	
G1A	02/19/2004	12:57	29.72	21.51	8.21	----	
J2	03/25/1997	12:18	29.65	15.22	14.43	----	
J2	03/31/1997	11:21	29.65	14.38	15.27	----	
J2	07/16/1997	08:24	29.65	19.28	10.37	----	
J2	10/21/1997	17:00	29.65	23.02	6.63	----	
J2	01/27/1998	13:19	29.65	18.69	10.96	----	
J2	05/18/1998	18:00	29.65	18.14	11.51	----	
J2	08/17/1998	10:21	29.65	23.70	5.95	----	
J2	11/13/1998	10:28	29.65	24.64	5.01	----	
J2	02/16/1999	13:40	29.65	19.00	10.65	----	
J2	05/18/1999	15:46	29.65	18.40	11.25	----	
J2	09/21/1999	12:30	29.65	24.73	4.92	----	
J2	12/06/1999	15:08	29.65	19.53	10.12	----	
J2	02/16/2000	11:07	29.65	19.89	9.76	----	
J2	05/23/2000	17:28	29.65	20.33	9.32	----	
J2	08/29/2000	14:15	29.65	24.67	4.98	----	
J2	11/09/2000	13:26	29.65	24.66	4.99	----	
J2	02/12/2001	15:23	29.65	23.92	5.73	----	
J2	06/04/2001	13:02	29.65	24.17	5.48	----	
J2	08/16/2001	11:51	29.65	25.57	4.08	----	
J2	11/28/2001	12:36	29.65	23.45	6.20	----	
J2	02/27/2002	14:31	29.65	22.21	7.44	----	
J2	06/27/2002	15:03	29.65	19.48	10.17	----	
J2	08/26/2002	16:56	29.65	24.67	4.98	----	
J2	11/13/2002	08:59	29.65	24.60	5.05	----	
J2	02/11/2003	10:19	29.65	22.95	6.70	----	
J2	05/08/2003	08:16	29.65	20.65	9.00	----	
J2	08/27/2003	14:48	29.65	24.12	5.53	----	
J2	10/23/2003	13:54	29.65	25.18	4.47	----	
J2	02/19/2004	14:17	29.65	21.52	8.13	----	
J3	03/25/1997	12:20	29.58	14.70	14.88	----	
J3	03/31/1997	11:25	29.58	14.03	15.55	----	
J3	07/16/1997	08:25	29.58	18.91	10.67	----	
J3	10/21/1997	17:02	29.58	22.37	7.21	----	
J3	01/27/1998	13:21	29.58	18.28	11.30	----	
J3	05/18/1998	17:58	29.58	17.84	11.74	----	
J3	08/17/1998	10:22	29.58	23.12	6.46	----	
J3	11/13/1998	10:26	29.58	24.14	5.44	----	
J3	02/16/1999	13:41	29.58	18.32	11.26	----	
J3	05/18/1999	15:48	29.58	18.01	11.57	----	
J3	09/21/1999	12:31	29.58	24.12	5.46	----	
J3	12/06/1999	15:09	29.58	19.31	10.27	----	
J3	02/16/2000	10:07	29.58	19.50	10.08	----	
J3	05/23/2000	17:29	29.58	19.86	9.72	----	
J3	08/29/2000	14:17	29.58	24.05	5.53	----	
J3	11/09/2000	13:27	29.58	24.24	5.34	----	
J3	02/12/2001	15:24	29.58	23.45	6.13	----	
J3	06/04/2001	12:44	29.58	23.62	5.96	----	
J3	08/16/2001	11:50	29.58	24.98	4.60	----	
J3	11/28/2001	12:37	29.58	22.98	6.60	----	
J3	02/27/2002	14:32	29.58	21.52	8.06	----	
J3	06/27/2002	15:04	29.58	19.14	10.44	----	
J3	08/26/2002	16:57	29.58	23.99	5.59	----	
J3	11/13/2002	08:58	29.58	24.10	5.48	----	
J3	02/11/2003	10:20	29.58	22.28	7.30	----	
J3	05/08/2003	08:17	29.58	20.16	9.42	----	
J3	08/27/2003	14:49	29.58	23.60	5.98	----	
J3	10/23/2003	13:56	29.58	24.70	4.88	----	
J3	02/19/2004	14:16	29.58	21.18	8.40	----	

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GROUNDWATER LEVEL MEASUREMENTS
QUARTERLY SAMPLING EVENTS, MARCH 1997 - FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

Well	Date	Time	Reference Elevation (ft) (a)	DTW (ft) (b)	GW Elevation (ft) (c)	LNAPL Thickness (ft)	NOTES
O	03/25/1997	11:40	32.03	17.01	15.02	----	
O	03/31/1997	08:48	32.03	16.39	15.64	----	
O	07/16/1997	07:05	32.03	21.93	10.10	----	
O	10/21/1997	16:01	32.03	22.23	9.80	----	
O	01/27/1998	11:03	32.03	20.51	11.52	----	
O	05/18/1998	17:14	32.03	20.25	11.78	----	
O	08/17/1998	10:13	32.03	25.42	6.61	----	
O	11/13/1998	09:31	32.03	26.49	5.54	----	
O	02/16/1999	12:45	32.03	20.25	11.78	----	
O	05/18/1999	14:36	32.03	21.23	10.80	----	
O	09/21/1999	11:09	32.03	26.22	5.81	----	
O	12/06/1999	13:48	32.03	21.90	10.13	----	
O	02/16/2000	10:04	32.03	22.21	9.82	----	
O	05/23/2000	16:15	32.03	22.18	9.85	----	
O	08/29/2000	12:56	32.03	26.49	5.54	----	
O	11/09/2000	12:18	32.03	27.01	5.02	----	
O	02/12/2001	15:52	32.03	26.12	5.91	----	
O	06/04/2001	11:22	32.03	26.08	5.95	----	
O	08/16/2001	10:22	32.03	27.58	4.45	----	
O	11/28/2001	11:18	32.03	26.15	5.88	----	
O	02/27/2002	13:15	32.03	24.08	7.95	----	
O	06/27/2002	14:09	32.03	21.29	10.74	----	
O	08/26/2002	15:47	32.03	25.91	6.12	----	
O	11/13/2002	07:21	32.03	26.56	5.47	----	
O	02/11/2003	08:38	32.03	22.81	9.22	----	
O	05/08/2003	06:44	32.03	22.70	9.33	----	
O	08/27/2003	13:23	32.03	26.43	5.60	----	
O	10/23/2003	12:02	32.03	27.11	4.92	----	
O	02/19/2004	12:15	32.03	23.71	8.32	----	
R	03/25/1997	11:36	30.47	15.56	14.91	----	
R	03/31/1997	08:43	30.47	14.85	15.62	----	
R	07/16/1997	07:00	30.47	20.37	10.10	----	
R	10/21/1997	15:56	30.47	22.54	7.93	----	
R	01/27/1998	10:57	30.47	18.98	11.49	----	
R	05/18/1998	17:15	30.47	18.73	11.74	----	
R	08/17/1998	10:12	30.47	23.93	6.54	----	
R	11/13/1998	09:35	30.47	25.17	5.30	----	
R	02/16/1999	13:05	30.47	18.79	11.68	----	
R	05/18/1999	14:37	30.47	19.64	10.83	----	
R	09/21/1999	11:15	30.47	24.53	5.94	----	
R	12/06/1999	13:46	30.47	20.33	10.14	----	
R	02/16/2000	10:12	30.47	20.65	9.82	----	
R	05/23/2000	16:17	30.47	20.64	9.83	----	
R	08/29/2000	12:58	30.47	24.97	5.50	----	
R	11/09/2000	12:20	30.47	25.47	5.00	----	
R	02/12/2001	15:54	30.47	24.46	6.01	----	
R	06/04/2001	11:36	30.47	24.53	5.94	----	
R	08/16/2001	10:35	30.47	26.02	4.45	----	
R	11/28/2001	11:19	30.47	24.57	5.90	----	
R	02/27/2002	13:17	30.47	22.50	7.97	----	
R	06/27/2002	14:08	30.47	19.75	10.72	----	
R	08/26/2002	15:58	30.47	24.38	6.09	----	
R	11/13/2002	07:22	30.47	25.04	5.43	----	
R	02/11/2003	08:41	30.47	21.22	9.25	----	
R	05/08/2003	06:46	30.47	21.14	9.33	----	
R	08/27/2003	13:25	30.47	24.91	5.56	----	
R	10/23/2003	11:56	30.47	25.60	4.87	----	
R	02/19/2004	12:05	30.47	22.15	8.32	----	
LW001D	03/31/1997	11:11	28.31	12.71	15.60	----	
LW001D	07/16/1997	08:12	28.31	17.65	10.66	----	
LW001D	10/21/1997	16:55	28.31	21.29	7.02	----	
LW001D	01/27/1998	13:07	28.31	17.06	11.25	----	
LW001D	05/18/1998	17:39	28.31	16.53	11.78	----	
LW001D	08/17/1998	10:30	28.31	21.82	6.49	----	
LW001D	11/13/1998	10:01	28.31	22.77	5.54	----	

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GROUNDWATER LEVEL MEASUREMENTS
QUARTERLY SAMPLING EVENTS, MARCH 1997 - FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

Well	Date	Time	Reference Elevation (ft) (a)	DTW (ft) (b)	GW Elevation (ft) (c)	LNAPL Thickness (ft)	NOTES
LW001D	02/16/1999	13:21	28.31	17.30	11.01	----	
LW001D	05/18/1999	15:36	28.31	16.76	11.55	----	
LW001D	09/21/1999	12:12	28.31	22.91	5.40	----	
LW001D	12/06/1999	14:34	28.31	18.00	10.31	----	
LW001D	02/16/2000	10:49	28.31	18.16	10.15	----	
LW001D	05/23/2000	17:19	28.31	18.62	9.69	----	
LW001D	08/29/2000	13:59	28.31	22.81	5.50	----	
LW001D	11/09/2000	13:20	28.31	22.98	5.33	----	
LW001D	02/12/2001	15:35	28.31	22.23	6.08	----	
LW001D	06/04/2001	12:23	28.31	22.36	5.95	----	
LW001D	08/16/2001	11:38	28.31	23.73	4.58	----	
LW001D	11/28/2001	12:29	28.31	21.73	6.58	----	
LW001D	02/27/2002	14:17	28.31	20.31	8.00	----	
LW001D	06/27/2002	14:49	28.31	17.81	10.50	----	
LW001D	08/26/2002	17:12	28.31	22.85	5.46	----	
LW001D	11/13/2002	09:08	28.31	22.91	5.40	----	
LW001D	02/11/2003	10:27	28.31	21.11	7.20	----	
LW001D	05/08/2003	08:19	28.31	18.91	9.40	----	
LW001D	08/27/2003	14:50	28.31	22.40	5.91	----	
LW001D	10/23/2003	13:57	28.31	23.51	4.80	----	
LW001D	02/19/2004	14:30	28.31	19.91	8.40	----	
LW003D	03/31/1997	11:45	30.80	19.38	11.42	----	Time estimated
LW003D	07/16/1997	08:38	30.80	28.09	2.71	----	
LW003D	10/21/1997	17:07	30.80	23.36	7.44	----	
LW003D	01/27/1998	13:30	30.80	21.66	9.14	----	
LW003D	05/18/1998	17:35	30.80	19.21	11.59	----	
LW003D	08/17/1998	10:24	30.80	24.62	6.18	----	
LW003D	11/13/1998	09:03	30.80	25.56	5.24	----	
LW003D	02/16/1999	13:44	30.80	20.00	10.80	----	
LW003D	05/18/1999	15:58	30.80	19.42	11.38	----	Purged dry at 11:00
LW003D	09/21/1999	10:40	30.80	25.76	5.04	----	
LW003D	12/06/1999	14:45	30.80	20.69	10.11	----	
LW003D	02/16/2000	09:54	30.80	20.98	9.82	----	
LW003D	05/23/2000	14:40	30.80	21.16	9.64	----	Purged dry at 13:10
LW003D	08/29/2000	14:36	30.80	----	----	----	Well purged dry 8/28; sampled a.m. on 8/29
LW003D	11/09/2000		30.80	----	----	----	Well sampled 11/8/00 - water level not representative
LW003D	02/12/2001	15:11	30.80	24.85	5.95	----	
LW003D	06/04/2001	12:35	30.80	25.09	5.71	----	
LW003D	08/16/2001	11:47	30.80	26.43	4.37	----	
LW003D	11/28/2001	12:42	30.80	24.48	6.32	----	
LW003D	02/27/2002	14:20	30.80	23.13	7.67	----	
LW003D	06/27/2002	14:59	30.80	20.55	10.25	----	
LW003D	08/26/2002	17:03	30.80	25.63	5.17	----	
LW003D	11/13/2002	09:20	30.80	25.57	5.23	----	
LW003D	02/11/2003	10:40	30.80	24.03	6.77	----	
LW003D	05/08/2003	08:29	30.80	21.68	9.12	----	
LW003D	08/27/2003	15:04	30.80	25.10	5.70	----	
LW003D	10/23/2003	13:49	30.80	26.18	4.62	----	
LW003D	02/19/2004	14:21	30.80	22.65	8.15	----	
LW004D	03/31/1997	09:18	30.17	14.73	15.44	----	
LW004D	07/16/1997	07:42	30.17	19.43	10.74	----	
LW004D	10/21/1997	16:27	30.17	23.02	7.15	----	
LW004D	01/27/1998	11:56	30.17	18.84	11.33	----	
LW004D	05/18/1998	17:33	30.17	18.54	11.63	----	
LW004D	08/17/1998	10:18	30.17	23.81	6.36	----	
LW004D	11/13/1998	09:57	30.17	24.99	5.18	----	
LW004D	02/16/1999	13:17	30.17	18.79	11.38	----	
LW004D	05/18/1999	15:04	30.17	18.77	11.40	----	Completed sampling at 13:40
LW004D	09/21/1999	11:41	30.17	24.78	5.39	----	
LW004D	12/06/1999	14:18	30.17	20.21	9.96	----	
LW004D	02/16/2000	10:30	30.17	20.23	9.94	----	
LW004D	05/23/2000	16:54	30.17	20.55	9.62	----	
LW004D	08/29/2000	13:38	30.17	24.78	5.39	----	
LW004D	11/09/2000	12:52	30.17	25.19	4.98	----	
LW004D	02/12/2001	16:39	30.17	24.71	5.46	----	
LW004D	06/04/2001	12:07	30.17	24.66	5.51	----	

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GROUNDWATER LEVEL MEASUREMENTS
QUARTERLY SAMPLING EVENTS, MARCH 1997 - FEBRUARY 2004
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Well	Date	Time	Reference Elevation (ft) (a)	DTW (ft) (b)	GW Elevation (ft) (c)	LNAPL Thickness (ft)	NOTES
LW004D	08/16/2001	11:15	30.17	26.27	3.90	----	
LW004D	11/28/2001	12:04	30.17	24.41	5.76	----	
LW004D	02/27/2002	14:00	30.17	22.65	7.52	----	
LW004D	03/05/2002	11:36	30.17	22.94	7.23	----	
LW004D	04/05/2002	08:19	30.17	23.75	6.42	----	
LW004D	05/29/2002	00:00	30.17	20.48	9.69	----	
LW004D	06/27/2002	14:41	30.17	20.15	10.02	----	
LW004D	08/26/2002	16:32	30.17	25.02	5.15	----	
LW004D	11/13/2002	08:23	30.17	25.26	4.91	----	
LW004D	02/11/2003	09:32	30.17	23.08	7.09	----	
LW004D	05/08/2003	07:44	30.17	21.21	8.96	----	
LW004D	08/27/2003	14:01	30.17	24.78	5.39	----	
LW004D	10/23/2003	13:16	30.17	25.85	4.32	----	
LW004D	02/19/2004	13:45	30.17	22.14	8.03	----	
LW006D	03/25/1997	11:52	30.84	16.51	14.33	----	
LW006D	03/31/1997	09:05	30.84	15.53	15.31	----	Faint odor
LW006D	07/16/1997	07:30	30.84	20.74	10.10	----	
LW006D	10/21/1997	16:16	30.84	24.05	6.79	----	
LW006D	01/27/1998	11:38	30.84	19.94	10.90	----	
LW006D	05/18/1998	17:28	30.84	19.36	11.48	----	
LW006D	08/17/1998	10:05	30.84	24.92	5.92	----	
LW006D	11/13/1998	09:50	30.84	25.94	4.90	----	
LW006D	02/16/1999	13:11	30.84	20.40	10.44	----	
LW006D	05/18/1999	14:53	30.84	19.81	11.03	----	
LW006D	09/21/1999	11:32	30.84	25.92	4.92	----	
LW006D	12/06/1999	14:09	30.84	20.86	9.98	----	
LW006D	02/16/2000	10:20	30.84	21.27	9.57	----	
LW006D	05/23/2000	16:35	30.84	21.64	9.20	----	
LW006D	08/29/2000	13:20	30.84	25.93	4.91	----	
LW006D	11/09/2000	12:35	30.84	26.21	4.63	----	
LW006D	02/12/2001	16:03	30.84	25.37	5.47	----	
LW006D	06/04/2001	11:42	30.84	25.30	5.54	----	
LW006D	08/16/2001	10:54	30.84	26.72	4.12	----	
LW006D	11/28/2001	11:46	30.84	24.92	5.92	----	
LW006D	02/27/2002	13:35	30.84	23.62	7.22	----	
LW006D	06/27/2002	14:19	30.84	20.68	10.16	----	
LW006D	08/26/2002	16:04	30.84	25.79	5.05	----	
LW006D	11/13/2002	07:42	30.84	25.82	5.02	----	
LW006D	02/11/2003	09:01	30.84	24.08	6.76	----	
LW006D	05/08/2003	07:01	30.84	21.97	8.87	----	
LW006D	08/27/2003	13:40	30.84	25.37	5.47	----	
LW006D	10/23/2003	12:31	30.84	26.47	4.37	----	
LW006D	02/19/2004	12:37	30.84	23.00	7.84	----	
LW009D	05/18/1999	14:56	30.98	20.02	10.96	----	
LW009D	09/21/1999	11:34	30.98	25.23	5.75	----	
LW009D	12/06/1999	14:11	30.98	21.04	9.94	----	
LW009D	02/16/2000	10:23	30.98	21.17	9.81	----	
LW009D	05/23/2000	16:39	30.98	21.15	9.83	----	
LW009D	08/29/2000	13:27	30.98	25.36	5.62	----	
LW009D	11/09/2000	12:43	30.98	25.96	5.02	----	
LW009D	02/12/2001	16:11	30.98	25.13	5.85	----	
LW009D	06/04/2001	11:49	30.98	25.15	5.83	----	
LW009D	08/16/2001	11:02	30.98	26.57	4.41	----	
LW009D	11/28/2001	11:53	30.98	25.40	5.58	----	
LW009D	02/27/2002	13:47	30.98	22.97	8.01	----	
LW009D	06/27/2002	14:25	30.98	20.38	10.60	----	
LW009D	08/26/2002	16:11	30.98	24.90	6.08	----	
LW009D	11/13/2002	07:48	30.98	25.73	5.25	----	
LW009D	02/11/2003	09:07	30.98	22.03	8.95	----	
LW009D	05/08/2003	07:12	30.98	21.65	9.33	----	
LW009D	08/27/2003	13:47	30.98	25.50	5.48	----	
LW009D	10/23/2003	12:50	30.98	26.22	4.76	----	
LW009D	02/19/2004	13:02	30.98	22.55	8.43	----	
LW010D	05/18/1999	15:00	31.12	19.82	11.30	----	
LW010D	09/21/1999	11:37	31.12	25.81	5.31	----	

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GROUNDWATER LEVEL MEASUREMENTS
QUARTERLY SAMPLING EVENTS, MARCH 1997 - FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

Well	Date	Time	Reference Elevation (ft) (a)	DTW (ft) (b)	GW Elevation (ft) (c)	LNAPL Thickness (ft)	NOTES
LW010D	12/06/1999	14:15	31.12	21.18	9.94	----	
LW010D	02/16/2000	10:27	31.12	21.20	9.92	----	
LW010D	05/23/2000	16:42	31.12	21.51	9.61	----	
LW010D	08/29/2000	13:29	31.12	25.86	5.26	----	
LW010D	11/09/2000	12:46	31.12	26.26	4.86	----	
LW010D	02/12/2001	16:15	31.12	25.63	5.49	----	
LW010D	06/04/2001	11:52	31.12	25.62	5.50	----	
LW010D	08/16/2001	11:04	31.12	27.16	3.96	----	
LW010D	11/28/2001	11:55	31.12	25.46	5.66	----	
LW010D	02/27/2002	13:49	31.12	23.58	7.54	----	
LW010D	06/27/2002	14:29	31.12	21.03	10.09	----	
LW010D	08/26/2002	16:17	31.12	25.91	5.21	----	
LW010D	11/13/2002	08:01	31.12	26.17	4.95	----	
LW010D	02/11/2003	09:21	31.12	23.83	7.29	----	
LW010D	05/08/2003	07:33	31.12	22.10	9.02	----	
LW010D	08/27/2003	13:53	31.12	25.74	5.38	----	
LW010D	10/23/2003	13:10	31.12	26.79	4.33	----	
LW010D	02/19/2004	13:25	31.12	22.98	8.14	----	
LW011D	05/18/1999	15:09	29.04	18.59	10.45	----	
LW011D	09/21/1999	11:50	29.04	20.76	8.28	----	
LW011D	12/06/1999	15:06	29.04	21.81	7.23	----	
LW011D	02/16/2000	11:02	29.04	20.35	8.69	----	
LW011D	05/23/2000	17:37	29.04	19.50	9.54	----	
LW011D	08/29/2000	14:54	29.04	----	----	----	Well purged dry 8/28; sampled a.m. on 8/29
LW011D	11/09/2000		29.04	----	----	----	Well sampled 11/8/00 - water level not representative
LW011D	02/12/2001	15:16	29.04	23.14	5.90	----	
LW011D	06/04/2001	13:11	29.04	23.35	5.69	----	
LW011D	08/16/2001	11:25	29.04	26.94	2.10	----	
LW011D	11/28/2001	12:53	29.04	24.54	4.50	----	
LW011D	02/27/2002	14:57	29.04	21.80	7.24	----	
LW011D	06/27/2002	15:11	29.04	18.84	10.20	----	
LW011D	08/26/2002	16:47	29.04	22.71	6.33	----	
LW011D	11/13/2002	08:55	29.04	23.87	5.17	----	
LW011D	02/11/2003	10:04	29.04	21.79	7.25	----	
LW011D	05/08/2003	08:08	29.04	19.28	9.76	----	
LW011D	08/27/2003	14:34	29.04	23.35	5.69	----	
LW011D	10/23/2003	14:11	29.04	23.98	5.06	----	
LW011D	02/19/2004	14:05	29.04	21.08	7.96	----	
LW012D1	05/18/1999	15:13	30.02	18.45	11.57	----	
LW012D1	09/21/1999	11:54	30.02	24.44	5.58	----	
LW012D1	12/06/1999	14:21	30.02	19.72	10.30	----	
LW012D1	02/16/2000	10:35	30.02	19.89	10.13	----	
LW012D1	05/23/2000	17:00	30.02	20.23	9.79	----	
LW012D1	08/29/2000	13:45	30.02	24.38	5.64	----	
LW012D1	11/09/2000	13:00	30.02	24.66	5.36	----	
LW012D1	02/12/2001	15:57	30.02	23.92	6.10	----	
LW012D1	06/04/2001	12:32	30.02	23.99	6.03	----	
LW012D1	08/16/2001	11:42	30.02	25.39	4.63	----	
LW012D1	11/28/2001	12:38	30.02	23.33	6.69	----	
LW012D1	02/27/2002	14:28	30.02	21.88	8.14	----	
LW012D1	06/27/2002	14:57	30.02	19.58	10.44	----	
LW012D1							Abandoned August 2003
LW012D2	05/18/1999	15:14	29.24	18.23	11.01	----	
LW012D2	09/21/1999	11:53	29.24	24.69	4.55	----	
LW012D2	12/06/1999	14:22	29.24	19.40	9.84	----	
LW012D2	02/16/2000	10:36	29.24	19.90	9.34	----	
LW012D2	05/23/2000	16:59	29.24	20.38	8.86	----	
LW012D2	08/29/2000	13:44	29.24	24.68	4.56	----	
LW012D2	11/09/2000	13:01	29.24	24.56	4.68	----	
LW012D2	02/12/2001	15:56	29.24	23.88	5.36	----	
LW012D2	06/04/2001	12:31	29.24	24.10	5.14	----	
LW012D2	08/16/2001	11:43	29.24	25.43	3.81	----	
LW012D2	11/28/2001	12:39	29.24	23.17	6.07	----	
LW012D2	02/27/2002	14:29	29.24	22.38	6.86	----	
LW012D2	06/27/2002	14:58	29.24	19.44	9.80	----	

TABLE A-2
GROUNDWATER LEVEL MEASUREMENTS
QUARTERLY SAMPLING EVENTS, MARCH 1997 - FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

Well	Date	Time	Reference Elevation (ft) (a)	DTW (ft) (b)	GW Elevation (ft) (c)	LNAPL Thickness (ft)	NOTES
LW012D2							Abandoned August 2003
LW014D	05/23/2000	16:50	30.54	21.26	9.28	----	
LW014D	08/29/2000	13:35	30.54	25.68	4.86	----	
LW014D	11/09/2000	12:49	30.54	25.90	4.64	----	
LW014D	02/12/2001	16:20	30.54	25.33	5.21	----	
LW014D	06/04/2001	12:00	30.54	25.37	5.17	----	
LW014D	08/16/2001	11:08	30.54	27.00	3.54	----	
LW014D	11/28/2001	11:56	30.54	25.03	5.51	----	
LW014D	02/27/2002	13:55	30.54	23.57	6.97	----	
LW014D	06/27/2002	14:33	30.54	20.70	9.84	----	
LW014D	08/26/2002	16:26	30.54	25.90	4.64	----	
LW014D	11/13/2002	08:07	30.54	25.76	4.78	----	
LW014D	02/11/2003	09:27	30.54	24.33	6.21	----	
LW014D	05/08/2003	07:38	30.54	21.92	8.62	----	
LW014D	08/27/2003	13:56	30.54	25.32	5.22	----	
LW014D	10/23/2003	13:13	30.54	26.56	3.98	----	
LW014D	02/19/2004	13:30	30.54	22.86	7.68	----	
LW015D	05/23/2000	16:49	30.85	21.26	9.59	----	
LW015D	08/29/2000	13:34	30.85	25.54	5.31	----	
LW015D	11/09/2000	12:48	30.85	25.98	4.87	----	
LW015D	02/12/2001	16:18	30.85	25.43	5.42	----	
LW015D	06/04/2001	11:59	30.85	25.41	5.44	----	
LW015D	08/16/2001	11:07	30.85	27.05	3.80	----	
LW015D	11/28/2001	11:55	30.85	25.29	5.56	----	
LW015D	02/27/2002	13:52	30.85	23.42	7.43	----	
LW015D	06/27/2002	14:32	30.85	20.91	9.94	----	
LW015D	08/26/2002	16:25	30.85	25.77	5.08	----	
LW015D	11/13/2002	08:05	30.85	26.04	4.81	----	
LW015D	02/11/2003	09:23	30.85	23.65	7.20	----	
LW015D	05/08/2003	07:37	30.85	21.95	8.90	----	
LW015D	08/27/2003	13:55	30.85	25.58	5.27	----	
LW015D	10/23/2003	13:12	30.85	26.61	4.24	----	
LW015D	02/19/2004	13:30	30.85	22.83	8.02	----	
LW016D	05/23/2000	16:48	28.40	18.79	9.61	----	
LW016D	08/29/2000	13:32	28.40	23.07	5.33	----	
LW016D	11/09/2000	12:47	28.40	23.59	4.81	----	
LW016D	02/12/2001	16:17	28.40	22.94	5.46	----	
LW016D	06/04/2001	11:57	28.40	23.00	5.40	----	
LW016D	08/16/2001	11:05	28.40	24.43	3.97	----	
LW016D	11/28/2001	11:57	28.40	22.87	5.53	----	
LW016D	02/27/2002	13:54	28.40	20.94	7.46	----	
LW016D	06/27/2002	14:31	28.40	18.46	9.94	----	
LW016D	08/26/2002	16:23	28.40	23.24	5.16	----	
LW016D	11/13/2002	08:08	28.40	23.45	4.95	----	
LW016D	02/11/2003	09:25	28.40	21.14	7.26	----	
LW016D	05/08/2003	07:36	28.40	19.65	8.75	----	
LW016D	08/27/2003	13:54	28.40	23.08	5.32	----	
LW016D	10/23/2003	13:11	28.40	24.10	4.30	----	
LW016D	02/19/2004	13:31	28.40	20.30	8.10	----	
LW017D	08/29/2000	13:21	27.82	22.96	4.86	----	
LW017D	11/09/2000	12:36	27.82	23.17	4.65	----	
LW017D	02/12/2001	16:04	27.82	22.44	5.38	----	
LW017D	06/04/2001	11:44	27.82	22.42	5.40	----	
LW017D	08/16/2001	10:55	27.82	23.80	4.02	----	
LW017D	11/28/2001	11:50	27.82	22.00	5.82	----	
LW017D	02/27/2002	13:37	27.82	19.82	8.00	----	
LW017D	03/05/2002	11:30	27.82	20.46	7.36	----	
LW017D	04/05/2002	08:15	27.82	21.34	6.48	----	
LW017D	05/29/2002	00:00	27.82	17.90	9.92	----	
LW017D	06/27/2002	14:20	27.82	17.64	10.18	----	
LW017D	08/26/2002	16:07	27.82	22.67	5.15	----	
LW017D	11/13/2002	07:45	27.82	22.80	5.02	----	
LW017D	02/11/2003	09:03	27.82	20.79	7.03	----	
LW017D	05/08/2003	07:05	27.82	18.82	9.00	----	
LW017D	08/27/2003	13:43	27.82	22.38	5.44	----	

TABLE A-2
GROUNDWATER LEVEL MEASUREMENTS
QUARTERLY SAMPLING EVENTS, MARCH 1997 - FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

Well	Date	Time	Reference Elevation (ft) (a)	DTW (ft) (b)	GW Elevation (ft) (c)	LNAPL Thickness (ft)	NOTES
LW017D	10/23/2003	12:34	27.82	23.46	4.36	----	
LW017D	02/19/2004	12:52	27.82	19.82	8.00	----	
LW018D	08/29/2000	13:25	27.82	22.79	5.03	----	
LW018D	11/09/2000	12:40	27.82	22.91	4.91	----	
LW018D	02/12/2001	16:10	27.82	22.56	5.26	----	
LW018D	06/04/2001	11:47	27.82	22.28	5.54	----	
LW018D	08/16/2001	11:00	27.82	23.81	4.01	----	
LW018D	11/28/2001	11:51	27.82	22.00	5.82	----	
LW018D	02/27/2002	13:43	27.82	20.44	7.38	----	
LW018D	06/27/2002	14:23	27.82	17.72	10.10	----	
LW018D	08/26/2002	16:13	27.82	21.90	5.92	----	
LW018D	11/13/2002	07:51	27.82	22.71	5.11	----	
LW018D	02/11/2003	09:05	27.82	20.95	6.87	----	
LW018D	05/08/2003	07:10	27.82	18.75	9.07	----	
LW018D	08/27/2003	13:45	27.82	22.41	5.41	----	
LW018D	10/23/2003	12:45	27.82	23.46	4.36	----	
LW018D	02/19/2004	13:10	27.82	19.74	8.08	----	
LW020D	10/23/2003	12:15	29.51	24.86	4.65	----	
LW020D	02/19/2004	14:46	29.51	21.00	8.51	----	
LW022D	10/23/2003	11:58	32.56	27.72	4.84	----	
LW022D	02/19/2004	12:14	32.56	24.44	8.12	----	
LW023D	10/23/2003	12:00	31.41	26.56	4.85	----	
LW023D	02/19/2004	12:13	31.41	23.31	8.10	----	
LW024D	10/23/2003	12:23	33.47	28.61	4.86	----	
LW024D	02/19/2004	12:40	33.47	25.28	8.19	----	
LW025D	10/23/2003	12:28	35.38	30.50	4.88	----	
LW025D	02/19/2004	12:38	35.38	27.25	8.13	----	
LW026D	10/23/2003	12:09	31.49	27.17	4.32	----	
LW026D	02/19/2004	12:22	31.49	23.64	7.85	----	
LW027D	10/23/2003	12:21	29.71	25.47	4.24	----	
LW027D	02/19/2004	12:43	29.71	21.96	7.75	----	
LW029D	10/23/2003	14:40	31.12	26.45	4.67	----	
LW029D	02/19/2004	15:31	31.12	22.55	8.57	----	
LW030D	10/23/2003	14:52	30.06	25.58	4.48	----	
LW030D	02/19/2004	15:33	30.06	21.55	8.51	----	
LW032D	10/23/2003	14:33	30.86	25.23	5.63	----	
LW032D	02/19/2004	15:28	30.86	21.95	8.91	----	
LW035D	10/23/2003	11:48	33.19	28.33	4.86	----	
LW035D	02/19/2004	12:34	33.19	24.86	8.33	----	
OX008D	10/23/2003	13:48	30.84	26.12	4.72	----	
OX008D	02/19/2004	14:20	30.84	22.52	8.32	----	
RW2	05/18/1999	15:02	30.68	19.50	11.18	----	
RW2	09/21/1999	11:40	30.68	25.75	4.93	----	
RW2	12/06/1999	14:17	30.68	20.77	9.91	----	
RW2	02/16/2000	10:29	30.68	20.99	9.69	----	
RW2	05/23/2000	16:52	30.68	21.37	9.31	----	
RW2	08/29/2000	13:36	30.68	25.36	5.32	----	
RW2	10/05/2000						Groundwater interim action pumping began in the lower zone at this well.
RW2	11/09/2000	12:50	30.68	25.83	4.85	----	
RW2	02/12/2001	16:37	30.68	26.40	4.28	----	
RW2	06/04/2001	12:05	30.68	26.26	4.42	----	

TABLE A-2
GROUNDWATER LEVEL MEASUREMENTS
QUARTERLY SAMPLING EVENTS, MARCH 1997 - FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

Well	Date	Time	Reference Elevation (ft) (a)	DTW (ft) (b)	GW Elevation (ft) (c)	LNAPL Thickness (ft)	NOTES
RW2	08/16/2001	11:11	30.68	28.98	1.70	----	
RW2	11/28/2001	12:02	30.68	26.86	3.82	----	
RW2	02/27/2002	13:57	30.68	26.02	4.66	----	
RW2	06/27/2002	14:35	30.68	23.68	7.00	----	
RW2	08/26/2002	16:29	30.68	28.26	2.42	----	
RW2	11/13/2002	08:20	30.68	28.50	2.18	----	
RW2	02/11/2003	09:29	30.68	26.96	3.72	----	
RW2	05/07/2003	17:30	30.68	24.80	5.88	----	Date of measurement is day of sampling
RW2	08/27/2003	13:57	30.68	27.91	2.77	----	
RW2	10/23/2003	13:30	30.68	28.73	1.95	----	
RW2	02/19/2004	13:43	30.68	25.53	5.15	----	
RIVER_GAUGE	08/11/1993	12:57	28.13	24.90	3.23	----	
RIVER_GAUGE	10/26/1993	13:17	28.13	25.27	2.86	----	
RIVER_GAUGE	11/17/1993	13:21	28.13	24.18	3.95	----	
RIVER_GAUGE	12/17/1993	12:46	28.13	22.48	5.65	----	
RIVER_GAUGE	01/17/1994	12:58	28.13	22.90	5.23	----	
RIVER_GAUGE	02/18/1994	14:10	28.13	22.30	5.83	----	
RIVER_GAUGE	03/18/1994	12:48	28.13	21.70	6.43	----	
RIVER_GAUGE	04/18/1994	14:34	28.13	23.50	4.63	----	
RIVER_GAUGE	05/18/1994	15:14	28.13	21.80	6.33	----	
RIVER_GAUGE	06/17/1994	14:45	28.13	21.32	6.81	----	
RIVER_GAUGE	07/19/1994	09:10	28.13	23.25	4.88	----	
RIVER_GAUGE	08/17/1994	07:26	28.13	24.00	4.13	----	
RIVER_GAUGE	09/16/1994	07:30	28.13	24.66	3.47	----	
RIVER_GAUGE	10/17/1994	08:58	28.13	24.10	4.03	----	
RIVER_GAUGE	11/21/1994	11:43	28.13	23.20	4.93	----	
RIVER_GAUGE	12/19/1994	10:58	28.13	19.95	8.18	----	
RIVER_GAUGE	01/18/1995	11:04	28.13	16.70	11.43	----	
RIVER_GAUGE	02/21/1995	13:14	28.13	14.65	13.48	----	
RIVER_GAUGE	03/21/1995	12:58	28.13	18.90	9.23	----	
RIVER_GAUGE	04/19/1995	12:37	28.13	19.80	8.33	----	
RIVER_GAUGE	05/19/1995	13:22	28.13	17.40	10.73	----	
RIVER_GAUGE	07/17/1995	13:48	28.13	22.00	6.13	----	
RIVER_GAUGE	08/22/1995	07:45	28.13	23.24	4.89	----	
RIVER_GAUGE	09/22/1995	08:19	28.13	24.26	3.87	----	
RIVER_GAUGE	11/20/1995	07:50	28.13	20.20	7.93	----	
RIVER_GAUGE	12/01/1995	08:23	28.13	8.45	19.68	----	
RIVER_GAUGE	12/19/1995	07:11	28.13	14.10	14.03	----	
RIVER_GAUGE	01/19/1996	08:29	28.13	14.06	14.07	----	
RIVER_GAUGE	02/20/1996	10:36	28.13	8.00	20.13	----	
RIVER_GAUGE	03/19/1996	09:15	28.13	15.95	12.18	----	
RIVER_GAUGE	04/19/1996	11:45	28.13	13.95	14.18	----	
RIVER_GAUGE	07/22/1996	14:18	28.13	22.00	6.13	----	
RIVER_GAUGE	07/22/1996	15:05	28.13	22.20	5.93	----	
RIVER_GAUGE	08/20/1996	14:09	28.13	22.80	5.33	----	
RIVER_GAUGE	08/20/1996	15:10	28.13	23.00	5.13	----	
RIVER_GAUGE	09/24/1996	07:55	28.13	23.41	4.72	----	
RIVER_GAUGE	09/24/1996	10:15	28.13	24.25	3.88	----	
RIVER_GAUGE	10/28/1996	10:53	28.13	22.95	5.18	----	
RIVER_GAUGE	10/28/1996	12:12	28.13	23.21	4.92	----	
RIVER_GAUGE	12/13/1996	12:09	28.13	14.50	13.63	----	
RIVER_GAUGE	03/25/1997	11:33	28.13	14.60	13.53	----	
RIVER_GAUGE	03/31/1997		28.13	----	----	----	Locked
RIVER_GAUGE	07/16/1997	06:55	28.13	18.73	9.40	----	
RIVER_GAUGE	07/16/1997	07:55	28.13	18.84	9.29	----	
RIVER_GAUGE	07/16/1997	09:14	28.13	18.92	9.21	----	
RIVER_GAUGE	10/21/1997	15:52	28.13	23.38	4.75	----	
RIVER_GAUGE	10/21/1997	16:11	28.13	23.44	4.69	----	
RIVER_GAUGE	10/21/1997	17:55	28.13	23.59	4.54	----	
RIVER_GAUGE	01/27/1998	10:46	28.13	18.20	9.93	----	
RIVER_GAUGE	01/27/1998	12:25	28.13	18.31	9.82	----	
RIVER_GAUGE	01/27/1998	13:56	28.13	17.89	10.24	----	
RIVER_GAUGE	05/18/1998	17:12	28.13	16.97	11.16	----	
RIVER_GAUGE	05/18/1998	17:45	28.13	17.15	10.98	----	
RIVER_GAUGE	08/17/1998	09:58	28.13	23.98	4.15	----	
RIVER_GAUGE	08/17/1998	10:34	28.13	24.15	3.98	----	
RIVER_GAUGE	11/13/1998	09:30	28.13	24.64	3.49	----	

TABLE A-2
GROUNDWATER LEVEL MEASUREMENTS
QUARTERLY SAMPLING EVENTS, MARCH 1997 - FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

Well	Date	Time	Reference Elevation (ft) (a)	DTW (ft) (b)	GW Elevation (ft) (c)	LNAPL Thickness (ft)	NOTES
RIVER_GAUGE	11/13/1998	10:05	28.13	24.45	3.68	----	
RIVER_GAUGE	02/16/1999	12:40	28.13	19.36	8.77	----	
RIVER_GAUGE	02/16/1999	13:27	28.13	19.43	8.70	----	
RIVER_GAUGE	05/18/1999	14:33	28.13	17.24	10.89	----	
RIVER_GAUGE	05/18/1999	15:19	28.13	17.30	10.83	----	
RIVER_GAUGE	09/21/1999	11:10	28.13	24.94	3.19	----	
RIVER_GAUGE	09/21/1999	11:59	28.13	25.03	3.10	----	
RIVER_GAUGE	12/06/1999	13:43	28.13	18.24	9.89	----	
RIVER_GAUGE	12/06/1999	14:25	28.13	18.06	10.07	----	
RIVER_GAUGE	02/16/2000	10:03	28.13	19.18	8.95	----	
RIVER_GAUGE	02/16/2000	10:41	28.13	19.07	9.06	----	
RIVER_GAUGE	05/23/2000	16:12	28.13	19.80	8.33	----	
RIVER_GAUGE	05/23/2000	17:04	28.13	19.94	8.19	----	
RIVER_GAUGE	08/29/2000	12:54	28.13	24.63	3.50	----	
RIVER_GAUGE	08/29/2000	13:49	28.13	24.91	3.22	----	
RIVER_GAUGE	11/09/2000	12:19	28.13	24.26	3.87	----	
RIVER_GAUGE	11/09/2000	13:10	28.13	23.67	4.46	----	
RIVER_GAUGE	02/12/2001	15:45	28.13	23.75	4.38	----	
RIVER_GAUGE	02/12/2001	16:43	28.13	24.00	4.13	----	
RIVER_GAUGE	06/04/2001	11:20	28.13	23.62	4.51	----	
RIVER_GAUGE	06/04/2001	12:15	28.13	23.79	4.34	----	
RIVER_GAUGE	08/16/2001	10:20	28.13	24.83	3.30	----	
RIVER_GAUGE	08/16/2001	11:29	28.13	25.23	2.90	----	
RIVER_GAUGE	11/28/2001	11:16	28.13	22.50	5.63	----	
RIVER_GAUGE	11/28/2001	12:18	28.13	23.13	5.00	----	
RIVER_GAUGE	02/27/2002	13:11	28.13	22.24	5.89	----	
RIVER_GAUGE	02/27/2002	14:12	28.13	22.27	5.86	----	
RIVER_GAUGE	03/05/2002	11:25	28.13	21.42	6.71	----	
RIVER_GAUGE	04/05/2002	08:00	28.13	23.10	5.03	----	
RIVER_GAUGE	05/29/2002	14:07	28.13	17.31	10.82	----	
RIVER_GAUGE	06/27/2002	14:07	28.13	18.31	9.82	----	
RIVER_GAUGE	06/27/2002	14:43	28.13	18.36	9.77	----	
RIVER_GAUGE	08/26/2002	15:45	28.13	24.83	3.30	----	
RIVER_GAUGE	08/26/2002	16:13	28.13	24.85	3.28	----	
RIVER_GAUGE	11/13/2002	07:19	28.13	24.10	4.03	----	
RIVER_GAUGE	11/13/2002	07:54	28.13	24.21	3.92	----	
RIVER_GAUGE	02/11/2003	08:34	28.13	23.70	4.43	----	
RIVER_GAUGE	02/11/2003	09:14	28.13	23.43	4.70	----	
RIVER_GAUGE	05/08/2003	06:40	28.13	20.02	8.11	----	
RIVER_GAUGE	05/08/2003	07:17	28.13	20.00	8.13	----	
RIVER_GAUGE	08/27/2003	13:18	28.13	23.36	4.77	----	
RIVER_GAUGE	08/27/2003	14:15	28.13	23.66	4.47	----	
RIVER_GAUGE	10/23/2003	11:46	28.13	25.00	3.13	----	
RIVER_GAUGE	10/23/2003	13:35	28.13	24.94	3.19	----	
RIVER_GAUGE	02/19/2004	12:10	28.13	21.14	6.99	----	
RIVER_GAUGE	02/19/2004	13:20	28.13	20.89	7.24	----	

Notes:
NM Not measured.
NA Not available.
-- No measurable product or odor observed.
* Well Point
(a) Reference Elevation (Ref. Elev) is the north side of the top of the 1.25-, 2- or 4-inch well casing, reference elevation surveys were conducted by Zarosinski-Tatone Engineers, Inc., Portland, Oregon. For the river gauge, the reference elevation was measured at a marked location on the south side of the dock on the Willamette River.
(b) Depth to water (DTW) measured from surveyed reference elevation [see note (1)].
(c) Where LNAPL thickness measured, groundwater elevation adjusted to account for the presence of LNAPL in the well using the method in "*Estimation of Free Hydrocarbon Volume from Fluid Levels in Monitoring Wells* " [Lenhard and Parker 1990; Groundwater 28(1):57-67].

TABLE A-3a
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
PAHS AND PENTACHLOROPHENOL (SW8270SIM)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	B1 02/19/2004 Primary	D 02/20/2004 Primary	J1 02/20/2004 Primary	LW004S 02/23/2004 Primary	LW007S 02/19/2004 Primary	LW008S 02/23/2004 Primary
Acenaphthene	(ug/l)	NT	NT	NT	NT	NT	NT
Acenaphthylene	(ug/l)	NT	NT	NT	NT	NT	NT
Anthracene	(ug/l)	NT	NT	NT	NT	NT	NT
Benzo(a)anthracene	(ug/l)	NT	NT	NT	NT	NT	NT
Benzo(a)pyrene	(ug/l)	NT	NT	NT	NT	NT	NT
Benzo(b)fluoranthene	(ug/l)	NT	NT	NT	NT	NT	NT
Benzo(ghi)perylene	(ug/l)	NT	NT	NT	NT	NT	NT
Benzo(k)fluoranthene	(ug/l)	NT	NT	NT	NT	NT	NT
Chrysene	(ug/l)	NT	NT	NT	NT	NT	NT
Dibenzo(a,h)anthracene	(ug/l)	NT	NT	NT	NT	NT	NT
Fluoranthene	(ug/l)	NT	NT	NT	NT	NT	NT
Fluorene	(ug/l)	NT	NT	NT	NT	NT	NT
Indeno(1,2,3-cd)pyrene	(ug/l)	NT	NT	NT	NT	NT	NT
Naphthalene	(ug/l)	NT	NT	NT	NT	NT	NT
Pentachlorophenol	(ug/l)	2.46J	0.498U	1.13	0.49U	0.486U	0.504U
Phenanthrene	(ug/l)	NT	NT	NT	NT	NT	NT
Pyrene	(ug/l)	NT	NT	NT	NT	NT	NT

BZTO104(e)019412

TABLE A-3a
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
PAHS AND PENTACHLOROPHENOL (SW8270SIM)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW010S 02/23/2004 Primary	LW013S 02/23/2004 Primary	LW019S 02/24/2004 Primary	LW020S 02/24/2004 Primary	LW020S 02/24/2004 Duplicate 1	LW028S 02/17/2004 Primary
Acenaphthene	(ug/l)	NT	NT	0.857	0.91J	1.19J	0.0482U
Acenaphthylene	(ug/l)	NT	NT	0.159	0.256	0.352	0.0482U
Anthracene	(ug/l)	NT	NT	0.0498U	0.0716	0.0932	0.0482U
Benzo(a)anthracene	(ug/l)	NT	NT	0.0498U	0.0511U	0.0518U	0.0482U
Benzo(a)pyrene	(ug/l)	NT	NT	0.0498U	0.0511U	0.0518U	0.0482U
Benzo(b)fluoranthene	(ug/l)	NT	NT	0.0498U	0.0511U	0.0518U	0.0482U
Benzo(ghi)perylene	(ug/l)	NT	NT	0.0498U	0.0511U	0.0518U	0.0482U
Benzo(k)fluoranthene	(ug/l)	NT	NT	0.0498U	0.0511U	0.0518U	0.0482U
Chrysene	(ug/l)	NT	NT	0.0498U	0.0511U	0.0518U	0.0482U
Dibenzo(a,h)anthracene	(ug/l)	NT	NT	0.0498U	0.0511U	0.0518U	0.0482U
Fluoranthene	(ug/l)	NT	NT	0.0498U	0.0511U	0.0518U	0.0482U
Fluorene	(ug/l)	NT	NT	2.35	2.55J	3.52J	0.0482U
Indeno(1,2,3-cd)pyrene	(ug/l)	NT	NT	0.0498U	0.0511U	0.0518U	0.0482U
Naphthalene	(ug/l)	NT	NT	0.369	0.429	0.518	0.0675
Pentachlorophenol	(ug/l)	0.493U	0.482U	NT	NT	NT	NT
Phenanthrene	(ug/l)	NT	NT	0.339	1.44J	2.05J	0.0482U
Pyrene	(ug/l)	NT	NT	0.0498U	0.0511U	0.0518U	0.0482U

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TABLE A-3a
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
PAHS AND PENTACHLOROPHENOL (SW8270SIM)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW029S 02/17/2004 Primary	LW030S 02/18/2004 Primary	LW031S 02/17/2004 Primary	LW032S 02/17/2004 Primary	LW033S 02/17/2004 Primary	LW034S 02/17/2004 Primary
Acenaphthene	(ug/l)	0.0489U	0.864	0.0486U	0.38	0.0483U	0.049U
Acenaphthylene	(ug/l)	0.0489U	0.126	0.0486U	0.0976	0.0483U	0.049U
Anthracene	(ug/l)	0.0489U	0.0583	0.0486U	0.0488U	0.0483U	0.049U
Benzo(a)anthracene	(ug/l)	0.0489U	0.0485U	0.0486U	0.0488U	0.0483U	0.049U
Benzo(a)pyrene	(ug/l)	0.0489U	0.0485U	0.0486U	0.0488U	0.0483U	0.049U
Benzo(b)fluoranthene	(ug/l)	0.0489U	0.0485U	0.0486U	0.0488U	0.0483U	0.049U
Benzo(ghi)perylene	(ug/l)	0.0489U	0.0485U	0.0486U	0.0488U	0.0483U	0.049U
Benzo(k)fluoranthene	(ug/l)	0.0489U	0.0485U	0.0486U	0.0488U	0.0483U	0.049U
Chrysene	(ug/l)	0.0489U	0.0485U	0.0486U	0.0488U	0.0483U	0.049U
Dibenzo(a,h)anthracene	(ug/l)	0.0489U	0.0485U	0.0486U	0.0488U	0.0483U	0.049U
Fluoranthene	(ug/l)	0.0489U	0.0485U	0.0486U	0.0488U	0.0483U	0.049U
Fluorene	(ug/l)	0.0489U	1.38	0.0486U	0.488	0.0483U	0.049U
Indeno(1,2,3-cd)pyrene	(ug/l)	0.0489U	0.0485U	0.0486U	0.0488U	0.0483U	0.049U
Naphthalene	(ug/l)	0.0489U	0.379	0.0486U	0.498	0.0483U	0.049U
Pentachlorophenol	(ug/l)	NT	NT	NT	NT	NT	NT
Phenanthrene	(ug/l)	0.0489U	0.476	0.0486U	0.137	0.0483U	0.049U
Pyrene	(ug/l)	0.0489U	0.0485U	0.0486U	0.0488U	0.0483U	0.049U

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TABLE A-3a
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
PAHS AND PENTACHLOROPHENOL (SW8270SIM)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	OX001S 02/18/2004 Primary	OX002S 02/18/2004 Primary	OX003S 02/18/2004 Primary	OX004S 02/18/2004 Primary	OX005S 02/18/2004 Primary	OX006S 02/18/2004 Primary
Acenaphthene	(ug/l)	NT	NT	NT	NT	NT	NT
Acenaphthylene	(ug/l)	NT	NT	NT	NT	NT	NT
Anthracene	(ug/l)	NT	NT	NT	NT	NT	NT
Benzo(a)anthracene	(ug/l)	NT	NT	NT	NT	NT	NT
Benzo(a)pyrene	(ug/l)	NT	NT	NT	NT	NT	NT
Benzo(b)fluoranthene	(ug/l)	NT	NT	NT	NT	NT	NT
Benzo(ghi)perylene	(ug/l)	NT	NT	NT	NT	NT	NT
Benzo(k)fluoranthene	(ug/l)	NT	NT	NT	NT	NT	NT
Chrysene	(ug/l)	NT	NT	NT	NT	NT	NT
Dibenzo(a,h)anthracene	(ug/l)	NT	NT	NT	NT	NT	NT
Fluoranthene	(ug/l)	NT	NT	NT	NT	NT	NT
Fluorene	(ug/l)	NT	NT	NT	NT	NT	NT
Indeno(1,2,3-cd)pyrene	(ug/l)	NT	NT	NT	NT	NT	NT
Naphthalene	(ug/l)	NT	NT	NT	NT	NT	NT
Pentachlorophenol	(ug/l)	62.1	5320	344	1410	0.482U	527
Phenanthrene	(ug/l)	NT	NT	NT	NT	NT	NT
Pyrene	(ug/l)	NT	NT	NT	NT	NT	NT

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TABLE A-3a
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
PAHS AND PENTACHLOROPHENOL (SW8270SIM)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	OX007S 02/18/2004 Primary	OX008S 02/18/2004 Primary
Acenaphthene	(ug/l)	NT	NT
Acenaphthylene	(ug/l)	NT	NT
Anthracene	(ug/l)	NT	NT
Benzo(a)anthracene	(ug/l)	NT	NT
Benzo(a)pyrene	(ug/l)	NT	NT
Benzo(b)fluoranthene	(ug/l)	NT	NT
Benzo(ghi)perylene	(ug/l)	NT	NT
Benzo(k)fluoranthene	(ug/l)	NT	NT
Chrysene	(ug/l)	NT	NT
Dibenzo(a,h)anthracene	(ug/l)	NT	NT
Fluoranthene	(ug/l)	NT	NT
Fluorene	(ug/l)	NT	NT
Indeno(1,2,3-cd)pyrene	(ug/l)	NT	NT
Naphthalene	(ug/l)	NT	NT
Pentachlorophenol	(ug/l)	166	56.4
Phenanthrene	(ug/l)	NT	NT
Pyrene	(ug/l)	NT	NT

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BZTO104(e)019416

TABLE A-3b
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
SEMIVOLATILES (SW8270)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	B1 02/19/2004 Primary	D 02/20/2004 Primary	J1 02/20/2004 Primary	LW004S 02/23/2004 Primary	LW007S 02/19/2004 Primary	LW008S 02/23/2004 Primary
1,2,4-Trichlorobenzene	(ug/l)	0.956U	0.991U	0.963U	1.02U	0.975U	1.03U
1,2-Dichlorobenzene	(ug/l)	0.956U	0.991U	0.963U	1.02U	0.975U	1.03U
1,3-Dichlorobenzene	(ug/l)	0.956U	0.991U	0.963U	1.02U	0.975U	1.03U
1,4-Dichlorobenzene	(ug/l)	0.956U	0.991U	0.963U	1.02U	0.975U	1.03U
Hexachlorobutadiene	(ug/l)	1.91U	1.98U	1.93U	2.05U	1.95U	2.06U
Naphthalene	(ug/l)	1.23	0.991U	1.41	1.02U	0.975U	15.2
2,4,5-Trichlorophenol	(ug/l)	4.78U	4.96U	4.82U	5.12U	4.87U	5.16U
2,4,6-Trichlorophenol	(ug/l)	4.78U	4.96U	4.82U	5.12U	4.87U	5.16U
2,4-Dichlorophenol	(ug/l)	2.87U	2.97U	2.89U	3.07U	2.92U	3.1U
2,4-Dimethylphenol	(ug/l)	2.87U	2.97U	2.89U	3.07U	2.92U	3.1U
2,4-Dinitrophenol	(ug/l)	9.56U	9.91U	9.63U	10.2U	9.75U	10.3U
2,4-Dinitrotoluene	(ug/l)	4.78U	4.96U	4.82U	5.12U	4.87U	5.16U
2,6-Dinitrotoluene	(ug/l)	4.78U	4.96U	4.82U	5.12U	4.87U	5.16U
2-Chloronaphthalene	(ug/l)	0.956U	0.991U	0.963U	1.02U	0.975U	1.03U
2-Chlorophenol	(ug/l)	0.956U	0.991U	0.963U	1.02U	0.975U	1.03U
2-Methylnaphthalene	(ug/l)	0.956U	0.991U	1	1.02U	0.975U	20.3
2-Methylphenol	(ug/l)	1.91U	1.98U	1.93U	2.05U	1.95U	2.06U
2-Nitroaniline	(ug/l)	4.78U	4.96U	4.82U	5.12U	4.87U	5.16U
2-Nitrophenol	(ug/l)	4.78U	4.96U	4.82U	5.12U	4.87U	5.16U
3- & 4-Methylphenol	(ug/l)	12	9.91U	9.63U	10.2U	9.75U	10.3U
3,3-Dichlorobenzidine	(ug/l)	4.78U	4.96U	4.82U	5.12U	4.87U	5.16U

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TABLE A-3b
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
SEMIVOLATILES (SW8270)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	B1 02/19/2004 Primary	D 02/20/2004 Primary	J1 02/20/2004 Primary	LW004S 02/23/2004 Primary	LW007S 02/19/2004 Primary	LW008S 02/23/2004 Primary
3-Nitroaniline	(ug/l)	5.74U	5.95U	5.78U	6.15U	5.85U	6.19U
4,6-Dinitro-2-Methylphenol	(ug/l)	9.56U	9.91U	9.63U	10.2U	9.75U	10.3U
4-Bromophenyl-phenylether	(ug/l)	0.956U	0.991U	0.963U	1.02U	0.975U	1.03U
4-Chloro-3-methylphenol	(ug/l)	1.91U	1.98U	1.93U	2.05U	1.95U	2.06U
4-Chloroaniline	(ug/l)	2.87U	2.97U	2.89U	3.07U	2.92U	3.1U
4-Chlorophenylphenyl ether	(ug/l)	0.956U	0.991U	0.963U	1.02U	0.975U	1.03U
4-Nitroaniline	(ug/l)	4.78U	4.96U	4.82U	5.12U	4.87U	5.16U
4-Nitrophenol	(ug/l)	4.78U	4.96U	4.82UJ	5.12U	4.87U	5.16U
Acenaphthene	(ug/l)	0.956U	0.991U	0.963U	1.02U	0.975U	1.03U
Acenaphthylene	(ug/l)	0.956U	0.991U	0.963U	1.02U	0.975U	1.03U
Anthracene	(ug/l)	0.956U	0.991U	0.963U	1.02U	0.975U	1.03U
Benzo(a)anthracene	(ug/l)	0.956U	0.991U	0.963U	1.02U	0.975U	1.03U
Benzo(a)pyrene	(ug/l)	0.956U	0.991U	0.963U	1.02U	0.975U	1.03U
Benzo(b)fluoranthene	(ug/l)	0.956U	0.991U	0.963U	1.02U	0.975U	1.03U
Benzo(ghi)perylene	(ug/l)	0.956U	0.991U	0.963U	1.02U	0.975U	1.03U
Benzo(k)fluoranthene	(ug/l)	0.956U	0.991U	0.963U	1.02U	0.975U	1.03U
Benzoic acid	(ug/l)	19.1U	19.8U	19.3U	20.5U	19.5U	20.6U
Benzyl alcohol	(ug/l)	4.78U	4.96U	4.82U	5.12U	4.87U	5.16U
Bis(2-chloroethoxy)methane	(ug/l)	0.956U	0.991U	0.963U	1.02U	0.975U	1.03U
Bis(2-chloroethyl)ether	(ug/l)	1.91U	1.98U	1.93U	2.05U	1.95U	2.06U
Bis(2-chloroisopropyl)ether	(ug/l)	0.956U	0.991U	0.963U	1.02U	0.975U	1.03U

BZTO104(e)019418

TABLE A-3b
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
SEMIVOLATILES (SW8270)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	B1 02/19/2004 Primary	D 02/20/2004 Primary	J1 02/20/2004 Primary	LW004S 02/23/2004 Primary	LW007S 02/19/2004 Primary	LW008S 02/23/2004 Primary
Bis(2-ethylhexyl)phthalate	(ug/l)	0.956U	0.991U	0.963U	1.02U	0.975U	1.03U
Butyl benzyl phthalate	(ug/l)	0.956U	0.991U	0.963U	1.02U	0.975U	1.03U
Carbazole	(ug/l)	0.956U	0.991U	0.963U	1.02U	0.975U	1.03U
Chrysene	(ug/l)	0.956U	0.991U	0.963U	1.02U	0.975U	1.03U
Dibenzo(a,h)anthracene	(ug/l)	0.956U	0.991U	0.963U	1.02U	0.975U	1.03U
Dibenzofuran	(ug/l)	0.956U	0.991U	0.963U	1.02U	0.975U	1.03U
Diethyl phthalate	(ug/l)	0.956U	0.991U	0.963U	1.02U	0.975U	1.03U
Dimethyl phthalate	(ug/l)	0.956U	0.991U	0.963U	1.02U	0.975U	1.03U
Di-n-butyl phthalate	(ug/l)	0.956U	0.991U	0.963U	1.02U	0.975U	1.03U
Di-n-octyl phthalate	(ug/l)	0.956U	0.991U	0.963U	1.02U	0.975U	1.03U
Fluoranthene	(ug/l)	0.956U	0.991U	0.963U	1.02U	0.975U	1.03U
Fluorene	(ug/l)	0.956U	0.991U	0.963U	1.02U	0.975U	1.03U
Hexachlorobenzene	(ug/l)	0.956U	0.991U	0.963U	1.02U	0.975U	1.03U
Hexachlorocyclopentadiene	(ug/l)	4.78U	4.96U	4.82U	5.12U	4.87U	5.16U
Hexachloroethane	(ug/l)	1.91U	1.98U	1.93U	2.05U	1.95U	2.06U
Indeno(1,2,3-cd)pyrene	(ug/l)	0.956U	0.991U	0.963U	1.02U	0.975U	1.03U
Isophorone	(ug/l)	0.956U	0.991U	0.963U	1.02U	0.975U	1.03U
Nitrobenzene	(ug/l)	0.956U	0.991U	0.963U	1.02U	0.975U	1.03U
N-Nitrosodimethylamine	(ug/l)	0.956U	0.991U	0.963U	1.02U	0.975U	1.03U
N-Nitroso-Di-N-Propylamine	(ug/l)	1.91U	1.98U	1.93U	2.05U	1.95U	2.06U
N-Nitrosodiphenylamine	(ug/l)	0.956U	0.991U	0.963U	1.02U	0.975U	1.03U

Landau Associates

BZTO104(e)019419

TABLE A-3b
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
SEMIVOLATILES (SW8270)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	B1 02/19/2004 Primary	D 02/20/2004 Primary	J1 02/20/2004 Primary	LW004S 02/23/2004 Primary	LW007S 02/19/2004 Primary	LW008S 02/23/2004 Primary
Pentachlorophenol	(ug/l)	4.78U	4.96U	4.82U	5.12U	4.87U	5.16U
Phenanthrene	(ug/l)	0.956U	0.991U	0.963U	1.02U	0.975U	1.03U
Phenol	(ug/l)	1.91U	1.98U	1.93UJ	2.05U	1.95U	2.06U
Pyrene	(ug/l)	0.956U	0.991U	0.963U	1.02U	0.975U	1.03U
Pyridine	(ug/l)	4.78U	4.96U	4.82U	5.12U	4.87U	5.16U

BZTO104(e)019420

TABLE A-3b
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
SEMIVOLATILES (SW8270)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW010S 02/23/2004 Primary	LW011S 02/18/2004 Primary	LW019S 02/24/2004 Primary	LW020S 02/24/2004 Primary	LW020S 02/24/2004 Duplicate 1	LW028S 02/17/2004 Primary
1,2,4-Trichlorobenzene	(ug/l)	0.99U	0.98U	1U	1.01U	1.05U	0.962U
1,2-Dichlorobenzene	(ug/l)	0.99U	0.98U	1U	1.01U	1.05U	0.962U
1,3-Dichlorobenzene	(ug/l)	0.99U	0.98U	1U	1.01U	1.05U	0.962U
1,4-Dichlorobenzene	(ug/l)	0.99U	0.98U	1U	1.01U	1.05U	0.962U
Hexachlorobutadiene	(ug/l)	1.98U	1.96U	2U	2.02U	2.1U	1.92U
Naphthalene	(ug/l)	0.99U	9.22	1U	1.01U	1.05U	0.962U
2,4,5-Trichlorophenol	(ug/l)	4.95U	4.9U	5U	5.05U	5.25U	4.81U
2,4,6-Trichlorophenol	(ug/l)	4.95U	4.9U	5U	5.05U	5.25U	4.81U
2,4-Dichlorophenol	(ug/l)	2.97U	2.94U	3U	3.03U	3.15U	2.89U
2,4-Dimethylphenol	(ug/l)	2.97U	2.94U	3U	3.03U	3.15U	2.89U
2,4-Dinitrophenol	(ug/l)	9.9U	9.8U	10U	10.1U	10.5U	9.62U
2,4-Dinitrotoluene	(ug/l)	4.95U	4.9U	5U	5.05U	5.25U	4.81U
2,6-Dinitrotoluene	(ug/l)	4.95U	4.9U	5U	5.05U	5.25U	4.81U
2-Chloronaphthalene	(ug/l)	0.99U	0.98U	1U	1.01U	1.05U	0.962U
2-Chlorophenol	(ug/l)	0.99U	0.98U	1U	1.01U	1.05U	0.962U
2-Methylnaphthalene	(ug/l)	0.99U	4.2	1U	1.01U	1.05U	0.962U
2-Methylphenol	(ug/l)	1.98U	1.96U	2U	2.02U	2.1U	1.92U
2-Nitroaniline	(ug/l)	4.95U	4.9U	5U	5.05U	5.25U	4.81U
2-Nitrophenol	(ug/l)	4.95U	4.9U	5U	5.05U	5.25U	4.81U
3- & 4-Methylphenol	(ug/l)	9.9U	9.8U	10U	10.1U	10.5U	9.62U
3,3-Dichlorobenzidine	(ug/l)	4.95U	4.9U	5U	5.05U	5.25U	4.81U

BZTO104(e)019421

TABLE A-3b
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
SEMIVOLATILES (SW8270)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW010S 02/23/2004 Primary	LW011S 02/18/2004 Primary	LW019S 02/24/2004 Primary	LW020S 02/24/2004 Primary	LW020S 02/24/2004 Duplicate 1	LW028S 02/17/2004 Primary
3-Nitroaniline	(ug/l)	5.94U	5.88U	6U	6.05U	6.3U	5.77U
4,6-Dinitro-2-Methylphenol	(ug/l)	9.9U	9.8U	10U	10.1U	10.5U	9.62U
4-Bromophenyl-phenylether	(ug/l)	0.99U	0.98U	1U	1.01U	1.05U	0.962U
4-Chloro-3-methylphenol	(ug/l)	1.98U	1.96U	2U	2.02U	2.1U	1.92U
4-Chloroaniline	(ug/l)	2.97U	2.94U	3U	3.03U	3.15U	2.89U
4-Chlorophenylphenyl ether	(ug/l)	0.99U	0.98U	1U	1.01U	1.05U	0.962U
4-Nitroaniline	(ug/l)	4.95U	4.9U	5U	5.05U	5.25U	4.81U
4-Nitrophenol	(ug/l)	4.95U	4.9U	5U	5.05U	5.25U	4.81U
Acenaphthene	(ug/l)	0.99U	0.98U	1.18	1.25	1.05U	0.962U
Acenaphthylene	(ug/l)	0.99U	0.98U	1U	1.01U	1.05U	0.962U
Anthracene	(ug/l)	0.99U	0.98U	1U	1.01U	1.05U	0.962U
Benzo(a)anthracene	(ug/l)	0.99U	0.98U	1U	1.01U	1.05U	0.962U
Benzo(a)pyrene	(ug/l)	0.99U	0.98U	1U	1.01U	1.05U	0.962U
Benzo(b)fluoranthene	(ug/l)	0.99U	0.98U	1U	1.01U	1.05U	0.962U
Benzo(ghi)perylene	(ug/l)	0.99U	0.98U	1U	1.01U	1.05U	0.962U
Benzo(k)fluoranthene	(ug/l)	0.99U	0.98U	1U	1.01U	1.05U	0.962U
Benzoic acid	(ug/l)	19.8U	19.6U	20U	20.2U	21U	19.2U
Benzyl alcohol	(ug/l)	4.95U	4.9U	5U	5.05U	5.25U	4.81U
Bis(2-chloroethoxy)methane	(ug/l)	0.99U	0.98U	1U	1.01U	1.05U	0.962U
Bis(2-chloroethyl)ether	(ug/l)	1.98U	1.96U	2U	2.02U	2.1U	1.92U
Bis(2-chloroisopropyl)ether	(ug/l)	0.99U	0.98U	1U	1.01U	1.05U	0.962U

BZTO104(e)019422

TABLE A-3b
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
SEMIVOLATILES (SW8270)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW010S 02/23/2004 Primary	LW011S 02/18/2004 Primary	LW019S 02/24/2004 Primary	LW020S 02/24/2004 Primary	LW020S 02/24/2004 Duplicate 1	LW028S 02/17/2004 Primary
Bis(2-ethylhexyl)phthalate	(ug/l)	0.99U	0.98U	1U	1.01U	1.05U	0.962U
Butyl benzyl phthalate	(ug/l)	0.99U	0.98U	1U	1.01U	1.05U	0.962U
Carbazole	(ug/l)	0.99U	0.98U	1U	1.01U	1.05U	0.962U
Chrysene	(ug/l)	0.99U	0.98U	1U	1.01U	1.05U	0.962U
Dibenzo(a,h)anthracene	(ug/l)	0.99U	0.98U	1U	1.01U	1.05U	0.962U
Dibenzofuran	(ug/l)	0.99U	0.98U	1.02	1.43	1.49	0.962U
Diethyl phthalate	(ug/l)	0.99U	0.98U	1U	1.01U	1.05U	0.962U
Dimethyl phthalate	(ug/l)	0.99U	0.98U	1U	1.01U	1.05U	0.962U
Di-n-butyl phthalate	(ug/l)	0.99U	0.98U	1U	1.01U	1.05U	0.962U
Di-n-octyl phthalate	(ug/l)	0.99U	0.98U	1U	1.01U	1.05U	0.962U
Fluoranthene	(ug/l)	0.99U	0.98U	1U	1.01U	1.05U	0.962U
Fluorene	(ug/l)	0.99U	0.98U	2.82	3.7	3.53	0.962U
Hexachlorobenzene	(ug/l)	0.99U	0.98U	1U	1.01U	1.05U	0.962U
Hexachlorocyclopentadiene	(ug/l)	4.95U	4.9U	5U	5.05U	5.25U	4.81U
Hexachloroethane	(ug/l)	1.98U	1.96U	2U	2.02U	2.1U	1.92U
Indeno(1,2,3-cd)pyrene	(ug/l)	0.99U	0.98U	1U	1.01U	1.05U	0.962U
Isophorone	(ug/l)	0.99U	0.98U	1U	1.01U	1.05U	0.962U
Nitrobenzene	(ug/l)	0.99U	0.98U	1U	1.01U	1.05U	0.962U
N-Nitrosodimethylamine	(ug/l)	0.99U	0.98U	1U	1.01U	1.05U	0.962U
N-Nitroso-Di-N-Propylamine	(ug/l)	1.98U	1.96U	2U	2.02U	2.1U	1.92U
N-Nitrosodiphenylamine	(ug/l)	0.99U	0.98U	1U	1.01U	1.05U	0.962U

BZTO104(e)019423

TABLE A-3b
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
SEMIVOLATILES (SW8270)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW010S 02/23/2004 Primary	LW011S 02/18/2004 Primary	LW019S 02/24/2004 Primary	LW020S 02/24/2004 Primary	LW020S 02/24/2004 Duplicate 1	LW028S 02/17/2004 Primary
Pentachlorophenol	(ug/l)	4.95U	6350	5U	5.05U	5.25U	4.81U
Phenanthrene	(ug/l)	0.99U	0.98U	1U	2.26	2.04	0.962U
Phenol	(ug/l)	1.98U	1.96U	2U	2.02U	2.1U	1.92U
Pyrene	(ug/l)	0.99U	0.98U	1U	1.01U	1.05U	0.962U
Pyridine	(ug/l)	4.95U	4.9U	5U	5.05U	5.25U	4.81U

BZTO104(e)019424

TABLE A-3b
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
SEMIVOLATILES (SW8270)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW029S 02/17/2004 Primary	LW030S 02/18/2004 Primary	LW031S 02/17/2004 Primary	LW032S 02/17/2004 Primary	LW033S 02/17/2004 Primary	LW034S 02/17/2004 Primary
1,2,4-Trichlorobenzene	(ug/l)	0.979U	0.975U	0.966U	0.98U	0.968U	0.965U
1,2-Dichlorobenzene	(ug/l)	0.979U	0.975U	0.966U	0.98U	0.968U	0.965U
1,3-Dichlorobenzene	(ug/l)	0.979U	0.975U	0.966U	0.98U	0.968U	0.965U
1,4-Dichlorobenzene	(ug/l)	0.979U	0.975U	0.966U	0.98U	0.968U	0.965U
Hexachlorobutadiene	(ug/l)	1.96U	1.95U	1.93U	1.96U	1.94U	1.93U
Naphthalene	(ug/l)	0.979U	0.975U	0.966U	0.98U	0.968U	0.965U
2,4,5-Trichlorophenol	(ug/l)	4.9U	4.87U	4.83U	4.9U	4.84U	4.83U
2,4,6-Trichlorophenol	(ug/l)	4.9U	4.87U	4.83U	4.9U	4.84U	4.83U
2,4-Dichlorophenol	(ug/l)	2.94U	2.92U	2.9U	2.94U	2.9U	2.9U
2,4-Dimethylphenol	(ug/l)	2.94U	2.92U	2.9U	2.94U	2.9U	2.9U
2,4-Dinitrophenol	(ug/l)	9.79U	9.75U	9.66U	9.8U	9.68U	9.65U
2,4-Dinitrotoluene	(ug/l)	4.9U	4.87U	4.83U	4.9U	4.84U	4.83U
2,6-Dinitrotoluene	(ug/l)	4.9U	4.87U	4.83U	4.9U	4.84U	4.83U
2-Chloronaphthalene	(ug/l)	0.979U	0.975U	0.966U	0.98U	0.968U	0.965U
2-Chlorophenol	(ug/l)	0.979U	0.975U	0.966U	0.98U	0.968U	0.965U
2-Methylnaphthalene	(ug/l)	0.979U	0.975U	0.966U	0.98U	0.968U	0.965U
2-Methylphenol	(ug/l)	1.96U	1.95U	1.93U	1.96U	1.94U	1.93U
2-Nitroaniline	(ug/l)	4.9U	4.87U	4.83U	4.9U	4.84U	4.83U
2-Nitrophenol	(ug/l)	4.9U	4.87U	4.83U	4.9U	4.84U	4.83U
3- & 4-Methylphenol	(ug/l)	9.79U	9.75U	9.66U	9.8U	9.68U	9.65U
3,3-Dichlorobenzidine	(ug/l)	4.9U	4.87U	4.83U	4.9U	4.84U	4.83U

BZTO104(e)019425

TABLE A-3b
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
SEMIVOLATILES (SW8270)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW029S 02/17/2004 Primary	LW030S 02/18/2004 Primary	LW031S 02/17/2004 Primary	LW032S 02/17/2004 Primary	LW033S 02/17/2004 Primary	LW034S 02/17/2004 Primary
3-Nitroaniline	(ug/l)	5.88U	5.85U	5.8U	5.88U	5.81U	5.79U
4,6-Dinitro-2-Methylphenol	(ug/l)	9.79U	9.75U	9.66U	9.8U	9.68U	9.65U
4-Bromophenyl-phenylether	(ug/l)	0.979U	0.975U	0.966U	0.98U	0.968U	0.965U
4-Chloro-3-methylphenol	(ug/l)	1.96U	1.95U	1.93U	1.96U	1.94U	1.93U
4-Chloroaniline	(ug/l)	2.94U	2.92U	2.9U	2.94U	2.9U	2.9U
4-Chlorophenylphenyl ether	(ug/l)	0.979U	0.975U	0.966U	0.98U	0.968U	0.965U
4-Nitroaniline	(ug/l)	4.9U	4.87U	4.83U	4.9U	4.84U	4.83U
4-Nitrophenol	(ug/l)	4.9U	4.87U	4.83U	4.9U	4.84U	4.83U
Acenaphthene	(ug/l)	0.979U	0.975U	0.966U	0.98U	0.968U	0.965U
Acenaphthylene	(ug/l)	0.979U	0.975U	0.966U	0.98U	0.968U	0.965U
Anthracene	(ug/l)	0.979U	0.975U	0.966U	0.98U	0.968U	0.965U
Benzo(a)anthracene	(ug/l)	0.979U	0.975U	0.966U	0.98U	0.968U	0.965U
Benzo(a)pyrene	(ug/l)	0.979U	0.975U	0.966U	0.98U	0.968U	1.03U
Benzo(b)fluoranthene	(ug/l)	0.979U	0.975U	0.966U	0.98U	0.968U	0.965U
Benzo(ghi)perylene	(ug/l)	0.979U	0.975U	0.966U	0.98U	0.968U	0.965U
Benzo(k)fluoranthene	(ug/l)	0.979U	0.975U	0.966U	0.98U	0.968U	1.06U
Benzoic acid	(ug/l)	19.6U	19.5U	19.3U	19.6U	19.4U	19.3U
Benzyl alcohol	(ug/l)	4.9U	4.87U	4.83U	4.9U	4.84U	4.83U
Bis(2-chloroethoxy)methane	(ug/l)	0.979U	0.975U	0.966U	0.98U	0.968U	0.965U
Bis(2-chloroethyl)ether	(ug/l)	1.96U	1.95U	1.93U	1.96U	1.94U	1.93U
Bis(2-chloroisopropyl)ether	(ug/l)	0.979U	0.975U	0.966U	0.98U	0.968U	0.965U

BZTO104(e)019426

TABLE A-3b
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
SEMIVOLATILES (SW8270)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW029S 02/17/2004 Primary	LW030S 02/18/2004 Primary	LW031S 02/17/2004 Primary	LW032S 02/17/2004 Primary	LW033S 02/17/2004 Primary	LW034S 02/17/2004 Primary
Bis(2-ethylhexyl)phthalate	(ug/l)	0.979U	0.975U	0.966U	0.98U	0.968U	0.965U
Butyl benzyl phthalate	(ug/l)	0.979U	0.975U	0.966U	0.98U	0.968U	0.965U
Carbazole	(ug/l)	0.979U	0.975U	0.966U	0.98U	0.968U	0.965U
Chrysene	(ug/l)	0.979U	0.975U	0.966U	0.98U	0.968U	0.965U
Dibenzo(a,h)anthracene	(ug/l)	0.979U	0.975U	0.966U	0.98U	0.968U	0.965U
Dibenzofuran	(ug/l)	0.979U	0.975U	0.966U	0.98U	0.968U	0.965U
Diethyl phthalate	(ug/l)	0.979U	0.975U	0.966U	0.98U	0.968U	0.965U
Dimethyl phthalate	(ug/l)	0.979U	0.975U	0.966U	0.98U	0.968U	0.965U
Di-n-butyl phthalate	(ug/l)	0.979U	0.975U	0.966U	0.98U	0.968U	0.965U
Di-n-octyl phthalate	(ug/l)	0.979U	0.975U	0.966U	0.98U	0.968U	0.965U
Fluoranthene	(ug/l)	0.979U	0.975U	0.966U	0.98U	0.968U	0.965U
Fluorene	(ug/l)	0.979U	1.39	0.966U	0.98U	0.968U	0.965U
Hexachlorobenzene	(ug/l)	0.979U	0.975U	0.966U	0.98U	0.968U	0.965U
Hexachlorocyclopentadiene	(ug/l)	4.9U	4.87U	4.83U	4.9U	4.84U	4.83U
Hexachloroethane	(ug/l)	1.96U	1.95U	1.93U	1.96U	1.94U	1.93U
Indeno(1,2,3-cd)pyrene	(ug/l)	0.979U	0.975U	0.966U	0.98U	0.968U	0.965U
Isophorone	(ug/l)	0.979U	0.975U	0.966U	0.98U	0.968U	0.965U
Nitrobenzene	(ug/l)	0.979U	0.975U	0.966U	0.98U	0.968U	0.965U
N-Nitrosodimethylamine	(ug/l)	0.979U	0.975U	0.966U	0.98U	0.968U	0.965U
N-Nitroso-Di-N-Propylamine	(ug/l)	1.96U	1.95U	1.93U	1.96U	1.94U	1.93U
N-Nitrosodiphenylamine	(ug/l)	0.979U	0.975U	0.966U	0.98U	0.968U	0.965U

BZTO104(e)019427

TABLE A-3b
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
SEMIVOLATILES (SW8270)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW029S 02/17/2004 Primary	LW030S 02/18/2004 Primary	LW031S 02/17/2004 Primary	LW032S 02/17/2004 Primary	LW033S 02/17/2004 Primary	LW034S 02/17/2004 Primary
Pentachlorophenol	(ug/l)	4.9U	4.87U	4.83U	4.9U	4.84U	4.83U
Phenanthrene	(ug/l)	0.979U	1.44	0.966U	0.98U	0.968U	0.965U
Phenol	(ug/l)	1.96U	1.95U	1.93U	1.96U	1.94U	1.93U
Pyrene	(ug/l)	0.979U	0.975U	0.966U	0.98U	0.968U	0.965U
Pyridine	(ug/l)	4.9U	4.87U	4.83U	4.9U	4.84U	4.83U

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TABLE A-3b
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
SEMIVOLATILES (SW8270)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	RW1 02/18/2004 Primary
1,2,4-Trichlorobenzene	(ug/l)	0.98U
1,2-Dichlorobenzene	(ug/l)	0.98U
1,3-Dichlorobenzene	(ug/l)	0.98U
1,4-Dichlorobenzene	(ug/l)	0.98U
Hexachlorobutadiene	(ug/l)	1.96U
Naphthalene	(ug/l)	15.6
2,4,5-Trichlorophenol	(ug/l)	4.9U
2,4,6-Trichlorophenol	(ug/l)	14.8
2,4-Dichlorophenol	(ug/l)	2.94U
2,4-Dimethylphenol	(ug/l)	2.94U
2,4-Dinitrophenol	(ug/l)	9.8U
2,4-Dinitrotoluene	(ug/l)	4.9U
2,6-Dinitrotoluene	(ug/l)	4.9U
2-Chloronaphthalene	(ug/l)	0.98U
2-Chlorophenol	(ug/l)	0.98U
2-Methylnaphthalene	(ug/l)	6.33
2-Methylphenol	(ug/l)	1.96U
2-Nitroaniline	(ug/l)	4.9U
2-Nitrophenol	(ug/l)	4.9U
3- & 4-Methylphenol	(ug/l)	9.8U
3,3-Dichlorobenzidine	(ug/l)	4.9U

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TABLE A-3b
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
SEMIVOLATILES (SW8270)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	RW1 02/18/2004 Primary
3-Nitroaniline	(ug/l)	5.88U
4,6-Dinitro-2-Methylphenol	(ug/l)	9.8U
4-Bromophenyl-phenylether	(ug/l)	0.98U
4-Chloro-3-methylphenol	(ug/l)	1.96U
4-Chloroaniline	(ug/l)	2.94U
4-Chlorophenylphenyl ether	(ug/l)	0.98U
4-Nitroaniline	(ug/l)	4.9U
4-Nitrophenol	(ug/l)	4.9U
Acenaphthene	(ug/l)	0.98U
Acenaphthylene	(ug/l)	0.98U
Anthracene	(ug/l)	0.98U
Benzo(a)anthracene	(ug/l)	0.98U
Benzo(a)pyrene	(ug/l)	0.98U
Benzo(b)fluoranthene	(ug/l)	0.98U
Benzo(ghi)perylene	(ug/l)	0.98U
Benzo(k)fluoranthene	(ug/l)	0.98U
Benzoic acid	(ug/l)	19.6U
Benzyl alcohol	(ug/l)	4.9U
Bis(2-chloroethoxy)methane	(ug/l)	0.98U
Bis(2-chloroethyl)ether	(ug/l)	1.96U
Bis(2-chloroisopropyl)ether	(ug/l)	0.98U

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TABLE A-3b
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
SEMIVOLATILES (SW8270)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	RW1 02/18/2004 Primary
Bis(2-ethylhexyl)phthalate	(ug/l)	0.98U
Butyl benzyl phthalate	(ug/l)	0.98U
Carbazole	(ug/l)	0.98U
Chrysene	(ug/l)	0.98U
Dibenzo(a,h)anthracene	(ug/l)	0.98U
Dibenzofuran	(ug/l)	0.98U
Diethyl phthalate	(ug/l)	0.98U
Dimethyl phthalate	(ug/l)	0.98U
Di-n-butyl phthalate	(ug/l)	0.98U
Di-n-octyl phthalate	(ug/l)	0.98U
Fluoranthene	(ug/l)	0.98U
Fluorene	(ug/l)	0.98U
Hexachlorobenzene	(ug/l)	0.98U
Hexachlorocyclopentadiene	(ug/l)	4.9U
Hexachloroethane	(ug/l)	1.96U
Indeno(1,2,3-cd)pyrene	(ug/l)	0.98U
Isophorone	(ug/l)	0.98U
Nitrobenzene	(ug/l)	0.98U
N-Nitrosodimethylamine	(ug/l)	0.98U
N-Nitroso-Di-N-Propylamine	(ug/l)	1.96U
N-Nitrosodiphenylamine	(ug/l)	0.98U

BZTO104(e)019431

TABLE A-3b
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
SEMIVOLATILES (SW8270)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE	RW1
	DATE	02/18/2004
	RESULT TYPE	Primary
Pentachlorophenol	(ug/l)	2630
Phenanthrene	(ug/l)	0.98U
Phenol	(ug/l)	1.96U
Pyrene	(ug/l)	0.98U
Pyridine	(ug/l)	4.9U

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TABLE A-3c
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
VOLATILES (SW8260)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	B1 02/19/2004 Primary	D 02/20/2004 Primary	J1 02/20/2004 Primary	K 02/19/2004 Primary	LW001S 02/19/2004 Primary	LW004S 02/23/2004 Primary
1,1,1,2-Tetrachloroethane	(ug/l)	1U	1U	1U	NT	NT	1U
1,1,1-Trichloroethane	(ug/l)	1U	1U	1U	NT	NT	1U
1,1,2,2-Tetrachloroethane	(ug/l)	1U	1U	1U	NT	NT	1U
1,1,2-Trichloroethane	(ug/l)	1U	1U	1U	NT	NT	1U
1,1-Dichloroethane	(ug/l)	1U	1U	1U	NT	NT	1U
1,1-Dichloroethene	(ug/l)	1U	1U	1U	NT	NT	1U
1,1-Dichloropropene	(ug/l)	1U	1U	1U	NT	NT	1U
1,2,3-Trichlorobenzene	(ug/l)	1U	1U	1U	NT	NT	1U
1,2,3-Trichloropropane	(ug/l)	1U	1U	1U	NT	NT	1U
1,2,4-Trichlorobenzene	(ug/l)	1U	1U	1U	NT	NT	1U
1,2,4-Trimethylbenzene	(ug/l)	26.6	1U	6.76	NT	NT	1U
1,2-Dibromoethane	(ug/l)	1U	1U	1U	NT	NT	1U
1,2-Dichlorobenzene	(ug/l)	1U	1U	1U	NT	NT	1U
1,2-Dichloroethane	(ug/l)	1U	1U	1U	NT	NT	1U
1,2-Dichloropropane	(ug/l)	1U	1U	1U	NT	NT	1U
1,3,5-Trimethylbenzene	(ug/l)	9.64	1U	1U	NT	NT	1U
1,3-Dichlorobenzene	(ug/l)	1U	1U	1U	NT	NT	1U
1,3-Dichloropropane	(ug/l)	1U	1U	1U	NT	NT	1U
1,4-Dichlorobenzene	(ug/l)	1U	1U	1U	NT	NT	1U
2,2-Dichloropropane	(ug/l)	1U	1U	1U	NT	NT	1U
2-Butanone	(ug/l)	10U	10U	10U	NT	NT	10U

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TABLE A-3c
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
VOLATILES (SW8260)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	B1 02/19/2004 Primary	D 02/20/2004 Primary	J1 02/20/2004 Primary	K 02/19/2004 Primary	LW001S 02/19/2004 Primary	LW004S 02/23/2004 Primary
2-Chlorotoluene	(ug/l)	1U	1U	1U	NT	NT	1U
2-Hexanone	(ug/l)	10U	10U	10U	NT	NT	10U
4-Chlorotoluene	(ug/l)	1U	1U	1U	NT	NT	1U
4-Isopropyltoluene	(ug/l)	1U	1U	1U	NT	NT	1U
4-Methyl-2-Pentanone (MIBK)	(ug/l)	20U	20U	20U	NT	NT	20U
Acetone	(ug/l)	50U	50U	50U	NT	NT	50U
Acrylonitrile	(ug/l)	5U	5U	5U	NT	NT	5U
Benzene	(ug/l)	36.9	0.4U	0.4U	0.4U	0.4U	0.4U
Bromobenzene	(ug/l)	1U	1U	1U	NT	NT	1U
Bromochloromethane	(ug/l)	1U	1U	1U	NT	NT	1U
Bromodichloromethane	(ug/l)	1U	1U	1U	NT	NT	1U
Bromoform	(ug/l)	1U	1U	1U	NT	NT	1U
Bromomethane	(ug/l)	1U	1U	1U	NT	NT	1U
Carbon disulfide	(ug/l)	2U	2U	2U	NT	NT	2U
Carbon tetrachloride	(ug/l)	1U	1U	1U	NT	NT	1U
Chlorobenzene	(ug/l)	1U	1U	1U	NT	NT	1U
Chloroethane	(ug/l)	1U	1U	1U	NT	NT	1U
Chloroform	(ug/l)	1U	1U	1U	NT	NT	1U
Chloromethane	(ug/l)	1U	1U	1U	NT	NT	1U
cis-1,2-Dichloroethene	(ug/l)	1U	1U	1U	NT	NT	1U
cis-1,3-Dichloropropene	(ug/l)	1U	1U	1U	NT	NT	1U

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TABLE A-3c
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
VOLATILES (SW8260)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	B1 02/19/2004 Primary	D 02/20/2004 Primary	J1 02/20/2004 Primary	K 02/19/2004 Primary	LW001S 02/19/2004 Primary	LW004S 02/23/2004 Primary
Dibromochloromethane	(ug/l)	1U	1U	1U	NT	NT	1U
Dibromochloropropane	(ug/l)	1U	1U	1U	NT	NT	1U
Dibromomethane	(ug/l)	1U	1U	1U	NT	NT	1U
Dichlorodifluoromethane	(ug/l)	1U	1U	1U	NT	NT	1U
Ethylbenzene	(ug/l)	55.2	1U	2.82	1U	1U	1U
Hexachlorobutadiene	(ug/l)	1U	1U	1U	NT	NT	1U
Isopropylbenzene	(ug/l)	5.53	1U	17	NT	NT	1U
m,p-Xylene	(ug/l)	25.2	2U	2U	2U	2U	2U
Methyl tert-butyl ether	(ug/l)	1U	1U	1U	NT	NT	1U
Methylene chloride	(ug/l)	20U	20U	20U	NT	NT	20U
Naphthalene	(ug/l)	5.47	1U	4.77	NT	NT	1U
n-Butylbenzene	(ug/l)	1U	1U	1.74	NT	NT	1U
n-Propylbenzene	(ug/l)	8.05	1U	21.7	NT	NT	1U
o-Xylene	(ug/l)	15.2	1U	1U	1U	1U	1U
sec-Butylbenzene	(ug/l)	1U	1U	3.14	NT	NT	1U
Styrene	(ug/l)	1U	1U	1U	NT	NT	1U
tert-Butylbenzene	(ug/l)	1U	1U	1U	NT	NT	1U
Tetrachloroethene	(ug/l)	1U	1U	1U	NT	NT	1U
Toluene	(ug/l)	9.07	1U	1U	1U	1U	1U
trans-1,2-Dichloroethene	(ug/l)	1U	1U	1U	NT	NT	1U
trans-1,3-Dichloropropene	(ug/l)	1U	1U	1U	NT	NT	1U

BZTO104(e)019435

TABLE A-3c
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
VOLATILES (SW8260)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	B1 02/19/2004 Primary	D 02/20/2004 Primary	J1 02/20/2004 Primary	K 02/19/2004 Primary	LW001S 02/19/2004 Primary	LW004S 02/23/2004 Primary
Trichloroethene	(ug/l)	1U	1U	1U	NT	NT	1U
Trichlorofluoromethane	(ug/l)	1U	1U	1U	NT	NT	1U
Vinyl Chloride	(ug/l)	1U	1U	1U	NT	NT	1U

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TABLE A-3c
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
VOLATILES (SW8260)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW007S 02/19/2004 Primary	LW008S 02/23/2004 Primary	LW010S 02/23/2004 Primary	LW011S 02/18/2004 Primary	LW019S 02/24/2004 Primary	LW020S 02/24/2004 Primary
1,1,1,2-Tetrachloroethane	(ug/l)	1U	1U	1U	1UJ	1U	1UJ
1,1,1-Trichloroethane	(ug/l)	1U	1U	1U	1UJ	1U	1UJ
1,1,2,2-Tetrachloroethane	(ug/l)	1U	1U	1U	1UJ	1U	1UJ
1,1,2-Trichloroethane	(ug/l)	1U	1U	1U	1UJ	1U	1UJ
1,1-Dichloroethane	(ug/l)	1U	1U	1U	1UJ	1U	1UJ
1,1-Dichloroethene	(ug/l)	1U	1U	1U	1UJ	1U	1UJ
1,1-Dichloropropene	(ug/l)	1U	1U	1U	1UJ	1U	1UJ
1,2,3-Trichlorobenzene	(ug/l)	1U	1U	1U	1UJ	1U	1UJ
1,2,3-Trichloropropane	(ug/l)	1U	1U	1U	1UJ	1U	1UJ
1,2,4-Trichlorobenzene	(ug/l)	1U	1U	1U	1UJ	1U	1UJ
1,2,4-Trimethylbenzene	(ug/l)	1U	1U	1U	160J	1U	1UJ
1,2-Dibromoethane	(ug/l)	1U	1U	1U	1UJ	1U	1UJ
1,2-Dichlorobenzene	(ug/l)	1U	1U	1U	1UJ	1U	1UJ
1,2-Dichloroethane	(ug/l)	1U	1U	1U	1UJ	1U	1UJ
1,2-Dichloropropane	(ug/l)	1U	1U	1U	1UJ	1U	1UJ
1,3,5-Trimethylbenzene	(ug/l)	1U	1U	1U	34.8J	1U	1UJ
1,3-Dichlorobenzene	(ug/l)	1U	1U	1U	1UJ	1U	1UJ
1,3-Dichloropropane	(ug/l)	1U	1U	1U	1UJ	1U	1UJ
1,4-Dichlorobenzene	(ug/l)	1U	1U	1U	1UJ	1U	1UJ
2,2-Dichloropropane	(ug/l)	1U	1U	1U	1UJ	1U	1UJ
2-Butanone	(ug/l)	10U	10U	10U	10UJ	10U	10UJ

BZTO104(e)019437

TABLE A-3c
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
VOLATILES (SW8260)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW007S 02/19/2004 Primary	LW008S 02/23/2004 Primary	LW010S 02/23/2004 Primary	LW011S 02/18/2004 Primary	LW019S 02/24/2004 Primary	LW020S 02/24/2004 Primary
2-Chlorotoluene	(ug/l)	1U	1U	1U	1UJ	1U	1UJ
2-Hexanone	(ug/l)	10U	10U	10U	10UJ	10U	10UJ
4-Chlorotoluene	(ug/l)	1U	1U	1U	1UJ	1U	1UJ
4-Isopropyltoluene	(ug/l)	1U	1U	1U	4.32J	1U	1UJ
4-Methyl-2-Pentanone (MIBK)	(ug/l)	20U	20U	20U	20UJ	20U	20UJ
Acetone	(ug/l)	50U	50U	50U	50UJ	50U	50UJ
Acrylonitrile	(ug/l)	5U	5U	5U	5UJ	5U	5UJ
Benzene	(ug/l)	0.4U	5.11	0.4U	30.3J	0.4U	0.95J
Bromobenzene	(ug/l)	1U	1U	1U	1UJ	1U	1UJ
Bromochloromethane	(ug/l)	1U	1U	1U	1UJ	1U	1UJ
Bromodichloromethane	(ug/l)	1U	1U	1U	1UJ	1U	1UJ
Bromoform	(ug/l)	1U	1U	1U	1UJ	1U	1UJ
Bromomethane	(ug/l)	1U	1U	1U	1UJ	1U	1UJ
Carbon disulfide	(ug/l)	2U	2U	2U	2UJ	2U	2UJ
Carbon tetrachloride	(ug/l)	1U	1U	1U	1UJ	1U	1UJ
Chlorobenzene	(ug/l)	1U	1U	1U	1UJ	1U	1UJ
Chloroethane	(ug/l)	1U	1U	1U	1UJ	1U	1UJ
Chloroform	(ug/l)	1U	1U	1U	1UJ	1U	1UJ
Chloromethane	(ug/l)	1U	1U	1U	1UJ	1U	1UJ
cis-1,2-Dichloroethene	(ug/l)	1U	1U	1U	1UJ	1U	1UJ
cis-1,3-Dichloropropene	(ug/l)	1U	1U	1U	1UJ	1U	1UJ

BZTO104(e)019438

TABLE A-3c
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
VOLATILES (SW8260)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW007S 02/19/2004 Primary	LW008S 02/23/2004 Primary	LW010S 02/23/2004 Primary	LW011S 02/18/2004 Primary	LW019S 02/24/2004 Primary	LW020S 02/24/2004 Primary
Dibromochloromethane	(ug/l)	1U	1U	1U	1UJ	1U	1UJ
Dibromochloropropane	(ug/l)	1U	1U	1U	1UJ	1U	1UJ
Dibromomethane	(ug/l)	1U	1U	1U	1UJ	1U	1UJ
Dichlorodifluoromethane	(ug/l)	1U	1U	1U	1UJ	1U	1UJ
Ethylbenzene	(ug/l)	7.76	184	1U	71.6J	1U	1UJ
Hexachlorobutadiene	(ug/l)	1U	1U	1U	1UJ	1U	1UJ
Isopropylbenzene	(ug/l)	13.6	239	1U	15.9J	6.65	7.89J
m,p-Xylene	(ug/l)	2U	2U	2U	61.6J	2U	2UJ
Methyl tert-butyl ether	(ug/l)	1U	1U	1U	NT	1U	1UJ
Methylene chloride	(ug/l)	20U	20U	20U	20UJ	20U	20UJ
Naphthalene	(ug/l)	1U	24.5	1U	15.1J	1U	1UJ
n-Butylbenzene	(ug/l)	2.67	8.07	1U	3.41J	2.78	3.43J
n-Propylbenzene	(ug/l)	27.5	205	1U	18.6J	9.37	10.8J
o-Xylene	(ug/l)	1U	1U	1U	123J	1U	1UJ
sec-Butylbenzene	(ug/l)	2.18	23.1	1U	7.19J	4.92	6.27J
Styrene	(ug/l)	1U	1U	1U	1UJ	1U	1UJ
tert-Butylbenzene	(ug/l)	1U	6.52	1U	1UJ	1U	1UJ
Tetrachloroethene	(ug/l)	1U	1U	1U	1UJ	1U	1UJ
Toluene	(ug/l)	1U	1U	1U	1UJ	1U	1UJ
trans-1,2-Dichloroethene	(ug/l)	1U	1U	1U	1UJ	1U	1UJ
trans-1,3-Dichloropropene	(ug/l)	1U	1U	1U	1UJ	1U	1UJ

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BZTO104(e)019439

TABLE A-3c
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
VOLATILES (SW8260)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW007S 02/19/2004 Primary	LW008S 02/23/2004 Primary	LW010S 02/23/2004 Primary	LW011S 02/18/2004 Primary	LW019S 02/24/2004 Primary	LW020S 02/24/2004 Primary
Trichloroethene	(ug/l)	1U	1U	1U	1UJ	1U	1UJ
Trichlorofluoromethane	(ug/l)	1U	1U	1U	1UJ	1U	1UJ
Vinyl Chloride	(ug/l)	1U	1U	1U	1UJ	1U	1UJ

BZTO104(e)019440

TABLE A-3c
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
VOLATILES (SW8260)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW020S 02/24/2004 Duplicate 1	LW028S 02/17/2004 Primary	LW029S 02/17/2004 Primary	LW030S 02/18/2004 Primary	LW031S 02/17/2004 Primary	LW032S 02/17/2004 Primary
1,1,1,2-Tetrachloroethane	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
1,1,1-Trichloroethane	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
1,1,2,2-Tetrachloroethane	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
1,1,2-Trichloroethane	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
1,1-Dichloroethane	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
1,1-Dichloroethene	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
1,1-Dichloropropene	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
1,2,3-Trichlorobenzene	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
1,2,3-Trichloropropane	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
1,2,4-Trichlorobenzene	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
1,2,4-Trimethylbenzene	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
1,2-Dibromoethane	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
1,2-Dichlorobenzene	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
1,2-Dichloroethane	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
1,2-Dichloropropane	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
1,3,5-Trimethylbenzene	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
1,3-Dichlorobenzene	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
1,3-Dichloropropane	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
1,4-Dichlorobenzene	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
2,2-Dichloropropane	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
2-Butanone	(ug/l)	10U	10U	10U	10U	10UJ	10UJ

BZTO104(e)019441

TABLE A-3c
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
VOLATILES (SW8260)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW020S 02/24/2004 Duplicate 1	LW028S 02/17/2004 Primary	LW029S 02/17/2004 Primary	LW030S 02/18/2004 Primary	LW031S 02/17/2004 Primary	LW032S 02/17/2004 Primary
2-Chlorotoluene	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
2-Hexanone	(ug/l)	10U	10U	10U	10U	10UJ	10UJ
4-Chlorotoluene	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
4-Isopropyltoluene	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
4-Methyl-2-Pentanone (MIBK)	(ug/l)	20U	20U	20U	20U	20UJ	20UJ
Acetone	(ug/l)	50U	50U	50U	50U	50UJ	50UJ
Acrylonitrile	(ug/l)	5U	5U	5U	5U	5UJ	5UJ
Benzene	(ug/l)	0.85J	0.4U	0.4U	0.4U	0.4UJ	0.4UJ
Bromobenzene	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
Bromochloromethane	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
Bromodichloromethane	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
Bromoform	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
Bromomethane	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
Carbon disulfide	(ug/l)	2U	2U	2U	2U	2UJ	2UJ
Carbon tetrachloride	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
Chlorobenzene	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
Chloroethane	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
Chloroform	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
Chloromethane	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
cis-1,2-Dichloroethene	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
cis-1,3-Dichloropropene	(ug/l)	1U	1U	1U	1U	1UJ	1UJ

BZTO104(e)019442

TABLE A-3c
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
VOLATILES (SW8260)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW020S 02/24/2004 Duplicate 1	LW028S 02/17/2004 Primary	LW029S 02/17/2004 Primary	LW030S 02/18/2004 Primary	LW031S 02/17/2004 Primary	LW032S 02/17/2004 Primary
Dibromochloromethane	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
Dibromochloropropane	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
Dibromomethane	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
Dichlorodifluoromethane	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
Ethylbenzene	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
Hexachlorobutadiene	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
Isopropylbenzene	(ug/l)	5.82J	1U	1U	7.32	1UJ	4.27J
m,p-Xylene	(ug/l)	2U	2U	2U	2U	2UJ	2UJ
Methyl tert-butyl ether	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
Methylene chloride	(ug/l)	20U	20U	20U	20U	20UJ	20UJ
Naphthalene	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
n-Butylbenzene	(ug/l)	2.78	1U	1U	3.13	1UJ	2.24J
n-Propylbenzene	(ug/l)	9.94	1U	1U	26.7	1UJ	4.87J
o-Xylene	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
sec-Butylbenzene	(ug/l)	5.19	1U	1U	1.64	1UJ	2.52J
Styrene	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
tert-Butylbenzene	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
Tetrachloroethene	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
Toluene	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
trans-1,2-Dichloroethene	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
trans-1,3-Dichloropropene	(ug/l)	1U	1U	1U	1U	1UJ	1UJ

BZTO104(e)019443

TABLE A-3c
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
VOLATILES (SW8260)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW020S 02/24/2004 Duplicate 1	LW028S 02/17/2004 Primary	LW029S 02/17/2004 Primary	LW030S 02/18/2004 Primary	LW031S 02/17/2004 Primary	LW032S 02/17/2004 Primary
Trichloroethene	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
Trichlorofluoromethane	(ug/l)	1U	1U	1U	1U	1UJ	1UJ
Vinyl Chloride	(ug/l)	1U	1U	1U	1U	1UJ	1UJ

BZTO104(e)019444

TABLE A-3c
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
VOLATILES (SW8260)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW033S 02/17/2004 Primary	LW034S 02/17/2004 Primary	RW1 02/18/2004 Primary
1,1,1,2-Tetrachloroethane	(ug/l)	1U	1U	1U
1,1,1-Trichloroethane	(ug/l)	1U	1U	1U
1,1,2,2-Tetrachloroethane	(ug/l)	1U	1U	1U
1,1,2-Trichloroethane	(ug/l)	1U	1U	1U
1,1-Dichloroethane	(ug/l)	1U	1U	1U
1,1-Dichloroethene	(ug/l)	1U	1U	1U
1,1-Dichloropropene	(ug/l)	1U	1U	1U
1,2,3-Trichlorobenzene	(ug/l)	1U	1U	1U
1,2,3-Trichloropropane	(ug/l)	1U	1U	1U
1,2,4-Trichlorobenzene	(ug/l)	1U	1U	1U
1,2,4-Trimethylbenzene	(ug/l)	1U	1U	180
1,2-Dibromoethane	(ug/l)	1U	1U	1U
1,2-Dichlorobenzene	(ug/l)	1U	1U	1U
1,2-Dichloroethane	(ug/l)	1U	1U	1U
1,2-Dichloropropane	(ug/l)	1U	1U	1U
1,3,5-Trimethylbenzene	(ug/l)	1U	1U	55.2
1,3-Dichlorobenzene	(ug/l)	1U	1U	1U
1,3-Dichloropropane	(ug/l)	1U	1U	1U
1,4-Dichlorobenzene	(ug/l)	1U	1U	1U
2,2-Dichloropropane	(ug/l)	1U	1U	1U
2-Butanone	(ug/l)	10U	10U	10U

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TABLE A-3c
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
VOLATILES (SW8260)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW033S 02/17/2004 Primary	LW034S 02/17/2004 Primary	RW1 02/18/2004 Primary
2-Chlorotoluene	(ug/l)	1U	1U	1U
2-Hexanone	(ug/l)	10U	10U	10U
4-Chlorotoluene	(ug/l)	1U	1U	1U
4-Isopropyltoluene	(ug/l)	1U	1U	5.2
4-Methyl-2-Pentanone (MIBK)	(ug/l)	20U	20U	20U
Acetone	(ug/l)	50U	50U	50U
Acrylonitrile	(ug/l)	5U	5U	5U
Benzene	(ug/l)	0.4U	0.4U	7.42
Bromobenzene	(ug/l)	1U	1U	1U
Bromochloromethane	(ug/l)	1U	1U	1U
Bromodichloromethane	(ug/l)	1U	1U	1U
Bromoform	(ug/l)	1U	1U	1U
Bromomethane	(ug/l)	1U	1U	1U
Carbon disulfide	(ug/l)	2U	2U	2U
Carbon tetrachloride	(ug/l)	1U	1U	1U
Chlorobenzene	(ug/l)	1U	1U	1U
Chloroethane	(ug/l)	1U	1U	1U
Chloroform	(ug/l)	1U	1U	1U
Chloromethane	(ug/l)	1U	1U	1U
cis-1,2-Dichloroethene	(ug/l)	1U	1U	1U
cis-1,3-Dichloropropene	(ug/l)	1U	1U	1U

BZTO104(e)019446

TABLE A-3c
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
VOLATILES (SW8260)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW033S 02/17/2004 Primary	LW034S 02/17/2004 Primary	RW1 02/18/2004 Primary
Dibromochloromethane	(ug/l)	1U	1U	1U
Dibromochloropropane	(ug/l)	1U	1U	1U
Dibromomethane	(ug/l)	1U	1U	1U
Dichlorodifluoromethane	(ug/l)	1U	1U	1U
Ethylbenzene	(ug/l)	1U	1U	106
Hexachlorobutadiene	(ug/l)	1U	1U	1U
Isopropylbenzene	(ug/l)	1U	1U	43.9
m,p-Xylene	(ug/l)	2U	2U	45.6
Methyl tert-butyl ether	(ug/l)	1U	1U	NT
Methylene chloride	(ug/l)	20U	20U	20U
Naphthalene	(ug/l)	1U	1U	27.6
n-Butylbenzene	(ug/l)	1U	1U	5.52
n-Propylbenzene	(ug/l)	1U	1U	57.2
o-Xylene	(ug/l)	1U	1U	142
sec-Butylbenzene	(ug/l)	1U	1U	12.9
Styrene	(ug/l)	1U	1U	1U
tert-Butylbenzene	(ug/l)	1U	1U	1.15
Tetrachloroethene	(ug/l)	1U	1U	1U
Toluene	(ug/l)	1U	1U	1U
trans-1,2-Dichloroethene	(ug/l)	1U	1U	1U
trans-1,3-Dichloropropene	(ug/l)	1U	1U	1U

BZTO104(e)019447

TABLE A-3c
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
VOLATILES (SW8260)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW033S 02/17/2004 Primary	LW034S 02/17/2004 Primary	RW1 02/18/2004 Primary
Trichloroethene	(ug/l)	1U	1U	1U
Trichlorofluoromethane	(ug/l)	1U	1U	1U
Vinyl Chloride	(ug/l)	1U	1U	1U

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TABLE A-3d
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
TOTAL PETROLEUM HYDROCARBONS (ORDEQ-TPH)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	B1 02/19/2004 Primary	K 02/19/2004 Primary	LW001S 02/19/2004 Primary	LW004S 02/23/2004 Primary	LW007S 02/19/2004 Primary	LW008S 02/23/2004 Primary
Diesel	(mg/l)	2.26	NT	NT	0.244U	0.333	11.7
Gasoline	(ug/l)	2570	100U	100U	NT	1200	9230
TPH-Motor Oil Range	(mg/l)	0.477U	NT	NT	0.487U	0.476U	0.504U

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TABLE A-3d
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
TOTAL PETROLEUM HYDROCARBONS (ORDEQ-TPH)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW010S 02/23/2004 Primary	LW011S 02/18/2004 Primary	LW019S 02/24/2004 Primary	LW020S 02/24/2004 Primary	LW020S 02/24/2004 Duplicate 1	LW028S 02/17/2004 Primary
Diesel	(mg/l)	0.25U	3.07	7.53	6.77	6.29	0.242U
Gasoline	(ug/l)	NT	6800	1330	1400	1230	100U
TPH-Motor Oil Range	(mg/l)	0.501U	0.573	1.07	1.06	0.998	0.484U

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BZTO104(e)019450

TABLE A-3d
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
TOTAL PETROLEUM HYDROCARBONS (ORDEQ-TPH)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW029S 02/17/2004 Primary	LW030S 02/18/2004 Primary	LW031S 02/17/2004 Primary	LW032S 02/17/2004 Primary	LW033S 02/17/2004 Primary	LW034S 02/17/2004 Primary
Diesel	(mg/l)	0.243U	2.06	0.242U	1.84	0.247U	0.242U
Gasoline	(ug/l)	100U	904	100U	1100	100U	100U
TPH-Motor Oil Range	(mg/l)	0.485U	0.486U	0.483U	0.488U	0.494U	0.484U

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BZTO104(e)019451

TABLE A-3d
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
TOTAL PETROLEUM HYDROCARBONS (ORDEQ-TPH)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	RW1 02/18/2004 Primary
Diesel	(mg/l)	11.2J
Gasoline	(ug/l)	6300
TPH-Motor Oil Range	(mg/l)	1.22J

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TABLE A-3e
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
PRIORITY POLLUTANT METALS (SW6010-6020)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	B1 02/19/2004 Primary	D 02/20/2004 Primary	J1 02/20/2004 Primary	LW004S 02/23/2004 Primary	LW007S 02/19/2004 Primary	LW008S 02/23/2004 Primary
Arsenic	(ug/l)	3.05	21.3	8.7	1U	13.3	25
Chromium	(mg/l)	0.005U	0.0078	0.0232J	0.0071	0.005U	0.0064
Copper	(mg/l)	0.0117	0.01U	0.01U	0.01U	0.01U	0.01U
Lead	(ug/l)	0.657	2.11	0.428	0.1U	0.479	0.124
Nickel	(mg/l)	0.0075	0.005U	0.0151	0.005U	0.005U	0.005U
Zinc	(mg/l)	0.01U	0.01U	0.01U	0.01U	0.01U	0.01U

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TABLE A-3e
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
PRIORITY POLLUTANT METALS (SW6010-6020)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW010S 02/23/2004 Primary	LW011S 02/18/2004 Primary	LW019S 02/24/2004 Primary	LW020S 02/24/2004 Primary	LW020S 02/24/2004 Duplicate 1	LW028S 02/17/2004 Primary
Arsenic	(ug/l)	1U	4.48	40.2	20.4	18.8	1U
Chromium	(mg/l)	0.005U	0.0069	0.0095	0.013	0.0123J	0.005U
Copper	(mg/l)	0.01U	0.01U	0.01U	0.01U	0.01U	0.01U
Lead	(ug/l)	0.428	0.237	0.468	0.486J	0.677J	0.1U
Nickel	(mg/l)	0.005U	0.005U	0.005U	0.005U	0.016	0.005U
Zinc	(mg/l)	0.01U	0.01U	0.01U	0.01U	0.01U	0.01U

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TABLE A-3e
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
PRIORITY POLLUTANT METALS (SW6010-6020)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW029S 02/17/2004 Primary	LW030S 02/18/2004 Primary	LW031S 02/17/2004 Primary	LW032S 02/17/2004 Primary	LW033S 02/17/2004 Primary	LW034S 02/17/2004 Primary
Arsenic	(ug/l)	2.19	17.5	1U	23.3	1U	1U
Chromium	(mg/l)	0.005U	0.008	0.005U	0.0124	0.0113	0.005U
Copper	(mg/l)	0.01U	0.01U	0.01U	0.01U	0.01U	0.01U
Lead	(ug/l)	0.1U	1.51	0.1U	0.1U	0.1U	0.1U
Nickel	(mg/l)	0.005U	0.005U	0.005U	0.005U	0.005U	0.005U
Zinc	(mg/l)	0.01U	0.01U	0.01U	0.01U	0.0111	0.01U

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TABLE A-3e
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
PRIORITY POLLUTANT METALS (SW6010-6020)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE	RW1
	DATE	02/18/2004
	RESULT TYPE	Primary
Arsenic	(ug/l)	3.82
Chromium	(mg/l)	0.0093
Copper	(mg/l)	0.0172
Lead	(ug/l)	0.5
Nickel	(mg/l)	0.005U
Zinc	(mg/l)	0.01U

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TABLE A-3f
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
CONVENTIONALS AND FIELD PARAMETERS
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	B1 02/19/2004 Primary	D 02/20/2004 Primary	J1 02/20/2004 Primary	K 02/19/2004 Primary	LW001S 02/19/2004 Primary	LW004S 02/23/2004 Primary
Chloride	(mg/l)	3.31	3.69	2.76	NT	NT	6.03
Dissolved Oxygen	(mg/l)	1.77	2.36	1.21	6.06	2.32	2.27
pH	(s.u.)	4.99	6.61	6.23	5.18	5.92	5.8
Redox	(mv)	NT	NT	NT	NT	NT	NT
Specific Conductivity	(us)	97	441	324	109	277	166
Temperature	(c)	14	13.1	14	11.4	15.7	11.6
Total Dissolved Solids	(mg/l)	116	291	240J	NT	NT	166
Turbidity	(ntu)	308	0	0	324	664	0

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TABLE A-3f
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
CONVENTIONALS AND FIELD PARAMETERS
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW007S 02/19/2004 Primary	LW008S 02/23/2004 Primary	LW010S 02/23/2004 Primary	LW011S 02/18/2004 Primary	LW013S 02/23/2004 Primary	LW019S 02/24/2004 Primary
Chloride	(mg/l)	5.73	3.31	1.04	3.13	NT	2.18
Dissolved Oxygen	(mg/l)	1.26	1.26	6.53	1.52	4.4	1.26
pH	(s.u.)	5.97	6.21	6.17	6.53	6.23	6.63
Redox	(mv)	NT	NT	NT	-65	NT	NT
Specific Conductivity	(us)	300	402	75	341	70	492
Temperature	(c)	14.6	14.1	13.9	14.3	13.2	12.8
Total Dissolved Solids	(mg/l)	203	263	81	274	NT	256
Turbidity	(ntu)	785	0	0	444	0	0

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TABLE A-3f
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
CONVENTIONALS AND FIELD PARAMETERS
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW020S 02/24/2004 Primary	LW020S 02/24/2004 Duplicate 1	LW028S 02/17/2004 Primary	LW029S 02/17/2004 Primary	LW030S 02/18/2004 Primary	LW031S 02/17/2004 Primary
Chloride	(mg/l)	1.45	1.79	1.17	1.03	1.35	1.08
Dissolved Oxygen	(mg/l)	1.82	1.79	6.56	2.33	1.22	4.42
pH	(s.u.)	6.12	6.12	5.84	6.65	6.64	6.15
Redox	(mv)	NT	NT	NT	NT	NT	NT
Specific Conductivity	(us)	314	314	61	129	239	98
Temperature	(c)	11.6	11.7	11.5	12.7	13.5	12.8
Total Dissolved Solids	(mg/l)	240	237	75	98	173	101
Turbidity	(ntu)	18	13	16	12	27	1

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TABLE A-3f
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
CONVENTIONALS AND FIELD PARAMETERS
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW032S 02/17/2004 Primary	LW033S 02/17/2004 Primary	LW034S 02/17/2004 Primary	OX001S 02/18/2004 Primary	OX002S 02/18/2004 Primary	OX003S 02/18/2004 Primary
Chloride	(mg/l)	1.71	1.39	1.29	NT	NT	NT
Dissolved Oxygen	(mg/l)	1.65	4.61	5.01	1.14	1.48	1.76
pH	(s.u.)	6.46	6.18	6.42	6.52	6.57	6.54
Redox	(mv)	NT	NT	NT	-97	-83	-87
Specific Conductivity	(us)	265	113	142	270	313	386
Temperature	(c)	12.8	11.7	12.2	14.2	13.6	14.1
Total Dissolved Solids	(mg/l)	196	105	121	NT	NT	NT
Turbidity	(ntu)	51	3	2	37	26	52

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TABLE A-3f
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - SHALLOW WELLS
CONVENTIONALS AND FIELD PARAMETERS
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	OX004S 02/18/2004 Primary	OX005S 02/18/2004 Primary	OX006S 02/18/2004 Primary	OX007S 02/18/2004 Primary	OX008S 02/18/2004 Primary	RW1 02/18/2004 Primary
Chloride	(mg/l)	NT	NT	NT	NT	NT	4.79
Dissolved Oxygen	(mg/l)	2.22	3.16	1.23	2.2	1.58	1.35
pH	(s.u.)	6.27	6.63	6.63	6.57	6.65	6.68
Redox	(mv)	-21	37	-64	3	-12	-57
Specific Conductivity	(us)	242	234	353	393	451	343
Temperature	(c)	13.8	12.9	14.4	13.8	12.8	13.8
Total Dissolved Solids	(mg/l)	NT	NT	NT	NT	NT	242
Turbidity	(ntu)	674	291	65	999	39	66

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TABLE A-4a
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
PAHS AND PENTACHLOROPHENOL (SW8270SIM)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE	B2 02/19/2004	G1A 02/20/2004	J2 02/20/2004	LW003D 02/23/2004	LW006D 02/20/2004	LW009D 02/20/2004
Acenaphthene	(ug/l)	NT	NT	NT	NT	NT	NT
Acenaphthylene	(ug/l)	NT	NT	NT	NT	NT	NT
Anthracene	(ug/l)	NT	NT	NT	NT	NT	NT
Benzo(a)anthracene	(ug/l)	NT	NT	NT	NT	NT	NT
Benzo(a)pyrene	(ug/l)	NT	NT	NT	NT	NT	NT
Benzo(b)fluoranthene	(ug/l)	NT	NT	NT	NT	NT	NT
Benzo(ghi)perylene	(ug/l)	NT	NT	NT	NT	NT	NT
Benzo(k)fluoranthene	(ug/l)	NT	NT	NT	NT	NT	NT
Chrysene	(ug/l)	NT	NT	NT	NT	NT	NT
Dibenzo(a,h)anthracene	(ug/l)	NT	NT	NT	NT	NT	NT
Fluoranthene	(ug/l)	NT	NT	NT	NT	NT	NT
Fluorene	(ug/l)	NT	NT	NT	NT	NT	NT
Indeno(1,2,3-cd)pyrene	(ug/l)	NT	NT	NT	NT	NT	NT
Naphthalene	(ug/l)	NT	NT	NT	NT	NT	NT
Pentachlorophenol	(ug/l)	0.475U	0.478U	0.483U	0.489U	0.483U	0.495U
Phenanthrene	(ug/l)	NT	NT	NT	NT	NT	NT
Pyrene	(ug/l)	NT	NT	NT	NT	NT	NT

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TABLE A-4a
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
PAHS AND PENTACHLOROPHENOL (SW8270SIM)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE	LW010D 02/23/2004	LW011D 02/23/2004	LW014D 02/23/2004	LW017D 02/20/2004	LW018D 02/20/2004	LW020D 02/24/2004
Acenaphthene	(ug/l)	NT	NT	NT	NT	NT	0.0557U
Acenaphthylene	(ug/l)	NT	NT	NT	NT	NT	0.0557U
Anthracene	(ug/l)	NT	NT	NT	NT	NT	0.0557U
Benzo(a)anthracene	(ug/l)	NT	NT	NT	NT	NT	0.0557U
Benzo(a)pyrene	(ug/l)	NT	NT	NT	NT	NT	0.0557U
Benzo(b)fluoranthene	(ug/l)	NT	NT	NT	NT	NT	0.0557U
Benzo(ghi)perylene	(ug/l)	NT	NT	NT	NT	NT	0.0557U
Benzo(k)fluoranthene	(ug/l)	NT	NT	NT	NT	NT	0.0557U
Chrysene	(ug/l)	NT	NT	NT	NT	NT	0.0557U
Dibenzo(a,h)anthracene	(ug/l)	NT	NT	NT	NT	NT	0.0557U
Fluoranthene	(ug/l)	NT	NT	NT	NT	NT	0.0557U
Fluorene	(ug/l)	NT	NT	NT	NT	NT	0.078
Indeno(1,2,3-cd)pyrene	(ug/l)	NT	NT	NT	NT	NT	0.0557U
Naphthalene	(ug/l)	NT	NT	NT	NT	NT	0.0557U
Pentachlorophenol	(ug/l)	0.491U	1.5	0.557U	0.497U	0.488U	NT
Phenanthrene	(ug/l)	NT	NT	NT	NT	NT	0.0557U
Pyrene	(ug/l)	NT	NT	NT	NT	NT	0.0557U

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TABLE A-4a
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
PAHS AND PENTACHLOROPHENOL (SW8270SIM)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE	LW022D 02/24/2004	LW023D 02/24/2004	LW024D 02/24/2004	LW025D 02/24/2004	LW026D 02/24/2004	LW027D 02/24/2004
Acenaphthene	(ug/l)	0.0523U	0.16	1.56	0.639	0.0632	0.0701
Acenaphthylene	(ug/l)	0.0523U	0.05U	0.375	0.0771	0.116	0.0584U
Anthracene	(ug/l)	0.0523U	0.05U	0.135	0.0771	0.0527U	0.0584U
Benzo(a)anthracene	(ug/l)	0.0523U	0.05U	0.052U	0.0551U	0.0527U	0.0584U
Benzo(a)pyrene	(ug/l)	0.0523U	0.05U	0.052U	0.0551U	0.0527U	0.0584U
Benzo(b)fluoranthene	(ug/l)	0.0523U	0.05U	0.052U	0.0551U	0.0527U	0.0584U
Benzo(ghi)perylene	(ug/l)	0.0523U	0.05U	0.052U	0.0551U	0.0527U	0.0584U
Benzo(k)fluoranthene	(ug/l)	0.0523U	0.05U	0.052U	0.0551U	0.0527U	0.0584U
Chrysene	(ug/l)	0.0523U	0.05U	0.052U	0.0551U	0.0527U	0.0584U
Dibenzo(a,h)anthracene	(ug/l)	0.0523U	0.05U	0.052U	0.0551U	0.0527U	0.0584U
Fluoranthene	(ug/l)	0.0523U	0.05U	0.177	0.176	0.0527U	0.0584U
Fluorene	(ug/l)	0.0523U	0.06	3.96	0.738	0.432	0.0584U
Indeno(1,2,3-cd)pyrene	(ug/l)	0.0523U	0.05U	0.052U	0.0551U	0.0527U	0.0584U
Naphthalene	(ug/l)	0.0523U	0.09	0.749	0.352	0.0843	0.0584
Pentachlorophenol	(ug/l)	NT	NT	NT	NT	NT	NT
Phenanthrene	(ug/l)	0.0523U	0.05U	1.86	0.143	0.0527U	0.0584U
Pyrene	(ug/l)	0.0523U	0.05U	0.166	0.176	0.0527U	0.0584U

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TABLE A-4a
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
PAHS AND PENTACHLOROPHENOL (SW8270SIM)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE	LW029D 02/17/2004	LW030D 02/18/2004	LW032D 02/17/2004	LW035D 02/24/2004	OX008D 02/18/2004	RW2 02/23/2004
Acenaphthene	(ug/l)	0.0489U	0.0506U	0.0473U	0.0509U	NT	NT
Acenaphthylene	(ug/l)	0.0489U	0.0506U	0.0473U	0.0509U	NT	NT
Anthracene	(ug/l)	0.0489U	0.0506U	0.0473U	0.0509U	NT	NT
Benzo(a)anthracene	(ug/l)	0.0489U	0.0506U	0.0473U	0.0509U	NT	NT
Benzo(a)pyrene	(ug/l)	0.0489U	0.0506U	0.0473U	0.0509U	NT	NT
Benzo(b)fluoranthene	(ug/l)	0.0489U	0.0506U	0.0473U	0.0509U	NT	NT
Benzo(ghi)perylene	(ug/l)	0.0489U	0.0506U	0.0473U	0.0509U	NT	NT
Benzo(k)fluoranthene	(ug/l)	0.0489U	0.0506U	0.0473U	0.0509U	NT	NT
Chrysene	(ug/l)	0.0489U	0.0506U	0.0473U	0.0509U	NT	NT
Dibenzo(a,h)anthracene	(ug/l)	0.0489U	0.0506U	0.0473U	0.0509U	NT	NT
Fluoranthene	(ug/l)	0.0489U	0.0506U	0.0473U	0.0509U	NT	NT
Fluorene	(ug/l)	0.0489U	0.0506U	0.0473U	0.0509U	NT	NT
Indeno(1,2,3-cd)pyrene	(ug/l)	0.0489U	0.0506U	0.0473U	0.0509U	NT	NT
Naphthalene	(ug/l)	0.0489U	0.0506U	0.0473U	0.0509U	NT	NT
Pentachlorophenol	(ug/l)	NT	NT	NT	NT	1.31	8.51
Phenanthrene	(ug/l)	0.0489U	0.0506U	0.0473U	0.0509U	NT	NT
Pyrene	(ug/l)	0.0489U	0.0506U	0.0473U	0.0509U	NT	NT

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TABLE A-4b
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
SEMIVOLATILES (SW8270)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	B2 02/19/2004 Primary	G1A 02/20/2004 Primary	J2 02/20/2004 Primary	LW003D 02/23/2004 Primary	LW004D 02/23/2004 Primary	LW006D 02/20/2004 Primary
1,2,4-Trichlorobenzene	(ug/l)	0.973U	1.03U	0.993U	0.985U	0.964U	0.961U
1,2-Dichlorobenzene	(ug/l)	0.973U	1.03U	0.993U	0.985U	0.964U	0.961U
1,3-Dichlorobenzene	(ug/l)	0.973U	1.03U	0.993U	0.985U	0.964U	0.961U
1,4-Dichlorobenzene	(ug/l)	0.973U	1.03U	0.993U	0.985U	0.964U	0.961U
2,4,5-Trichlorophenol	(ug/l)	4.86U	5.14U	4.97U	4.93U	4.82U	4.8U
2,4,6-Trichlorophenol	(ug/l)	4.86U	5.14U	4.97U	4.93U	4.82U	4.8U
2,4-Dichlorophenol	(ug/l)	2.92U	3.08U	2.98U	2.96U	2.89U	2.88U
2,4-Dimethylphenol	(ug/l)	2.92U	3.08U	2.98U	2.96U	2.89U	2.88U
2,4-Dinitrophenol	(ug/l)	9.73U	10.3U	9.93U	9.85U	9.64U	9.61U
2,4-Dinitrotoluene	(ug/l)	4.86U	5.14U	4.97U	4.93U	4.82U	4.8U
2,6-Dinitrotoluene	(ug/l)	4.86U	5.14U	4.97U	4.93U	4.82U	4.8U
2-Chloronaphthalene	(ug/l)	0.973U	1.03U	0.993U	0.985U	0.964U	0.961U
2-Chlorophenol	(ug/l)	0.973U	1.03U	0.993U	0.985U	0.964U	0.961U
2-Methylnaphthalene	(ug/l)	0.973U	1.03U	0.993U	0.985U	11.7	0.961U
2-Methylphenol	(ug/l)	1.95U	2.06U	1.99U	1.97U	1.93U	1.92U
2-Nitroaniline	(ug/l)	4.86U	5.14U	4.97U	4.93U	4.82U	4.8U
2-Nitrophenol	(ug/l)	4.86U	5.14U	4.97U	4.93U	4.82U	4.8U
3- & 4-Methylphenol	(ug/l)	9.73U	10.3U	9.93U	9.85U	9.64U	9.61U
3,3-Dichlorobenzidine	(ug/l)	4.86U	5.14U	4.97U	4.93U	4.82U	4.8U
3-Nitroaniline	(ug/l)	5.84U	6.17U	5.96U	5.91U	5.79U	5.76U
4,6-Dinitro-2-Methylphenol	(ug/l)	9.73U	10.3U	9.93U	9.85U	9.64U	9.61U

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TABLE A-4b
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
SEMIVOLATILES (SW8270)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	B2 02/19/2004 Primary	G1A 02/20/2004 Primary	J2 02/20/2004 Primary	LW003D 02/23/2004 Primary	LW004D 02/23/2004 Primary	LW006D 02/20/2004 Primary
4-Bromophenyl-phenylether	(ug/l)	0.973U	1.03U	0.993U	0.985U	0.964U	0.961U
4-Chloro-3-methylphenol	(ug/l)	1.95U	2.06U	1.99U	1.97U	1.93U	1.92U
4-Chloroaniline	(ug/l)	2.92U	3.08U	2.98U	2.96U	2.89U	2.88U
4-Chlorophenylphenyl ether	(ug/l)	0.973U	1.03U	0.993U	0.985U	0.964U	0.961U
4-Nitroaniline	(ug/l)	4.86U	5.14U	4.97U	4.93U	4.82U	4.8U
4-Nitrophenol	(ug/l)	4.86U	5.14U	4.97U	4.93U	4.82U	4.8U
Acenaphthene	(ug/l)	0.973U	1.03U	0.993U	0.985U	0.964U	0.961U
Acenaphthylene	(ug/l)	0.973U	1.03U	0.993U	0.985U	0.964U	0.961U
Anthracene	(ug/l)	0.973U	1.03U	0.993U	0.985U	0.964U	0.961U
Benzo(a)anthracene	(ug/l)	0.973U	1.03U	0.993U	0.985U	0.964U	0.961U
Benzo(a)pyrene	(ug/l)	0.973U	1.03U	0.993U	0.985U	0.964U	0.961U
Benzo(b)fluoranthene	(ug/l)	0.973U	1.03U	0.993U	0.985U	0.964U	0.961U
Benzo(ghi)perylene	(ug/l)	0.973U	1.03U	0.993U	0.985U	0.964U	0.961U
Benzo(k)fluoranthene	(ug/l)	0.973U	1.03U	0.993U	0.985U	0.964U	0.961U
Benzoic acid	(ug/l)	19.5U	20.6U	19.9U	19.7U	19.3U	19.2U
Benzyl alcohol	(ug/l)	4.86U	5.14U	4.97U	4.93U	4.82U	4.8U
Bis(2-chloroethoxy)methane	(ug/l)	0.973U	1.03U	0.993U	0.985U	0.964U	0.961U
Bis(2-chloroethyl)ether	(ug/l)	1.95U	2.06U	1.99U	1.97U	1.93U	1.92U
Bis(2-chloroisopropyl)ether	(ug/l)	0.973U	1.03U	0.993U	0.985U	0.964U	0.961U
Bis(2-ethylhexyl)phthalate	(ug/l)	0.973U	1.03U	0.993U	0.985U	0.964U	0.961U
Butyl benzyl phthalate	(ug/l)	0.973U	1.03U	0.993U	0.985U	0.964U	0.961U

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TABLE A-4b
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
SEMIVOLATILES (SW8270)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	B2 02/19/2004 Primary	G1A 02/20/2004 Primary	J2 02/20/2004 Primary	LW003D 02/23/2004 Primary	LW004D 02/23/2004 Primary	LW006D 02/20/2004 Primary
Carbazole	(ug/l)	0.973U	1.03U	0.993U	0.985U	0.964U	0.961U
Chrysene	(ug/l)	0.973U	1.03U	0.993U	0.985U	0.964U	0.961U
Dibenzo(a,h)anthracene	(ug/l)	0.973U	1.03U	0.993U	0.985U	0.964U	0.961U
Dibenzofuran	(ug/l)	0.973U	1.03U	0.993U	0.985U	0.964U	0.961U
Diethyl phthalate	(ug/l)	0.973U	1.03U	0.993U	0.985U	0.964U	0.961U
Dimethyl phthalate	(ug/l)	0.973U	1.03U	0.993U	0.985U	0.964U	0.961U
Di-n-butyl phthalate	(ug/l)	0.973U	1.03U	0.993U	0.985U	0.964U	0.961U
Di-n-octyl phthalate	(ug/l)	0.973U	1.03U	0.993U	0.985U	0.964U	0.961U
Fluoranthene	(ug/l)	0.973U	1.03U	0.993U	0.985U	0.964U	0.961U
Fluorene	(ug/l)	0.973U	1.03U	0.993U	0.985U	0.964U	0.961U
Hexachlorobenzene	(ug/l)	0.973U	1.03U	0.993U	0.985U	0.964U	0.961U
Hexachlorobutadiene	(ug/l)	1.95U	2.06U	1.99U	1.97U	1.93U	1.92U
Hexachlorocyclopentadiene	(ug/l)	4.86U	5.14U	4.97U	4.93U	4.82U	4.8U
Hexachloroethane	(ug/l)	1.95U	2.06U	1.99U	1.97U	1.93U	1.92U
Indeno(1,2,3-cd)pyrene	(ug/l)	0.973U	1.03U	0.993U	0.985U	0.964U	0.961U
Isophorone	(ug/l)	0.973U	1.03U	0.993U	0.985U	0.964U	0.961U
Naphthalene	(ug/l)	0.973U	1.03U	0.993U	0.985U	4.12	0.961U
Nitrobenzene	(ug/l)	0.973U	1.03U	0.993U	0.985U	0.964U	0.961U
N-Nitrosodimethylamine	(ug/l)	0.973U	1.03U	0.993U	0.985U	0.964U	0.961U
N-Nitroso-Di-N-Propylamine	(ug/l)	1.95U	2.06U	1.99U	1.97U	1.93U	1.92U
N-Nitrosodiphenylamine	(ug/l)	0.973U	1.03U	0.993U	0.985U	0.964U	0.961U

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TABLE A-4b
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
SEMIVOLATILES (SW8270)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	B2 02/19/2004 Primary	G1A 02/20/2004 Primary	J2 02/20/2004 Primary	LW003D 02/23/2004 Primary	LW004D 02/23/2004 Primary	LW006D 02/20/2004 Primary
Pentachlorophenol	(ug/l)	4.86U	5.14U	4.97U	4.93U	8.95	4.8U
Phenanthrene	(ug/l)	0.973U	1.03U	0.993U	0.985U	0.964U	0.961U
Phenol	(ug/l)	1.95U	2.06U	1.99U	1.97U	1.93U	1.92U
Pyrene	(ug/l)	0.973U	1.03U	0.993U	0.985U	0.964U	0.961U
Pyridine	(ug/l)	4.86U	5.14U	4.97U	4.93U	4.82U	4.8U

BZTO104(e)019469

TABLE A-4b
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
SEMIVOLATILES (SW8270)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW009D 02/20/2004 Primary	LW010D 02/23/2004 Primary	LW011D 02/23/2004 Primary	LW020D 02/24/2004 Primary	LW022D 02/24/2004 Primary	LW023D 02/24/2004 Primary
1,2,4-Trichlorobenzene	(ug/l)	0.958U	0.999U	0.976U	1.02U	1.03U	1.13U
1,2-Dichlorobenzene	(ug/l)	0.958U	0.999U	0.976U	1.02U	1.03U	1.13U
1,3-Dichlorobenzene	(ug/l)	0.958U	0.999U	0.976U	1.02U	1.03U	1.13U
1,4-Dichlorobenzene	(ug/l)	0.958U	0.999U	0.976U	1.02U	1.03U	1.13U
2,4,5-Trichlorophenol	(ug/l)	4.79U	5U	4.88U	5.12U	5.13U	5.66U
2,4,6-Trichlorophenol	(ug/l)	4.79U	5U	4.88U	5.12U	5.13U	5.66U
2,4-Dichlorophenol	(ug/l)	2.87U	3U	2.93U	3.07U	3.08U	3.39U
2,4-Dimethylphenol	(ug/l)	2.87U	3U	2.93U	3.07U	3.08U	3.39U
2,4-Dinitrophenol	(ug/l)	9.58U	9.99U	9.76U	10.2U	10.3U	11.3U
2,4-Dinitrotoluene	(ug/l)	4.79U	5U	4.88U	5.12U	5.13U	5.66U
2,6-Dinitrotoluene	(ug/l)	4.79U	5U	4.88U	5.12U	5.13U	5.66U
2-Chloronaphthalene	(ug/l)	0.958U	0.999U	0.976U	1.02U	1.03U	1.13U
2-Chlorophenol	(ug/l)	0.958U	0.999U	0.976U	1.02U	1.03U	1.13U
2-Methylnaphthalene	(ug/l)	0.958U	0.999U	0.976U	1.02U	1.03U	1.13U
2-Methylphenol	(ug/l)	1.92U	2U	1.95U	2.05U	2.05U	2.26U
2-Nitroaniline	(ug/l)	4.79U	5U	4.88U	5.12U	5.13U	5.66U
2-Nitrophenol	(ug/l)	4.79U	5U	4.88U	5.12U	5.13U	5.66U
3- & 4-Methylphenol	(ug/l)	9.58U	9.99U	9.76U	10.2U	10.3U	11.3U
3,3-Dichlorobenzidine	(ug/l)	4.79U	5U	4.88U	5.12U	5.13U	5.66U
3-Nitroaniline	(ug/l)	5.75U	5.99U	5.85U	6.15U	6.16U	6.79U
4,6-Dinitro-2-Methylphenol	(ug/l)	9.58U	9.99U	9.76U	10.2U	10.3U	11.3U

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TABLE A-4b
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
SEMIVOLATILES (SW8270)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW009D 02/20/2004 Primary	LW010D 02/23/2004 Primary	LW011D 02/23/2004 Primary	LW020D 02/24/2004 Primary	LW022D 02/24/2004 Primary	LW023D 02/24/2004 Primary
4-Bromophenyl-phenylether	(ug/l)	0.958U	0.999U	0.976U	1.02U	1.03U	1.13U
4-Chloro-3-methylphenol	(ug/l)	1.92U	2U	1.95U	2.05U	2.05U	2.26U
4-Chloroaniline	(ug/l)	2.87U	3U	2.93U	3.07U	3.08U	3.39U
4-Chlorophenylphenyl ether	(ug/l)	0.958U	0.999U	0.976U	1.02U	1.03U	1.13U
4-Nitroaniline	(ug/l)	4.79U	5U	4.88U	5.12U	5.13U	5.66U
4-Nitrophenol	(ug/l)	4.79U	5U	4.88U	5.12U	5.13U	5.66U
Acenaphthene	(ug/l)	0.958U	0.999U	0.976U	1.02U	1.03U	1.13U
Acenaphthylene	(ug/l)	0.958U	0.999U	0.976U	1.02U	1.03U	1.13U
Anthracene	(ug/l)	0.958U	0.999U	0.976U	1.02U	1.03U	1.13U
Benzo(a)anthracene	(ug/l)	0.958U	0.999U	0.976U	1.02U	1.03U	1.13U
Benzo(a)pyrene	(ug/l)	0.958U	0.999U	0.976U	1.02U	1.03U	1.13U
Benzo(b)fluoranthene	(ug/l)	0.958U	0.999U	0.976U	1.02U	1.03U	1.13U
Benzo(ghi)perylene	(ug/l)	0.958U	0.999U	0.976U	1.02U	1.03U	1.13U
Benzo(k)fluoranthene	(ug/l)	0.958U	0.999U	0.976U	1.02U	1.03U	1.13U
Benzoic acid	(ug/l)	19.2U	20U	19.5U	20.5U	20.5U	22.6U
Benzyl alcohol	(ug/l)	4.79U	5U	4.88U	5.12U	5.13U	5.66U
Bis(2-chloroethoxy)methane	(ug/l)	0.958U	0.999U	0.976U	1.02U	1.03U	1.13U
Bis(2-chloroethyl)ether	(ug/l)	1.92U	2U	1.95U	2.05U	2.05U	2.26U
Bis(2-chloroisopropyl)ether	(ug/l)	0.958U	0.999U	0.976U	1.02U	1.03U	1.13U
Bis(2-ethylhexyl)phthalate	(ug/l)	0.958U	0.999U	1.86	1.02U	1.03U	1.13U
Butyl benzyl phthalate	(ug/l)	0.958U	0.999U	0.976U	1.02U	1.03U	1.13U

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TABLE A-4b
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
SEMIVOLATILES (SW8270)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW009D 02/20/2004 Primary	LW010D 02/23/2004 Primary	LW011D 02/23/2004 Primary	LW020D 02/24/2004 Primary	LW022D 02/24/2004 Primary	LW023D 02/24/2004 Primary
Carbazole	(ug/l)	0.958U	0.999U	0.976U	1.02U	1.03U	1.13U
Chrysene	(ug/l)	0.958U	0.999U	0.976U	1.02U	1.03U	1.13U
Dibenzo(a,h)anthracene	(ug/l)	0.958U	0.999U	0.976U	1.02U	1.03U	1.13U
Dibenzofuran	(ug/l)	0.958U	0.999U	0.976U	1.02U	1.03U	1.13U
Diethyl phthalate	(ug/l)	0.958U	0.999U	0.976U	1.02U	1.03U	1.13U
Dimethyl phthalate	(ug/l)	0.958U	0.999U	0.976U	1.02U	1.03U	1.13U
Di-n-butyl phthalate	(ug/l)	0.958U	0.999U	0.976U	1.02U	1.03U	1.13U
Di-n-octyl phthalate	(ug/l)	0.958U	0.999U	0.976U	1.02U	1.03U	1.13U
Fluoranthene	(ug/l)	0.958U	0.999U	0.976U	1.02U	1.03U	1.13U
Fluorene	(ug/l)	0.958U	0.999U	0.976U	1.02U	1.03U	1.13U
Hexachlorobenzene	(ug/l)	0.958U	0.999U	0.976U	1.02U	1.03U	1.13U
Hexachlorobutadiene	(ug/l)	1.92U	2U	1.95U	2.05U	2.05U	2.26U
Hexachlorocyclopentadiene	(ug/l)	4.79U	5U	4.88U	5.12U	5.13U	5.66U
Hexachloroethane	(ug/l)	1.92U	2U	1.95U	2.05U	2.05U	2.26U
Indeno(1,2,3-cd)pyrene	(ug/l)	0.958U	0.999U	0.976U	1.02U	1.03U	1.13U
Isophorone	(ug/l)	0.958U	0.999U	0.976U	1.02U	1.03U	1.13U
Naphthalene	(ug/l)	0.958U	0.999U	0.976U	1.02U	1.03U	1.13U
Nitrobenzene	(ug/l)	0.958U	0.999U	0.976U	1.02U	1.03U	1.13U
N-Nitrosodimethylamine	(ug/l)	0.958U	0.999U	0.976U	1.02U	1.03U	1.13U
N-Nitroso-Di-N-Propylamine	(ug/l)	1.92U	2U	1.95U	2.05U	2.05U	2.26U
N-Nitrosodiphenylamine	(ug/l)	0.958U	0.999U	0.976U	1.02U	1.03U	1.13U

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TABLE A-4b
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
SEMIVOLATILES (SW8270)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW009D 02/20/2004 Primary	LW010D 02/23/2004 Primary	LW011D 02/23/2004 Primary	LW020D 02/24/2004 Primary	LW022D 02/24/2004 Primary	LW023D 02/24/2004 Primary
Pentachlorophenol	(ug/l)	4.79U	5U	4.88U	5.12U	5.13U	5.66U
Phenanthrene	(ug/l)	0.958U	0.999U	0.976U	1.02U	1.03U	1.13U
Phenol	(ug/l)	1.92U	2U	1.95U	2.05U	2.05U	2.26U
Pyrene	(ug/l)	0.958U	0.999U	0.976U	1.02U	1.03U	1.13U
Pyridine	(ug/l)	4.79U	5U	4.88U	5.12U	5.13U	5.66U

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TABLE A-4b
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
SEMIVOLATILES (SW8270)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW024D 02/24/2004 Primary	LW025D 02/24/2004 Primary	LW026D 02/24/2004 Primary	LW027D 02/24/2004 Primary	LW029D 02/17/2004 Primary	LW030D 02/18/2004 Primary
1,2,4-Trichlorobenzene	(ug/l)	1.07U	1.07U	1.11U	0.993U	0.961U	1.03U
1,2-Dichlorobenzene	(ug/l)	1.07U	1.07U	1.11U	0.993U	0.961U	1.03U
1,3-Dichlorobenzene	(ug/l)	1.07U	1.07U	1.11U	0.993U	0.961U	1.03U
1,4-Dichlorobenzene	(ug/l)	1.07U	1.07U	1.11U	0.993U	0.961UJ	1.03U
2,4,5-Trichlorophenol	(ug/l)	5.36U	5.34U	5.56U	4.97U	4.8U	5.15U
2,4,6-Trichlorophenol	(ug/l)	5.36U	5.34U	5.56U	4.97U	4.8U	5.15U
2,4-Dichlorophenol	(ug/l)	3.22U	3.2U	3.33U	2.98U	2.88U	3.09U
2,4-Dimethylphenol	(ug/l)	3.22U	3.2U	3.33U	2.98U	2.88U	3.09U
2,4-Dinitrophenol	(ug/l)	10.7U	10.7U	11.1U	9.93U	9.61U	10.3U
2,4-Dinitrotoluene	(ug/l)	5.36U	5.34U	5.56U	4.97U	4.8U	5.15U
2,6-Dinitrotoluene	(ug/l)	5.36U	5.34U	5.56U	4.97U	4.8U	5.15U
2-Chloronaphthalene	(ug/l)	1.07U	1.07U	1.11U	0.993U	0.961U	1.03U
2-Chlorophenol	(ug/l)	1.07U	1.07U	1.11U	0.993U	0.961U	1.03U
2-Methylnaphthalene	(ug/l)	1.07U	1.07U	1.11U	0.993U	0.961U	1.03U
2-Methylphenol	(ug/l)	2.14U	2.13U	2.22U	1.99U	1.92U	2.06U
2-Nitroaniline	(ug/l)	5.36U	5.34U	5.56U	4.97U	4.8U	5.15U
2-Nitrophenol	(ug/l)	5.36U	5.34U	5.56U	4.97U	4.8U	5.15U
3- & 4-Methylphenol	(ug/l)	10.7U	10.7U	11.1U	9.93U	9.61U	10.3U
3,3-Dichlorobenzidine	(ug/l)	5.36U	5.34U	5.56U	4.97U	4.8U	5.15U
3-Nitroaniline	(ug/l)	6.43U	6.4U	6.67U	5.96U	5.76U	6.18U
4,6-Dinitro-2-Methylphenol	(ug/l)	10.7U	10.7U	11.1U	9.93U	9.61U	10.3U

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BZTO104(e)019474

TABLE A-4b
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
SEMIVOLATILES (SW8270)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW024D 02/24/2004 Primary	LW025D 02/24/2004 Primary	LW026D 02/24/2004 Primary	LW027D 02/24/2004 Primary	LW029D 02/17/2004 Primary	LW030D 02/18/2004 Primary
4-Bromophenyl-phenylether	(ug/l)	1.07U	1.07U	1.11U	0.993U	0.961U	1.03U
4-Chloro-3-methylphenol	(ug/l)	2.14U	2.13U	2.22U	1.99U	1.92U	2.06U
4-Chloroaniline	(ug/l)	3.22U	3.2U	3.33U	2.98U	2.88U	3.09U
4-Chlorophenylphenyl ether	(ug/l)	1.07U	1.07U	1.11U	0.993U	0.961U	1.03U
4-Nitroaniline	(ug/l)	5.36U	5.34U	5.56U	4.97U	4.8U	5.15U
4-Nitrophenol	(ug/l)	5.36U	5.34U	5.56U	4.97U	4.8UJ	5.15U
Acenaphthene	(ug/l)	1.37	1.07U	1.11U	0.993U	0.961U	1.03U
Acenaphthylene	(ug/l)	1.07U	1.07U	1.11U	0.993U	0.961U	1.03U
Anthracene	(ug/l)	1.07U	1.07U	1.11U	0.993U	0.961U	1.03U
Benzo(a)anthracene	(ug/l)	1.07U	1.07U	1.11U	0.993U	0.961U	1.03U
Benzo(a)pyrene	(ug/l)	1.07U	1.07U	1.11U	0.993U	0.961U	1.03U
Benzo(b)fluoranthene	(ug/l)	1.07U	1.07U	1.11U	0.993U	0.961U	1.03U
Benzo(ghi)perylene	(ug/l)	1.07U	1.07U	1.11U	0.993U	0.961U	1.03U
Benzo(k)fluoranthene	(ug/l)	1.07U	1.07U	1.11U	0.993U	0.961U	1.03U
Benzoic acid	(ug/l)	21.4U	21.3U	22.2U	19.9U	19.2U	20.6U
Benzyl alcohol	(ug/l)	5.36U	5.34U	5.56U	4.97U	4.8U	5.15U
Bis(2-chloroethoxy)methane	(ug/l)	1.07U	1.07U	1.11U	0.993U	0.961U	1.03U
Bis(2-chloroethyl)ether	(ug/l)	2.14U	2.13U	2.22U	1.99U	1.92U	2.06U
Bis(2-chloroisopropyl)ether	(ug/l)	1.07U	1.07U	1.11U	0.993U	0.961U	1.03U
Bis(2-ethylhexyl)phthalate	(ug/l)	1.07U	1.07U	1.11U	0.993U	2.13UJ	1.03U
Butyl benzyl phthalate	(ug/l)	1.07U	1.07U	1.11U	0.993U	0.961U	1.03U

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TABLE A-4b
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
SEMIVOLATILES (SW8270)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW024D 02/24/2004 Primary	LW025D 02/24/2004 Primary	LW026D 02/24/2004 Primary	LW027D 02/24/2004 Primary	LW029D 02/17/2004 Primary	LW030D 02/18/2004 Primary
Carbazole	(ug/l)	1.07U	1.07U	1.11U	0.993U	0.961U	1.03U
Chrysene	(ug/l)	1.07U	1.07U	1.11U	0.993U	0.961U	1.03U
Dibenzo(a,h)anthracene	(ug/l)	1.07U	1.07U	1.11U	0.993U	0.961U	1.03U
Dibenzofuran	(ug/l)	1.07U	1.07U	1.11U	0.993U	0.961U	1.03U
Diethyl phthalate	(ug/l)	1.07U	1.07U	1.11U	0.993U	0.961U	1.03U
Dimethyl phthalate	(ug/l)	1.07U	1.07U	1.11U	0.993U	0.961U	1.03U
Di-n-butyl phthalate	(ug/l)	1.07U	1.07U	1.11U	0.993U	0.961U	1.03U
Di-n-octyl phthalate	(ug/l)	1.07U	1.07U	1.11U	0.993U	0.961U	1.03U
Fluoranthene	(ug/l)	1.07U	1.07U	1.11U	0.993U	0.961U	1.03U
Fluorene	(ug/l)	3.55	1.29U	1.11U	0.993U	0.961U	1.03U
Hexachlorobenzene	(ug/l)	1.07U	1.07U	1.11U	0.993U	0.961U	1.03U
Hexachlorobutadiene	(ug/l)	2.14U	2.13U	2.22U	1.99U	1.92U	2.06U
Hexachlorocyclopentadiene	(ug/l)	5.36U	5.34U	5.56U	4.97U	4.8U	5.15U
Hexachloroethane	(ug/l)	2.14U	2.13U	2.22U	1.99U	1.92U	2.06U
Indeno(1,2,3-cd)pyrene	(ug/l)	1.07U	1.07U	1.11U	0.993U	0.961U	1.03U
Isophorone	(ug/l)	1.07U	1.07U	1.11U	0.993U	0.961U	1.03U
Naphthalene	(ug/l)	1.07U	1.07U	1.11U	0.993U	0.961U	1.03U
Nitrobenzene	(ug/l)	1.07U	1.07U	1.11U	0.993U	0.961U	1.03U
N-Nitrosodimethylamine	(ug/l)	1.07U	1.07U	1.11U	0.993U	0.961U	1.03U
N-Nitroso-Di-N-Propylamine	(ug/l)	2.14U	2.13U	2.22U	1.99U	1.92U	2.06U
N-Nitrosodiphenylamine	(ug/l)	1.07U	1.07U	1.11U	0.993U	0.961U	1.03U

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TABLE A-4b
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
SEMIVOLATILES (SW8270)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW024D 02/24/2004 Primary	LW025D 02/24/2004 Primary	LW026D 02/24/2004 Primary	LW027D 02/24/2004 Primary	LW029D 02/17/2004 Primary	LW030D 02/18/2004 Primary
Pentachlorophenol	(ug/l)	5.36U	5.34U	5.56U	4.97U	4.8U	5.15U
Phenanthrene	(ug/l)	2.06	1.07U	1.11U	0.993U	0.961U	1.03U
Phenol	(ug/l)	2.14U	2.13U	2.22U	1.99U	1.92UJ	2.06U
Pyrene	(ug/l)	1.07U	1.07U	1.11U	0.993U	0.961U	1.03U
Pyridine	(ug/l)	5.36U	5.34U	5.56U	4.97U	4.8U	5.15U

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TABLE A-4b
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
SEMIVOLATILES (SW8270)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW032D 02/17/2004 Primary	LW035D 02/24/2004 Primary	RW2 02/23/2004 Primary	RW2 02/23/2004 Duplicate 1
1,2,4-Trichlorobenzene	(ug/l)	0.965U	0.995U	0.989U	0.978U
1,2-Dichlorobenzene	(ug/l)	0.965U	0.995U	0.989U	0.978U
1,3-Dichlorobenzene	(ug/l)	0.965U	0.995U	0.989U	0.978U
1,4-Dichlorobenzene	(ug/l)	0.965U	0.995U	0.989U	0.978U
2,4,5-Trichlorophenol	(ug/l)	4.83U	4.98U	4.95U	4.89U
2,4,6-Trichlorophenol	(ug/l)	4.83U	4.98U	4.95U	4.89U
2,4-Dichlorophenol	(ug/l)	2.9U	2.99U	2.97U	2.93U
2,4-Dimethylphenol	(ug/l)	2.9U	2.99U	2.97U	2.93U
2,4-Dinitrophenol	(ug/l)	9.65U	9.95U	9.89U	9.78U
2,4-Dinitrotoluene	(ug/l)	4.83U	4.98U	4.95U	4.89U
2,6-Dinitrotoluene	(ug/l)	4.83U	4.98U	4.95U	4.89U
2-Chloronaphthalene	(ug/l)	0.965U	0.995U	0.989U	0.978U
2-Chlorophenol	(ug/l)	0.965U	0.995U	0.989U	0.978U
2-Methylnaphthalene	(ug/l)	0.965U	0.995U	0.989U	10.4
2-Methylphenol	(ug/l)	1.93U	1.99U	1.98U	1.96U
2-Nitroaniline	(ug/l)	4.83U	4.98U	4.95U	4.89U
2-Nitrophenol	(ug/l)	4.83U	4.98U	4.95U	4.89U
3- & 4-Methylphenol	(ug/l)	9.65U	9.95U	9.89U	9.78U
3,3-Dichlorobenzidine	(ug/l)	4.83U	4.98U	4.95U	4.89U
3-Nitroaniline	(ug/l)	5.79U	5.97U	5.93U	5.87U
4,6-Dinitro-2-Methylphenol	(ug/l)	9.65U	9.95U	9.89U	9.78U

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TABLE A-4b
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
SEMIVOLATILES (SW8270)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW032D 02/17/2004 Primary	LW035D 02/24/2004 Primary	RW2 02/23/2004 Primary	RW2 02/23/2004 Duplicate 1
4-Bromophenyl-phenylether	(ug/l)	0.965U	0.995U	0.989U	0.978U
4-Chloro-3-methylphenol	(ug/l)	1.93U	1.99U	1.98U	1.96U
4-Chloroaniline	(ug/l)	2.9U	2.99U	2.97U	2.93U
4-Chlorophenylphenyl ether	(ug/l)	0.965U	0.995U	0.989U	0.978U
4-Nitroaniline	(ug/l)	4.83U	4.98U	4.95U	4.89U
4-Nitrophenol	(ug/l)	4.83U	4.98U	4.95U	4.89U
Acenaphthene	(ug/l)	0.965U	0.995U	0.989U	0.978U
Acenaphthylene	(ug/l)	0.965U	0.995U	0.989U	0.978U
Anthracene	(ug/l)	0.965U	0.995U	0.989U	0.978U
Benzo(a)anthracene	(ug/l)	0.965U	0.995U	0.989U	0.978U
Benzo(a)pyrene	(ug/l)	0.965U	0.995U	0.989U	0.978U
Benzo(b)fluoranthene	(ug/l)	0.965U	0.995U	0.989U	0.978U
Benzo(ghi)perylene	(ug/l)	0.965U	0.995U	0.989U	0.978U
Benzo(k)fluoranthene	(ug/l)	0.965U	0.995U	0.989U	0.978U
Benzoic acid	(ug/l)	19.3U	19.9U	19.8U	19.6U
Benzyl alcohol	(ug/l)	4.83U	4.98U	4.95U	4.89U
Bis(2-chloroethoxy)methane	(ug/l)	0.965U	0.995U	0.989U	0.978U
Bis(2-chloroethyl)ether	(ug/l)	1.93U	1.99U	1.98U	1.96U
Bis(2-chloroisopropyl)ether	(ug/l)	0.965U	0.995U	0.989U	0.978U
Bis(2-ethylhexyl)phthalate	(ug/l)	2.51U	0.995U	0.989U	0.978U
Butyl benzyl phthalate	(ug/l)	0.965U	0.995U	0.989U	0.978U

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TABLE A-4b
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
SEMIVOLATILES (SW8270)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW032D 02/17/2004 Primary	LW035D 02/24/2004 Primary	RW2 02/23/2004 Primary	RW2 02/23/2004 Duplicate 1
Carbazole	(ug/l)	0.965U	0.995U	0.989U	0.978U
Chrysene	(ug/l)	0.965U	0.995U	0.989U	0.978U
Dibenzo(a,h)anthracene	(ug/l)	0.965U	0.995U	0.989U	0.978U
Dibenzofuran	(ug/l)	0.965U	0.995U	0.989U	0.978U
Diethyl phthalate	(ug/l)	0.965U	0.995U	0.989U	0.978U
Dimethyl phthalate	(ug/l)	0.965U	0.995U	0.989U	0.978U
Di-n-butyl phthalate	(ug/l)	0.965U	0.995U	0.989U	0.978U
Di-n-octyl phthalate	(ug/l)	0.965U	0.995U	0.989U	0.978U
Fluoranthene	(ug/l)	0.965U	0.995U	0.989U	0.978U
Fluorene	(ug/l)	0.965U	0.995U	0.989U	0.978U
Hexachlorobenzene	(ug/l)	0.965U	0.995U	0.989U	0.978U
Hexachlorobutadiene	(ug/l)	1.93U	1.99U	1.98U	1.96U
Hexachlorocyclopentadiene	(ug/l)	4.83U	4.98U	4.95U	4.89U
Hexachloroethane	(ug/l)	1.93U	1.99U	1.98U	1.96U
Indeno(1,2,3-cd)pyrene	(ug/l)	0.965U	0.995U	0.989U	0.978U
Isophorone	(ug/l)	0.965U	0.995U	0.989U	0.978U
Naphthalene	(ug/l)	0.965U	0.995U	0.989U	3.63
Nitrobenzene	(ug/l)	0.965U	0.995U	0.989U	0.978U
N-Nitrosodimethylamine	(ug/l)	0.965U	0.995U	0.989U	0.978U
N-Nitroso-Di-N-Propylamine	(ug/l)	1.93U	1.99U	1.98U	1.96U
N-Nitrosodiphenylamine	(ug/l)	0.965U	0.995U	0.989U	0.978U

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TABLE A-4b
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
SEMIVOLATILES (SW8270)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW032D 02/17/2004 Primary	LW035D 02/24/2004 Primary	RW2 02/23/2004 Primary	RW2 02/23/2004 Duplicate 1
Pentachlorophenol	(ug/l)	4.83U	4.98U	4.95U	8.69
Phenanthrene	(ug/l)	0.965U	0.995U	0.989U	0.978U
Phenol	(ug/l)	1.93U	1.99U	1.98U	1.96U
Pyrene	(ug/l)	0.965U	0.995U	0.989U	0.978U
Pyridine	(ug/l)	4.83U	4.98U	4.95U	4.89U

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TABLE A-4c
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
VOLATILES (SW8260)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	B2 02/19/2004 Primary	G1A 02/20/2004 Primary	J2 02/20/2004 Primary	LW003D 02/23/2004 Primary	LW004D 02/23/2004 Primary	LW006D 02/20/2004 Primary
1,1,1,2-Tetrachloroethane	(ug/l)	1U	1U	1U	1U	1U	1U
1,1,1-Trichloroethane	(ug/l)	1U	1U	1U	1U	1U	1U
1,1,2,2-Tetrachloroethane	(ug/l)	1U	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	(ug/l)	1U	1U	1U	1U	1U	1U
1,1-Dichloroethane	(ug/l)	1U	1U	1U	1U	1U	1U
1,1-Dichloroethene	(ug/l)	1U	1U	1U	1U	1U	1U
1,1-Dichloropropene	(ug/l)	1U	1U	1U	1U	1U	1U
1,2,3-Trichlorobenzene	(ug/l)	1U	1U	1U	1U	1U	1U
1,2,3-Trichloropropane	(ug/l)	1U	1U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	(ug/l)	1U	1U	1U	1U	1U	1U
1,2,4-Trimethylbenzene	(ug/l)	1U	1U	1U	1U	1U	1U
1,2-Dibromoethane	(ug/l)	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene	(ug/l)	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	(ug/l)	1U	1U	1U	1U	1U	1U
1,2-Dichloropropane	(ug/l)	1U	1U	1U	1U	1U	1U
1,3,5-Trimethylbenzene	(ug/l)	1U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	(ug/l)	1U	1U	1U	1U	1U	1U
1,3-Dichloropropane	(ug/l)	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	(ug/l)	1U	1U	1U	1U	1U	1U
2,2-Dichloropropane	(ug/l)	1U	1U	1U	1U	1U	1U
2-Butanone	(ug/l)	10U	10U	10U	10U	10U	10U

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TABLE A-4c
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
VOLATILES (SW8260)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	B2 02/19/2004 Primary	G1A 02/20/2004 Primary	J2 02/20/2004 Primary	LW003D 02/23/2004 Primary	LW004D 02/23/2004 Primary	LW006D 02/20/2004 Primary
2-Chlorotoluene	(ug/l)	1U	1U	1U	1U	1U	1U
2-Hexanone	(ug/l)	10U	10U	10U	10U	10U	10U
4-Chlorotoluene	(ug/l)	1U	1U	1U	1U	1U	1U
4-Isopropyltoluene	(ug/l)	1U	1U	1U	1U	1U	1U
4-Methyl-2-Pentanone (MIBK)	(ug/l)	20U	20U	20U	20U	20U	20U
Acetone	(ug/l)	50U	50U	50U	50U	50U	50U
Acrylonitrile	(ug/l)	5U	5U	5U	5U	5U	5U
Benzene	(ug/l)	0.4U	0.4U	0.4U	0.4U	0.4U	0.4U
Bromobenzene	(ug/l)	1U	1U	1U	1U	1U	1U
Bromochloromethane	(ug/l)	1U	1U	1U	1U	1U	1U
Bromodichloromethane	(ug/l)	1U	1U	1U	1U	1U	1U
Bromoform	(ug/l)	1U	1U	1U	1U	1U	1U
Bromomethane	(ug/l)	1U	1U	1U	1U	1U	1U
Carbon disulfide	(ug/l)	2U	2U	2U	2U	2U	2U
Carbon tetrachloride	(ug/l)	1U	1U	1U	1U	1U	1U
Chlorobenzene	(ug/l)	1U	1U	1U	1U	1U	1U
Chloroethane	(ug/l)	1U	1U	1U	1U	1U	1U
Chloroform	(ug/l)	1U	1U	1U	1U	1U	1U
Chloromethane	(ug/l)	1U	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	(ug/l)	1U	1U	1U	1U	1U	1U
cis-1,3-Dichloropropene	(ug/l)	1U	1U	1U	1U	1U	1U

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TABLE A-4c
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
VOLATILES (SW8260)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	B2 02/19/2004 Primary	G1A 02/20/2004 Primary	J2 02/20/2004 Primary	LW003D 02/23/2004 Primary	LW004D 02/23/2004 Primary	LW006D 02/20/2004 Primary
Dibromochloromethane	(ug/l)	1U	1U	1U	1U	1U	1U
Dibromochloropropane	(ug/l)	1U	1U	1U	1U	1U	1U
Dibromomethane	(ug/l)	1U	1U	1U	1U	1U	1U
Ethylbenzene	(ug/l)	1U	1U	1U	1U	1U	1U
Hexachlorobutadiene	(ug/l)	1U	1U	1U	1U	1U	1U
Isopropylbenzene	(ug/l)	1U	67.2	1U	1U	2.46	3.43
m,p-Xylene	(ug/l)	2U	2U	2U	2U	2U	2U
Methylene chloride	(ug/l)	23.3	20U	20U	20U	20U	20U
Naphthalene	(ug/l)	1U	1U	1U	1U	1U	1U
n-Butylbenzene	(ug/l)	1U	4.23	1U	1U	1U	1U
n-Propylbenzene	(ug/l)	1U	57.1	1U	1U	1	1U
o-Xylene	(ug/l)	1U	1U	1U	1U	1U	1U
sec-Butylbenzene	(ug/l)	1U	7.93	1U	1U	1U	1.27
Styrene	(ug/l)	1U	1U	1U	1U	1U	1U
tert-Butylbenzene	(ug/l)	1U	1U	1U	1U	1U	1U
Tetrachloroethene	(ug/l)	1U	1U	1U	1U	1U	1U
Toluene	(ug/l)	1U	1U	1U	1U	1U	1U
trans-1,2-Dichloroethene	(ug/l)	1U	1U	1U	1U	1U	1U
trans-1,3-Dichloropropene	(ug/l)	1U	1U	1U	1U	1U	1U
Trichloroethene	(ug/l)	1U	1U	1U	1U	1U	1U
Trichlorofluoromethane	(ug/l)	1U	1U	1U	1U	1U	1U

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TABLE A-4c
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
VOLATILES (SW8260)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	B2 02/19/2004 Primary	G1A 02/20/2004 Primary	J2 02/20/2004 Primary	LW003D 02/23/2004 Primary	LW004D 02/23/2004 Primary	LW006D 02/20/2004 Primary
Vinyl Chloride	(ug/l)	1U	1U	1U	1U	1U	1U
Dichlorodifluoromethane	(ug/l)	1U	1U	1U	1U	1U	1U
Methyl tert-butyl ether	(ug/l)	1U	1U	1U	1U	1U	1U

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TABLE A-4c
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
VOLATILES (SW8260)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW009D 02/20/2004 Primary	LW010D 02/23/2004 Primary	LW011D 02/23/2004 Primary	LW020D 02/24/2004 Primary	LW022D 02/24/2004 Primary	LW023D 02/24/2004 Primary
1,1,1,2-Tetrachloroethane	(ug/l)	1U	1U	1U	1U	1U	1U
1,1,1-Trichloroethane	(ug/l)	1U	1U	1U	1U	1U	1U
1,1,2,2-Tetrachloroethane	(ug/l)	1U	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	(ug/l)	1U	1U	1U	1U	1U	1U
1,1-Dichloroethane	(ug/l)	1U	1U	1U	1U	1U	1U
1,1-Dichloroethene	(ug/l)	1U	1U	1U	1U	1U	1U
1,1-Dichloropropene	(ug/l)	1U	1U	1U	1U	1U	1U
1,2,3-Trichlorobenzene	(ug/l)	1U	1U	1U	1U	1U	1U
1,2,3-Trichloropropane	(ug/l)	1U	1U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	(ug/l)	1U	1U	1U	1U	1U	1U
1,2,4-Trimethylbenzene	(ug/l)	1U	1U	1U	1U	1U	1U
1,2-Dibromoethane	(ug/l)	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene	(ug/l)	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	(ug/l)	1U	1U	1U	1U	1U	1U
1,2-Dichloropropane	(ug/l)	1U	1U	1U	1U	1U	1U
1,3,5-Trimethylbenzene	(ug/l)	1U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	(ug/l)	1U	1U	1U	1U	1U	1U
1,3-Dichloropropane	(ug/l)	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	(ug/l)	1U	1U	1U	1U	1U	1U
2,2-Dichloropropane	(ug/l)	1U	1U	1U	1U	1U	1U
2-Butanone	(ug/l)	10U	10U	10U	10U	10U	10U

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TABLE A-4c
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
VOLATILES (SW8260)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW009D 02/20/2004 Primary	LW010D 02/23/2004 Primary	LW011D 02/23/2004 Primary	LW020D 02/24/2004 Primary	LW022D 02/24/2004 Primary	LW023D 02/24/2004 Primary
2-Chlorotoluene	(ug/l)	1U	1U	1U	1U	1U	1U
2-Hexanone	(ug/l)	10U	10U	10U	10U	10U	10U
4-Chlorotoluene	(ug/l)	1U	1U	1U	1U	1U	1U
4-Isopropyltoluene	(ug/l)	1U	1U	1U	1U	1U	1U
4-Methyl-2-Pentanone (MIBK)	(ug/l)	20U	20U	20U	20U	20U	20U
Acetone	(ug/l)	50U	50U	50U	50U	50U	50U
Acrylonitrile	(ug/l)	5U	5U	5U	5U	5U	5U
Benzene	(ug/l)	0.4U	0.4U	0.4U	0.4U	0.4U	22.9
Bromobenzene	(ug/l)	1U	1U	1U	1U	1U	1U
Bromochloromethane	(ug/l)	1U	1U	1U	1U	1U	1U
Bromodichloromethane	(ug/l)	1U	1U	1U	1U	1U	1U
Bromoform	(ug/l)	1U	1U	1U	1U	1U	1U
Bromomethane	(ug/l)	1U	1U	1U	1U	1U	1U
Carbon disulfide	(ug/l)	2U	2U	2U	2U	2U	2U
Carbon tetrachloride	(ug/l)	1U	1U	1U	1U	1U	1U
Chlorobenzene	(ug/l)	1U	1U	1U	1U	1U	1U
Chloroethane	(ug/l)	1U	1U	1U	1U	1U	1U
Chloroform	(ug/l)	1U	1U	1U	1U	1U	1U
Chloromethane	(ug/l)	1U	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	(ug/l)	1U	1U	1U	1U	1U	1U
cis-1,3-Dichloropropene	(ug/l)	1U	1U	1U	1U	1U	1U

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TABLE A-4c
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
VOLATILES (SW8260)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW009D 02/20/2004 Primary	LW010D 02/23/2004 Primary	LW011D 02/23/2004 Primary	LW020D 02/24/2004 Primary	LW022D 02/24/2004 Primary	LW023D 02/24/2004 Primary
Dibromochloromethane	(ug/l)	1U	1U	1U	1U	1U	1U
Dibromochloropropane	(ug/l)	1U	1U	1U	1U	1U	1U
Dibromomethane	(ug/l)	1U	1U	1U	1U	1U	1U
Ethylbenzene	(ug/l)	1U	1U	1U	1U	1U	1U
Hexachlorobutadiene	(ug/l)	1U	1U	1U	1U	1U	1U
Isopropylbenzene	(ug/l)	4.36	1U	1U	1U	1U	8.51
m,p-Xylene	(ug/l)	2U	2U	2U	2U	2U	2U
Methylene chloride	(ug/l)	20U	20U	20U	20U	20U	20U
Naphthalene	(ug/l)	1U	1U	1U	1U	1U	1U
n-Butylbenzene	(ug/l)	1U	1U	1U	1U	1U	1U
n-Propylbenzene	(ug/l)	1.16	1U	1U	1U	1U	6.71
o-Xylene	(ug/l)	1U	1U	1U	1U	1U	1U
sec-Butylbenzene	(ug/l)	1U	1U	1U	1U	1U	1.12
Styrene	(ug/l)	1U	1U	1U	1U	1U	1U
tert-Butylbenzene	(ug/l)	1U	1U	1U	1U	1U	1U
Tetrachloroethene	(ug/l)	1U	1U	1U	1U	1U	1U
Toluene	(ug/l)	1U	1U	1U	1U	1U	1U
trans-1,2-Dichloroethene	(ug/l)	1U	1U	1U	1U	1U	1U
trans-1,3-Dichloropropene	(ug/l)	1U	1U	1U	1U	1U	1U
Trichloroethene	(ug/l)	1U	1U	1U	1U	1U	1U
Trichlorofluoromethane	(ug/l)	1U	1U	1U	1U	1U	1U

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TABLE A-4c
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
VOLATILES (SW8260)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW009D 02/20/2004 Primary	LW010D 02/23/2004 Primary	LW011D 02/23/2004 Primary	LW020D 02/24/2004 Primary	LW022D 02/24/2004 Primary	LW023D 02/24/2004 Primary
Vinyl Chloride	(ug/l)	1U	1U	1U	1U	1U	1U
Dichlorodifluoromethane	(ug/l)	1U	1U	1U	1U	1U	1U
Methyl tert-butyl ether	(ug/l)	1U	1U	1U	1U	1U	17.4

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TABLE A-4c
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
VOLATILES (SW8260)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW024D 02/24/2004 Primary	LW025D 02/24/2004 Primary	LW026D 02/24/2004 Primary	LW027D 02/24/2004 Primary	LW029D 02/17/2004 Primary	LW030D 02/18/2004 Primary
1,1,1,2-Tetrachloroethane	(ug/l)	1U	1U	1U	1U	1U	1UJ
1,1,1-Trichloroethane	(ug/l)	1U	1U	1U	1U	1U	1UJ
1,1,2,2-Tetrachloroethane	(ug/l)	1U	1U	1U	1U	1U	1UJ
1,1,2-Trichloroethane	(ug/l)	1U	1U	1U	1U	1U	1UJ
1,1-Dichloroethane	(ug/l)	1U	1U	1U	1U	1U	1UJ
1,1-Dichloroethene	(ug/l)	1U	1U	1U	1U	1U	1UJ
1,1-Dichloropropene	(ug/l)	1U	1U	1U	1U	1U	1UJ
1,2,3-Trichlorobenzene	(ug/l)	1U	1U	1U	1U	1U	1UJ
1,2,3-Trichloropropane	(ug/l)	1U	1U	1U	1U	1U	1UJ
1,2,4-Trichlorobenzene	(ug/l)	1U	1U	1U	1U	1U	1UJ
1,2,4-Trimethylbenzene	(ug/l)	1U	1U	1U	1U	1U	1UJ
1,2-Dibromoethane	(ug/l)	1U	1U	1U	1U	1U	1UJ
1,2-Dichlorobenzene	(ug/l)	1U	1U	1U	1U	1U	1UJ
1,2-Dichloroethane	(ug/l)	1U	1U	1U	1U	1U	1UJ
1,2-Dichloropropane	(ug/l)	1U	1U	1U	1U	1U	1UJ
1,3,5-Trimethylbenzene	(ug/l)	1U	1U	1U	1U	1U	1UJ
1,3-Dichlorobenzene	(ug/l)	1U	1U	1U	1U	1U	1UJ
1,3-Dichloropropane	(ug/l)	1U	1U	1U	1U	1U	1UJ
1,4-Dichlorobenzene	(ug/l)	1U	1U	1U	1U	1U	1UJ
2,2-Dichloropropane	(ug/l)	1U	1U	1U	1U	1U	1UJ
2-Butanone	(ug/l)	10U	10U	10U	10U	10U	10UJ

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TABLE A-4c
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
VOLATILES (SW8260)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW024D 02/24/2004 Primary	LW025D 02/24/2004 Primary	LW026D 02/24/2004 Primary	LW027D 02/24/2004 Primary	LW029D 02/17/2004 Primary	LW030D 02/18/2004 Primary
2-Chlorotoluene	(ug/l)	1U	1U	1U	1U	1U	1UJ
2-Hexanone	(ug/l)	10U	10U	10U	10U	10U	10UJ
4-Chlorotoluene	(ug/l)	1U	1U	1U	1U	1U	1UJ
4-Isopropyltoluene	(ug/l)	1U	1U	1U	1U	1U	1UJ
4-Methyl-2-Pentanone (MIBK)	(ug/l)	20U	20U	20U	20U	20U	20UJ
Acetone	(ug/l)	50U	50U	50U	50U	50U	50UJ
Acrylonitrile	(ug/l)	5U	5U	5U	5U	5U	5UJ
Benzene	(ug/l)	0.4U	0.4U	0.4U	0.4U	0.4U	0.4UJ
Bromobenzene	(ug/l)	1U	1U	1U	1U	1U	1UJ
Bromochloromethane	(ug/l)	1U	1U	1U	1U	1U	1UJ
Bromodichloromethane	(ug/l)	1U	1U	1U	1U	1U	1UJ
Bromoform	(ug/l)	1U	1U	1U	1U	1U	1UJ
Bromomethane	(ug/l)	1U	1U	1U	1U	1U	1UJ
Carbon disulfide	(ug/l)	2U	2U	2U	2U	2U	2.11J
Carbon tetrachloride	(ug/l)	1U	1U	1U	1U	1U	1UJ
Chlorobenzene	(ug/l)	1U	1U	1U	1U	1U	1UJ
Chloroethane	(ug/l)	1U	1U	1U	1U	1U	1UJ
Chloroform	(ug/l)	1U	1U	1U	3.07	1U	1.09J
Chloromethane	(ug/l)	1U	1U	1U	1U	1U	1UJ
cis-1,2-Dichloroethene	(ug/l)	1U	1U	1U	1U	1U	1UJ
cis-1,3-Dichloropropene	(ug/l)	1U	1U	1U	1U	1U	1UJ

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TABLE A-4c
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
VOLATILES (SW8260)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW024D 02/24/2004 Primary	LW025D 02/24/2004 Primary	LW026D 02/24/2004 Primary	LW027D 02/24/2004 Primary	LW029D 02/17/2004 Primary	LW030D 02/18/2004 Primary
Dibromochloromethane	(ug/l)	1U	1U	1U	1U	1U	1UJ
Dibromochloropropane	(ug/l)	1U	1U	1U	1U	1U	1UJ
Dibromomethane	(ug/l)	1U	1U	1U	1U	1U	1UJ
Ethylbenzene	(ug/l)	1U	1U	1U	1U	1U	1UJ
Hexachlorobutadiene	(ug/l)	1U	1U	1U	1U	1U	1UJ
Isopropylbenzene	(ug/l)	7.97	5.01	1U	1U	1U	1UJ
m,p-Xylene	(ug/l)	2U	2U	2U	2U	2U	2UJ
Methylene chloride	(ug/l)	20U	20U	20U	20U	20U	20UJ
Naphthalene	(ug/l)	1U	1U	1U	1U	1U	1UJ
n-Butylbenzene	(ug/l)	2.85	1U	1U	1U	1U	1UJ
n-Propylbenzene	(ug/l)	12.8	1U	1U	1U	1U	1UJ
o-Xylene	(ug/l)	1U	1U	1U	1U	1U	1UJ
sec-Butylbenzene	(ug/l)	4.81	2.43	1U	1U	1U	1UJ
Styrene	(ug/l)	1U	1U	1U	1U	1U	1UJ
tert-Butylbenzene	(ug/l)	1U	1U	1U	1U	1U	1UJ
Tetrachloroethene	(ug/l)	1U	1U	1U	1U	1U	1UJ
Toluene	(ug/l)	1U	1U	1U	1U	1U	1UJ
trans-1,2-Dichloroethene	(ug/l)	1U	1U	1U	1U	1U	1UJ
trans-1,3-Dichloropropene	(ug/l)	1U	1U	1U	1U	1U	1UJ
Trichloroethene	(ug/l)	1U	1U	1U	1U	1U	1UJ
Trichlorofluoromethane	(ug/l)	1U	1U	1U	1U	1U	1UJ

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TABLE A-4c
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
VOLATILES (SW8260)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW024D 02/24/2004 Primary	LW025D 02/24/2004 Primary	LW026D 02/24/2004 Primary	LW027D 02/24/2004 Primary	LW029D 02/17/2004 Primary	LW030D 02/18/2004 Primary
Vinyl Chloride	(ug/l)	1U	1U	1U	1U	1U	1UJ
Dichlorodifluoromethane	(ug/l)	1U	1U	1U	1U	1U	1UJ
Methyl tert-butyl ether	(ug/l)	1U	1U	1U	1U	1U	1UJ

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TABLE A-4c
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
VOLATILES (SW8260)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW032D 02/17/2004 Primary	LW035D 02/24/2004 Primary	RW2 02/23/2004 Primary	RW2 02/23/2004 Duplicate 1
1,1,1,2-Tetrachloroethane	(ug/l)	1U	1U	1U	1U
1,1,1-Trichloroethane	(ug/l)	1U	1U	1U	1U
1,1,2,2-Tetrachloroethane	(ug/l)	1U	1U	1U	1U
1,1,2-Trichloroethane	(ug/l)	1U	1U	1U	1U
1,1-Dichloroethane	(ug/l)	1U	1U	1U	1U
1,1-Dichloroethene	(ug/l)	1U	1U	1U	1U
1,1-Dichloropropene	(ug/l)	1U	1U	1U	1U
1,2,3-Trichlorobenzene	(ug/l)	1U	1U	1U	1U
1,2,3-Trichloropropane	(ug/l)	1U	1U	1U	1U
1,2,4-Trichlorobenzene	(ug/l)	1U	1U	1U	1U
1,2,4-Trimethylbenzene	(ug/l)	1U	1U	61	67.9
1,2-Dibromoethane	(ug/l)	1U	1U	1U	1U
1,2-Dichlorobenzene	(ug/l)	1U	1U	1U	1U
1,2-Dichloroethane	(ug/l)	1U	1U	1U	1U
1,2-Dichloropropane	(ug/l)	1U	1U	1U	1U
1,3,5-Trimethylbenzene	(ug/l)	1U	1U	18.1	20.8
1,3-Dichlorobenzene	(ug/l)	1U	1U	1U	1U
1,3-Dichloropropane	(ug/l)	1U	1U	1U	1U
1,4-Dichlorobenzene	(ug/l)	1U	1U	1U	1U
2,2-Dichloropropane	(ug/l)	1U	1U	1U	1U
2-Butanone	(ug/l)	10U	10U	10U	10U

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TABLE A-4c
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
VOLATILES (SW8260)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW032D 02/17/2004 Primary	LW035D 02/24/2004 Primary	RW2 02/23/2004 Primary	RW2 02/23/2004 Duplicate 1
2-Chlorotoluene	(ug/l)	1U	1U	1U	1U
2-Hexanone	(ug/l)	10U	10U	10U	10U
4-Chlorotoluene	(ug/l)	1U	1U	1U	1U
4-Isopropyltoluene	(ug/l)	1U	1U	1.85	2.19
4-Methyl-2-Pentanone (MIBK)	(ug/l)	20U	20U	20U	20U
Acetone	(ug/l)	50U	50U	50U	50U
Acrylonitrile	(ug/l)	5U	5U	5U	5U
Benzene	(ug/l)	0.4U	0.4U	5.5	5.96
Bromobenzene	(ug/l)	1U	1U	1U	1U
Bromochloromethane	(ug/l)	1U	1U	1U	1U
Bromodichloromethane	(ug/l)	1U	1U	1U	1U
Bromoform	(ug/l)	1U	1U	1U	1U
Bromomethane	(ug/l)	1U	1U	1U	1U
Carbon disulfide	(ug/l)	2U	2U	2U	2U
Carbon tetrachloride	(ug/l)	1U	1U	1U	1U
Chlorobenzene	(ug/l)	1U	1U	1U	1U
Chloroethane	(ug/l)	1U	1U	1U	1U
Chloroform	(ug/l)	1U	1U	1U	1U
Chloromethane	(ug/l)	1U	1U	1U	1U
cis-1,2-Dichloroethene	(ug/l)	1U	1U	1U	1U
cis-1,3-Dichloropropene	(ug/l)	1U	1U	1U	1U

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TABLE A-4c
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
VOLATILES (SW8260)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW032D 02/17/2004 Primary	LW035D 02/24/2004 Primary	RW2 02/23/2004 Primary	RW2 02/23/2004 Duplicate 1
Dibromochloromethane	(ug/l)	1U	1U	1U	1U
Dibromochloropropane	(ug/l)	1U	1U	1U	1U
Dibromomethane	(ug/l)	1U	1U	1U	1U
Ethylbenzene	(ug/l)	1U	1U	10.5	11.9
Hexachlorobutadiene	(ug/l)	1U	1U	1U	1U
Isopropylbenzene	(ug/l)	1U	2.05	36.5	40.8
m,p-Xylene	(ug/l)	2U	2U	4.66	5.89
Methylene chloride	(ug/l)	20U	20U	20U	20U
Naphthalene	(ug/l)	1U	1U	3.26	4.49
n-Butylbenzene	(ug/l)	1U	1U	4.54	5.23
n-Propylbenzene	(ug/l)	1U	1U	55.3	61.9
o-Xylene	(ug/l)	1U	1U	1.67	2.22
sec-Butylbenzene	(ug/l)	1U	1U	7.63	8.99
Styrene	(ug/l)	1U	1U	1U	1U
tert-Butylbenzene	(ug/l)	1U	1U	1U	1U
Tetrachloroethene	(ug/l)	1U	1U	1U	1U
Toluene	(ug/l)	1U	1U	1U	1U
trans-1,2-Dichloroethene	(ug/l)	1U	1U	1U	1U
trans-1,3-Dichloropropene	(ug/l)	1U	1U	1U	1U
Trichloroethene	(ug/l)	1U	1U	1U	1U
Trichlorofluoromethane	(ug/l)	1U	1U	1U	1U

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TABLE A-4c
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
VOLATILES (SW8260)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW032D 02/17/2004 Primary	LW035D 02/24/2004 Primary	RW2 02/23/2004 Primary	RW2 02/23/2004 Duplicate 1
Vinyl Chloride	(ug/l)	1U	1U	1U	1U
Dichlorodifluoromethane	(ug/l)	1U	1U	1U	1U
Methyl tert-butyl ether	(ug/l)	1U	1U	1U	1U

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TABLE A-4d
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
TOTAL PETROLEUM HYDROCARBONS (NWTPH)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	G1A 02/20/2004 Primary	LW004D 02/23/2004 Primary	LW006D 02/20/2004 Primary	LW009D 02/20/2004 Primary	LW010D 02/23/2004 Primary	LW011D 02/23/2004 Primary
Diesel Range Hydrocarbons	(mg/l)	2.39	1	1.36	0.246U	0.247U	0.562
Gasoline Range Hydrocarbons	(ug/l)	NT	NT	NT	NT	NT	NT
TPH-Motor Oil Range	(mg/l)	0.491U	0.504U	0.491U	0.492U	0.494U	0.504U

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TABLE A-4d
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
TOTAL PETROLEUM HYDROCARBONS (NWTPH)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW020D 02/24/2004 Primary	LW022D 02/24/2004 Primary	LW023D 02/24/2004 Primary	LW024D 02/24/2004 Primary	LW025D 02/24/2004 Primary	LW026D 02/24/2004 Primary
Diesel Range Hydrocarbons	(mg/l)	0.369	0.429	1.53	5.43	6.67	1.74
Gasoline Range Hydrocarbons	(ug/l)	100U	100U	668	1460	877	268
TPH-Motor Oil Range	(mg/l)	0.492U	0.497U	0.648	1.15	1.32	0.541

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BZTO104(e)019499

TABLE A-4d
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
TOTAL PETROLEUM HYDROCARBONS (NWTPH)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW027D 02/24/2004 Primary	LW029D 02/17/2004 Primary	LW030D 02/18/2004 Primary	LW032D 02/17/2004 Primary	LW035D 02/24/2004 Primary	RW2 02/23/2004 Primary
Diesel Range Hydrocarbons	(mg/l)	0.598	0.242U	0.352	0.504	0.491	1.04
Gasoline Range Hydrocarbons	(ug/l)	100U	100U	100U	100U	100U	2610
TPH-Motor Oil Range	(mg/l)	0.497U	0.483U	0.493U	0.491U	0.486U	0.493U

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BZTO104(e)019500

TABLE A-4d
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
TOTAL PETROLEUM HYDROCARBONS (NWTPH)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	RW2 02/23/2004 Duplicate 1
Diesel Range Hydrocarbons	(mg/l)	1.08
Gasoline Range Hydrocarbons	(ug/l)	2440
TPH-Motor Oil Range	(mg/l)	0.492U

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BZTO104(e)019501

TABLE A-4e
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
PRIORITY POLLUTANT METALS (SW6010-6020)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	B2 02/19/2004 Primary	G1A 02/20/2004 Primary	J2 02/20/2004 Primary	LW003D 02/23/2004 Primary	LW004D 02/23/2004 Primary	LW006D 02/20/2004 Primary
Arsenic	(ug/l)	5.07	32.4	7.66	13.8	31	15.4
Chromium	(mg/l)	0.0087	0.0077	0.005U	0.006	0.01	0.0101
Copper	(mg/l)	0.01U	0.0346	0.01U	0.01U	0.01U	0.01U
Lead	(ug/l)	0.1U	0.43	0.156	0.558	0.97	0.873
Nickel	(mg/l)	0.005U	0.0997	0.005U	0.005U	0.005U	0.005U
Zinc	(mg/l)	0.01U	0.01U	0.01U	0.01U	0.01U	0.01U

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TABLE A-4e
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
PRIORITY POLLUTANT METALS (SW6010-6020)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW009D 02/20/2004 Primary	LW010D 02/23/2004 Primary	LW011D 02/23/2004 Primary	LW020D 02/24/2004 Primary	LW022D 02/24/2004 Primary	LW023D 02/24/2004 Primary
Arsenic	(ug/l)	30.1	23.1	6.58	28.7	38.6	42.1
Chromium	(mg/l)	0.0101	0.0114	0.0104	0.0206	0.0195	0.0226
Copper	(mg/l)	0.01U	0.01U	0.01U	0.01U	0.0114	0.0197
Lead	(ug/l)	0.666	0.968	1.88	1.96	9.73	8.54
Nickel	(mg/l)	0.005U	0.005U	0.005U	0.005U	0.005U	0.005U
Zinc	(mg/l)	0.01U	0.01U	0.01U	0.0113	0.0361	0.0333

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TABLE A-4e
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
PRIORITY POLLUTANT METALS (SW6010-6020)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW024D 02/24/2004 Primary	LW025D 02/24/2004 Primary	LW026D 02/24/2004 Primary	LW027D 02/24/2004 Primary	LW029D 02/17/2004 Primary	LW030D 02/18/2004 Primary
Arsenic	(ug/l)	66.4	26.1	9.8	5.98	6.1	8.6
Chromium	(mg/l)	0.0423	0.0517	0.0159	0.0181	0.0137	0.0196
Copper	(mg/l)	0.0474	0.0441	0.01U	0.01U	0.01U	0.016
Lead	(ug/l)	18.2	23.3	2.72	2.09	1.71	3.33
Nickel	(mg/l)	0.0096	0.0158	0.005U	0.005U	0.005U	0.005U
Zinc	(mg/l)	0.102	0.113	0.0116	0.0145	0.0336	0.0383

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TABLE A-4e
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
PRIORITY POLLUTANT METALS (SW6010-6020)
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW032D 02/17/2004 Primary	LW035D 02/24/2004 Primary	RW2 02/23/2004 Primary	RW2 02/23/2004 Duplicate 1
Arsenic	(ug/l)	9.39	1.68	22.3	21.4
Chromium	(mg/l)	0.0202	0.0165	0.0076	0.0077
Copper	(mg/l)	0.0109	0.01U	0.01U	0.01U
Lead	(ug/l)	2.81	4.22	5.06	0.1U
Nickel	(mg/l)	0.005U	0.005U	0.005U	0.005U
Zinc	(mg/l)	0.0251	0.0128	0.0724	0.01U

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TABLE A-4f
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
CONVENTIONAL AND FIELD PARAMETERS
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	B2 02/19/2004 Primary	G1A 02/20/2004 Primary	J2 02/20/2004 Primary	LW003D 02/23/2004 Primary	LW004D 02/23/2004 Primary	LW006D 02/20/2004 Primary
Dissolved Oxygen	(mg/l)	3.24	0.96	1.64	0.94	1.36	2.34
pH	(s.u.)	6.52	6.7	6.67	6.45	6.49	6.55
Redox	(mv)	NT	NT	NT	NT	NT	NT
Specific Conductivity	(us)	301	560	490	541	482	378
Temperature	(c)	14.8	15.4	13.9	14.2	14.4	15.5
Turbidity	(ntu)	148	0	0	0	58	0

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TABLE A-4f
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
CONVENTIONAL AND FIELD PARAMETERS
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW009D 02/20/2004 Primary	LW010D 02/23/2004 Primary	LW011D 02/23/2004 Primary	LW014D 02/23/2004 Primary	LW017D 02/20/2004 Primary	LW018D 02/20/2004 Primary
Dissolved Oxygen	(mg/l)	1.42	4.49	1.13	1.11	23.19	2.29
pH	(s.u.)	6.64	6.47	6.53	6.38	6.44	6.42
Redox	(mv)	NT	NT	NT	NT	NT	NT
Specific Conductivity	(us)	274	151	485	239	367	206
Temperature	(c)	16.3	15.7	14.1	13.7	15.7	15.7
Turbidity	(ntu)	0	119	141	255	0	0

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TABLE A-4f
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
CONVENTIONAL AND FIELD PARAMETERS
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW020D 02/24/2004 Primary	LW022D 02/24/2004 Primary	LW023D 02/24/2004 Primary	LW024D 02/24/2004 Primary	LW025D 02/24/2004 Primary	LW026D 02/24/2004 Primary
Dissolved Oxygen	(mg/l)	2.67	2.82	1.11	1.08	1.36	1.38
pH	(s.u.)	6.74	6.53	6.85	6.69	6.58	6.93
Redox	(mv)	NT	NT	NT	NT	NT	NT
Specific Conductivity	(us)	283	295	474	440	381	388
Temperature	(c)	14.1	14.5	13.9	14.8	14.8	13
Turbidity	(ntu)	0	780	999	999	999	60

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TABLE A-4f
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
CONVENTIONAL AND FIELD PARAMETERS
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LW027D 02/24/2004 Primary	LW029D 02/17/2004 Primary	LW030D 02/18/2004 Primary	LW032D 02/17/2004 Primary	LW035D 02/24/2004 Primary	OX008D 02/18/2004 Primary
Dissolved Oxygen	(mg/l)	1.34	2.18	2	2.29	4.29	20.49
pH	(s.u.)	6.73	7.14	6.86	6.82	6.44	7.02
Redox	(mv)	NT	NT	NT	NT	NT	-121
Specific Conductivity	(us)	345	529	450	474	272	418
Temperature	(c)	13.8	13	13.8	13.1	13.3	14.1
Turbidity	(ntu)	0	67	151	134	844	104

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TABLE A-4f
PHASE II AND III REMEDIAL INVESTIGATION
GROUNDWATER ANALYTICAL RESULTS - DEEP WELLS
CONVENTIONAL AND FIELD PARAMETERS
FIRST QUARTERLY SAMPLING EVENT, FEBRUARY 2004
TIME OIL NORTHWEST TERMINAL

PERIOD: From 02/17/2004 thru 02/24/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	RW2 02/23/2004 Primary	RW2 02/23/2004 Duplicate 1
Dissolved Oxygen	(mg/l)	1.48	1.32
pH	(s.u.)	6.36	6.34
Redox	(mv)	NT	NT
Specific Conductivity	(us)	348	345
Temperature	(c)	14.3	14.3
Turbidity	(ntu)	0	0

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TABLE A-5a
PHASE II AND III REMEDIAL INVESTIGATION
PRODUCT ANALYTICAL RESULTS - SHALLOW WELLS
NWTPHD-HCID
TIME OIL NORTHWEST TERMINAL

PERIOD: From 10/28/2003 thru 04/14/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE	LW021S 04/14/2004	LW027S 04/14/2004
Diesel	(mg/l)	252000	404000
Gasoline	(mg/l)	178000	162000
Kerosene	(mg/l)	500U	500U
Mineral spirits	(mg/l)	200U	200U
TPH-Motor Oil Range	(mg/l)	125000M	30500M

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TABLE A-5b
PHASE II AND III REMEDIAL INVESTIGATION
PRODUCT ANALYTICAL RESULTS - SHALLOW WELLS
VOLATILES (SW8260)
TIME OIL NORTHWEST TERMINAL

PERIOD: From 10/28/2003 thru 04/14/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE	LW021S 04/14/2004
1,1,1,2-Tetrachloroethane	(ug/l)	5000U
1,1,1-Trichloroethane	(ug/l)	5000U
1,1,2,2-Tetrachloroethane	(ug/l)	5000U
1,1,2-Trichloroethane	(ug/l)	5000U
1,1-Dichloroethane	(ug/l)	5000U
1,1-Dichloroethene	(ug/l)	5000U
1,1-Dichloropropene	(ug/l)	5000U
1,2,3-Trichlorobenzene	(ug/l)	5000U
1,2,3-Trichloropropane	(ug/l)	5000U
1,2,4-Trichlorobenzene	(ug/l)	5000U
1,2,4-Trimethylbenzene	(ug/l)	633000
1,2-Dibromoethane	(ug/l)	5000U
1,2-Dichlorobenzene	(ug/l)	5000U
1,2-Dichloroethane	(ug/l)	5000U
1,2-Dichloropropane	(ug/l)	5000U
1,3,5-Trimethylbenzene	(ug/l)	157000
1,3-Dichlorobenzene	(ug/l)	5000U
1,3-Dichloropropane	(ug/l)	5000U
1,4-Dichlorobenzene	(ug/l)	5000U
2,2-Dichloropropane	(ug/l)	5000U
2-Butanone	(ug/l)	20000U

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BZTO104(e)019512

TABLE A-5b
PHASE II AND III REMEDIAL INVESTIGATION
PRODUCT ANALYTICAL RESULTS - SHALLOW WELLS
VOLATILES (SW8260)
TIME OIL NORTHWEST TERMINAL

PERIOD: From 10/28/2003 thru 04/14/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE	LW021S 04/14/2004
2-Chlorotoluene	(ug/l)	5000U
2-Hexanone	(ug/l)	10000U
4-Chlorotoluene	(ug/l)	5000U
4-Isopropyltoluene	(ug/l)	112000
4-Methyl-2-Pentanone (MIBK)	(ug/l)	20000U
Acetone	(ug/l)	50000U
Benzene	(ug/l)	5000U
Bromobenzene	(ug/l)	5000U
Bromochloromethane	(ug/l)	5000U
Bromodichloromethane	(ug/l)	5000U
Bromoform	(ug/l)	5000U
Bromomethane	(ug/l)	5000U
Carbon disulfide	(ug/l)	5000U
Carbon tetrachloride	(ug/l)	5000U
Chlorobenzene	(ug/l)	5000U
Chloroethane	(ug/l)	5000U
Chloroform	(ug/l)	5000U
Chloromethane	(ug/l)	5000U
cis-1,2-Dichloroethene	(ug/l)	5000U
cis-1,3-Dichloropropene	(ug/l)	5000U
Dibromochloromethane	(ug/l)	5000U

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TABLE A-5b
PHASE II AND III REMEDIAL INVESTIGATION
PRODUCT ANALYTICAL RESULTS - SHALLOW WELLS
VOLATILES (SW8260)
TIME OIL NORTHWEST TERMINAL

PERIOD: From 10/28/2003 thru 04/14/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE	LW021S 04/14/2004
Dibromochloropropane	(ug/l)	5000U
Dibromomethane	(ug/l)	5000U
Dichlorodifluoromethane	(ug/l)	5000U
Ethylbenzene	(ug/l)	220000
Hexachlorobutadiene	(ug/l)	5000U
Isopropylbenzene	(ug/l)	62200
m,p-Xylene	(ug/l)	227000
Methyl tert-butyl ether	(ug/l)	5000U
Methylene chloride	(ug/l)	25000U
Naphthalene	(ug/l)	130000
n-Butylbenzene	(ug/l)	80600
n-Propylbenzene	(ug/l)	84200
o-Xylene	(ug/l)	100000U
sec-Butylbenzene	(ug/l)	43500
Styrene	(ug/l)	5000U
tert-Butylbenzene	(ug/l)	5000U
Tetrachloroethene	(ug/l)	5000U
Toluene	(ug/l)	8880
trans-1,2-Dichloroethene	(ug/l)	5000U
trans-1,3-Dichloropropene	(ug/l)	5000U
Trichloroethene	(ug/l)	5000U

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TABLE A-5b
PHASE II AND III REMEDIAL INVESTIGATION
PRODUCT ANALYTICAL RESULTS - SHALLOW WELLS
VOLATILES (SW8260)
TIME OIL NORTHWEST TERMINAL

PERIOD: From 10/28/2003 thru 04/14/2004 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE / DATE	LW021S 04/14/2004
Trichlorofluoromethane	(ug/l)	5000U
Vinyl Chloride	(ug/l)	5000U

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TABLE A-6
KEY TO FOOTNOTES AND ANALYTICAL DATA QUALIFIERS

Footnotes:

NA = Not analyzed.

NM = Not measured.

U = Indicates compound was analyzed for, but was not detected at the reported sample detection limit.

UJ = The analyte was not detected in the sample; the reported sample detection limit is an estimate.

M = Indicates an estimated value of analyte found and confirmed by analyst but with low spectral match.

J = Data validation flag indicating the analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

R = The sample results are rejected due to serious deficiencies in the ability to analyze the samples and meet quality control criteria. The presence or absence of the analyte cannot be verified.

[ ] = Detected constituent.

(a) The laboratory reported that hydrocarbon patterns that eluted in the gas range were detected; however the elution patterns do not match available standards.

(b) The laboratory reported that these samples have a pattern in the mineral spirits and diesel standard pattern range that does not resemble the standard patterns. This could possibly be a weathered mixture of mineral spirits and diesel.

(c) The laboratory reported that these samples have a pattern in the diesel and motor oil range that do not resemble the diesel or motor oil standard pattern. This could possibly be a weathered fuel.

(d) The laboratory reported that these samples show a pattern in the diesel range that does not resemble the diesel standard pattern. This could possibly be a weathered diesel.

(e) The laboratory reported that these samples show a pattern in the gas and diesel range that does not resemble either of the typical peak patterns for these standards.

(f) These results are questionable because of laboratory blank contamination within this data set and the lack of PCP detections in these wells historically. However, the results were not qualified because the method blank contamination could not be linked directly to the sample results.

APPENDIX B

Groundwater Interim Action Recovery Summary

TABLE B-1
GROUNDWATER INTERIM ACTION OPERATIONAL HISTORY
UPPER AND LOWER WATER-BEARING ZONES
TIME OIL NORTHWEST TERMINAL

	RW-2 Discharge				HRW-1 Discharge				SDM-1 Discharge				Treatment System Discharge			
Monitoring Period	Volume of Water Pumped (gal)	Sample Date	PCP Concentration (µg/L)	Estimated PCP Mass Removal (lb)	Volume of Water Pumped (gal)	Sample Date	PCP Concentration (µg/L)	Estimated PCP Mass Removal (lb)	Volume of Water Pumped (gal)	Sample Date	PCP Concentration (µg/L)	Estimated PCP Mass Removal (lb)	Volume of Water Treated (gal)	Sample Date	Discharge PCP Concentration (µg/L)	Comments
Fourth Quarter 2000																
October 2000	439,003			0.35									0			Mass removal calculated using 11/00 PCP concentration.
November 2000	305,601	11/9/2000	95	0.24									467,478	11/7/2000	ND (a)	
December 2000	348,720	12/20/2000	39	0.11									497,656	12/6/2000	5.89	
														12/20/2000	9.73	
Quarterly Totals	*1,093,324*			*0.70*									*965,134*			
First Quarter 2001																
January 2001	416,140	1/18/2001	38.8	0.13									239,207	1/18/2001	14.3	
February 2001	335,008	2/13/2001	30	0.08									184,192			
March 2001	332,963	3/7/2001	ND (b)	0.03									517,332	3/7/2001	ND (b)	
Quarterly Totals	*1,084,111*			*0.25*									*940,731*			
Second Quarter 2001																
April 2001	377,931			0.04									275,519			
May 2001	344,252	5/22/2001	12.3	0.04									195,522	5/22/2001	5.29	
June 2001	361,846	6/4/2001	0.68	0.04									563,853			
Quarterly Totals	*1,084,029*			*0.11*									*1,034,894*			
Third Quarter 2001																
July 2001	351,509			0.01									559,015			
August 2001	486,123	8/13/2001	5	0.02									66,876			
Quarterly Totals	*837,632*			*0.03*									*625,891*			
Fourth Quarter 2001																
October 2001	393,168	10/11/2001	ND (a)	0.01									484,158	10/11/2001	ND (a)	
November 2001	319,798			0.01									118,786	11/1 & 11/15/01	ND (a)	
December 2001	361,058	12/6/2001	ND (c)	0.01									717,769	12/6/2001	ND (c)	
Quarterly Totals	*680,856*			*0.02*									*836,555*			
First Quarter 2002																
January 2002	331,224			0.02	1,812			0.01					340,688			Recovered groundwater from HRW-1 from January 22-29. Re-initiated groundwater recovery from HRW-1 on February 28.
February 2002	282,480	2/27/2002	8.6	0.02	58			0.00					437,943			HRW-1 mass removal estimates for January and February are based on the March 12 sampling event.
March 2002	280,814			0.02	40,294	3/12/2002	786	0.26					234,816			RW-2 mass removal estimates for January and March are based on February 27 sampling event.
Quarterly Totals	*894,518*			*0.06*	*42,164*			*0.28*					*1,013,447*			
Second Quarter 2002																
April 2002	292,099			0.19	74,996	4/5/2002	94	0.06					391,263	4/5/02 4/22/02	34.4 9.33	RW-2 mass removal estimates for April and May are based on June 27 sampling event.
May 2002	310,584			0.20	23,427	5/29/2002	452	0.09					247,440			
June 2002	272,393	6/27/2002	76	0.17	25,484	6/25/2002	410	0.09					307,810			
Quarterly Totals	*875,076*			*0.56*	*123,907*			*0.23*					*946,513*			
Third Quarter 2002																
July 2002	272,771			0.08	51,111			0.18					188,300	7/24/2002	2.09	
August 2002	270,746	8/27/2002	36	0.08	7								301,613	8/20/2002	9.15	HRW-1 shut down on July 24 due to dry pumping conditions and potential biofouling of the well. HRW-1 mass removal rate estimate based on June 2002 data.
September 2002	143,662			0.04	0				110,000	9/23/2002	47.0		369,469	9/23/2002	11.8	RW-2 temporarily shut down on September 25. Water being intercepted from SDM-1 and pumped to treatment system beginning on September 18.
Quarterly Totals	*687,179*				*51,118*								*859,382*			RW-2 mass removal rates based on August 27 sampling event. Total Volume pumped from SDM-1 estimated based on throughout of WWTP and volume recovered from RW-2; Flowmeter to be installed for SDM-1 in October 2002.
Fourth Quarter 2002																
October 2002	177,937			0.06	0				Not metered				112,129	10/3/2002	8.84	
November 2002	275,033	11/13/2002	37	0.09	0				95,157				399,747			The storage tank gauge was moved to groundwater sump SDM-1 on November 1.
December 2002	418,846			0.13	0				124,894				507,766			
Quarterly Totals	*871,816*				*0*								*1,019,642*			RW-2 mass removal rates based on November 13 sampling event.

BZTO104(e)019518

TABLE B-1
GROUNDWATER INTERIM ACTION OPERATIONAL HISTORY
UPPER AND LOWER WATER-BEARING ZONES
TIME OIL NORTHWEST TERMINAL

	RW-2 Discharge				HRW-1 Discharge				SDM-1 Discharge				Treatment System Discharge			
Monitoring Period	Volume of Water Pumped (gal)	Sample Date	PCP Concentration (µg/L)	Estimated PCP Mass Removal (lb)	Volume of Water Pumped (gal)	Sample Date	PCP Concentration (µg/L)	Estimated PCP Mass Removal (lb)	Volume of Water Pumped (gal)	Sample Date	PCP Concentration (µg/L)	Estimated PCP Mass Removal (lb)	Volume of Water Treated (gal)	Sample Date	Discharge PCP Concentration (µg/L)	Comments
First Quarter 2003																
January 2003	417,646			0.12	0				168,683			0.38	574,451	1/15/2003	11.6	
February 2003	398,299	2/11/2003	33	0.11	0				192,395	2/13/2003	290	0.43	483,579			
March 2003	458,160			0.13	0				210,400			0.47	624,807			SDM-1 mass removal rates based on February 13 sampling event.
Quarterly Totals	*1,140,149*				*51,118*				*95,157*				*1,371,258*			RW-2 mass removal rates based on February 11 sampling event.
Second Quarter 2003																
April 2003	445,275			0.04	0				55,037			0.00	481,816	4/9/2003	22.2	
May 2003	455,994	5/7/2003	12	0.05	0	Not Analyzed			0	5/7/2003	0.93	0.00	469,079			
June 2003	385,658			0.04	4,175				89,243			0.00	446,127			RW-2 mass removal rates based on April 8, 2003 sampling event.
Quarterly Totals	*1,286,927*				*4,175*				*144,280*				*1,397,022*			
Third Quarter 2003																
July 2003	330,738	7/28/2003	<5.0	0.01	30,104	7/28/2003	370	0.09	128,562	7/28/2003	409	0.44	441,023	7/11/2003	87.4	Multiple treatment system discharge samples collected and analyzed due to upset concentration (87.4 ug/L) reported for July 11, 2003 sampling event. Additional discharge samples in response to request from City of Portland.
														7/30/2003	8.6	
August 2003	366,307	8/27/2003	10	0.03	7,388			0.02	119,831	8/27/2003	120	0.41	397,748	8/4/2003	<5.0	
														8/6/2003	<5.0	HRW-1 mass removal rates based on July 28 sampling event.
														8/11/2003	<4.76	
														8/13/2003	<4.83	SDM-1 mass removal rates based on July 28 sampling event.
														8/18/2003	<4.75	
														8/20/2003	<5.16	RW-2 mass removal rates based on August 27 sampling event.
														8/25/2003	23.8	
														8/27/2003	36.5	
September 2003	262,403			0.02	0			0.00	87,439			0.09	479,703	9/3/2003	19.3	
														9/5/2003	19.6	
														9/9/2003	7.09	
														9/23/2003	16.9	
														9/29/2003	5.96	
Quarterly Totals	*959,448*				*37,492*				*335,832*				*1,318,474*			
Fourth Quarter 2003																
October 2003	298,092	10/23/2003	8.1	0.02					74,025	10/20/2003	43	0.03	350,921	10/6/2003	<4.75	Multiple treatment system discharge samples collected and analyzed due to upset concentration (87.4 ug/L) reported for July 11, 2003 sampling event. Additional discharge samples in response to request from City of Portland.
														10/13/2003	<4.76	
														10/20/2003	<4.84	
														10/30/2003	<5.19	
November 2003	216,630			0.01					45,472			0.02	216,711	11/3/2003	<4.73	
														11/10/2003	<4.78	SDM-1 mass removal rates based on October 20 sampling event.
														11/17/2003	<4.84	
														11/21/2003	<4.79	RW-2 mass removal rates based on October 23 sampling event.
December 2003	367,462			0.02					95,504			0.03	488,055	12/1/2003	<4.79	
														12/15/2003	<4.92	
														12/29/2003	30.4	
Quarterly Totals	*882,184*								*335,832*				*3,692,635*			
First Quarter 2004																
January 2004	348,926	2/23/2004	8.69	0.03					141,282	2/23/2004	791	0.93	367,831	1/15/2004	32.1	
														1/23/2004	45.7	
														1/26/2004	31.9	
February 2004	267,665			0.02					197,525			1.31	321,085	2/19/2004	57.2	
March 2004	246,667			0.02					17,825			0.12	197,621	3/2/2004	112	
														3/4/2004	48.5	Multiple treatment system discharge samples collected due to upset.
														3/16/2004	113	
														3/19/2004	85.9	
														3/24/2004	8.23	
														3/26/2004	7.07	
Quarterly Totals	*863,258*								*356,632*				*886,537*			

ND = Not Detected.

(a) PCP not detected above the detection limit of 5 µg/L; concentration-dependent calculations based on half the detection limit
(b) PCP not detected above the detection limit of 25 µg/L; concentration-dependent calculations based on half the detection limit
(c) PCP not detected above the detection limit of 5.25 µg/L; concentration-dependent calculations based on half the detection limit

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APPENDIX C

Measurement and Evaluation Procedures

APPENDIX C
MEASUREMENT AND EVALUATION PROCEDURES

This appendix discusses the procedures for conducting groundwater level and product (where observed) measurements during the quarterly groundwater events and the method used to evaluate the groundwater elevations.

MEASUREMENT PROCEDURES

Groundwater level measurements and the check for the presence of product were conducted using an electronic oil-water interface probe. Measurements were taken from the top of the PVC well casing at a marked survey point or at the north side of the casing, and recorded to the nearest 0.01 ft. Measurements in the Willamette River were taken from a surveyed PK nail with washer located on the south side of the dock. Surveyed reference elevations for each water level measurement location, obtained by a licensed land surveyor (ZTec Engineers, Inc., Portland, Oregon), are shown in Table A-2 of this report.

Water level measurements for the quarterly event were obtained over about a 2.5-hour period beginning at about 2.5 hours after a predicted mean river stage, based on predictions for the St. Johns station on the Willamette River. The timing for water level measurements was scheduled to estimate a mean water level elevation or elevation minimally influenced by river stage, and to reduce the time-dependent variation between wells screened in the same water-bearing zone. The timing of the water level measurements was based on average time lag calculations presented in the additional groundwater investigation technical memorandum (Landau Associates 1998), aquifer test report (Landau Associates 1999), and previous quarterly measurements.

GROUNDWATER LEVEL EVALUATION METHODS

For evaluation purposes, the groundwater level measurements were converted from depth-to-water readings to groundwater elevations using the survey information for each location. At locations where product was observed, the groundwater elevations were adjusted to account for the presence of product using the method defined by Lenhard and Parker (1990). Groundwater elevations for the upper and lower zones were contoured using GIS/Key or manually in conjunction with the evaluations conducted to evaluate the capture zone of the groundwater interim action for the upper and lower zones.

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GROUNDWATER SAMPLING PROCEDURES

Groundwater samples were collected from the shallow wells using a peristaltic pump attached to dedicated polyethylene tubing immediately following purging. The deep wells were sampled with disposable bailers, with the following exceptions: the sample from RW-2 was collected from the in-line sampling port on the groundwater interim action system, and the sample from the groundwater intercept system at SDM-1 was collected from the discharge line at the output into Tank 16804. Wells were purged using a peristaltic pump or a centrifugal purge pump. Purging continued until at least 3 casing volumes of water had been removed and specific conductance and temperature had stabilized or until the well purged dry. Four replicate measurements of field parameters (pH, conductivity, dissolved oxygen, turbidity, and temperature) were collected at each well during sampling. To prevent degassing of volatile organic compounds during sampling, the pumping rate was maintained below about 100 milliliters per minute. All sampling was conducted in accordance with the Phase I/II RI/FS work plan (Landau Associates 1996) and appropriate provisions of the revised quality assurance project plan and project health and safety plan (Landau Associates 2001). A more detailed description of groundwater sampling procedures is provided in the Phase II RI report (Landau Associates 2000).

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Landau Associates. 2000. Report: *Phase II Remedial Investigation, Time Oil Co. Northwest Terminal.* Prepared for: Time Oil Co., Seattle, Washington. April 6.

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Landau Associates. 1998. Technical Memorandum: *Additional Groundwater Investigation, January-February 1998, Time Oil Northwest Terminal, Portland, Oregon.* Prepared for: Oregon Department of Environmental Quality, Portland, Oregon. July 28.

Landau Associates. 1996. *Work Plan, Phases I and II, Remedial Investigation/Feasibility Study, Time Oil Co. Northwest Terminal.* Prepared for: Time Oil Co., Seattle, Washington. May 10.

Lenhard and Parker. 1990. "Estimation of Free Hydrocarbon Volume from Fluid Levels in Monitoring Wells. *Groundwater.* 28(1):57-57.

APPENDIX D

Summary of Modifications to Quarterly Groundwater Analysis Program

APPENDIX D
SUMMARY OF MODIFICATIONS TO QUARTERLY GROUNDWATER ANALYSIS PROGRAM

A summary of modifications to the Phase II RI quarterly groundwater monitoring program for the Time Oil Northwest Terminal in Portland, Oregon is presented below by the date of first implementation. A reference list for the modifications is attached.

- ***Second Quarter 1998*** (Landau Associates 1998; DEQ 1998):
  - Annual sampling of east property wells LW-101S, LW-102S, LW-103S, and LW-104S
  - Elimination of 2-chloroethylvinylether from the volatile analyte list
  - Reduction of the suite of metals analyses to include only arsenic, chromium, copper, lead, nickel, and zinc
  - Quarterly analysis of only metals in well K and only chlorinated phenols and metals in well H
  - Elimination of PCB analysis
  - Annual analysis for major ions; quarterly analysis for chloride and dissolved oxygen.

- ***First Quarter 1999*** (Landau Associates 1999; Urbanowicz, K., 12 February 1999, personal communication):
  - Analysis of polycyclic aromatic hydrocarbons (PAHs) using analytical techniques that provide lower detection limits at upper zone wells LW-2S, LW-7S and LW-101S and at lower zone wells G1A, O, and LW-4D for the first quarter 1999 event only
  - Elimination of sampling at well J3.

- ***Second Quarter 2000*** (Landau Associates 2000a; DEQ 2000):
  - Elimination of dioxin/furan analyses.

- ***Third Quarter 2000*** (Landau Associates 2000b; Roick 2000):
  - Reduction of sampling frequency of wells H, L, and LW-5S from quarterly to annually.

- ***Second Quarter 2001*** (Landau Associates 2001a, 2001b; Roick 2001):
  - Reduction of the list of chlorinated phenols being analyzed by EPA Method 8040 to pentachlorophenol (PCP) only using EPA Method 8270 SIM
  - Reduction of the frequency of total petroleum hydrocarbon (TPH) analysis from quarterly to annually at upper zone wells J1 and LW-1S; lower zone wells B2, J2, LW-1D; and deep sand unit well LW-12D2. In addition, TPH analysis was eliminated for the following wells: upper zone wells D, L, LW-5S, LW-101S through -104S, and lower zone well LW-3D.

- ***First Quarter 2004*** (Landau Associates 2004; Roick 2004):
  - Elimination of eight wells from the Phase II sampling program for future events. These wells included five upper zone wells (H, K, L, LW-1S, and LW-5S), and three lower zone wells (O, R, LW-1D).

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- Reduction of the monitoring frequency for selected Phase II wells from quarterly to semiannually. These wells include: B1, B2, D, J1, J2, LW-3D, LW-4S, LW-4D, LW-11S, LW-11D, LW-13S, LW-14D, LW-17D, LW-18D, OX-1S through OX-8S, OX-8D, and RW-1. Semiannual sampling of these wells will be conducted in conjunction with the first and third quarter sampling of the Phase III wells.

BZTO104(e)019525

REFERENCES
(Modifications to Quarterly Groundwater Analysis Program)

DEQ. 2000. Letter: *Dioxin/Furans Groundwater Analysis, Time Oil Northwest Terminal.* From Thomas E. Roick, Oregon Department of Environmental Quality, to Kevin Murphy, Time Oil Co. May 18.

DEQ. 1998. Letter: *Groundwater Quality Sampling, Time Oil Co. Northwest Terminal.* From Karla Urbanowicz, Oregon Department of Environmental Quality, to Kevin Murphy, Time Oil Co. May 15.

Landau Associates. 2004. *Letter: Recommendation for Reduction of Sampling Frequency, Phase II Monitoring Wells, Time Oil Northwest Terminal.* To Tom Roick, Oregon Department of Environmental Quality. February 2.

Landau Associates. 2001a. Letter: *Recommendation for Reduction of Analyses, Time Oil Northwest Terminal, Portland, Oregon.* To Tom Roick, Oregon Department of Environmental Quality. January 30.

Landau Associates. 2001b. Letter: *Recommendation for Reduction of TPH Analyses, Time Oil Northwest Terminal, Portland, Oregon.* To Tom Roick, Oregon Department of Environmental Quality. May 17.

Landau Associates. 2000a. Letter: *Discontinuing Dioxin/Furan Analyses, Time Oil Northwest Terminal, Portland, Oregon.* To Tom Roick, Oregon Department of Environmental Quality. May 16.

Landau Associates. 2000b. Letter: *Recommended Reduction of Wells for Quarterly Monitoring, Time Oil Northwest Terminal, Portland, Oregon.* To Tom Roick, Oregon Department of Environmental Quality. August 9.

Landau Associates. 1999. Letter: *Time Oil Northwest Terminal, Portland, Oregon.* To Karla Urbanowicz, Oregon Department of Environmental Quality. January 21.

Landau Associates. 1998. Letter: *Time Oil Northwest Terminal, Portland, Oregon.* To Karla Urbanowicz, Oregon Department of Environmental Quality. May 4.

Roick, T.E. 2004. E-mail message from Thomas E. Roick, Oregon Department of Environmental Quality, to Rebekah Brooks, Landau Associates. Re: *Recommendation for Reduction of Sampling Frequency, Phase II Monitoring Wells, Time Oil Northwest Terminal.* February 3.

Roick, T.E. 2001. E-mail message from Thomas E. Roick, Oregon Department of Environmental Quality, to Rebekah Brooks, Landau Associates. Re: *Reduction of Total Petroleum Hydrocarbon Analysis, Time Oil Co. Northwest Terminal.* May 30.

Roick, T.E. 2000. E-mail message from Thomas E. Roick, Oregon Department of Environmental Quality, to Rebekah Brooks, Landau Associates. Re: *Time Oil Groundwater Monitoring.* August 15.

Urbanowicz, K. 12 February 1999. Personal communication (telephone conversation with Rebekah Brooks, Landau Associates, Edmonds, Washington). Re: *Approval of Additional Modification to Groundwater Sampling and Analysis Program, Time Oil Northwest Terminal, Portland, Oregon.* Karla Urbanowicz, Oregon Department of Environmental Quality, Portland, Oregon.

BZTO104(e)019526

APPENDIX E

Data Validation Report

APPENDIX F

Laboratory Data

Volume I
Phase III Remedial Investigation Report
Time Oil Northwest Terminal
Portland, Oregon

April 30, 2004

Prepared for

Time Oil Co.
2737 West Commodore Way
Seattle, WA 98100-1233

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BZTO104(e)019529

APPENDIX A

Phase III RI Well Completion Logs

Soil Classification System

MAJOR DIVISIONS			GRAPHIC SYMBOL	USCS LETTER SYMBOL[1]	TYPICAL DESCRIPTIONS[2][3]
COARSE-GRAINED SOIL (More than 50% of material is larger than No. 200 sieve size)	GRAVEL AND GRAVELLY SOIL (More than 50% of coarse fraction retained on No. 4 sieve)	CLEAN GRAVEL (Little or no fines)		GW	Well-graded gravel; gravel/sand mixture(s); little or no fines
				GP	Poorly graded gravel; gravel/sand mixture(s); little or no fines
		GRAVEL WITH FINES (Appreciable amount of fines)		GM	Silty gravel; gravel/sand/silt mixture(s)
				GC	Clayey gravel; gravel/sand/clay mixture(s)
	SAND AND SANDY SOIL (More than 50% of coarse fraction passed through No. 4 sieve)	CLEAN SAND (Little or no fines)		SW	Well-graded sand; gravelly sand; little or no fines
				SP	Poorly graded sand; gravelly sand; little or no fines
		SAND WITH FINES (Appreciable amount of fines)		SM	Silty sand; sand/silt mixture(s)
				SC	Clayey sand; sand/clay mixture(s)
FINE-GRAINED SOIL (More than 50% of material is smaller than No. 200 sieve size)	SILT AND CLAY (Liquid limit less than 50)			ML	Inorganic silt and very fine sand; rock flour; silty or clayey fine sand or clayey silt with slight plasticity
				CL	Inorganic clay of low to medium plasticity; gravelly clay; sandy clay; silty clay; lean clay
				OL	Organic silt; organic, silty clay of low plasticity
	SILT AND CLAY (Liquid limit greater than 50)			MH	Inorganic silt; micaceous or diatomaceous fine sand
				CH	Inorganic clay of high plasticity; fat clay
				OH	Organic clay of medium to high plasticity; organic silt
	HIGHLY ORGANIC SOIL			PT	Peat; humus; swamp soil with high organic content

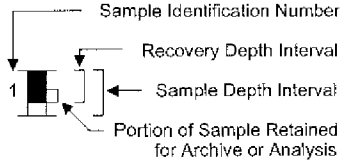
OTHER MATERIALS	GRAPHIC SYMBOL	LETTER SYMBOL	TYPICAL DESCRIPTIONS
PAVEMENT		AC or PC	Asphalt concrete pavement or Portland cement pavement
ROCK		RK	Rock (See Rock Classification)
WOOD		WD	Wood, lumber, wood chips
DEBRIS		DB	Construction debris, garbage

Notes:
1. USCS letter symbols correspond to the symbols used by the Unified Soil Classification System and ASTM classification methods. Dual letter symbols (e.g., SP-SM) for a sand or gravel indicate a soil with an estimated 5-15% fines. Multiple letter symbols (e.g., ML/CL) indicate borderline or multiple soil classifications.
2. Soil descriptions are based on the general approach presented in the *Standard Practice for Description and Identification of Soils (Visual-Manual Procedure)* as outlined in ASTM D 2488. Where laboratory index testing has been conducted, soil classifications are based on the *Standard Test Method for Classification of Soils for Engineering Purposes*, as outlined in ASTM D 2487.
3. Soil description terminology is based on visual estimates (in the absence of laboratory test data) of the percentages of each soil type and is defined as follows:

Primary Constituent:	> 50%	- "GRAVEL," "SAND," "SILT," "CLAY," etc.
Secondary Constituents:	> 30% and ≤50%	- "very gravelly," "very sandy," "very silty," etc.
	> 15% and ≤30%	- "gravelly," "sandy," "silty," etc.
Additional Constituents:	> 5% and ≤15%	- "with gravel," "with sand," "with silt," etc.
	≤ 5%	- "trace gravel," "trace sand," "trace silt," etc., or not noted.

Drilling and Sampling Key

SAMPLE NUMBER & INTERVAL



SAMPLER TYPE

Code	Description
a	3.25-inch O.D., 2.42-inch I.D. Split Spoon
b	2.00-inch O.D., 1.50-inch I.D. Split Spoon
c	Shelby Tube
d	Grab Sample
e	Other - See text if applicable
1	300-lb Hammer, 30-inch Drop
2	140-lb Hammer, 30-inch Drop
3	Pushed
4	Other - See text if applicable

Groundwater

▽ ATD — Approximate water elevation at time of drilling (ATD) or on date noted. Groundwater levels can fluctuate due to precipitation, seasonal conditions, and other factors.

Field and Lab Test Data

Code	Description
PP = 1.0	Pocket Penetrometer, tsf
TV = 0.5	Torvane, tsf
PID = 100	Photoionization Detector VOC screening, ppm
W = 10	Moisture Content, %
D = 120	Dry Density, pcf
-200 = 60	Material smaller than No. 200 sieve, %
GS	Grain Size - See separate figure for data
AL	Atterberg Limits - See separate figure for data
GT	Other Geotechnical Testing
CA	Chemical Analysis

3/30/04 \\PRT01\DATA\MODELING\GINT\PROJECTS\031009.GPJ SOIL CLASS SHEET

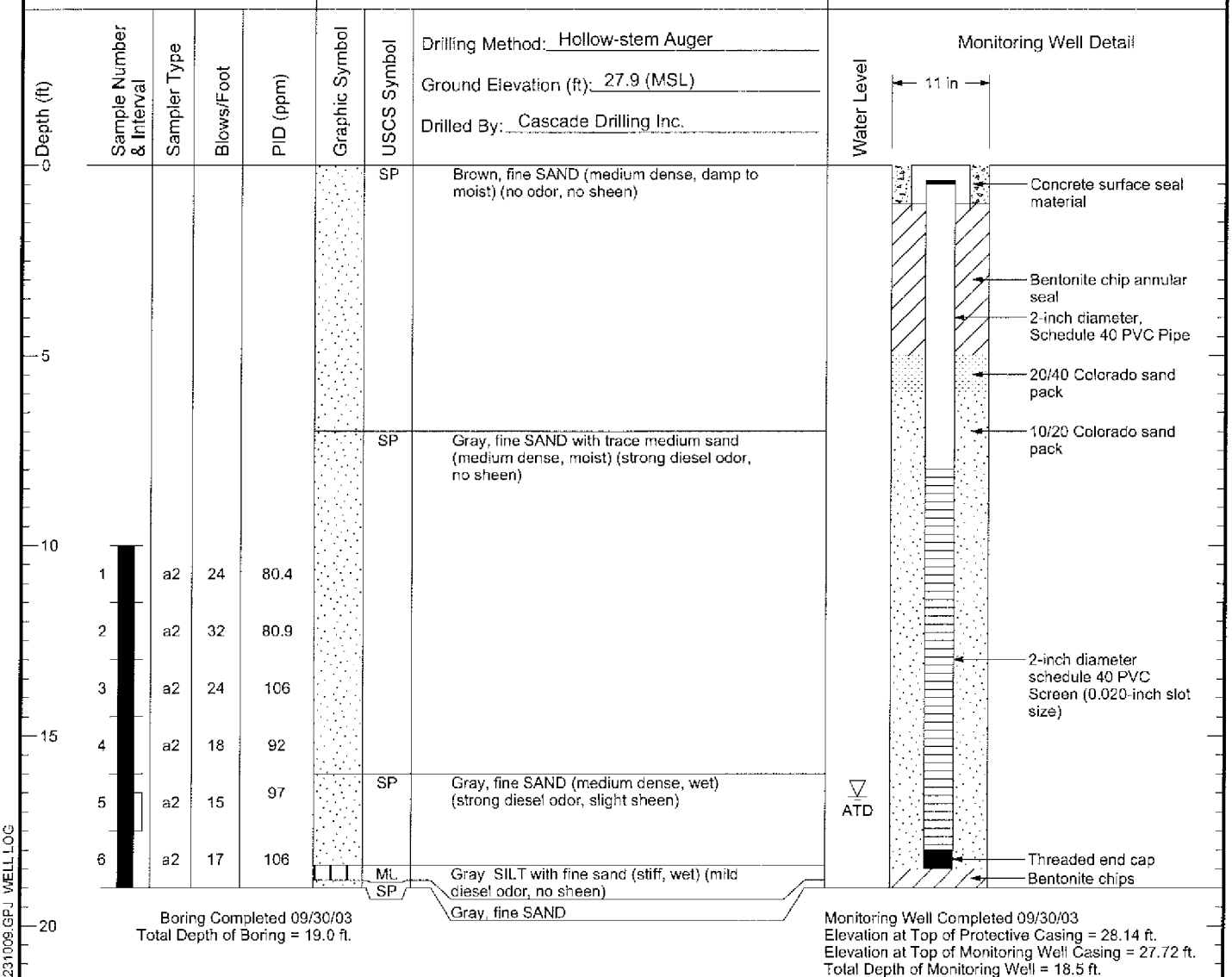
LANDAU ASSOCIATES

Time Oil NW Terminal
Portland, Oregon

Soil Classification System and Key

Figure A-1

LW19S



Boring Completed 09/30/03
Total Depth of Boring = 19.0 ft.

Monitoring Well Completed 09/30/03
Elevation at Top of Protective Casing = 28.14 ft.
Elevation at Top of Monitoring Well Casing = 27.72 ft.
Total Depth of Monitoring Well = 18.5 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

231009.31 3/30/04 \\PRT01\DATA\MODELING\GINTPROJECTS\231009.GPJ WELL LOG

LANDAU ASSOCIATES

Time Oil NW Terminal Portland, Oregon	Log of Monitoring Well LW19S	Figure A-2

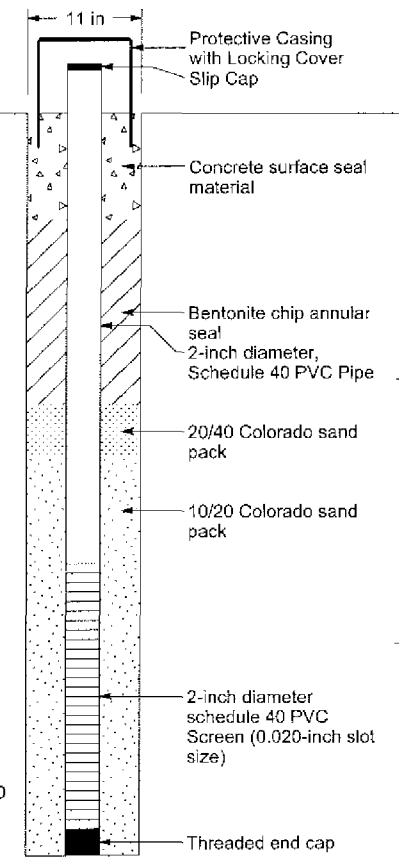
LW20S

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Soil Profile
							Drilling Method: Hollow-stem Auger
							Ground Elevation (ft): 27.4 (MSL)
							Drilled By: Cascade Drilling Inc.
0						SP	Brown, fine SAND (medium dense, damp to moist) (no odor, no sheen)
5						SP	Gray, fine SAND (medium dense, wet) (strong diesel odor, no sheen)
10	1	a2	34	183			
	2	a2	7	0		ML	Gray SILT with trace fine sand (medium stiff, wet) (mild diesel odor, no sheen)
15							
20							
25							

Boring Completed 09/30/03
Total Depth of Boring = 14.5 ft.

GROUNDWATER

Water Level: ATD



Monitoring Well Completed 09/30/03
Elevation at Top of Protective Casing = 29.96 ft.
Elevation at Top of Monitoring Well Casing = 29.51 ft.
Total Depth of Monitoring Well = 14.0 ft.

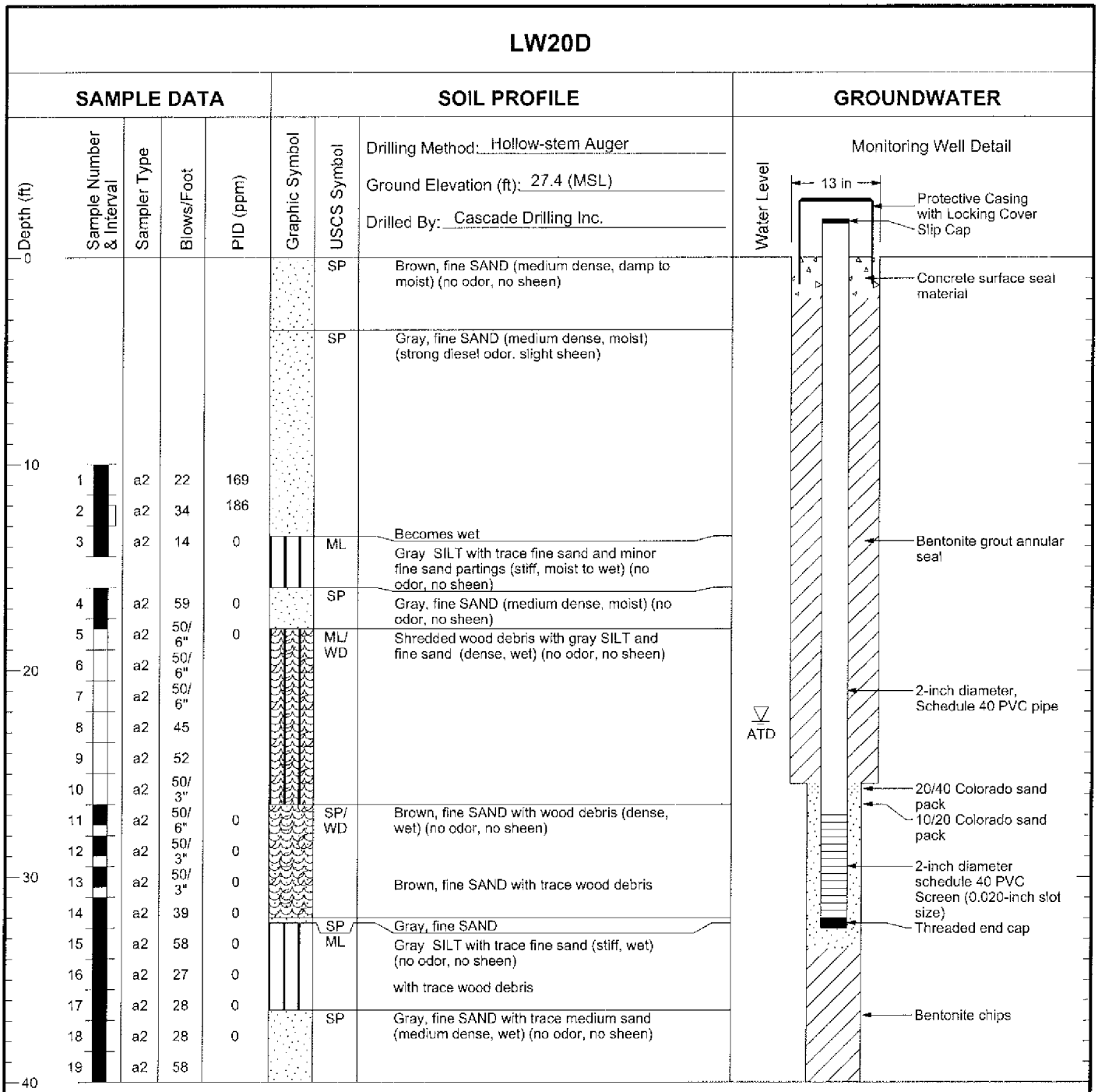
Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

231009.31 3/30/04 \\PRT01\DATA\MODELING\GINT\PROJECTS\231009.GPJ WELL LOG

LANDAU ASSOCIATES

Time Oil NW Terminal Portland, Oregon	Log of Monitoring Well LW20S	Figure A-3

LW20D



Boring Completed 09/30/03
Total Depth of Boring = 40.0 ft.

Monitoring Well Completed 09/30/03
Elevation at Top of Protective Casing = 29.71 ft.
Elevation at Top of Monitoring Well Casing = 29.51 ft.
Total Depth of Monitoring Well = 32.5 ft.

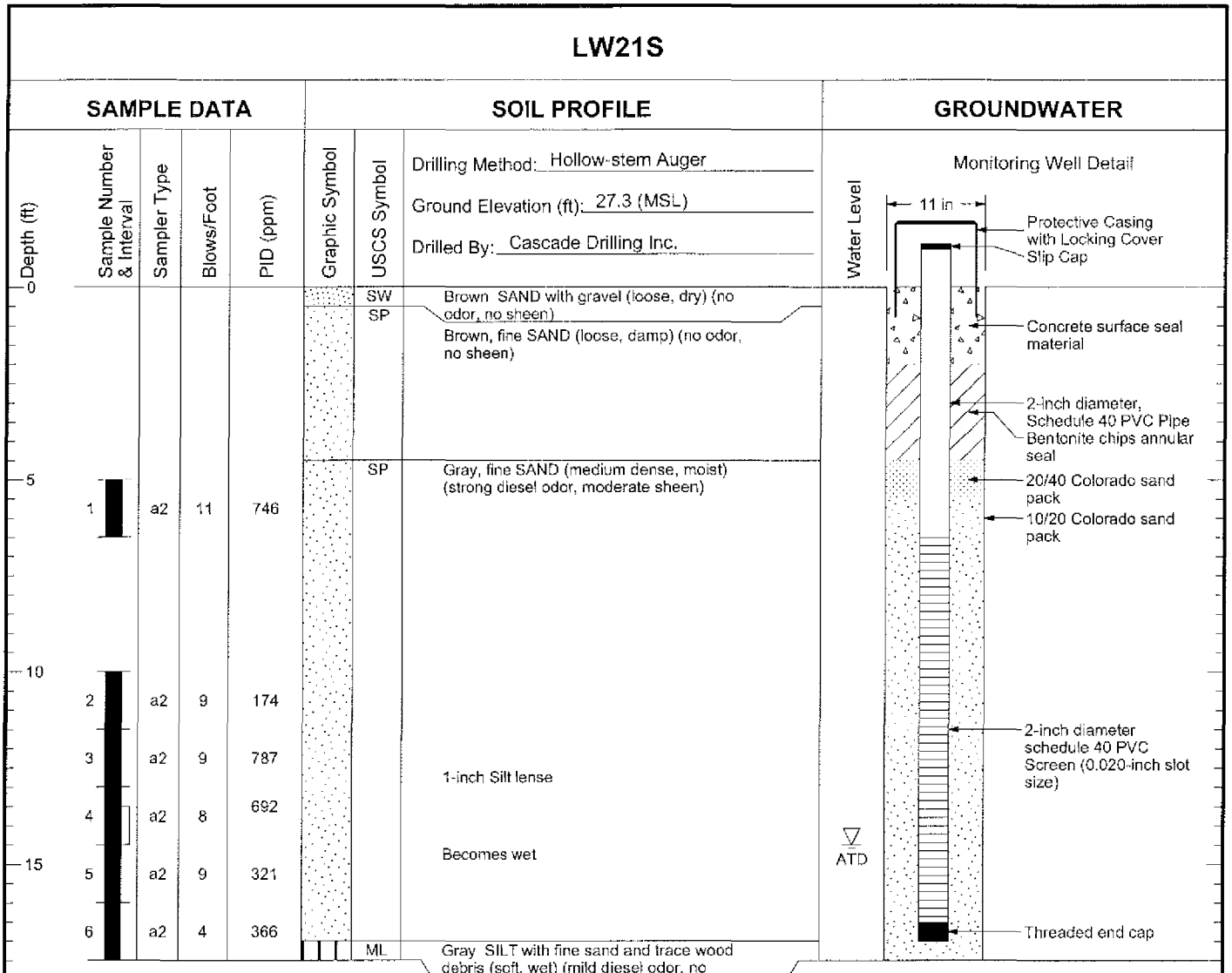
Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

231009.31 3/30/04 \\PRT01\DATA\MODELING\GINT\PROJECTS\231009.GPJ WELL LOG

LANDAU ASSOCIATES

Time Oil NW Terminal Portland, Oregon	Log of Monitoring Well LW20D	Figure A-4

LW21S



Boring Completed 10/21/03
Total Depth of Boring = 17.5 ft.

Monitoring Well Completed 10/21/03
Elevation at Top of Protective Casing = 30.58 ft.
Elevation at Top of Monitoring Well Casing = 30.29 ft.
Total Depth of Monitoring Well = 17.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

231009.31 3/30/04 \\PRTO1\DATA\MODELING\GINTPROJECTS\231009.GPJ WELL LOG

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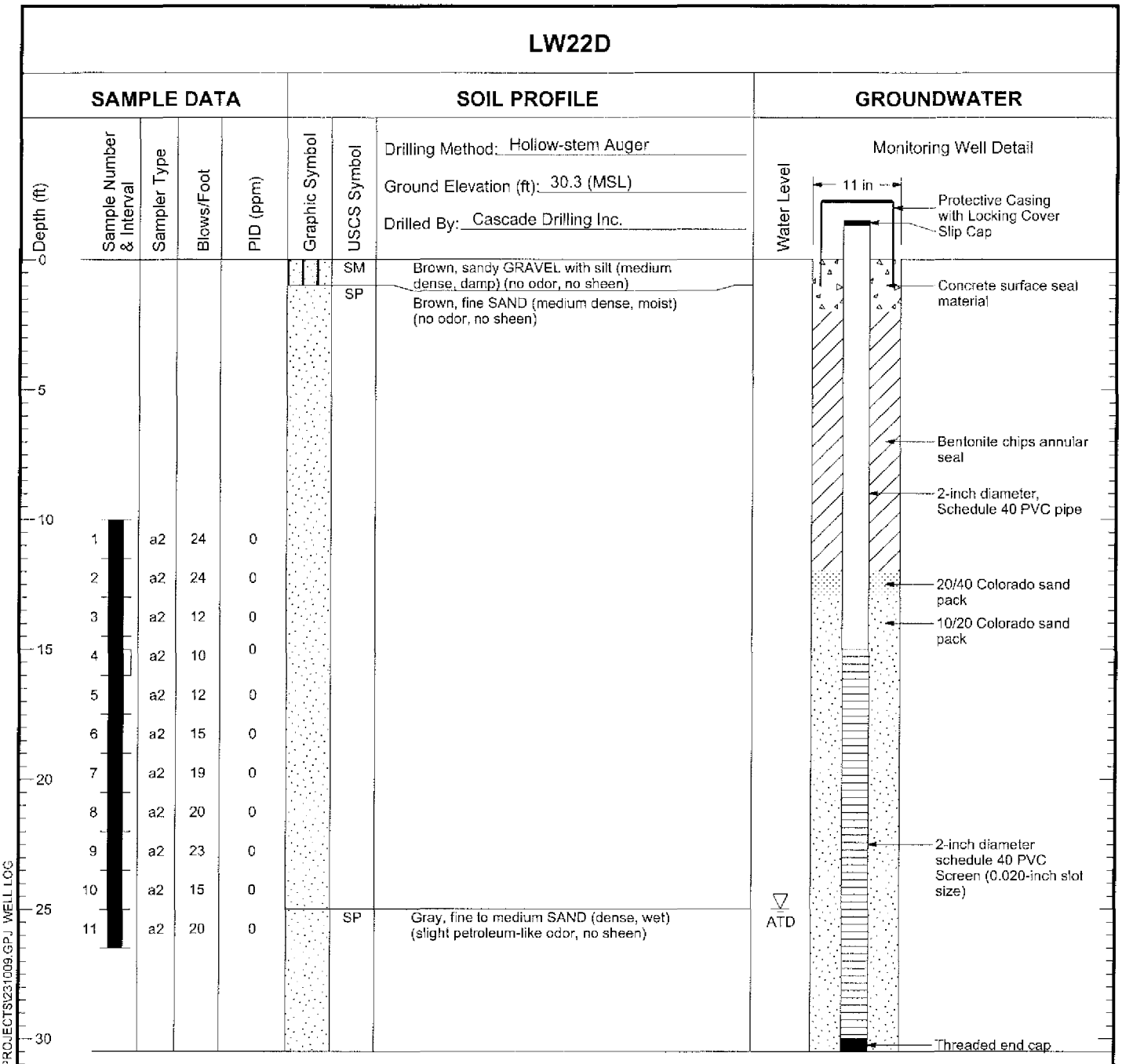
Time Oil NW Terminal
Portland, Oregon

Log of Monitoring Well LW21S

Figure
A-5

LW22D



Boring Completed 09/24/03
Total Depth of Boring = 30.5 ft.

Monitoring Well Completed 09/24/03
Elevation at Top of Protective Casing = 32.87 ft.
Elevation at Top of Monitoring Well Casing = 32.56 ft.
Total Depth of Monitoring Well = 30.5 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

2310039.31 3/30/04 \\PRT01\DATA\MODELING\GINT\PROJECTS\231009.GPJ WELL LOG

LANDAU ASSOCIATES

Time Oil NW Terminal
Portland, Oregon

Log of Monitoring Well LW22D

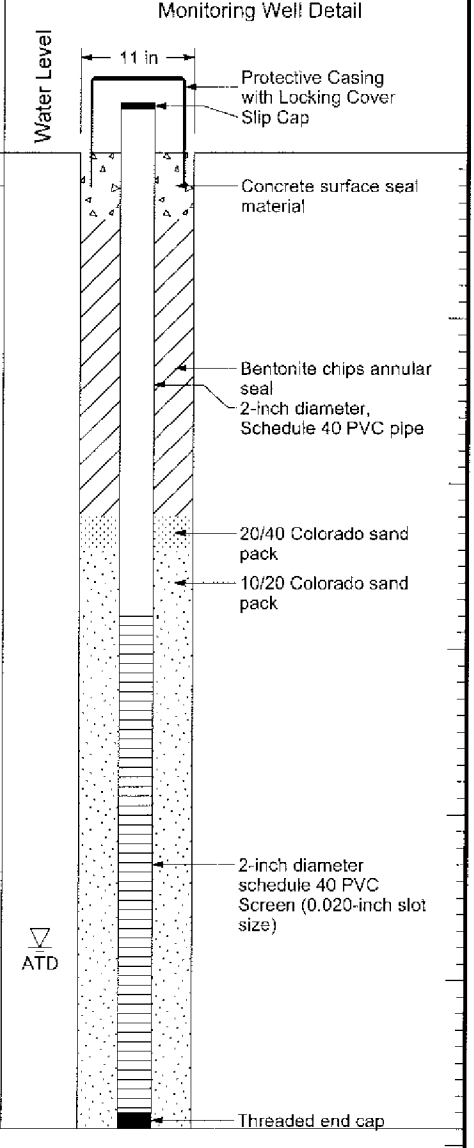
Figure
A-6

LW23D

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	SOIL PROFILE	Water Level
0						GP	Crushed rock and gravel with sand	
						SP	Brown, fine to medium SAND with trace silt (medium dense, moist) (no odor, no sheen)	
5								
10	1	a2	33	0				
	2	a2	26	0				
	3	a2	35	0				
15	4	a2	36	0				
	5	a2	50	0				
	6	a2	57	0				
20	7	a2	57	0				
	8	a2	66	0				
	9	a2	46	0				
	10	a2	44	0		SP	Gray, fine to medium SAND with trace silt (dense, wet) (slight petroleum-like odor)	ATD
25	11	a2	35				Becomes moderate petroleum-like odor	
	12	a2	21	0			Becomes slight to moderate petroleum-like odor	
	13	a2	24				Becomes no odor	
30								
35								
40								

Drilling Method: Hollow-stem Auger
Ground Elevation (ft): 28.5 (MSL)
Drilled By: Cascade Drilling Inc.

Boring Completed 09/24/03
Total Depth of Boring = 29.5 ft.



Monitoring Well Completed 09/24/03
Elevation at Top of Protective Casing = 31.64 ft.
Elevation at Top of Monitoring Well Casing = 31.41 ft.
Total Depth of Monitoring Well = 29.5 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

2311009.31 3/30/04 \\PRT01\DATA\MODELING\GINT\PROJECTS\2311009.GPJ WELL LOG

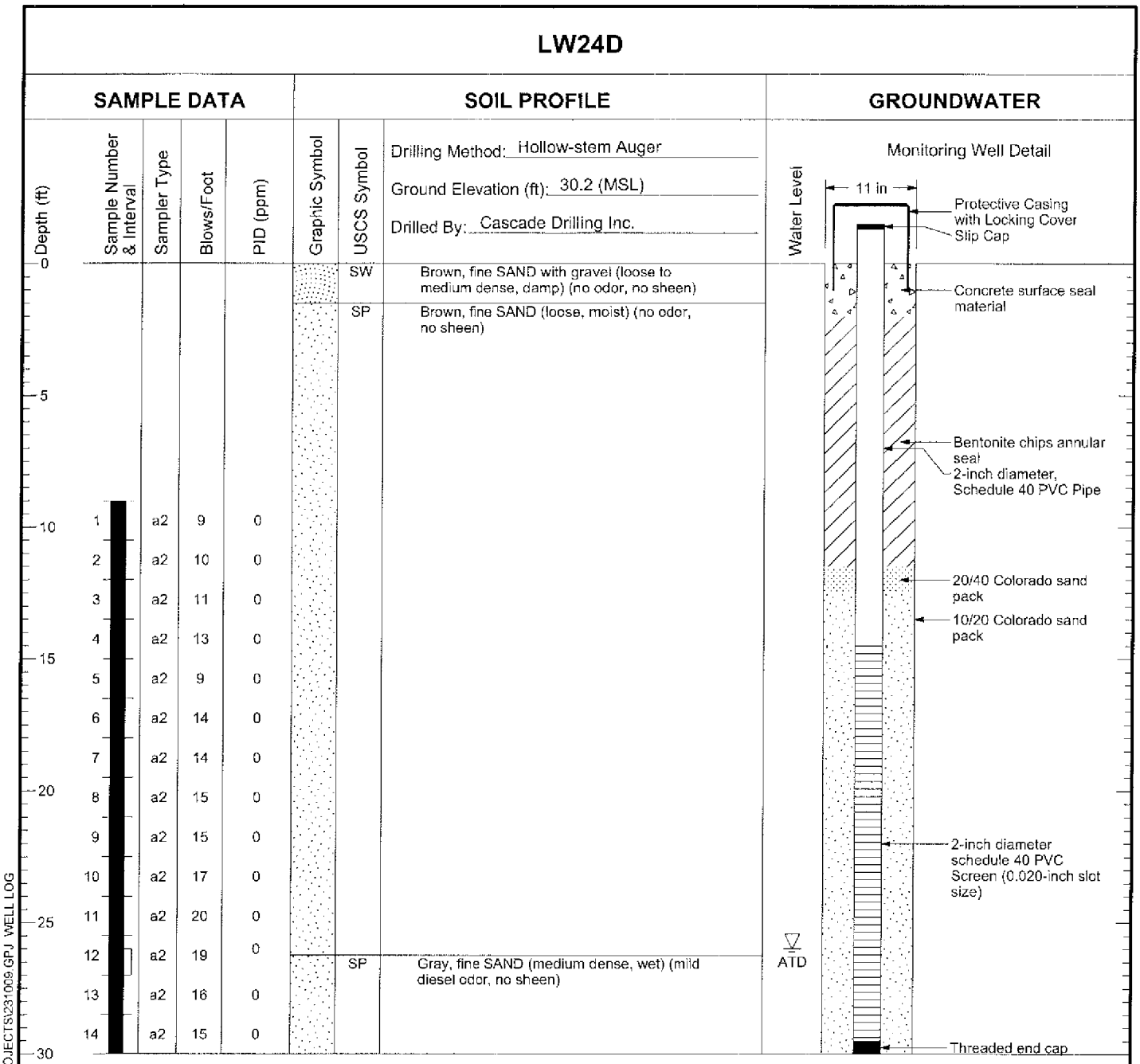
LANDAU ASSOCIATES

Time Oil NW Terminal
Portland, Oregon

Log of Monitoring Well LW23D

Figure
A-7

LW24D



Boring Completed 10/20/03
Total Depth of Boring = 30.0 ft.

Monitoring Well Completed 10/20/03
Elevation at Top of Protective Casing = 33.68 ft.
Elevation at Top of Monitoring Well Casing = 33.47 ft.
Total Depth of Monitoring Well = 30.0 ft.

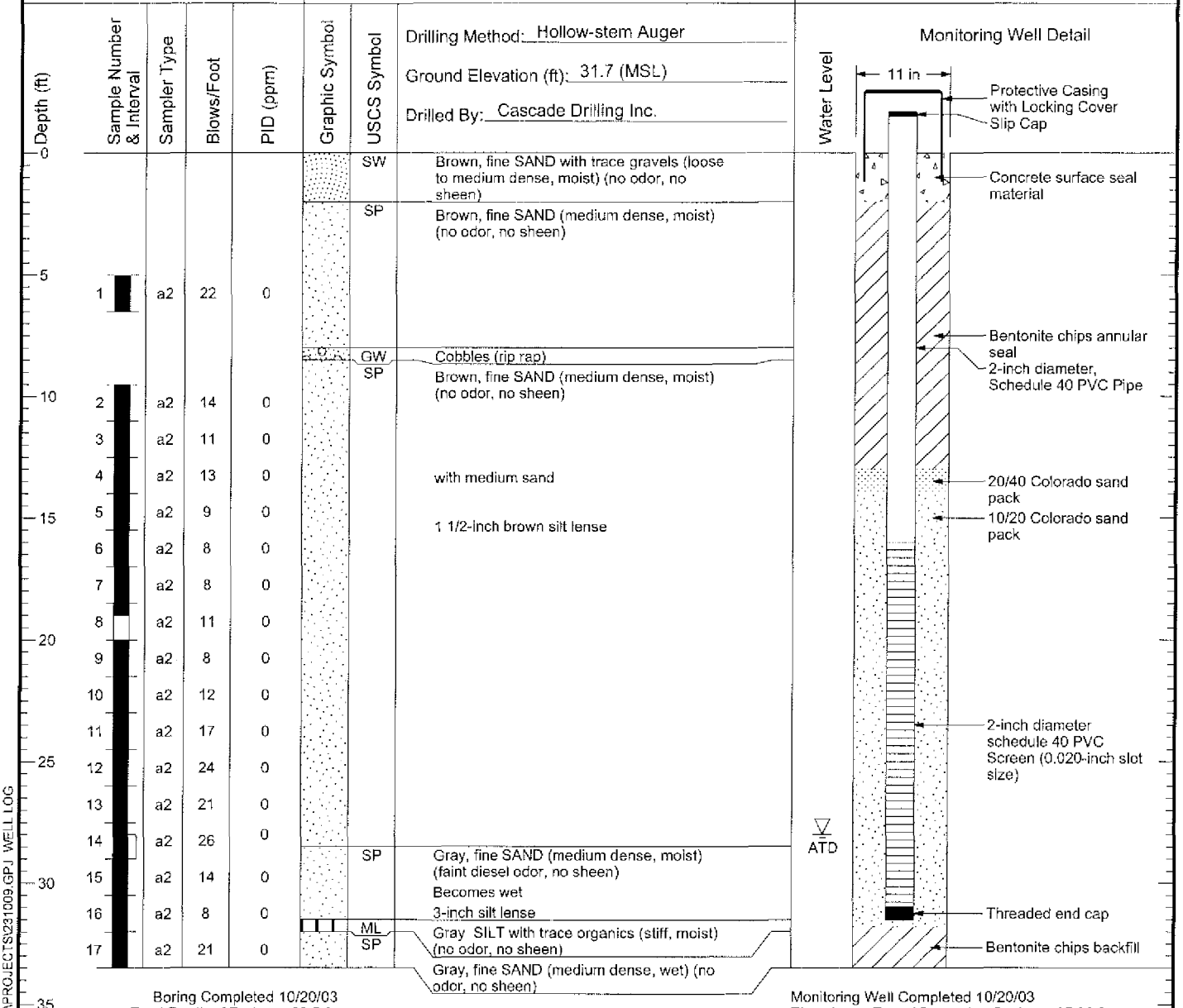
Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

2310009.31 3/30/04 \\PRT01\DATA\MODELING\GINT\PROJECTS\2310009.GPJ WELL LOG

LANDAU ASSOCIATES

Time Oil NW Terminal Portland, Oregon	Log of Monitoring Well LW24D	Figure A-8

LW25D



Boring Completed 10/20/03
Total Depth of Boring = 33.5 ft.

Monitoring Well Completed 10/20/03
Elevation at Top of Protective Casing = 35.99 ft.
Elevation at Top of Monitoring Well Casing = 35.38 ft.
Total Depth of Monitoring Well = 31.5 ft.

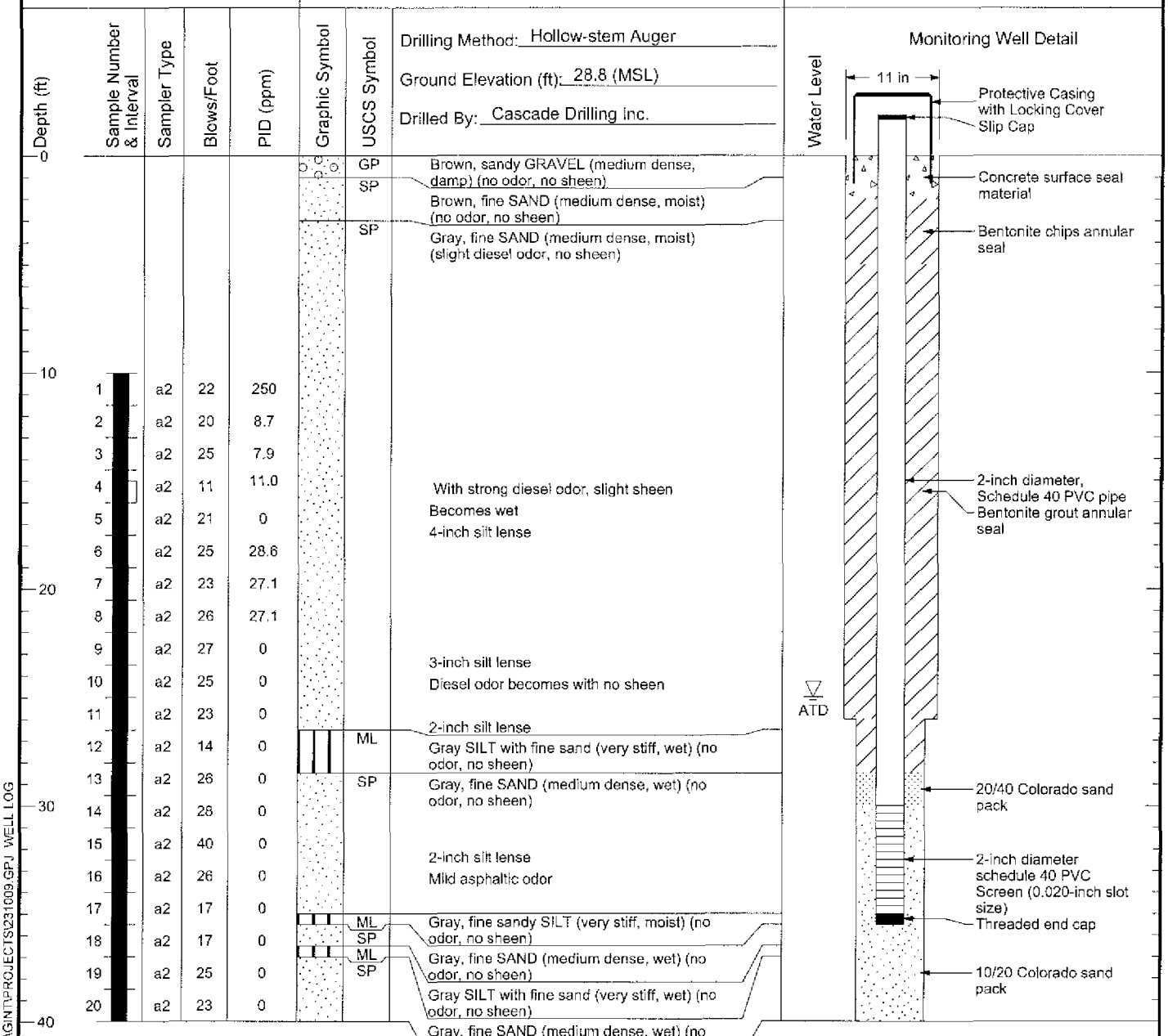
Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

231009.31 3/30/04 \\PRT01\DATA\MODELING\GINT\PROJECTS\231009.GPJ WELL LOG

LANDAU ASSOCIATES

Time Oil NW Terminal Portland, Oregon	Log of Monitoring Well LW25D	Figure A-9

LW26D



Boring Completed 09/25/03
Total Depth of Boring = 40.0 ft.

Monitoring Well Completed 09/25/03
Elevation at Top of Protective Casing = 31.67 ft.
Elevation at Top of Monitoring Well Casing = 31.49 ft.
Total Depth of Monitoring Well = 35.5 ft.

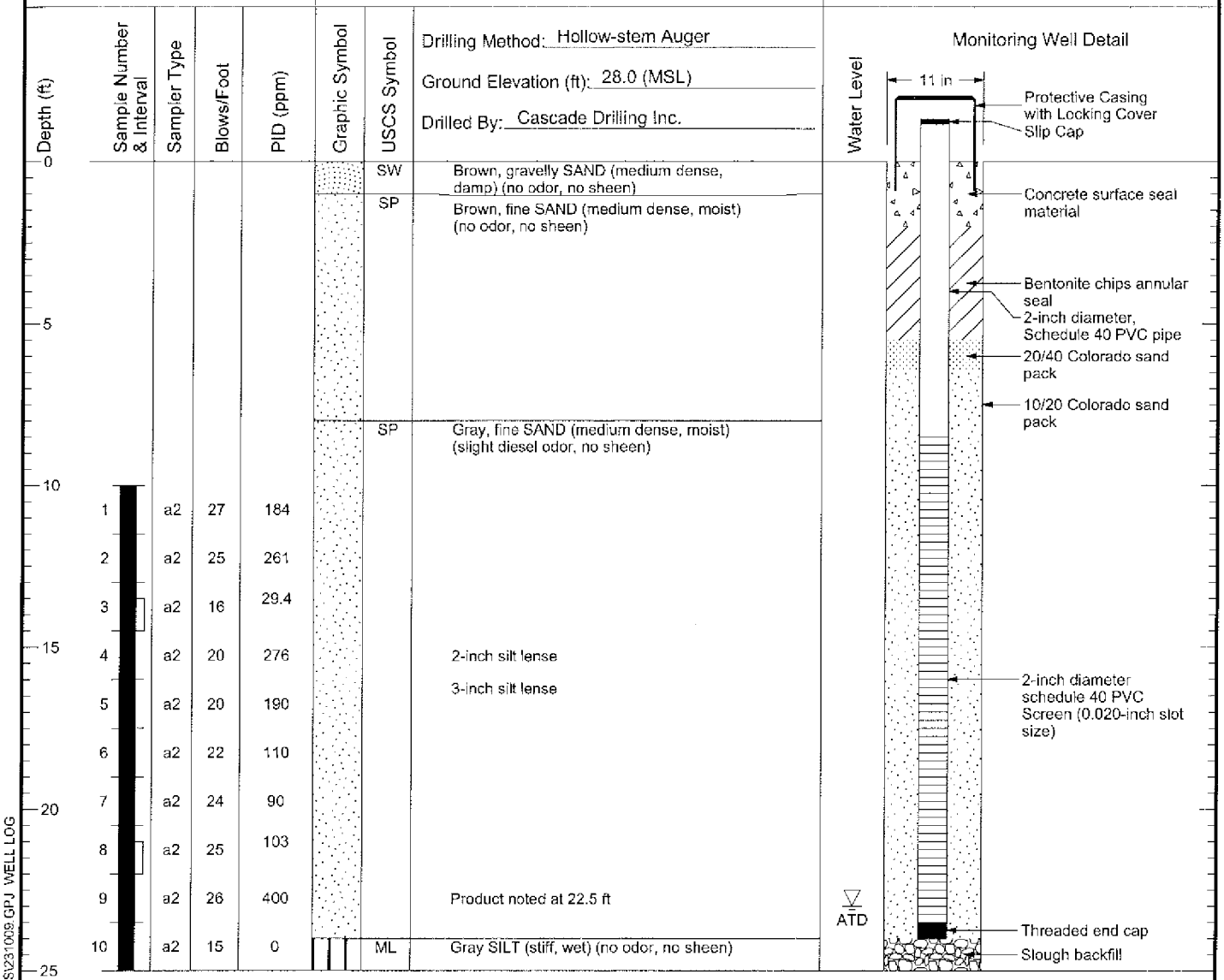
Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

2310031 3/30/04 \\PRT01\DATA\MODELING\GINT\PROJECTS\2310031.GPJ WELL LOG

LANDAU ASSOCIATES

Time Oil NW Terminal Portland, Oregon	Log of Monitoring Well LW26D	Figure A-10

LW27S



Boring Completed 09/26/03
Total Depth of Boring = 25.0 ft.

Monitoring Well Completed 09/26/03
Elevation at Top of Protective Casing = 30.92 ft.
Elevation at Top of Monitoring Well Casing = 30.59 ft.
Total Depth of Monitoring Well = 24.0 ft.

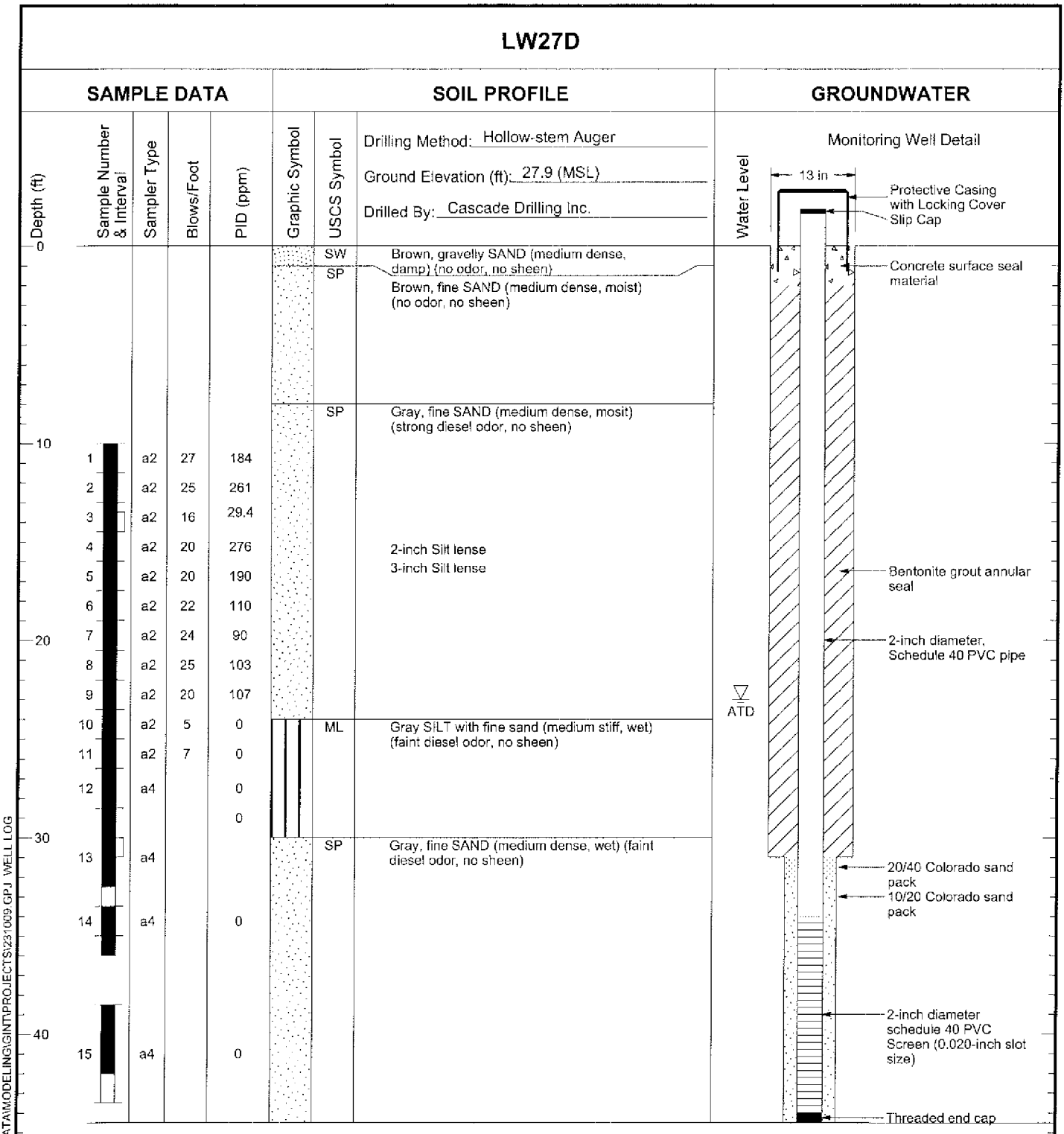
Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

231009.31 3/30/04 \\PRT01\DATA\MODELING\GINT\PROJECTS\231009.GPJ WELL LOG

LANDAU ASSOCIATES

Time Oil NW Terminal Portland, Oregon	Log of Monitoring Well LW27S	Figure A-11

LW27D



Boring Completed 09/26/03
Total Depth of Boring = 44.5 ft.

Monitoring Well Completed 09/26/03
Elevation at Top of Protective Casing = 30.21 ft.
Elevation at Top of Monitoring Well Casing = 29.71 ft.
Total Depth of Monitoring Well = 44.5 ft.

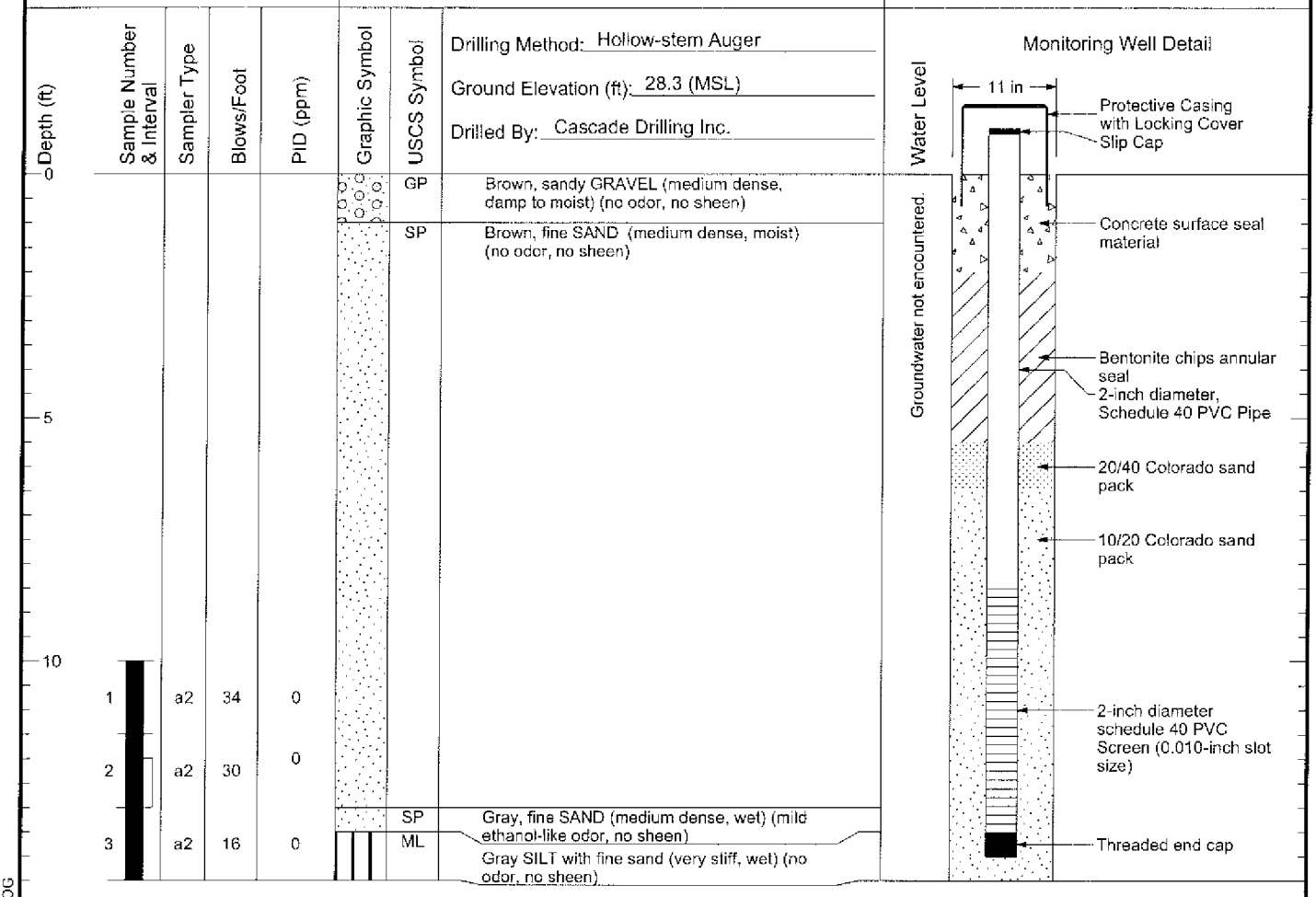
Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

231009.31 3/30/04 \\PRT01\DATA\MODELING\GINT\PROJECTS\231009.GPJ WELL LOG

LANDAU ASSOCIATES

Time Oil NW Terminal Portland, Oregon	Log of Monitoring Well LW27D	Figure A-12

LW28S



Boring Completed 10/01/03
Total Depth of Boring = 14.5 ft.

Monitoring Well Completed 10/01/03
Elevation at Top of Protective Casing = 31.42 ft.
Elevation at Top of Monitoring Well Casing = 30.98 ft.
Total Depth of Monitoring Well = 14.0 ft.

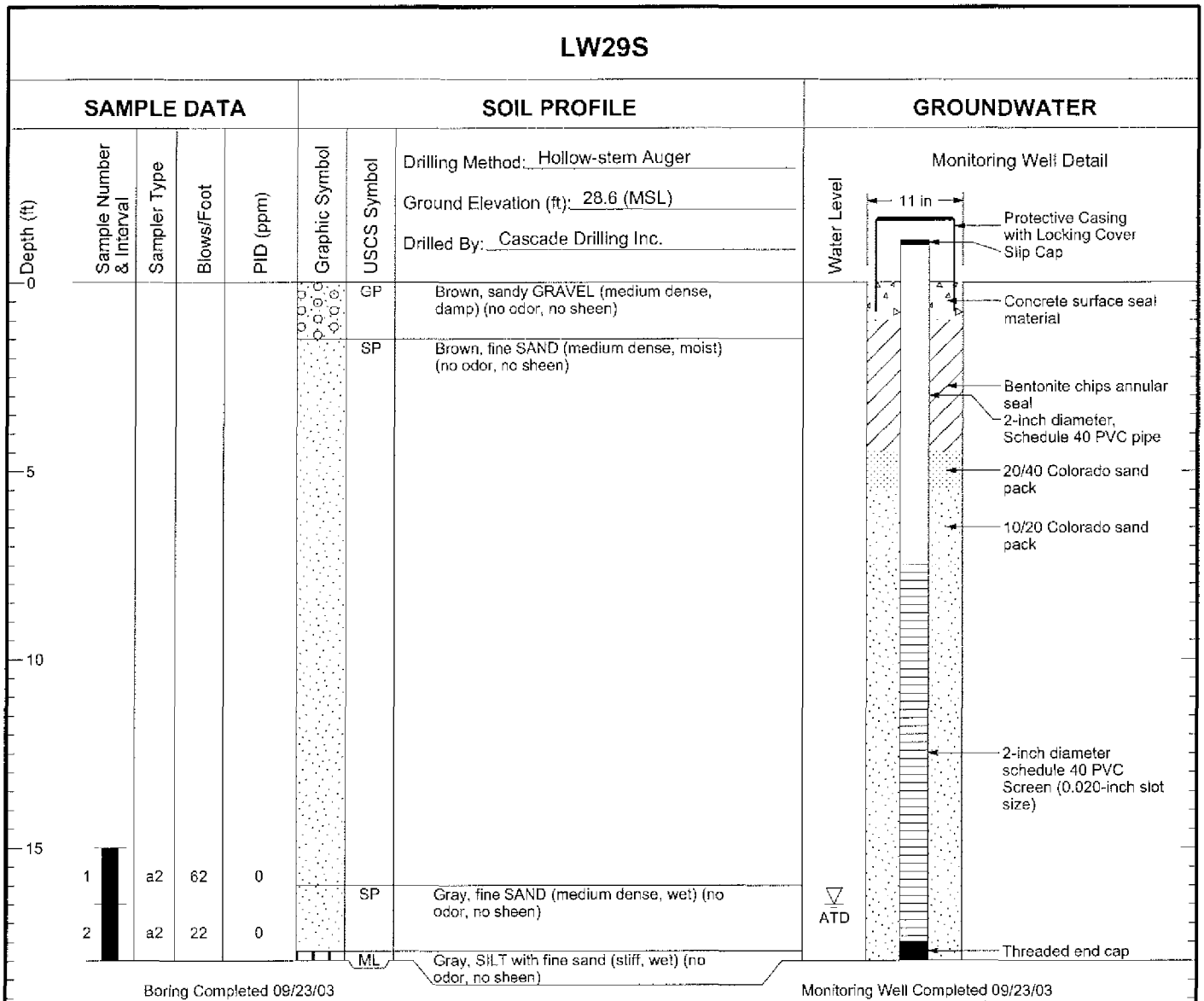
Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

231009.31 3/30/04 \\PRT01\DATA\MODELING\GINT\PROJECTS\231009.GPJ WELL LOG

LANDAU ASSOCIATES

Time Oil NW Terminal Portland, Oregon	Log of Monitoring Well LW28S	Figure A-13

LW29S



Boring Completed 09/23/03
Total Depth of Boring = 18.0 ft.

Monitoring Well Completed 09/23/03
Elevation at Top of Protective Casing = 31.64 ft.
Elevation at Top of Monitoring Well Casing = 31.34 ft.
Total Depth of Monitoring Well = 18.0 ft.

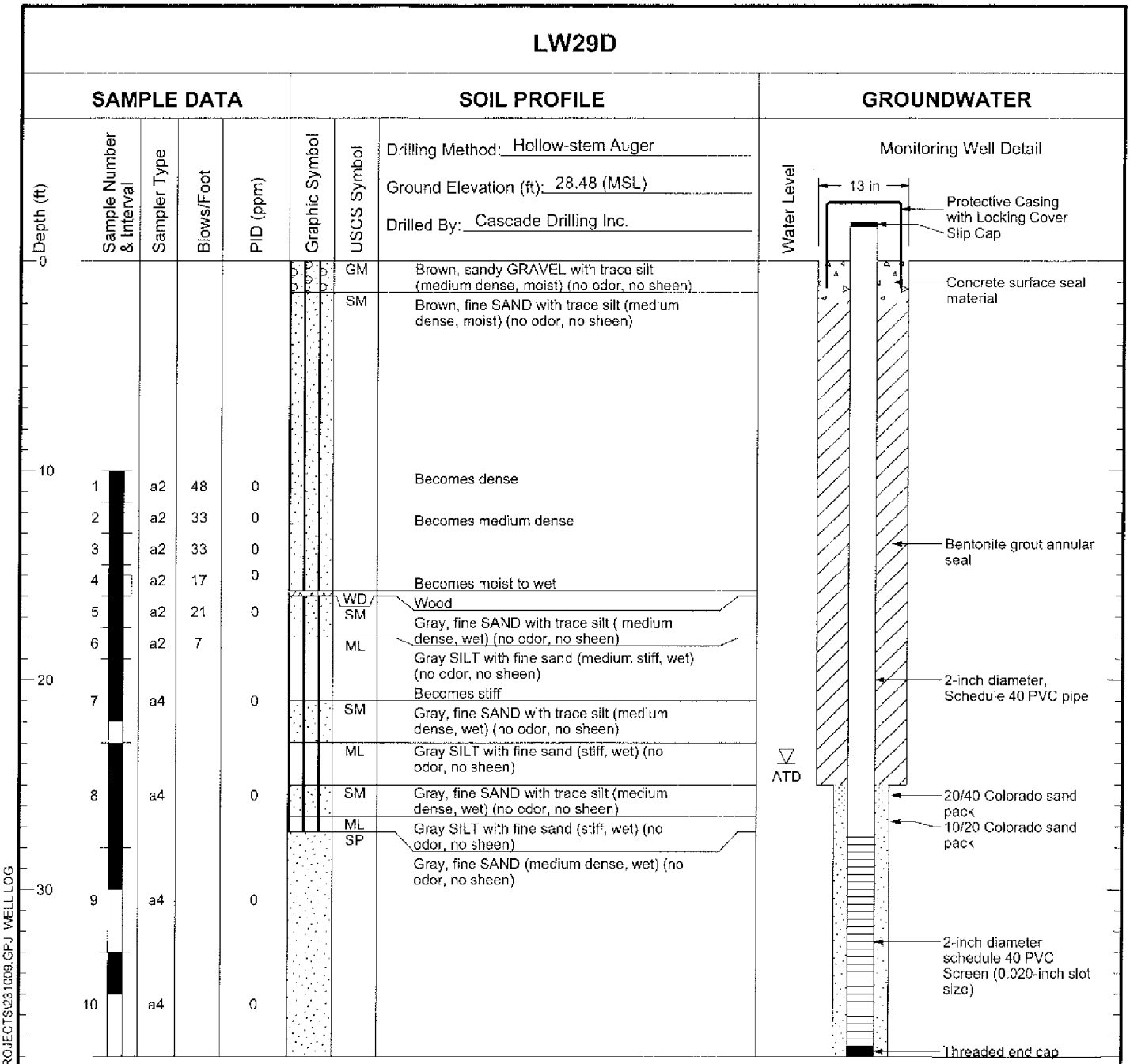
Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

231009.31 3/30/04 \\PRT01\DATA\MODELING\GINT\PROJECTS\231009.GPJ WELL LOG

LANDAU ASSOCIATES

Time Oil NW Terminal Portland, Oregon	Log of Monitoring Well LW29S	Figure A-14

LW29D



Boring Completed 09/22/03
Total Depth of Boring = 38.0 ft.

Monitoring Well Completed 09/22/03
Elevation at Top of Protective Casing = 31.24 ft.
Elevation at Top of Monitoring Well Casing = 31.12 ft.
Total Depth of Monitoring Well = 38.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

231009.31 3/30/04 WPRT01\DATA\MODELING\GINT\PROJECTS\231009.GPJ WELL LOG

LANDAU ASSOCIATES

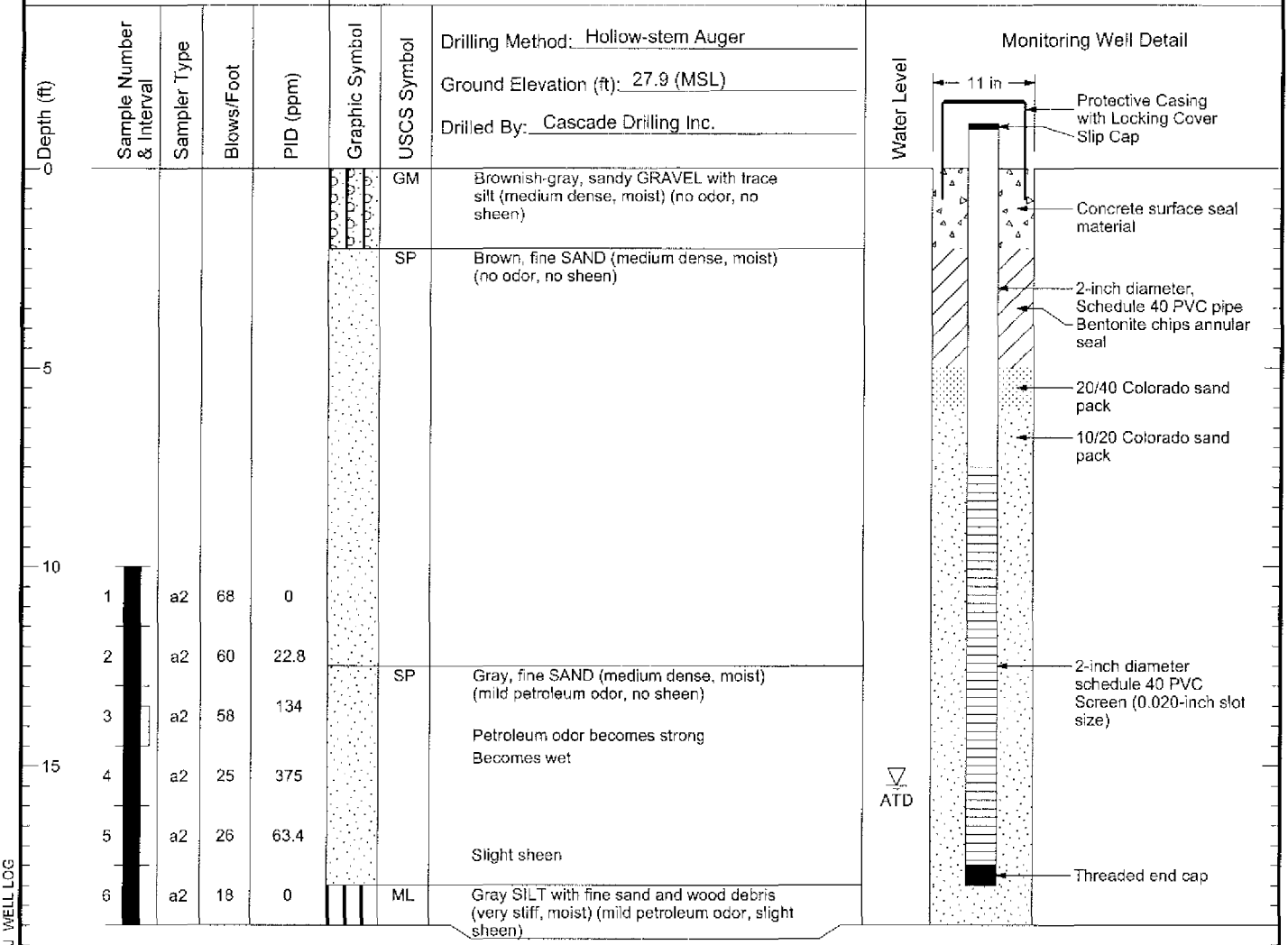
Time Oil NW Terminal
Portland, Oregon

Log of Monitoring Well LW29D

Figure
A-15

BZTO104(e)019545

LW30S



Boring Completed 09/19/03
Total Depth of Boring = 19.0 ft.

Monitoring Well Completed 09/19/03
Elevation at Top of Protective Casing = 30.51 ft.
Elevation at Top of Monitoring Well Casing = 30.08 ft.
Total Depth of Monitoring Well = 18.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

231009.31 3/30/04 \\PRT01\DATA\MODELING\GINT\PROJECTS\231009.GPJ WELL LOG

LANDAU ASSOCIATES

Time Oil NW Terminal Portland, Oregon	Log of Monitoring Well LW30S	Figure A-16

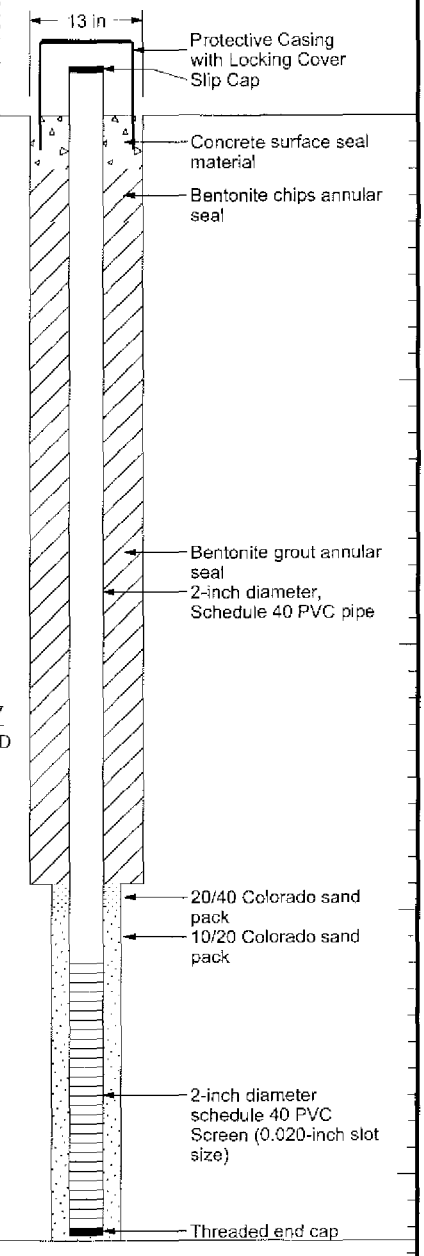
LW30D

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level
0						GM	Grayish brown, sandy GRAVEL with trace silt (medium dense, dry to moist) (no odor, no sheen)
						SP	Brown, fine SAND (medium dense, moist) (no odor, no sheen)
10	1	a2	37	0		SM	Brown with gray, fine SAND with trace silt (medium dense, moist) (no odor, no sheen)
	2	a2	33	129		SM	Gray, fine SAND with trace silt (medium dense, wet) (strong petroleum odor, no sheen)
	3	a2	35	88			
	4	a2	18	0			
	5	a2	15	182			Slight sheen
	6	a2	15	0		ML	Gray SILT with fine silt (stiff, moist) (no odor, no sheen)
20							Wood debris
	7	a4		0		SM/ ML	Gray, fine sandy SILT to silty fine sand with trace roots (medium dense, moist to wet) (no odor, no sheen)
	8	a4		0			with lenses of medium SAND
30						SP	Gray, fine SAND with trace medium sand (medium dense, wet) (no odor, no sheen)
	9	a4		0			
	10	a4		0			
40	11	a4		0			
	12	a2	36	0			
50							

Drilling Method: Hollow-stem Auger
Ground Elevation (ft): 27.9 (MSL)
Drilled By: Cascade Drilling Inc.

ATD

Monitoring Well Detail



Boring Completed 09/18/03
Total Depth of Boring = 42.5 ft.

Monitoring Well Completed 09/22/03
Elevation at Top of Protective Casing = 30.58 ft.
Elevation at Top of Monitoring Well Casing = 30.06 ft.
Total Depth of Monitoring Well = 42.3 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

231009.31 3/30/04 WPRT01\DATA\MODELING\GINT\PROJECTS\231009.GPJ WELL LOG

LANDAU ASSOCIATES

Time Oil NW Terminal
Portland, Oregon

Log of Monitoring Well LW30D

Figure
A-17

BZTO104(e)019547

LW31S

SAMPLE DATA / SOIL PROFILE / GROUNDWATER

Drilling Method: Hollow-stem Auger

Ground Elevation (ft): 28.4 (MSL)

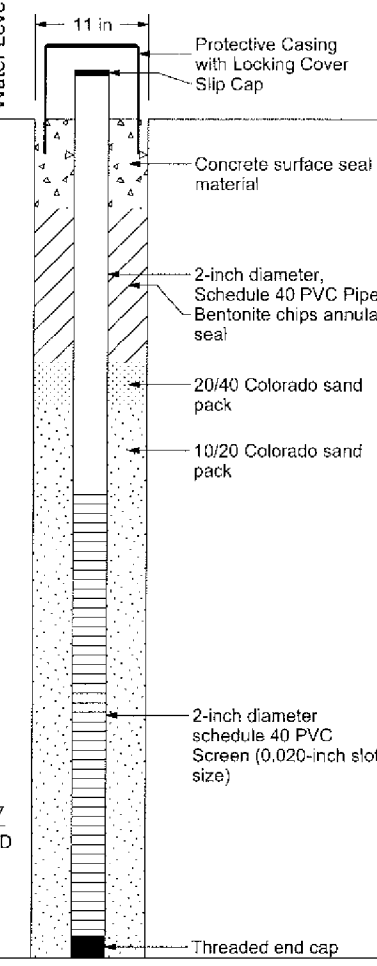
Drilled By: Cascade Drilling Inc.

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	USCS Symbol	Soil Profile
0					GP	Brown, sandy GRAVEL with trace cobbles (medium dense, damp) (no odor, no sheen)
					SP	Brown, fine SAND (medium dense, moist) (no odor, no sheen)
10	1	a2	27	0		
	2	a2	40	0		
	3	a2	38	0		
15	4	a2	47	0		
	5	a2	28	0	SP	Gray, fine SAND (medium dense, wet) (mild gasoline-like odor, no sheen)
	6	a2	16	0		
					ML	Gray, SILT (medium stiff, moist) (no odor, no sheen)

Water Level: ATD

Boring Completed 10/01/03
Total Depth of Boring = 19.0 ft.

Monitoring Well Detail



Monitoring Well Completed 10/01/03
Elevation at Top of Protective Casing = 31.52 ft.
Elevation at Top of Monitoring Well Casing = 31.26 ft.
Total Depth of Monitoring Well = 19.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

231009.31 3/30/04 \\PRT01\DATA\MODELING\GINT\PROJECTS\231009.GPJ WELL LOG

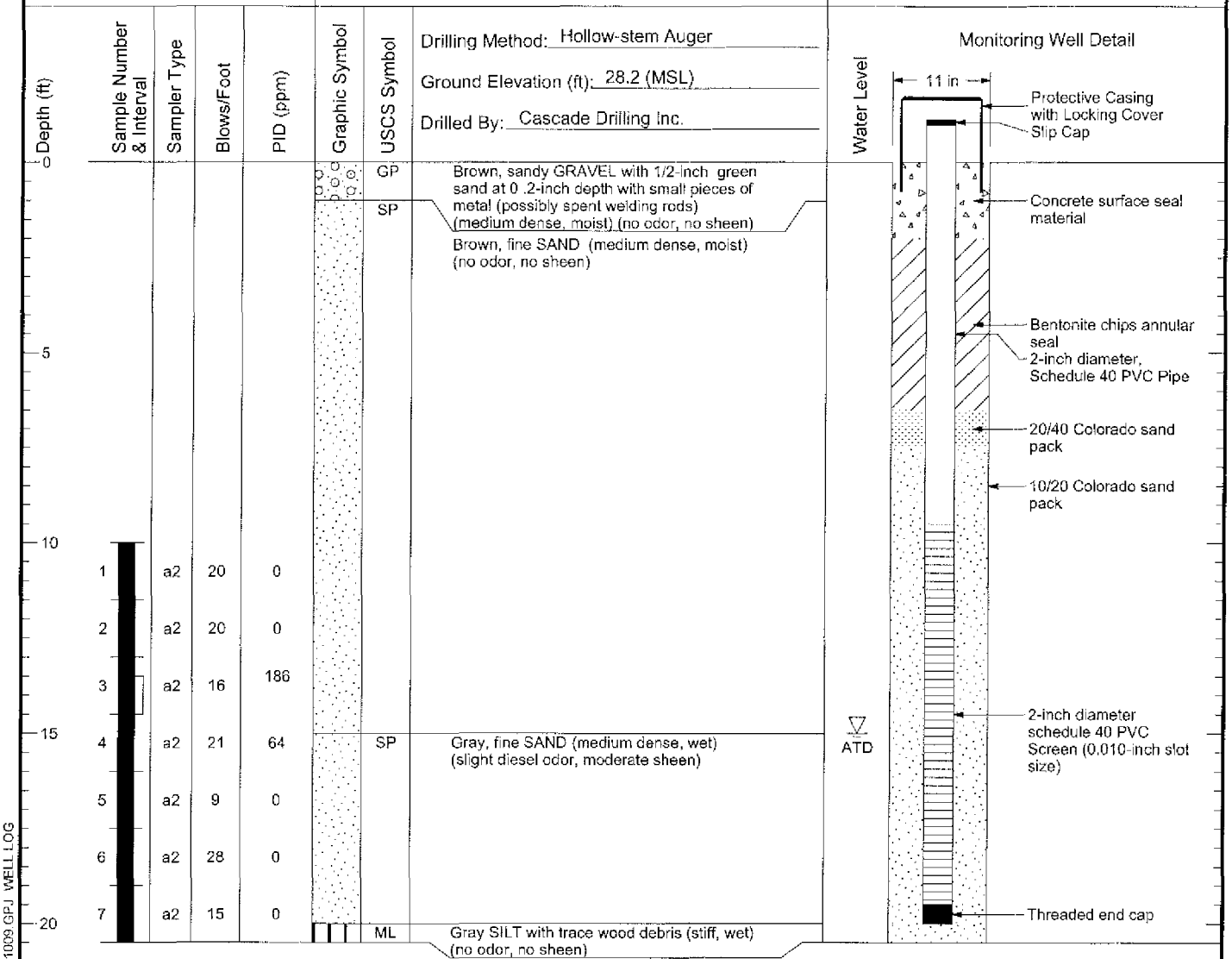
LANDAU ASSOCIATES

Time Oil NW Terminal
Portland, Oregon

Log of Monitoring Well LW31S

Figure A-18

LW32S



Boring Completed 10/02/03
Total Depth of Boring = 20.5 ft.

Monitoring Well Completed 10/02/03
Elevation at Top of Protective Casing = 30.93 ft.
Elevation at Top of Monitoring Well Casing = 30.71 ft.
Total Depth of Monitoring Well = 20.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

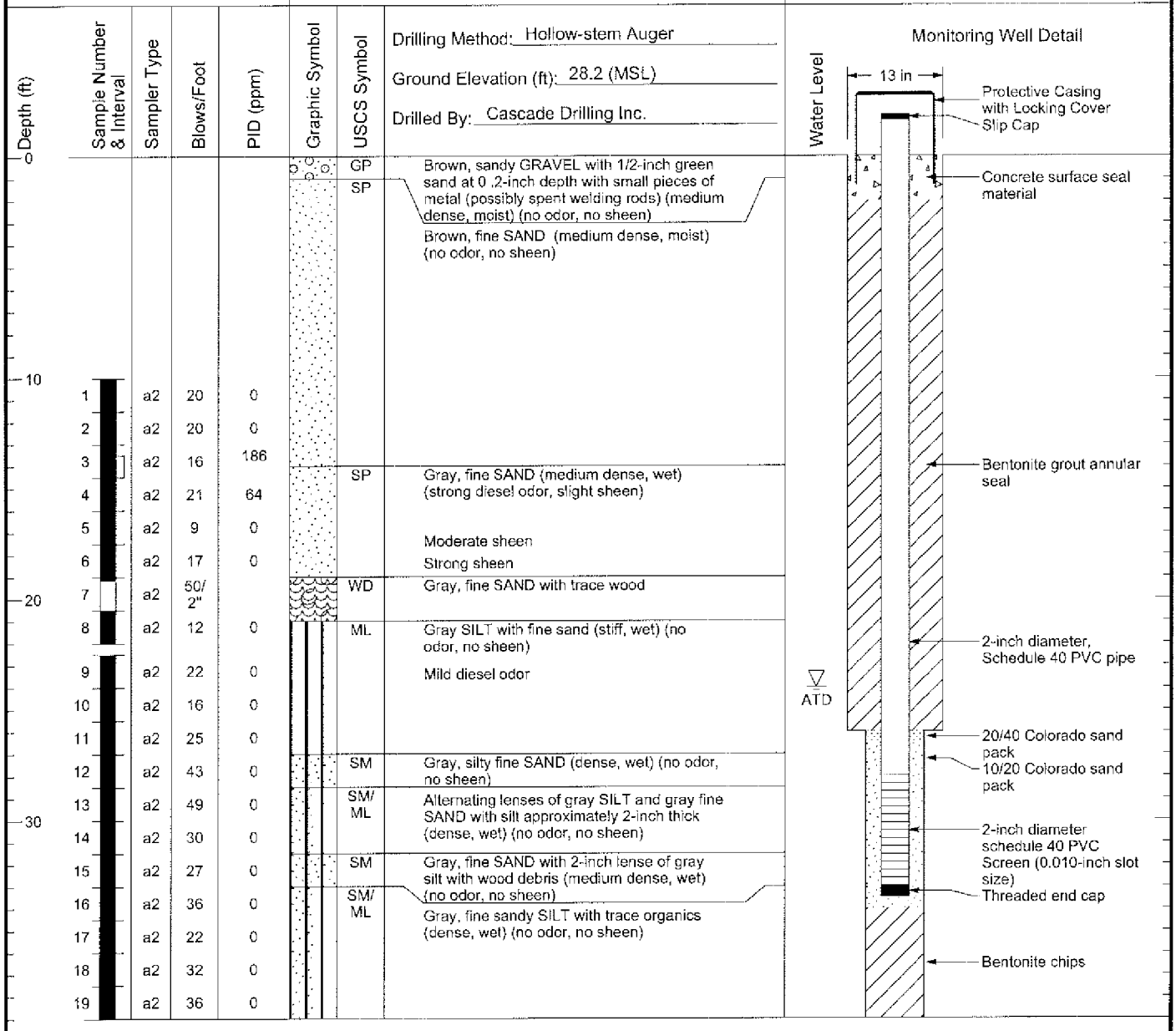
231009.31 3/30/04 \\PRTD1\DATA\MODELING\GINT\PROJECTS\231009.GPJ WELL LOG

LANDAU ASSOCIATES

Time Oil NW Terminal Portland, Oregon	Log of Monitoring Well LW32S	Figure A-19

BZTO104(e)019549

LW32D



Boring Completed 10/02/03
Total Depth of Boring = 39.0 ft.

Monitoring Well Completed 10/02/03
Elevation at Top of Protective Casing = 31.06 ft.
Elevation at Top of Monitoring Well Casing = 30.86 ft.
Total Depth of Monitoring Well = 34.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

2310093.31 3/30/04 \\PRT01\DATA\MODELING\GINT\PROJECTS\2310093.GPJ WELL LOG

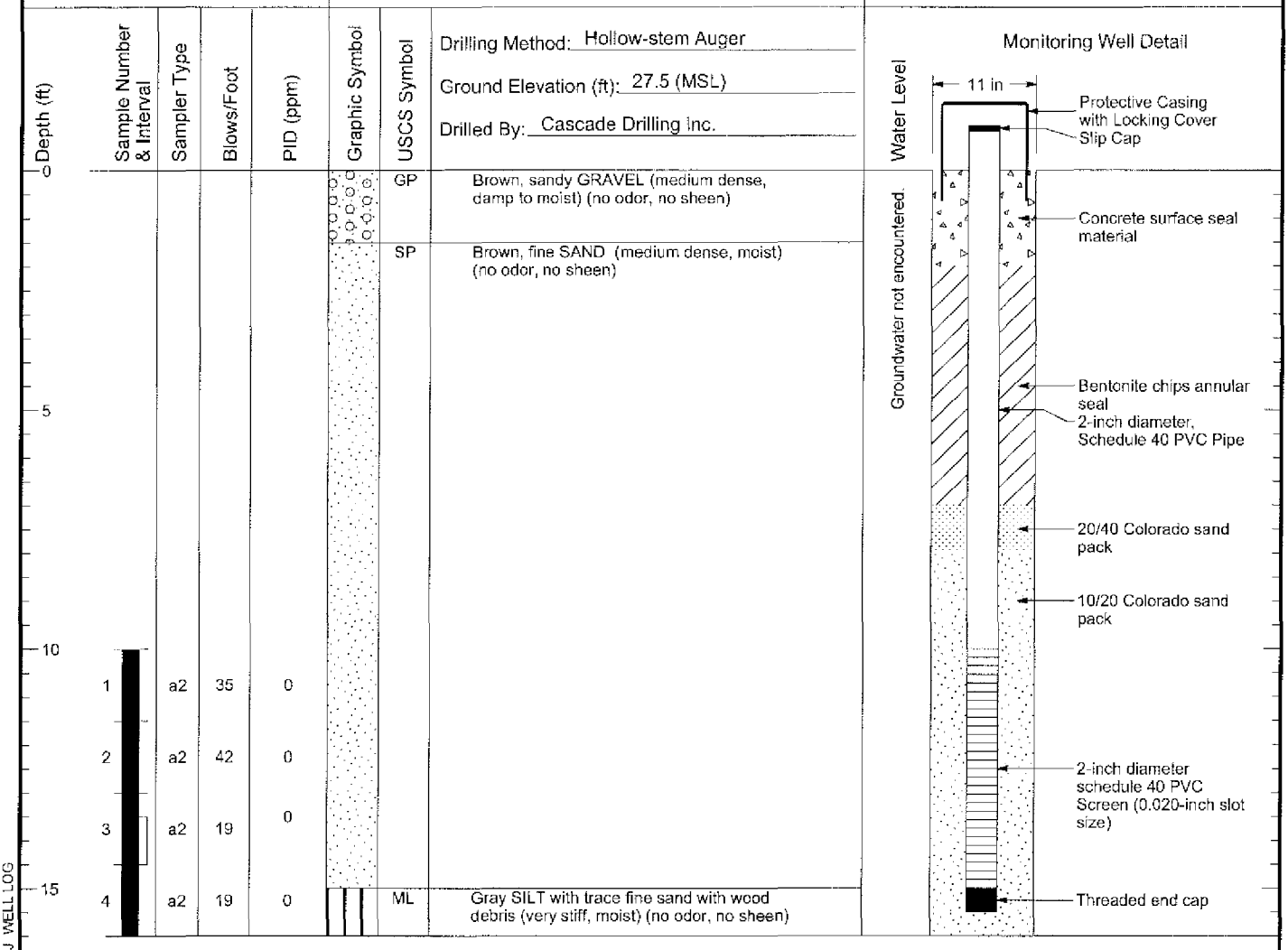
LANDAU ASSOCIATES

Time Oil NW Terminal
Portland, Oregon

Log of Monitoring Well LW32D

Figure
A-20

LW33S



Boring Completed 10/02/03
Total Depth of Boring = 16.0 ft.

Monitoring Well Completed 10/02/03
Elevation at Top of Protective Casing = 30.20 ft.
Elevation at Top of Monitoring Well Casing = 29.89 ft.
Total Depth of Monitoring Well = 15.5 ft.

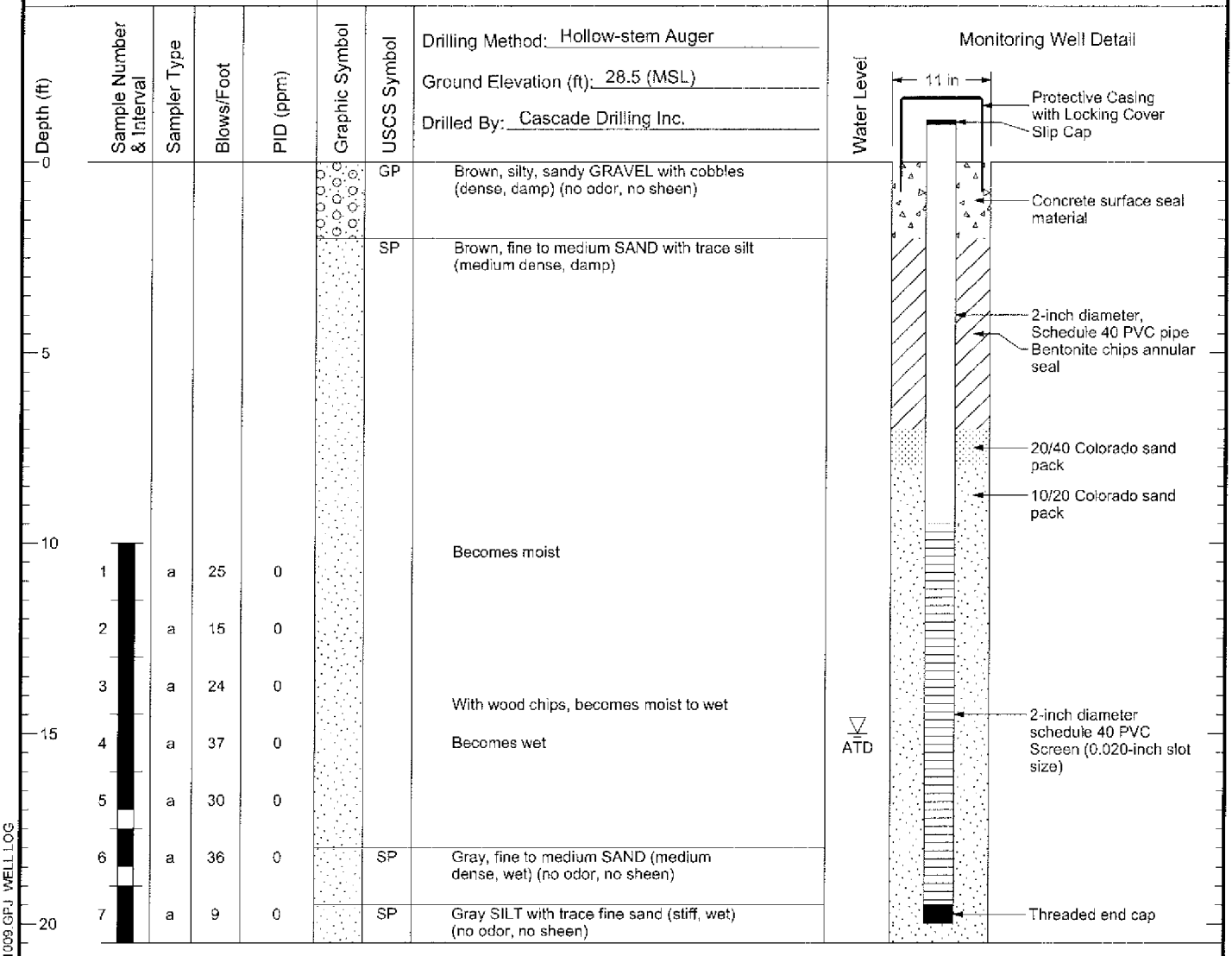
Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

231009.31 3/30/04 \\PRT01\DATA\MODELING\GINT\PROJECTS\231009.GPJ WELL LOG

LANDAU ASSOCIATES

Time Oil NW Terminal Portland, Oregon	Log of Monitoring Well LW33S	Figure A-21

LW34S



Boring Completed 09/18/03
Total Depth of Boring = 20.5 ft.

Monitoring Well Completed 09/18/03
Elevation at Top of Protective Casing = 31.25 ft.
Elevation at Top of Monitoring Well Casing = 30.93 ft.
Total Depth of Monitoring Well = 20.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

231009.31 3/30/04 \\PRTO1\DATA\MODELING\GINT\PROJECTS\231009.GPJ WELL.LOG

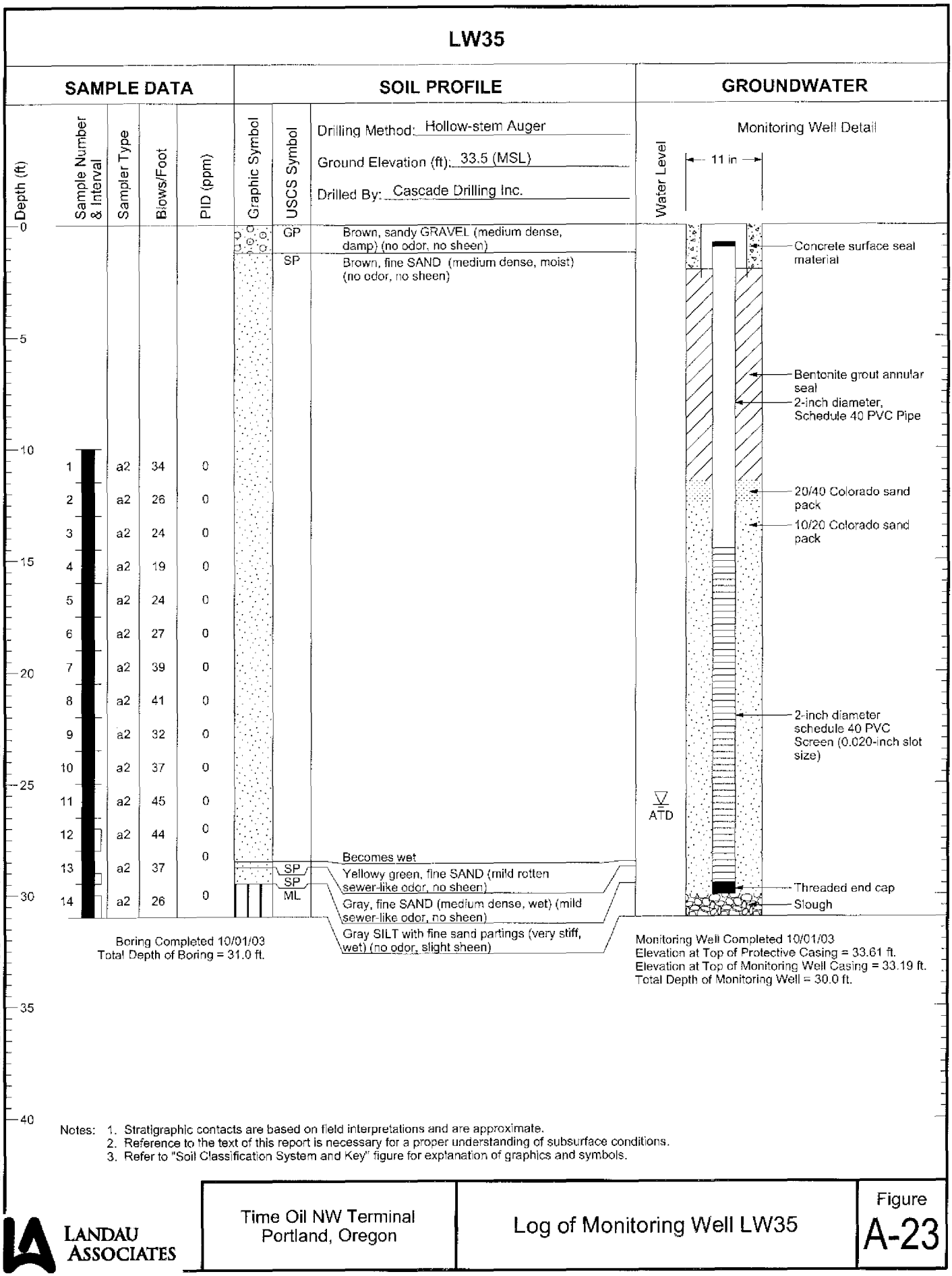
LANDAU ASSOCIATES

Time Oil NW Terminal
Portland, Oregon

Log of Monitoring Well LW34S

Figure
A-22

LW35



Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

23100931 3/30/04 \\PRT01\DATA\MODELING\GINTPROJECTS\231009.GPJ WELL LOG

LANDAU ASSOCIATES

Time Oil NW Terminal Portland, Oregon	Log of Monitoring Well LW35	Figure A-23

APPENDIX B

Water Level Measurements

TABLE B-1
GROUNDWATER LEVEL MEASUREMENTS
MARCH 1997 - OCTOBER 2003
TIME OIL NORTHWEST TERMINAL

Well	Date	Time	Reference Elevation (ft) (a)	DTW (ft) (b)	GW Elevation (ft) (c)	LNAPL Thickness (ft)	NOTES
Shallow Wells:							
B	03/25/1997	----	29.04	NM	----	NM	Couldn't remove cap
B	03/31/1997	----	29.04	NM	----	NM	Couldn't remove cap
B	07/16/1997	08:30	29.04	11.02	18.02	----	
B	10/21/1997	16:35	29.04	13.39	15.65	----	
B	01/27/1998	12:15	29.04	11.53	17.51	----	
B	05/18/1998	17:56	29.04	12.51	16.53	----	
B	08/17/1998	11:02	29.04	14.40	14.64	----	
B	11/13/1998	10:24	29.04	14.38	14.66	----	
B	02/16/1999	13:36	29.04	9.69	19.35	----	
B	05/18/1999	15:52	29.04	11.72	17.32	----	
B	09/21/1999	12:21	29.04	15.18	13.86	----	
B	12/06/1999	14:37	29.04	13.00	16.04	----	
B	02/16/2000	10:57	29.04	11.84	17.20	----	
B	05/23/2000	17:31	29.04	13.22	15.82	----	
B	08/29/2000	14:23	29.04	15.32	13.72	----	
B	11/09/2000	13:31	29.04	15.29	13.75	----	
B	02/12/2001	15:25	29.04	13.68	15.36	----	
B	06/04/2001	12:49	29.04	14.18	14.86	----	
B	08/16/2001	11:54	29.04	15.80	13.24	----	
B	11/28/2001	12:44	29.04	13.80	15.24	----	
B	02/27/2002	14:33	29.04	12.27	16.77	----	
B	06/27/2002	15:05	29.04	13.38	15.66	----	
B	08/26/2002	16:59	29.04	14.02	15.02	----	
B	11/13/2002	09:01	29.04	13.90	15.14	----	
B	02/11/2003	10:13	29.04	12.85	16.19	----	
B	05/08/2003	08:11	29.04	12.27	16.77	----	
B	08/27/2003	15:30	29.04	14.70	14.34	----	
B1	03/25/1997	10:48	29.74	----	----	----	Couldn't remove cap
B1	03/31/1997	----	29.74	----	----	----	Couldn't remove cap
B1	07/16/1997	07:49	29.74	11.01	18.73	----	
B1	10/21/1997	16:33	29.74	13.56	16.18	----	
B1	01/27/1998	12:10	29.74	11.68	18.06	----	
B1	05/18/1998	17:55	29.74	12.76	16.98	----	
B1	08/17/1998	11:04	29.74	14.15	15.59	----	
B1	11/13/1998	10:21	29.74	15.05	14.69	----	
B1	02/16/1999	13:33	29.74	9.59	20.15	----	
B1	05/18/1999	15:51	29.74	11.79	17.95	----	
B1	09/21/1999	12:19	29.74	14.63	15.11	----	
B1	12/06/1999	14:38	29.74	14.25	15.49	----	
B1	02/16/2000	10:55	29.74	12.20	17.54	----	
B1	05/23/2000	17:32	29.74	13.25	16.49	----	
B1	08/29/2000	14:22	29.74	14.93	14.81	----	
B1	11/09/2000	13:30	29.74	15.56	14.18	----	
B1	02/12/2001	15:26	29.74	15.19	14.55	----	
B1	06/04/2001	12:50	29.74	15.06	14.68	----	
B1	08/16/2001	11:55	29.74	15.72	14.02	----	
B1	11/28/2001	12:45	29.74	15.47	14.27	----	
B1	02/27/2002	14:34	29.74	12.15	17.59	----	
B1	03/05/2002	11:06	29.74	12.28	17.46	----	
B1	04/05/2002	08:42	29.74	12.40	17.34	----	
B1	05/29/2002	00:00	29.74	13.20	16.54	----	
B1	06/27/2002	15:06	29.74	13.77	15.97	----	
B1	08/26/2002	17:00	29.74	14.79	14.95	----	
B1	11/13/2002	09:02	29.74	16.00	13.74	----	
B1	02/11/2003	10:15	29.74	12.86	16.88	----	
B1	05/08/2003	08:12	29.74	12.25	17.49	----	
B1	08/27/2003	15:31	29.74	14.79	14.95	----	
B1	10/23/2003	14:07	29.74	15.61	14.13	----	
C	03/25/1997	12:32	28.89	5.56	23.33	----	
C	03/31/1997	11:38	28.89	6.16	22.73	----	
C	07/16/1997	08:47	28.89	8.28	20.61	----	
C	10/21/1997	15:15	28.89	10.00	18.89	----	
C	01/27/1998	13:41	28.89	7.98	20.91	----	
C	05/18/1998	18:08	28.89	9.54	19.35	----	
C	08/17/1998	11:11	28.89	dry	----	----	

TABLE B-1
GROUNDWATER LEVEL MEASUREMENTS
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TIME OIL NORTHWEST TERMINAL

Well	Date	Time	Reference Elevation (ft) (a)	DTW (ft) (b)	GW Elevation (ft) (c)	LNAPL Thickness (ft)	NOTES
C	11/13/1998	10:36	28.89	10.36	18.53	----	
C	02/16/1999	13:58	28.89	5.91	22.98	----	
C	05/18/1999	16:04	28.89	7.90	20.99	----	
C	09/21/1999	12:44	28.89	dry	----	----	
C	12/06/1999	14:50	28.89	9.82	----	----	Water in endcap
C	02/16/2000	09:51	28.89	8.78	20.11	----	
C	05/23/2000	17:55	28.89	dry	----	----	
C	08/29/2000	14:33	28.89	dry	----	----	
C	11/09/2000	13:47	28.89	9.94	18.95	----	Dry?
C	02/12/2001	15:08	28.89	dry	----	----	
C	06/04/2001	13:25	28.89	dry	----	----	
C	08/16/2001	12:11	28.89	dry	----	----	
C	11/28/2001	13:03	28.89	dry	----	----	
C	02/27/2002	14:44	28.89	8.94	19.95	----	
C	06/27/2002	15:36	28.89	dry	----	----	
C	08/26/2002	17:31	28.89	dry	----	----	
C	11/13/2002	09:25	28.89	dry	----	----	
C	02/11/2003	10:46	28.89	dry	----	----	1" water
C	05/08/2003	08:35	28.89	8.53	20.36	----	
C	08/27/2003	15:08	28.89	dry	----	----	
D	03/25/1997	12:25	30.04	8.32	21.72	----	
D	03/31/1997	11:31	30.04	8.66	21.38	----	
D	07/16/1997	08:35	30.04	10.45	19.59	----	
D	10/21/1997	17:10	30.04	13.27	16.77	----	
D	01/27/1998	13:31	30.04	10.72	19.32	----	
D	05/18/1998	17:36	30.04	12.23	17.81	----	
D	08/17/1998	10:57	30.04	13.83	16.21	----	
D	11/13/1998	09:05	30.04	15.01	15.03	----	
D	02/16/1999	13:45	30.04	8.50	21.54	----	
D	05/18/1999	15:59	30.04	11.00	19.04	----	
D	09/21/1999	12:37	30.04	14.41	15.63	----	
D	12/06/1999	14:46	30.04	14.04	16.00	----	
D	02/16/2000	09:55	30.04	11.50	18.54	----	
D	05/23/2000	12:56	30.04	12.74	17.30	----	
D	08/29/2000	14:35	30.04	14.70	15.34	----	
D	11/09/2000	13:43	30.04	15.49	14.55	----	
D	02/12/2001	15:12	30.04	14.99	15.05	----	
D	06/04/2001	12:35	30.04	14.95	15.09	----	
D	08/16/2001	11:46	30.04	15.64	14.40	----	
D	11/28/2001	12:43	30.04	15.45	14.59	----	
D	02/27/2002	14:21	30.04	11.37	18.67	----	
D	03/05/2002	11:00	30.04	11.51	18.53	----	
D	04/05/2002	08:45	30.04	11.65	18.39	----	
D	05/29/2002	00:00	30.04	12.73	17.31	----	
D	06/27/2002	15:00	30.04	13.43	16.61	----	
D	08/26/2002	17:04	30.04	14.68	15.36	----	
D	11/13/2002	09:19	30.04	15.96	14.08	----	
D	02/11/2003	10:41	30.04	12.10	17.94	----	
D	05/08/2003	08:30	30.04	11.48	18.56	----	
D	08/27/2003	15:03	30.04	14.60	15.44	----	
D	10/23/2003	13:50	30.04	15.54	14.50	----	
F	08/18/1998	08:10	NA	14.77	NA		
G	03/25/1997	11:57	30.24	14.49	15.75	----	
G	03/31/1997	09:13	30.24	14.01	16.23	----	
G	07/16/1997	07:37	30.24	14.30	15.94	----	
G	10/21/1997	16:20	30.24	dry	----	----	
G	01/27/1998	11:49	30.24	dry	----	----	
G	05/18/1998	17:30	30.24	dry	----	----	
G	08/17/1998	11:06	30.24	dry	----	----	
G	11/13/1998	09:53	30.24	dry	----	----	
G	02/16/1999	13:14	30.24	dry	----	----	
G	05/18/1999	14:50	30.24	dry	----	----	
G	09/21/1999	11:30	30.24	dry	----	----	
G	12/06/1999	14:07	30.24	dry	----	----	
G	02/16/2000	10:19	30.24	dry	----	----	

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Well	Date	Time	Reference Elevation (ft) (a)	DTW (ft) (b)	GW Elevation (ft) (c)	LNAPL Thickness (ft)	NOTES
G	05/23/2000	16:33	30.24	dry	----	----	
G	08/29/2000	13:18	30.24	dry	----	----	
G	11/09/2000	12:30	30.24	dry	----	----	
G	02/12/2001	16:02	30.24	dry	----	----	
G	06/04/2001	11:41	30.24	dry	----	----	
G	08/16/2001	10:50	30.24	dry	----	----	
G	11/28/2001	11:33	30.24	dry	----	----	
G	02/27/2002	13:38	30.24	dry	----	----	
G	06/27/2002	14:13	30.24	dry	----	----	
G	08/26/2002	16:05	30.24	dry	----	----	
G	11/13/2002	07:37	30.24	dry	----	----	
G	02/11/2003	08:58	30.24	dry	----	----	
G	05/08/2003	06:57	30.24	dry	----	----	
G	08/27/2003	13:38	30.24	dry	----	----	
G	10/23/2003	12:38	30.24	dry	----	----	
H	03/31/1997	11:51	27.08	5.42	21.66	----	
H	07/16/1997	08:44	27.08	7.29	19.79	----	
H	10/21/1997	17:45	27.08	10.08	17.00	----	
H	01/27/1998	13:45	27.08	7.56	19.52	----	
H	05/18/1998	17:50	27.08	9.06	18.02	----	
H	08/17/1998	09:15	27.08	10.68	16.40	----	
H	11/13/1998	10:54	27.08	11.84	15.24	----	
H	02/16/1999	13:50	27.08	5.35	21.73	----	
H	05/18/1999	15:41	27.08	7.78	19.30	----	
H	09/21/1999	12:15	27.08	11.23	15.85	----	
H	12/06/1999	15:13	27.08	10.91	16.17	----	
H	02/16/2000	10:52	27.08	8.28	18.80	----	
H	05/23/2000	17:20	27.08	9.48	17.60	----	
H	08/29/2000	14:06	27.08	11.55	15.53	----	
H	11/09/2000	13:23	27.08	12.34	14.74	----	
H	02/12/2001	15:36	27.08	11.88	15.20	----	
H	06/04/2001	12:27	27.08	11.81	15.27	----	
H	08/16/2001	11:41	27.08	12.57	14.51	----	
H	11/28/2001	12:34	27.08	12.39	14.69	----	
H	02/27/2002	14:18	27.08	8.14	18.94	----	
H	03/05/2002	10:58	27.08	8.28	18.80	----	
H	04/05/2002	09:10	27.08	8.45	18.63	----	
H	05/29/2002	00:00	27.08	9.38	17.70	----	
H	06/27/2002	14:51	27.08	10.25	16.83	----	
H	08/26/2002	17:00	27.08	11.54	15.54	----	
H	11/13/2002	09:12	27.08	12.83	14.25	----	
H	02/11/2003	10:33	27.08	8.96	18.12	----	
H	05/08/2003	08:24	27.08	8.24	18.84	----	
H	08/27/2003	15:02	27.08	11.48	15.60	----	
H	10/23/2003	13:42	27.08	12.41	14.67	----	
J1	03/25/1997	12:15	29.70	8.78	20.92	----	Orange/brown algae
J1	03/31/1997	11:19	29.70	9.02	20.68	----	
J1	07/16/1997	08:22	29.70	10.49	19.21	----	
J1	10/21/1997	16:58	29.70	13.10	16.60	----	
J1	01/27/1998	13:15	29.70	11.03	18.67	----	
J1	05/18/1998	18:01	29.70	12.27	17.43	----	
J1	08/17/1998	11:00	29.70	13.78	15.92	----	
J1	11/13/1998	10:30	29.70	14.77	14.93	----	
J1	02/16/1999	13:37	29.70	8.91	20.79	----	
J1	05/18/1999	15:46	29.70	11.19	18.51	----	
J1	09/21/1999	12:28	29.70	14.36	15.34	----	
J1	12/06/1999	15:07	29.70	13.95	15.75	----	
J1	02/16/2000	11:05	29.70	11.67	18.03	----	
J1	05/23/2000	17:27	29.70	12.78	16.92	----	
J1	08/29/2000	14:14	29.70	14.58	15.12	----	
J1	11/09/2000	13:25	29.70	15.30	14.40	----	
J1	02/12/2001	15:22	29.70	14.87	14.83	----	
J1	06/04/2001	12:39	29.70	14.83	14.87	----	
J1	08/16/2001	11:52	29.70	15.48	14.22	----	
J1	11/28/2001	12:35	29.70	15.23	14.47	----	
J1	02/27/2002	14:30	29.70	11.62	18.08	----	

TABLE B-1
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TIME OIL NORTHWEST TERMINAL

Well	Date	Time	Reference Elevation (ft) (a)	DTW (ft) (b)	GW Elevation (ft) (c)	LNAPL Thickness (ft)	NOTES
J1	03/05/2002	11:04	29.70	11.76	17.94	----	
J1	04/05/2002	08:40	29.70	11.87	17.83	----	
J1	05/29/2002	00:00	29.70	12.77	16.93	----	
J1	06/27/2002	15:02	29.70	13.40	16.30	----	
J1	08/26/2002	16:54	29.70	14.51	15.19	----	
J1	11/13/2002	09:00	29.70	15.71	13.99	----	
J1	02/11/2003	10:18	29.70	12.33	17.37	----	
J1	05/08/2003	08:14	29.70	11.65	18.05	----	
J1	08/27/2003	14:47	29.70	14.46	15.24	----	
J1	10/23/2003	13:52	29.70	15.31	14.39	----	
K	03/25/1997	12:08	29.42	8.20	21.22	----	
K	03/31/1997	09:32	29.42	8.46	20.96	----	
K	07/16/1997	08:00	29.42	10.03	19.39	----	
K	10/21/1997	16:45	29.42	12.71	16.71	----	
K	01/27/1998	12:37	29.42	10.46	18.96	----	
K	05/18/1998	17:52	29.42	11.77	17.65	----	
K	08/17/1998	10:50	29.42	13.34	16.08	----	
K	11/13/1998	10:14	29.42	14.30	15.12	----	
K	02/16/1999	13:55	29.42	8.41	21.01	----	
K	05/18/1999	15:30	29.42	10.68	18.74	----	
K	09/21/1999	12:08	29.42	13.91	15.51	----	
K	12/06/1999	14:32	29.42	13.44	15.98	----	
K	02/16/2000	10:48	29.42	11.15	18.27	----	
K	05/23/2000	17:12	29.42	12.25	17.17	----	
K	08/29/2000	13:56	29.42	14.16	15.26	----	
K	11/09/2000	13:16	29.42	14.84	14.58	----	
K	02/12/2001	15:41	29.42	14.35	15.07	----	
K	06/04/2001	12:20	29.42	14.22	15.20	----	
K	08/16/2001	11:35	29.42	15.12	14.30	----	
K	11/28/2001	12:26	29.42	14.68	14.74	----	
K	02/27/2002	14:17	29.42	11.05	18.37	----	
K	03/05/2002	10:55	29.42	11.25	18.17	----	
K	04/05/2002	08:55	29.42	11.30	18.12	----	
K	05/29/2002	00:00	29.42	12.22	17.20	----	
K	06/27/2002	14:47	29.42	12.92	16.50	----	
K	08/26/2002	17:17	29.42	14.12	15.30	----	
K	11/13/2002	09:11	29.42	15.18	14.24	----	
K	02/11/2003	10:29	29.42	11.80	17.62	----	
K	05/08/2003	08:21	29.42	11.14	18.28	----	
K	08/27/2003	14:52	29.42	14.08	15.34	----	
K	10/23/2003	13:40	29.42	14.91	14.51	----	
L	03/25/1997	12:35	28.10	4.98	23.12	----	
L	03/31/1997	11:40	28.10	5.24	22.86	----	
L	07/16/1997	08:49	28.10	7.50	20.60	----	
L	10/21/1997	15:18	28.10	9.55	18.55	----	
L	01/27/1998	13:39	28.10	6.45	21.65	----	
L	05/18/1998	18:07	28.10	9.21	18.89	----	
L	08/17/1998	11:10	28.10	11.59	16.51	----	
L	11/13/1998	10:35	28.10	13.02	15.08	----	
L	02/16/1999	13:57	28.10	4.78	23.32	----	
L	05/18/1999	16:03	28.10	7.62	20.48	----	
L	09/21/1999	12:43	28.10	12.30	15.80	----	
L	12/06/1999	14:49	28.10	9.51	18.59	----	
L	02/16/2000	09:49	28.10	7.13	20.97	----	
L	05/23/2000	17:54	28.10	9.11	18.99	----	
L	08/29/2000	14:32	28.10	12.66	15.44	----	
L	11/09/2000	13:46	28.10	13.56	14.54	----	
L	02/12/2001	15:07	28.10	13.04	15.06	----	
L	06/04/2001	13:24	28.10	12.78	15.32	----	
L	08/16/2001	12:10	28.10	13.66	14.44	----	
L	11/28/2001	13:02	28.10	12.34	15.76	----	
L	02/27/2002	14:42	28.10	7.16	20.94	----	
L	03/05/2002	11:12	28.10	7.39	20.71	----	
L	04/05/2002	08:39	28.10	7.63	20.47	----	
L	05/29/2002	00:00	28.10	9.09	19.01	----	
L	06/27/2002	10:38	28.10	10.11	17.99	----	

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TIME OIL NORTHWEST TERMINAL

Well	Date	Time	Reference Elevation (ft) (a)	DTW (ft) (b)	GW Elevation (ft) (c)	LNAPL Thickness (ft)	NOTES
L	08/26/2002	17:30	28.10	12.56	15.54	----	
L	11/13/2002	09:26	28.10	14.00	14.10	----	
L	02/11/2003	10:47	28.10	7.17	20.93	----	
L	05/08/2003	08:34	28.10	7.01	21.09	----	
L	08/27/2003	15:09	28.10	15.20	12.90	----	
L	10/23/2003	14:20	28.10	13.56	14.54	----	
N	03/25/1997	11:48	31.40	14.05	17.35	----	
N	03/31/1997	08:59	31.40	14.26	17.14	----	Hydrocarbon odor, product
N	07/16/1997	07:20	31.40	16.03	16.33	1.20	Light brown color; thick coating on probe
N	10/21/1997	16:09	31.40	16.46	14.94	----	No product - strong petroleum odor
N	10/23/1997	17:20	31.40	16.48	14.92	----	No product - strong petroleum odor
N	01/27/1998	11:13	31.40	15.01	16.41	0.02	
N	05/18/1998	17:20	31.40	16.39	15.06	0.06	
N	08/17/1998	10:40	31.40	17.16	14.26	0.02	Thin coat of thick product
N	11/13/1998	09:48	31.40	17.83	13.58	0.01	
N	02/16/1999	12:55	31.40	14.09	17.53	0.27	Strong petroleum odor
N	05/18/1999	14:47	31.40	15.79	15.64	0.04	
N	09/21/1999	11:23	31.40	17.39	14.02	0.01	
N	12/06/1999	14:00	31.40	16.57	14.83	----	
N	02/16/2000	10:10	31.40	15.69	15.71	----	
N	05/23/2000	16:24	31.40	16.42	14.98	----	Strong petroleum odor, no product
N	08/29/2000	13:07	31.40	17.61	13.79	----	
N	11/09/2000	12:26	31.40	18.23	13.19	0.03	
N	02/12/2001	15:49	31.40	17.64	13.76	----	
N	06/04/2001	11:31	31.40	17.58	13.82	----	
N	08/16/2001	10:29	31.40	18.08	13.32	----	Trace product
N	11/28/2001	11:27	31.40	18.06	13.34	----	Trace product
N	02/27/2002	13:25	31.40	15.76	15.64	----	
N	04/05/2002	08:09	31.40	15.88	15.52	----	
N	05/29/2002	00:00	31.40	16.42	14.98	----	
N	06/27/2002	14:12	31.40	16.80	14.60	----	
N	08/26/2002	15:56	31.40	17.51	13.89	----	
N	11/13/2002	07:27	31.40	18.44	12.98	0.03	Product present
N	02/11/2003	08:49	31.40	15.33	16.07	----	
N	05/08/2003	06:51	31.40	15.71	15.69	----	
N	08/27/2003	13:33	31.40	17.54	13.86	----	
N	10/23/2003	12:08	31.40	18.18	13.22	----	
P	03/25/1997	11:45	29.96	12.88	17.08	----	
P	03/31/1997	08:55	29.96	12.94	17.02	----	Hydrocarbon odor, product
P	07/16/1997	07:15	29.96	14.02	16.08	0.17	Light coating on probe; light brown color
P	10/21/1997	16:05	29.96	15.23	14.73	----	No product - strong petroleum odor
P	10/23/1997	17:25	29.96	15.21	14.75	----	No product - strong petroleum odor
P	01/27/1998	11:09	29.96	13.87	16.09	----	
P	05/18/1998	17:18	29.96	13.08	16.88	----	Trace of product on probe
P	08/17/1998	10:37	29.96	15.82	14.15	0.01	Sheen on probe, strong petroleum odor
P	11/13/1998	09:46	29.96	16.63	13.37	0.05	Strong gasoline odor
P	02/16/1999	12:52	29.96	12.91	17.10	0.06	Strong petroleum odor
P	05/18/1999	14:43	29.96	14.68	15.38	0.13	
P	09/21/1999	11:20	29.96	16.08	13.89	0.01	
P	12/06/1999	13:55	29.96	15.41	14.55	----	
P	02/16/2000	10:08	29.96	14.51	15.45	----	
P	05/23/2000	16:21	29.96	15.15	14.81	----	Trace of product on surface
P	08/29/2000	13:04	29.96	16.26	13.71	0.01	
P	11/09/2000	12:24	29.96	16.98	13.00	0.03	
P	02/12/2001	15:46	29.96	16.31	13.65	----	
P	06/04/2001	11:27	29.96	16.26	13.70	----	Trace product
P	08/16/2001	10:28	29.96	16.75	13.21	----	
P	11/28/2001	11:24	29.96	17.01	12.95	----	
P	02/27/2002	13:22	29.96	14.60	15.44	0.10	Strong ethanol-like odor
P	04/05/2002	08:07	29.96	14.70	15.34	0.10	
P	05/29/2002	00:00	29.96	15.00	14.96	----	Trace product
P	06/27/2002	14:11	29.96	15.49	14.47	----	
P	08/26/2002	15:54	29.96	16.15	13.81	----	
P	11/13/2002	07:25	29.96	16.99	13.00	0.04	Product present
P	02/11/2003	08:44	29.96	14.13	15.84	0.01	Product present
P	05/08/2003	06:47	29.96	15.53	14.44	0.01	Product barely present

TABLE B-1
GROUNDWATER LEVEL MEASUREMENTS
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TIME OIL NORTHWEST TERMINAL

Well	Date	Time	Reference Elevation (ft) (a)	DTW (ft) (b)	GW Elevation (ft) (c)	LNAPL Thickness (ft)	NOTES
P	08/27/2003	13:30	29.96	16.19	13.77	----	
P	10/23/2003	12:05	29.96	16.60	13.38	0.02	
Q	03/25/1997	11:42	30.36	13.55	16.81	----	
Q	03/31/1997	08:52	30.36	13.54	16.82	----	Hydrocarbon odor
Q	07/16/1997	07:10	30.36	14.55	15.83	0.02	Light coating on probe; light brown color
Q	10/21/1997	16:04	30.36	15.70	14.66	----	No product - strong petroleum odor
Q	10/23/1997	17:29	30.36	15.69	14.67	----	No product - strong petroleum odor
Q	01/27/1998	11:05	30.36	14.48	15.88	----	
Q	05/18/1998	17:16	30.36	15.58	14.78	----	
Q	08/17/1998	10:35	30.36	16.27	14.09	----	Slight sheen on probe; no product, strong petroleum odor
Q	11/13/1998	09:44	30.36	17.01	13.36	0.01	Strong gasoline odor
Q	02/16/1999	12:49	30.36	13.61	16.76	0.01	Strong petroleum odor
Q	05/18/1999	14:40	30.36	15.13	15.23	----	Strong odor when cap removed
Q	09/21/1999	11:17	30.36	16.51	13.85	----	
Q	12/06/1999	13:53	30.36	15.88	14.48	----	
Q	02/16/2000	10:06	30.36	15.02	15.34	----	Film of product
Q	05/23/2000	16:19	30.36	15.64	14.72	----	Strong petroleum odor, no product
Q	08/29/2000	13:01	30.36	16.69	13.67	----	
Q	11/09/2000	12:23	30.36	17.50	12.86	----	Trace of product
Q	02/12/2001	15:45	30.36	16.71	13.65	----	
Q	06/04/2001	11:25	30.36	16.66	13.70	----	
Q	08/16/2001	10:26	30.36	17.15	13.21	----	Trace product
Q	11/28/2001	11:21	30.36	17.76	12.94	0.42	
Q	02/27/2002	13:20	30.36	15.07	15.29	----	Strong petroleum odor, no product
Q	04/05/2002	08:05	30.36	15.23	15.13	----	Trace product
Q	05/29/2002	00:00	30.36	15.53	14.83	----	Trace product
Q	06/27/2002	14:10	30.36	15.95	14.41	----	Trace product
Q	08/26/2002	15:52	30.36	16.60	13.76	----	
Q	11/13/2002	07:30	30.36	17.50	12.87	0.01	Product present
Q	02/11/2003	08:47	30.36	14.67	15.69	----	
Q	05/08/2003	06:48	30.36	15.00	15.54	0.22	
Q	08/27/2003	13:28	30.36	16.60	13.76	----	
Q	10/23/2003	12:03	30.36	17.50	13.05	0.24	
LW001S	03/31/1997	11:12	27.96	6.65	21.31		
LW001S	07/16/1997	08:15	27.96	8.34	19.62	----	
LW001S	10/21/1997	16:53	27.96	11.02	16.94	----	
LW001S	01/27/1998	13:00	27.96	8.75	19.21	----	
LW001S	05/18/1998	17:40	27.96	9.15	18.81	----	
LW001S	08/17/1998	10:54	27.96	11.67	16.29	----	
LW001S	11/13/1998	10:02	27.96	12.76	15.20	----	
LW001S	02/16/1999	13:24	27.96	6.60	21.36	----	
LW001S	05/18/1999	15:38	27.96	8.92	19.04	----	
LW001S	09/21/1999	12:10	27.96	12.20	15.76	----	
LW001S	12/06/1999	14:33	27.96	11.86	16.10	----	
LW001S	02/16/2000	10:50	27.96	9.42	18.54	----	
LW001S	05/23/2000	17:18	27.96	10.52	17.44	----	
LW001S	08/29/2000	13:58	27.96	12.51	15.45	----	
LW001S	11/09/2000	13:17	27.96	13.26	14.70	----	
LW001S	02/12/2001	15:33	27.96	12.82	15.14	----	
LW001S	06/04/2001	12:24	27.96	12.77	15.19	----	
LW001S	08/16/2001	11:37	27.96	13.45	14.51	----	
LW001S	11/28/2001	12:28	27.96	13.25	14.71	----	
LW001S	02/27/2002	14:19	27.96	9.31	18.65	----	
LW001S	03/05/2002	10:56	27.96	9.45	18.51	----	
LW001S	04/05/2002	09:08	27.96	9.60	18.36	----	
LW001S	05/29/2002	00:00	27.96	10.49	17.47	----	
LW001S	06/27/2002	14:50	27.96	11.26	16.70	----	
LW001S	08/26/2002	17:11	27.96	12.47	15.49	----	
LW001S	11/13/2002	09:07	27.96	13.72	14.24	----	
LW001S	02/11/2003	10:25	27.96	10.11	17.85	----	
LW001S	05/08/2003	08:20	27.96	9.41	18.55	----	
LW001S	08/27/2003	14:51	27.96	12.46	15.50	----	
LW001S	10/23/2003	13:58	27.96	13.32	14.64	----	
LW002S	03/25/1997	12:22	29.56	8.06	21.50	----	
LW002S	03/31/1997	11:27	29.56	8.34	21.22	----	

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Well	Date	Time	Reference Elevation (ft) (a)	DTW (ft) (b)	GW Elevation (ft) (c)	LNAPL Thickness (ft)	NOTES
LW002S	07/16/1997	08:33	29.56	10.05	19.51	----	
LW002S	10/21/1997	17:04	29.56	12.77	16.79	----	
LW002S	01/27/1998	13:25	29.56	10.39	19.17	----	
LW002S	05/18/1998	18:02	29.56	11.78	17.78	----	
LW002S	08/17/1998	10:56	29.56	13.38	16.18	----	
LW002S	11/13/1998	10:32	29.56	14.47	15.09	----	
LW002S	02/16/1999	13:42	29.56	8.27	21.29	----	
LW002S	05/18/1999	15:45	29.56	10.63	18.93	----	
LW002S	09/21/1999	12:34	29.56	13.95	15.61	----	
LW002S	12/06/1999	15:11	29.56	13.54	16.02	----	
LW002S	02/16/2000	10:38	29.56	11.08	18.48	----	
LW002S	05/23/2000	17:24	29.56	12.29	17.27	----	
LW002S	08/29/2000	14:12	29.56	14.23	15.33	----	
LW002S	11/09/2000	13:04	29.56	15.00	14.56	----	
LW002S	02/12/2001	15:30	29.56	14.52	15.04	----	
LW002S	06/04/2001	12:34	29.56	14.46	15.10	----	
LW002S	08/16/2001	11:45	29.56	15.16	14.40	----	
LW002S	11/28/2001	12:41	29.56	14.90	14.66	----	
LW002S	02/27/2002	14:19	29.56	11.02	18.54	----	
LW002S	03/05/2002	10:59	29.56	11.17	18.39	----	
LW002S	04/05/2002	08:47	29.56	11.33	18.23	----	
LW002S	05/29/2002	00:00	29.56	12.22	17.34	----	
LW002S	06/27/2002	14:56	29.56	13.00	16.56	----	
LW004S	03/31/1997	09:20	30.26	12.77	17.49	----	
LW004S	07/16/1997	07:40	30.26	14.66	15.60	----	
LW004S	10/21/1997	16:25	30.26	16.88	13.38	----	
LW004S	01/27/1998	12:00	30.26	15.13	15.13	----	
LW004S	05/18/1998	17:32	30.26	16.08	14.18	----	
LW004S	08/17/1998	11:07	30.26	17.30	12.96	----	
LW004S	11/13/1998	09:56	30.26	17.96	12.30	----	
LW004S	02/16/1999	13:16	30.26	13.10	17.16	----	
LW004S	05/18/1999	15:03	30.26	15.43	14.83	----	
LW004S	09/21/1999	11:44	30.26	17.61	12.65	----	
LW004S	12/06/1999	14:19	30.26	17.08	13.18	----	
LW004S	02/16/2000	10:31	30.26	15.84	14.42	----	
LW004S	05/23/2000	16:55	30.26	16.71	13.55	----	
LW004S	08/29/2000	13:39	30.26	17.78	12.48	----	
LW004S	11/09/2000	12:53	30.26	18.17	12.09	----	
LW004S	02/12/2001	16:38	30.26	17.08	13.18	----	
LW004S	06/04/2001	12:08	30.26	17.81	12.45	----	
LW004S	08/16/2001	11:14	30.26	18.39	11.87	----	
LW004S	11/28/2001	12:05	30.26	17.84	12.42	----	
LW004S	02/27/2002	14:01	30.26	15.82	14.44	----	
LW004S	03/05/2002	11:35	30.26	15.95	14.31	----	
LW004S	04/05/2002	08:20	30.26	16.02	14.24	----	
LW004S	05/29/2002	00:00	30.26	16.74	13.52	----	
LW004S	06/27/2002	14:39	30.26	16.89	13.37	----	
LW004S	08/26/2002	16:31	30.26	17.68	12.58	----	
LW004S	11/13/2002	08:22	30.26	19.04	11.22	----	
LW004S	02/11/2003	09:31	30.26	16.03	14.23	----	
LW004S	05/08/2003	07:43	30.26	15.75	14.51	----	
LW004S	08/27/2003	13:59	30.26	17.87	12.39	----	
LW004S	10/23/2003	13:18	30.26	18.52	11.74	----	
LW005S	03/25/1997	12:29	30.79	10.57	20.22	----	
LW005S	03/31/1997	11:35	30.79	10.84	19.95	----	
LW005S	07/16/1997	08:53	30.79	12.29	18.50	----	
LW005S	10/21/1997	15:16	30.79	15.00	15.79	----	
LW005S	01/27/1998	13:36	30.79	12.90	17.89	----	
LW005S	05/18/1998	18:05	30.79	14.19	16.60	----	
LW005S	08/17/1998	11:09	30.79	15.54	15.25	----	
LW005S	11/13/1998	10:38	30.79	16.55	14.24	----	
LW005S	02/16/1999	13:16	30.79	10.59	20.20	----	
LW005S	05/18/1999	16:01	30.79	13.12	17.67	----	
LW005S	09/21/1999	12:40	30.79	16.00	14.79	----	
LW005S	12/06/1999	14:47	30.79	15.64	15.15	----	
LW005S	02/16/2000	09:56	30.79	13.54	17.25	----	

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Well	Date	Time	Reference Elevation (ft) (a)	DTW (ft) (b)	GW Elevation (ft) (c)	LNAPL Thickness (ft)	NOTES
LW005S	05/23/2000	17:51	30.79	14.80	15.99	----	
LW005S	08/29/2000	14:37	30.79	16.35	14.44	----	
LW005S	11/09/2000	13:45	30.79	16.98	13.81	----	
LW005S	02/12/2001	15:13	30.79	16.51	14.28	----	
LW005S	06/04/2001	13:23	30.79	16.43	14.36	----	
LW005S	08/16/2001	12:07	30.79	17.03	13.76	----	
LW005S	11/28/2001	13:01	30.79	16.94	13.85	----	
LW005S	02/27/2002	14:39	30.79	13.48	17.31	----	
LW005S	03/05/2002	11:13	30.79	13.62	17.17	----	
LW005S	04/05/2002	08:38	30.79	13.60	17.19	----	
LW005S	05/29/2002	00:00	30.79	14.81	15.98	----	
LW005S	06/27/2002	10:43	30.79	15.15	15.64	----	
LW005S	08/26/2002	17:08	30.79	16.12	14.67	----	
LW005S	11/13/2002	09:22	30.79	17.39	13.40	----	
LW005S	02/11/2003	10:43	30.79	13.95	16.84	----	
LW005S	05/08/2003	08:32	30.79	13.58	17.21	----	
LW005S	08/27/2003	15:07	30.79	16.11	14.68	----	
LW005S	10/23/2003	14:17	30.79	16.92	13.87	----	
LW007S	03/31/1997	11:05	28.10	6.75	21.35	----	
LW007S	07/16/1997	08:05	28.10	8.62	19.48	----	
LW007S	10/21/1997	16:45	28.10	11.26	16.84	----	
LW007S	01/27/1998	12:47	28.10	8.85	19.25	----	
LW007S	05/18/1998	17:48	28.10	10.34	17.76	----	
LW007S	08/17/1998	10:48	28.10	11.85	16.25	----	
LW007S	11/13/1998	10:12	28.10	12.90	15.20	----	Strong gasoline odor
LW007S	02/16/1999	13:53	28.10	6.81	21.29	----	
LW007S	05/18/1999	15:23	28.10	9.14	18.96	----	
LW007S	09/21/1999	12:03	28.10	12.37	15.73	----	
LW007S	12/06/1999	14:27	28.10	12.00	16.10	----	
LW007S	02/16/2000	10:46	28.10	9.60	18.50	----	
LW007S	05/23/2000	17:09	28.10	10.70	17.40	----	
LW007S	08/29/2000	13:53	28.10	12.64	15.46	----	
LW007S	11/09/2000	13:14	28.10	13.36	14.74	----	
LW007S	02/12/2001	15:39	28.10	12.94	15.16	----	
LW007S	06/04/2001	12:17	28.10	12.87	15.23	----	
LW007S	08/16/2001	11:33	28.10	13.58	14.52	----	
LW007S	11/28/2001	12:22	28.10	13.34	14.76	----	
LW007S	02/27/2002	14:15	28.10	9.47	18.63	----	
LW007S	03/05/2002	10:52	28.10	9.62	18.48	----	
LW007S	04/05/2002	08:57	28.10	9.73	18.37	----	
LW007S	05/29/2002	00:00	28.10	10.63	17.47	----	
LW007S	06/27/2002	14:45	28.10	11.36	16.74	----	
LW007S	08/26/2002	17:18	28.10	12.69	15.41	----	
LW007S	11/13/2002	09:16	28.10	13.82	14.28	----	
LW007S	02/11/2003	10:37	28.10	10.18	17.92	----	
LW007S	05/08/2003	08:27	28.10	9.54	18.56	----	
LW007S	08/27/2003	14:58	28.10	12.62	15.48	----	
LW007S	10/23/2003	13:39	28.10	13.45	14.65	----	
LW008S	05/18/1999	14:55	31.28	14.84	16.44	----	
LW008S	09/21/1999	12:24	31.28	16.94	14.34	----	
LW008S	12/06/1999	14:40	31.28	16.63	14.65	----	
LW008S	02/16/2000	10:16	31.28	15.18	16.10	----	
LW008S	05/23/2000	17:42	31.28	15.88	15.40	----	
LW008S	08/29/2000	14:26	31.28	17.06	14.22	----	
LW008S	11/09/2000	13:32	31.28	17.55	13.73	----	
LW008S	02/12/2001	15:58	31.28	17.24	14.04	----	
LW008S	06/04/2001	13:05	31.28	17.14	14.14	----	
LW008S	08/16/2001	12:00	31.28	17.70	13.58	----	
LW008S	11/28/2001	12:57	31.28	17.63	13.68	0.04	
LW008S	02/27/2002	14:37	31.28	15.12	16.16	----	
LW008S	03/05/2002	11:09	31.28	15.26	16.02	----	
LW008S	04/05/2002	08:17	31.28	15.34	15.94	----	
LW008S	05/29/2002	00:00	31.28	15.91	15.37	----	
LW008S	06/27/2002	15:21	31.28	16.21	15.07	----	
LW008S	08/26/2002	16:38	31.28	16.95	14.33	----	
LW008S	11/13/2002	08:50	31.28	17.88	13.40	----	

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Well	Date	Time	Reference Elevation (ft) (a)	DTW (ft) (b)	GW Elevation (ft) (c)	LNAPL Thickness (ft)	NOTES
LW008S	02/11/2003	09:48	31.28	15.57	15.71	----	
LW008S	05/08/2003	08:00	31.28	15.11	16.17	----	
LW008S	08/27/2003	14:25	31.28	16.97	14.31	----	
LW008S	10/23/2003	12:42	31.28	17.54	13.74	----	
LW009S	05/18/1999	14:57	31.04	19.58	11.46	----	Water level appears to be more representative of lower zone
LW009S	09/21/1999	11:36	31.04	dry	----	----	
LW009S	12/06/1999	14:13	31.04	19.64	----	----	Water in endcap
LW009S	02/16/2000	10:24	31.04	19.59	----	----	Water in endcap
LW009S	05/23/2000	16:39	31.04	dry	----	----	
LW009S	08/29/2000	13:28	31.04	dry	----	----	
LW009S	11/09/2000	12:42	31.04	dry	----	----	
LW009S	02/12/2001	16:12	31.04	dry	----	----	
LW009S	06/04/2001	11:50	31.04	dry	----	----	
LW009S	08/16/2001	11:01	31.04	dry	----	----	
LW009S	11/28/2001	11:52	31.04	dry	----	----	
LW009S	02/27/2002	13:48	31.04	dry	----	----	
LW009S	03/05/2002	11:15	31.04	dry	----	----	
LW009S	04/05/2002	08:26	31.04	dry	----	----	
LW009S	05/29/2002	00:00	31.04	dry	----	----	
LW009S	06/27/2002	14:24	31.04	dry	----	----	
LW009S	08/26/2002	16:09	31.04	dry	----	----	
LW009S	11/13/2002	07:49	31.04	dry	----	----	
LW009S	02/11/2003	09:06	31.04	dry	----	----	Recorded DTW of 19.58; well most likely dry
LW009S	05/08/2003	07:11	31.04	dry	----	----	
LW009S	08/27/2003	13:48	31.04	dry	----	----	
LW009S	10/23/2003	12:46	31.04	dry	----	----	
LW010S	05/18/1999	14:59	30.75	17.24	13.51	----	
LW010S	09/21/1999	11:38	30.75	19.13	11.62	----	
LW010S	12/06/1999	14:14	30.75	18.54	12.21	----	
LW010S	02/16/2000	10:26	30.75	17.62	13.13	----	
LW010S	05/23/2000	16:41	30.75	18.25	12.50	----	
LW010S	08/29/2000	13:30	30.75	dry	----	----	
LW010S	11/09/2000	12:45	30.75	dry	----	----	
LW010S	02/12/2001	16:14	30.75	dry	----	----	
LW010S	06/04/2001	11:53	30.75	dry	----	----	
LW010S	08/16/2001	11:03	30.75	dry	----	----	
LW010S	11/28/2001	11:54	30.75	dry	----	----	
LW010S	02/27/2002	13:50	30.75	17.77	12.98	----	
LW010S	03/05/2002	11:32	30.75	17.84	12.91	----	
LW010S	04/05/2002	08:24	30.75	17.82	12.93	----	
LW010S	05/29/2002	00:00	30.75	18.22	12.53	----	
LW010S	06/27/2002	14:28	30.75	18.27	12.48	----	
LW010S	08/26/2002	16:15	30.75	dry	----	----	
LW010S	11/13/2002	08:00	30.75	dry	----	----	
LW010S	02/11/2003	09:20	30.75	17.50	13.25	----	
LW010S	05/08/2003	07:32	30.75	17.68	13.07	----	
LW010S	08/27/2003	13:51	30.75	dry	----	----	
LW010S	10/23/2003	12:51	30.75	dry	----	----	
LW011S	05/18/1999	15:10	29.10	11.47	17.63	----	
LW011S	09/21/1999	11:51	29.10	14.23	14.87	----	
LW011S	12/06/1999	15:05	29.10	14.00	15.10	----	
LW011S	02/16/2000	11:01	29.10	11.94	17.16	----	
LW011S	05/23/2000	11:01	29.10	13.01	16.09	----	
LW011S	08/29/2000	14:55	29.10	14.51	14.59	----	
LW011S	11/09/2000	13:36	29.10	15.48	13.92	0.37	First occurrence of product in well.
LW011S	02/12/2001	15:18	29.10	14.62	14.48	----	
LW011S	06/04/2001	13:12	29.10	14.65	14.45	----	
LW011S	08/16/2001	11:24	29.10	15.46	13.86	0.28	
LW011S	11/28/2001	12:51	29.10	15.10	14.00	----	Trace product
LW011S	02/27/2002	14:59	29.10	11.86	17.24	----	
LW011S	03/05/2002	11:40	29.10	11.96	17.14	----	
LW011S	04/05/2002	08:34	29.10	12.07	17.03	----	
LW011S	05/29/2002	00:00	29.10	13.00	16.10	----	
LW011S	06/27/2002	15:09	29.10	13.40	15.70	----	
LW011S	08/26/2002	16:48	29.10	14.37	14.73	----	

TABLE B-1
GROUNDWATER LEVEL MEASUREMENTS
MARCH 1997 - OCTOBER 2003
TIME OIL NORTHWEST TERMINAL

Well	Date	Time	Reference Elevation (ft) (a)	DTW (ft) (b)	GW Elevation (ft) (c)	LNAPL Thickness (ft)	NOTES
LW011S	11/13/2002	08:54	29.10	15.53	13.57	----	
LW011S	02/11/2003	10:03	29.10	12.46	16.64	----	
LW011S	05/08/2003	08:07	29.10	11.91	17.19	----	
LW011S	08/27/2003	14:36	29.10	14.32	14.78	----	
LW011S	10/23/2003	14:12	29.10	15.12	13.98	----	
LW013S	05/23/2000	16:51	30.17	17.23	12.94	----	
LW013S	08/29/2000	13:37	30.17	18.27	11.90	----	
LW013S	11/09/2000	12:51	30.17	18.75	11.42	----	
LW013S	02/12/2001	16:30	30.17	18.26	11.91	----	
LW013S	06/04/2001	12:06	30.17	18.30	11.87	----	
LW013S	08/16/2001	11:13	30.17	18.81	11.36	----	
LW013S	11/28/2001	12:03	30.17	18.37	11.80	----	
LW013S	02/27/2002	13:58	30.17	16.60	13.57	----	
LW013S	03/05/2002	11:33	30.17	16.68	13.49	----	
LW013S	04/05/2002	08:22	30.17	16.73	13.44	----	
LW013S	05/29/2002	00:00	30.17	17.30	12.87	----	
LW013S	06/27/2002	14:37	30.17	17.38	12.79	----	
LW013S	08/26/2002	16:30	30.17	18.11	12.06	----	
LW013S	11/13/2002	08:14	30.17	19.04	11.13	----	
LW013S	02/11/2003	09:30	30.17	16.57	13.60	----	
LW013S	05/08/2003	07:41	30.17	16.53	13.64	----	
LW013S	08/27/2003	13:57	30.17	18.27	11.90	----	
LW013S	10/23/2003	13:14	30.17	18.81	11.36	----	
LW019S	10/23/2003	11:54	27.72	16.62	11.10	----	
LW020S	10/23/2003	12:14	29.51	14.86	14.65	----	
LW021S	10/23/2003	12:16	30.29	16.57	13.72	----	
LW027S	10/23/2003	12:20	30.59	25.40	5.19	----	
LW028S	10/23/2003	14:26	30.98	dry	----	----	
LW029S	10/23/2003	14:39	31.34	18.88	12.46	----	
LW030S	10/23/2003	14:41	30.08	17.91	12.17	----	
LW031S	10/23/2003	14:30	31.26	18.87	12.39	----	
LW032S	10/23/2003	14:32	30.71	17.02	13.69	----	
LW033S	10/23/2003	14:35	29.89	dry	----	----	
LW034S	10/23/2003	14:24	30.93	16.99	13.94	----	
LW101S	03/31/1997	09:54	29.41	4.51	24.90	----	
LW101S	07/16/1997	09:01	29.41	6.81	22.60	----	
LW101S	10/21/1997	18:01	29.41	7.28	22.13	----	
LW101S	01/27/1998	14:15	29.41	4.10	25.31	----	
LW101S	05/18/1998	18:18	29.41	6.68	22.73	----	
LW101S	08/17/1998	11:21	29.41	8.14	21.27	----	
LW101S	11/13/1998	10:48	29.41	8.61	20.80	----	
LW101S	02/16/1999	14:11	29.41	3.21	26.20	----	
LW101S	05/18/1999	16:17	29.41	6.00	23.41	----	
LW101S	09/21/1999	12:54	29.41	8.60	20.81	----	
LW101S	12/06/1999	14:58	29.41	6.98	22.43	----	
LW101S	02/16/2000	09:44	29.41	4.96	24.45	----	
LW101S	05/23/2000	18:06	29.41	6.83	22.58	----	
LW101S	08/29/2000	14:47	29.41	8.67	20.74	----	
LW101S	11/09/2000	13:56	29.41	9.39	20.02	----	
LW101S	02/12/2001	15:02	29.41	8.02	21.39	----	
LW101S	06/04/2001	13:35	29.41	8.40	21.01	----	
LW101S	08/16/2001	12:20	29.41	9.44	19.97	----	
LW101S	11/28/2001	13:12	29.41	8.58	20.83	----	
LW101S	02/27/2002	14:52	29.41	5.70	23.71	----	
LW101S	06/27/2002	15:32	29.41	7.80	21.61	----	

TABLE B-1
GROUNDWATER LEVEL MEASUREMENTS
MARCH 1997 - OCTOBER 2003
TIME OIL NORTHWEST TERMINAL

Well	Date	Time	Reference Elevation (ft) (a)	DTW (ft) (b)	GW Elevation (ft) (c)	LNAPL Thickness (ft)	NOTES
LW101S	08/26/2002	17:34	29.41	8.85	20.56	----	
LW101S	11/13/2002	09:35	29.41	9.92	19.49	----	
LW101S	02/11/2003	10:59	29.41	5.27	24.14	----	
LW101S	05/08/2003	08:43	29.41	5.40	24.01	----	
LW101S	08/27/2003	15:14	29.41	8.59	20.82	----	
LW102S	03/31/1997	10:01	25.77	1.86	23.91	----	
LW102S	07/16/1997	09:09	25.77	3.91	21.86	----	
LW102S	10/21/1997	17:59	25.77	4.03	21.74	----	
LW102S	01/27/1998	14:07	25.77	1.26	24.51	----	
LW102S	05/18/1998	18:15	25.77	3.57	22.20	----	
LW102S	08/17/1998	11:18	25.77	4.88	20.89	----	
LW102S	11/13/1998	10:45	25.77	5.14	20.63	----	
LW102S	02/16/1999	14:08	25.77	0.45	25.32	----	
LW102S	05/18/1999	16:12	25.77	3.24	22.53	----	
LW102S	09/21/1999	12:52	25.77	5.33	20.44	----	
LW102S	12/06/1999	14:56	25.77	3.67	22.10	----	
LW102S	02/16/2000	09:41	25.77	1.91	23.86	----	
LW102S	05/23/2000	18:03	25.77	3.72	22.05	----	
LW102S	08/29/2000	14:45	25.77	5.40	20.37	----	
LW102S	11/09/2000	13:53	25.77	5.94	19.83	----	
LW102S	02/12/2001	15:00	25.77	4.52	21.25	----	
LW102S	06/04/2001	13:32	25.77	4.93	20.84	----	
LW102S	08/16/2001	12:17	25.77	5.96	19.81	----	
LW102S	11/28/2001	13:10	25.77	5.15	20.62	----	
LW102S	02/27/2002	14:48	25.77	2.14	23.63	----	
LW102S	06/27/2002	15:30	25.77	4.50	21.27	----	
LW102S	08/26/2002	17:39	25.77	5.48	20.29	----	
LW102S	11/13/2002	09:32	25.77	6.50	19.27	----	
LW102S	02/11/2003	10:55	25.77	1.88	23.89	----	
LW102S	05/08/2003	08:40	25.77	2.22	23.55	----	
LW102S	08/27/2003	15:17	25.77	5.24	20.53	----	
LW103S	03/31/1997	09:50	29.07	5.50	23.57	----	
LW103S	07/16/1997	08:59	29.07	6.93	22.14	----	
LW103S	10/21/1997	18:03	29.07	7.08	21.99	----	
LW103S	01/27/1998	14:20	29.07	5.11	23.96	----	
LW103S	05/18/1998	18:21	29.07	6.57	22.50	----	
LW103S	08/17/1998	11:24	29.07	7.80	21.27	----	
LW103S	11/13/1998	10:51	29.07	7.91	21.16	----	
LW103S	02/16/1999	14:14	29.07	4.54	24.53	----	
LW103S	05/18/1999	16:20	29.07	6.20	22.87	----	
LW103S	09/21/1999	12:57	29.07	8.30	20.77	----	
LW103S	12/06/1999	15:00	29.07	6.60	22.47	----	
LW103S	02/16/2000	09:46	29.07	5.50	23.57	----	
LW103S	05/23/2000	18:10	29.07	6.64	22.43	----	
LW103S	08/29/2000	14:50	29.07	8.41	20.66	----	
LW103S	11/09/2000	13:58	29.07	8.78	20.29	----	
LW103S	02/12/2001	15:04	29.07	7.39	21.68	----	
LW103S	06/04/2001	13:37	29.07	7.83	21.24	----	
LW103S	08/16/2001	12:23	29.07	9.07	20.00	----	
LW103S	11/28/2001	13:16	29.07	8.02	21.05	----	
LW103S	02/27/2002	14:50	29.07	5.26	23.81	----	
LW103S	06/27/2002	15:34	29.07	7.42	21.65	----	
LW103S	08/26/2002	17:36	29.07	8.57	20.50	----	
LW103S	11/13/2002	09:37	29.07	9.48	19.59	----	
LW103S	02/11/2003	11:03	29.07	5.65	23.42	----	
LW103S	05/08/2003	08:46	29.07	5.86	23.21	----	
LW103S	08/27/2003	15:15	29.07	8.33	20.74	----	
LW104S	03/31/1997	10:06	26.57	3.55	23.02	----	
LW104S	07/16/1997	08:54	26.57	5.71	20.86	----	
LW104S	10/21/1997	16:22	26.57	5.71	20.86	----	
LW104S	01/27/1998	14:00	26.57	2.84	23.73	----	
LW104S	05/18/1998	18:11	26.57	5.17	21.40	----	
LW104S	08/17/1998	11:15	26.57	6.64	19.93	----	
LW104S	11/13/1998	10:41	26.57	6.72	19.85	----	
LW104S	02/16/1999	14:03	26.57	2.11	24.46	----	

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Well	Date	Time	Reference Elevation (ft) (a)	DTW (ft) (b)	GW Elevation (ft) (c)	LNAPL Thickness (ft)	NOTES
LW104S	05/18/1999	16:08	26.57	4.97	21.60	----	
LW104S	09/21/1999	12:48	26.57	7.18	19.39	----	
LW104S	12/06/1999	14:54	26.57	5.00	21.57	----	
LW104S	02/16/2000	09:39	26.57	3.61	22.96	----	
LW104S	05/23/2000	17:59	26.57	5.61	20.96	----	
LW104S	08/29/2000	14:43	26.57	7.08	19.49	----	
LW104S	11/09/2000	13:51	26.57	7.49	19.08	----	
LW104S	02/12/2001	14:57	26.57	6.28	20.29	----	
LW104S	06/04/2001	13:30	26.57	6.64	19.93	----	
LW104S	08/16/2001	12:15	26.57	7.56	19.01	----	
LW104S	11/28/2001	13:06	26.57	6.30	20.27	----	
LW104S	02/27/2002	14:46	26.57	4.07	22.50	----	
LW104S	06/27/2002	15:27	26.57	6.28	20.29	----	
LW104S	08/26/2002	17:41	26.57	7.13	19.44	----	
LW104S	11/13/2002	09:30	26.57	7.85	18.72	----	
LW104S	02/11/2003	10:51	26.57	3.72	22.85	----	
LW104S	05/08/2003	08:38	26.57	4.94	21.63	----	
LW104S	08/27/2003	15:19	26.57	6.87	19.70	----	
RW1	05/18/1999	15:06	31.46	15.70	15.76	----	
RW1	09/21/1999	11:46	31.46	18.02	13.44	----	
RW1	12/06/1999	14:43	31.46	17.73	13.73	----	
RW1	02/16/2000	10:33	31.46	16.14	15.32	----	
RW1	05/23/2000	17:46	31.46	17.09	14.37	----	
RW1	08/29/2000	14:28	31.46	18.29	13.17	----	
RW1	11/09/2000	12:57	31.46	18.67	12.79	----	
RW1	02/12/2001	16:44	31.46	18.30	13.16	----	
RW1	06/04/2001	13:17	31.46	18.22	13.24	----	
RW1	08/16/2001	10:55	31.46		31.46	----	Vapor/water recovery system test running - not measured
RW1	11/28/2001	12:02	31.46	18.55	12.91	----	
RW1	02/27/2002	14:03	31.46	16.12	15.34	----	
RW1	03/05/2002	11:38	31.46	16.33	15.13	----	
RW1	04/05/2002	08:27	31.46	16.28	15.18	----	
RW1	05/29/2002	00:00	31.46	17.00	14.46	----	
RW1	06/27/2002	15:16	31.46	17.33	14.13	----	
RW1	08/26/2002	16:40	31.46	18.00	13.46	----	
RW1	11/13/2002	08:26	31.46	18.85	12.61	----	
RW1	02/11/2003	09:34	31.46	16.50	14.96	----	
RW1	05/08/2003	07:46	31.46	16.23	15.23	----	
RW1	08/27/2003	14:04	31.46	18.09	13.37	----	
RW1	10/23/2003	13:23	31.46	18.55	12.91	----	
RW3	12/06/1999	15:24	29.96	14.20	15.76	----	
RW3	02/16/2000	10:37	29.96	11.88	18.08	----	
RW3	05/23/2000	17:26	29.96	13.02	16.94	----	
RW3	08/29/2000	13:42	29.96	14.88	15.08	----	
RW3	11/09/2000	13:03	29.96	15.58	14.38	----	
RW3	02/12/2001	15:28	29.96	15.13	14.83	----	
RW3	06/04/2001	12:30	29.96	15.09	14.87	----	
RW3	08/16/2001	11:44	29.96	15.74	14.22	----	
RW3	11/28/2001	12:40	29.96	15.52	14.44	----	
RW3	02/27/2002	14:26	29.96	11.80	18.16	----	
RW3	03/05/2002	11:02	29.96	11.94	18.02	----	
RW3	04/05/2002	08:44	29.96	12.06	17.90	----	
RW3	05/29/2002	00:00	29.96	13.00	16.96	----	
RW3	06/27/2002	14:59	29.96	13.64	16.32	----	
PZ1	05/23/2000	17:47	28.04	14.21	13.83	----	
PZ1	08/29/2000	14:30	28.04	15.33	12.71	----	
PZ1	11/09/2000	12:55	28.04	15.68	12.36	----	
PZ1	02/12/2001	16:42	28.04	15.30	12.74	----	
PZ1	06/04/2001	13:20	28.04	15.29	12.75	----	
PZ1	08/16/2001	11:17	28.04	15.94	12.10	----	
PZ1	11/28/2001	12:09	28.04	15.48	12.56	----	
PZ1	02/27/2002	14:02	28.04	13.28	14.76	----	
PZ1	03/05/2002	11:34	28.04	13.40	14.64	----	
PZ1	04/05/2002	08:32	28.04	13.44	14.60	----	
PZ1	05/29/2002	00:00	28.04	14.16	13.88	----	

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Well	Date	Time	Reference Elevation (ft) (a)	DTW (ft) (b)	GW Elevation (ft) (c)	LNAPL Thickness (ft)	NOTES
PZ1	06/27/2002	15:17	28.04	14.50	13.54	----	
PZ1	08/26/2002	16:33	28.04	15.17	12.87	----	
PZ1	11/13/2002	08:42	28.04	15.83	12.21	----	
PZ1	02/11/2003	09:36	28.04	13.58	14.46	----	
PZ1	05/08/2003	07:58	28.04	13.25	14.79	----	
PZ1	08/27/2003	14:20	28.04	15.32	12.72	----	
PZ1	10/23/2003	13:19	28.04	15.75	12.29	----	
PZ2	06/27/2002	15:18	31.97	18.31	13.66	----	
PZ2	08/26/2002	16:34	31.97	18.88	13.09	----	
PZ2	11/13/2002	08:25	31.97	19.40	12.57	----	
PZ2	02/11/2003	09:44	31.97	17.46	14.51	----	
PZ2	05/08/2003	07:45	31.97	17.15	14.82	----	
PZ2	08/27/2003	14:03	31.97	19.02	12.95	----	
PZ2	10/23/2003	13:21	31.97	19.27	12.75	0.06	
PZ3	06/27/2002	15:19	31.12	19.35	11.77	----	
PZ3	08/26/2002	16:35	31.12	19.74	11.38	----	
PZ3	11/13/2002	08:45	31.12	16.87	----	----	
PZ3	02/11/2003	09:40	31.12	19.05	12.07	----	
PZ3	05/08/2003	07:53	31.12	18.95	12.17	----	
PZ3	08/27/2003	14:26	31.12	19.82	11.30	----	
PZ3	10/23/2003	12:39	31.12	dry	----	----	
PZ4	06/27/2002	15:20	28.47	dry	----	----	
PZ4	08/26/2002	16:36	28.47	dry	----	----	
PZ4	11/13/2002	08:48	28.47	16.87	11.60	----	
PZ4	02/11/2003	09:41	28.47	dry	----	----	
PZ4	05/08/2003	07:52	28.47	17.78	10.69	----	
PZ4	08/27/2003	14:27	28.47	dry	----	----	
PZ4	10/23/2003	12:36	28.47	dry	----	----	
OX001S	06/27/2002	15:13	33.38	17.85	15.53	----	
OX001S	08/26/2002	16:45	33.38	18.75	14.63	----	
OX001S	11/13/2002	08:30	33.38	19.92	13.46	----	
OX001S	02/11/2003	09:59	33.38	16.96	16.42	----	
OX001S	05/08/2003	08:04	33.38	16.48	16.90	----	
OX001S	08/27/2003	14:38	33.38	18.76	14.62	----	
OX001S	10/23/2003	14:09	33.38	19.51	13.87	----	
OX002S	06/27/2002	15:12	28.69	13.22	15.47	----	
OX002S	08/26/2002	16:44	28.69	14.26	14.43	----	
OX002S	11/13/2002	08:33	28.81	15.39	13.42	----	New reference elevation September 2002
OX002S	02/11/2003	10:06	28.81	12.39	16.42	----	
OX002S	05/08/2003	08:09	28.81	11.90	16.91	----	
OX002S	08/27/2003	14:33	28.81	14.55	14.26	----	
OX002S	10/23/2003	14:14	28.81	15.22	13.84	0.31	
OX003S	06/27/2002	15:14	30.01	14.65	15.36	----	
OX003S	08/26/2002	16:42	30.01	15.50	14.51	----	
OX003S	11/13/2002	08:31	30.01	16.65	13.36	----	
OX003S	02/11/2003	09:58	30.01	13.78	16.23	----	
OX003S	05/08/2003	08:03	30.01	13.30	16.71	----	
OX003S	08/27/2003	14:40	30.01	15.52	14.49	----	
OX003S	10/23/2003	14:10	30.01	16.22	13.79	----	
OX004S	06/27/2002	15:15	33.42	19.07	14.35	----	
OX004S	08/26/2002	16:39	33.42	19.74	13.68	----	
OX004S	11/13/2002	08:24	33.54	20.73	12.81	----	New reference elevation September 2002
OX004S	02/11/2003	09:38	33.54	18.39	15.15	----	
OX004S	05/08/2003	07:47	33.54	19.07	14.47	----	
OX004S	08/27/2003	14:07	33.54	19.95	13.59	----	
OX004S	10/23/2003	12:43	33.54	dry	----	----	
OX005S	10/23/2003	13:44	30.74	16.15	14.59	----	
OX006S	10/23/2003	13:45	30.92	16.43	14.49	----	

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Well	Date	Time	Reference Elevation (ft) (a)	DTW (ft) (b)	GW Elevation (ft) (c)	LNAPL Thickness (ft)	NOTES
OX007S	10/23/2003	13:46	30.68	16.25	14.43	----	
OX008S	10/23/2003	13:47	30.74	16.41	14.33	----	
Deep Wells:							
B2	03/25/1997	12:02	30.31	15.85	14.46	----	
B2	03/31/1997	09:27	30.31	14.91	15.40	----	
B2	07/16/1997	07:45	30.31	19.91	10.40	----	
B2	10/21/1997	16:30	30.31	23.56	6.75	----	
B2	01/27/1998	12:06	30.31	19.32	10.99	----	
B2	05/18/1998	17:54	30.31	18.80	11.51	----	
B2	08/17/1998	10:23	30.31	24.38	5.93	----	
B2	11/13/1998	10:17	30.31	25.33	4.98	----	
B2	02/16/1999	13:34	30.31	19.64	10.67	----	
B2	05/18/1999	15:50	30.31	19.04	11.27	----	
B2	09/21/1999	12:18	30.31	25.34	4.97	----	
B2	12/06/1999	14:39	30.31	20.25	10.06	----	
B2	02/16/2000	10:56	30.31	20.57	9.74	----	
B2	05/23/2000	17:33	30.31	20.99	9.32	----	
B2	08/29/2000	14:20	30.31	25.38	4.93	----	
B2	11/09/2000	13:29	30.31	25.31	5.00	----	
B2	02/12/2001	15:27	30.31	24.62	5.69	----	
B2	06/04/2001	13:04	30.31	24.84	5.47	----	
B2	08/16/2001	11:58	30.31	26.75	3.56	----	
B2	11/28/2001	12:46	30.31	24.14	6.17	----	
B2	02/27/2002	14:35	30.31	22.90	7.41	----	
B2	06/27/2002	15:07	30.31	20.16	10.15	----	
B2	08/26/2002	17:01	30.31	25.32	4.99	----	
B2	11/13/2002	09:03	30.31	25.28	5.03	----	
B2	02/11/2003	10:14	30.31	23.58	6.73	----	
B2	05/08/2003	08:13	30.31	21.33	8.98	----	
B2	08/27/2003	15:32	30.31	24.25	6.06	----	
B2	10/23/2003	14:08	30.31	25.85	4.46	----	
G1A	03/25/1997	11:55	29.72	14.84	14.88	----	
G1A	03/31/1997	09:11	29.72	14.28	15.44	----	
G1A	07/16/1997	07:33	29.72	18.94	10.78	----	
G1A	10/21/1997	16:18	29.72	22.44	7.28	----	
G1A	01/27/1998	11:46	29.72	18.42	11.30	----	
G1A	05/18/1998	17:31	29.72	18.05	11.67	----	
G1A	08/17/1998	10:07	29.72	23.35	6.37	----	
G1A	11/13/1998	09:54	29.72	24.59	5.13	----	
G1A	02/16/1999	13:14	29.72	18.28	11.44	----	
G1A	05/18/1999	14:51	29.72	18.42	11.30	----	
G1A	09/21/1999	11:29	29.72	24.32	5.40	----	
G1A	12/06/1999	14:05	29.72	19.82	9.90	----	
G1A	02/16/2000	10:18	29.72	19.81	9.91	----	
G1A	05/23/2000	16:31	29.72	20.08	9.64	----	Replaced lock and tubing
G1A	08/29/2000	13:13	29.72	24.36	5.36	----	
G1A	11/09/2000	12:32	29.72	24.85	4.87	----	
G1A	02/12/2001	16:01	29.72	24.08	5.64	----	
G1A	06/04/2001	11:40	29.72	24.10	5.62	----	
G1A	08/16/2001	10:52	29.72	25.51	4.21	----	
G1A	11/28/2001	11:32	29.72	23.84	5.88	----	
G1A	02/27/2002	13:39	29.72	21.96	7.76	----	
G1A	06/27/2002	14:17	29.72	19.48	10.24	----	
G1A	08/26/2002	16:06	29.72	24.36	5.36	----	
G1A	11/13/2002	07:35	29.72	24.60	5.12	----	
G1A	02/11/2003	08:59	29.72	22.32	7.40	----	
G1A	05/08/2003	06:58	29.72	20.51	9.21	----	
G1A	08/27/2003	13:36	29.72	24.16	5.56	----	
G1A	10/23/2003	12:37	29.72	25.20	4.52	----	
J2	03/25/1997	12:18	29.65	15.22	14.43	----	
J2	03/31/1997	11:21	29.65	14.38	15.27	----	
J2	07/16/1997	08:24	29.65	19.28	10.37	----	
J2	10/21/1997	17:00	29.65	23.02	6.63	----	
J2	01/27/1998	13:19	29.65	18.69	10.96	----	

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Well	Date	Time	Reference Elevation (ft) (a)	DTW (ft) (b)	GW Elevation (ft) (c)	LNAPL Thickness (ft)	NOTES
J2	05/18/1998	18:00	29.65	18.14	11.51	----	
J2	08/17/1998	10:21	29.65	23.70	5.95	----	
J2	11/13/1998	10:28	29.65	24.64	5.01	----	
J2	02/16/1999	13:40	29.65	19.00	10.65	----	
J2	05/18/1999	15:46	29.65	18.40	11.25	----	
J2	09/21/1999	12:30	29.65	24.73	4.92	----	
J2	12/06/1999	15:08	29.65	19.53	10.12	----	
J2	02/16/2000	11:07	29.65	19.89	9.76	----	
J2	05/23/2000	17:28	29.65	20.33	9.32	----	
J2	08/29/2000	14:15	29.65	24.67	4.98	----	
J2	11/09/2000	13:26	29.65	24.66	4.99	----	
J2	02/12/2001	15:23	29.65	23.92	5.73	----	
J2	06/04/2001	13:02	29.65	24.17	5.48	----	
J2	08/16/2001	11:51	29.65	25.57	4.08	----	
J2	11/28/2001	12:36	29.65	23.45	6.20	----	
J2	02/27/2002	14:31	29.65	22.21	7.44	----	
J2	06/27/2002	15:03	29.65	19.48	10.17	----	
J2	08/26/2002	16:56	29.65	24.67	4.98	----	
J2	11/13/2002	08:59	29.65	24.60	5.05	----	
J2	02/11/2003	10:19	29.65	22.95	6.70	----	
J2	05/08/2003	08:16	29.65	20.65	9.00	----	
J2	08/27/2003	14:48	29.65	24.12	5.53	----	
J2	10/23/2003	13:54	29.65	25.18	4.47	----	
J3	03/25/1997	12:20	29.58	14.70	14.88	----	
J3	03/31/1997	11:25	29.58	14.03	15.55	----	
J3	07/16/1997	08:25	29.58	18.91	10.67	----	
J3	10/21/1997	17:02	29.58	22.37	7.21	----	
J3	01/27/1998	13:21	29.58	18.28	11.30	----	
J3	05/18/1998	17:58	29.58	17.84	11.74	----	
J3	08/17/1998	10:22	29.58	23.12	6.46	----	
J3	11/13/1998	10:26	29.58	24.14	5.44	----	
J3	02/16/1999	13:41	29.58	18.32	11.26	----	
J3	05/18/1999	15:48	29.58	18.01	11.57	----	
J3	09/21/1999	12:31	29.58	24.12	5.46	----	
J3	12/06/1999	15:09	29.58	19.31	10.27	----	
J3	02/16/2000	10:07	29.58	19.50	10.08	----	
J3	05/23/2000	17:29	29.58	19.86	9.72	----	
J3	08/29/2000	14:17	29.58	24.05	5.53	----	
J3	11/09/2000	13:27	29.58	24.24	5.34	----	
J3	02/12/2001	15:24	29.58	23.45	6.13	----	
J3	06/04/2001	12:44	29.58	23.62	5.96	----	
J3	08/16/2001	11:50	29.58	24.98	4.60	----	
J3	11/28/2001	12:37	29.58	22.98	6.60	----	
J3	02/27/2002	14:32	29.58	21.52	8.06	----	
J3	06/27/2002	15:04	29.58	19.14	10.44	----	
J3	08/26/2002	16:57	29.58	23.99	5.59	----	
J3	11/13/2002	08:58	29.58	24.10	5.48	----	
J3	02/11/2003	10:20	29.58	22.28	7.30	----	
J3	05/08/2003	08:17	29.58	20.16	9.42	----	
J3	08/27/2003	14:49	29.58	23.60	5.98	----	
J3	10/23/2003	13:56	29.58	24.70	4.88	----	
O	03/25/1997	11:40	32.03	17.01	15.02	----	
O	03/31/1997	08:48	32.03	16.39	15.64	----	
O	07/16/1997	07:05	32.03	21.93	10.10	----	
O	10/21/1997	16:01	32.03	22.23	9.80	----	
O	01/27/1998	11:03	32.03	20.51	11.52	----	
O	05/18/1998	17:14	32.03	20.25	11.78	----	
O	08/17/1998	10:13	32.03	25.42	6.61	----	
O	11/13/1998	09:31	32.03	26.49	5.54	----	
O	02/16/1999	12:45	32.03	20.25	11.78	----	
O	05/18/1999	14:36	32.03	21.23	10.80	----	
O	09/21/1999	11:09	32.03	26.22	5.81	----	
O	12/06/1999	13:48	32.03	21.90	10.13	----	
O	02/16/2000	10:04	32.03	22.21	9.82	----	
O	05/23/2000	16:15	32.03	22.18	9.85	----	
O	08/29/2000	12:56	32.03	26.49	5.54	----	

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Well	Date	Time	Reference Elevation (ft) (a)	DTW (ft) (b)	GW Elevation (ft) (c)	LNAPL Thickness (ft)	NOTES
O	11/09/2000	12:18	32.03	27.01	5.02	----	
O	02/12/2001	15:52	32.03	26.12	5.91	----	
O	06/04/2001	11:22	32.03	26.08	5.95	----	
O	08/16/2001	10:22	32.03	27.58	4.45	----	
O	11/28/2001	11:18	32.03	26.15	5.88	----	
O	02/27/2002	13:15	32.03	24.08	7.95	----	
O	06/27/2002	14:09	32.03	21.29	10.74	----	
O	08/26/2002	15:47	32.03	25.91	6.12	----	
O	11/13/2002	07:21	32.03	26.56	5.47	----	
O	02/11/2003	08:38	32.03	22.81	9.22	----	
O	05/08/2003	06:44	32.03	22.70	9.33	----	
O	08/27/2003	13:23	32.03	26.43	5.60	----	
O	10/23/2003	12:02	32.03	27.11	4.92	----	
R	03/25/1997	11:36	30.47	15.56	14.91	----	
R	03/31/1997	08:43	30.47	14.85	15.62	----	
R	07/16/1997	07:00	30.47	20.37	10.10	----	
R	10/21/1997	15:56	30.47	22.54	7.93	----	
R	01/27/1998	10:57	30.47	18.98	11.49	----	
R	05/18/1998	17:15	30.47	18.73	11.74	----	
R	08/17/1998	10:12	30.47	23.93	6.54	----	
R	11/13/1998	09:35	30.47	25.17	5.30	----	
R	02/16/1999	13:05	30.47	18.79	11.68	----	
R	05/18/1999	14:37	30.47	19.64	10.83	----	
R	09/21/1999	11:15	30.47	24.53	5.94	----	
R	12/06/1999	13:46	30.47	20.33	10.14	----	
R	02/16/2000	10:12	30.47	20.65	9.82	----	
R	05/23/2000	16:17	30.47	20.64	9.83	----	
R	08/29/2000	12:58	30.47	24.97	5.50	----	
R	11/09/2000	12:20	30.47	25.47	5.00	----	
R	02/12/2001	15:54	30.47	24.46	6.01	----	
R	06/04/2001	11:36	30.47	24.53	5.94	----	
R	08/16/2001	10:35	30.47	26.02	4.45	----	
R	11/28/2001	11:19	30.47	24.57	5.90	----	
R	02/27/2002	13:17	30.47	22.50	7.97	----	
R	06/27/2002	14:08	30.47	19.75	10.72	----	
R	08/26/2002	15:58	30.47	24.38	6.09	----	
R	11/13/2002	07:22	30.47	25.04	5.43	----	
R	02/11/2003	08:41	30.47	21.22	9.25	----	
R	05/08/2003	06:46	30.47	21.14	9.33	----	
R	08/27/2003	13:25	30.47	24.91	5.56	----	
R	10/23/2003	11:56	30.47	25.60	4.87	----	
LW001D	03/31/1997	11:11	28.31	12.71	15.60	----	
LW001D	07/16/1997	08:12	28.31	17.65	10.66	----	
LW001D	10/21/1997	16:55	28.31	21.29	7.02	----	
LW001D	01/27/1998	13:07	28.31	17.06	11.25	----	
LW001D	05/18/1998	17:39	28.31	16.53	11.78	----	
LW001D	08/17/1998	10:30	28.31	21.82	6.49	----	
LW001D	11/13/1998	10:01	28.31	22.77	5.54	----	
LW001D	02/16/1999	13:21	28.31	17.30	11.01	----	
LW001D	05/18/1999	15:36	28.31	16.76	11.55	----	
LW001D	09/21/1999	12:12	28.31	22.91	5.40	----	
LW001D	12/06/1999	14:34	28.31	18.00	10.31	----	
LW001D	02/16/2000	10:49	28.31	18.16	10.15	----	
LW001D	05/23/2000	17:19	28.31	18.62	9.69	----	
LW001D	08/29/2000	13:59	28.31	22.81	5.50	----	
LW001D	11/09/2000	13:20	28.31	22.98	5.33	----	
LW001D	02/12/2001	15:35	28.31	22.23	6.08	----	
LW001D	06/04/2001	12:23	28.31	22.36	5.95	----	
LW001D	08/16/2001	11:38	28.31	23.73	4.58	----	
LW001D	11/28/2001	12:29	28.31	21.73	6.58	----	
LW001D	02/27/2002	14:17	28.31	20.31	8.00	----	
LW001D	06/27/2002	14:49	28.31	17.81	10.50	----	
LW001D	08/26/2002	17:12	28.31	22.85	5.46	----	
LW001D	11/13/2002	09:08	28.31	22.91	5.40	----	
LW001D	02/11/2003	10:27	28.31	21.11	7.20	----	
LW001D	05/08/2003	08:19	28.31	18.91	9.40	----	

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Well	Date	Time	Reference Elevation (ft) (a)	DTW (ft) (b)	GW Elevation (ft) (c)	LNAPL Thickness (ft)	NOTES
LW001D	08/27/2003	14:50	28.31	22.40	5.91	----	
LW001D	10/23/2003	13:57	28.31	23.51	4.80	----	
LW003D	03/31/1997	11:45	30.80	19.38	11.42	----	Time estimated
LW003D	07/16/1997	08:38	30.80	28.09	2.71	----	
LW003D	10/21/1997	17:07	30.80	23.36	7.44	----	
LW003D	01/27/1998	13:30	30.80	21.66	9.14	----	
LW003D	05/18/1998	17:35	30.80	19.21	11.59	----	
LW003D	08/17/1998	10:24	30.80	24.62	6.18	----	
LW003D	11/13/1998	09:03	30.80	25.56	5.24	----	
LW003D	02/16/1999	13:44	30.80	20.00	10.80	----	
LW003D	05/18/1999	15:58	30.80	19.42	11.38	----	Purged dry at 11:00
LW003D	09/21/1999	10:40	30.80	25.76	5.04	----	
LW003D	12/06/1999	14:45	30.80	20.69	10.11	----	
LW003D	02/16/2000	09:54	30.80	20.98	9.82	----	
LW003D	05/23/2000	14:40	30.80	21.16	9.64	----	Purged dry at 13:10
LW003D	08/29/2000	14:36	30.80	----	----	----	Well purged dry 8/28; sampled a.m. on 8/29
LW003D	11/09/2000		30.80	----	----	----	Well sampled 11/8/00 - water level not representative
LW003D	02/12/2001	15:11	30.80	24.85	5.95	----	
LW003D	06/04/2001	12:35	30.80	25.09	5.71	----	
LW003D	08/16/2001	11:47	30.80	26.43	4.37	----	
LW003D	11/28/2001	12:42	30.80	24.48	6.32	----	
LW003D	02/27/2002	14:20	30.80	23.13	7.67	----	
LW003D	06/27/2002	14:59	30.80	20.55	10.25	----	
LW003D	08/26/2002	17:03	30.80	25.63	5.17	----	
LW003D	11/13/2002	09:20	30.80	25.57	5.23	----	
LW003D	02/11/2003	10:40	30.80	24.03	6.77	----	
LW003D	05/08/2003	08:29	30.80	21.68	9.12	----	
LW003D	08/27/2003	15:04	30.80	25.10	5.70	----	
LW003D	10/23/2003	13:49	30.80	26.18	4.62	----	
LW004D	03/31/1997	09:18	30.17	14.73	15.44	----	
LW004D	07/16/1997	07:42	30.17	19.43	10.74	----	
LW004D	10/21/1997	16:27	30.17	23.02	7.15	----	
LW004D	01/27/1998	11:56	30.17	18.84	11.33	----	
LW004D	05/18/1998	17:33	30.17	18.54	11.63	----	
LW004D	08/17/1998	10:18	30.17	23.81	6.36	----	
LW004D	11/13/1998	09:57	30.17	24.99	5.18	----	
LW004D	02/16/1999	13:17	30.17	18.79	11.38	----	
LW004D	05/18/1999	15:04	30.17	18.77	11.40	----	Completed sampling at 13:40
LW004D	09/21/1999	11:41	30.17	24.78	5.39	----	
LW004D	12/06/1999	14:18	30.17	20.21	9.96	----	
LW004D	02/16/2000	10:30	30.17	20.23	9.94	----	
LW004D	05/23/2000	16:54	30.17	20.55	9.62	----	
LW004D	08/29/2000	13:38	30.17	24.78	5.39	----	
LW004D	11/09/2000	12:52	30.17	25.19	4.98	----	
LW004D	02/12/2001	16:39	30.17	24.71	5.46	----	
LW004D	06/04/2001	12:07	30.17	24.66	5.51	----	
LW004D	08/16/2001	11:15	30.17	26.27	3.90	----	
LW004D	11/28/2001	12:04	30.17	24.41	5.76	----	
LW004D	02/27/2002	14:00	30.17	22.65	7.52	----	
LW004D	03/05/2002	11:36	30.17	22.94	7.23	----	
LW004D	04/05/2002	08:19	30.17	23.75	6.42	----	
LW004D	05/29/2002	00:00	30.17	20.48	9.69	----	
LW004D	06/27/2002	14:41	30.17	20.15	10.02	----	
LW004D	08/26/2002	16:32	30.17	25.02	5.15	----	
LW004D	11/13/2002	08:23	30.17	25.26	4.91	----	
LW004D	02/11/2003	09:32	30.17	23.08	7.09	----	
LW004D	05/08/2003	07:44	30.17	21.21	8.96	----	
LW004D	08/27/2003	14:01	30.17	24.78	5.39	----	
LW004D	10/23/2003	13:16	30.17	25.85	4.32	----	
LW006D	03/25/1997	11:52	30.84	16.51	14.33	----	
LW006D	03/31/1997	09:05	30.84	15.53	15.31	----	Faint odor
LW006D	07/16/1997	07:30	30.84	20.74	10.10	----	
LW006D	10/21/1997	16:16	30.84	24.05	6.79	----	
LW006D	01/27/1998	11:38	30.84	19.94	10.90	----	
LW006D	05/18/1998	17:28	30.84	19.36	11.48	----	

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Well	Date	Time	Reference Elevation (ft) (a)	DTW (ft) (b)	GW Elevation (ft) (c)	LNAPL Thickness (ft)	NOTES
LW006D	08/17/1998	10:05	30.84	24.92	5.92	----	
LW006D	11/13/1998	09:50	30.84	25.94	4.90	----	
LW006D	02/16/1999	13:11	30.84	20.40	10.44	----	
LW006D	05/18/1999	14:53	30.84	19.81	11.03	----	
LW006D	09/21/1999	11:32	30.84	25.92	4.92	----	
LW006D	12/06/1999	14:09	30.84	20.86	9.98	----	
LW006D	02/16/2000	10:20	30.84	21.27	9.57	----	
LW006D	05/23/2000	16:35	30.84	21.64	9.20	----	
LW006D	08/29/2000	13:20	30.84	25.93	4.91	----	
LW006D	11/09/2000	12:35	30.84	26.21	4.63	----	
LW006D	02/12/2001	16:03	30.84	25.37	5.47	----	
LW006D	06/04/2001	11:42	30.84	25.30	5.54	----	
LW006D	08/16/2001	10:54	30.84	26.72	4.12	----	
LW006D	11/28/2001	11:46	30.84	24.92	5.92	----	
LW006D	02/27/2002	13:35	30.84	23.62	7.22	----	
LW006D	06/27/2002	14:19	30.84	20.68	10.16	----	
LW006D	08/26/2002	16:04	30.84	25.79	5.05	----	
LW006D	11/13/2002	07:42	30.84	25.82	5.02	----	
LW006D	02/11/2003	09:01	30.84	24.08	6.76	----	
LW006D	05/08/2003	07:01	30.84	21.97	8.87	----	
LW006D	08/27/2003	13:40	30.84	25.37	5.47	----	
LW006D	10/23/2003	12:31	30.84	26.47	4.37	----	
LW009D	05/18/1999	14:56	30.98	20.02	10.96	----	
LW009D	09/21/1999	11:34	30.98	25.23	5.75	----	
LW009D	12/06/1999	14:11	30.98	21.04	9.94	----	
LW009D	02/16/2000	10:23	30.98	21.17	9.81	----	
LW009D	05/23/2000	16:39	30.98	21.15	9.83	----	
LW009D	08/29/2000	13:27	30.98	25.36	5.62	----	
LW009D	11/09/2000	12:43	30.98	25.96	5.02	----	
LW009D	02/12/2001	16:11	30.98	25.13	5.85	----	
LW009D	06/04/2001	11:49	30.98	25.15	5.83	----	
LW009D	08/16/2001	11:02	30.98	26.57	4.41	----	
LW009D	11/28/2001	11:53	30.98	25.40	5.58	----	
LW009D	02/27/2002	13:47	30.98	22.97	8.01	----	
LW009D	06/27/2002	14:25	30.98	20.38	10.60	----	
LW009D	08/26/2002	16:11	30.98	24.90	6.08	----	
LW009D	11/13/2002	07:48	30.98	25.73	5.25	----	
LW009D	02/11/2003	09:07	30.98	22.03	8.95	----	
LW009D	05/08/2003	07:12	30.98	21.65	9.33	----	
LW009D	08/27/2003	13:47	30.98	25.50	5.48	----	
LW009D	10/23/2003	12:50	30.98	26.22	4.76	----	
LW010D	05/18/1999	15:00	31.12	19.82	11.30	----	
LW010D	09/21/1999	11:37	31.12	25.81	5.31	----	
LW010D	12/06/1999	14:15	31.12	21.18	9.94	----	
LW010D	02/16/2000	10:27	31.12	21.20	9.92	----	
LW010D	05/23/2000	16:42	31.12	21.51	9.61	----	
LW010D	08/29/2000	13:29	31.12	25.86	5.26	----	
LW010D	11/09/2000	12:46	31.12	26.26	4.86	----	
LW010D	02/12/2001	16:15	31.12	25.63	5.49	----	
LW010D	06/04/2001	11:52	31.12	25.62	5.50	----	
LW010D	08/16/2001	11:04	31.12	27.16	3.96	----	
LW010D	11/28/2001	11:55	31.12	25.46	5.66	----	
LW010D	02/27/2002	13:49	31.12	23.58	7.54	----	
LW010D	06/27/2002	14:29	31.12	21.03	10.09	----	
LW010D	08/26/2002	16:17	31.12	25.91	5.21	----	
LW010D	11/13/2002	08:01	31.12	26.17	4.95	----	
LW010D	02/11/2003	09:21	31.12	23.83	7.29	----	
LW010D	05/08/2003	07:33	31.12	22.10	9.02	----	
LW010D	08/27/2003	13:53	31.12	25.74	5.38	----	
LW010D	10/23/2003	13:10	31.12	26.79	4.33	----	
LW011D	05/18/1999	15:09	29.04	18.59	10.45	----	
LW011D	09/21/1999	11:50	29.04	20.76	8.28	----	
LW011D	12/06/1999	15:06	29.04	21.81	7.23	----	
LW011D	02/16/2000	11:02	29.04	20.35	8.69	----	
LW011D	05/23/2000	17:37	29.04	19.50	9.54	----	

TABLE B-1
GROUNDWATER LEVEL MEASUREMENTS
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TIME OIL NORTHWEST TERMINAL

Well	Date	Time	Reference Elevation (ft) (a)	DTW (ft) (b)	GW Elevation (ft) (c)	LNAPL Thickness (ft)	NOTES
LW011D	08/29/2000	14:54	29.04	----	----	----	Well purged dry 8/28; sampled a.m. on 8/29
LW011D	11/09/2000		29.04	----	----	----	Well sampled 11/8/00 - water level not representative
LW011D	02/12/2001	15:16	29.04	23.14	5.90	----	
LW011D	06/04/2001	13:11	29.04	23.35	5.69	----	
LW011D	08/16/2001	11:25	29.04	26.94	2.10	----	
LW011D	11/28/2001	12:53	29.04	24.54	4.50	----	
LW011D	02/27/2002	14:57	29.04	21.80	7.24	----	
LW011D	06/27/2002	15:11	29.04	18.84	10.20	----	
LW011D	08/26/2002	16:47	29.04	22.71	6.33	----	
LW011D	11/13/2002	08:55	29.04	23.87	5.17	----	
LW011D	02/11/2003	10:04	29.04	21.79	7.25	----	
LW011D	05/08/2003	08:08	29.04	19.28	9.76	----	
LW011D	08/27/2003	14:34	29.04	23.35	5.69	----	
LW011D	10/23/2003	14:11	29.04	23.98	5.06	----	
LW012D1	05/18/1999	15:13	30.02	18.45	11.57	----	
LW012D1	09/21/1999	11:54	30.02	24.44	5.58	----	
LW012D1	12/06/1999	14:21	30.02	19.72	10.30	----	
LW012D1	02/16/2000	10:35	30.02	19.89	10.13	----	
LW012D1	05/23/2000	17:00	30.02	20.23	9.79	----	
LW012D1	08/29/2000	13:45	30.02	24.38	5.64	----	
LW012D1	11/09/2000	13:00	30.02	24.66	5.36	----	
LW012D1	02/12/2001	15:57	30.02	23.92	6.10	----	
LW012D1	06/04/2001	12:32	30.02	23.99	6.03	----	
LW012D1	08/16/2001	11:42	30.02	25.39	4.63	----	
LW012D1	11/28/2001	12:38	30.02	23.33	6.69	----	
LW012D1	02/27/2002	14:28	30.02	21.88	8.14	----	
LW012D1	06/27/2002	14:57	30.02	19.58	10.44	----	
LW012D2	05/18/1999	15:14	29.24	18.23	11.01	----	
LW012D2	09/21/1999	11:53	29.24	24.69	4.55	----	
LW012D2	12/06/1999	14:22	29.24	19.40	9.84	----	
LW012D2	02/16/2000	10:36	29.24	19.90	9.34	----	
LW012D2	05/23/2000	16:59	29.24	20.38	8.86	----	
LW012D2	08/29/2000	13:44	29.24	24.68	4.56	----	
LW012D2	11/09/2000	13:01	29.24	24.56	4.68	----	
LW012D2	02/12/2001	15:56	29.24	23.88	5.36	----	
LW012D2	06/04/2001	12:31	29.24	24.10	5.14	----	
LW012D2	08/16/2001	11:43	29.24	25.43	3.81	----	
LW012D2	11/28/2001	12:39	29.24	23.17	6.07	----	
LW012D2	02/27/2002	14:29	29.24	22.38	6.86	----	
LW012D2	06/27/2002	14:58	29.24	19.44	9.80	----	
LW014D	05/23/2000	16:50	30.54	21.26	9.28	----	
LW014D	08/29/2000	13:35	30.54	25.68	4.86	----	
LW014D	11/09/2000	12:49	30.54	25.90	4.64	----	
LW014D	02/12/2001	16:20	30.54	25.33	5.21	----	
LW014D	06/04/2001	12:00	30.54	25.37	5.17	----	
LW014D	08/16/2001	11:08	30.54	27.00	3.54	----	
LW014D	11/28/2001	11:56	30.54	25.03	5.51	----	
LW014D	02/27/2002	13:55	30.54	23.57	6.97	----	
LW014D	06/27/2002	14:33	30.54	20.70	9.84	----	
LW014D	08/26/2002	16:26	30.54	25.90	4.64	----	
LW014D	11/13/2002	08:07	30.54	25.76	4.78	----	
LW014D	02/11/2003	09:27	30.54	24.33	6.21	----	
LW014D	05/08/2003	07:38	30.54	21.92	8.62	----	
LW014D	08/27/2003	13:56	30.54	25.32	5.22	----	
LW014D	10/23/2003	13:13	30.54	26.56	3.98	----	
LW015D	05/23/2000	16:49	30.85	21.26	9.59	----	
LW015D	08/29/2000	13:34	30.85	25.54	5.31	----	
LW015D	11/09/2000	12:48	30.85	25.98	4.87	----	
LW015D	02/12/2001	16:18	30.85	25.43	5.42	----	
LW015D	06/04/2001	11:59	30.85	25.41	5.44	----	
LW015D	08/16/2001	11:07	30.85	27.05	3.80	----	
LW015D	11/28/2001	11:55	30.85	25.29	5.56	----	
LW015D	02/27/2002	13:52	30.85	23.42	7.43	----	
LW015D	06/27/2002	14:32	30.85	20.91	9.94	----	

TABLE B-1
GROUNDWATER LEVEL MEASUREMENTS
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Well	Date	Time	Reference Elevation (ft) (a)	DTW (ft) (b)	GW Elevation (ft) (c)	LNAPL Thickness (ft)	NOTES
LW015D	08/26/2002	16:25	30.85	25.77	5.08	----	
LW015D	11/13/2002	08:05	30.85	26.04	4.81	----	
LW015D	02/11/2003	09:23	30.85	23.65	7.20	----	
LW015D	05/08/2003	07:37	30.85	21.95	8.90	----	
LW015D	08/27/2003	13:55	30.85	25.58	5.27	----	
LW015D	10/23/2003	13:12	30.85	26.61	4.24	----	
LW016D	05/23/2000	16:48	28.40	18.79	9.61	----	
LW016D	08/29/2000	13:32	28.40	23.07	5.33	----	
LW016D	11/09/2000	12:47	28.40	23.59	4.81	----	
LW016D	02/12/2001	16:17	28.40	22.94	5.46	----	
LW016D	06/04/2001	11:57	28.40	23.00	5.40	----	
LW016D	08/16/2001	11:05	28.40	24.43	3.97	----	
LW016D	11/28/2001	11:57	28.40	22.87	5.53	----	
LW016D	02/27/2002	13:54	28.40	20.94	7.46	----	
LW016D	06/27/2002	14:31	28.40	18.46	9.94	----	
LW016D	08/26/2002	16:23	28.40	23.24	5.16	----	
LW016D	11/13/2002	08:08	28.40	23.45	4.95	----	
LW016D	02/11/2003	09:25	28.40	21.14	7.26	----	
LW016D	05/08/2003	07:36	28.40	19.65	8.75	----	
LW016D	08/27/2003	13:54	28.40	23.08	5.32	----	
LW016D	10/23/2003	13:11	28.40	24.10	4.30	----	
LW017D	08/29/2000	13:21	27.82	22.96	4.86	----	
LW017D	11/09/2000	12:36	27.82	23.17	4.65	----	
LW017D	02/12/2001	16:04	27.82	22.44	5.38	----	
LW017D	06/04/2001	11:44	27.82	22.42	5.40	----	
LW017D	08/16/2001	10:55	27.82	23.80	4.02	----	
LW017D	11/28/2001	11:50	27.82	22.00	5.82	----	
LW017D	02/27/2002	13:37	27.82	19.82	8.00	----	
LW017D	03/05/2002	11:30	27.82	20.46	7.36	----	
LW017D	04/05/2002	08:15	27.82	21.34	6.48	----	
LW017D	05/29/2002	00:00	27.82	17.90	9.92	----	
LW017D	06/27/2002	14:20	27.82	17.64	10.18	----	
LW017D	08/26/2002	16:07	27.82	22.67	5.15	----	
LW017D	11/13/2002	07:45	27.82	22.80	5.02	----	
LW017D	02/11/2003	09:03	27.82	20.79	7.03	----	
LW017D	05/08/2003	07:05	27.82	18.82	9.00	----	
LW017D	08/27/2003	13:43	27.82	22.38	5.44	----	
LW017D	10/23/2003	12:34	27.82	23.46	4.36	----	
LW018D	08/29/2000	13:25	27.82	22.79	5.03	----	
LW018D	11/09/2000	12:40	27.82	22.91	4.91	----	
LW018D	02/12/2001	16:10	27.82	22.56	5.26	----	
LW018D	06/04/2001	11:47	27.82	22.28	5.54	----	
LW018D	08/16/2001	11:00	27.82	23.81	4.01	----	
LW018D	11/28/2001	11:51	27.82	22.00	5.82	----	
LW018D	02/27/2002	13:43	27.82	20.44	7.38	----	
LW018D	06/27/2002	14:23	27.82	17.72	10.10	----	
LW018D	08/26/2002	16:13	27.82	21.90	5.92	----	
LW018D	11/13/2002	07:51	27.82	22.71	5.11	----	
LW018D	02/11/2003	09:05	27.82	20.95	6.87	----	
LW018D	05/08/2003	07:10	27.82	18.75	9.07	----	
LW018D	08/27/2003	13:45	27.82	22.41	5.41	----	
LW018D	10/23/2003	12:45	27.82	23.46	4.36	----	
LW020D	10/23/2003	12:15	29.51	24.86	4.65	----	
LW022D	10/23/2003	11:58	32.56	27.72	4.84	----	
LW023D	10/23/2003	12:00	31.41	26.56	4.85	----	
LW024D	10/23/2003	12:23	33.47	28.61	4.86	----	
LW025D	10/23/2003	12:28	35.38	30.50	4.88	----	
LW026D	10/23/2003	12:09	31.49	27.17	4.32	----	

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GROUNDWATER LEVEL MEASUREMENTS
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Well	Date	Time	Reference Elevation (ft) (a)	DTW (ft) (b)	GW Elevation (ft) (c)	LNAPL Thickness (ft)	NOTES
LW027D	10/23/2003	12:21	29.71	25.47	4.24	----	
LW029D	10/23/2003	14:40	31.12	26.46	4.66	----	
LW030D	10/23/2003	14:52	30.06	25.58	4.48	----	
LW032D	10/23/2003	14:33	30.86	26.50	4.36	----	
LW035D	10/23/2003	11:48	33.19	28.33	4.86	----	
OX008D	10/23/2003	13:48	30.84	26.12	4.72	----	
RW2	05/18/1999	15:02	30.68	19.50	11.18	----	
RW2	09/21/1999	11:40	30.68	25.75	4.93	----	
RW2	12/06/1999	14:17	30.68	20.77	9.91	----	
RW2	02/16/2000	10:29	30.68	20.99	9.69	----	
RW2	05/23/2000	16:52	30.68	21.37	9.31	----	
RW2	08/29/2000	13:36	30.68	25.36	5.32	----	
RW2	11/09/2000	12:50	30.68	25.83	4.85	----	Groundwater interim action pumping began 10/5/00 in the
RW2	02/12/2001	16:37	30.68	26.40	4.28	----	
RW2	06/04/2001	12:05	30.68	26.26	4.42	----	
RW2	08/16/2001	11:11	30.68	28.98	1.70	----	
RW2	11/28/2001	12:02	30.68	26.86	3.82	----	
RW2	02/27/2002	13:57	30.68	26.02	4.66	----	
RW2	06/27/2002	14:35	30.68	23.68	7.00	----	
RW2	08/26/2002	16:29	30.68	28.26	2.42	----	
RW2	11/13/2002	08:20	30.68	28.50	2.18	----	
RW2	02/11/2003	09:29	30.68	26.96	3.72	----	
RW2	05/07/2003	17:30	30.68	24.80	5.88	----	Date of measurement is day of sampling
RW2	08/27/2003	13:57	30.68	27.91	2.77	----	
RW2	10/23/2003	13:30	30.68	28.73	1.95	----	
Other:							
RIVER_GAUGE	03/25/1997	11:33	28.13	14.60	13.53	----	
RIVER_GAUGE	03/31/1997		28.13	----	----	----	Locked
RIVER_GAUGE	07/16/1997	06:55	28.13	18.73	9.40	----	
RIVER_GAUGE	07/16/1997	07:55	28.13	18.84	9.29	----	
RIVER_GAUGE	07/16/1997	09:14	28.13	18.92	9.21	----	
RIVER_GAUGE	10/21/1997	15:52	28.13	23.38	4.75	----	
RIVER_GAUGE	10/21/1997	16:11	28.13	23.44	4.69	----	
RIVER_GAUGE	10/21/1997	17:55	28.13	23.59	4.54	----	
RIVER_GAUGE	01/27/1998	10:46	28.13	18.20	9.93	----	
RIVER_GAUGE	01/27/1998	12:25	28.13	18.31	9.82	----	
RIVER_GAUGE	01/27/1998	13:56	28.13	17.89	10.24	----	
RIVER_GAUGE	05/18/1998	17:12	28.13	16.97	11.16	----	
RIVER_GAUGE	05/18/1998	17:45	28.13	17.15	10.98	----	
RIVER_GAUGE	08/17/1998	09:58	28.13	23.98	4.15	----	
RIVER_GAUGE	08/17/1998	10:34	28.13	24.15	3.98	----	
RIVER_GAUGE	11/13/1998	09:30	28.13	24.64	3.49	----	
RIVER_GAUGE	11/13/1998	10:05	28.13	24.45	3.68	----	
RIVER_GAUGE	02/16/1999	12:40	28.13	19.36	8.77	----	
RIVER_GAUGE	02/16/1999	13:27	28.13	19.43	8.70	----	
RIVER_GAUGE	05/18/1999	14:33	28.13	17.24	10.89	----	
RIVER_GAUGE	05/18/1999	15:19	28.13	17.30	10.83	----	
RIVER_GAUGE	09/21/1999	11:10	28.13	24.94	3.19	----	
RIVER_GAUGE	09/21/1999	11:59	28.13	25.03	3.10	----	
RIVER_GAUGE	12/06/1999	13:43	28.13	18.24	9.89	----	
RIVER_GAUGE	12/06/1999	14:25	28.13	18.06	10.07	----	
RIVER_GAUGE	02/16/2000	10:03	28.13	19.18	8.95	----	
RIVER_GAUGE	02/16/2000	10:41	28.13	19.07	9.06	----	
RIVER_GAUGE	05/23/2000	16:12	28.13	19.80	8.33	----	
RIVER_GAUGE	05/23/2000	17:04	28.13	19.94	8.19	----	
RIVER_GAUGE	08/29/2000	12:54	28.13	24.63	3.50	----	
RIVER_GAUGE	08/29/2000	13:49	28.13	24.91	3.22	----	
RIVER_GAUGE	11/09/2000	12:19	28.13	24.26	3.87	----	
RIVER_GAUGE	11/09/2000	13:10	28.13	23.67	4.46	----	
RIVER_GAUGE	02/12/2001	15:45	28.13	23.75	4.38	----	
RIVER_GAUGE	02/12/2001	16:43	28.13	24.00	4.13	----	

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GROUNDWATER LEVEL MEASUREMENTS
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TIME OIL NORTHWEST TERMINAL

Well	Date	Time	Reference Elevation (ft) (a)	DTW (ft) (b)	GW Elevation (ft) (c)	LNAPL Thickness (ft)	NOTES
RIVER_GAUGE	06/04/2001	11:20	28.13	23.62	4.51	----	
RIVER_GAUGE	06/04/2001	12:15	28.13	23.79	4.34	----	
RIVER_GAUGE	08/16/2001	10:20	28.13	24.83	3.30	----	
RIVER_GAUGE	08/16/2001	11:29	28.13	25.23	2.90	----	
RIVER_GAUGE	11/28/2001	11:16	28.13	22.50	5.63	----	
RIVER_GAUGE	11/28/2001	12:18	28.13	23.13	5.00	----	
RIVER_GAUGE	02/27/2002	13:11	28.13	22.24	5.89	----	
RIVER_GAUGE	02/27/2002	14:12	28.13	22.27	5.86	----	
RIVER_GAUGE	03/05/2002	11:25	28.13	21.42	6.71	----	
RIVER_GAUGE	04/05/2002	08:00	28.13	23.10	5.03	----	
RIVER_GAUGE	05/29/2002	14:07	28.13	17.31	10.82	----	
RIVER_GAUGE	06/27/2002	14:07	28.13	18.31	9.82	----	
RIVER_GAUGE	06/27/2002	14:43	28.13	18.36	9.77	----	
RIVER_GAUGE	08/26/2002	15:45	28.13	24.83	3.30	----	
RIVER_GAUGE	08/26/2002	16:13	28.13	24.85	3.28	----	
RIVER_GAUGE	11/13/2002	07:19	28.13	24.10	4.03	----	
RIVER_GAUGE	11/13/2002	07:54	28.13	24.21	3.92	----	
RIVER_GAUGE	02/11/2003	08:34	28.13	23.70	4.43	----	
RIVER_GAUGE	02/11/2003	09:14	28.13	23.43	4.70	----	
RIVER_GAUGE	05/08/2003	06:40	28.13	20.02	8.11	----	
RIVER_GAUGE	05/08/2003	07:17	28.13	20.00	8.13	----	
RIVER_GAUGE	08/27/2003	13:18	28.13	23.36	4.77	----	
RIVER_GAUGE	08/27/2003	14:15	28.13	23.66	4.47	----	
RIVER_GAUGE	10/23/2003	11:46	28.13	25.00	3.13	----	
RIVER_GAUGE	10/23/2003	13:35	28.13	24.94	3.19	----	

Notes:
NM Not measured.
NA Not available.
-- No measurable product or odor observed.
* Well Point
(a) Reference Elevation (Ref. Elev) is the north side of the top of the 1.25-, 2- or 4-inch well casing, reference elevation surveys were conducted by Zarosinski-Tatone Engineers, Inc., Portland, Oregon. For the river gauge, the reference elevation was measured at a marked location on the south side of the dock on the Willamette River.
(b) Depth to water (DTW) measured from surveyed reference elevation [see note (1)].
(c) Where LNAPL thickness measured, groundwater elevation adjusted to account for the presence of LNAPL in the well using the method in "*Estimation of Free Hydrocarbon Volume from Fluid Levels in Monitoring Wells* " [Lenhard and Parker 1990; Groundwater 28(1):57-67].

APPENDIX C

Detected Constituents – Soil Data Summary Tables

TABLE C-1
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
MAIN TANK FARM AREA
PHASE III RI

Sample Identification:														0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
	SCREENING CRITERIA															COMP	COMP	COMP	COMP	COMP	COMP	COMP
									Risk-Based Concentrations													
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	LW4D (0-0.5)	LW6D (0-0.5)	G2 (0-0.5)	G3 (0-0.5)	G8 (0-0.5)	G9 (0-0.5)	G12 (0-0.5)	G13 (0-0.5)	G14 (0-0.5)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			R950A	R950I	0108151-01	0108151-09	0108151-13	0108189-08	0108151-18	0108172-01	0108172-05
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	03/12/97	03/13/97	8/20/2001	8/20/2001	8/20/2001	8/24/2001	8/20/2001	8/21/2001	8/21/2001
SEMIVOLATILES (mg/kg)																						
EPA Method SW8270																						
2,6-Dinitrotoluene	616	0.00003	0.0007	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	NA	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U
2-Methylnaphthalene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Acenaphthene	29219	29	570	20	--	--	--	--	41000	16000	--	--	--	NA	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	**0.088**	0.067 U
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	**0.800**	**0.160**
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	NA	NA	**0.095**	0.067 U	0.067 U	**0.840**	0.067 U	**0.790** J	**0.160** J
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	NA	**0.330**	0.067 U	0.067 U	0.067 U	0.067 U	**5.300** J	**0.880** J
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	NA	NA	**0.580**	**0.080**	0.067 U	**0.077**	**0.090**	**8.800**	**1.400**
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	NA	**0.770**	**0.110**	0.067 U	**0.280**	**0.110**	**15.000** J	**1.700** J
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	**0.350**	0.067 U	0.067 U	0.067 U	0.067 U	**11.000**	**0.850**
Benzo(k)fluoranthene	21.1	2	49	--	--	--	--	--	27	210	5900	--	--	NA	NA	**0.250**	0.067 U	0.067 U	**0.078**	0.067 U	**4.400**	**0.580**
bis(2-Ethylhexyl)phthalate	123	180 (g)	3600 (g)	--	1020	4.5	--	--	--	--	--	--	--	NA	NA	**0.120**	**0.099**	0.067 U	0.067 U	**0.097**	0.067 U	**0.083**
Butylbenzylphthalate	100000	810	930	--	1020 (i)	4.5 (i)	--	--	--	--	--	--	--	NA	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Carbazole	86	0.03	0.6	--	--	--	--	--	--	--	--	--	--	NA	NA	0.067 U	0.067 U	0.067 U	**0.260**	0.067 U	**0.140**	0.067 U
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	NA	**0.500**	0.067 U	0.067 U	**0.130**	0.067 U	**6.400** J	**1.100** J
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	**0.270**	**0.079**
Dibenzofuran	3127	--	--	--	0.002	--	--	--	--	--	--	--	--	NA	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Diethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Dimethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	0.067 U	0.067 U	0.067 U	0.067 U	**0.170**	0.067 U	0.067 U
Di-n-Butylphthalate	61561	270	2300	200	30000	0.45	--	--	--	--	--	--	--	NA	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Di-n-Octyl phthalate	24624	10000	10000	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	**0.260**	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	NA	**1.300**	**0.089**	0.067 U	**0.085**	**0.100**	**15.000** J	**2.200** J
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	NA	0.067 U	0.067 U	0.067 U	**0.130**	0.067 U	**0.170**	0.067 U
Hexachloroethane	123	0.02	0.5	--	--	--	--	--	--	--	--	--	--	NA	NA	0.130 U	0.130 U	0.130 U	0.130 U	0.130 U	0.130 U	0.130 U
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	NA	**0.280**	0.067 U	0.067 U	0.067 U	0.067 U	**7.600**	**0.680**
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	NA	**0.780**	0.067 U	**0.340**	**0.150**	0.067 U	**6.000** J	**0.840** J
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	NA	**1.500**	**0.110** J	**0.078**	**0.088**	**0.130**	**18.000** J	**2.900** J
SEMIVOLATILES (mg/kg)																						
EPA Method SW8270SIM																						
Acenaphthene	29219	29	570	20	--	--	--	--	41000	16000	--	--	--	0.0077 U	0.0075 U	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	**0.014**	**0.024**	NA	NA	NA	NA	NA	NA	NA
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	**0.014**	**0.045**	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	**0.1**	**0.19**	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	**0.19**	**0.32**	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	**0.2**	**0.3**	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	**0.24**	**0.26**	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--	**0.14**	**0.25**	NA	NA	NA	NA	NA	NA	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	**0.18**	**0.29**	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	**0.033**	**0.052**	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	**0.33**	**0.6**	NA	NA	NA	NA	NA	NA	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	0.0077 U	0.0075 U	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	**0.21**	**0.27**	NA	NA	NA	NA	NA	NA	NA
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	0.0077 U	0.0075 U	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	**0.12**	**0.18**	NA	NA	NA	NA	NA	NA	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	**0.34**	**0.53**	NA	NA	NA	NA	NA	NA	NA
CHLORINATED PHENOLS (mg/kg)																						
Method 8040																						
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	0.0072 U	**0.0056** J	NA	NA	NA	NA	NA	NA	NA

BZTO104(e)019578

TABLE C-1
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
MAIN TANK FARM AREA
PHASE III RI

Sample Identification:														0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
	SCREENING CRITERIA															COMP	COMP	COMP	COMP	COMP	COMP	COMP
									Risk-Based Concentrations													
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater									
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			LW4D (0-0.5)	LW6D (0-0.5)	G2 (0-0.5)	G3 (0-0.5)	G8 (0-0.5)	G9 (0-0.5)	G12 (0-0.5)	G13 (0-0.5)	G14 (0-0.5)
														R950A	R950I	0108151-01	0108151-09	0108151-13	0108189-08	0108151-18	0108172-01	0108172-05
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	03/12/97	03/13/97	8/20/2001	8/20/2001	8/20/2001	8/24/2001	8/20/2001	8/21/2001	8/21/2001
VOLATILES (mg/kg)																						
EPA Method SW8260																						
1,2,4-Trimethylbenzene	170	--	--	--	3300 (m)	--	--	--	1500	1400	40000	790	55	NA	NA	0.002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	**0.00186**
1,2-Dibromoethane	0.028	--	--	--	--	--	--	--	0.033	0.25	7.1	1.7	0.000059	NA	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3,5-Trimethylbenzene	70	--	--	--	3300 (m)	--	--	--	1500	1400	40000	--	12	NA	NA	0.002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone	27102	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
4-Isopropyltoluene	520 (a)	0.6 (a)	12 (a)	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	NA	0.002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Acetone	6036	0.8	16	--	1250	--	--	--	--	--	--	--	--	NA	NA	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Disulfide	720	2	32	--	--	--	--	--	--	--	--	--	--	NA	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	NA	0.001 U	**0.00129**	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Isopropylbenzene	1977	--	--	--	3300 (m)	--	--	--	51000	24000	--	--	--	NA	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	0.002 U	**0.00388**	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Methyl Iodide	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methyl tert-butyl ether	157	--	--	--	--	--	--	--	760	9000	--	720	0.30	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	190	4	84	10	3900	--		--	770	710	20000	--	15	NA	NA	0.020 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U
n-Butylbenzene	240	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	0.004 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
n-Propylbenzene	240	--	--	--	3300 (m)	--	--	--	19000	9300	--	--	--	NA	NA	0.002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	0.001 U	**0.00221**	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
sec-Butylbenzene	220	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	0.002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
tert-Butylbenzene	390	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	0.002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	NA	NA	**0.00164**	**0.00521**	**0.002**	0.001 U	0.001 U	0.001 U	0.001 U
HYDROCARBONS (mg/kg)																						
NWTPH-HCID																						
Gasoline	--	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	21.1 U	21.1 U	21.1 U	21.5 U	21.1 U	21.1 U	21.5 U
Kerosene	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	52.6 U	52.6 U	52.6 U	53.8 U	52.6 U	52.6 U	53.8 U
Diesel	--	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	**Diesel**	**Diesel**	**Diesel**	**Diesel**	**Diesel**	**Diesel**	53.8 U
Lube Oil	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	**Lube Oil**	105 U	105 U	108 U	105 U	**Lube Oil**	108 U
NWTPH-Dx (mg/kg)																						
TPH-Diesel Range	2000 (p)	--	--	--	--	--	--	--	70000	23000	--	--	--	5.9 U	11	**438**	**430**	**253**	**89.2**	**154**	**183**	NA
TPH-Kerosene Range	2000 (p)	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH-Motor Oil Range	2000 (p)	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	**308**	**164**	**142**	**102**	**89.6**	**396**	NA
NWTPH-G (mg/kg)																						
TPH-Gasoline Range	100 (p)	--	--	--	--	--	--	--	22000	13000	--	80000	110	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA	NA
PRIORITY POLLUTANT METALS (mg/kg)																						
Arsenic (7060)	1.6 (q)(*)	1 (r)(*)	29	10 (r)	29 (r)	10 (r)	60 (r)	5 (o)	--	--	--	--	--	NA	NA	**2.53** J	**2.09**	**2.19**	**2.07**	15.2	5.96	**2.48**
Chromium (6010)	450	2 (*)	38	1 (s)(*)	340000 (s)	4 (s)(*)	0.4 (s)(*)	23.1	--	--	--	--	--	NA	NA	**12.6**	**22.0**	**15.3**	**17.4**	**40.0**	**19.4**	**24.2**
Copper (6010)	40877	--	--	100	390	190	50	19.1	--	--	--	--	--	NA	NA	**10.9**	**22.4**	**18.0**	**22.4** J	**246**	**54.2**	**22.9**
Lead (7421)	750	--	--	50	4000	16	500	9	750	750	750	--	30	NA	NA	**56.0**	**39.5**	**62.8**	**13.6** J	**72.7**	**52.9**	**38.9**
Nickel (6010)	20439	7 (*)	130	30	625	320	200	21.4	--	--	--	--	--	NA	NA	**11.0**	**18.9**	**14.6**	**17.0**	**88.0**	**19.3**	**21.1**
Zinc (6010)	100000	620	12000	50 (*)	20000	60	200	60.2	--	--	--	--	--	NA	NA	**65.0**	**77.7**	**71.2**	**57.0**	**162**	**102**	**91.9**
Cadmium (6010)	451	0.4	8	4	125	6	20	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (7471)	307	--	--	0.3	73	1.5	0.1	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA

BZTO104(e)019579

TABLE C-1
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
MAIN TANK FARM AREA
PHASE III RI

														0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
	SCREENING CRITERIA																					
									Risk-Based Concentrations							COMP	COMP	COMP	COMP	COMP	COMP	COMP
Sample Identification:									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	LW4D (0-0.5)	LW6D (0-0.5)	G2 (0-0.5)	G3 (0-0.5)	G8 (0-0.5)	G9 (0-0.5)	G12 (0-0.5)	G13 (0-0.5)	G14 (0-0.5)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			R950A	R950I	0108151-01	0108151-09	0108151-13	0108189-08	0108151-18	0108172-01	0108172-05
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	03/12/97	03/13/97	8/20/2001	8/20/2001	8/20/2001	8/24/2001	8/20/2001	8/21/2001	8/21/2001
BETX (mg/kg)																						
EPA Method SW8021B																						
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	0.061 U	0.058 U	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (n)	--	--	--	74000	28000	--	--	--	0.061 U	0.058 U	NA	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	0.061 U	0.058 U	NA	NA	NA	NA	NA	NA	NA
Xylenes, Total	420	10	210	--	--	--	--	--	24000	19000	--	--	100	NA	NA	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	0.061 U	0.058 U	NA	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	0.061 U	0.058 U	NA	NA	NA	NA	NA	NA	NA
DIOXINS AND FURANS (ng/kg)																						
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA

BZTO104(e)019580

TABLE C-1
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
MAIN TANK FARM AREA
PHASE III RI

													0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	1-1.5	1-1.5
	SCREENING CRITERIA																			
								Risk-Based Concentrations					COMP			COMP	COMP		COMP	COMP
								Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater								
Sample Identification:													G16 (0-0.5)	G16-GRAB	BA1 (0-0.5)	BA12 (0-0.5)	BA16 (0-0.5)	BA17 (0-0.5)	G2 (1-1.5)	G3 (1-1.5)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation		0108172-09	0108172-13	0108172-32	0108151-05	0108172-25	0108182-19	0108151-02	0108151-10
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	8/21/2001	8/21/2001	8/22/2001	8/20/2001	8/22/2001	8/23/2001	8/20/2001	8/20/2001
SEMIVOLATILES (mg/kg)																				
EPA Method SW8270																				
2,6-Dinitrotoluene	616	0.00003	0.0007	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	0.330 U	NA	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U
2-Methylnaphthalene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.067 U	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Acenaphthene	29219	29	570	20	--	--	--	--	41000	16000	--	--	--	0.067 U	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	**0.120**	NA	0.067 U	0.067 U	**0.100**	0.067 U	0.067 U	0.067 U
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	**0.120** J	NA	0.067 U	0.067 U	**0.090** J	0.067 U	0.067 U	0.067 U
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	**0.690** J	NA	0.067 U	0.067 U	**0.460** J	0.067 U	0.067 U	0.067 U
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	**1.200**	NA	0.067 U	0.067 U	**0.770**	0.067 U	0.067 U	0.067 U
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	**2.100** J	NA	0.067 U	0.067 U	**1.600** J	**0.094**	0.067 U	0.067 U
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	**1.400**	NA	0.067 U	0.067 U	**0.500**	0.067 U	0.067 U	0.067 U
Benzo(k)fluoranthene	21.1	2	49	--	--	--	--	--	27	210	5900	--	--	**0.710**	NA	0.067 U	0.067 U	**0.540**	0.067 U	0.067 U	0.067 U
bis(2-Ethylhexyl)phthalate	123	180 (g)	3600 (g)	--	1020	4.5	--	--	--	--	--	--	--	**0.072**	NA	**0.085**	**0.130**	**0.120**	**0.086**	0.067 U	0.067 U
Butylbenzylphthalate	100000	810	930	--	1020 (i)	4.5 (i)	--	--	--	--	--	--	--	0.067 U	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Carbazole	86	0.03	0.6	--	--	--	--	--	--	--	--	--	--	0.067 U	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	**0.850** J	NA	0.067 U	0.067 U	**0.570** J	0.067 U	0.067 U	0.067 U
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	**0.074**	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Dibenzofuran	3127	--	--	--	0.002	--	--	--	--	--	--	--	--	0.067 U	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Diethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Dimethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Di-n-Butylphthalate	61561	270	2300	200	30000	0.45	--	--	--	--	--	--	--	0.067 U	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Di-n-Octyl phthalate	24624	10000	10000	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	**1.900** J	NA	0.067 U	0.067 U	**1.200** J	0.067 U	0.067 U	0.067 U
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	0.067 U	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Hexachloroethane	123	0.02	0.5	--	--	--	--	--	--	--	--	--	--	0.130 U	NA	0.130 U	0.130 U	0.130 U	0.130 U	0.130 U	0.130 U
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	**0.980**	NA	0.067 U	0.067 U	**0.410**	0.067 U	0.067 U	0.067 U
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	0.067 U	NA	0.130 U	0.130 U	0.130 U	0.130 U	0.067 U	0.067 U
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	0.330 U	NA	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	**0.680** J	NA	0.067 U	0.067 U	**0.460** J	0.067 U	0.067 U	0.067 U
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	**2.000** J	NA	0.067 U	0.067 U	**1.200** J	0.067 U	0.067 U	0.067 U
SEMIVOLATILES (mg/kg)																				
EPA Method SW8270SIM																				
Acenaphthene	29219	29	570	20	--	--	--	--	41000	16000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
CHLORINATED PHENOLS (mg/kg)																				
Method 8040																				
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE C-1
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
MAIN TANK FARM AREA
PHASE III RI

Sample Identification:	SCREENING CRITERIA													0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	1-1.5	1-1.5
									Risk-Based Concentrations					COMP			COMP	COMP		COMP	COMP
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	G16 (0-0.5)	G16-GRAB	BA1 (0-0.5)	BA12 (0-0.5)	BA16 (0-0.5)	BA17 (0-0.5)	G2 (1-1.5)	G3 (1-1.5)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background	Occupational	Construction Worker	Excavation Worker	Occupational	Occupational	0108172-09	0108172-13	0108172-32	0108151-05	0108172-25	0108182-19	0108151-02	0108151-10
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts							8/21/2001	8/21/2001	8/22/2001	8/20/2001	8/22/2001	8/23/2001	8/20/2001	8/20/2001
VOLATILES (mg/kg)																					
EPA Method SW8260																					
1,2,4-Trimethylbenzene	170	--	--	--	3300 (m)	--	--	--	1500	1400	40000	790	55	0.001 U	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dibromoethane	0.028	--	--	--	--	--	--	--	0.033	0.25	7.1	1.7	0.000059	0.001 U	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3,5-Trimethylbenzene	70	--	--	--	3300 (m)	--	--	--	1500	1400	40000	--	12	0.001 U	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone	27102	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	NA	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
4-Isopropyltoluene	520 (a)	0.6 (a)	12 (a)	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	0.001 U	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Acetone	6036	0.8	16	--	1250	--	--	--	--	--	--	--	--	0.005 U	NA	0.050 U	0.005 U	0.005 U	0.005 U	0.005 U	**0.00712**
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	0.001 U	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Disulfide	720	2	32	--	--	--	--	--	--	--	--	--	--	0.001 U	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	0.001 U	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Isopropylbenzene	1977	--	--	--	3300 (m)	--	--	--	51000	24000	--	--	--	0.001 U	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	0.002 U	NA	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	**0.00232**
Methyl Iodide	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methyl tert-butyl ether	157	--	--	--	--	--	--	--	760	9000	--	720	0.30	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	190	4	84	10	3900	--		--	770	710	20000	--	15	0.010 U	NA	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U
n-Butylbenzene	240	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	0.002 U	NA	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
n-Propylbenzene	240	--	--	--	3300 (m)	--	--	--	19000	9300	--	--	--	0.001 U	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	0.001 U	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
sec-Butylbenzene	220	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	0.001 U	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
tert-Butylbenzene	390	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	0.001 U	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	0.001 U	NA	0.001 U	**0.00102**	0.001 U	**0.00146**	0.001 U	**0.00183**
HYDROCARBONS (mg/kg)																					
NWTPH-HCID																					
Gasoline	--	--	--	--	--	--	--	--	---	---	--	--	--	21.5 U	21.7 U	24.4 U	21.3 U	23.0 U	21.3 U	21.7 U	22.0 U
Kerosene	--	--	--	--	--	--	--	--	--	--			--	53.8 U	54.3 U	61.0 U	53.2 U	57.5 U	53.2 U	54.3 U	54.9 U
Diesel	--	--	--	--	--	--	--	--	---	---	--	--	--	53.8 U	54.3 U	61.0 U	**Diesel**	57.5 U	**Diesel**	**Diesel**	**Diesel**
Lube Oil	--	--	--	--	--	--	--	--	--	--	--	--	--	108 U	**Lube Oil**	122 U	**Lube Oil**	**Lube Oil**	106 U	109 U	**Lube Oil**
NWTPH-Dx (mg/kg)																					
TPH-Diesel Range	2000 (p)	--	--	--	--	--	--	--	70000	23000	--	--	--	NA	**34.2**	NA	**526**	17.2 U	**169**	**133**	**396**
TPH-Kerosene Range	2000 (p)	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
TPH-Motor Oil Range	2000 (p)	--	--	--	--	--	--	--	---	---	--	--	--	NA	**133**	NA	**164**	**158**	**104**	54.4 U	**167**
NWTPH-G (mg/kg)																					
TPH-Gasoline Range	100 (p)	--	--	--	--	--	--	--	22000	13000	--	80000	110	NA	NA	NA	NA	NA	NA	NA	NA
PRIORITY POLLUTANT METALS (mg/kg)																					
Arsenic (7060)	1.6 (q)(*)	1 (r)(*)	29	10 (r)	29 (r)	10 (r)	60 (r)	5 (o)	--	--	--	--	--	**3.43**	**89.1**	**4.62**	**3.49**	**29.6**	**1.96**	**2.25**	**2.43**
Chromium (6010)	450	2 (*)	38	1 (s)(*)	340000 (s)	4 (s)(*)	0.4 (s)(*)	23.1	--	--	--	--	--	**19.3**	**81.9**	**17.3**	**16.5**	**38.0**	**17.6**	**15.1**	**14.7**
Copper (6010)	40877	--	--	100	390	190	50	19.1	--	--	--	--	--	**17.5**	**82.2**	**14.5**	**17.7**	**54.6**	**16.0**	**12.8**	**12.8**
Lead (7421)	750	--	--	50	4000	16	500	9	750	750	750	--	30	**21**	**37.3**	**16**	**18.0**	**127**	**51.1**	**17.9**	**9.13**
Nickel (6010)	20439	7 (*)	130	30	625	320	200	21.4	--	--	--	--	--	**18.9**	**98.6**	**15.2**	**17.6**	**42.6**	**18.5**	**16.1**	**16.2**
Zinc (6010)	100000	620	12000	50 (*)	20000	60	200	60.2	--	--	--	--	--	**67.7**	**152**	**167**	**68.4**	**1150**	**66.9**	**47.6**	**47.8**
Cadmium (6010)	451	0.4	8	4	125	6	20	--	--	--	--	--	--	NA	**1.25**	NA	NA	NA	NA	NA	NA
Mercury (7471)	307	--	--	0.3	73	1.5	0.1	--	--	--	--	--	--	NA	**0.0222**	NA	NA	NA	NA	NA	NA

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TABLE C-1
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
MAIN TANK FARM AREA
PHASE III RI

													0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	1-1.5	1-1.5
	SCREENING CRITERIA																			
								Risk-Based Concentrations					COMP			COMP	COMP		COMP	COMP
Sample Identification:								Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	G16 (0-0.5)	G16-GRAB	BA1 (0-0.5)	BA12 (0-0.5)	BA16 (0-0.5)	BA17 (0-0.5)	G2 (1-1.5)	G3 (1-1.5)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs					Construction	Excavation			0108172-09	0108172-13	0108172-32	0108151-05	0108172-25	0108182-19	0108151-02	0108151-10
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts	Background	Occupational	Worker	Worker	Occupational	Occupational	8/21/2001	8/21/2001	8/22/2001	8/20/2001	8/22/2001	8/23/2001	8/20/2001	8/20/2001
BETX (mg/kg)																				
EPA Method SW8021B																				
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, Total	420	10	210	--	--	--	--	--	24000	19000	--	--	100	NA	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	NA	NA	NA	NA	NA
DIOXINS AND FURANS (ng/kg)																				
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE C-1
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
MAIN TANK FARM AREA
PHASE III RI

Sample Identification:														1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5
	SCREENING CRITERIA													COMP	COMP	COMP	COMP	COMP	COMP	COMP	
									Risk-Based Concentrations							G30 (1-1.5)						
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	G8 (1-1.5)	G9 (1-1.5)	Dup of G9 (1-1.5)	G12 (1-1.5)	G13 (1-1.5)	G14 (1-1.5)	G16 (1-1.5)	BA1 (1-1.5)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0108151-14	0108189-09	0108189-07	0108151-19	0108172-02	0108172-06	0108172-10	0108172-33
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	8/20/2001	8/24/2001	8/24/2001	8/20/2001	8/21/2001	8/21/2001	8/21/2001	8/22/2001
SEMIVOLATILES (mg/kg)																					
EPA Method SW8270																					
2,6-Dinitrotoluene	616	0.00003	0.0007	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U
2-Methylnaphthalene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Acenaphthene	29219	29	570	20	--	--	--	--	41000	16000	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	0.067 U	0.067 U	**0.083**	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	0.067 U	0.067 U	0.067 U	**0.085**	0.067 U	0.067 U	0.067 U	0.067 U
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	0.067 U	0.067 U	0.067 U	**0.120**	0.067 U	0.067 U	**0.140**	0.067 U
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	0.067 U	0.067 U	**0.067**	**0.100**	0.067 U	0.067 U	**0.240** J	0.067 U
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	**0.200**	0.067 U
Benzo(k)fluoranthene	21.1	2	49	--	--	--	--	--	27	210	5900	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	**0.077**	0.067 U
bis(2-Ethylhexyl)phthalate	123	180 (g)	3600 (g)	--	1020	4.5	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Butylbenzylphthalate	100000	810	930	--	1020 (i)	4.5 (i)	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Carbazole	86	0.03	0.6	--	--	--	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	0.067 U	0.067 U	**0.072**	0.067 U	0.067 U	0.067 U	**0.099** J	0.067 U
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Dibenzofuran	3127	--	--	--	0.002	--	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Diethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	**0.075**	0.067 U	0.067 U
Dimethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Di-n-Butylphthalate	61561	270	2300	200	30000	0.45	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Di-n-Octyl phthalate	24624	10000	10000	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	0.067 U	0.067 U	0.067 U	**0.210**	0.067 U	0.067 U	**0.200** J	0.067 U
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	0.067 U	0.067 U	0.067 U	**0.240**	0.067 U	0.067 U	0.067 U	0.067 U
Hexachloroethane	123	0.02	0.5	--	--	--	--	--	--	--	--	--	--	0.130 U	0.130 U	0.130 U	0.130 U	0.130 U	0.130 U	0.130 U	0.130 U
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	**0.130**	0.067 U
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.130 U
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	**0.510**	0.067 U	0.067 U	0.067 U	0.067 U
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	0.067 U	0.067 U	0.067 U	**0.200**	0.067 U	0.067 U	**0.280** J	0.067 U
SEMIVOLATILES (mg/kg)																					
EPA Method SW8270SIM																					
Acenaphthene	29219	29	570	20	--	--	--	--	41000	16000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
CHLORINATED PHENOLS (mg/kg)																					
Method 8040																					
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE C-1
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
MAIN TANK FARM AREA
PHASE III RI

Sample Identification:														1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5
	SCREENING CRITERIA																				
									Risk-Based Concentrations					COMP	COMP	COMP	COMP	COMP	COMP	COMP	
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background	Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	G8 (1-1.5)	G9 (1-1.5)	G30 (1-1.5) Dup of G9 (1-1.5)	G12 (1-1.5)	G13 (1-1.5)	G14 (1-1.5)	G16 (1-1.5)	BA1 (1-1.5)
										Construction	Excavation			0108151-14	0108189-09	0108189-07	0108151-19	0108172-02	0108172-06	0108172-10	0108172-33
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	8/20/2001	8/24/2001	8/24/2001	8/20/2001	8/21/2001	8/21/2001	8/21/2001	8/22/2001
VOLATILES (mg/kg)																					
EPA Method SW8260																					
1,2,4-Trimethylbenzene	170	--	--	--	3300 (m)	--	--	--	1500	1400	40000	790	55	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dibromoethane	0.028	--	--	--	--	--	--	--	0.033	0.25	7.1	1.7	0.000059	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3,5-Trimethylbenzene	70	--	--	--	3300 (m)	--	--	--	1500	1400	40000	--	12	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone	27102	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	0.005 U	0.005 U	**0.00596**	0.005 U	0.0153 U	0.005 U	0.005 U
4-Isopropyltoluene	520 (a)	0.6 (a)	12 (a)	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Acetone	6036	0.8	16	--	1250	--	--	--	--	--	--	--	--	0.005 U	0.005 U	0.005 U	**0.017**	0.005 U	**0.296**	0.005 U	0.050 U
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Disulfide	720	2	32	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Isopropylbenzene	1977	--	--	--	3300 (m)	--	--	--	51000	24000	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Methyl Iodide	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methyl tert-butyl ether	157	--	--	--	--	--	--	--	760	9000	--	720	0.30	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	190	4	84	10	3900	--		--	770	710	20000	--	15	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U
n-Butylbenzene	240	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
n-Propylbenzene	240	--	--	--	3300 (m)	--	--	--	19000	9300	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
sec-Butylbenzene	220	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
tert-Butylbenzene	390	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	**0.00105**	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
HYDROCARBONS (mg/kg)																					
NWTPH-HCID																					
Gasoline	--	--	--	--	--	--	--	--	---	---	--	--	--	22.2 U	22.0 U	22.0 U	22.0 U	20.8 U	22.0 U	21.5 U	24.4 U
Kerosene	--	--	--	--	--	--	--	--	--	--				55.6 U	54.9 U	54.9 U	54.9 U	52.1 U	54.9 U	53.8 U	61.0 U
Diesel	--	--	--	--	--	--	--	--	---	---	--	--	--	**Diesel**	54.9 U	54.9 U	54.9 U	52.1 U	54.9 U	53.8 U	**Diesel**
Lube Oil	--	--	--	--	--	--	--	--	--	--	--	--	--	**Lube Oil**	110 U	110 U	110 U	104 U	110 U	108 U	122 U
NWTPH-Dx (mg/kg)																					
TPH-Diesel Range	2000 (p)	--	--	--	--	--	--	--	70000	23000	--	--	--	**261**	NA	NA	NA	NA	NA	NA	**95**
TPH-Kerosene Range	2000 (p)	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
TPH-Motor Oil Range	2000 (p)	--	--	--	--	--	--	--	---	---	--	--	--	**139**	NA	NA	NA	NA	NA	NA	**69.6**
NWTPH-G (mg/kg)																					
TPH-Gasoline Range	100 (p)	--	--	--	--	--	--	--	22000	13000	--	80000	110	NA	NA	NA	NA	NA	NA	NA	NA
PRIORITY POLLUTANT METALS (mg/kg)																					
Arsenic (7060)	1.6 (q)(*)	1 (r)(*)	29	10 (r)	29 (r)	10 (r)	60 (r)	5 (o)	--	--	--	--	--	**1.86**	**2.28**	**2.40**	**2.14**	**2.03**	**1.82**	**2.72**	**2.38**
Chromium (6010)	450	2 (*)	38	1 (s)(*)	340000 (s)	4 (s)(*)	0.4 (s)(*)	23.1	--	--	--	--	--	**14.9**	**15.2**	**16.3**	**14.8**	**13.7**	**18.8**	**16.3**	**15.6**
Copper (6010)	40877	--	--	100	390	190	50	19.1	--	--	--	--	--	**13.5**	**13.5** J	**26.7** J	**13.8**	**12.5**	**14.1**	**13.9**	**15.6**
Lead (7421)	750	--	--	50	4000	16	500	9	750	750	750	--	30	**8.63**	**5.19** J	**10.4** J	**10.1**	1.96 U	1.96 U	**3.82**	**44.3**
Nickel (6010)	20439	7 (*)	130	30	625	320	200	21.4	--	--	--	--	--	**17.4**	**16.1**	**17.3**	**17.9**	**16.6**	**19.4**	**18.9**	**16.1**
Zinc (6010)	100000	620	12000	50 (*)	20000	60	200	60.2	--	--	--	--	--	**68.5**	**44.8**	**54.4**	**46.4**	**45.1**	**51.4**	**133**	**93.8**
Cadmium (6010)	451	0.4	8	4	125	6	20	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (7471)	307	--	--	0.3	73	1.5	0.1	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE C-1
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
MAIN TANK FARM AREA
PHASE III RI

													1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5
	SCREENING CRITERIA																			
									Risk-Based Concentrations				COMP	COMP	COMP	COMP	COMP	COMP	COMP	
Sample Identification:									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	G8 (1-1.5)	G9 (1-1.5)	G30 (1-1.5) Dup of G9 (1-1.5)	G12 (1-1.5)	G13 (1-1.5)	G14 (1-1.5)	G16 (1-1.5)	BA1 (1-1.5)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0108151-14	0108189-09	0108189-07	0108151-19	0108172-02	0108172-06	0108172-10	0108172-33
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	8/20/2001	8/24/2001	8/24/2001	8/20/2001	8/21/2001	8/21/2001	8/21/2001	8/22/2001
BETX (mg/kg)																					
EPA Method SW8021B																					
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, Total	420	10	210	--	--	--	--	--	24000	19000	--	--	100	NA	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	NA	NA	NA	NA	NA
DIOXINS AND FURANS (ng/kg)																					
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

BZTO104(e)019586

TABLE C-1
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
MAIN TANK FARM AREA
PHASE III RI

Sample Identification:														1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5
	SCREENING CRITERIA																				
									Risk-Based Concentrations					COMP							
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater			BA18 (1-1.5)	COMP					
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			BA12 (1-1.5)	BA15 (1-1.5)	Dup of BA15 (1-1.5)	BA16 (1-1.5)	BA17 (1-1.5)	HB01 (1-1.5)	HB02 (1-1.5)	HB03 (1-1.5)
														0108151-06	0108172-22	0108172-19	0108172-26	0108182-20	0310117-02	0310117-07	0310117-21
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	8/20/2001	8/22/2001	8/22/2001	8/22/2001	8/23/2001	10/15/2003	10/15/2003	10/15/2003
SEMIVOLATILES (mg/kg)																					
EPA Method SW8270																					
2,6-Dinitrotoluene	616	0.00003	0.0007	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	NA	NA	NA
2-Methylnaphthalene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	**0.400**	0.067 U	0.067 U	0.067 U	0.067 U	NA	NA	NA
Acenaphthene	29219	29	570	20	--	--	--	--	41000	16000	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	NA	NA	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	NA	NA	NA
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	NA	NA	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	0.067 U	**0.099** J	**0.170** J	0.067 U	0.067 U	NA	NA	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	0.067 U	**0.150**	**0.250**	0.067 U	0.067 U	NA	NA	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	0.067 U	**0.250** J	**0.420** J	0.067 U	0.067 U	NA	NA	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.067 U	**0.170**	**0.290**	0.067 U	0.067 U	NA	NA	NA
Benzo(k)fluoranthene	21.1	2	49	--	--	--	--	--	27	210	5900	--	--	0.067 U	**0.082**	**0.140**	0.067 U	0.067 U	NA	NA	NA
bis(2-Ethylhexyl)phthalate	123	180 (g)	3600 (g)	--	1020	4.5	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	NA	NA	NA
Butylbenzylphthalate	100000	810	930	--	1020 (i)	4.5 (i)	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	NA	NA	NA
Carbazole	86	0.03	0.6	--	--	--	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	NA	NA	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	0.067 U	**0.120** J	**0.200** J	0.067 U	0.067 U	NA	NA	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	NA	NA	NA
Dibenzofuran	3127	--	--	--	0.002	--	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	NA	NA	NA
Diethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	NA	NA	NA
Dimethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	NA	NA	NA
Di-n-Butylphthalate	61561	270	2300	200	30000	0.45	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	NA	NA	NA
Di-n-Octyl phthalate	24624	10000	10000	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	NA	NA	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	0.067 U	**0.320** J	**0.520** J	0.067 U	0.067 U	NA	NA	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	NA	NA	NA
Hexachloroethane	123	0.02	0.5	--	--	--	--	--	--	--	--	--	--	0.130 U	0.130 U	0.130 U	0.130 U	0.130 U	NA	NA	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	0.067 U	**0.110**	**0.200**	0.067 U	0.067 U	NA	NA	NA
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	0.130 U	0.130 U	0.130 U	0.130 U	0.130 U	NA	NA	NA
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	NA	NA	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	0.067 U	**0.180** J	**0.220** J	0.067 U	0.067 U	NA	NA	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	0.067 U	**0.430** J	**0.690** J	0.067 U	0.067 U	NA	NA	NA
SEMIVOLATILES (mg/kg)																					
EPA Method SW8270SIM																					
Acenaphthene	29219	29	570	20	--	--	--	--	41000	16000	--	--	--	NA	NA	NA	NA	NA	0.00667 U	0.00667 U	0.00667 U
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	**0.008**	0.00667 U	0.00667 U
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	NA	NA	NA	NA	NA	**0.0133**	0.00667 U	0.00667 U
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	**0.0247**	0.00667 U	**0.016**
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	**0.032**	0.00667 U	0.00667 U
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	**0.058**	0.00667 U	0.00667 U
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	**0.0327**	0.00667 U	**0.0113**
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--	NA	NA	NA	NA	NA	**0.0153**	0.00667 U	0.00667 U
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	NA	NA	NA	NA	**0.082**	0.00667 U	0.00667 U
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	**0.01**	0.00667 U	0.00667 U
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	NA	NA	NA	NA	**0.0373**	0.00667 U	0.00667 U
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	NA	NA	NA	NA	**0.00733**	0.00667 U	0.00667 U
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	**0.0227**	0.00667 U	0.00667 U
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	NA	NA	NA	**0.022**	0.00667 U	0.00667 U
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	**0.0373**	0.00667 U	**0.008**
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	NA	NA	NA	NA	**0.052**	0.00667 U	0.00667 U
CHLORINATED PHENOLS (mg/kg)																					
Method 8040																					
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE C-1
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
MAIN TANK FARM AREA
PHASE III RI

Sample Identification:														1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5
	SCREENING CRITERIA																				
									Risk-Based Concentrations					COMP							
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater			BA18 (1-1.5)	COMP					
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			BA12 (1-1.5)	BA15 (1-1.5)	Dup of BA15 (1-1.5)	BA16 (1-1.5)	BA17 (1-1.5)	HB01 (1-1.5)	HB02 (1-1.5)	HB03 (1-1.5)
														0108151-06	0108172-22	0108172-19	0108172-26	0108182-20	0310117-02	0310117-07	0310117-21
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	8/20/2001	8/22/2001	8/22/2001	8/22/2001	8/23/2001	10/15/2003	10/15/2003	10/15/2003
VOLATILES (mg/kg)																					
EPA Method SW8260																					
1,2,4-Trimethylbenzene	170	--	--	--	3300 (m)	--	--	--	1500	1400	40000	790	55	**0.0901**	0.001 U	0.001 U	0.001 U	**0.0174** J	0.01 U	0.01 U	0.01 U
1,2-Dibromoethane	0.028	--	--	--	--	--	--	--	0.033	0.25	7.1	1.7	0.000059	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.01 U	0.01 U	0.01 U
1,3,5-Trimethylbenzene	70	--	--	--	3300 (m)	--	--	--	1500	1400	40000	--	12	**0.0156**	0.001 U	0.001 U	0.001 U	**0.0305** J	0.01 U	0.01 U	0.01 U
2-Butanone	27102	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	NA	NA	NA
4-Isopropyltoluene	520 (a)	0.6 (a)	12 (a)	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	**0.00666**	0.001 U	0.001 U	0.001 U	0.001 U	NA	NA	NA
Acetone	6036	0.8	16	--	1250	--	--	--	--	--	--	--	--	**0.0363**	0.005 U	0.005 U	0.005 U	**0.209**	NA	NA	NA
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.01 U	0.01 U	0.01 U
Carbon Disulfide	720	2	32	--	--	--	--	--	--	--	--	--	--	**0.00163**	0.001 U	0.001 U	0.001 U	0.001 U	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	**0.00816**	0.001 U	0.001 U	0.001 U	0.001 U	0.01 U	0.01 U	0.01 U
Isopropylbenzene	1977	--	--	--	3300 (m)	--	--	--	51000	24000	--	--	--	**0.00653**	0.001 U	0.001 U	0.001 U	0.001 U	0.01 U	0.01 U	0.01 U
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	**0.0234**	0.002 U	0.002 U	0.002 U	0.002 U	0.02 U	0.02 U	**0.0304**
Methyl Iodide	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	NA	NA	NA
Methyl tert-butyl ether	157	--	--	--	--	--	--	--	760	9000	--	720	0.30	NA	NA	NA	NA	NA	10 U	10 U	10 U
Naphthalene	190	4	84	10	3900	--		--	770	710	20000	--	15	**0.0328**	0.010 U	0.010 U	0.010 U	0.010 U	NA	NA	NA
n-Butylbenzene	240	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	**0.00547**	0.002 U	0.002 U	0.002 U	0.002 U	NA	NA	NA
n-Propylbenzene	240	--	--	--	3300 (m)	--	--	--	19000	9300	--	--	--	**0.0124**	**0.001**	0.001 U	0.001 U	0.001 U	0.01 U	0.01 U	0.01 U
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	**0.0103**	0.001 U	0.001 U	0.001 U	**0.0061** J	0.01 U	0.01 U	0.01 U
sec-Butylbenzene	220	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	**0.00483**	0.001 U	0.001 U	0.001 U	0.001 U	NA	NA	NA
tert-Butylbenzene	390	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	**0.00157**	0.001 U	0.001 U	0.001 U	0.001 U	0.01 U	0.01 U	0.01 U
HYDROCARBONS (mg/kg)																					
NWTPH-HCID																					
Gasoline	--	--	--	--	--	--	--	--	---	---	--	--	--	22.2 U	21.5 U	21.5 U	21.7 U	22.0 U	NA	NA	NA
Kerosene	--	--	--	--	--	--	--	--	--	--				55.6 U	53.8 U	53.8 U	54.3 U	54.9 UJ	NA	NA	NA
Diesel	--	--	--	--	--	--	--	--	---	---	--	--	--	**Diesel**	53.8 U	53.8 U	54.3 U	**Diesel**	NA	NA	NA
Lube Oil	--	--	--	--	--	--	--	--	--	--	--	--	--	111 U	108 U	108 U	109 U	110 UJ	NA	NA	NA
NWTPH-Dx (mg/kg)																					
TPH-Diesel Range	2000 (p)	--	--	--	--	--	--	--	70000	23000	--	--	--	**1750**	NA	NA	NA	**1360** J	**33.9**	**97.4**	**681**
TPH-Kerosene Range	2000 (p)	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
TPH-Motor Oil Range	2000 (p)	--	--	--	--	--	--	--	---	---	--	--	--	**85.1**	NA	NA	NA	**80.8** J	56.4 U	**63.6**	**229** M
NWTPH-G (mg/kg)																					
TPH-Gasoline Range	100 (p)	--	--	--	--	--	--	--	22000	13000	--	80000	110	NA	NA	NA	NA	NA	**32.4**	2.68 U	2.78 U
PRIORITY POLLUTANT METALS (mg/kg)																					
Arsenic (7060)	1.6 (q)(*)	1 (r)(*)	29	10 (r)	29 (r)	10 (r)	60 (r)	5 (o)	--	--	--	--	--	**2.20**	**2.97**	**3.25**	**2.25**	**2.93**	NA	NA	NA
Chromium (6010)	450	2 (*)	38	1 (s)(*)	340000 (s)	4 (s)(*)	0.4 (s)(*)	23.1	--	--	--	--	--	**14.7**	**14.6**	**15.5**	**16.0**	**16.5**	NA	NA	NA
Copper (6010)	40877	--	--	100	390	190	50	19.1	--	--	--	--	--	**12.3**	**14.5**	**14.8**	**13.2**	**12.8**	NA	NA	NA
Lead (7421)	750	--	--	50	4000	16	500	9	750	750	750	--	30	**3.75**	**8.96**	**12.2**	**1.69**	**4.24**	**53.2**	1.56 U	**2.99**
Nickel (6010)	20439	7 (*)	130	30	625	320	200	21.4	--	--	--	--	--	**23.5**	**16.3**	**17.5**	**17.3**	**18.7**	NA	NA	NA
Zinc (6010)	100000	620	12000	50 (*)	20000	60	200	60.2	--	--	--	--	--	**46.1**	**47.2**	**52.5**	**646**	**47.5**	**199**	**56.1**	**70**
Cadmium (6010)	451	0.4	8	4	125	6	20	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (7471)	307	--	--	0.3	73	1.5	0.1	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE C-1
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
MAIN TANK FARM AREA
PHASE III RI

													1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5
	SCREENING CRITERIA																			
									Risk-Based Concentrations				COMP			COMP				
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater			BA18 (1-1.5)				
Sample Identification:														BA12 (1-1.5)	BA15 (1-1.5)	Dup of BA15 (1-1.5)	BA16 (1-1.5)	BA17 (1-1.5)	HB01 (1-1.5)	HB02 (1-1.5)	HB03 (1-1.5)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0108151-06	0108172-22	0108172-19	0108172-26	0108182-20	0310117-02	0310117-07	0310117-21
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	8/20/2001	8/22/2001	8/22/2001	8/22/2001	8/23/2001	10/15/2003	10/15/2003	10/15/2003
BETX (mg/kg)																					
EPA Method SW8021B																					
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, Total	420	10	210	--	--	--	--	--	24000	19000	--	--	100	NA	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	NA	NA	NA	NA	NA
DIOXINS AND FURANS (ng/kg)																					
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

BZTO104(e)019589

TABLE C-1
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
MAIN TANK FARM AREA
PHASE III RI

Sample Identification:														1-1.5	1-1.5	5-5.5	5-5.5	5-5.5	5-5.5	5-5.5	5-5.5
	SCREENING CRITERIA																				
									Risk-Based Concentrations												
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	HB04 (1-1.5)	HB05 (1-1.5)	COMP G16 (5-5.5)	HB01 (5-6)	HB02 (5-6)	HB03 (5-6)	HB04 (5-6)	HB05 (5-6)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0310117-16	0310117-12	0108172-11	0310117-03	0310117-08	0310117-22	0310117-17	0310117-13
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	10/15/2003	10/15/2003	8/21/2001	10/15/2003	10/15/2003	10/15/2003	10/15/2003	10/15/2003
SEMIVOLATILES (mg/kg)																					
EPA Method SW8270																					
2,6-Dinitrotoluene	616	0.00003	0.0007	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	NA	0.330 U	NA	NA	NA	NA	NA
2-Methylnaphthalene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	0.067 U	NA	NA	NA	NA	NA
Acenaphthene	29219	29	570	20	--	--	--	--	41000	16000	--	--	--	NA	NA	0.067 U	NA	NA	NA	NA	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	0.067 U	NA	NA	NA	NA	NA
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	NA	NA	0.067 U	NA	NA	NA	NA	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	NA	0.067 U	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	NA	NA	0.067 U	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	NA	0.067 U	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	0.067 U	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	21.1	2	49	--	--	--	--	--	27	210	5900	--	--	NA	NA	0.067 U	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	123	180 (g)	3600 (g)	--	1020	4.5	--	--	--	--	--	--	--	NA	NA	0.067 U	NA	NA	NA	NA	NA
Butylbenzylphthalate	100000	810	930	--	1020 (i)	4.5 (i)	--	--	--	--	--	--	--	NA	NA	0.067 U	NA	NA	NA	NA	NA
Carbazole	86	0.03	0.6	--	--	--	--	--	--	--	--	--	--	NA	NA	0.067 U	NA	NA	NA	NA	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	NA	0.067 U	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	NA	0.067 U	NA	NA	NA	NA	NA
Dibenzofuran	3127	--	--	--	0.002	--	--	--	--	--	--	--	--	NA	NA	0.067 U	NA	NA	NA	NA	NA
Diethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	0.067 U	NA	NA	NA	NA	NA
Dimethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	0.067 U	NA	NA	NA	NA	NA
Di-n-Butylphthalate	61561	270	2300	200	30000	0.45	--	--	--	--	--	--	--	NA	NA	0.067 U	NA	NA	NA	NA	NA
Di-n-Octyl phthalate	24624	10000	10000	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	0.067 U	NA	NA	NA	NA	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	NA	**0.085** J	NA	NA	NA	NA	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	NA	0.067 U	NA	NA	NA	NA	NA
Hexachloroethane	123	0.02	0.5	--	--	--	--	--	--	--	--	--	--	NA	NA	0.130 U	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	21	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	NA	0.067 U	NA	NA	NA	NA	NA
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	0.067 U	NA	NA	NA	NA	NA
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	0.330 U	NA	NA	NA	NA	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	NA	0.067 U	NA	NA	NA	NA	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	NA	**0.100** J	NA	NA	NA	NA	NA
SEMIVOLATILES (mg/kg)																					
EPA Method SW8270SIM																					
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	0.00667 U	0.00667 U	NA	**0.355**	**0.507**	0.00667 U	0.00667 U	**0.403**
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.00667 U	0.00667 U	NA	**0.0707**	**0.223**	0.00667 U	0.00667 U	**0.068**
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	0.00667 U	**0.00733** J	NA	**0.156**	**0.363**	0.00667 U	0.00667 U	**0.0967**
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	0.00667 U	**0.018** J	NA	**0.0127**	**0.0147**	0.00667 U	0.00667 U	**0.0213**
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	0.00667 U	0.00667 U	NA	0.00667 U	0.00667 U	0.00667 U	0.00667 U	**0.0153**
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	**0.0113**	**0.00933** J	NA	**0.00933**	0.00667 U	0.00667 U	0.00667 U	**0.0127**
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.00667 U	**0.016** J	NA	**0.0113**	0.00667 U	0.00667 U	0.00667 U	**0.0167**
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--	0.00667 U	0.00667 U	NA	0.00667 U	0.00667 U	0.00667 U	0.00667 U	0.00667 U
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	0.00667 U	0.00667 U	NA	**0.012**	**0.0213**	0.00667 U	0.00667 U	**0.024**
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	0.00667 U	0.00667 U	NA	0.00667 U	0.00667 U	0.00667 U	0.00667 U	0.00667 U
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	0.00667 U	**0.0147** J	NA	**0.0293**	**0.0333**	0.00667 U	0.00667 U	**0.0433**
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	0.00667 U	**0.0133** J	NA	**0.517**	**1.53**	0.00667 U	0.00667 U	**0.647**
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	0.00667 U	0.00667 U	NA	0.00667 U	0.00667 U	0.00667 U	0.00667 U	0.00667 U
Naphthalene	188	4	84	10	3900	--		--	770	710	20000	--	15	0.00667 U	**0.008** J	NA	**0.865**	**0.383**	0.00667 U	0.00667 U	**2.09**
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	0.00667 U	**0.0167** J	NA	**0.797**	**2.35**	0.00667 U	0.00667 U	**0.779**
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	0.00667 U	0.00667 U	NA	**0.096**	**0.207**	0.00667 U	0.00667 U	**0.107**
CHLORINATED PHENOLS (mg/kg)																					
Method 8040																					
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE C-1
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
MAIN TANK FARM AREA
PHASE III RI

Sample Identification:														1-1.5	1-1.5	5-5.5	5-5.5	5-5.5	5-5.5	5-5.5	5-5.5
	SCREENING CRITERIA																				
									Risk-Based Concentrations												
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	HB04 (1-1.5)	HB05 (1-1.5)	COMP G16 (5-5.5)	HB01 (5-6)	HB02 (5-6)	HB03 (5-6)	HB04 (5-6)	HB05 (5-6)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0310117-16	0310117-12	0108172-11	0310117-03	0310117-08	0310117-22	0310117-17	0310117-13
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	10/15/2003	10/15/2003	8/21/2001	10/15/2003	10/15/2003	10/15/2003	10/15/2003	10/15/2003
VOLATILES (mg/kg)																					
EPA Method SW8260																					
1,2,4-Trimethylbenzene	170	--	--	--	3300 (m)	--	--	--	1500	1400	40000	790	55	0.01 UJ	0.01 U	NA	**36** J	**12** J	0.01 U	0.01 UJ	**153** J
1,2-Dibromoethane	0.028	--	--	--	--	--	--	--	0.033	0.25	7.1	1.7	0.000059	0.01 UJ	0.01 U	NA	0.01 UJ	0.01 UJ	0.01 U	0.01 UJ	0.01 UJ
1,3,5-Trimethylbenzene	70	--	--	--	3300 (m)	--	--	--	1500	1400	40000	--	12	0.01 UJ	0.01 U	NA	**0.652** J	**1.26** J	0.01 U	0.01 UJ	**3.89** J
2-Butanone	27102	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
4-Isopropyltoluene	520 (a)	0.6 (a)	12 (a)	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	6036	0.8	16	--	1250	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	0.01 UJ	0.01 U	NA	0.01 UJ	**0.0368** J	0.01 U	0.01 UJ	**0.021** J
Carbon Disulfide	720	2	32	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	0.01 UJ	0.01 U	NA	**0.608** J	**0.212** J	0.01 U	0.01 UJ	**11.4** J
Isopropylbenzene	1977	--	--	--	3300 (m)	--	--	--	51000	24000	--	--	--	0.01 UJ	0.01 U	NA	**0.657** J	**1.37** J	0.01 U	0.01 UJ	**4.24** J
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	0.02 UJ	**0.0291**	NA	**4.33** J	**0.982** J	0.02 U	0.02 UJ	**99.4** J
Methyl Iodide	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	157	--	--	--	--	--	--	--	760	9000	--	720	0.30	10 UJ	10 U	NA	10 UJ	10 UJ	10 U	10 UJ	10 UJ
Naphthalene	190	4	84	10	3900	--		--	770	710	20000	--	15	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	240	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	240	--	--	--	3300 (m)	--	--	--	19000	9300	--	--	--	0.01 UJ	0.01 U	NA	**2.24** J	**3.39** J	0.01 U	0.01 UJ	**20** J
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	0.01 UJ	**0.0102**	NA	**1.68** J	**0.471** J	0.01 U	0.01 UJ	**41.9** J
sec-Butylbenzene	220	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	390	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	0.01 UJ	0.01 U	NA	**0.196** J	**0.0332** J	0.01 U	0.01 UJ	**3.23** J
HYDROCARBONS (mg/kg)																					
NWTPH-HCID																					
Gasoline	--	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Kerosene	--	--	--	--	--	--	--	--	--	--		--	--	NA	NA	NA	NA	NA	NA	NA	NA
Diesel	--	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Lube Oil	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
NWTPH-Dx (mg/kg)																					
TPH-Diesel Range	2000 (p)	--	--	--	--	--	--	--	70000	23000	--	--	--	**31.6**	**2330** J	NA	**2710** J	**7170** J	**159**	16.9 U	**2200**
TPH-Kerosene Range	2000 (p)	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
TPH-Motor Oil Range	2000 (p)	--	--	--	--	--	--	--	---	---	--	--	--	53.6 U	**429** MJ	NA	**109** J	**280** MJ	**70.7** M	56.2 U	**83.3** M
NWTPH-G (mg/kg)																					
TPH-Gasoline Range	100 (p)	--	--	--	--	--	--	--	22000	13000	--	80000	110	**5.7**	**32.8**	NA	**2540**	**1540** J	**3.43**	**121**	**8120**
PRIORITY POLLUTANT METALS (mg/kg)																					
Arsenic (7060)	1.6 (q)(*)	1 (r)(*)	29	10 (r)	29 (r)	10 (r)	60 (r)	5 (o)	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Chromium (6010)	450	2 (*)	38	1 (s)(*)	340000 (s)	4 (s)(*)	0.4 (s)(*)	23.1	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Copper (6010)	40877	--	--	100	390	190	50	19.1	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Lead (7421)	750	--	--	50	4000	16	500	9	750	750	750	--	30	1.61 U	**28.9**	NA	**29.1**	1.45 U	**3.58**	1.67 U	1.61 U
Nickel (6010)	20439	7 (*)	130	30	625	320	200	21.4	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (6010)	100000	620	12000	50 (*)	20000	60	200	60.2	--	--	--	--	--	**51**	**55.9**	NA	**43.8**	**39.1**	**45.4**	**48.4**	**44.9**
Cadmium (6010)	451	0.4	8	4	125	6	20	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (7471)	307	--	--	0.3	73	1.5	0.1	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE C-1
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
MAIN TANK FARM AREA
PHASE III RI

														1-1.5	1-1.5	5-5.5	5-5.5	5-5.5	5-5.5	5-5.5	5-5.5
	SCREENING CRITERIA																					
									Risk-Based Concentrations													
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater			COMP						
Sample Identification:														HB04 (1-1.5)	HB05 (1-1.5)	G16 (5-5.5)	HB01 (5-6)	HB02 (5-6)	HB03 (5-6)	HB04 (5-6)	HB05 (5-6)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0310117-16	0310117-12	0108172-11	0310117-03	0310117-08	0310117-22	0310117-17	0310117-13
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	10/15/2003	10/15/2003	8/21/2001	10/15/2003	10/15/2003	10/15/2003	10/15/2003	10/15/2003
BETX (mg/kg)																						
EPA Method SW8021B																						
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (n)	--	--	--	74000	28000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, Total	420	10	210	--	--	--	--	--	24000	19000	--	--	100	NA	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	NA	NA	NA	NA	NA
DIOXINS AND FURANS (ng/kg)																						
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

BZTO104(e)019592

TABLE C-1
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
MAIN TANK FARM AREA
PHASE III RI

														CF	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																		COMP	COMP
								Risk-Based Concentrations												
Sample Identification:								Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	LW4D (31.5-33.0)	LW6D (15-16.5)	LW6D (16.5-18.0)	LW6D (24.0-25.5)	LW6D (28.5-30.0)	G2 (15-21)	G3 (11-15)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs					Construction	Excavation			R950H	R950J	R950K	R950L	R950M	0108151-04	0108151-12
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts	Background	Occupational	Worker	Worker	Occupational	Occupational	03/13/97	03/13/97	03/13/97	03/13/97	03/13/97	8/20/2001	8/20/2001
SEMIVOLATILES (mg/kg)																				
EPA Method SW8270																				
2,6-Dinitrotoluene	616	0.00003	0.0007	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	0.330 U	0.330 U
2-Methylnaphthalene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	0.067 U	0.067 U
Acenaphthene	29219	29	570	20	--	--	--	--	41000	16000	--	--	--	NA	NA	NA	NA	NA	**1.500**	0.067 U
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	0.067 U	0.067 U
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	NA	NA	NA	NA	NA	**0.720**	0.067 U
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	**0.360**	0.067 U
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	**0.110**	0.067 U
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	**0.200**	0.067 U
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	0.067 U	0.067 U
Benzo(k)fluoranthene	21.1	2	49	--	--	--	--	--	27	210	5900	--	--	NA	NA	NA	NA	NA	0.067 U	0.067 U
bis(2-Ethylhexyl)phthalate	123	180 (g)	3600 (g)	--	1020	4.5	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	0.067 U	**0.150**
Butylbenzylphthalate	100000	810	930	--	1020 (i)	4.5 (i)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	0.067 U	0.067 U
Carbazole	86	0.03	0.6	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	0.067 U	0.067 U
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	NA	NA	NA	NA	**0.270**	0.067 U
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	0.067 U	0.067 U
Dibenzofuran	3127	--	--	--	0.002	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	**1.100**	0.067 U
Diethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	0.067 U	0.067 U
Dimethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	0.067 U	0.067 U
Di-n-Butylphthalate	61561	270	2300	200	30000	0.45	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	0.067 U	0.067 U
Di-n-Octyl phthalate	24624	10000	10000	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	0.067 U	0.067 U
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	NA	NA	NA	NA	**2.100**	**0.150**
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	NA	NA	NA	NA	**2.100**	**2.200**
Hexachloroethane	123	0.02	0.5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	0.130 U	0.130 U
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	0.067 U	0.067 U
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	NA	NA	NA	0.067 U	0.067 U
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	NA	NA	0.330 U	0.330 U
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	0.067 U	**2.100**
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	NA	NA	NA	NA	**0.890**	**0.150**
SEMIVOLATILES (mg/kg)																				
EPA Method SW8270SIM																				
Acenaphthene	29219	29	570	20	--	--	--	--	41000	16000	--	--	--	0.0091 U	0.0082 U	NA	0.0086 U	0.0088 U	NA	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.0091 U	0.0082 U	NA	**0.012**	0.0088 U	NA	NA
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	0.0091 U	**0.0082**	NA	**0.048**	**0.013**	NA	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	0.0091 U	**0.017**	NA	0.1	**0.032**	NA	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	**0.13**	**0.015**	NA	**0.1**	**0.031**	NA	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	0.0091 U	**0.012**	NA	**0.053**	**0.016**	NA	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.0091 U	0.0082 U	NA	**0.04**	**0.011**	NA	NA
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--	0.0091 U	**0.016**	NA	**0.099**	**0.03**	NA	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	0.0091 U	**0.019**	NA	**0.12**	**0.033**	NA	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	0.0091 U	0.0082 U	NA	**0.014**	0.0088 U	NA	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	0.0091 U	**0.034**	NA	**0.19**	**0.05**	NA	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	0.0091 U	0.0082 U	NA	0.0086 U	0.0088 U	NA	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	0.0091 U	0.0082 U	NA	**0.044**	**0.012**	NA	NA
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	0.032	0.0082 U	NA	**0.011**	0.0088 U	NA	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	0.0091 U	**0.017**	NA	**0.11**	**0.025**	NA	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	0.0091 U	**0.028**	NA	**0.22**	**0.049**	NA	NA
CHLORINATED PHENOLS (mg/kg)																				
Method 8040																				
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	0.0086 U	0.0077 U	NA	0.0081 U	0.0082 U	NA	NA

BZTO104(e)019593

TABLE C-1
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
MAIN TANK FARM AREA
PHASE III RI

													CF	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																		
								Risk-Based Concentrations										COMP	COMP
Sample Identification:								Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	LW4D (31.5-33.0)	LW6D (15-16.5)	LW6D (16.5-18.0)	LW6D (24.0-25.5)	LW6D (28.5-30.0)	G2 (15-21)	G3 (11-15)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs					Construction	Excavation			R950H	R950J	R950K	R950L	R950M	0108151-04	0108151-12
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts	Background	Occupational	Worker	Worker	Occupational	Occupational	03/13/97	03/13/97	03/13/97	03/13/97	03/13/97	8/20/2001	8/20/2001
VOLATILES (mg/kg)																			
EPA Method SW8260																			
1,2,4-Trimethylbenzene	170	--	--	--	3300 (m)	--	--	--	1500	1400	40000	790	55	NA	NA	NA	NA	NA	**0.022** J	**0.00443**
1,2-Dibromoethane	0.028	--	--	--	--	--	--	--	0.033	0.25	7.1	1.7	0.000059	NA	NA	NA	NA	NA	**0.023** J	0.001 U
1,3,5-Trimethylbenzene	70	--	--	--	3300 (m)	--	--	--	1500	1400	40000	--	12	NA	NA	NA	NA	NA	**43.300** J	**0.00604**
2-Butanone	27102	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	0.005 UJ	0.005 U
4-Isopropyltoluene	520 (a)	0.6 (a)	12 (a)	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	**5.460** J	**0.0137**
Acetone	6036	0.8	16	--	1250	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	0.005 UJ	**0.0807**
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	NA	NA	NA	**0.062** J	0.001 U
Carbon Disulfide	720	2	32	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	0.001 UJ	0.001 U
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	NA	NA	NA	NA	**0.896** J	**0.0426**
Isopropylbenzene	1977	--	--	--	3300 (m)	--	--	--	51000	24000	--	--	--	NA	NA	NA	NA	NA	**11.300** J	**9.420**
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	NA	NA	**0.097** J	**0.0281**
Methyl Iodide	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	0.001 UJ	0.001 U
Methyl tert-butyl ether	157	--	--	--	--	--	--	--	760	9000	--	720	0.30	NA	NA	NA	NA	NA	NA	NA
Naphthalene	190	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	NA	NA	NA	**0.016** J	**0.0164**
n-Butylbenzene	240	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	**12.700** J	**20.500**
n-Propylbenzene	240	--	--	--	3300 (m)	--	--	--	19000	9300	--	--	--	NA	NA	NA	NA	NA	**36.000** J	**37.500**
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	NA	NA	0.001 UJ	**0.0228**
sec-Butylbenzene	220	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	**4.760** J	**5.550**
tert-Butylbenzene	390	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	**0.019** J	**0.103**
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	NA	NA	NA	NA	NA	**0.021** J	**0.0261**
HYDROCARBONS (mg/kg)																			
NWTPH-HCID																			
Gasoline	--	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA	NA	**Gasoline**	**Gasoline**
Kerosene	--	--	--	--	--	--	--	--	--	--				NA	NA	NA	NA	NA	58.1 U	57.5 U
Diesel	--	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA	NA	**Diesel**	**Diesel**
Lube Oil	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	**Lube Oil**	**Lube Oil**
NWTPH-Dx (mg/kg)																			
TPH-Diesel Range	2000 (p)	--	--	--	--	--	--	--	70000	23000	--	--	--	6.9 U	6.1 U	NA	NA	6.4 U	**4760** J	**7030** J
TPH-Kerosene Range	2000 (p)	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
TPH-Motor Oil Range	2000 (p)	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA	NA	58.1 U	**485**
NWTPH-G (mg/kg)																			
TPH-Gasoline Range	100 (p)	--	--	--	--	--	--	--	22000	13000	--	80000	110	**4.6**	5.0 U	NA	5.0 U	5.0 U	**1860** J	**1270** J
PRIORITY POLLUTANT METALS (mg/kg)																			
Arsenic (7060)	1.6 (q)(*)	1 (r)(*)	29	10 (r)	29 (r)	10 (r)	60 (r)	5 (o)	--	--	--	--	--	NA	NA	NA	NA	NA	**4.25**	**1.92**
Chromium (6010)	450	2 (*)	38	1 (s)(*)	340000 (s)	4 (s)(*)	0.4 (s)(*)	23.1	--	--	--	--	--	NA	NA	NA	NA	NA	**14.2**	**14.7**
Copper (6010)	40877	--	--	100	390	190	50	19.1	--	--	--	--	--	NA	NA	NA	NA	NA	**12.1**	**12.8**
Lead (7421)	750	--	--	50	4000	16	500	9	750	750	750	--	30	NA	NA	NA	NA	NA	1.72 U	**2.85**
Nickel (6010)	20439	7 (*)	130	30	625	320	200	21.4	--	--	--	--	--	NA	NA	NA	NA	NA	**15.8**	**16.9**
Zinc (6010)	100000	620	12000	50 (*)	20000	60	200	60.2	--	--	--	--	--	NA	NA	NA	NA	NA	**42.7**	**46.6**
Cadmium (6010)	451	0.4	8	4	125	6	20	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Mercury (7471)	307	--	--	0.3	73	1.5	0.1	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA

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TABLE C-1
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
MAIN TANK FARM AREA
PHASE III RI

													CF	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																		
								Risk-Based Concentrations										COMP	COMP
Sample Identification:								Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	LW4D (31.5-33.0)	LW6D (15-16.5)	LW6D (16.5-18.0)	LW6D (24.0-25.5)	LW6D (28.5-30.0)	G2 (15-21)	G3 (11-15)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs					Construction	Excavation			R950H	R950J	R950K	R950L	R950M	0108151-04	0108151-12
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts	Background	Occupational	Worker	Worker	Occupational	Occupational	03/13/97	03/13/97	03/13/97	03/13/97	03/13/97	8/20/2001	8/20/2001
BETX (mg/kg)																			
EPA Method SW8021B																			
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	0.074 U	0.06 U	NA	0.069 U	0.071 U	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	**0.12** J	0.06 U	NA	0.069 U	0.071 U	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	0.074 U	0.06 U	NA	0.069 U	0.071 U	NA	NA
Xylenes, Total	420	10	210	--	--	--	--	--	24000	19000	--	--	100	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	**0.49**	0.06 U	NA	0.069 U	0.071 U	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	0.074 U	0.06 U	NA	0.069 U	0.071 U	NA	NA
DIOXINS AND FURANS (ng/kg)																			
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA

BZTO104(e)019595

TABLE C-1
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
MAIN TANK FARM AREA
PHASE III RI

														CF	CF	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																			
								Risk-Based Concentrations						COMP	COMP	COMP	COMP	COMP	COMP		COMP
								Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater									
Sample Identification:									Construction	Excavation				G8 (14-24)	G9 (13-15)	G12 (13-20)	G13 (14-17)	G14 (13-15)	G16 (15-18)	BA1 (14-15)	BA12 (11-13)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background						0108151-17	0108189-11	0108151-21	0108172-04	0108172-08	0108172-12	0108172-35	0108151-08
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	8/20/2001	8/24/2001	8/20/2001	8/21/2001	8/21/2001	8/21/2001	8/22/2001	8/20/2001
SEMIVOLATILES (mg/kg)																					
EPA Method SW8270																					
2,6-Dinitrotoluene	616	0.00003	0.0007	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	0.330 U	1.700 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U
2-Methylnaphthalene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.067 U	**9.700**	0.067 U	**0.320**	**6.800**	0.067 U	0.067 U	0.067 U
Acenaphthene	29219	29	570	20	--	--	--	--	41000	16000	--	--	--	**0.370**	0.330 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.067 U	0.330 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	0.067 U	**0.520**	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Benzo(k)fluoranthene	21.1	2	49	--	--	--	--	--	27	210	5900	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
bis(2-Ethylhexyl)phthalate	123	180 (g)	3600 (g)	--	1020	4.5	--	--	--	--	--	--	--	0.067 U	0.330 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Butylbenzylphthalate	100000	810	930	--	1020 (i)	4.5 (i)	--	--	--	--	--	--	--	0.067 U	0.330 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Carbazole	86	0.03	0.6	--	--	--	--	--	--	--	--	--	--	0.067 U	0.330 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Dibenzofuran	3127	--	--	--	0.002	--	--	--	--	--	--	--	--	0.067 U	0.330 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Diethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	0.330 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Dimethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	0.330 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Di-n-Butylphthalate	61561	270	2300	200	30000	0.45	--	--	--	--	--	--	--	0.067 U	0.330 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Di-n-Octyl phthalate	24624	10000	10000	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	**0.240**	0.330 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	0.067 U	0.330 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	**0.880**	**3.300**	0.067 U	**0.780**	**0.170**	0.067 U	0.067 U	0.067 U
Hexachloroethane	123	0.02	0.5	--	--	--	--	--	--	--	--	--	--	0.130 U	0.130 U	0.130 U	0.130 U	0.130 U	0.130 U	0.130 U	0.130 U
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	0.067 U	**4.800**	0.067 U	0.067 U	**1.900**	0.067 U	0.130 U	0.130 U
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	0.330 U	1.700 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	**1.400**	**4.900**	0.067 U	**0.790** J	**0.150** J	0.067 U	0.067 U	**2.100**
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	**0.067** J	0.067 U	0.067 U	**0.120**
SEMIVOLATILES (mg/kg)																					
EPA Method SW8270SIM																					
Acenaphthene	29219	29	570	20	--	--	--	--	41000	16000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
CHLORINATED PHENOLS (mg/kg)																					
Method 8040																					
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE C-1
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
MAIN TANK FARM AREA
PHASE III RI

														CF	CF	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																				
								Risk-Based Concentrations						COMP	COMP	COMP	COMP	COMP	COMP		COMP
								Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater									
Sample Identification:														G8 (14-24)	G9 (13-15)	G12 (13-20)	G13 (14-17)	G14 (13-15)	G16 (15-18)	BA1 (14-15)	BA12 (11-13)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0108151-17	0108189-11	0108151-21	0108172-04	0108172-08	0108172-12	0108172-35	0108151-08
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	8/20/2001	8/24/2001	8/20/2001	8/21/2001	8/21/2001	8/21/2001	8/22/2001	8/20/2001
VOLATILES (mg/kg)																					
EPA Method SW8260																					
1,2,4-Trimethylbenzene	170	--	--	--	3300 (m)	--	--	--	1500	1400	40000	790	55	0.001 U	**44.90**	**0.00229**	0.001 U	**54.000**	0.001 U	0.001 U	**3.830**
1,2-Dibromoethane	0.028	--	--	--	--	--	--	--	0.033	0.25	7.1	1.7	0.000059	0.001 U	0.010 U	0.001 U	0.050 U	0.050 U	0.001 U	0.001 U	0.001 U
1,3,5-Trimethylbenzene	70	--	--	--	3300 (m)	--	--	--	1500	1400	40000	--	12	0.001 U	**14.200**	0.001 U	0.001 U	**31.700**	0.001 U	0.001 U	**0.768**
2-Butanone	27102	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	0.005 U	**0.00567**	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
4-Isopropyltoluene	520 (a)	0.6 (a)	12 (a)	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	0.001 U	**0.415**	0.001 U	0.001 U	**7.120**	0.001 U	0.001 U	**1.040**
Acetone	6036	0.8	16	--	1250	--	--	--	--	--	--	--	--	**0.014**	**0.110**	**0.0185**	0.005 U	0.005 U	0.005 U	**0.0123**	**0.0682**
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	0.001 U	**0.00312**	0.001 U	0.001 U	**0.00396**	0.001 U	0.001 U	**0.00154**
Carbon Disulfide	720	2	32	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	0.001 U	**13.200**	**0.00135**	**0.106**	**18.800**	0.001 U	0.001 U	**0.0438**
Isopropylbenzene	1977	--	--	--	3300 (m)	--	--	--	51000	24000	--	--	--	**0.174**	**5.850**	**0.00811**	**4.150**	**14.000**	0.001 U	0.001 U	**0.761**
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	0.002 U	**56.200**	**0.00337**	**0.129**	**52.300**	0.002 U	0.002 U	**0.145**
Methyl Iodide	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	**0.00965**	0.001 U	**0.00875**	0.001 U	**0.00809**	0.001 U	0.001 U
Methyl tert-butyl ether	157	--	--	--	--	--	--	--	760	9000	--	720	0.30	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	190	4	84	10	3900	--	--	--	770	710	20000	--	15	**0.0164**	**6.920**	**0.011**	0.010 U	**2.860**	0.010 U	0.010 U	**0.0483**
n-Butylbenzene	240	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	**0.406**	**5.610**	**0.0412**	**2.870**	**7.760**	0.002 U	0.002 U	**0.754**
n-Propylbenzene	240	--	--	--	3300 (m)	--	--	--	19000	9300	--	--	--	**0.505**	**8.530**	**0.0147**	**5.870**	**24.400**	0.001 U	0.001 U	**1.130**
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	0.001 U	**16.000**	**0.00141**	**0.0935**	0.050 U	0.001 U	0.001 U	**0.0417**
sec-Butylbenzene	220	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	**0.529**	**0.931**	**0.0594**	**3.100**	**7.880**	0.001 U	0.001 U	**0.950**
tert-Butylbenzene	390	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	0.001 U	0.001 U	**0.00166**	**0.0388**	**0.107**	0.001 U	0.001 U	**0.00931**
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	**0.00246**	**0.380**	**0.00143**	**0.218**	**0.356**	0.001 U	0.001 U	**0.00574**
HYDROCARBONS (mg/kg)																					
NWTPH-HCID																					
Gasoline	--	--	--	--	--	--	--	--	---	---	--	--	--	22.2 U	**Gasoline**	22.5 U	**Gasoline**	**Gasoline**	22.5 U	24.7 U	23.3 U
Kerosene	--	--	--	--	--	--	--	--	--	--				56.6 U	56.8 U	56.2 U	58.8 U	56.8 U	56.2 U	61.7 U	58.1 U
Diesel	--	--	--	--	--	--	--	--	---	---	--	--	--	**Diesel**	**Diesel**	**Diesel**	**Diesel**	56.8 U	56.2 U	61.7 U	**Diesel**
Lube Oil	--	--	--	--	--	--	--	--	--	--	--	--	--	111 U	**Lube Oil**	**Lube Oil**	118 U	114 U	112 U	123 U	116 U
NWTPH-Dx (mg/kg)																					
TPH-Diesel Range	2000 (p)	--	--	--	--	--	--	--	70000	23000	--	--	--	**5850** J	**8270** J	**2420** J	**2720**	NA	NA	NA	**8190** J
TPH-Kerosene Range	2000 (p)	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
TPH-Motor Oil Range	2000 (p)	--	--	--	--	--	--	--	---	---	--	--	--	55.6 U	284 U	**168** J	58.8 U	NA	NA	NA	291 U
NWTPH-G (mg/kg)																					
TPH-Gasoline Range	100 (p)	--	--	--	--	--	--	--	22000	13000	--	80000	110	NA	**2050**	NA	**2940**	**4880**	NA	NA	NA
PRIORITY POLLUTANT METALS (mg/kg)																					
Arsenic (7060)	1.6 (q)(*)	1 (r)(*)	29	10 (r)	29 (r)	10 (r)	60 (r)	5 (o)	--	--	--	--	--	**2.15**	**2.78**	**2.7**	**2.24**	**2.39**	**2.21**	**1.86**	**2.59**
Chromium (6010)	450	2 (*)	38	1 (s)(*)	340000 (s)	4 (s)(*)	0.4 (s)(*)	23.1	--	--	--	--	--	**13.7**	**14.4**	**13.4**	**12.5**	**16**	**16.4**	**16.4**	**15.1**
Copper (6010)	40877	--	--	100	390	190	50	19.1	--	--	--	--	--	**12.4**	**12.8** J	**13.2**	**12.1**	**13.1**	**14.0**	**15**	**13.3**
Lead (7421)	750	--	--	50	4000	16	500	9	750	750	750	--	30	1.92 U	**2.28**	1.85 U	1.72 U	1.92 U	1.89 U	**3.14**	**2.50**
Nickel (6010)	20439	7 (*)	130	30	625	320	200	21.4	--	--	--	--	--	**16.8**	**16.4**	**16.2**	**15.4**	**17.8**	**18.2**	**17**	**16.5**
Zinc (6010)	100000	620	12000	50 (*)	20000	60	200	60.2	--	--	--	--	--	**45.3**	**43.2**	**44.5**	**42.4**	**55.2**	**161**	**233**	**44.5**
Cadmium (6010)	451	0.4	8	4	125	6	20	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (7471)	307	--	--	0.3	73	1.5	0.1	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE C-1
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
MAIN TANK FARM AREA
PHASE III RI

														CF	CF	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																			
									Risk-Based Concentrations					COMP	COMP	COMP	COMP	COMP	COMP		COMP
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater								
Sample Identification:														G8 (14-24)	G9 (13-15)	G12 (13-20)	G13 (14-17)	G14 (13-15)	G16 (15-18)	BA1 (14-15)	BA12 (11-13)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0108151-17	0108189-11	0108151-21	0108172-04	0108172-08	0108172-12	0108172-35	0108151-08
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	8/20/2001	8/24/2001	8/20/2001	8/21/2001	8/21/2001	8/21/2001	8/22/2001	8/20/2001
BETX (mg/kg)																					
EPA Method SW8021B																					
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (n)	--	--	--	74000	28000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, Total	420	10	210	--	--	--	--	--	24000	19000	--	--	100	NA	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	NA	NA	NA	NA	NA
DIOXINS AND FURANS (ng/kg)																					
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE C-1
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
MAIN TANK FARM AREA
PHASE III RI

														CF	CF	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																			
								Risk-Based Concentrations							COMP					COMP
Sample Identification:								Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	BA15 (17-18)	BA16 (16-17)	BA17 (12-13)	G2-4 (18.5-19.5)	G2-5 (16-17)	G12-3 (17.5-18.5)	G13-4 (14.5-15.5)	G6 (8.5-11.5)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs					Construction	Excavation			0108172-24	0108172-28	0108182-22	0207087-02	0207087-03	0207087-04	0207087-05	0108189-15
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts	Background	Occupational	Worker	Worker	Occupational	Occupational	8/22/2001	8/22/2001	8/23/2001	7/11/2002	7/11/2002	7/11/2002	7/11/2002	8/24/2001
SEMIVOLATILES (mg/kg)																				
EPA Method SW8270																				
2,6-Dinitrotoluene	616	0.00003	0.0007	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	0.330 U	0.330 U	3.300 U	NA	NA	NA	NA	0.330 U
2-Methylnaphthalene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.067 U	0.067 U	**24.000**	NA	NA	NA	NA	0.067 U
Acenaphthene	29219	29	570	20	--	--	--	--	41000	16000	--	--	--	0.067 U	0.067 U	**2.500**	NA	NA	NA	NA	0.067 U
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	**0.110**	0.067 U	0.670 U	NA	NA	NA	NA	0.067 U
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	**0.150** J	0.067 U	**0.900**	NA	NA	NA	NA	0.067 U
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	**0.580** J	**0.075** J	0.670 U	NA	NA	NA	NA	0.067 U
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	**0.810**	**0.081**	**0.099**	NA	NA	NA	NA	0.067 U
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	**1.400** J	**0.110** J	**0.220**	NA	NA	NA	NA	0.067 U
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	**0.610**	0.067 U	0.067 U	NA	NA	NA	NA	0.067 U
Benzo(k)fluoranthene	21.1	2	49	--	--	--	--	--	27	210	5900	--	--	**0.450**	0.067 U	0.067 U	NA	NA	NA	NA	0.067 U
bis(2-Ethylhexyl)phthalate	123	180 (g)	3600 (g)	--	1020	4.5	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	NA	NA	NA	NA	0.067 U
Butylbenzylphthalate	100000	810	930	--	1020 (i)	4.5 (i)	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	NA	NA	NA	NA	0.067 U
Carbazole	86	0.03	0.6	--	--	--	--	--	--	--	--	--	--	0.067 U	0.067 U	0.670 U	NA	NA	NA	NA	0.067 U
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	**0.680** J	**0.071** J	**0.220**	NA	NA	NA	NA	0.067 U
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	0.067 U	0.067 U	0.067 U	NA	NA	NA	NA	0.067 U
Dibenzofuran	3127	--	--	--	0.002	--	--	--	--	--	--	--	--	0.067 U	0.067 U	**1.600**	NA	NA	NA	NA	0.067 U
Diethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	0.067 U	0.670 U	NA	NA	NA	NA	0.067 U
Dimethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	0.067 U	0.670 U	NA	NA	NA	NA	0.067 U
Di-n-Butylphthalate	61561	270	2300	200	30000	0.45	--	--	--	--	--	--	--	0.067 U	0.067 U	0.670 U	NA	NA	NA	NA	0.067 U
Di-n-Octyl phthalate	24624	10000	10000	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	NA	NA	NA	NA	0.067 U
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	**1.600** J	**0.120** J	**1.800**	NA	NA	NA	NA	0.067 U
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	0.067 U	0.067 U	**4.000**	NA	NA	NA	NA	0.067 U
Hexachloroethane	123	0.02	0.5	--	--	--	--	--	--	--	--	--	--	0.130 U	0.130 U	1.300 U	NA	NA	NA	NA	0.130 U
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	**0.480**	0.067 U	0.067 U	NA	NA	NA	NA	0.067 U
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	0.130 U	0.130 U	1.300 U	NA	NA	NA	NA	0.067 U
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	0.330 U	0.330 U	3.300 U	NA	NA	NA	NA	0.330 U
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	**0.880** J	**0.070** J	**6.800**	NA	NA	NA	NA	0.067 U
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	**1.700** J	**0.170** J	**1.100**	NA	NA	NA	NA	0.067 U
SEMIVOLATILES (mg/kg)																				
EPA Method SW8270SIM																				
Acenaphthene	29219	29	570	20	--	--	--	--	41000	16000	--	--	--	NA	NA	NA	NA	NA	NA	**0.0373**	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	**0.0247**	NA
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	NA	NA	NA	NA	NA	NA	0.00667 U	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	0.00667 U	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	0.00667 U	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	0.00667 U	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	0.00667 U	NA
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--	NA	NA	NA	NA	NA	NA	0.00667 U	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	NA	NA	NA	NA	NA	0.00667 U	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	0.00667 U	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	NA	NA	NA	NA	NA	0.00667 U	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	NA	NA	NA	NA	NA	**0.142**	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	0.00667 U	NA
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	NA	NA	NA	NA	0.00667 U	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	0.165 U	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	NA	NA	NA	NA	NA	0.00667 U	NA
CHLORINATED PHENOLS (mg/kg)																				
Method 8040																				
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE C-1
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
MAIN TANK FARM AREA
PHASE III RI

														CF	CF	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA														COMP						COMP
									Risk-Based Concentrations												
Sample Identification:									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	BA15 (17-18)	BA16 (16-17)	BA17 (12-13)	G2-4 (18.5-19.5)	G2-5 (16-17)	G12-3 (17.5-18.5)	G13-4 (14.5-15.5)	G6 (8.5-11.5)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0108172-24	0108172-28	0108182-22	0207087-02	0207087-03	0207087-04	0207087-05	0108189-15
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	8/22/2001	8/22/2001	8/23/2001	7/11/2002	7/11/2002	7/11/2002	7/11/2002	8/24/2001
VOLATILES (mg/kg)																					
EPA Method SW8260																					
1,2,4-Trimethylbenzene	170	--	--	--	3300 (m)	--	--	--	1500	1400	40000	790	55	0.001 U	0.001 U	**0.104** J	NA	NA	NA	NA	0.001 U
1,2-Dibromoethane	0.028	--	--	--	--	--	--	--	0.033	0.25	7.1	1.7	0.000059	0.001 U	0.001 U	0.001 U	NA	NA	NA	NA	0.001 U
1,3,5-Trimethylbenzene	70	--	--	--	3300 (m)	--	--	--	1500	1400	40000	--	12	0.001 U	0.001 U	**0.298** J	NA	NA	NA	NA	0.001 U
2-Butanone	27102	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	0.005 U	0.005 U	NA	NA	NA	NA	**0.0349**
4-Isopropyltoluene	520 (a)	0.6 (a)	12 (a)	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	0.001 U	0.001 U	**0.019**	NA	NA	NA	NA	0.001 U
Acetone	6036	0.8	16	--	1250	--	--	--	--	--	--	--	--	0.005 U	**0.00863**	**0.0913**	NA	NA	NA	NA	**0.177**
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	0.001 U	0.001 U	**0.0303**	NA	NA	NA	NA	0.001 U
Carbon Disulfide	720	2	32	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	NA	NA	NA	NA	0.001 U
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	0.001 U	0.001 U	**0.0911**	NA	NA	NA	NA	0.001 U
Isopropylbenzene	1977	--	--	--	3300 (m)	--	--	--	51000	24000	--	--	--	0.001 U	0.001 U	**6.320**	NA	NA	NA	NA	0.001 U
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	0.002 U	0.002 U	**0.173** J	NA	NA	NA	NA	0.002 U
Methyl Iodide	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	**0.00972**	NA	NA	NA	NA	0.001 U
Methyl tert-butyl ether	157	--	--	--	--	--	--	--	760	9000	--	720	0.30	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	190	4	84	10	3900	--	--	--	770	710	20000	--	15	0.010 U	0.010 U	**0.0149**	NA	NA	NA	NA	0.010 U
n-Butylbenzene	240	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	0.002 U	0.002 U	**6.490** J	NA	NA	NA	NA	0.002 U
n-Propylbenzene	240	--	--	--	3300 (m)	--	--	--	19000	9300	--	--	--	0.001 U	0.001 U	**9.910**	NA	NA	NA	NA	0.001 U
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	0.001 U	0.001 U	0.001 U	NA	NA	NA	NA	0.001 U
sec-Butylbenzene	220	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	0.001 U	0.001 U	**1.110** J	NA	NA	NA	NA	0.001 U
tert-Butylbenzene	390	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	NA	NA	NA	NA	0.001 U
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	0.001 U	0.001 U	**0.0360**	NA	NA	NA	NA	0.001 U
HYDROCARBONS (mg/kg)																					
NWTPH-HCID																					
Gasoline	--	--	--	--	--	--	--	--	---	---	--	--	--	23.0 U	23.0 U	**Gasoline**	23 U	23.5 U	22.2 U	NA	26.7 U
Kerosene	--	--	--	--	--	--	--	--	--	--	--	--	--	57.5 U	57.5 U	56.2 U	57.5 U	58.7 U	55.6 U	NA	66.7 U
Diesel	--	--	--	--	--	--	--	--	---	---	--	--	--	57.5 U	57.5 U	**Diesel**	57.5 U	**Diesel**	55.6 U	NA	66.7 U
Lube Oil	--	--	--	--	--	--	--	--	--	--	--	--	--	115 U	115 U	112 U	115 U	**Lube Oil**	111 U	NA	133 U
NWTPH-Dx (mg/kg)																					
TPH-Diesel Range	2000 (p)	--	--	--	--	--	--	--	70000	23000	--	--	--	NA	NA	**9480** J	NA	**1550** J	NA	**304**	NA
TPH-Kerosene Range	2000 (p)	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
TPH-Motor Oil Range	2000 (p)	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	225 U	NA	**225** J	NA	54.8 U	NA
NWTPH-G (mg/kg)																					
TPH-Gasoline Range	100 (p)	--	--	--	--	--	--	--	22000	13000	--	80000	110	NA	NA	**1600**	NA	NA	NA	**119**	NA
PRIORITY POLLUTANT METALS (mg/kg)																					
Arsenic (7060)	1.6 (q)(*)	1 (r)(*)	29	10 (r)	29 (r)	10 (r)	60 (r)	5 (o)	--	--	--	--	--	**2.14**	**3.22**	**2.13**	NA	NA	NA	NA	**4.13** J
Chromium (6010)	450	2 (*)	38	1 (s)(*)	340000 (s)	4 (s)(*)	0.4 (s)(*)	23.1	--	--	--	--	--	**18.0**	**16.1**	**13.5**	NA	NA	NA	NA	**22.8**
Copper (6010)	40877	--	--	100	390	190	50	19.1	--	--	--	--	--	**14.5**	**14.3**	**12.3**	NA	NA	NA	NA	**17.7** J
Lead (7421)	750	--	--	50	4000	16	500	9	750	750	750	--	30	**7.17**	1.92 U	**2.19**	NA	NA	NA	NA	**1.81** J
Nickel (6010)	20439	7 (*)	130	30	625	320	200	21.4	--	--	--	--	--	**19**	**17.3**	**17**	NA	NA	NA	NA	**18.8**
Zinc (6010)	100000	620	12000	50 (*)	20000	60	200	60.2	--	--	--	--	--	**496**	**1020**	**43.5**	NA	NA	NA	NA	**43.1**
Cadmium (6010)	451	0.4	8	4	125	6	20	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (7471)	307	--	--	0.3	73	1.5	0.1	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE C-1
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
MAIN TANK FARM AREA
PHASE III RI

													CF	CF	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																			
								Risk-Based Concentrations						COMP						COMP
Sample Identification:								Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	BA15 (17-18)	BA16 (16-17)	BA17 (12-13)	G2-4 (18.5-19.5)	G2-5 (16-17)	G12-3 (17.5-18.5)	G13-4 (14.5-15.5)	G6 (8.5-11.5)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs					Construction	Excavation			0108172-24	0108172-28	0108182-22	0207087-02	0207087-03	0207087-04	0207087-05	0108189-15
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts	Background	Occupational	Worker	Worker	Occupational	Occupational	8/22/2001	8/22/2001	8/23/2001	7/11/2002	7/11/2002	7/11/2002	7/11/2002	8/24/2001
BETX (mg/kg)																				
EPA Method SW8021B																				
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	NA	NA	NA	NA	0.0274 U	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	NA	NA	NA	NA	NA	0.110 U	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	NA	NA	NA	NA	NA	NA	0.110 U	NA
Xylenes, Total	420	10	210	--	--	--	--	--	24000	19000	--	--	100	NA	NA	NA	NA	NA	NA	0.329 U	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	NA	NA	NA	NA	NA
DIOXINS AND FURANS (ng/kg)																				
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE C-1
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
MAIN TANK FARM AREA
PHASE III RI

Sample Identification:														CF	CF	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA													COMP							
									Risk-Based Concentrations												
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater								
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			G7 (6.5-7.5)	HB01 (10-11)	HB01 (14-15)	HB02 (10-11)	HB02 (13-14)	HB03 (10-11)	HB04 (10-11)	HB04 (12-13)
														0108196-03	0310117-04	0310117-05	0310117-09	0310117-10	0310117-23	0310117-18	0310117-19
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	8/27/2001	10/15/2003	10/15/2003	10/15/2003	10/15/2003	10/15/2003	10/15/2003	10/15/2003
SEMIVOLATILES (mg/kg)																					
EPA Method SW8270																					
2,6-Dinitrotoluene	616	0.00003	0.0007	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	0.330 U	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	29219	29	570	20	--	--	--	--	41000	16000	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA	NA
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	0.067 U	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	0.067 U	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	**0.079**	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	21.1	2	49	--	--	--	--	--	27	210	5900	--	--	0.067 U	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	123	180 (g)	3600 (g)	--	1020	4.5	--	--	--	--	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	100000	810	930	--	1020 (i)	4.5 (i)	--	--	--	--	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA	NA
Carbazole	86	0.03	0.6	--	--	--	--	--	--	--	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	0.067 U	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	0.067 U	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	3127	--	--	--	0.002	--	--	--	--	--	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	61561	270	2300	200	30000	0.45	--	--	--	--	--	--	--	**0.085**	NA	NA	NA	NA	NA	NA	NA
Di-n-Octyl phthalate	24624	10000	10000	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	**0.076** J	NA	NA	NA	NA	NA	NA	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	123	0.02	0.5	--	--	--	--	--	--	--	--	--	--	0.130 U	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	0.067 U	NA	NA	NA	NA	NA	NA	NA
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	0.067 U	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	0.330 U	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	**0.084** J	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (mg/kg)																					
EPA Method SW8270SIM																					
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	NA	**0.442**	1.01	**1.13** J	1.48	**0.656**	0.00667 U	**0.0227**
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	**0.076**	**0.208**	**0.44** J	**0.483**	**0.162**	0.00667 U	**0.082**
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	NA	**0.187**	**0.409**	**0.653** J	**0.793**	**0.312**	0.00667 U	**0.036**
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	**0.0147**	**0.018**	**0.0353** J	0.12	**0.0173**	0.00667 U	**0.03**
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	NA	0.00667 U	0.00667 U	**0.012** J	**0.072**	**0.00733**	0.00667 U	**0.0273**
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	**0.00733**	**0.01**	**0.0147** J	**0.0587**	**0.01**	0.00667 U	**0.026**
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	0.00667 U	0.00667 U	0.00667 U	**0.0587**	0.00667 U	0.00667 U	**0.0127**
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--	NA	0.00667 U	0.00667 U	0.00667 U	**0.0207**	0.00667 U	0.00667 U	**0.0107**
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	**0.0147**	**0.022**	**0.0473** J	**0.147**	**0.024**	0.00667 U	**0.0253**
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	0.00667 U	0.00667 U	0.00667 U	**0.014**	0.00667 U	0.00667 U	0.00667 U
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	**0.034**	**0.05**	**0.107** J	**0.107**	**0.0653**	0.00667 U	**0.06**
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	**0.655**	**2.18**	**3.16** J	**3.53**	**1.22**	**0.0113**	**0.451**
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	0.00667 U	0.00667 U	0.00667 U	**0.0473**	0.00667 U	0.00667 U	**0.01**
Naphthalene	188	4	84	10	3900	--		--	770	710	20000	--	15	NA	**2.56**	**6.3**	**0.507** J	**0.96**	**10.6**	0.00667 U	**0.125**
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	1.11	**3.24**	**4.34** J	**6.17**	**2.03**	0.00667 U	**0.101**
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	**0.0887**	**0.0993**	**0.471** J	**0.27**	**0.152**	0.00667 U	**0.101**
CHLORINATED PHENOLS (mg/kg)																					
Method 8040																					
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE C-1
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
MAIN TANK FARM AREA
PHASE III RI

Sample Identification:														CF	CF	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																				
									Risk-Based Concentrations					COMP							
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater								
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			G7 (6.5-7.5)	HB01 (10-11)	HB01 (14-15)	HB02 (10-11)	HB02 (13-14)	HB03 (10-11)	HB04 (10-11)	HB04 (12-13)
														0108196-03	0310117-04	0310117-05	0310117-09	0310117-10	0310117-23	0310117-18	0310117-19
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	8/27/2001	10/15/2003	10/15/2003	10/15/2003	10/15/2003	10/15/2003	10/15/2003	10/15/2003
VOLATILES (mg/kg)																					
EPA Method SW8260																					
1,2,4-Trimethylbenzene	170	--	--	--	3300 (m)	--	--	--	1500	1400	40000	790	55	0.001 U	116 J	141 J	0.022 J	0.0169 J	151	0.01 U	0.0157 J
1,2-Dibromoethane	0.028	--	--	--	--	--	--	--	0.033	0.25	7.1	1.7	0.000059	0.001 U	0.01 UJ	0.01 UJ	0.01 UJ	0.01 UJ	0.01 U	0.01 U	0.01 UJ
1,3,5-Trimethylbenzene	70	--	--	--	3300 (m)	--	--	--	1500	1400	40000	--	12	0.001 U	5.81 J	8.29 J	1.71 J	2.42 J	8.13	0.01 U	1.09 J
2-Butanone	27102	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	NA	NA	NA	NA	NA	NA	NA
4-Isopropyltoluene	520 (a)	0.6 (a)	12 (a)	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	0.001 U	NA	NA	NA	NA	NA	NA	NA
Acetone	6036	0.8	16	--	1250	--	--	--	--	--	--	--	--	0.005 U	NA	NA	NA	NA	NA	NA	NA
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	0.001 U	0.1 UJ	0.136 J	0.0857 J	0.0942 J	0.1 U	0.01 U	0.01 UJ
Carbon Disulfide	720	2	32	--	--	--	--	--	--	--	--	--	--	0.001 U	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	0.001 U	11.8 J	33.6 J	0.0574 J	0.0563 J	39	0.01 U	0.01 UJ
Isopropylbenzene	1977	--	--	--	3300 (m)	--	--	--	51000	24000	--	--	--	0.001 U	6.47 J	8.3 J	1.93 J	2.72 J	8.93	0.01 U	1.42 J
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	0.002 U	89.6 J	239 J	0.194 J	0.332 J	182	0.02 U	0.0448 J
Methyl Iodide	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	157	--	--	--	--	--	--	--	760	9000	--	720	0.30	NA	100 UJ	100 UJ	10 UJ	10 UJ	100 U	10 U	10 UJ
Naphthalene	190	4	84	10	3900	--		--	770	710	20000	--	15	0.010 U	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	240	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	0.002 U	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	240	--	--	--	3300 (m)	--	--	--	19000	9300	--	--	--	0.001 U	16.2 J	21.9 J	3.82 J	5.63 J	28.8	0.01 U	1.6 J
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	0.001 U	35.4 J	88.6 J	0.0941 J	0.114 J	112	0.01 U	0.0304 J
sec-Butylbenzene	220	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	0.001 U	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	390	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	0.001 U	NA	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	0.001 U	1.52 J	20 J	0.0625 J	0.225 J	1.78	0.01 U	0.0205 J
HYDROCARBONS (mg/kg)																					
NWTPH-HCID																					
Gasoline	--	--	--	--	--	--	--	--	---	---	--	--	--	25.0 U	NA	NA	NA	NA	NA	NA	NA
Kerosene	--	--	--	--	--	--	--	--	--	--				62.5 U	NA	NA	NA	NA	NA	NA	NA
Diesel	--	--	--	--	--	--	--	--	---	---	--	--	--	62.5 U	NA	NA	NA	NA	NA	NA	NA
Lube Oil	--	--	--	--	--	--	--	--	--	--	--	--	--	125 U	NA	NA	NA	NA	NA	NA	NA
NWTPH-Dx (mg/kg)																					
TPH-Diesel Range	2000 (p)	--	--	--	--	--	--	--	70000	23000	--	--	--	NA	4020 J	10100 J	12000 J	13100 J	5250 J	893 J	2430 J
TPH-Kerosene Range	2000 (p)	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
TPH-Motor Oil Range	2000 (p)	--	--	--	--	--	--	--	---	---	--	--	--	NA	83 MJ	588 U	585 U	561 U	218 MJ	190 MJ	117 MJ
NWTPH-G (mg/kg)																					
TPH-Gasoline Range	100 (p)	--	--	--	--	--	--	--	22000	13000	--	80000	110	NA	3280	6880	1830 J	2670	8560	10.1	1330 J
PRIORITY POLLUTANT METALS (mg/kg)																					
Arsenic (7060)	1.6 (q)(*)	1 (r)(*)	29	10 (r)	29 (r)	10 (r)	60 (r)	5 (o)	--	--	--	--	--	2.09	NA	NA	NA	NA	NA	NA	NA
Chromium (6010)	450	2 (*)	38	1 (s)(*)	340000 (s)	4 (s)(*)	0.4 (s)(*)	23.1	--	--	--	--	--	16.0	NA	NA	NA	NA	NA	NA	NA
Copper (6010)	40877	--	--	100	390	190	50	19.1	--	--	--	--	--	13.7	NA	NA	NA	NA	NA	NA	NA
Lead (7421)	750	--	--	50	4000	16	500	9	750	750	750	--	30	2.49	37.1	3.22	1.61 U	1.43 U	2.05	1.64 U	1.56 U
Nickel (6010)	20439	7 (*)	130	30	625	320	200	21.4	--	--	--	--	--	17.7	NA	NA	NA	NA	NA	NA	NA
Zinc (6010)	100000	620	12000	50 (*)	20000	60	200	60.2	--	--	--	--	--	52.4	42.5	47.7	50.1	40.1	44.8	45.4	43.2
Cadmium (6010)	451	0.4	8	4	125	6	20	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (7471)	307	--	--	0.3	73	1.5	0.1	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE C-1
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
MAIN TANK FARM AREA
PHASE III RI

														CF	CF	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																			
									Risk-Based Concentrations					COMP							
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater								
Sample Identification:										Construction	Excavation			G7 (6.5-7.5)	HB01 (10-11)	HB01 (14-15)	HB02 (10-11)	HB02 (13-14)	HB03 (10-11)	HB04 (10-11)	HB04 (12-13)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background						0108196-03	0310117-04	0310117-05	0310117-09	0310117-10	0310117-23	0310117-18	0310117-19
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	8/27/2001	10/15/2003	10/15/2003	10/15/2003	10/15/2003	10/15/2003	10/15/2003	10/15/2003
BETX (mg/kg)																					
EPA Method SW8021B																					
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (n)	--	--	--	74000	28000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, Total	420	10	210	--	--	--	--	--	24000	19000	--	--	100	NA	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	NA	NA	NA	NA	NA
DIOXINS AND FURANS (ng/kg)																					
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE C-1
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
MAIN TANK FARM AREA
PHASE III RI

														CF	CF	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																			
								Risk-Based Concentrations												
								Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater								
Sample Identification:													HB05 (10-11)	LW19S (16.5-17.5)	LW20D (12-13)	LW21S (13.5-14.5)	LW22D (24-25)	LW23D (22.5-23.5)	LW24D (26-27)	LW25D (28-29)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs					Construction	Excavation			0310117-14	0309195-01	0310011-01	0310149-03	0309163-04	0309163-03	0310149-02	0310149-01
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts	Background	Occupational	Worker	Worker	Occupational	Occupational	10/15/2003	9/29/2003	9/30/2003	10/21/2003	9/24/2003	9/24/2003	10/20/2003	10/20/2003
SEMIVOLATILES (mg/kg)																					
EPA Method SW8270																					
2,6-Dinitrotoluene	616	0.00003	0.0007	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	29219	29	570	20	--	--	--	--	41000	16000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	21.1	2	49	--	--	--	--	--	27	210	5900	--	--	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	123	180 (g)	3600 (g)	--	1020	4.5	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	100000	810	930	--	1020 (i)	4.5 (i)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86	0.03	0.6	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	3127	--	--	--	0.002	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	61561	270	2300	200	30000	0.45	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octyl phthalate	24624	10000	10000	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	123	0.02	0.5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (mg/kg)																					
EPA Method SW8270SIM																					
Acenaphthene	29219	29	570	20	--	--	--	--	41000	16000	--	--	--	**0.588**	**2.24**	**1.14**	**0.399**	0.00667 U	0.00667 U	0.00667 U	0.00667 U
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	**0.162**	**0.963**	**0.533**	**0.125**	0.00667 U	**0.008**	0.00667 U	**0.0113**
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	**0.179**	**1.14**	**0.8**	**0.175**	**0.008**	**0.022**	**0.0107**	**0.0433**
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	**0.0233**	**0.0707**	**0.078**	0.138	**0.0167**	**0.0413**	**0.0213**	0.115
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	**0.0167**	**0.0133**	**0.0493**	**0.132**	**0.0127**	**0.0313**	**0.02**	**0.101**
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	**0.0173**	**0.0127**	**0.054**	**0.119**	**0.0127**	**0.0293**	**0.0173**	**0.0887**
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	**0.0113**	**0.01**	**0.024**	**0.056**	0.00667 U	**0.014**	**0.00933**	**0.0433**
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--	0.00667 U	0.00667 U	**0.0173**	**0.046**	0.00667 U	**0.0113**	**0.00733**	**0.04**
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	**0.0247**	**0.0933**	**0.0813**	**0.136**	**0.014**	**0.0367**	**0.02**	**0.118** J
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	0.00667 U	0.00667 U	0.00667 U	**0.016**	0.00667 U	0.00667 U	0.00667 U	**0.0133**
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	**0.0507**	**0.07**	**0.17**	**0.139**	**0.0293**	**0.0733**	**0.0307**	**0.169**
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	**0.855**	**5.95**	**4.06**	**0.813**	0.00667 U	0.00667 U	0.00667 U	0.00667 U
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	0.00667 U	**0.00867**	**0.0207**	**0.0487**	0.00667 U	**0.012**	**0.008**	**0.038**
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	**6.62**	**4.36**	**0.627**	**6.22**	0.00667 U	0.00667 U	0.00667 U	0.00667 U
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	**1.17**	**9.61**	**5.17**	**1.3**	**0.0327**	**0.0627**	**0.0213**	**0.136** J
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	**0.121**	**1.25**	**0.443**	**0.255**	**0.038**	**0.0947**	**0.0413**	**0.233** J
CHLORINATED PHENOLS (mg/kg)																					
Method 8040																					
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

BZTO104(e)019605

TABLE C-1
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
MAIN TANK FARM AREA
PHASE III RI

														CF	CF	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																			
								Risk-Based Concentrations												
								Soil Ingestion, Dermal Contact, and Inhalation				Volatilization to Outdoor Air	Leaching to Groundwater							
Sample Identification:														HB05 (10-11)	LW19S (16.5-17.5)	LW20D (12-13)	LW21S (13.5-14.5)	LW22D (24-25)	LW23D (22.5-23.5)	LW24D (26-27)	LW25D (28-29)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0310117-14	0309195-01	0310011-01	0310149-03	0309163-04	0309163-03	0310149-02	0310149-01
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	10/15/2003	9/29/2003	9/30/2003	10/21/2003	9/24/2003	9/24/2003	10/20/2003	10/20/2003
VOLATILES (mg/kg)																					
EPA Method SW8260																					
1,2,4-Trimethylbenzene	170	--	--	--	3300 (m)	--	--	--	1500	1400	40000	790	55	**114** J	0.01 U	0.01 UJ	**73.8** J	NA	NA	0.01 U	0.01 UJ
1,2-Dibromoethane	0.028	--	--	--	--	--	--	--	0.033	0.25	7.1	1.7	0.000059	0.01 UJ	0.01 U	0.01 UJ	0.1 UJ	0.01 U	0.01 U	0.01 U	0.01 UJ
1,3,5-Trimethylbenzene	70	--	--	--	3300 (m)	--	--	--	1500	1400	40000	--	12	**5.13** J	0.01 U	**1.11** J	**6.83** J	NA	NA	0.01 U	0.01 UJ
2-Butanone	27102	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
4-Isopropyltoluene	520 (a)	0.6 (a)	12 (a)	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	6036	0.8	16	--	1250	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	**5.29** J	0.01 U	0.01 UJ	**0.254** J	NA	NA	0.01 U	0.01 UJ
Carbon Disulfide	720	2	32	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	**26.8** J	0.01 U	0.01 UJ	**16.5** J	NA	NA	0.01 U	0.01 UJ
Isopropylbenzene	1977	--	--	--	3300 (m)	--	--	--	51000	24000	--	--	--	**5.27** J	**2.05** J	**1.16** J	**7.88** J	NA	NA	0.01 U	0.01 UJ
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	**182** J	0.02 U	0.02 UJ	**68.8** J	NA	NA	0.02 U	0.02 UJ
Methyl Iodide	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	157	--	--	--	--	--	--	--	760	9000	--	720	0.30	10 UJ	10 U	10 UJ	100 UJ	10 U	10 U	10 U	10 UJ
Naphthalene	190	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	240	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	240	--	--	--	3300 (m)	--	--	--	19000	9300	--	--	--	**16** J	**4.9** J	**2.52** J	**17.8** J	NA	NA	0.01 U	0.01 UJ
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	**67.9** J	0.01 U	**0.042** J	**16.2** J	NA	NA	0.01 U	0.01 UJ
sec-Butylbenzene	220	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	390	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	**64.9** J	0.01 U	0.01 UJ	**0.676** J	NA	NA	0.01 U	0.01 UJ
HYDROCARBONS (mg/kg)																					
NWTPH-HCID																					
Gasoline	--	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Kerosene	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Diesel	--	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Lube Oil	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
NWTPH-Dx (mg/kg)																					
TPH-Diesel Range	2000 (p)	--	--	--	--	--	--	--	70000	23000	--	--	--	**5910** J	**36100** J	**13700** J	**6290** J	16.6 U	16.6 U	**20.2**	18.7 U
TPH-Kerosene Range	2000 (p)	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
TPH-Motor Oil Range	2000 (p)	--	--	--	--	--	--	--	---	---	--	--	--	**101** MJ	63.8 U	611 U	642 U	55.2 U	55.3 U	64.4 U	62.4 U
NWTPH-G (mg/kg)																					
TPH-Gasoline Range	100 (p)	--	--	--	--	--	--	--	22000	13000	--	80000	110	**3070**	**2310**	**2310**	**8920** J	2.76 U	2.76 U	3.22 U	3.12 U
PRIORITY POLLUTANT METALS (mg/kg)																					
Arsenic (7060)	1.6 (q)(*)	1 (r)(*)	29	10 (r)	29 (r)	10 (r)	60 (r)	5 (o)	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Chromium (6010)	450	2 (*)	38	1 (s)(*)	340000 (s)	4 (s)(*)	0.4 (s)(*)	23.1	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Copper (6010)	40877	--	--	100	390	190	50	19.1	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Lead (7421)	750	--	--	50	4000	16	500	9	750	750	750	--	30	1.64 U	2.28 U	2.44 U	1.61 U	**4.49** J	1.92 UJ	1.67 U	1.79 U
Nickel (6010)	20439	7 (*)	130	30	625	320	200	21.4	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (6010)	100000	620	12000	50 (*)	20000	60	200	60.2	--	--	--	--	--	**45**	NA	NA	NA	NA	NA	NA	NA
Cadmium (6010)	451	0.4	8	4	125	6	20	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (7471)	307	--	--	0.3	73	1.5	0.1	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE C-1
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
MAIN TANK FARM AREA
PHASE III RI

														CF	CF	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																			
									Risk-Based Concentrations											
Sample Identification:									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	HB05 (10-11)	LW19S (16.5-17.5)	LW20D (12-13)	LW21S (13.5-14.5)	LW22D (24-25)	LW23D (22.5-23.5)	LW24D (26-27)	LW25D (28-29)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0310117-14	0309195-01	0310011-01	0310149-03	0309163-04	0309163-03	0310149-02	0310149-01
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	10/15/2003	9/29/2003	9/30/2003	10/21/2003	9/24/2003	9/24/2003	10/20/2003	10/20/2003
BETX (mg/kg)																					
EPA Method SW8021B																					
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	NA	NA	0.0276 U	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (n)	--	--	--	74000	28000	--	--	--	NA	NA	NA	NA	0.11 U	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	NA	NA	NA	NA	0.11 U	NA	NA	NA
Xylenes, Total	420	10	210	--	--	--	--	--	24000	19000	--	--	100	NA	NA	NA	NA	0.331 U	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	NA	NA	NA	NA	NA
DIOXINS AND FURANS (ng/kg)																					
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE C-1
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
MAIN TANK FARM AREA
PHASE III RI

														CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																	
								Risk-Based Concentrations										
								Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater						
Sample Identification:									Construction	Excavation			LW26D (15-16)	LW27S (13.5-14.5)	LW27S (21-22)	LW35 (27-28)	LW35 (29-29.5)	LW35 (30-31)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background					0309185-01	0309185-02	0309185-03	0310011-02	0310011-03	0310011-04
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	9/25/2003	9/25/2003	9/25/2003	10/1/2003	10/1/2003	10/1/2003
SEMIVOLATILES (mg/kg)																			
EPA Method SW8270																			
2,6-Dinitrotoluene	616	0.00003	0.0007	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA
Acenaphthene	29219	29	570	20	--	--	--	--	41000	16000	--	--	--	NA	NA	NA	NA	NA	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	21.1	2	49	--	--	--	--	--	27	210	5900	--	--	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	123	180 (g)	3600 (g)	--	1020	4.5	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	100000	810	930	--	1020 (i)	4.5 (i)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA
Carbazole	86	0.03	0.6	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA
Dibenzofuran	3127	--	--	--	0.002	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA
Diethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA
Dimethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	61561	270	2300	200	30000	0.45	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA
Di-n-Octyl phthalate	24624	10000	10000	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	NA	NA	NA	NA	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	NA	NA	NA	NA	NA
Hexachloroethane	123	0.02	0.5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	NA	NA	NA	NA
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (mg/kg)																			
EPA Method SW8270SIM																			
Acenaphthene	29219	29	570	20	--	--	--	--	41000	16000	--	--	--	**0.513**	**0.953**	**1.52**	0.00667 U	0.00667 U	**0.0107**
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	**0.157**	**0.353**	**0.47**	0.00667 U	**0.01**	**0.0433**
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	**0.0947**	**0.17**	**0.309**	0.00667 U	**0.036**	**0.078**
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	**0.0133**	**0.00933**	**0.0687**	**0.0147**	**0.0487**	**0.104**
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	**0.00867**	0.00667 U	**0.0527**	**0.0127**	**0.0493**	**0.115**
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	**0.008**	0.00667 U	**0.05**	**0.0147**	**0.04**	**0.094**
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.00667 U	0.00667 U	**0.026**	**0.00733**	**0.0233**	**0.0667**
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--	0.00667 U	0.00667 U	**0.0153**	0.00667 U	**0.0147**	**0.03**
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	**0.0113**	**0.012**	**0.064**	**0.014**	**0.0433**	**0.0913**
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	0.00667 U	0.00667 U	0.00667 U	0.00667 U	0.00667 U	**0.0113**
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	**0.026**	**0.0233**	**0.137**	**0.0227**	**0.078**	**0.205**
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	**1.13**	**2.11**	**2.84**	0.00667 U	0.00667 U	**0.0207**
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	0.00667 U	0.00667 U	**0.0213**	0.00667 U	**0.0193**	**0.0493**
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	**0.213**	**0.68**	**0.983**	0.00667 U	0.00667 U	**0.0493**
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	**1.17**	**1.88**	**2.76**	**0.0147**	**0.0447**	**0.161**
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	**0.0527**	**0.0493**	**0.24**	**0.0287**	**0.107**	**0.27**
CHLORINATED PHENOLS (mg/kg)																			
Method 8040																			
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA

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TABLE C-1
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
MAIN TANK FARM AREA
PHASE III RI

														CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																	
								Risk-Based Concentrations										
								Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater						
Sample Identification:													LW26D (15-16)	LW27S (13.5-14.5)	LW27S (21-22)	LW35 (27-28)	LW35 (29-29.5)	LW35 (30-31)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0309185-01	0309185-02	0309185-03	0310011-02	0310011-03	0310011-04
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	9/25/2003	9/25/2003	9/25/2003	10/1/2003	10/1/2003	10/1/2003
VOLATILES (mg/kg)																			
EPA Method SW8260																			
1,2,4-Trimethylbenzene	170	--	--	--	3300 (m)	--	--	--	1500	1400	40000	790	55	**0.0237** J	**0.0156** J	**0.0129** J	0.01 U	0.01 U	0.01 U
1,2-Dibromoethane	0.028	--	--	--	--	--	--	--	0.033	0.25	7.1	1.7	0.000059	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
1,3,5-Trimethylbenzene	70	--	--	--	3300 (m)	--	--	--	1500	1400	40000	--	12	**1.04** J	**0.832** J	**1.05** J	0.01 U	0.01 U	0.01 U
2-Butanone	27102	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA
4-Isopropyltoluene	520 (a)	0.6 (a)	12 (a)	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA
Acetone	6036	0.8	16	--	1250	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	**0.0445** J	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Carbon Disulfide	720	2	32	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Isopropylbenzene	1977	--	--	--	3300 (m)	--	--	--	51000	24000	--	--	--	1 J	**0.835** J	**1.11** J	0.01 U	0.01 U	0.01 U
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	**0.0846** J	**0.0382**	0.02 U	0.02 U	0.02 U	0.02 U
Methyl Iodide	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	157	--	--	--	--	--	--	--	760	9000	--	720	0.30	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	190	4	84	10	3900	--		--	770	710	20000	--	15	NA	NA	NA	NA	NA	NA
n-Butylbenzene	240	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA
n-Propylbenzene	240	--	--	--	3300 (m)	--	--	--	19000	9300	--	--	--	**1.43** J	**1.17** J	**1.26** J	0.01 U	0.01 U	0.01 U
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	**0.066** J	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
sec-Butylbenzene	220	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	390	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	**0.0299** J	**0.0145** J	**0.0183** J	0.01 U	0.01 U	0.01 U
HYDROCARBONS (mg/kg)																			
NWTPH-HCID																			
Gasoline	--	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA	NA	NA
Kerosene	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA
Diesel	--	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA	NA	NA
Lube Oil	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA
NWTPH-Dx (mg/kg)																			
TPH-Diesel Range	2000 (p)	--	--	--	--	--	--	--	70000	23000	--	--	--	**12500** J	**9000** J	**9790** J	16.5 U	19.7 U	**44.3**
TPH-Kerosene Range	2000 (p)	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA
TPH-Motor Oil Range	2000 (p)	--	--	--	--	--	--	--	---	---	--	--	--	64.5 U	59.5 U	56.9 U	54.9 U	65.8 U	**92.3**
NWTPH-G (mg/kg)																			
TPH-Gasoline Range	100 (p)	--	--	--	--	--	--	--	22000	13000	--	80000	110	**2270** J	**4190** J	**5010** J	**12.7**	**7.28**	**5.07**
PRIORITY POLLUTANT METALS (mg/kg)																			
Arsenic (7060)	1.6 (q)(*)	1 (r)(*)	29	10 (r)	29 (r)	10 (r)	60 (r)	5 (o)	--	--	--	--	--	NA	NA	NA	NA	NA	NA
Chromium (6010)	450	2 (*)	38	1 (s)(*)	340000 (s)	4 (s)(*)	0.4 (s)(*)	23.1	--	--	--	--	--	NA	NA	NA	NA	NA	NA
Copper (6010)	40877	--	--	100	390	190	50	19.1	--	--	--	--	--	NA	NA	NA	NA	NA	NA
Lead (7421)	750	--	--	50	4000	16	500	9	750	750	750	--	30	1.85 U	1.72 U	1.72 U	2.2 U	2.63 U	**4.38**
Nickel (6010)	20439	7 (*)	130	30	625	320	200	21.4	--	--	--	--	--	NA	NA	NA	NA	NA	NA
Zinc (6010)	100000	620	12000	50 (*)	20000	60	200	60.2	--	--	--	--	--	NA	NA	NA	NA	NA	NA
Cadmium (6010)	451	0.4	8	4	125	6	20	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA
Mercury (7471)	307	--	--	0.3	73	1.5	0.1	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA

BZTO104(e)019609

TABLE C-1
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
MAIN TANK FARM AREA
PHASE III RI

													CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																	
								Risk-Based Concentrations										
Sample Identification:								Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	LW26D (15-16)	LW27S (13.5-14.5)	LW27S (21-22)	LW35 (27-28)	LW35 (29-29.5)	LW35 (30-31)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs					Construction	Excavation			0309185-01	0309185-02	0309185-03	0310011-02	0310011-03	0310011-04
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts	Background	Occupational	Worker	Worker	Occupational	Occupational	9/25/2003	9/25/2003	9/25/2003	10/1/2003	10/1/2003	10/1/2003
BETX (mg/kg)																			
EPA Method SW8021B																			
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	NA	NA	NA	NA	NA	NA
Xylenes, Total	420	10	210	--	--	--	--	--	24000	19000	--	--	100	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	NA	NA	NA
DIOXINS AND FURANS (ng/kg)																			
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA

BZTO104(e)019610

TABLE C-2
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
BELL TERMINAL TANK FARM AREA
PHASE III RI

														0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
	SCREENING CRITERIA													COMP	COMP	COMP	COMP	COMP	COMP	COMP	
									Risk-Based Concentrations												
Sample Identification:									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	G21 (0-0.5)	G22 (0-0.5)	G23 (0-0.5)	G24 (0-0.5)	G25 (0-0.5)	G26 (0-0.5)	G27 (0-0.5)	BT-01 (0-0.5)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0108208-18	0108215-05	0108215-01	0108208-06	0108215-09	0108215-13	0108208-10	0207040-01
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	8/28/2001	8/29/2001	8/29/2001	8/28/2001	8/29/2001	8/29/2001	8/28/2001	7/8/2002
SEMIVOLATILES (mg/kg)																					
EPA Method SW8270																					
2,6-Dinitrotoluene	616	0.00003	0.0007	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	NA
2-Methylnaphthalene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	NA
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	**0.073**	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	**0.130**	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	**1.200**	NA
Anthracene	100000	590	12000	--	--	--		--	--	90000	--	--	--	**0.120**	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	**1.200**	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	**0.320**	**0.096**	**0.220**	0.067 U	**0.480**	0.067 U	**6.900**	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--		--	0.27	2.1	59	--	--	**0.540**	**0.210**	**0.330**	**0.075**	**0.730**	**0.072**	**12.000**	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	**1.100**	**0.360**	**0.630**	**0.120**	**1.200**	**0.140**	**21.000**	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	**0.770**	**0.260**	**0.220**	0.067 U	**0.860**	0.067 U	**12.000**	NA
Benzo(k)fluoranthene	21.1	2	49	--	--	--	--	--	27	210	5900	--	--	**0.340**	**0.110**	**0.190**	0.067 U	**0.410**	0.067 U	**3.100**	NA
bis(2-Ethylhexyl)phthalate	123	180 (g)	3600 (g)	--	1020	4.5	--	--	--	--	--	--	--	**0.079**	0.067 U	**0.086**	**0.091**	0.067 U	**0.069**	0.067 U	NA
Butylbenzylphthalate	100000	810	930	--	1020 (i)	4.5 (i)	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	NA
Carbazole	86	0.03	0.6	--	--	--	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	**0.150**	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	**0.360**	**0.130**	**0.250**	0.067 U	**0.540**	0.067 U	**7.500**	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	**0.390**	NA
Dibenzofuran	3127	--	--	--	0.002	--	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	NA
Diethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	NA
Dimethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	NA
Di-n-Butylphthalate	61561	270	2300	200	30000	0.45	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	NA
Di-n-Octyl phthalate	24624	10000	10000	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	**0.840**	**0.220**	**0.610**	**0.090**	**1.100**	**0.079**	**17.000**	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	**0.130**	NA
Hexachloroethane	123	0.02	0.5	--	--	--	--	--	--	--	--	--	--	0.130 U	0.130 U	0.130 U	0.130 U	0.130 U	0.130 U	0.130 U	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	**0.540**	**0.180**	**0.180**	0.067 U	**0.580**	0.067 U	**8.700**	NA
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	NA
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	**0.230**	0.067 U	**0.220**	0.067 U	**0.170**	0.067 U	**5.900**	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	**0.910**	**0.260**	**0.640**	**0.088**	**1.300**	**0.080**	**22.000**	NA
SEMIVOLATILES (mg/kg)																					
EPA Method SW8270SIM																					
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	188	4	84	10	3900	--		--	770	710	20000	--	15	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
CHLORINATED PHENOLS (mg/kg)																					
Method 8040																					
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

BZTO104(e)019611

TABLE C-2
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
BELL TERMINAL TANK FARM AREA
PHASE III RI

Sample Identification:														0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
	SCREENING CRITERIA													COMP	COMP	COMP	COMP	COMP	COMP	COMP	
									Risk-Based Concentrations												
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater								
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			G21 (0-0.5)	G22 (0-0.5)	G23 (0-0.5)	G24 (0-0.5)	G25 (0-0.5)	G26 (0-0.5)	G27 (0-0.5)	BT-01 (0-0.5)
														0108208-18	0108215-05	0108215-01	0108208-06	0108215-09	0108215-13	0108208-10	0207040-01
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	8/28/2001	8/29/2001	8/29/2001	8/28/2001	8/29/2001	8/29/2001	8/28/2001	7/8/2002
VOLATILES (mg/kg)																					
EPA Method SW8260																					
1,2,4-Trimethylbenzene	170	--	--	--	3300 (m)	--	--	--	1500	1400	40000	790	55	0.002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	NA
1,2-Dibromoethane	0.028	--	--	--	--	--	--	--	0.033	0.25	7.1	1.7	0.000059	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	NA
1,3,5-Trimethylbenzene	70	--	--	--	3300 (m)	--	--	--	1500	1400	40000	--	12	0.002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	NA
2-Butanone	27102	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	NA
4-Isopropyltoluene	520 (a)	0.6 (a)	12 (a)	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	0.002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	NA
Acetone	6036	0.8	16	--	1250	--	--	--	--	--	--	--	--	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	NA
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	NA
Carbon Disulfide	720	2	32	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.002 U	0.001 U	0.001 U	0.001 U	0.001 U	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	NA
Isopropylbenzene	1977	--	--	--	3300 (m)	--	--	--	51000	24000	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	NA
Methyl Iodide	--	--	--	--	--	--	--	--	--	--	--	--	--	0.020 U	0.001 U	0.020 U	0.001 U	0.001 U	0.001 U	0.001 U	NA
Methyl tert-butyl ether	157	--	--	--	--	--	--	--	760	9000	--	720	0.30	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	190	4	84	10	3900	--	--	--	770	710	20000	--	15	0.020 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	NA
n-Butylbenzene	240	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	0.004 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	NA
n-Propylbenzene	240	--	--	--	3300 (m)	--	--	--	19000	9300	--	--	--	0.002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	NA
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	NA
sec-Butylbenzene	220	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	0.002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	NA
tert-Butylbenzene	390	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	0.002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	160	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	NA
HYDROCARBONS (mg/kg)																					
NWTPH-HCID																					
Gasoline	--	--	--	--	--	--	--	--	---	---	--	--	--	21.7 U	22.7 U	21.3 U	22.0 U	22.2 U	22.5 U	21.7 U	21.7 U
Kerosene	--	--	--	--	--	--	--	--	--	--	--	--	--	54.3 U	56.8 U	53.2 U	54.9 U	55.6 U	56.2 U	54.3 U	54.3 U
Diesel	--	--	--	--	--	--	--	--	---	---	--	--	--	54.3 U	56.8 U	53.2 U	**Diesel**	55.6 U	56.2 U	**Diesel**	54.3 U
Lube Oil	--	--	--	--	--	--	--	--	--	--	--	--	--	**Lube Oil**	114 U	106 U	110 U	111 U	112 U	**Lube Oil**	109 U
NWTPH-Dx (mg/kg)																					
TPH-Diesel Range	2000 (p)	--	--	--	--	--	--	--	70000	23000	--	--	--	**41.8**	NA	NA	**859** J	NA	NA	**368** J	NA
TPH-Kerosene Range	2000 (p)	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
TPH-Motor Oil Range	2000 (p)	--	--	--	--	--	--	--	---	---	--	--	--	**127**	NA	NA	**126** J	NA	NA	**695** J	NA
NWTPH-G (mg/kg)																					
TPH-Gasoline Range	100 (p)	--	--	--	--	--	--	--	22000	13000	--	80000	110	NA	NA	NA	NA	NA	NA	NA	NA
PRIORITY POLLUTANT METALS (mg/kg)																					
Arsenic (7060)	1.6 (q)(*)	1 (r)(*)	29	10 (r)	29 (r)	10 (r)	60 (r)	5 (o)	--	--	--	--	--	**3.00**	**4.90**	**5.09**	**2.18**	**2.25**	**1.96**	**3.60**	NA
Chromium (6010)	450	2 (*)	38	1 (s)(*)	340000 (s)	4 (s)(*)	0.4 (s)(*)	23.1	--	--	--	--	--	**138**	**23.7**	**121**	**22.0**	**41.4**	**83.6**	**85.7**	NA
Copper (6010)	40877	--	--	100	390	190	50	19.1	--	--	--	--	--	**34.8**	**20.7**	**156**	**63.5**	**15.2**	**33.2**	**90.5**	NA
Lead (7421)	750	--	--	50	4000	16	500	9	750	750	750	--	30	**83.8**	**196**	**249**	**43.2**	**8.00**	**28.6**	**93.4**	NA
Nickel (6010)	20439	7 (*)	130	30	625	320	200	21.4	--	--	--	--	--	**106**	**16.5**	**49.3**	**21.3**	**23.1**	**36.2**	**32.3**	NA
Zinc (6010)	100000	620	12000	50	20000	60	200	60.2	--	--	--	--	--	**133**	**104**	**181**	**135**	**60.1**	**71.3**	**107**	NA
Cadmium (6010)	451	0.4	8	4	125	6	20	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (7471)	307	--	--	0.3	73	1.5	0.1	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

BZTO104(e)019612

TABLE C-2
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
BELL TERMINAL TANK FARM AREA
PHASE III RI

														0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
	SCREENING CRITERIA													COMP	COMP	COMP	COMP	COMP	COMP	COMP	
									Risk-Based Concentrations												
Sample Identification:									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	G21 (0-0.5)	G22 (0-0.5)	G23 (0-0.5)	G24 (0-0.5)	G25 (0-0.5)	G26 (0-0.5)	G27 (0-0.5)	BT-01 (0-0.5)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0108208-18	0108215-05	0108215-01	0108208-06	0108215-09	0108215-13	0108208-10	0207040-01
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	8/28/2001	8/29/2001	8/29/2001	8/28/2001	8/29/2001	8/29/2001	8/28/2001	7/8/2002
BETX (mg/kg)																					
EPA Method SW8021B																					
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, Total	420	10	210	--	--	--	--	--	24000	19000	--	--	100	NA	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	NA	NA	NA	NA	NA
DIOXINS AND FURANS (ng/kg)																					
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

BZTO104(e)019613

TABLE C-2
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
BELL TERMINAL TANK FARM AREA
PHASE III RI

Sample Identification:														0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
	SCREENING CRITERIA																			
									Risk-Based Concentrations											
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater			BT-11(0-0.5)					
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			BT-02 (0-0.5)	BT-03 (0-0.5)	Dup of BT-03 (0-0.5)	BT-04 (0-0.5)	BT-05 (0-0.5)	BT-06 (0-0.5)	BT-13 (0-0.5) Dup of BT-06 (0-0.5)
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	0207040-08 7/8/2002	0207040-13 7/8/2002	0207040-06 7/8/2002	0207059-18 7/9/2002	0207040-17 7/8/2002	0207059-13 7/9/2002	0207059-11 7/9/2002
SEMIVOLATILES (mg/kg)																				
EPA Method SW8270																				
2,6-Dinitrotoluene	616	0.00003	0.0007	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Anthracene	100000	590	12000	--	--	--		--	--	90000	--	--	--	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--		--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	21.1	2	49	--	--	--	--	--	27	210	5900	--	--	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	123	180 (g)	3600 (g)	--	1020	4.5	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	100000	810	930	--	1020 (i)	4.5 (i)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Carbazole	86	0.03	0.6	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	3127	--	--	--	0.002	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	61561	270	2300	200	30000	0.45	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Di-n-Octyl phthalate	24624	10000	10000	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	NA	NA	NA	NA	NA	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	123	0.02	0.5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (mg/kg)																				
EPA Method SW8270SIM																				
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	NA	0.00667 UJ	NA	0.00667 UJ	NA	NA	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	0.00667 UJ	NA	0.00667 UJ	NA	NA	NA
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	NA	0.00667 UJ	NA	0.00667 UJ	NA	NA	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	0.00667 UJ	NA	**0.022** J	NA	NA	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	NA	0.00667 UJ	NA	**0.0367** J	NA	NA	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	**0.016** J	NA	**0.044** J	NA	NA	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	**0.0333** J	NA	**0.0447** J	NA	NA	NA
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--	NA	0.00667 UJ	NA	**0.014** J	NA	NA	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	0.00667 UJ	NA	**0.0247** J	NA	NA	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	0.00667 UJ	NA	**0.0113** J	NA	NA	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	0.00667 UJ	NA	**0.0333** J	NA	NA	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	0.00667 UJ	NA	0.00667 UJ	NA	NA	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	**0.0153** J	NA	**0.036** J	NA	NA	NA
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	0.00667 UJ	NA	0.00667 UJ	NA	NA	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	0.00667 UJ	NA	**0.0127** J	NA	NA	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	0.00667 UJ	NA	**0.0533** J	NA	NA	NA
CHLORINATED PHENOLS (mg/kg)																				
Method 8040																				
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA

BZTO104(e)019614

TABLE C-2
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
BELL TERMINAL TANK FARM AREA
PHASE III RI

Sample Identification:														0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
	SCREENING CRITERIA																			
									Risk-Based Concentrations											
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater							
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			BT-02 (0-0.5)	BT-03 (0-0.5)	BT-11(0-0.5) Dup of BT-03 (0-0.5)	BT-04 (0-0.5)	BT-05 (0-0.5)	BT-06 (0-0.5)	BT-13 (0-0.5) Dup of BT-06 (0-0.5)
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	0207040-08 7/8/2002	0207040-13 7/8/2002	0207040-06 7/8/2002	0207059-18 7/9/2002	0207040-17 7/8/2002	0207059-13 7/9/2002	0207059-11 7/9/2002
VOLATILES (mg/kg)																				
EPA Method SW8260																				
1,2,4-Trimethylbenzene	170	--	--	--	3300 (m)	--	--	--	1500	1400	40000	790	55	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	0.028	--	--	--	--	--	--	--	0.033	0.25	7.1	1.7	0.000059	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	70	--	--	--	3300 (m)	--	--	--	1500	1400	40000	--	12	NA	NA	NA	NA	NA	NA	NA
2-Butanone	27102	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
4-Isopropyltoluene	520 (a)	0.6 (a)	12 (a)	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Acetone	6036	0.8	16	--	1250	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	720	2	32	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	1977	--	--	--	3300 (m)	--	--	--	51000	24000	--	--	--	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	NA	NA	NA	NA
Methyl Iodide	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	157	--	--	--	--	--	--	--	760	9000	--	720	0.30	NA	NA	NA	NA	NA	NA	NA
Naphthalene	190	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	240	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	240	--	--	--	3300 (m)	--	--	--	19000	9300	--	--	--	NA	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	220	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	390	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	160	NA	NA	NA	NA	NA	NA	NA
HYDROCARBONS (mg/kg)																				
NWTPH-HCID																				
Gasoline	--	--	--	--	--	--	--	--	---	---	--	--	--	21.6 U	22 U	22.2 U	21.8 U	21.4 U	21.8 U	21.9 U
Kerosene	--	--	--	--	--	--	--	--	--	--	--	--	--	54.1 U	55.1 U	55.4 U	54.5 U	53.4 U	54.5 U	54.7 U
Diesel	--	--	--	--	--	--	--	--	---	---	--	--	--	54.1 U	**Diesel**	**Diesel**	**Diesel**	53.4 U	54.5 U	54.7 U
Lube Oil	--	--	--	--	--	--	--	--	--	--	--	--	--	108 U	110 U	111 U	**Lube Oil**	107 U	109 U	109 U
NWTPH-Dx (mg/kg)																				
TPH-Diesel Range	2000 (p)	--	--	--	--	--	--	--	70000	23000	--	--	--	NA	**244**	**237**	**198**	NA	NA	NA
TPH-Kerosene Range	2000 (p)	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
TPH-Motor Oil Range	2000 (p)	--	--	--	--	--	--	--	---	---	--	--	--	NA	**67.2**	**69.6**	**699**	NA	NA	NA
NWTPH-G (mg/kg)																				
TPH-Gasoline Range	100 (p)	--	--	--	--	--	--	--	22000	13000	--	80000	110	NA	NA	NA	NA	NA	NA	NA
PRIORITY POLLUTANT METALS (mg/kg)																				
Arsenic (7060)	1.6 (q)(*)	1 (r)(*)	29	10 (r)	29 (r)	10 (r)	60 (r)	5 (o)	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Chromium (6010)	450	2 (*)	38	1 (s)(*)	340000 (s)	4 (s)(*)	0.4 (s)(*)	23.1	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Copper (6010)	40877	--	--	100	390	190	50	19.1	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Lead (7421)	750	--	--	50	4000	16	500	9	750	750	750	--	30	NA	NA	NA	NA	NA	NA	NA
Nickel (6010)	20439	7 (*)	130	30	625	320	200	21.4	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Zinc (6010)	100000	620	12000	50	20000	60	200	60.2	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Cadmium (6010)	451	0.4	8	4	125	6	20	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Mercury (7471)	307	--	--	0.3	73	1.5	0.1	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA

BZTO104(e)019615

TABLE C-2
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
BELL TERMINAL TANK FARM AREA
PHASE III RI

	SCREENING CRITERIA																			
									Risk-Based Concentrations					0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
Sample Identification:	EPA Region 9 PRGs			Oregon SLVs				Background	Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	BT-02 (0-0.5)	BT-03 (0-0.5)	BT-11(0-0.5) Dup of BT-03 (0-0.5)	BT-04 (0-0.5)	BT-05 (0-0.5)	BT-06 (0-0.5)	BT-13 (0-0.5) Dup of BT-06 (0-0.5)
Laboratory Identification:										Construction	Excavation			0207040-08	0207040-13	0207040-06	0207059-18	0207040-17	0207059-13	0207059-11
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	7/8/2002	7/8/2002	7/8/2002	7/9/2002	7/8/2002	7/9/2002	7/9/2002
BETX (mg/kg)																				
EPA Method SW8021B																				
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	NA	NA	NA	NA	NA	NA	NA
Xylenes, Total	420	10	210	--	--	--	--	--	24000	19000	--	--	100	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	NA	NA	NA	NA
DIOXINS AND FURANS (ng/kg)																				
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA

TABLE C-2
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
BELL TERMINAL TANK FARM AREA
PHASE III RI

Sample Identification:														0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
	SCREENING CRITERIA																			
									Risk-Based Concentrations											
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater							
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			BT-07 (0-0.5)	BT-12 (0-0.5) Dup of BT-07 (0-0.5)	BT-08 (0-0.5)	BT-09 (0-0.5)	BT-10 (0-0.5)	G27-4 (0-0.5)	G27-5 (0-0.5)
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	0207040-22 7/8/2002	0207040-33 7/8/2002	0207040-27 7/8/2002	0207059-06 7/9/2002	0207059-01 7/9/2002	0309196-16 9/29/2003	0309196-17 9/29/2003
SEMIVOLATILES (mg/kg)																				
EPA Method SW8270																				
2,6-Dinitrotoluene	616	0.00003	0.0007	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Anthracene	100000	590	12000	--	--	--		--	--	90000	--	--	--	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--		--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	21.1	2	49	--	--	--	--	--	27	210	5900	--	--	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	123	180 (g)	3600 (g)	--	1020	4.5	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	100000	810	930	--	1020 (i)	4.5 (i)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Carbazole	86	0.03	0.6	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	3127	--	--	--	0.002	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	61561	270	2300	200	30000	0.45	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Di-n-Octyl phthalate	24624	10000	10000	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	NA	NA	NA	NA	NA	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	123	0.02	0.5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (mg/kg)																				
EPA Method SW8270SIM																				
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	NA	NA	0.00667 UJ	NA	NA	**0.0933**	**0.008**
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	0.00667 UJ	NA	NA	**1.06**	**0.194**
Anthracene	100000	590	12000	--	--	--		--	--	90000	--	--	--	NA	NA	0.00667 UJ	NA	NA	**1.16**	**0.12**
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	NA	**0.0727** J	NA	NA	**11.1**	**0.507**
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	NA	NA	**0.106** J	NA	NA	**16.8**	**1.06**
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	NA	**0.193** J	NA	NA	**19.8**	**2.07**
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	**0.094** J	NA	NA	**6**	**0.837**
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--	NA	NA	**0.0447** J	NA	NA	**5.95**	**0.688**
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	NA	**0.0873** J	NA	NA	**12.3**	**0.787**
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	NA	**0.0227** J	NA	NA	**1.23**	**0.187**
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	NA	**0.168** J	NA	NA	**23.5**	**1.28**
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	NA	0.00667 UJ	NA	NA	**0.178**	**0.01**
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	NA	**0.066** J	NA	NA	**5.28**	**0.762**
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	0.00667 UJ	NA	NA	**0.127**	**0.068**
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	NA	**0.0433** J	NA	NA	**6.23**	**0.285**
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	NA	**0.177** J	NA	NA	**34.1**	**2.27**
CHLORINATED PHENOLS (mg/kg)																				
Method 8040																				
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA

BZTO104(e)019617

TABLE C-2
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
BELL TERMINAL TANK FARM AREA
PHASE III RI

Sample Identification:														0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
	SCREENING CRITERIA																			
									Risk-Based Concentrations											
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater							
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			BT-07 (0-0.5)	BT-12 (0-0.5) Dup of BT-07 (0-0.5)	BT-08 (0-0.5)	BT-09 (0-0.5)	BT-10 (0-0.5)	G27-4 (0-0.5)	G27-5 (0-0.5)
														0207040-22	0207040-33	0207040-27	0207059-06	0207059-01	0309196-16	0309196-17
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	7/8/2002	7/8/2002	7/8/2002	7/9/2002	7/9/2002	9/29/2003	9/29/2003
VOLATILES (mg/kg)																				
EPA Method SW8260																				
1,2,4-Trimethylbenzene	170	--	--	--	3300 (m)	--	--	--	1500	1400	40000	790	55	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	0.028	--	--	--	--	--	--	--	0.033	0.25	7.1	1.7	0.000059	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	70	--	--	--	3300 (m)	--	--	--	1500	1400	40000	--	12	NA	NA	NA	NA	NA	NA	NA
2-Butanone	27102	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
4-Isopropyltoluene	520 (a)	0.6 (a)	12 (a)	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Acetone	6036	0.8	16	--	1250	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	720	2	32	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	1977	--	--	--	3300 (m)	--	--	--	51000	24000	--	--	--	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	NA	NA	NA	NA
Methyl Iodide	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	157	--	--	--	--	--	--	--	760	9000	--	720	0.30	NA	NA	NA	NA	NA	NA	NA
Naphthalene	190	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	240	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	240	--	--	--	3300 (m)	--	--	--	19000	9300	--	--	--	NA	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	220	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	390	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	160	NA	NA	NA	NA	NA	NA	NA
HYDROCARBONS (mg/kg)																				
NWTPH-HCID																				
Gasoline	--	--	--	--	--	--	--	--	---	---	--	--	--	21.9 U	22.2 U	21.8 U	21.6 U	22.0 U	NA	NA
Kerosene	--	--	--	--	--	--	--	--	--	--	--	--	--	54.7 U	55.6 U	54.5 U	53.9 U	55.1 U	NA	NA
Diesel	--	--	--	--	--	--	--	--	---	---	--	--	--	54.7 U	55.6 U	**Diesel**	53.9 U	55.1 U	NA	NA
Lube Oil	--	--	--	--	--	--	--	--	--	--	--	--	--	109 U	111 U	109 U	108 U	110 U	NA	NA
NWTPH-Dx (mg/kg)																				
TPH-Diesel Range	2000 (p)	--	--	--	--	--	--	--	70000	23000	--	--	--	NA	NA	**93.4**	NA	NA	NA	NA
TPH-Kerosene Range	2000 (p)	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
TPH-Motor Oil Range	2000 (p)	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	54.5 U	NA	NA	NA	NA
NWTPH-G (mg/kg)																				
TPH-Gasoline Range	100 (p)	--	--	--	--	--	--	--	22000	13000	--	80000	110	NA	NA	NA	NA	NA	NA	NA
PRIORITY POLLUTANT METALS (mg/kg)																				
Arsenic (7060)	1.6 (q)(*)	1 (r)(*)	29	10 (r)	29 (r)	10 (r)	60 (r)	5 (o)	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Chromium (6010)	450	2 (*)	38	1 (s)(*)	340000 (s)	4 (s)(*)	0.4 (s)(*)	23.1	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Copper (6010)	40877	--	--	100	390	190	50	19.1	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Lead (7421)	750	--	--	50	4000	16	500	9	750	750	750	--	30	NA	NA	NA	NA	NA	NA	NA
Nickel (6010)	20439	7 (*)	130	30	625	320	200	21.4	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Zinc (6010)	100000	620	12000	50	20000	60	200	60.2	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Cadmium (6010)	451	0.4	8	4	125	6	20	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Mercury (7471)	307	--	--	0.3	73	1.5	0.1	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA

BZTO104(e)019618

TABLE C-2
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
BELL TERMINAL TANK FARM AREA
PHASE III RI

														0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
	SCREENING CRITERIA																			
									Risk-Based Concentrations											
Sample Identification:									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	BT-07 (0-0.5)	BT-12 (0-0.5) Dup of BT-07 (0-0.5)	BT-08 (0-0.5)	BT-09 (0-0.5)	BT-10 (0-0.5)	G27-4 (0-0.5)	G27-5 (0-0.5)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0207040-22	0207040-33	0207040-27	0207059-06	0207059-01	0309196-16	0309196-17
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	7/8/2002	7/8/2002	7/8/2002	7/9/2002	7/9/2002	9/29/2003	9/29/2003
BETX (mg/kg)																				
EPA Method SW8021B																				
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	NA	NA	NA	NA	NA	NA	NA
Xylenes, Total	420	10	210	--	--	--	--	--	24000	19000	--	--	100	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	NA	NA	NA	NA
DIOXINS AND FURANS (ng/kg)																				
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA

BZTO104(e)019619

TABLE C-2
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
BELL TERMINAL TANK FARM AREA
PHASE III RI

														1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5
	SCREENING CRITERIA																			
									Risk-Based Concentrations					COMP	COMP	COMP	COMP	COMP	COMP	COMP
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater							
Sample Identification:														G21 (1-1.5)	G22 (1-1.5)	G23 (1-1.5)	G24 (1-1.5)	G25 (1-1.5)	G26 (1-1.5)	G27 (1-1.5)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0108208-19	0108215-06	0108215-02	0108208-07	0108215-10	0108215-14	0108208-11
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	8/28/2001	8/29/2001	8/29/2001	8/28/2001	8/29/2001	8/29/2001	8/28/2001
SEMIVOLATILES (mg/kg)																				
EPA Method SW8270																				
2,6-Dinitrotoluene	616	0.00003	0.0007	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U
2-Methylnaphthalene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	**0.140**	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Anthracene	100000	590	12000	--	--	--		--	--	90000	--	--	--	**0.210**	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	**1.000**	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Benzo(a)pyrene	0.21	0.4	8	--	125	--		--	0.27	2.1	59	--	--	**1.400**	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	**0.086**
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	**2.400**	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	**0.140**
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	**1.100**	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Benzo(k)fluoranthene	21.1	2	49	--	--	--	--	--	27	210	5900	--	--	**0.630**	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
bis(2-Ethylhexyl)phthalate	123	180 (g)	3600 (g)	--	1020	4.5	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Butylbenzylphthalate	100000	810	930	--	1020 (i)	4.5 (i)	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Carbazole	86	0.03	0.6	--	--	--	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	**1.100**	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Dibenzofuran	3127	--	--	--	0.002	--	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Diethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Dimethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Di-n-Butylphthalate	61561	270	2300	200	30000	0.45	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Di-n-Octyl phthalate	24624	10000	10000	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	**3.200**	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	**0.110**
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Hexachloroethane	123	0.02	0.5	--	--	--	--	--	--	--	--	--	--	0.130 U	0.130 U	0.130 U	0.130 U	0.130 U	0.130 U	0.130 U
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	**0.860**	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	**1.900**	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	**3.300**	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	**0.130**
SEMIVOLATILES (mg/kg)																				
EPA Method SW8270SIM																				
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--	NA	NA	NA	NA	NA	NA	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	NA	NA	NA	NA	NA	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA
Naphthalene	188	4	84	10	3900	--		--	770	710	20000	--	15	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	NA	NA	NA	NA	NA	NA
CHLORINATED PHENOLS (mg/kg)																				
Method 8040																				
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA

BZTO104(e)019620

TABLE C-2
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
BELL TERMINAL TANK FARM AREA
PHASE III RI

Sample Identification:	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5
	SCREENING CRITERIA						
	Risk-Based Concentrations						
					Volatilization to Outdoor Air	Leaching to Groundwater	
	Soil Ingestion, Dermal Contact, and Inhalation						
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background											
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Construction Worker	Excavation Worker	Occupational	Occupational	COMP G21 (1-1.5) 0108208-19 8/28/2001	COMP G22 (1-1.5) 0108215-06 8/29/2001	COMP G23 (1-1.5) 0108215-02 8/29/2001	COMP G24 (1-1.5) 0108208-07 8/28/2001	COMP G25 (1-1.5) 0108215-10 8/29/2001	COMP G26 (1-1.5) 0108215-14 8/29/2001	COMP G27 (1-1.5) 0108208-11 8/28/2001
VOLATILES (mg/kg)																			
EPA Method SW8260																			
1,2,4-Trimethylbenzene	170	--	--	--	3300 (m)	--	--	--	1500	1400	40000	790	55	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dibromoethane	0.028	--	--	--	--	--	--	--	0.033	0.25	7.1	1.7	0.000059	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3,5-Trimethylbenzene	70	--	--	--	3300 (m)	--	--	--	1500	1400	40000	--	12	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone	27102	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
4-Isopropyltoluene	520 (a)	0.6 (a)	12 (a)	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Acetone	6038	0.8	16	--	1250	--	--	--	--	--	--	--	--	0.005 U	0.005 U	**0.0123**	0.005 U	0.005 U	**0.0204**	0.005 U
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Disulfide	720	2	32	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Isopropylbenzene	1977	--	--	--	3300 (m)	--	--	--	51000	24000	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Methyl Iodide	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methyl tert-butyl ether	157	--	--	--	--	--	--	--	760	9000	--	720	0.30	NA	NA	NA	NA	NA	NA	NA
Naphthalene	190	4	84	10	3900	--	--	--	770	710	20000	--	15	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U
n-Butylbenzene	240	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
n-Propylbenzene	240	--	--	--	3300 (m)	--	--	--	19000	9300	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
sec-Butylbenzene	220	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
tert-Butylbenzene	390	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	160	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
HYDROCARBONS (mg/kg)																				
NWTPH-HCID																				
Gasoline	--	--	--	--	--	--	--	--	---	---	--	--	--	21.7 U	21.5 U	22.0 U	21.7 U	21.5 U	22.7 U	21.7 U
Kerosene	--	--	--	--	--	--	--	--	--	--	--	--	--	54.3 U	53.8 U	54.9 U	54.3 U	53.8 U	56.8 U	54.3 U
Diesel	--	--	--	--	--	--	--	--	---	---	--	--	--	54.3 U	53.8 U	54.9 U	54.3 U	53.8 U	56.8 U	**Diesel**
Lube Oil	--	--	--	--	--	--	--	--	--	--	--	--	--	109 U	108 U	110 U	109 U	108 U	114 U	109 U
NWTPH-Dx (mg/kg)																				
TPH-Diesel Range	2000 (p)	--	--	--	--	--	--	--	70000	23000	--	--	--	NA	NA	NA	NA	NA	NA	**58.5**
TPH-Kerosene Range	2000 (p)	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
TPH-Motor Oil Range	2000 (p)	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA	NA	NA	**65.5**
NWTPH-G (mg/kg)																				
TPH-Gasoline Range	100 (p)	--	--	--	--	--	--	--	22000	13000	--	80000	110	NA	NA	NA	NA	NA	NA	NA
PRIORITY POLLUTANT METALS (mg/kg)																				
Arsenic (7060)	1.6 (q)(*)	1 (r)(*)	29	10 (r)	29 (r)	10 (r)	60 (r)	5 (o)	--	--	--	--	--	**2.67**	**2.14**	**1.84**	**2.50**	**2.75**	**2.03**	**2.72**
Chromium (6010)	450	2 (*)	38	1 (s)(*)	340000 (s)	4 (s)(*)	0.4 (s)(*)	23.1	--	--	--	--	--	**15.6**	**14.9**	**14.0**	**14.9**	**16.7**	**41.4**	**16.1**
Copper (6010)	40877	--	--	100	390	190	50	19.1	--	--	--	--	--	**14.7**	**12.7**	**17.3**	**12.1**	**12.9**	**14.9**	**15.2**
Lead (7421)	750	--	--	50	4000	16	500	9	750	750	750	--	30	**3.17**	**2.68**	**2.27**	**2.69**	1.92 U	**5.54**	**19.3**
Nickel (6010)	20439	7 (*)	130	30	625	320	200	21.4	--	--	--	--	--	**17.8**	**16.8**	**17.2**	**16.6**	**18.4**	**22.8**	**18.4**
Zinc (6010)	100000	620	12000	50	20000	60	200	60.2	--	--	--	--	--	**60.3**	**45.1**	**42.5**	**44.5**	**46.3**	**49.3**	**48.2**
Cadmium (6010)	451	0.4	8	4	125	6	20	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Mercury (7471)	307	--	--	0.3	73	1.5	0.1	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA

BZTO104(e)019621

TABLE C-2
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
BELL TERMINAL TANK FARM AREA
PHASE III RI

														1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5
	SCREENING CRITERIA																			
									Risk-Based Concentrations					COMP	COMP	COMP	COMP	COMP	COMP	COMP
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater							
Sample Identification:														G21 (1-1.5)	G22 (1-1.5)	G23 (1-1.5)	G24 (1-1.5)	G25 (1-1.5)	G26 (1-1.5)	G27 (1-1.5)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0108208-19	0108215-06	0108215-02	0108208-07	0108215-10	0108215-14	0108208-11
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	8/28/2001	8/29/2001	8/29/2001	8/28/2001	8/29/2001	8/29/2001	8/28/2001
BETX (mg/kg)																				
EPA Method SW8021B																				
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	NA	NA	NA	NA	NA	NA	NA
Xylenes, Total	420	10	210	--	--	--	--	--	24000	19000	--	--	100	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	NA	NA	NA	NA
DIOXINS AND FURANS (ng/kg)																				
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA

BZTO104(e)019622

TABLE C-2
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
BELL TERMINAL TANK FARM AREA
PHASE III RI

Sample Identification:														1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5
	SCREENING CRITERIA																			
									Risk-Based Concentrations					COMP						
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater					BT-11(1-2)		
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			BA14 (1-1.5)	BT-01 (1-2)	BT-02 (1-2)	BT-03 (1-2)	Dup of BT-03 (1-2)	BT-04 (1-2)	BT-05 (1-2)
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	0108208-14 8/28/2001	0207040-02 7/8/2002	0207040-09 7/8/2002	0207040-14 7/8/2002	0207040-07 7/8/2002	0207059-19 7/9/2002	0207040-18 7/8/2002
SEMIVOLATILES (mg/kg)																				
EPA Method SW8270																				
2,6-Dinitrotoluene	616	0.00003	0.0007	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	0.330 U	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA
Anthracene	100000	590	12000	--	--	--		--	--	90000	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	0.067 U	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--		--	0.27	2.1	59	--	--	0.067 U	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	21.1	2	49	--	--	--	--	--	27	210	5900	--	--	0.067 U	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	123	180 (g)	3600 (g)	--	1020	4.5	--	--	--	--	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	100000	810	930	--	1020 (i)	4.5 (i)	--	--	--	--	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA
Carbazole	86	0.03	0.6	--	--	--	--	--	--	--	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	0.067 U	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	0.067 U	NA	NA	NA	NA	NA	NA
Dibenzofuran	3127	--	--	--	0.002	--	--	--	--	--	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA
Diethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA
Dimethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	61561	270	2300	200	30000	0.45	--	--	--	--	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA
Di-n-Octyl phthalate	24624	10000	10000	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA
Hexachloroethane	123	0.02	0.5	--	--	--	--	--	--	--	--	--	--	0.130 U	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	0.067 U	NA	NA	NA	NA	NA	NA
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	0.130 U	NA	NA	NA	NA	NA	NA
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	0.330 U	NA	NA	NA	NA	NA	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (mg/kg)																				
EPA Method SW8270SIM																				
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--	NA	NA	NA	NA	NA	NA	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	NA	NA	NA	NA	NA	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA
Naphthalene	188	4	84	10	3900	--		--	770	710	20000	--	15	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	NA	NA	NA	NA	NA	NA
CHLORINATED PHENOLS (mg/kg)																				
Method 8040																				
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA

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TABLE C-2
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
BELL TERMINAL TANK FARM AREA
PHASE III RI

Sample Identification:														1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5
	SCREENING CRITERIA																			
									Risk-Based Concentrations					COMP						
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater					BT-11(1-2)		
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			BA14 (1-1.5)	BT-01 (1-2)	BT-02 (1-2)	BT-03 (1-2)	Dup of BT-03 (1-2)	BT-04 (1-2)	BT-05 (1-2)
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	0108208-14 8/28/2001	0207040-02 7/8/2002	0207040-09 7/8/2002	0207040-14 7/8/2002	0207040-07 7/8/2002	0207059-19 7/9/2002	0207040-18 7/8/2002
VOLATILES (mg/kg)																				
EPA Method SW8260																				
1,2,4-Trimethylbenzene	170	--	--	--	3300 (m)	--	--	--	1500	1400	40000	790	55	0.001 U	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	0.028	--	--	--	--	--	--	--	0.033	0.25	7.1	1.7	0.000059	0.001 U	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	70	--	--	--	3300 (m)	--	--	--	1500	1400	40000	--	12	0.001 U	NA	NA	NA	NA	NA	NA
2-Butanone	27102	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	NA	NA	NA	NA	NA	NA
4-Isopropyltoluene	520 (a)	0.6 (a)	12 (a)	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	0.001 U	NA	NA	NA	NA	NA	NA
Acetone	6036	0.8	16	--	1250	--	--	--	--	--	--	--	--	0.005 U	NA	NA	NA	NA	NA	NA
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	0.001 U	NA	NA	NA	NA	NA	NA
Carbon Disulfide	720	2	32	--	--	--	--	--	--	--	--	--	--	0.001 U	NA	NA	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	0.001 U	NA	NA	NA	NA	NA	NA
Isopropylbenzene	1977	--	--	--	3300 (m)	--	--	--	51000	24000	--	--	--	0.001 U	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	0.002 U	NA	NA	NA	NA	NA	NA
Methyl Iodide	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	157	--	--	--	--	--	--	--	760	9000	--	720	0.30	NA	NA	NA	NA	NA	NA	NA
Naphthalene	190	4	84	10	3900	--	--	--	770	710	20000	--	15	0.010 U	NA	NA	NA	NA	NA	NA
n-Butylbenzene	240	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	0.004 U	NA	NA	NA	NA	NA	NA
n-Propylbenzene	240	--	--	--	3300 (m)	--	--	--	19000	9300	--	--	--	0.001 U	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	0.001 U	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	220	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	0.001 U	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	390	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	0.001 U	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	160	0.001 U	NA	NA	NA	NA	NA	NA
HYDROCARBONS (mg/kg)																				
NWTPH-HCID																				
Gasoline	--	--	--	--	--	--	--	--	---	---	--	--	--	21.5 U	21.8 U	21.8 U	21.9 U	21.9 U	21.8 U	22.4 U
Kerosene	--	--	--	--	--	--	--	--	--	--	--	--	--	53.8 U	54.5 U	54.6 U	54.7 U	54.7 U	54.5 U	56.1 U
Diesel	--	--	--	--	--	--	--	--	---	---	--	--	--	53.8 U	54.5 U	54.6 U	54.7 U	54.7 U	54.5 U	56.1 U
Lube Oil	--	--	--	--	--	--	--	--	--	--	--	--	--	108 U	109 U	109 U	109 U	109 U	109 U	112 U
NWTPH-Dx (mg/kg)																				
TPH-Diesel Range	2000 (p)	--	--	--	--	--	--	--	70000	23000	--	--	--	NA	NA	NA	NA	NA	NA	NA
TPH-Kerosene Range	2000 (p)	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
TPH-Motor Oil Range	2000 (p)	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA	NA	NA	NA
NWTPH-G (mg/kg)																				
TPH-Gasoline Range	100 (p)	--	--	--	--	--	--	--	22000	13000	--	80000	110	NA	NA	NA	NA	NA	NA	NA
PRIORITY POLLUTANT METALS (mg/kg)																				
Arsenic (7060)	1.6 (q)(*)	1 (r)(*)	29	10 (r)	29 (r)	10 (r)	60 (r)	5 (o)	--	--	--	--	--	**2.61**	NA	NA	NA	NA	NA	NA
Chromium (6010)	450	2 (*)	38	1 (s)(*)	340000 (s)	4 (s)(*)	0.4 (s)(*)	23.1	--	--	--	--	--	**14.3**	NA	NA	NA	NA	NA	NA
Copper (6010)	40877	--	--	100	390	190	50	19.1	--	--	--	--	--	**12.9**	NA	NA	NA	NA	NA	NA
Lead (7421)	750	--	--	50	4000	16	500	9	750	750	750	--	30	**3.07**	NA	NA	NA	NA	NA	NA
Nickel (6010)	20439	7 (*)	130	30	625	320	200	21.4	--	--	--	--	--	**17.0**	NA	NA	NA	NA	NA	NA
Zinc (6010)	100000	620	12000	50	20000	60	200	60.2	--	--	--	--	--	**47.4**	NA	NA	NA	NA	NA	NA
Cadmium (6010)	451	0.4	8	4	125	6	20	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Mercury (7471)	307	--	--	0.3	73	1.5	0.1	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA

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TABLE C-2
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
BELL TERMINAL TANK FARM AREA
PHASE III RI

														1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5
	SCREENING CRITERIA																			
									Risk-Based Concentrations					COMP						
Sample Identification:									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	BA14 (1-1.5)	BT-01 (1-2)	BT-02 (1-2)	BT-03 (1-2)	BT-11(1-2) Dup of BT-03 (1-2)	BT-04 (1-2)	BT-05 (1-2)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0108208-14	0207040-02	0207040-09	0207040-14	0207040-07	0207059-19	0207040-18
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	8/28/2001	7/8/2002	7/8/2002	7/8/2002	7/8/2002	7/9/2002	7/8/2002
BETX (mg/kg)																				
EPA Method SW8021B																				
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (n)	--	--	--	74000	28000	--	--	--	NA	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	NA	NA	NA	NA	NA	NA	NA
Xylenes, Total	420	10	210	--	--	--	--	--	24000	19000	--	--	100	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	NA	NA	NA	NA
DIOXINS AND FURANS (ng/kg)																				
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA

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TABLE C-2
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
BELL TERMINAL TANK FARM AREA
PHASE III RI

														1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	5-5.5
	SCREENING CRITERIA																				
									Risk-Based Concentrations												
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater								
Sample Identification:														BT-06 (1-2)	BT-13 (1-2)	BT-07 (1-2)	BT-12 (1-2)	BT-08 (1-2)	BT-09 (1-2)	BT-10 (1-2)	BT-01 (5-6)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0207059-14	Dup of BT-06 (1-2) 0207059-12	0207040-23	Dup of BT-07 (1-2) 0207040-34	0207040-28	0207059-07	0207059-02	0207040-03
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	7/9/2002	7/9/2002	7/8/2002	7/8/2002	7/8/2002	7/9/2002	7/9/2002	7/8/2002
SEMIVOLATILES (mg/kg)																					
EPA Method SW8270																					
2,6-Dinitrotoluene	616	0.00003	0.0007	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	100000	590	12000	--	--	--		--	--	90000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--		--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	21.1	2	49	--	--	--	--	--	27	210	5900	--	--	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	123	180 (g)	3600 (g)	--	1020	4.5	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	100000	810	930	--	1020 (i)	4.5 (i)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86	0.03	0.6	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	3127	--	--	--	0.002	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	61561	270	2300	200	30000	0.45	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octyl phthalate	24624	10000	10000	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	123	0.02	0.5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (mg/kg)																					
EPA Method SW8270SIM																					
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	188	4	84	10	3900	--		--	770	710	20000	--	15	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
CHLORINATED PHENOLS (mg/kg)																					
Method 8040																					
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

BZTO104(e)019626

TABLE C-2
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
BELL TERMINAL TANK FARM AREA
PHASE III RI

Sample Identification:														1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	5-5.5
	SCREENING CRITERIA																				
									Risk-Based Concentrations												
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater								
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			BT-06 (1-2)	BT-13 (1-2) Dup of BT-06 (1-2)	BT-07 (1-2)	BT-12 (1-2) Dup of BT-07 (1-2)	BT-08 (1-2)	BT-09 (1-2)	BT-10 (1-2)	BT-01 (5-6)
														0207059-14	0207059-12	0207040-23	0207040-34	0207040-28	0207059-07	0207059-02	0207040-03
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	7/9/2002	7/9/2002	7/8/2002	7/8/2002	7/8/2002	7/9/2002	7/9/2002	7/8/2002
VOLATILES (mg/kg)																					
EPA Method SW8260																					
1,2,4-Trimethylbenzene	170	--	--	--	3300 (m)	--	--	--	1500	1400	40000	790	55	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	0.028	--	--	--	--	--	--	--	0.033	0.25	7.1	1.7	0.000059	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	70	--	--	--	3300 (m)	--	--	--	1500	1400	40000	--	12	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	27102	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
4-Isopropyltoluene	520 (a)	0.6 (a)	12 (a)	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	6036	0.8	16	--	1250	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	720	2	32	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	1977	--	--	--	3300 (m)	--	--	--	51000	24000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Iodide	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	157	--	--	--	--	--	--	--	760	9000	--	720	0.30	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	190	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	240	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	240	--	--	--	3300 (m)	--	--	--	19000	9300	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	220	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	390	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	160	NA	NA	NA	NA	NA	NA	NA	NA
HYDROCARBONS (mg/kg)																					
NWTPH-HCID																					
Gasoline	--	--	--	--	--	--	--	--	---	---	--	--	--	22.2 U	22.2 U	21.6 U	22.2 U	21.7 U	21.7 U	22.2 U	21.9 U
Kerosene	--	--	--	--	--	--	--	--	--	--	--	--	--	55.6 U	55.6 U	54.1 U	55.6 U	54.2 U	54.3 U	55.5 U	54.8 U
Diesel	--	--	--	--	--	--	--	--	---	---	--	--	--	55.6 U	55.6 U	54.1 U	55.6 U	54.2 U	54.3 U	55.5 U	54.8 U
Lube Oil	--	--	--	--	--	--	--	--	--	--	--	--	--	111 U	111 U	108 U	111 U	108 U	109 U	111 U	110 U
NWTPH-Dx (mg/kg)																					
TPH-Diesel Range	2000 (p)	--	--	--	--	--	--	--	70000	23000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
TPH-Kerosene Range	2000 (p)	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
TPH-Motor Oil Range	2000 (p)	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
NWTPH-G (mg/kg)																					
TPH-Gasoline Range	100 (p)	--	--	--	--	--	--	--	22000	13000	--	80000	110	NA	NA	NA	NA	NA	NA	NA	NA
PRIORITY POLLUTANT METALS (mg/kg)																					
Arsenic (7060)	1.6 (q)(*)	1 (r)(*)	29	10 (r)	29 (r)	10 (r)	60 (r)	5 (o)	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Chromium (6010)	450	2 (*)	38	1 (s)(*)	340000 (s)	4 (s)(*)	0.4 (s)(*)	23.1	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Copper (6010)	40877	--	--	100	390	190	50	19.1	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Lead (7421)	750	--	--	50	4000	16	500	9	750	750	750	--	30	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (6010)	20439	7 (*)	130	30	625	320	200	21.4	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (6010)	100000	620	12000	50	20000	60	200	60.2	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (6010)	451	0.4	8	4	125	6	20	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (7471)	307	--	--	0.3	73	1.5	0.1	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE C-2
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
BELL TERMINAL TANK FARM AREA
PHASE III RI

														1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	5-5.5
	SCREENING CRITERIA																				
									Risk-Based Concentrations												
Sample Identification:									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	BT-06 (1-2)	BT-13 (1-2) Dup of BT-06 (1-2)	BT-07 (1-2)	BT-12 (1-2) Dup of BT-07 (1-2)	BT-08 (1-2)	BT-09 (1-2)	BT-10 (1-2)	BT-01 (5-6)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0207059-14	0207059-12	0207040-23	0207040-34	0207040-28	0207059-07	0207059-02	0207040-03
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	7/9/2002	7/9/2002	7/8/2002	7/8/2002	7/8/2002	7/9/2002	7/9/2002	7/8/2002
BETX (mg/kg)																					
EPA Method SW8021B																					
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, Total	420	10	210	--	--	--	--	--	24000	19000	--	--	100	NA	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	NA	NA	NA	NA	NA
DIOXINS AND FURANS (ng/kg)																					
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

BZTO104(e)019628

TABLE C-2
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
BELL TERMINAL TANK FARM AREA
PHASE III RI

Sample Identification:														5-5.5	5-5.5	5-5.5	5-5.5	5-5.5	5-5.5	5-5.5	5-5.5
	SCREENING CRITERIA																				
									Risk-Based Concentrations												
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater								
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			BT-02 (5-6) 0207040-010	BT-03 (5-6) 0207040-15	BT-04 (5-6) 0207059-20	BT-05 (5-6) 0207040-19	BT-06 (5-6) 0207059-15	BT-07 (5-6) 0207040-24	BT-08 (5-6) 0207040-29	BT-09 (5-6) 0207059-08
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	7/8/2002	7/8/2002	7/9/2002	7/8/2002	7/9/2002	7/8/2002	7/8/2002	7/9/2002
SEMIVOLATILES (mg/kg)																					
EPA Method SW8270																					
2,6-Dinitrotoluene	616	0.00003	0.0007	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	100000	590	12000	--	--	--		--	--	90000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--		--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	21.1	2	49	--	--	--	--	--	27	210	5900	--	--	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	123	180 (g)	3600 (g)	--	1020	4.5	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	100000	810	930	--	1020 (i)	4.5 (i)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86	0.03	0.6	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	3127	--	--	--	0.002	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	61561	270	2300	200	30000	0.45	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octyl phthalate	24624	10000	10000	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	123	0.02	0.5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (mg/kg)																					
EPA Method SW8270SIM																					
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	188	4	84	10	3900	--		--	770	710	20000	--	15	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
CHLORINATED PHENOLS (mg/kg)																					
Method 8040																					
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

BZTO104(e)019629

TABLE C-2
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
BELL TERMINAL TANK FARM AREA
PHASE III RI

Sample Identification:	SCREENING CRITERIA													5-5.5	5-5.5	5-5.5	5-5.5	5-5.5	5-5.5	5-5.5	5-5.5
									Risk-Based Concentrations												
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater							
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			BT-02 (5-6)	BT-03 (5-6)	BT-04 (5-6)	BT-05 (5-6)	BT-06 (5-6)	BT-07 (5-6)	BT-08 (5-6)	BT-09 (5-6)
														0207040-010	0207040-15	0207059-20	0207040-19	0207059-15	0207040-24	0207040-29	0207059-08
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	7/8/2002	7/8/2002	7/9/2002	7/8/2002	7/9/2002	7/8/2002	7/8/2002	7/9/2002
VOLATILES (mg/kg)																					
EPA Method SW8260																					
1,2,4-Trimethylbenzene	170	--	--	--	3300 (m)	--	--	--	1500	1400	40000	790	55	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	0.028	--	--	--	--	--	--	--	0.033	0.25	7.1	1.7	0.000059	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	70	--	--	--	3300 (m)	--	--	--	1500	1400	40000	--	12	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	27102	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
4-Isopropyltoluene	520 (a)	0.6 (a)	12 (a)	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	6036	0.8	16	--	1250	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	720	2	32	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	1977	--	--	--	3300 (m)	--	--	--	51000	24000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Iodide	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	157	--	--	--	--	--	--	--	760	9000	--	720	0.30	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	190	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	240	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	240	--	--	--	3300 (m)	--	--	--	19000	9300	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	220	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	390	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	160	NA	NA	NA	NA	NA	NA	NA	NA
HYDROCARBONS (mg/kg)																					
NWTPH-HCID																					
Gasoline	--	--	--	--	--	--	--	--	---	---	--	--	--	22.1 U	22.0 U	22.2 U	21.9 U	22.2 U	21.7 U	21.8 U	22.1 U
Kerosene	--	--	--	--	--	--	--	--	--	--	--	--	--	55.1 U	54.9 U	55.6 U	54.8 U	55.4 U	54.2 U	54.5 U	55.3 U
Diesel	--	--	--	--	--	--	--	--	---	---	--	--	--	55.1 U	54.9 U	55.6 U	54.8 U	55.4 U	54.2 U	54.5 U	55.3 U
Lube Oil	--	--	--	--	--	--	--	--	--	--	--	--	--	110 U	110 U	111 U	110 U	111 U	108 U	109 U	111 U
NWTPH-Dx (mg/kg)																					
TPH-Diesel Range	2000 (p)	--	--	--	--	--	--	--	70000	23000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
TPH-Kerosene Range	2000 (p)	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
TPH-Motor Oil Range	2000 (p)	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
NWTPH-G (mg/kg)																					
TPH-Gasoline Range	100 (p)	--	--	--	--	--	--	--	22000	13000	--	80000	110	NA	NA	NA	NA	NA	NA	NA	NA
PRIORITY POLLUTANT METALS (mg/kg)																					
Arsenic (7060)	1.6 (q)(*)	1 (r)(*)	29	10 (r)	29 (r)	10 (r)	60 (r)	5 (o)	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Chromium (6010)	450	2 (*)	38	1 (s)(*)	340000 (s)	4 (s)(*)	0.4 (s)(*)	23.1	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Copper (6010)	40877	--	--	100	390	190	50	19.1	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Lead (7421)	750	--	--	50	4000	16	500	9	750	750	750	--	30	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (6010)	20439	7 (*)	130	30	625	320	200	21.4	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (6010)	100000	620	12000	50	20000	60	200	60.2	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (6010)	451	0.4	8	4	125	6	20	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (7471)	307	--	--	0.3	73	1.5	0.1	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE C-2
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
BELL TERMINAL TANK FARM AREA
PHASE III RI

														5-5.5	5-5.5	5-5.5	5-5.5	5-5.5	5-5.5	5-5.5	5-5.5
	SCREENING CRITERIA																				
									Risk-Based Concentrations												
Sample Identification:									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	BT-02 (5-6)	BT-03 (5-6)	BT-04 (5-6)	BT-05 (5-6)	BT-06 (5-6)	BT-07 (5-6)	BT-08 (5-6)	BT-09 (5-6)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0207040-010	0207040-15	0207059-20	0207040-19	0207059-15	0207040-24	0207040-29	0207059-08
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	7/8/2002	7/8/2002	7/9/2002	7/8/2002	7/9/2002	7/8/2002	7/8/2002	7/9/2002
BETX (mg/kg)																					
EPA Method SW8021B																					
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, Total	420	10	210	--	--	--	--	--	24000	19000	--	--	100	NA	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	NA	NA	NA	NA	NA
DIOXINS AND FURANS (ng/kg)																					
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE C-2
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
BELL TERMINAL TANK FARM AREA
PHASE III RI

														5-5.5	CF	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																				
									Risk-Based Concentrations						COMP	COMP	COMP	COMP	COMP	COMP	COMP
Sample Identification:									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater								
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			BT-10 (5-6)	G21 (14-17.5)	G22 (12.5-15.5)	G23 (9-14)	G24 (9-15)	G25 (14-17)	G26 (14-15)	G27 (13-15)
														0207059-03	0108208-21	0108215-08	0108215-04	0108208-09	0108215-12	0108215-16	0108208-13
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	7/9/2002	8/28/2001	8/29/2001	8/29/2001	8/28/2001	8/29/2001	8/29/2001	8/28/2001
SEMIVOLATILES (mg/kg)																					
EPA Method SW8270																					
2,6-Dinitrotoluene	616	0.00003	0.0007	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U
2-Methylnaphthalene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	0.067 U	**12.000**	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Anthracene	100000	590	12000	--	--	--		--	--	90000	--	--	--	NA	**0.074**	**1.100**	0.067 U	0.067 U	0.067 U	**0.330**	0.067 U
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	**0.500**	0.067 U
Benzo(a)pyrene	0.21	0.4	8	--	125	--		--	0.27	2.1	59	--	--	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	**0.410**	0.067 U
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	**0.720**	0.067 U
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	**0.210**	0.067 U
Benzo(k)fluoranthene	21.1	2	49	--	--	--	--	--	27	210	5900	--	--	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	**0.300**	0.067 U
bis(2-Ethylhexyl)phthalate	123	180 (g)	3600 (g)	--	1020	4.5	--	--	--	--	--	--	--	NA	0.067 U	**0.071**	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Butylbenzylphthalate	100000	810	930	--	1020 (i)	4.5 (i)	--	--	--	--	--	--	--	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Carbazole	86	0.03	0.6	--	--	--	--	--	--	--	--	--	--	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	**0.410**	0.067 U
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Dibenzofuran	3127	--	--	--	0.002	--	--	--	--	--	--	--	--	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Diethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Dimethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Di-n-Butylphthalate	61561	270	2300	200	30000	0.45	--	--	--	--	--	--	--	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Di-n-Octyl phthalate	24624	10000	10000	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	**1.100**	0.067 U
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	**0.330**	0.067 U	**0.360**	0.067 U	0.067 U	0.067 U	0.067 U
Hexachloroethane	123	0.02	0.5	--	--	--	--	--	--	--	--	--	--	NA	0.130 U	0.130 U	0.130 U	0.130 U	0.130 U	0.130 U	0.130 U
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	**0.200**	0.067 U
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	0.067 U	**1.900**	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	**0.720**	**3.900**	**0.320**	0.067 U	0.067 U	**0.780**	0.067 U
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	**0.920 J**	0.067 U
SEMIVOLATILES (mg/kg)																					
EPA Method SW8270SIM																					
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	100000	590	12000	--	--	--		--	--	90000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--		--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	188	4	84	10	3900	--		--	770	710	20000	--	15	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
CHLORINATED PHENOLS (mg/kg)																					
Method 8040																					
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE C-2
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
BELL TERMINAL TANK FARM AREA
PHASE III RI

Sample Identification:														5-5.5	CF	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA														COMP	COMP	COMP	COMP	COMP	COMP	COMP
									Risk-Based Concentrations												
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater							
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			BT-10 (5-6)	G21 (14-17.5)	G22 (12.5-15.5)	G23 (9-14)	G24 (9-15)	G25 (14-17)	G26 (14-15)	G27 (13-15)
														0207059-03	0108208-21	0108215-08	0108215-04	0108208-09	0108215-12	0108215-16	0108208-13
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	7/9/2002	8/28/2001	8/29/2001	8/29/2001	8/28/2001	8/29/2001	8/29/2001	8/28/2001
VOLATILES (mg/kg)																					
EPA Method SW8260																					
1,2,4-Trimethylbenzene	170	--	--	--	3300 (m)	--	--	--	1500	1400	40000	790	55	NA	0.001 U	**0.079** J	0.001 U	**0.00274**	0.001 U	0.001 U	0.001 U
1,2-Dibromoethane	0.028	--	--	--	--	--	--	--	0.033	0.25	7.1	1.7	0.000059	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3,5-Trimethylbenzene	70	--	--	--	3300 (m)	--	--	--	1500	1400	40000	--	12	NA	0.001 U	**0.0283** J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone	27102	--	--	--	--	--	--	--	--	--	--	--	--	NA	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
4-Isopropyltoluene	520 (a)	0.6 (a)	12 (a)	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	0.001 U	**0.0237**	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Acetone	6036	0.8	16	--	1250	--	--	--	--	--	--	--	--	NA	0.005 U	0.005 U	0.005 U	**0.00792**	0.005 U	0.005 U	**0.023**
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Disulfide	720	2	32	--	--	--	--	--	--	--	--	--	--	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	**0.00960**	0.001 U	**0.0256** J	0.001 U	0.001 U	0.001 U	0.001 U
Isopropylbenzene	1977	--	--	--	3300 (m)	--	--	--	51000	24000	--	--	--	NA	**0.158**	**0.027** J	**4.350** J	0.001 U	0.001 U	0.001 U	**0.0288**
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	**0.00832**	**0.00361** J	**0.023** J	0.002 U	0.002 U	0.002 U	0.002 U
Methyl Iodide	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methyl tert-butyl ether	157	--	--	--	--	--	--	--	760	9000	--	720	0.30	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	190	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	**0.0302**	**3.420**	**0.0173** J	0.010 U	0.010 U	0.010 U	**0.0753**
n-Butylbenzene	240	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	**2.990**	**0.089** J	**5.740** J	0.002 U	0.002 U	0.002 U	**0.101**
n-Propylbenzene	240	--	--	--	3300 (m)	--	--	--	19000	9300	--	--	--	NA	**0.742**	**0.0591** J	**8.170** J	0.001 U	0.001 U	0.001 U	**0.0695**
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
sec-Butylbenzene	220	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	**0.684**	**0.103** J	0.001 U	0.001 U	0.001 U	0.001 U	**0.0352**
tert-Butylbenzene	390	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	**0.0216**	**0.00764** J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	160	NA	**0.00822**	**0.00221**	**0.0227** J	0.001 U	0.001 U	0.001 U	0.001 U
HYDROCARBONS (mg/kg)																					
NWTPH-HCID																					
Gasoline	--	--	--	--	--	--	--	--	---	---	--	--	--	21.8 U	**Gasoline**	23.5 U	23.0 U	24.4 U	22.7 U	23.5 U	23.3 U
Kerosene	--	--	--	--	--	--	--	--	--	--	--	--	--	54.4 U	61.0 U	58.8 U	**Kerosene**	61.0 U	56.8 U	58.8 U	**Kerosene**
Diesel	--	--	--	--	--	--	--	--	---	---	--	--	--	54.4 U	**Diesel**	**Diesel**	57.5 U	61.0 U	56.8 U	58.8 U	58.1 U
Lube Oil	--	--	--	--	--	--	--	--	--	--	--	--	--	109 U	122 U	118 U	115 U	122 U	114 U	118 U	116 U
NWTPH-Dx (mg/kg)																					
TPH-Diesel Range	2000 (p)	--	--	--	--	--	--	--	70000	23000	--	--	--	NA	**1120**	**6580** J	17.2 U	NA	NA	NA	17.4 U
TPH-Kerosene Range	2000 (p)	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	**4880**	NA	NA	NA	**592**
TPH-Motor Oil Range	2000 (p)	--	--	--	--	--	--	--	---	---	--	--	--	NA	61.0 U	58.8 U	57.5 U	NA	NA	NA	58.1 U
NWTPH-G (mg/kg)																					
TPH-Gasoline Range	100 (p)	--	--	--	--	--	--	--	22000	13000	--	80000	110	NA	**162**	NA	NA	NA	NA	NA	NA
PRIORITY POLLUTANT METALS (mg/kg)																					
Arsenic (7060)	1.6 (q)(*)	1 (r)(*)	29	10 (r)	29 (r)	10 (r)	60 (r)	5 (o)	--	--	--	--	--	NA	**2.29**	1.5 U	**2.68**	**2.44**	**2.23**	**2.39**	**2.08**
Chromium (6010)	450	2 (*)	38	1 (s)(*)	340000 (s)	4 (s)(*)	0.4 (s)(*)	23.1	--	--	--	--	--	NA	**12.5**	**13.7**	**12.9**	**14.4**	**19.4**	**15.6**	**13.2**
Copper (6010)	40877	--	--	100	390	190	50	19.1	--	--	--	--	--	NA	**12.2**	**12.6**	**16.0**	**13.2**	**13.1**	**13.6**	**12.2**
Lead (7421)	750	--	--	50	4000	16	500	9	750	750	750	--	30	NA	1.96 U	1.92 U	1.75 U	1.89 U	1.75 U	1.89 U	1.92 U
Nickel (6010)	20439	7 (*)	130	30	625	320	200	21.4	--	--	--	--	--	NA	**14.7**	**15.8**	**14.7**	**16.7**	**19.4**	**15.8**	**15.3**
Zinc (6010)	100000	620	12000	50	20000	60	200	60.2	--	--	--	--	--	NA	**43.0**	**40.8**	**39.8**	**42.3**	**47.8**	**46.1**	**42.1**
Cadmium (6010)	451	0.4	8	4	125	6	20	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (7471)	307	--	--	0.3	73	1.5	0.1	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE C-2
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
BELL TERMINAL TANK FARM AREA
PHASE III RI

														5-5.5	CF	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																				
									Risk-Based Concentrations						COMP	COMP	COMP	COMP	COMP	COMP	COMP
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater								
Sample Identification:														BT-10 (5-6)	G21 (14-17.5)	G22 (12.5-15.5)	G23 (9-14)	G24 (9-15)	G25 (14-17)	G26 (14-15)	G27 (13-15)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0207059-03	0108208-21	0108215-08	0108215-04	0108208-09	0108215-12	0108215-16	0108208-13
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	7/9/2002	8/28/2001	8/29/2001	8/29/2001	8/28/2001	8/29/2001	8/29/2001	8/28/2001
BETX (mg/kg)																					
EPA Method SW8021B																					
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, Total	420	10	210	--	--	--	--	--	24000	19000	--	--	100	NA	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	NA	NA	NA	NA	NA
DIOXINS AND FURANS (ng/kg)																					
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE C-2
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
BELL TERMINAL TANK FARM AREA
PHASE III RI

														CF	CF	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA													COMP							
									Risk-Based Concentrations												
Sample Identification:									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	BA14 (14-15)	SCH56 (9-10)	SCH56 (15-15.5)	SCH58 (17-18)	SCH59(14-18)	SCH61 (15.6-16.4)	SCH63 (15.7-16.0)	BT-01 (9-10)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0108208-16	0110066-01	0110065-3	0110066-02	0110066-03	0110065-1	0110065-2	0207040-04
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	8/28/2001	10/9/2001	10/9/2001	10/9/2001	10/9/2001	10/9/2001	10/9/2001	7/8/2002
SEMIVOLATILES (mg/kg)																					
EPA Method SW8270																					
2,6-Dinitrotoluene	616	0.00003	0.0007	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	0.330 U	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	29219	29	570	20	--	--	--	--	41000	16000	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA	NA
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	0.067 U	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	0.067 U	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	21.1	2	49	--	--	--	--	--	27	210	5900	--	--	0.067 U	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	123	180 (g)	3600 (g)	--	1020	4.5	--	--	--	--	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	100000	810	930	--	1020 (i)	4.5 (i)	--	--	--	--	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA	NA
Carbazole	86	0.03	0.6	--	--	--	--	--	--	--	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	0.067 U	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	0.067 U	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	3127	--	--	--	0.002	--	--	--	--	--	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	61561	270	2300	200	30000	0.45	--	--	--	--	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA	NA
Di-n-Octyl phthalate	24624	10000	10000	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	123	0.02	0.5	--	--	--	--	--	--	--	--	--	--	0.130 U	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	0.067 U	NA	NA	NA	NA	NA	NA	NA
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	0.130 U	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	0.330 U	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	0.067 U	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (mg/kg)																					
EPA Method SW8270SIM																					
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	NA	NA	**1.6**	NA	**1.31**	**0.845**	**0.474**	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	**0.511**	NA	**0.408**	**0.209**	**0.146**	NA
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	NA	NA	**1.05**	NA	**0.594**	**0.352**	**0.367**	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	NA	**0.02**	NA	**0.0122**	**0.0365**	**0.0266**	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	NA	NA	0.00667 U	NA	0.00667 U	**0.0244**	**0.011**	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	NA	0.00667 U	NA	0.00667 U	**0.0228**	**0.0113**	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	0.00667 U	NA	0.00667 U	**0.0119**	**0.00869**	NA
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--	NA	NA	0.00667 U	NA	0.00667 U	**0.00692**	0.00667 U	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	NA	**0.02**	NA	**0.0166**	**0.0261**	**0.0194**	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	NA	0.00667 U	NA	0.00667 U	0.00667 U	0.00667 U	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	NA	**0.196**	NA	**0.0898**	**0.0861**	**0.0885**	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	NA	**6.52**	NA	**4.99**	**2.69**	**1.89**	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	NA	0.00667 U	NA	0.00667 U	**0.00808**	0.00667 U	NA
Naphthalene	188	4	84	10	3900	--		--	770	710	20000	--	15	NA	NA	**16.6**	NA	**0.462**	**2.49**	**0.16**	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	NA	**10.3**	NA	**7.9**	**3.77**	**4.11**	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	NA	**0.465**	NA	**0.298**	**0.153**	**0.169**	NA
CHLORINATED PHENOLS (mg/kg)																					
Method 8040																					
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE C-2
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
BELL TERMINAL TANK FARM AREA
PHASE III RI

	CF	CF	CF	CF	CF	CF	CF	CF
SCREENING CRITERIA								
Sample Identification:	COMP							
Laboratory Identification:	BA14 (14-15)	SCH56 (9-10)	SCH56 (15-15.5)	SCH58 (17-18)	SCH59(14-18)	SCH61 (15.6-16.4)	SCH63 (15.7-16.0)	BT-01 (9-10)
Date Collected:	0108208-16	0110066-01	0110065-3	0110066-02	0110066-03	0110065-1	0110065-2	0207040-04
	8/28/2001	10/9/2001	10/9/2001	10/9/2001	10/9/2001	10/9/2001	10/9/2001	7/8/2002
VOLATILES (mg/kg)								
EPA Method SW8260								
1,2,4-Trimethylbenzene	0.001 U	NA	**0.133** J	NA	**0.00618** J	**5.94** J	**0.0104**	NA
1,2-Dibromoethane	0.001 U	NA	0.01 UJ	NA	0.002 U	0.002 U	0.002 U	NA
1,3,5-Trimethylbenzene	0.001 U	NA	0.1 UJ	NA	0.002 U	**3.83** J	**0.00682**	NA
2-Butanone	0.005 U	NA	0.005 UJ	NA	0.005 U	0.005 U	0.005 U	NA
4-Isopropyltoluene	0.001 U	NA	**0.24** J	NA	0.002 U	**0.552** J	0.001 U	NA
Acetone	0.005 U	NA	**0.0351** J	NA	0.0212 U	0.005 U	**0.0974**	NA
Benzene	0.001 U	NA	0.001 UJ	NA	0.001 U	0.001 U	0.001 U	NA
Carbon Disulfide	0.001 U	NA	0.001 UJ	NA	0.001 U	0.001 U	0.001 U	NA
Ethylbenzene	0.001 U	NA	0.01 UJ	NA	**0.00538** J	**0.0388** J	**0.00916**	NA
Isopropylbenzene	0.001 U	NA	**5.5** J	NA	**2.16** J	**0.866** J	**0.231**	NA
m,p-Xylene	0.002 U	NA	0.02 UJ	NA	**0.0148** J	**0.0503** J	**0.0282**	NA
Methyl Iodide	0.001 U	NA	0.001 UJ	NA	0.001 U	**0.00886** J	0.001 U	NA
Methyl tert-butyl ether	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	0.010 U	NA	**21.8** J	NA	**0.0568** J	**3.57** J	**0.0263**	NA
n-Butylbenzene	0.004 U	NA	**7.56** J	NA	**7.22** J	**2.94** J	**5.44**	NA
n-Propylbenzene	0.001 U	NA	**29.3** J	NA	**7.5** J	**3.54** J	**4.74**	NA
o-Xylene	0.001 U	NA	0.01 UJ	NA	0.002 U	0.002 U	0.002 U	NA
sec-Butylbenzene	0.001 U	NA	**4.18** J	NA	**3.06** J	**1.09** J	**2.12**	NA
tert-Butylbenzene	0.001 U	NA	**0.329** J	NA	**0.0211** J	0.001 U	**0.0108**	NA
Toluene	0.001 U	NA	0.01 UJ	NA	**0.0116** J	**0.0172** J	**0.00974**	NA
HYDROCARBONS (mg/kg)								
NWTPH-HCID								
Gasoline	23.0 U	NA	**8750** J	NA	NA	**3230** J	**4620** J	22.9 U
Kerosene	57.5 U	NA	250 U	NA	NA	50.0 U	50.0 U	57.3 U
Diesel	57.5 U	NA	**13200** J	NA	NA	**4270** J	**6120** J	57.3 U
Lube Oil	115 U	NA	500 U	NA	NA	100 U	100 U	115 U
NWTPH-Dx (mg/kg)								
TPH-Diesel Range	NA	17.2 U	**12700** J	18.5 U	**10200**	**5650** J	**9070** J	NA
TPH-Kerosene Range	NA	NA	NA	NA	NA	NA	NA	NA
TPH-Motor Oil Range	NA	57.5 U	275 U	61.7 U	275 U	64.1 U	294 U	NA
NWTPH-G (mg/kg)								
TPH-Gasoline Range	NA	2.87 U	NA	3.09 U	**1410**	NA	NA	NA
PRIORITY POLLUTANT METALS (mg/kg)								
Arsenic (7060)	**2.44**	NA	NA	NA	NA	NA	NA	NA
Chromium (6010)	**14.5**	NA	NA	NA	NA	NA	NA	NA
Copper (6010)	**12.6**	NA	NA	NA	NA	NA	NA	NA
Lead (7421)	1.85 U	NA	NA	NA	NA	NA	NA	NA
Nickel (6010)	**16.6**	NA	NA	NA	NA	NA	NA	NA
Zinc (6010)	**44.4**	NA	NA	NA	NA	NA	NA	NA
Cadmium (6010)	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (7471)	NA	NA	NA	NA	NA	NA	NA	NA

Sample Identification:	EPA Region 9 PRGs			Oregon SLVs				Background	Risk-Based Concentrations: Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater
Laboratory Identification:										Construction	Excavation		
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational
VOLATILES (mg/kg)													
EPA Method SW8260													
1,2,4-Trimethylbenzene	170	--	--	--	3300 (m)	--	--	--	1500	1400	40000	790	55
1,2-Dibromoethane	0.028	--	--	--	--	--	--	--	0.033	0.25	7.1	1.7	0.000059
1,3,5-Trimethylbenzene	70	--	--	--	3300 (m)	--	--	--	1500	1400	40000	--	12
2-Butanone	27102	--	--	--	--	--	--	--	--	--	--	--	--
4-Isopropyltoluene	520 (a)	0.6 (a)	12 (a)	200 (a)	1440 (a)	--	--	--	--	--	--	--	--
Acetone	6036	0.8	16	--	1250	--	--	--	--	--	--	--	--
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052
Carbon Disulfide	720	2	32	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--
Isopropylbenzene	1977	--	--	--	3300 (m)	--	--	--	51000	24000	--	--	--
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--
Methyl Iodide	--	--	--	--	--	--	--	--	--	--	--	--	--
Methyl tert-butyl ether	157	--	--	--	--	--	--	--	760	9000	--	720	0.30
Naphthalene	190	4	84	10	3900	--	--	--	770	710	20000	--	15
n-Butylbenzene	240	--	--	--	3300 (m)	--	--	--	--	--	--	--	--
n-Propylbenzene	240	--	--	--	3300 (m)	--	--	--	19000	9300	--	--	--
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)
sec-Butylbenzene	220	--	--	--	3300 (m)	--	--	--	--	--	--	--	--
tert-Butylbenzene	390	--	--	--	3300 (m)	--	--	--	--	--	--	--	--
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	160
HYDROCARBONS (mg/kg)													
NWTPH-HCID													
Gasoline	--	--	--	--	--	--	--	--	---	---	--	--	--
Kerosene	--	--	--	--	--	--	--	--	--	--	--	--	--
Diesel	--	--	--	--	--	--	--	--	---	---	--	--	--
Lube Oil	--	--	--	--	--	--	--	--	--	--	--	--	--
NWTPH-Dx (mg/kg)													
TPH-Diesel Range	2000 (p)	--	--	--	--	--	--	--	70000	23000	--	--	--
TPH-Kerosene Range	2000 (p)	--	--	--	--	--	--	--	--	--	--	--	--
TPH-Motor Oil Range	2000 (p)	--	--	--	--	--	--	--	---	---	--	--	--
NWTPH-G (mg/kg)													
TPH-Gasoline Range	100 (p)	--	--	--	--	--	--	--	22000	13000	--	80000	110
PRIORITY POLLUTANT METALS (mg/kg)													
Arsenic (7060)	1.6 (q)(*)	1 (r)(*)	29	10 (r)	29 (r)	10 (r)	60 (r)	5 (o)	--	--	--	--	--
Chromium (6010)	450	2 (*)	38	1 (s)(*)	340000 (s)	4 (s)(*)	0.4 (s)(*)	23.1	--	--	--	--	--
Copper (6010)	40877	--	--	100	390	190	50	19.1	--	--	--	--	--
Lead (7421)	750	--	--	50	4000	16	500	9	750	750	750	--	30
Nickel (6010)	20439	7 (*)	130	30	625	320	200	21.4	--	--	--	--	--
Zinc (6010)	100000	620	12000	50	20000	60	200	60.2	--	--	--	--	--
Cadmium (6010)	451	0.4	8	4	125	6	20	--	--	--	--	--	--
Mercury (7471)	307	--	--	0.3	73	1.5	0.1	--	--	--	--	--	--

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TABLE C-2
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
BELL TERMINAL TANK FARM AREA
PHASE III RI

														CF	CF	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																			
									Risk-Based Concentrations					COMP							
Sample Identification:									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	BA14 (14-15)	SCH56 (9-10)	SCH56 (15-15.5)	SCH58 (17-18)	SCH59(14-18)	SCH61 (15.6-16.4)	SCH63 (15.7-16.0)	BT-01 (9-10)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0108208-16	0110066-01	0110065-3	0110066-02	0110066-03	0110065-1	0110065-2	0207040-04
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	8/28/2001	10/9/2001	10/9/2001	10/9/2001	10/9/2001	10/9/2001	10/9/2001	7/8/2002
BETX (mg/kg)																					
EPA Method SW8021B																					
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, Total	420	10	210	--	--	--	--	--	24000	19000	--	--	100	NA	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	NA	NA	NA	NA	NA
DIOXINS AND FURANS (ng/kg)																					
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE C-2
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
BELL TERMINAL TANK FARM AREA
PHASE III RI

														CF	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																		
									Risk-Based Concentrations										
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater						
Sample Identification:														BT-01 (13.5-14.5)	BT-02 (9-10)	BT-02 (14-15)	BT-03 (9-10)	BT-04 (9-10)	BT-04 (12.5-13.5)	BT-05 (9-10)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0207040-05	0207040-11	0207040-012	0207040-16	0207059-21	0207059-22	0207040-20
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	7/8/2002	7/8/2002	7/8/2002	7/8/2002	7/9/2002	7/9/2002	7/8/2002
SEMIVOLATILES (mg/kg)																				
EPA Method SW8270																				
2,6-Dinitrotoluene	616	0.00003	0.0007	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Anthracene	100000	590	12000	--	--	--		--	--	90000	--	--	--	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--		--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	21.1	2	49	--	--	--	--	--	27	210	5900	--	--	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	123	180 (g)	3600 (g)	--	1020	4.5	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	100000	810	930	--	1020 (i)	4.5 (i)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Carbazole	86	0.03	0.6	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	3127	--	--	--	0.002	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	61561	270	2300	200	30000	0.45	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Di-n-Octyl phthalate	24624	10000	10000	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	NA	NA	NA	NA	NA	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	123	0.02	0.5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (mg/kg)																				
EPA Method SW8270SIM																				
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	0.0067 U	NA	NA	NA	0.00667 UJ	NA	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.0067 U	NA	NA	NA	0.00667 UJ	NA	NA
Anthracene	100000	590	12000	--	--	--		--	--	90000	--	--	--	0.0067 U	NA	NA	NA	0.00667 UJ	NA	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	0.0067 U	NA	NA	NA	**0.0207** J	NA	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--		--	0.27	2.1	59	--	--	0.0067 U	NA	NA	NA	**0.036** J	NA	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	0.0067 U	NA	NA	NA	**0.05** J	NA	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.0067 U	NA	NA	NA	**0.036** J	NA	NA
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--	0.0067 U	NA	NA	NA	**0.0147** J	NA	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	0.0067 U	NA	NA	NA	**0.024** J	NA	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	0.0067 U	NA	NA	NA	**0.0107** J	NA	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	0.0067 U	NA	NA	NA	**0.0293** J	NA	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	0.0067 U	NA	NA	NA	0.00667 UJ	NA	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	0.0067 U	NA	NA	NA	**0.03** J	NA	NA
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	0.0067 U	NA	NA	NA	0.00667 UJ	NA	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	0.0067 U	NA	NA	NA	**0.00867** J	NA	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	0.0067 U	NA	NA	NA	**0.0707** J	NA	NA
CHLORINATED PHENOLS (mg/kg)																				
Method 8040																				
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA

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TABLE C-2
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
BELL TERMINAL TANK FARM AREA
PHASE III RI

														CF	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																			
									Risk-Based Concentrations											
Sample Identification:									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	BT-01 (13.5-14.5)	BT-02 (9-10)	BT-02 (14-15)	BT-03 (9-10)	BT-04 (9-10)	BT-04 (12.5-13.5)	BT-05 (9-10)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0207040-05	0207040-11	0207040-012	0207040-16	0207059-21	0207059-22	0207040-20
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	7/8/2002	7/8/2002	7/8/2002	7/8/2002	7/9/2002	7/9/2002	7/8/2002
VOLATILES (mg/kg)																				
EPA Method SW8260																				
1,2,4-Trimethylbenzene	170	--	--	--	3300 (m)	--	--	--	1500	1400	40000	790	55	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	0.028	--	--	--	--	--	--	--	0.033	0.25	7.1	1.7	0.000059	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	70	--	--	--	3300 (m)	--	--	--	1500	1400	40000	--	12	NA	NA	NA	NA	NA	NA	NA
2-Butanone	27102	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
4-Isopropyltoluene	520 (a)	0.6 (a)	12 (a)	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Acetone	6036	0.8	16	--	1250	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	720	2	32	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	1977	--	--	--	3300 (m)	--	--	--	51000	24000	--	--	--	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	NA	NA	NA	NA
Methyl Iodide	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	157	--	--	--	--	--	--	--	760	9000	--	720	0.30	NA	NA	NA	NA	NA	NA	NA
Naphthalene	190	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	240	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	240	--	--	--	3300 (m)	--	--	--	19000	9300	--	--	--	NA	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	220	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	390	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	160	NA	NA	NA	NA	NA	NA	NA
HYDROCARBONS (mg/kg)																				
NWTPH-HCID																				
Gasoline	--	--	--	--	--	--	--	--	---	---	--	--	--	NA	22.4 U	24.1 U	22.2 U	22.4 U	23.0 U	22.4 U
Kerosene	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	55.9 U	60.2 U	55.5 U	56.0 U	57.5 U	55.9 U
Diesel	--	--	--	--	--	--	--	--	---	---	--	--	--	NA	55.9 U	60.2 U	55.5 U	**Diesel**	57.5 U	55.9 U
Lube Oil	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	112 U	120 U	111 U	**Lube Oil**	115 U	112 U
NWTPH-Dx (mg/kg)																				
TPH-Diesel Range	2000 (p)	--	--	--	--	--	--	--	70000	23000	--	--	--	**301**	NA	NA	NA	**115**	NA	NA
TPH-Kerosene Range	2000 (p)	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
TPH-Motor Oil Range	2000 (p)	--	--	--	--	--	--	--	---	---	--	--	--	**86.9**	NA	NA	NA	**1070**	NA	NA
NWTPH-G (mg/kg)																				
TPH-Gasoline Range	100 (p)	--	--	--	--	--	--	--	22000	13000	--	80000	110	2.76 U	NA	NA	NA	NA	NA	NA
PRIORITY POLLUTANT METALS (mg/kg)																				
Arsenic (7060)	1.6 (q)(*)	1 (r)(*)	29	10 (r)	29 (r)	10 (r)	60 (r)	5 (o)	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Chromium (6010)	450	2 (*)	38	1 (s)(*)	340000 (s)	4 (s)(*)	0.4 (s)(*)	23.1	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Copper (6010)	40877	--	--	100	390	190	50	19.1	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Lead (7421)	750	--	--	50	4000	16	500	9	750	750	750	--	30	NA	NA	NA	NA	NA	NA	NA
Nickel (6010)	20439	7 (*)	130	30	625	320	200	21.4	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Zinc (6010)	100000	620	12000	50	20000	60	200	60.2	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Cadmium (6010)	451	0.4	8	4	125	6	20	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Mercury (7471)	307	--	--	0.3	73	1.5	0.1	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA

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TABLE C-2
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
BELL TERMINAL TANK FARM AREA
PHASE III RI

														CF	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																			
									Risk-Based Concentrations											
Sample Identification:									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	BT-01 (13.5-14.5)	BT-02 (9-10)	BT-02 (14-15)	BT-03 (9-10)	BT-04 (9-10)	BT-04 (12.5-13.5)	BT-05 (9-10)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0207040-05	0207040-11	0207040-012	0207040-16	0207059-21	0207059-22	0207040-20
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	7/8/2002	7/8/2002	7/8/2002	7/8/2002	7/9/2002	7/9/2002	7/8/2002
BETX (mg/kg)																				
EPA Method SW8021B																				
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	0.0276 U	NA	NA	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	0.110 U	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	0.110 U	NA	NA	NA	NA	NA	NA
Xylenes, Total	420	10	210	--	--	--	--	--	24000	19000	--	--	100	0.331 U	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	NA	NA	NA	NA
DIOXINS AND FURANS (ng/kg)																				
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA

BZTO104(e)019640

TABLE C-2
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
BELL TERMINAL TANK FARM AREA
PHASE III RI

														CF	CF	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																			
									Risk-Based Concentrations											
Sample Identification:									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	BT-05 (14-15)	BT-06 (9-10)	BT-06 (14-15)	BT-07 (9-10)	BT-07 (12.5-13.5)	BT-08 (9-10)	BT-08 (13.5-14.5)	BT-09 (9-10)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0207040-21	0207059-16	0207059-17	0207040-25	0207040-26	0207040-30	0207040-31	0207059-09
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	7/8/2002	7/9/2002	7/9/2002	7/8/2002	7/8/2002	7/8/2002	7/8/2002	7/9/2002
SEMIVOLATILES (mg/kg)																					
EPA Method SW8270																					
2,6-Dinitrotoluene	616	0.00003	0.0007	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	100000	590	12000	--	--	--		--	--	90000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--		--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	21.1	2	49	--	--	--	--	--	27	210	5900	--	--	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	123	180 (g)	3600 (g)	--	1020	4.5	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	100000	810	930	--	1020 (i)	4.5 (i)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86	0.03	0.6	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	3127	--	--	--	0.002	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	61561	270	2300	200	30000	0.45	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octyl phthalate	24624	10000	10000	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	123	0.02	0.5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (mg/kg)																					
EPA Method SW8270SIM																					
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	**0.927** J	NA	**0.028**	NA	NA	NA	0.00667 U	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	**0.487** J	NA	**0.0313**	NA	NA	NA	0.00667 U	NA
Anthracene	100000	590	12000	--	--	--		--	--	90000	--	--	--	**0.267** J	NA	0.00667 U	NA	NA	NA	0.00667 U	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	**0.00733** J	NA	0.00667 U	NA	NA	NA	0.00667 U	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--		--	0.27	2.1	59	--	--	0.00667 UJ	NA	0.00667 U	NA	NA	NA	0.00667 U	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	0.00667 UJ	NA	0.00667 U	NA	NA	NA	0.00667 U	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.00667 UJ	NA	0.00667 U	NA	NA	NA	0.00667 U	NA
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--	0.00667 UJ	NA	0.00667 U	NA	NA	NA	0.00667 U	NA
Chrysene	211	8	160	--	--	--		--	270	2100	59000	--	--	**0.014** J	NA	0.00667 U	NA	NA	NA	0.00667 U	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	0.00667 UJ	NA	0.00667 U	NA	NA	NA	0.00667 U	NA
Fluoranthene	22000	210	4300	--	--	--		--	29000	8900	--	--	--	**0.113** J	NA	0.00667 U	NA	NA	NA	0.00667 U	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	**2.59** J	NA	**0.0873**	NA	NA	NA	0.00667 U	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--		--	2.7	21	590	--	--	0.00667 UJ	NA	0.00667 U	NA	NA	NA	0.00667 U	NA
Naphthalene	188	4	84	10	3900	--		--	770	710	20000	--	15	0.407 UJ	NA	**0.239**	NA	NA	NA	0.00667 U	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--		--	--	--	--	--	--	**4.78** J	NA	**0.028**	NA	NA	NA	0.00667 U	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	**0.107** J	NA	0.00667 U	NA	NA	NA	0.00667 U	NA
CHLORINATED PHENOLS (mg/kg)																					
Method 8040																					
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE C-2
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
BELL TERMINAL TANK FARM AREA
PHASE III RI

	CF	CF	CF	CF	CF	CF	CF	CF
SCREENING CRITERIA								
Sample Identification:	BT-05 (14-15)	BT-06 (9-10)	BT-06 (14-15)	BT-07 (9-10)	BT-07 (12.5-13.5)	BT-08 (9-10)	BT-08 (13.5-14.5)	BT-09 (9-10)
Laboratory Identification:	0207040-21	0207059-16	0207059-17	0207040-25	0207040-26	0207040-30	0207040-31	0207059-09
Date Collected:	7/8/2002	7/9/2002	7/9/2002	7/8/2002	7/8/2002	7/8/2002	7/8/2002	7/9/2002
VOLATILES (mg/kg)								
EPA Method SW8260								
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	NA	NA	NA	NA	NA	NA	NA	NA
4-Isopropyltoluene	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Iodide	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA	NA	NA
HYDROCARBONS (mg/kg)								
NWTPH-HCID								
Gasoline	NA	22.4 U	NA	22.4 U	22.1 U	22.5 U	NA	22.1 U
Kerosene	NA	55.9 U	NA	55.9 U	55.1 U	56.2 U	NA	55.3 U
Diesel	NA	55.9 U	NA	55.9 U	55.1 U	56.2 U	NA	55.3 U
Lube Oil	NA	112 U	NA	112 U	110 U	112 U	NA U	111 U
NWTPH-Dx (mg/kg)								
TPH-Diesel Range	**6200**	NA	**198**	NA	NA	NA	17.9 U	NA
TPH-Kerosene Range	NA	NA	NA	NA	NA	NA	NA	NA
TPH-Motor Oil Range	**99.0**	NA	61.0 U	NA	NA	NA	59.7 U	NA
NWTPH-G (mg/kg)								
TPH-Gasoline Range	**715**	NA	**1160**	NA	NA	NA	2.98 U	NA
PRIORITY POLLUTANT METALS (mg/kg)								
Arsenic (7060)	NA	NA	NA	NA	NA	NA	NA	NA
Chromium (6010)	NA	NA	NA	NA	NA	NA	NA	NA
Copper (6010)	NA	NA	NA	NA	NA	NA	NA	NA
Lead (7421)	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (6010)	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (6010)	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (6010)	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (7471)	NA	NA	NA	NA	NA	NA	NA	NA

Sample Identification: / Laboratory Identification: / Date Collected:	EPA Region 9 PRGs Industrial	EPA Region 9 PRGs DAF=1	EPA Region 9 PRGs DAF=20	Oregon SLVs Plants	Oregon SLVs Mammals	Oregon SLVs Birds	Oregon SLVs Inverts	Background	Risk-Based Concentrations: Soil Ingestion, Dermal Contact, and Inhalation Occupational	Construction Worker	Excavation Worker	Volatilization to Outdoor Air Occupational	Leaching to Groundwater Occupational
VOLATILES (mg/kg)													
EPA Method SW8260													
1,2,4-Trimethylbenzene	170	--	--	--	3300 (m)	--	--	--	1500	1400	40000	790	55
1,2-Dibromoethane	0.028	--	--	--	--	--	--	--	0.033	0.25	7.1	1.7	0.000059
1,3,5-Trimethylbenzene	70	--	--	--	3300 (m)	--	--	--	1500	1400	40000	--	12
2-Butanone	27102	--	--	--	--	--	--	--	--	--	--	--	--
4-Isopropyltoluene	520 (a)	0.6 (a)	12 (a)	200 (a)	1440 (a)	--	--	--	--	--	--	--	--
Acetone	6038	0.8	16	--	1250	--	--	--	--	--	--	--	--
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052
Carbon Disulfide	720	2	32	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--
Isopropylbenzene	1977	--	--	--	3300 (m)	--	--	--	51000	24000	--	--	--
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--
Methyl Iodide	--	--	--	--	--	--	--	--	--	--	--	--	--
Methyl tert-butyl ether	157	--	--	--	--	--	--	--	760	9000	--	720	0.30
Naphthalene	190	4	84	10	3900	--	--	--	770	710	20000	--	15
n-Butylbenzene	240	--	--	--	3300 (m)	--	--	--	--	--	--	--	--
n-Propylbenzene	240	--	--	--	3300 (m)	--	--	--	19000	9300	--	--	--
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)
sec-Butylbenzene	220	--	--	--	3300 (m)	--	--	--	--	--	--	--	--
tert-Butylbenzene	390	--	--	--	3300 (m)	--	--	--	--	--	--	--	--
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	160
HYDROCARBONS (mg/kg)													
NWTPH-HCID													
Gasoline	--	--	--	--	--	--	--	--	---	---	--	--	--
Kerosene	--	--	--	--	--	--	--	--	--	--	--	--	--
Diesel	--	--	--	--	--	--	--	--	---	---	--	--	--
Lube Oil	--	--	--	--	--	--	--	--	--	--	--	--	--
NWTPH-Dx (mg/kg)													
TPH-Diesel Range	2000 (p)	--	--	--	--	--	--	--	70000	23000	--	--	--
TPH-Kerosene Range	2000 (p)	--	--	--	--	--	--	--	--	--	--	--	--
TPH-Motor Oil Range	2000 (p)	--	--	--	--	--	--	--	---	---	--	--	--
NWTPH-G (mg/kg)													
TPH-Gasoline Range	100 (p)	--	--	--	--	--	--	--	22000	13000	--	80000	110
PRIORITY POLLUTANT METALS (mg/kg)													
Arsenic (7060)	1.6 (q)(*)	1 (r)(*)	29	10 (r)	29 (r)	10 (r)	60 (r)	5 (o)	--	--	--	--	--
Chromium (6010)	450	2 (*)	38	1 (s)(*)	340000 (s)	4 (s)(*)	0.4 (s)(*)	23.1	--	--	--	--	--
Copper (6010)	40877	--	--	100	390	190	50	19.1	--	--	--	--	--
Lead (7421)	750	--	--	50	4000	16	500	9	750	750	750	--	30
Nickel (6010)	20439	7 (*)	130	30	625	320	200	21.4	--	--	--	--	--
Zinc (6010)	100000	620	12000	50	20000	60	200	60.2	--	--	--	--	--
Cadmium (6010)	451	0.4	8	4	125	6	20	--	--	--	--	--	--
Mercury (7471)	307	--	--	0.3	73	1.5	0.1	--	--	--	--	--	--

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TABLE C-2
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
BELL TERMINAL TANK FARM AREA
PHASE III RI

														CF	CF	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																				
									Risk-Based Concentrations												
Sample Identification:									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	BT-05 (14-15)	BT-06 (9-10)	BT-06 (14-15)	BT-07 (9-10)	BT-07 (12.5-13.5)	BT-08 (9-10)	BT-08 (13.5-14.5)	BT-09 (9-10)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0207040-21	0207059-16	0207059-17	0207040-25	0207040-26	0207040-30	0207040-31	0207059-09
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	7/8/2002	7/9/2002	7/9/2002	7/8/2002	7/8/2002	7/8/2002	7/8/2002	7/9/2002
BETX (mg/kg)																					
EPA Method SW8021B																					
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	0.0275 U	NA	0.0305 U	NA	NA	NA	0.0298 U	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	**0.552**	NA	**1.33**	NA	NA	NA	0.119 U	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	0.110 U	NA	**0.410**	NA	NA	NA	0.119 U	NA
Xylenes, Total	420	10	210	--	--	--	--	--	24000	19000	--	--	100	**1.02**	NA	**1.67**	NA	NA	NA	0.358 U	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	NA	NA	NA	NA	NA
DIOXINS AND FURANS (ng/kg)																					
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

BZTO104(e)019643

TABLE C-2
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
BELL TERMINAL TANK FARM AREA
PHASE III RI

														CF	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																		
									Risk-Based Concentrations										
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater						
Sample Identification:														BT-09 (13.5-14.5)	BT-10 (9-10)	BT-10 (13.5-14.5)	G21-3(13-14)	LW28S (12-13)	LW28S (12-13)	LW29D (15-16)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0207059-10	0207059-04	0207059-05	0207087-01	0309163-02	0310011-05	0309163-01
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	7/9/2002	7/9/2002	7/9/2002	7/11/2002	9/23/2003	10/1/2003	9/22/2003
SEMIVOLATILES (mg/kg)																				
EPA Method SW8270																				
2,6-Dinitrotoluene	616	0.00003	0.0007	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Anthracene	100000	590	12000	--	--	--		--	--	90000	--	--	--	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--		--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	21.1	2	49	--	--	--	--	--	27	210	5900	--	--	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	123	180 (g)	3600 (g)	--	1020	4.5	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	100000	810	930	--	1020 (i)	4.5 (i)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Carbazole	86	0.03	0.6	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	3127	--	--	--	0.002	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	61561	270	2300	200	30000	0.45	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Di-n-Octyl phthalate	24624	10000	10000	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	NA	NA	NA	NA	NA	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	123	0.02	0.5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (mg/kg)																				
EPA Method SW8270SIM																				
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	NA	NA	NA	NA	0.00667 U	0.00667 U	0.00667 U
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	0.00667 U	0.00667 U	0.00667 U
Anthracene	100000	590	12000	--	--	--		--	--	90000	--	--	--	NA	NA	NA	NA	0.00667 U	0.00667 U	0.00667 U
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	0.00667 U	0.00667 U	0.00667 U
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	0.00667 U	0.00667 U	0.00667 U
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	0.00667 U	0.00667 U	0.00667 U
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	0.00667 U	0.00667 U	0.00667 U
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--	NA	NA	NA	NA	0.00667 U	0.00667 U	0.00667 U
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	NA	NA	NA	0.00667 U	0.00667 U	0.00667 U
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	0.00667 U	0.00667 U	0.00667 U
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	NA	NA	NA	0.00667 U	0.00667 U	0.00667 U
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	NA	NA	NA	0.00667 U	0.00667 U	0.00667 U
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	0.00667 U	0.00667 U	0.00667 U
Naphthalene	188	4	84	10	3900	--		--	770	710	20000	--	15	NA	NA	NA	NA	0.00667 U	0.00667 U	0.00667 U
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	0.00667 U	0.00667 U	0.00667 U
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	NA	NA	NA	0.00667 U	0.00667 U	0.00667 U
CHLORINATED PHENOLS (mg/kg)																				
Method 8040																				
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA

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TABLE C-2
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
BELL TERMINAL TANK FARM AREA
PHASE III RI

	CF	CF	CF	CF	CF	CF	CF
SCREENING CRITERIA							
Sample Identification:	BT-09 (13.5-14.5)	BT-10 (9-10)	BT-10 (13.5-14.5)	G21-3(13-14)	LW28S (12-13)	LW28S (12-13)	LW29D (15-16)
Laboratory Identification:	0207059-10	0207059-04	0207059-05	0207087-01	0309163-02	0310011-05	0309163-01
Date Collected:	7/9/2002	7/9/2002	7/9/2002	7/11/2002	9/23/2003	10/1/2003	9/22/2003
VOLATILES (mg/kg)							
EPA Method SW8260							
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	0.01 U	NA
1,2-Dibromoethane	NA	NA	NA	NA	0.01 U	0.01 U	0.01 U
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA	0.01 U	NA
2-Butanone	NA	NA	NA	NA	NA	NA	NA
4-Isopropyltoluene	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	0.01 U	NA
Carbon Disulfide	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	NA	NA	NA	NA	NA	0.01 U	NA
Isopropylbenzene	NA	NA	NA	NA	NA	0.01 U	NA
m,p-Xylene	NA	NA	NA	NA	NA	0.02 U	NA
Methyl Iodide	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	NA	NA	NA	NA	10 U	10 U	10 U
Naphthalene	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	NA	NA	NA	NA	NA	0.01 U	NA
o-Xylene	NA	NA	NA	NA	NA	0.01 U	NA
sec-Butylbenzene	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	NA	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	0.01 U	NA
HYDROCARBONS (mg/kg)							
NWTPH-HCID							
Gasoline	23.1 U	21.8 U	22.0 U	24.2 U	NA	NA	NA
Kerosene	57.7 U	54.4 U	54.9 U	60.5 U	NA	NA	NA
Diesel	57.7 U	54.4 U	54.9 U	60.5 U	NA	NA	NA
Lube Oil	115 U	109 U	110 U	121 U	NA	NA	NA
NWTPH-Dx (mg/kg)							
TPH-Diesel Range	NA	NA	NA	NA	17.9 U	18.1 U	18.1 U
TPH-Kerosene Range	NA	NA	NA	NA	NA	NA	NA
TPH-Motor Oil Range	NA	NA	NA	NA	59.7 U	60.5 U	60.4 U
NWTPH-G (mg/kg)							
TPH-Gasoline Range	NA	NA	NA	NA	2.98 U	**3.66**	3.02 U
PRIORITY POLLUTANT METALS (mg/kg)							
Arsenic (7060)	NA	NA	NA	NA	NA	NA	NA
Chromium (6010)	NA	NA	NA	NA	NA	NA	NA
Copper (6010)	NA	NA	NA	NA	NA	NA	NA
Lead (7421)	NA	NA	NA	NA	1.67 UJ	2.42 U	1.85 UJ
Nickel (6010)	NA	NA	NA	NA	NA	NA	NA
Zinc (6010)	NA	NA	NA	NA	NA	NA	NA
Cadmium (6010)	NA	NA	NA	NA	NA	NA	NA
Mercury (7471)	NA	NA	NA	NA	NA	NA	NA

	EPA Region 9 PRGs			Oregon SLVs				Background	Risk-Based Concentrations				
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater
Sample Identification: / Laboratory Identification: / Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Construction Worker	Excavation Worker	Occupational	Occupational
VOLATILES (mg/kg)													
EPA Method SW8260													
1,2,4-Trimethylbenzene	170	--	--	--	3300 (m)	--	--	--	1500	1400	40000	790	55
1,2-Dibromoethane	0.028	--	--	--	--	--	--	--	0.033	0.25	7.1	1.7	0.000059
1,3,5-Trimethylbenzene	70	--	--	--	3300 (m)	--	--	--	1500	1400	40000	--	12
2-Butanone	27102	--	--	--	--	--	--	--	--	--	--	--	--
4-Isopropyltoluene	520 (a)	0.6 (a)	12 (a)	200 (a)	1440 (a)	--	--	--	--	--	--	--	--
Acetone	6036	0.8	16	--	1250	--	--	--	--	--	--	--	--
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052
Carbon Disulfide	720	2	32	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--
Isopropylbenzene	1977	--	--	--	3300 (m)	--	--	--	51000	24000	--	--	--
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--
Methyl Iodide	--	--	--	--	--	--	--	--	--	--	--	--	--
Methyl tert-butyl ether	157	--	--	--	--	--	--	--	760	9000	--	720	0.30
Naphthalene	190	4	84	10	3900	--	--	--	770	710	20000	--	15
n-Butylbenzene	240	--	--	--	3300 (m)	--	--	--	--	--	--	--	--
n-Propylbenzene	240	--	--	--	3300 (m)	--	--	--	19000	9300	--	--	--
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)
sec-Butylbenzene	220	--	--	--	3300 (m)	--	--	--	--	--	--	--	--
tert-Butylbenzene	390	--	--	--	3300 (m)	--	--	--	--	--	--	--	--
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	160
HYDROCARBONS (mg/kg)													
NWTPH-HCID													
Gasoline	--	--	--	--	--	--	--	--	---	---	--	--	--
Kerosene	--	--	--	--	--	--	--	--	--	--	--	--	--
Diesel	--	--	--	--	--	--	--	--	---	---	--	--	--
Lube Oil	--	--	--	--	--	--	--	--	--	--	--	--	--
NWTPH-Dx (mg/kg)													
TPH-Diesel Range	2000 (p)	--	--	--	--	--	--	--	70000	23000	--	--	--
TPH-Kerosene Range	2000 (p)	--	--	--	--	--	--	--	--	--	--	--	--
TPH-Motor Oil Range	2000 (p)	--	--	--	--	--	--	--	---	---	--	--	--
NWTPH-G (mg/kg)													
TPH-Gasoline Range	100 (p)	--	--	--	--	--	--	--	22000	13000	--	80000	110
PRIORITY POLLUTANT METALS (mg/kg)													
Arsenic (7060)	1.6 (q)(*)	1 (r)(*)	29	10 (r)	29 (r)	10 (r)	60 (r)	5 (o)	--	--	--	--	--
Chromium (6010)	450	2 (*)	38	1 (s)(*)	340000 (s)	4 (s)(*)	0.4 (s)(*)	23.1	--	--	--	--	--
Copper (6010)	40877	--	--	100	390	190	50	19.1	--	--	--	--	--
Lead (7421)	750	--	--	50	4000	16	500	9	750	750	750	--	30
Nickel (6010)	20439	7 (*)	130	30	625	320	200	21.4	--	--	--	--	--
Zinc (6010)	100000	620	12000	50	20000	60	200	60.2	--	--	--	--	--
Cadmium (6010)	451	0.4	8	4	125	6	20	--	--	--	--	--	--
Mercury (7471)	307	--	--	0.3	73	1.5	0.1	--	--	--	--	--	--

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TABLE C-2
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
BELL TERMINAL TANK FARM AREA
PHASE III RI

														CF	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																			
									Risk-Based Concentrations											
Sample Identification:									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	BT-09 (13.5-14.5)	BT-10 (9-10)	BT-10 (13.5-14.5)	G21-3(13-14)	LW28S (12-13)	LW28S (12-13)	LW29D (15-16)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0207059-10	0207059-04	0207059-05	0207087-01	0309163-02	0310011-05	0309163-01
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	7/9/2002	7/9/2002	7/9/2002	7/11/2002	9/23/2003	10/1/2003	9/22/2003
BETX (mg/kg)																				
EPA Method SW8021B																				
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	NA	NA	NA	0.0298 U	0.0302 U
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	NA	NA	NA	NA	0.119 U	0.121 U
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	NA	NA	NA	NA	NA	0.119 U	0.121 U
Xylenes, Total	420	10	210	--	--	--	--	--	24000	19000	--	--	100	NA	NA	NA	NA	NA	0.358 U	0.362 U
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	NA	NA	NA	NA
DIOXINS AND FURANS (ng/kg)																				
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA

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TABLE C-2
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
BELL TERMINAL TANK FARM AREA
PHASE III RI

														CF	CF	CF	CF
	SCREENING CRITERIA																
									Risk-Based Concentrations								
Sample Identification:									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	LW30S (13.5-14.5)	LW31S (15-16)	LW32D (13.5-14.5)	LW33S (13.5-14.5)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0309137-01	0310011-06	0310041-02	0310041-01
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	9/19/2003	10/1/2003	10/2/2003	10/2/2003
SEMIVOLATILES (mg/kg)																	
EPA Method SW8270																	
2,6-Dinitrotoluene	616	0.00003	0.0007	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	NA	NA	NA
2-Methylnaphthalene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	NA	NA	NA	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA
Anthracene	100000	590	12000	--	--	--		--	--	90000	--	--	--	NA	NA	NA	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--		--	0.27	2.1	59	--	--	NA	NA	NA	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA
Benzo(k)fluoranthene	21.1	2	49	--	--	--	--	--	27	210	5900	--	--	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	123	180 (g)	3600 (g)	--	1020	4.5	--	--	--	--	--	--	--	NA	NA	NA	NA
Butylbenzylphthalate	100000	810	930	--	1020 (i)	4.5 (i)	--	--	--	--	--	--	--	NA	NA	NA	NA
Carbazole	86	0.03	0.6	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA
Dibenzofuran	3127	--	--	--	0.002	--	--	--	--	--	--	--	--	NA	NA	NA	NA
Diethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA
Dimethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA
Di-n-Butylphthalate	61561	270	2300	200	30000	0.45	--	--	--	--	--	--	--	NA	NA	NA	NA
Di-n-Octyl phthalate	24624	10000	10000	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	NA	NA	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	NA	NA	NA
Hexachloroethane	123	0.02	0.5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	NA	NA
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	NA	NA	NA
SEMIVOLATILES (mg/kg)																	
EPA Method SW8270SIM																	
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	**1.28**	0.00667 U	**0.251** J	0.00667 UJ
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	**1.49**	0.00667 U	**0.105** J	**0.00733** J
Anthracene	100000	590	12000	--	--	--		--	--	90000	--	--	--	**0.545**	0.00667 U	**0.0427** J	**0.129** J
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	0.0133 U	0.00667 U	**0.00733** J	**0.0453** J
Benzo(a)pyrene	0.21	0.4	8	--	125	--		--	0.27	2.1	59	--	--	0.0133 U	0.00667 U	**0.008** J	**0.0673** J
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	0.0133 U	0.00667 U	**0.00867** J	**0.0653** J
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.0133 U	0.00667 U	0.00667 UJ	**0.0473** J
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--	0.0133 U	0.00667 U	0.00667 UJ	**0.0227** J
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	0.0133 U	0.00667 U	**0.00733** J	**0.048** J
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	0.0133 U	0.00667 U	0.00667 UJ	0.00667 UJ
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	**0.0613**	0.00667 U	**0.0227** J	**0.148** J
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	**3.33**	0.00667 U	**0.349** J	**0.00733** J
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	0.0133 U	0.00667 U	0.00667 UJ	**0.0307** J
Naphthalene	188	4	84	10	3900	--		--	770	710	20000	--	15	**0.624**	0.00667 U	**2.24** J	0.00667 UJ
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	**5.29**	0.00667 U	**0.288** J	**0.107** J
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	**0.171**	0.00667 U	**0.0373** J	**0.165** J
CHLORINATED PHENOLS (mg/kg)																	
Method 8040																	
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	NA

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TABLE C-2
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
BELL TERMINAL TANK FARM AREA
PHASE III RI

Sample Identification:														CF	CF	CF	CF
	SCREENING CRITERIA																
									Risk-Based Concentrations								
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater				
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			LW30S (13.5-14.5) 0309137-01	LW31S (15-16) 0310011-06	LW32D (13.5-14.5) 0310041-02	LW33S (13.5-14.5) 0310041-01
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	9/19/2003	10/1/2003	10/2/2003	10/2/2003
VOLATILES (mg/kg)																	
EPA Method SW8260																	
1,2,4-Trimethylbenzene	170	--	--	--	3300 (m)	--	--	--	1500	1400	40000	790	55	NA	0.01 U	0.01 U	0.01 U
1,2-Dibromoethane	0.028	--	--	--	--	--	--	--	0.033	0.25	7.1	1.7	0.000059	0.01 U	0.01 U	0.01 U	0.01 U
1,3,5-Trimethylbenzene	70	--	--	--	3300 (m)	--	--	--	1500	1400	40000	--	12	NA	0.01 U	**0.86** J	0.01 U
2-Butanone	27102	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA
4-Isopropyltoluene	520 (a)	0.6 (a)	12 (a)	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	NA	NA	NA
Acetone	6036	0.8	16	--	1250	--	--	--	--	--	--	--	--	NA	NA	NA	NA
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	0.01 U	0.01 U	0.01 U
Carbon Disulfide	720	2	32	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	0.01 U	0.01 U	0.01 U
Isopropylbenzene	1977	--	--	--	3300 (m)	--	--	--	51000	24000	--	--	--	NA	0.01 U	**0.773** J	0.01 U
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	0.02 U	0.02 U	0.02 U
Methyl Iodide	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA
Methyl tert-butyl ether	157	--	--	--	--	--	--	--	760	9000	--	720	0.30	10 U	10 U	10 U	10 U
Naphthalene	190	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	NA	NA
n-Butylbenzene	240	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA
n-Propylbenzene	240	--	--	--	3300 (m)	--	--	--	19000	9300	--	--	--	NA	0.01 U	1.75 J	0.01 U
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	0.01 U	0.01 U	0.01 U
sec-Butylbenzene	220	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA
tert-Butylbenzene	390	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	160	NA	0.01 U	**0.0136**	0.01 U
HYDROCARBONS (mg/kg)																	
NWTPH-HCID																	
Gasoline	--	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA
Kerosene	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA
Diesel	--	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA
Lube Oil	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA
NWTPH-Dx (mg/kg)																	
TPH-Diesel Range	2000 (p)	--	--	--	--	--	--	--	70000	23000	--	--	--	**6260** J	18.4 U	**6450**	**82.4**
TPH-Kerosene Range	2000 (p)	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA
TPH-Motor Oil Range	2000 (p)	--	--	--	--	--	--	--	---	---	--	--	--	55 U	61.3 U	57.6 U	**175**
NWTPH-G (mg/kg)																	
TPH-Gasoline Range	100 (p)	--	--	--	--	--	--	--	22000	13000	--	80000	110	**1880** J	3.07 U	**4200** J	3.16 U
PRIORITY POLLUTANT METALS (mg/kg)																	
Arsenic (7060)	1.6 (q)(*)	1 (r)(*)	29	10 (r)	29 (r)	10 (r)	60 (r)	5 (o)	--	--	--	--	--	NA	NA	NA	NA
Chromium (6010)	450	2 (*)	38	1 (s)(*)	340000 (s)	4 (s)(*)	0.4 (s)(*)	23.1	--	--	--	--	--	NA	NA	NA	NA
Copper (6010)	40877	--	--	100	390	190	50	19.1	--	--	--	--	--	NA	NA	NA	NA
Lead (7421)	750	--	--	50	4000	16	500	9	750	750	750	--	30	1.79 U	2.45 U	1.67 U	2.25 U
Nickel (6010)	20439	7 (*)	130	30	625	320	200	21.4	--	--	--	--	--	NA	NA	NA	NA
Zinc (6010)	100000	620	12000	50	20000	60	200	60.2	--	--	--	--	--	NA	NA	NA	NA
Cadmium (6010)	451	0.4	8	4	125	6	20	--	--	--	--	--	--	NA	NA	NA	NA
Mercury (7471)	307	--	--	0.3	73	1.5	0.1	--	--	--	--	--	--	NA	NA	NA	NA

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TABLE C-2
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
BELL TERMINAL TANK FARM AREA
PHASE III RI

														CF	CF	CF	CF
	SCREENING CRITERIA																
									Risk-Based Concentrations								
Sample Identification:									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	LW30S (13.5-14.5)	LW31S (15-16)	LW32D (13.5-14.5)	LW33S (13.5-14.5)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0309137-01	0310011-06	0310041-02	0310041-01
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	9/19/2003	10/1/2003	10/2/2003	10/2/2003
BETX (mg/kg)																	
EPA Method SW8021B																	
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	0.0275 U	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	**0.759**	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	**0.304**	NA	NA	NA
Xylenes, Total	420	10	210	--	--	--	--	--	24000	19000	--	--	100	**3.21**	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	NA
DIOXINS AND FURANS (ng/kg)																	
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA

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TABLE C-3
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
LOADING RACK/ENTRANCE AREA
PHASE III RI

Sample Identification:														0-0.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5
	SCREENING CRITERIA																				
									Risk-Based Concentrations						COMP	COMP	COMP		COMP		
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater								
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			LW7S (0-0.5)	G1 (1-1.5)	G4 (1-1.5)	G5 (1-1.5)	BA2 (1-1.5)	BA3 (1-1.5)	BA4 (1-1.5)	BA5 (1-1.5)
														S037C	0108189-01	0108182-13	0108189-04	0108172-29	0108182-01	0108182-04	0108182-08
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	03/17/97	8/24/2001	8/23/2001	8/24/2001	8/22/2001	8/23/2001	8/23/2001	8/23/2001
SEMIVOLATILES (mg/kg)																					
EPA Method SW8270																					
2,6-Dinitrotoluene	616	0.00003	0.0007	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U
2-Methylnaphthalene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Anthracene	100000	590	12000	--	--	--		--	--	90000	--	--	--	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Benzo(a)pyrene	0.21	0.4	8	--	125	--		--	0.27	2.1	59	--	--	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Benzo(k)fluoranthene	21.1	2	49	--	--	--	--	--	27	210	5900	--	--	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
bis(2-Ethylhexyl)phthalate	123	180 (g)	3600 (g)	--	1020	4.5	--	--	--	--	--	--	--	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Butylbenzylphthalate	100000	810	930	--	1020 (i)	4.5 (i)	--	--	--	--	--	--	--	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Carbazole	86	0.03	0.6	--	--	--	--	--	--	--	--	--	--	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Dibenzofuran	3127	--	--	--	0.002	--	--	--	--	--	--	--	--	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Diethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Dimethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Di-n-Butylphthalate	61561	270	2300	200	30000	0.45	--	--	--	--	--	--	--	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Di-n-Octyl phthalate	24624	10000	10000	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	**0.230**
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Hexachloroethane	123	0.02	0.5	--	--	--	--	--	--	--	--	--	--	NA	0.130 U	0.130 U	0.130 U	0.130 U	0.130 U	0.130 U	0.130 U
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	0.067 U	0.067 U	0.067 U	0.130 U	0.130 U	0.130 U	0.130 U
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
SEMIVOLATILES (mg/kg)																					
EPA Method SW8270SIM																					
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	0.0075 U	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.0075 U	NA	NA	NA	NA	NA	NA	NA
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	**0.014**	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	**0.033**	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	**0.052**	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	**0.051**	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	**0.068**	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--	**0.031**	NA	NA	NA	NA	NA	NA	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	**0.038**	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	**0.012**	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	**0.062**	NA	NA	NA	NA	NA	NA	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	0.0075 U	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	**0.064**	NA	NA	NA	NA	NA	NA	NA
Naphthalene	188	4	84	10	3900	--		--	770	710	20000	--	15	0.0075 U	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	**0.023**	NA	NA	NA	NA	NA	NA	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	**0.058**	NA	NA	NA	NA	NA	NA	NA
CHLORINATED PHENOLS (mg/kg)																					
Method 8040																					
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	**0.011** J	NA	NA	NA	NA	NA	NA	NA

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TABLE C-3
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
LOADING RACK/ENTRANCE AREA
PHASE III RI

														0-0.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5
	SCREENING CRITERIA																				
									Risk-Based Concentrations						COMP	COMP	COMP		COMP		
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater								
Sample Identification:														LW7S (0-0.5)	G1 (1-1.5)	G4 (1-1.5)	G5 (1-1.5)	BA2 (1-1.5)	BA3 (1-1.5)	BA4 (1-1.5)	BA5 (1-1.5)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			S037C	0108189-01	0108182-13	0108189-04	0108172-29	0108182-01	0108182-04	0108182-08
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	03/17/97	8/24/2001	8/23/2001	8/24/2001	8/22/2001	8/23/2001	8/23/2001	8/23/2001
VOLATILES (mg/kg)																					
EPA Method SW8260																					
1,2,4-Trimethylbenzene	170	--	--	--	3300 (m)	--	--	--	1500	1400	40000	790	55	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dibromoethane	0.028	--	--	--	--	--	--	--	0.033	0.25	7.1	1.7	0.000059	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3,5-Trimethylbenzene	70	--	--	--	3300 (m)	--	--	--	1500	1400	40000	--	12	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone	27102	--	--	--	--	--	--	--	--	--	--	--	--	NA	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
4-Isopropyltoluene	520 (a)	0.6 (a)	12 (a)	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Acetone	6036	0.8	16	--	1250	--	--	--	--	--	--	--	--	NA	0.016	0.005 U	0.005 U	0.050 U	0.005 U	0.005 U	0.005 U
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Disulfide	720	2	32	--	--	--	--	--	--	--	--	--	--	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Isopropylbenzene	1977	--	--	--	3300 (m)	--	--	--	51000	24000	--	--	--	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Methyl Iodide	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methyl tert-butyl ether	157	--	--	--	--	--	--	--	760	9000	--	720	0.30	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	190	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U
n-Butylbenzene	240	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
n-Propylbenzene	240	--	--	--	3300 (m)	--	--	--	19000	9300	--	--	--	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
sec-Butylbenzene	220	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
tert-Butylbenzene	390	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	160	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
HYDROCARBONS (mg/kg)																					
NWTPH-HCID																					
Gasoline	--	--	--	--	--	--	--	--	---	---	--	--	--	NA	23.0 U	21.7 U	21.7 U	22.5 U	22.0 U	22.5 U	21.7 U
Kerosene	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	57.5 U	54.3 U	54.3 U	56.2 U	54.9 U	56.2 U	54.3 U
Diesel	--	--	--	--	--	--	--	--	---	---	--	--	--	NA	57.5 U	54.3 U	54.3 U	56.2 U	54.9 U	56.2 U	54.3 U
Lube Oil	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	115 U	109 U	109 U	112 U	110 U	112 U	109 U
NWTPH-Dx (mg/kg)																					
TPH-Diesel Range	2000 (p)	--	--	--	--	--	--	--	70000	23000	--	--	--	16	NA	NA	NA	NA	NA	NA	NA
TPH-Kerosene Range	2000 (p)	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
TPH-Motor Oil Range	2000 (p)	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
NWTPH-G (mg/kg)																					
TPH-Gasoline Range	100 (p)	--	--	--	--	--	--	--	22000	13000	--	80000	110	5.0 U	NA	NA	NA	NA	NA	NA	NA
PRIORITY POLLUTANT METALS (mg/kg)																					
Arsenic (7060)	1.6 (q)(*)	1 (r)(*)	29	10 (r)	29 (r)	10 (r)	60 (r)	5 (o)	--	--	--	--	--	NA	4.47	2.25	1.98	2.24	2.07	2.53	2.15
Chromium (6010)	450	2 (*)	38	1 (s)(*)	340000 (s)	4 (s)(*)	0.4 (s)(*)	23.1	--	--	--	--	--	NA	16.7	15.8	17.4	16.9	15.8	15.7	19.1
Copper (6010)	40877	--	--	100	390	190	50	19.1	--	--	--	--	--	NA	17.9 J	13	12 J	16.5	13.9	13.2	13.5
Lead (7421)	750	--	--	50	4000	16	500	9	750	750	750	--	30	NA	7.32 J	2.00 U	1.85 J	4.71	2.13	2.27	1.92 U
Nickel (6010)	20439	7 (*)	130	30	625	320	200	21.4	--	--	--	--	--	NA	16.8	17.6	18.6	19.3	17.9	17.9	20.4
Zinc (6010)	100000	620	12000	50	20000	60	200	60.2	--	--	--	--	--	NA	67.6	49.8	46.8	208	49.1	52.1 J	52.6
Cadmium (6010)	451	0.4	8	4	125	6	20	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (7471)	307	--	--	0.3	73	1.5	0.1	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE C-3
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
LOADING RACK/ENTRANCE AREA
PHASE III RI

														0-0.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5			
	SCREENING CRITERIA																							
									Risk-Based Concentrations						COMP	COMP	COMP		COMP				
Sample Identification:									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	LW7S (0-0.5)	G1 (1-1.5)	G4 (1-1.5)	G5 (1-1.5)	BA2 (1-1.5)	BA3 (1-1.5)	BA4 (1-1.5)	BA5 (1-1.5)			
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			S037C	0108189-01	0108182-13	0108189-04	0108172-29	0108182-01	0108182-04	0108182-08			
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	03/17/97	8/24/2001	8/23/2001	8/24/2001	8/22/2001	8/23/2001	8/23/2001	8/23/2001			
BETX (mg/kg)																								
EPA Method SW8021B																								
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	0.056 U	NA	NA	NA	NA	NA	NA	NA			
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	0.056 U	NA	NA	NA	NA	NA	NA	NA			
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	0.056 U	NA	NA	NA	NA	NA	NA	NA			
Xylenes, Total	420	10	210	--	--	--	--	--	24000	19000	--	--	100	NA	NA	NA	NA	NA	NA	NA	NA			
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	0.056 U	NA	NA	NA	NA	NA	NA	NA			
o-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	0.056 U	NA	NA	NA	NA	NA	NA	NA			
DIOXINS AND FURANS (ng/kg)																								
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA			

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TABLE C-3
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
LOADING RACK/ENTRANCE AREA
PHASE III RI

Sample Identification:														1-1.5	CF	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																				
									Risk-Based Concentrations												
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater								
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			BA6 (1-1.5)	LW7S (7.5-9.0)	LW7S (12.5-14.0)	LW7S (19.5-20.3)	COMP G1 (10-13)	COMP G4 (12.5-14)	COMP G29 (CF) Dup of G4 (12.5-14)	COMP G5 (10.5-13)
														0108182-10	S037D	S037E	S037F	0108189-03	0108182-15	0108182-16	0108189-06
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	8/23/2001	03/17/97	03/17/97	03/17/97	8/24/2001	8/23/2001	8/23/2001	8/24/2001
SEMIVOLATILES (mg/kg)																					
EPA Method SW8270																					
2,6-Dinitrotoluene	616	0.00003	0.0007	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	0.330 U	NA	0.86 U	NA	0.330 U	0.330 U	0.330 U	0.330 U
2-Methylnaphthalene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.067 U	NA	**9.8**	NA	0.067 U	0.067 U	0.067 U	0.067 U
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	0.067 U	NA	0.17 U	NA	0.067 U	0.067 U	0.067 U	0.067 U
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.067 U	NA	0.17 U	NA	0.067 U	0.067 U	0.067 U	0.067 U
Anthracene	100000	590	12000	--	--	--		--	--	90000	--	--	--	0.067 U	NA	0.17 U	NA	0.067 U	0.067 U	0.067 U	0.067 U
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	0.067 U	NA	0.17 U	NA	0.067 U	0.067 U	0.067 U	**0.120**
Benzo(a)pyrene	0.21	0.4	8	--	125	--		--	0.27	2.1	59	--	--	0.067 U	NA	0.17 U	NA	0.067 U	0.067 U	0.067 U	**0.170**
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	0.067 U	NA	0.17 U	NA	0.067 U	0.067 U	0.067 U	**0.220**
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.067 U	NA	0.17 U	NA	0.067 U	0.067 U	0.067 U	**0.160**
Benzo(k)fluoranthene	21.1	2	49	--	--	--	--	--	27	210	5900	--	--	0.067 U	NA	0.17 U	NA	0.067 U	0.067 U	0.067 U	**0.078**
bis(2-Ethylhexyl)phthalate	123	180 (g)	3600 (g)	--	1020	4.5	--	--	--	--	--	--	--	0.067 U	NA	0.17 U	NA	0.067 U	0.067 U	0.067 U	0.067 U
Butylbenzylphthalate	100000	810	930	--	1020 (i)	4.5 (i)	--	--	--	--	--	--	--	0.067 U	NA	0.17 U	NA	0.067 U	0.067 U	0.067 U	0.067 U
Carbazole	86	0.03	0.6	--	--	--	--	--	--	--	--	--	--	0.067 U	NA	0.17 U	NA	0.067 U	0.067 U	0.067 U	0.067 U
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	0.067 U	NA	0.17 U	NA	0.067 U	0.067 U	0.067 U	**0.120**
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	0.067 U	NA	0.17 U	NA	0.067 U	0.067 U	0.067 U	0.067 U
Dibenzofuran	3127	--	--	--	0.002	--	--	--	--	--	--	--	--	0.067 U	NA	0.17 U	NA	0.067 U	0.067 U	0.067 U	0.067 U
Diethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	NA	0.17 U	NA	0.067 U	0.067 U	0.067 U	0.067 U
Dimethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	NA	0.17 U	NA	0.067 U	0.067 U	0.067 U	0.067 U
Di-n-Butylphthalate	61561	270	2300	200	30000	0.45	--	--	--	--	--	--	--	0.067 U	NA	0.17 U	NA	0.067 U	0.067 U	0.067 U	0.067 U
Di-n-Octyl phthalate	24624	10000	10000	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	NA	0.17 U	NA	0.067 U	0.067 U	0.067 U	0.067 U
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	0.067 U	NA	0.17 U	NA	0.067 U	0.067 U	0.067 U	**0.320**
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	0.067 U	NA	0.17 U	NA	0.067 U	0.067 U	0.067 U	0.067 U
Hexachloroethane	123	0.02	0.5	--	--	--	--	--	--	--	--	--	--	0.130 U	NA	0.34 U	NA	0.130 U	0.130 U	0.130 U	0.130 U
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	0.067 U	NA	0.17 U	NA	0.067 U	0.067 U	0.067 U	**0.110**
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	0.130 U	NA	**7.5**	NA	0.067 U	0.067 U	0.067 U	0.067 U
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	0.330 U	NA	0.86		0.330 U	0.330 U	0.330 U	0.330 U
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	0.067 U	NA	0.17 U	NA	0.067 U	0.067 U	0.067 U	**0.270**
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	0.067 U	NA	0.17 U	NA	0.067 U	0.067 U	0.067 U	**0.430**
SEMIVOLATILES (mg/kg)																					
EPA Method SW8270SIM																					
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	NA	0.0086 U	NA	0.0086 U	NA	NA	NA	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	0.0086 U	NA	0.0086 U	NA	NA	NA	NA
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	NA	0.0086 U	NA	0.0086 U	NA	NA	NA	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	0.0086 U	NA	**0.02** J	NA	NA	NA	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	NA	0.0086 U	NA	**0.018** J	NA	NA	NA	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	0.0086 U	NA	0.0086 U	NA	NA	NA	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	0.0086 U	NA	**0.01** J	NA	NA	NA	NA
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--	NA	0.0086 U	NA	**0.01** J	NA	NA	NA	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	0.0086 U	NA	**0.015** J	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	0.0086 U	NA	0.0086 U	NA	NA	NA	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	0.0086 U	NA	**0.031** J	NA	NA	NA	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	0.0086 U	NA	0.0086 U	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	0.0086 U	NA	**0.011** J	NA	NA	NA	NA
Naphthalene	188	4	84	10	3900	--		--	770	710	20000	--	15	NA	0.0086 U	NA	**0.015** J	NA	NA	NA	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	0.0086 U	NA	**0.024** J	NA	NA	NA	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	0.0086 U	NA	**0.034** J	NA	NA	NA	NA
CHLORINATED PHENOLS (mg/kg)																					
Method 8040																					
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	0.0081 U	**0.022**	0.0081 U	NA	NA	NA	NA

BZTO104(e)019653

TABLE C-3
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
LOADING RACK/ENTRANCE AREA
PHASE III RI

Sample Identification:														1-1.5	CF	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																				
									Risk-Based Concentrations									COMP	COMP	COMP	COMP
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater					G29 (CF)		
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			BA6 (1-1.5)	LW7S (7.5-9.0)	LW7S (12.5-14.0)	LW7S (19.5-20.3)	G1 (10-13)	G4 (12.5-14)	Dup of G4 (12.5-14)	G5 (10.5-13)
														0108182-10	S037D	S037E	S037F	0108189-03	0108182-15	0108182-16	0108189-06
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	8/23/2001	03/17/97	03/17/97	03/17/97	8/24/2001	8/23/2001	8/23/2001	8/24/2001
VOLATILES (mg/kg)																					
EPA Method SW8260																					
1,2,4-Trimethylbenzene	170	--	--	--	3300 (m)	--	--	--	1500	1400	40000	790	55	0.001 U	NA	NA	NA	0.002 U	**0.028** J	**0.0028** J	0.001 U
1,2-Dibromoethane	0.028	--	--	--	--	--	--	--	0.033	0.25	7.1	1.7	0.000059	0.001 U	NA	NA	NA	0.001 U	0.001 U	0.001 U	0.001 U
1,3,5-Trimethylbenzene	70	--	--	--	3300 (m)	--	--	--	1500	1400	40000	--	12	0.001 U	NA	NA	NA	0.002 U	**0.0085** J	0.001 UJ	0.001 U
2-Butanone	27102	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	NA	1.5 U	NA	0.005 U	0.005 U	0.005 U	0.005 U
4-Isopropyltoluene	520 (a)	0.6 (a)	12 (a)	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	0.001 U	NA	NA	NA	0.002 U	0.001 U	0.001 U	0.001 U
Acetone	6036	0.8	16	--	1250	--	--	--	--	--	--	--	--	0.005 U	NA	1.5 U	NA	0.005 U	**0.0179**	**0.0216** J	0.005 U
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	0.001 U	NA	0.31 U	NA	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Disulfide	720	2	32	--	--	--	--	--	--	--	--	--	--	0.001 U	NA	0.31 U	NA	0.001 U	0.001 U	**0.00142** J	0.001 U
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	0.001 U	NA	**3**	NA	0.001 U	**0.00337** J	0.001 UJ	0.001 U
Isopropylbenzene	1977	--	--	--	3300 (m)	--	--	--	51000	24000	--	--	--	0.001 U	NA	NA	NA	0.001 U	**0.00149**	0.001 U	0.001 U
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	0.002 U	NA	**2.5**	NA	0.002 U	**0.015** J	**0.00536** J	0.002 U
Methyl Iodide	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	NA	NA	NA	0.001 U	0.001 U	0.001 U	0.001 U
Methyl tert-butyl ether	157	--	--	--	--	--	--	--	760	9000	--	720	0.30	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	190	4	84	10	3900	--	--	--	770	710	20000	--	15	0.010 U	NA	NA	NA	0.020 U	**0.0165**	**0.0228** J	0.010 U
n-Butylbenzene	240	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	0.002 U	NA	NA	NA	0.004 U	**0.0062** J	**0.0516** J	0.002 U
n-Propylbenzene	240	--	--	--	3300 (m)	--	--	--	19000	9300	--	--	--	0.001 U	NA	NA	NA	0.002 U	**0.0041**	**0.00479** J	0.001 U
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	0.001 U	NA	0.31 U	NA	0.001 U	**0.00579** J	0.001 UJ	0.001 U
sec-Butylbenzene	220	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	0.001 U	NA	NA	NA	0.002 U	**0.00495** J	**0.0405** J	0.001 U
tert-Butylbenzene	390	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	0.001 U	NA	NA	NA	0.002 U	0.001 U	**0.00303** J	0.001 U
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	160	0.001 U	NA	0.31 U	NA	0.001 U	0.001 U	**0.00299**	0.001 U
HYDROCARBONS (mg/kg)																					
NWTPH-HCID																					
Gasoline	--	--	--	--	--	--	--	--	---	---	--	--	--	22.2 U	NA	NA	NA	24.4 U	24.1 U	23.8 U	24.4 U
Kerosene	--	--	--	--	--	--	--	--	--	--	--	--	--	55.6 U	NA	NA	NA	61.0 U	**Kerosene**	**Kerosene**	61.0 U
Diesel	--	--	--	--	--	--	--	--	---	---	--	--	--	55.6 U	NA	NA	NA	61.0 U	60.2 U	59.5 U	61.0 U
Lube Oil	--	--	--	--	--	--	--	--	--	--	--	--	--	111 U	NA	NA	NA	**Lube Oil**	120 U	119 U	122 U
NWTPH-Dx (mg/kg)																					
TPH-Diesel Range	2000 (p)	--	--	--	--	--	--	--	70000	23000	--	--	--	NA	6.4 U	**480**	6.5 U	**44.7**	**267**	**280**	NA
TPH-Kerosene Range	2000 (p)	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	**408**	415	NA
TPH-Motor Oil Range	2000 (p)	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA	**208**	60.2 U	59.5 U	NA
NWTPH-G (mg/kg)																					
TPH-Gasoline Range	100 (p)	--	--	--	--	--	--	--	22000	13000	--	80000	110	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA
PRIORITY POLLUTANT METALS (mg/kg)																					
Arsenic (7060)	1.6 (q)(*)	1 (r)(*)	29	10 (r)	29 (r)	10 (r)	60 (r)	5 (o)	--	--	--	--	--	**2.43**	NA	NA	NA	**3.30**	**1.82**	**1.85**	**2.04**
Chromium (6010)	450	2 (*)	38	1 (s)(*)	340000 (s)	4 (s)(*)	0.4 (s)(*)	23.1	--	--	--	--	--	18.1	NA	NA	NA	16.8	14.3	14.2	16.5
Copper (6010)	40877	--	--	100	390	190	50	19.1	--	--	--	--	--	**11.5**	NA	NA	NA	**13.5** J	**11.5**	**11.8**	**14.3** J
Lead (7421)	750	--	--	50	4000	16	500	9	750	750	750	--	30	1.89 U	NA	NA	NA	1.88 J	2.65	2.69	1.82 J
Nickel (6010)	20439	7 (*)	130	30	625	320	200	21.4	--	--	--	--	--	**18.7**	NA	NA	NA	**18.2**	**15.8**	**16.9**	**18**
Zinc (6010)	100000	620	12000	50	20000	60	200	60.2	--	--	--	--	--	**46.9**	NA	NA	NA	**47.1**	**46.7**	**51.5**	**46.6**
Cadmium (6010)	451	0.4	8	4	125	6	20	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (7471)	307	--	--	0.3	73	1.5	0.1	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE C-3
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
LOADING RACK/ENTRANCE AREA
PHASE III RI

														1-1.5	CF	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																				
									Risk-Based Concentrations												
Sample Identification:									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	BA6 (1-1.5)	LW7S (7.5-9.0)	LW7S (12.5-14.0)	LW7S (19.5-20.3)	COMP G1 (10-13)	COMP G4 (12.5-14)	COMP G29 (CF) Dup of G4 (12.5-14)	COMP G5 (10.5-13)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0108182-10	S037D	S037E	S037F	0108189-03	0108182-15	0108182-16	0108189-06
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	8/23/2001	03/17/97	03/17/97	03/17/97	8/24/2001	8/23/2001	8/23/2001	8/24/2001
BETX (mg/kg)																					
EPA Method SW8021B																					
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	0.064 U	NA	0.066 U	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	0.064 U	NA	0.066 U	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	NA	0.064 U	NA	0.066 U	NA	NA	NA	NA
Xylenes, Total	420	10	210	--	--	--	--	--	24000	19000	--	--	100	NA	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	0.064 U	NA	0.066 U	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	0.064 U	NA	0.066 U	NA	NA	NA	NA
DIOXINS AND FURANS (ng/kg)																					
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE C-3
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
LOADING RACK/ENTRANCE AREA
PHASE III RI

														CF	CF	CF	CF	CF	
	SCREENING CRITERIA														COMP				
									Risk-Based Concentrations										
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater						
Sample Identification:										Construction	Excavation			BA2 (14-15)	BA3 (14-16)	BA4 (13-14)	BA5 (14-15)	BA6 (10.5-11.5)	
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background						0108172-31	0108182-03	0108182-06	0108182-07	0108182-12	
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	8/22/2001	8/23/2001	8/23/2001	8/23/2001	8/23/2001	
SEMIVOLATILES (mg/kg)																			
EPA Method SW8270																			
2,6-Dinitrotoluene	616	0.00003	0.0007	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	
2-Methylnaphthalene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.067 U	**2.400**	0.067 U	0.067 U	0.067 U	
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	
Anthracene	100000	590	12000	--	--	--		--	--	90000	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	
Benzo(a)pyrene	0.21	0.4	8	--	125	--		--	0.27	2.1	59	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	
Benzo(k)fluoranthene	21.1	2	49	--	--	--	--	--	27	210	5900	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	
bis(2-Ethylhexyl)phthalate	123	180 (g)	3600 (g)	--	1020	4.5	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	**0.200**	
Butylbenzylphthalate	100000	810	930	--	1020 (i)	4.5 (i)	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	
Carbazole	86	0.03	0.6	--	--	--	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	
Dibenzofuran	3127	--	--	--	0.002	--	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	
Diethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	
Dimethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	
Di-n-Butylphthalate	61561	270	2300	200	30000	0.45	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	
Di-n-Octyl phthalate	24624	10000	10000	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	
Hexachloroethane	123	0.02	0.5	--	--	--	--	--	--	--	--	--	--	0.130 U	0.130 U	0.130 U	0.130 U	0.130 U	
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	0.130 U	0.130 U	0.130 U	0.130 U	0.130 U	
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	
SEMIVOLATILES (mg/kg)																			
EPA Method SW8270SIM																			
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	NA	NA	NA	NA	NA	
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	NA	NA	NA	NA	NA	
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--	NA	NA	NA	NA	NA	
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	NA	NA	NA	NA	
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	NA	NA	NA	NA	
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	NA	NA	NA	NA	
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	
Naphthalene	188	4	84	10	3900	--		--	770	710	20000	--	15	NA	NA	NA	NA	NA	
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	NA	NA	NA	NA	
CHLORINATED PHENOLS (mg/kg)																			
Method 8040																			
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	NA	NA	

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TABLE C-3
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
LOADING RACK/ENTRANCE AREA
PHASE III RI

														CF	CF	CF	CF	CF
	SCREENING CRITERIA														COMP			
									Risk-Based Concentrations									
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater					
Sample Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			BA2 (14-15)	BA3 (14-16)	BA4 (13-14)	BA5 (14-15)	BA6 (10.5-11.5)
Laboratory Identification:														0108172-31	0108182-03	0108182-06	0108182-07	0108182-12
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	8/22/2001	8/23/2001	8/23/2001	8/23/2001	8/23/2001
VOLATILES (mg/kg)																		
EPA Method SW8260																		
1,2,4-Trimethylbenzene	170	--	--	--	3300 (m)	--	--	--	1500	1400	40000	790	55	**0.00317**	**48.500** J	0.001 U	0.001 U	0.001 U
1,2-Dibromoethane	0.028	--	--	--	--	--	--	--	0.033	0.25	7.1	1.7	0.000059	0.001 U	0.010 U	0.001 U	0.001 U	0.001 U
1,3,5-Trimethylbenzene	70	--	--	--	3300 (m)	--	--	--	1500	1400	40000	--	12	**0.00698**	**3.970** J	0.001 U	0.001 U	0.001 U
2-Butanone	27102	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	0.050 U	0.005 U	0.005 U	0.005 U
4-Isopropyltoluene	520 (a)	0.6 (a)	12 (a)	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	**0.0293**	1.180	0.001 U	0.001 U	0.001 U
Acetone	6038	0.8	16	--	1250	--	--	--	--	--	--	--	--	**0.015**	**0.0799**	0.005 U	0.005 U	0.005 U
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	0.001 U	0.010 U	0.001 U	0.001 U	0.001 U
Carbon Disulfide	720	2	32	--	--	--	--	--	--	--	--	--	--	**0.00248**	0.010 U	0.001 U	0.001 U	0.001 U
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	**0.00193**	0.010 U	0.001 U	0.001 U	0.001 U
Isopropylbenzene	1977	--	--	--	3300 (m)	--	--	--	51000	24000	--	--	--	**0.0328**	**4.140**	0.001 U	0.001 U	0.001 U
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	**0.00522**	**0.0657** J	0.002 U	0.002 U	0.002 U
Methyl Iodide	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.010 U	0.001 U	0.001 U	0.001 U
Methyl tert-butyl ether	157	--	--	--	--	--	--	--	760	9000	--	720	0.30	NA	NA	NA	NA	NA
Naphthalene	190	4	84	10	3900	--	--	--	770	710	20000	--	15	0.010 U	**0.259**	0.010 U	0.010 U	0.010 U
n-Butylbenzene	240	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	**0.0738**	**4.460** J	0.002 U	0.002 U	0.002 U
n-Propylbenzene	240	--	--	--	3300 (m)	--	--	--	19000	9300	--	--	--	**0.0883**	**9.510**	0.001 U	0.001 U	0.001 U
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	0.001 U	0.010 U	0.001 U	0.001 U	0.001 U
sec-Butylbenzene	220	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	**0.0488**	**0.892** J	0.001 U	0.001 U	0.001 U
tert-Butylbenzene	390	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	**0.00269**	0.010 U	0.001 U	0.001 U	0.001 U
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	160	**0.00182**	**0.0377**	0.001 U	0.001 U	0.001 U
HYDROCARBONS (mg/kg)																		
NWTPH-HCID																		
Gasoline	--	--	--	--	--	--	--	--	---	---	--	--	--	**Gasoline**	**Gasoline**	24.1 U	24.1 U	23.0 U
Kerosene	--	--	--	--	--	--	--	--	--	--	--	--	--	60.2 U	59.5 U	60.2 U	60.2 U	57.5 U
Diesel	--	--	--	--	--	--	--	--	---	---	--	--	--	60.2 U	59.5 U	60.2 U	60.2 U	57.5 U
Lube Oil	--	--	--	--	--	--	--	--	--	--	--	--	--	120 U	119 U	120 U	120 U	115 U
NWTPH-Dx (mg/kg)																		
TPH-Diesel Range	2000 (p)	--	--	--	--	--	--	--	70000	23000	--	--	--	NA	NA	NA	NA	NA
TPH-Kerosene Range	2000 (p)	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA
TPH-Motor Oil Range	2000 (p)	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA	NA
NWTPH-G (mg/kg)																		
TPH-Gasoline Range	100 (p)	--	--	--	--	--	--	--	22000	13000	--	80000	110	107	1360	NA	NA	NA
PRIORITY POLLUTANT METALS (mg/kg)																		
Arsenic (7060)	1.6 (q)(*)	1 (r)(*)	29	10 (r)	29 (r)	10 (r)	60 (r)	5 (o)	--	--	--	--	--	**2.41**	**1.86**	**2.01**	**2.19**	**2.12**
Chromium (6010)	450	2 (*)	38	1 (s)(*)	340000 (s)	4 (s)(*)	0.4 (s)(*)	23.1	--	--	--	--	--	**15.2**	**14.9**	**14.1**	**13.2**	**15.8**
Copper (6010)	40877	--	--	100	390	190	50	19.1	--	--	--	--	--	**12.0**	**11.8**	**11.0**	**10.7**	**14.3**
Lead (7421)	750	--	--	50	4000	16	500	9	750	750	750	--	30	**2.43**	**2.59**	2.00 U	1.85 U	1.89 U
Nickel (6010)	20439	7 (*)	130	30	625	320	200	21.4	--	--	--	--	--	**16.7**	**17.1**	**15.7**	**15.2**	**18.5**
Zinc (6010)	100000	620	12000	50	20000	60	200	60.2	--	--	--	--	--	**1290**	**43.7**	**44.9**	**41**	**49**
Cadmium (6010)	451	0.4	8	4	125	6	20	--	--	--	--	--	--	NA	NA	NA	NA	NA
Mercury (7471)	307	--	--	0.3	73	1.5	0.1	--	--	--	--	--	--	NA	NA	NA	NA	NA

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TABLE C-3
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
LOADING RACK/ENTRANCE AREA
PHASE III RI

														CF	CF	CF	CF	CF
	SCREENING CRITERIA																	
									Risk-Based Concentrations						COMP				
Sample Identification:									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	BA2 (14-15)	BA3 (14-16)	BA4 (13-14)	BA5 (14-15)	BA6 (10.5-11.5)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0108172-31	0108182-03	0108182-06	0108182-07	0108182-12
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	8/22/2001	8/23/2001	8/23/2001	8/23/2001	8/23/2001
BETX (mg/kg)																		
EPA Method SW8021B																		
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	NA	NA	NA	NA	NA
Xylenes, Total	420	10	210	--	--	--	--	--	24000	19000	--	--	100	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	NA	NA
DIOXINS AND FURANS (ng/kg)																		
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA

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TABLE C-4
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
EASTERN PORTION OF PHASE III STUDY AREA
PHASE III RI

														0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
	SCREENING CRITERIA																			
									Risk-Based Concentrations											
Sample Identification:									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	RA14-02 (0.5-0.75)	RA14-03 (0-0.5)	RA15-02 (0-0.5)	RA15-02 (0.5-0.75)	RA16-01 (0.5-0.75)	RA16-06 (0.5-0.5)	RA16-07 (0-0.5)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0107115-02	0108077-01	0107115-07	0107115-08	0108145-01	0107115-11	0108229-03
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	7/16/2001	8/7/2001	7/16/2001	7/16/2001	7/16/2001	8/17/2001	8/30/2001
SEMIVOLATILES (mg/kg)																				
EPA Method SW8270																				
2,6-Dinitrotoluene	616	0.00003	0.0007	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Anthracene	100000	590	12000	--	--	--		--	--	90000	--	--	--	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--		--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	21.1	2	49	--	--	--	--	--	27	210	5900	--	--	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	123	180 (g)	3600 (g)	--	1020	4.5	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	100000	810	930	--	1020 (i)	4.5 (i)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Carbazole	86	0.03	0.6	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	3127	--	--	--	0.002	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	61561	270	2300	200	30000	0.45	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Di-n-Octyl phthalate	24624	10000	10000	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	NA	NA	NA	NA	NA	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	123	0.02	0.5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (mg/kg)																				
EPA Method SW8270SIM																				
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.00667 U	0.0075
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.0289	0.01 U	0.0307	0.01 U	0.0212	0.00719	0.021
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	0.0345	0.0216	0.024	0.01 U	0.0171	0.00667 U	0.0162
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	0.161	0.0235	0.163	0.01 U	0.117	0.0361	0.145
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	0.394	0.0466	0.428	0.01	0.281	0.0685	0.335
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	0.444	0.0508	0.464	0.0134	0.299	0.0966	0.355
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.425	0.0613	0.432	0.0121	0.295	0.0774	0.365
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--	0.132	0.0171	0.142	0.01 U	0.0914	0.0354	0.118
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	0.231	0.027	0.276	0.0107	0.161	0.0531	0.211
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	0.0348	0.01 U	0.05	0.01 U	0.0245	0.0137	0.0521
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	0.516	0.0884	0.517	0.0127	0.335	0.103	0.411
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.00667 U	0.00667 U
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	0.296	0.0385	0.31	0.01 U	0.203	0.0532	0.246
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.00667 U	0.00685
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	0.151	0.0428	0.117	0.01 U	0.067	0.0217	0.111
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	0.788	0.123	0.822	0.0208	0.537	0.14	0.639 J
CHLORINATED PHENOLS (mg/kg)																				
Method 8040																				
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA

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TABLE C-4
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
EASTERN PORTION OF PHASE III STUDY AREA
PHASE III RI

Sample Identification:														0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
	SCREENING CRITERIA																			
									Risk-Based Concentrations											
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater							
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			RA14-02 (0.5-0.75)	RA14-03 (0-0.5)	RA15-02 (0-0.5)	RA15-02 (0.5-0.75)	RA16-01 (0.5-0.75)	RA16-06 (0.5-0.5)	RA16-07 (0-0.5)
														0107115-02	0108077-01	0107115-07	0107115-08	0108145-01	0107115-11	0108229-03
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	7/16/2001	8/7/2001	7/16/2001	7/16/2001	7/16/2001	8/17/2001	8/30/2001
VOLATILES (mg/kg)																				
EPA Method SW8260																				
1,2,4-Trimethylbenzene	170	--	--	--	3300 (m)	--	--	--	1500	1400	40000	790	55	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	0.028	--	--	--	--	--	--	--	0.033	0.25	7.1	1.7	0.000059	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	70	--	--	--	3300 (m)	--	--	--	1500	1400	40000	--	12	NA	NA	NA	NA	NA	NA	NA
2-Butanone	27102	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
4-Isopropyltoluene	520 (a)	0.6 (a)	12 (a)	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Acetone	6036	0.8	16	--	1250	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	720	2	32	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	1977	--	--	--	3300 (m)	--	--	--	51000	24000	--	--	--	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	NA	NA	NA	NA
Methyl Iodide	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	157	--	--	--	--	--	--	--	760	9000	--	720	0.30	NA	NA	NA	NA	NA	NA	NA
Naphthalene	190	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	240	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	240	--	--	--	3300 (m)	--	--	--	19000	9300	--	--	--	NA	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	220	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	390	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	160	NA	NA	NA	NA	NA	NA	NA
HYDROCARBONS (mg/kg)																				
NWTPH-HCID																				
Gasoline	--	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA	NA	NA	NA
Kerosene	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Diesel	--	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA	NA	NA	NA
Lube Oil	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
NWTPH-Dx (mg/kg)																				
TPH-Diesel Range	2000 (p)	--	--	--	--	--	--	--	70000	23000	--	--	--	NA	NA	NA	NA	NA	NA	NA
TPH-Kerosene Range	2000 (p)	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
TPH-Motor Oil Range	2000 (p)	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA	NA	NA	NA
NWTPH-G (mg/kg)																				
TPH-Gasoline Range	100 (p)	--	--	--	--	--	--	--	22000	13000	--	80000	110	NA	NA	NA	NA	NA	NA	NA
PRIORITY POLLUTANT METALS (mg/kg)																				
Arsenic (7060)	1.6 (q)(*)	1 (r)(*)	29	10 (r)	29 (r)	10 (r)	60 (r)	5 (o)	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Chromium (6010)	450	2 (*)	38	1 (s)(*)	340000 (s)	4 (s)(*)	0.4 (s)(*)	23.1	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Copper (6010)	40877	--	--	100	390	190	50	19.1	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Lead (7421)	750	--	--	50	4000	16	500	9	750	750	750	--	30	NA	NA	NA	NA	NA	NA	NA
Nickel (6010)	20439	7 (*)	130	30	625	320	200	21.4	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Zinc (6010)	100000	620	12000	50	20000	60	200	60.2	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Cadmium (6010)	451	0.4	8	4	125	6	20	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Mercury (7471)	307	--	--	0.3	73	1.5	0.1	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA

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TABLE C-4
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
EASTERN PORTION OF PHASE III STUDY AREA
PHASE III RI

														0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
	SCREENING CRITERIA																			
									Risk-Based Concentrations										
Sample Identification:									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	RA14-02 (0.5-0.75)	RA14-03 (0-0.5)	RA15-02 (0-0.5)	RA15-02 (0.5-0.75)	RA16-01 (0.5-0.75)	RA16-06 (0.0.5)	RA16-07 (0-0.5)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0107115-02	0108077-01	0107115-07	0107115-08	0108145-01	0107115-11	0108229-03
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	7/16/2001	8/7/2001	7/16/2001	7/16/2001	7/16/2001	8/17/2001	8/30/2001
BETX (mg/kg)																				
EPA Method SW8021B																				
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	NA	NA	NA	NA	NA	NA	NA
Xylenes, Total	420	10	210	--	--	--	--	--	24000	19000	--	--	100	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	NA	NA	NA	NA
DIOXINS AND FURANS (ng/kg)																				
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA

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TABLE C-4
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
EASTERN PORTION OF PHASE III STUDY AREA
PHASE III RI

Sample Identification:														0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
	SCREENING CRITERIA													COMP	COMP	COMP	COMP	COMP	COMP	COMP	COMP
									Risk-Based Concentrations										G31 (0-0.5)		
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater						Dup of G15 (0-0.5)		
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			G6 (0-0.5)	G7 (0-0.5)	G10 (0-0.5)	G11 (0-0.5)	G15 (0-0.5)		G17 (0-0.5)	G18 (0-0.5)
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	0108189-12 8/24/2001	0108196-01 8/27/2001	0108189-17 8/24/2001	0108196-04 8/27/2001	0108172-44 8/22/2001	0108172-40 8/22/2001	0108172-15 8/21/2001	0108172-36 8/22/2001
SEMIVOLATILES (mg/kg)																					
EPA Method SW8270																					
2,6-Dinitrotoluene	616	0.00003	0.0007	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U
2-Methylnaphthalene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.067 U	**0.074**	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Acenaphthene	29219	29	570	20	--	--	--	--	41000	16000	--	--	--	0.067 U	**0.530** J	0.067 U	0.067 U	**0.096**	0.067 U	0.067 U	0.067 U
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.067 U	**2.900**	**0.095**	0.067 U	**0.470**	**0.360**	**1.300**	0.067 U
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	0.067 U	**4.300**	**0.092**	0.067 U	**0.780** J	**0.440** J	**1.300** J	0.067 U
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	0.067 U	**23.000**	**0.520**	**0.170**	**3.100** J	**2.000** J	**7.000** J	**0.180** J
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	**0.076**	**30.000** J	**0.920**	**0.330** J	**4.700**	**3.300**	**12.000**	**0.350**
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	**0.130**	**55.000**	**1.800**	**0.600**	**8.000** J	**6.200** J	**21.000** J	**0.560** J
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	**0.088**	**20.000** J	**1.000**	**0.280** J	**3.600**	**2.900**	**13.000**	**0.380**
Benzo(k)fluoranthene	21.1	2	49	--	--	--	--	--	27	210	5900	--	--	0.067 U	**19.000**	**0.550**	**0.210**	0.067 U	**1.400**	**6.600**	**0.180**
bis(2-Ethylhexyl)phthalate	123	180 (g)	3600 (g)	--	1020	4.5	--	--	--	--	--	--	--	0.067 U	0.330 U	0.067 U	0.067 U	0.067 U	**0.071**	0.067 U	0.067 U
Butylbenzylphthalate	100000	810	930	--	1020 (i)	4.5 (i)	--	--	--	--	--	--	--	0.067 U	0.330 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Carbazole	86	0.03	0.6	--	--	--	--	--	--	--	--	--	--	0.067 U	**1.300** J	0.067 U	0.067 U	**0.250**	**0.130**	**0.330**	0.067 U
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	0.067 U	**25.000** J	**0.790**	**0.220** J	**3.800** J	**2.200** J	**8.000** J	**0.210** J
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	0.067 U	**0.840** J	0.067 U	0.067 U	**0.170**	**0.130**	**0.400**	0.067 U
Dibenzofuran	3127	--	--	--	0.002	--	--	--	--	--	--	--	--	0.067 U	**0.100** J	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Diethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Dimethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Di-n-Butylphthalate	61561	270	2300	200	30000	0.45	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	**0.110**	0.067 U	0.067 U	0.067 U	0.067 U
Di-n-Octyl phthalate	24624	10000	10000	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	0.330 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	**0.084**	**55.000** J	**2.000**	**0.490** J	**11.000** J	**7.000** J	**18.000** J	**0.270** J
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	0.067 U	**1.100** J	0.067 U	0.067 U	**0.260** J	**0.100** J	**0.230**	0.067 U
Hexachloroethane	123	0.02	0.5	--	--	--	--	--	--	--	--	--	--	0.130 U	0.130 U	0.130 U	0.130 U	0.130 U	0.130 U	0.130 U	0.130 U
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	0.067 U	**16.000**	**0.730**	**0.210**	**2.700**	**2.200**	**8.700**	**0.270**
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	0.067 U	**0.140**	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	0.067 U	**36.000**	**1.100**	**0.160**	**7.800** J	**3.800** J	**8.500** J	**0.078** J
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	**0.100**	**60.000** J	**2.200**	**0.510** J	**11.000** J	**7.700** J	**20.000** J	**0.380** J
SEMIVOLATILES (mg/kg)																					
EPA Method SW8270SIM																					
Acenaphthene	29219	29	570	20	--	--	--	--	41000	16000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
CHLORINATED PHENOLS (mg/kg)																					
Method 8040																					
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE C-4
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
EASTERN PORTION OF PHASE III STUDY AREA
PHASE III RI

	SCREENING CRITERIA													0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
									Risk-Based Concentrations					COMP	COMP	COMP	COMP	COMP	COMP	COMP	COMP
Sample Identification:									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	G6 (0-0.5)	G7 (0-0.5)	G10 (0-0.5)	G11 (0-0.5)	G15 (0-0.5)	G31 (0-0.5) Dup of G15 (0-0.5)	G17 (0-0.5)	G18 (0-0.5)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0108189-12	0108196-01	0108189-17	0108196-04	0108172-44	0108172-40	0108172-15	0108172-36
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	8/24/2001	8/27/2001	8/24/2001	8/27/2001	8/22/2001	8/22/2001	8/21/2001	8/22/2001
VOLATILES (mg/kg)																					
EPA Method SW8260																					
1,2,4-Trimethylbenzene	170	--	--	--	3300 (m)	--	--	--	1500	1400	40000	790	55	0.001 U	0.002 U	0.001 U	0.002 U	0.001 U	0.001 U	**0.00192**	0.001 U
1,2-Dibromoethane	0.028	--	--	--	--	--	--	--	0.033	0.25	7.1	1.7	0.000059	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3,5-Trimethylbenzene	70	--	--	--	3300 (m)	--	--	--	1500	1400	40000	--	12	0.001 U	0.002 U	0.001 U	0.002 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone	27102	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
4-Isopropyltoluene	520 (a)	0.6 (a)	12 (a)	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	0.001 U	0.002 U	0.001 U	0.002 U	0.001 U	0.001 U	0.001 U	0.001 U
Acetone	6036	0.8	16	--	1250	--	--	--	--	--	--	--	--	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	**0.00868**	0.005 U	0.005 U
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Disulfide	720	2	32	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U	0.001 U	0.001 U	0.001 U
Isopropylbenzene	1977	--	--	--	3300 (m)	--	--	--	51000	24000	--	--	--	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U	0.001 U	0.001 U	0.001 U
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	0.002 U	0.002 U	0.002 U	0.004 U	0.002 U	0.002 U	**0.00271**	0.002 U
Methyl Iodide	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methyl tert-butyl ether	157	--	--	--	--	--	--	--	760	9000	--	720	0.30	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	190	4	84	10	3900	--	--	--	770	710	20000	--	15	0.010 U	0.020 U	0.010 U	0.020 U	0.010 U	0.010 U	0.010 U	0.010 U
n-Butylbenzene	240	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	0.002 U	0.004 U	0.002 U	0.004 U	0.002 U	0.002 U	0.002 U	0.002 U
n-Propylbenzene	240	--	--	--	3300 (m)	--	--	--	19000	9300	--	--	--	0.001 U	0.002 U	0.001 U	0.002 U	0.001 U	0.001 U	0.001 U	0.001 U
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U	0.001 U	0.001 U	0.001 U
sec-Butylbenzene	220	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	0.001 U	0.002 U	0.001 U	0.002 U	0.001 U	0.001 U	0.001 U	0.001 U
tert-Butylbenzene	390	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	0.001 U	0.002 U	0.001 U	0.002 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	160	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U	0.001 U	0.001 U	0.001 U
HYDROCARBONS (mg/kg)																					
NWTPH-HCID																					
Gasoline	--	--	--	--	--	--	--	--	---	---	--	--	--	21.5 U	21.7 U	21.7 U	22.7 U	22.5 U	22.2 U	21.5 U	22.7 U
Kerosene	--	--	--	--	--	--	--	--	--	--	--	--	--	53.8 U	54.3 U	54.3 U	56.8 U	56.2 U	55.6 U	53.8 U	56.8 U
Diesel	--	--	--	--	--	--	--	--	---	---	--	--	--	53.8 U	**Diesel**	54.3 U	56.8 U	56.2 U	55.6 U	**Diesel**	56.8 U
Lube Oil	--	--	--	--	--	--	--	--	--	--	--	--	--	108 U	**Lube Oil**	109 U	114 U	112 U	111 U	**Lube Oil**	114 U
NWTPH-Dx (mg/kg)																					
TPH-Diesel Range	2000 (p)	--	--	--	--	--	--	--	70000	23000	--	--	--	NA	**549**	NA	NA	NA	NA	**224**	NA
TPH-Kerosene Range	2000 (p)	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
TPH-Motor Oil Range	2000 (p)	--	--	--	--	--	--	--	---	---	--	--	--	NA	**983**	NA	NA	NA	NA	**344**	NA
NWTPH-G (mg/kg)																					
TPH-Gasoline Range	100 (p)	--	--	--	--	--	--	--	22000	13000	--	80000	110	NA	NA	NA	NA	NA	NA	NA	NA
PRIORITY POLLUTANT METALS (mg/kg)																					
Arsenic (7060)	1.6 (q)(*)	1 (r)(*)	29	10 (r)	29 (r)	10 (r)	60 (r)	5 (o)	--	--	--	--	--	**1.9**	**4.5**	**2.62**	**2.30**	**2.57**	**2.15**	**3.79**	**2.80**
Chromium (6010)	450	2 (*)	38	1 (s)(*)	340000 (s)	4 (s)(*)	0.4 (s)(*)	23.1	--	--	--	--	--	**10.7**	**13.9**	**20.0**	**17.5**	**19.3**	**21.3**	**22.4**	**17.9**
Copper (6010)	40877	--	--	100	390	190	50	19.1	--	--	--	--	--	**11.6** J	**14.5**	**15.3** J	**15.4**	**20.5**	**19.00**	**46.0**	**18.1**
Lead (7421)	750	--	--	50	4000	16	500	9	750	750	750	--	30	**13.4** J	**12.3**	**17.5** J	**10.3**	**30.7**	**40.5**	**52.2**	**18.5**
Nickel (6010)	20439	7 (*)	130	30	625	320	200	21.4	--	--	--	--	--	**10.3**	**16.9**	**15.6**	**20.1**	**19.9**	**21.3**	**20.3**	**19.2**
Zinc (6010)	100000	620	12000	50	20000	60	200	60.2	--	--	--	--	--	**66.4**	**77.5**	**73.5**	**93.5**	**92.5**	**95.3**	**179**	**712**
Cadmium (6010)	451	0.4	8	4	125	6	20	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (7471)	307	--	--	0.3	73	1.5	0.1	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE C-4
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
EASTERN PORTION OF PHASE III STUDY AREA
PHASE III RI

														0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
	SCREENING CRITERIA																				
									Risk-Based Concentrations					COMP	COMP	COMP	COMP	COMP	COMP	COMP	COMP
Sample Identification:									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	G6 (0-0.5)	G7 (0-0.5)	G10 (0-0.5)	G11 (0-0.5)	G15 (0-0.5)	G31 (0-0.5) Dup of G15 (0-0.5)	G17 (0-0.5)	G18 (0-0.5)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0108189-12	0108196-01	0108189-17	0108196-04	0108172-44	0108172-40	0108172-15	0108172-36
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	8/24/2001	8/27/2001	8/24/2001	8/27/2001	8/22/2001	8/22/2001	8/21/2001	8/22/2001
BETX (mg/kg)																					
EPA Method SW8021B																					
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, Total	420	10	210	--	--	--	--	--	24000	19000	--	--	100	NA	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	NA	NA	NA	NA	NA
DIOXINS AND FURANS (ng/kg)																					
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

BZTO104(e)019664

TABLE C-4
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
EASTERN PORTION OF PHASE III STUDY AREA
PHASE III RI

Sample Identification:														0-0.5 COMP G19 (0-0.5)	0-0.5 COMP BA7 (0-0.5)	0-0.5 COMP BA8 (0-0.5)	0-0.5 COMP BA19 (0-0.5) Dup of BA8 (0-0.5)	0-0.5 COMP BA9 (0-0.5)	0-0.5 COMP BA10 (0-0.5)	0-0.5 COMP BA11 (0-0.5)	0-0.5 EP-VS015-001 (0-0.5)
	SCREENING CRITERIA								Risk-Based Concentrations												
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater								
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0108172-48	0108196-20	108196-16	0108196-15	0108182-23	0108196-12	0108196-08	0208160-19
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	8/22/2001	8/27/2001	8/27/2001	8/27/2001	8/23/2001	8/27/2001	8/27/2001	8/29/2002
SEMIVOLATILES (mg/kg)																					
EPA Method SW8270																					
2,6-Dinitrotoluene	616	0.00003	0.0007	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	NA
2-Methylnaphthalene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.067 U	0.067 U	**0.130**	**0.250**	**0.480**	0.067 U	0.067 U	NA
Acenaphthene	29219	29	570	20	--	--	--	--	41000	16000	--	--	--	0.067 U	0.067 U	**0.160** J	**1.500** J	**2.800**	0.067 U	0.067 U	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.067 U	0.067 U	**1.800**	**2.200**	**2.400**	0.067 U	**0.080**	NA
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	0.067 U	0.067 U	**2.000**	**1.900**	**14.000**	0.067 U	**0.083**	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	**0.360** J	0.067 U	**8.700**	**6.200**	**33.000**	0.067 U	**0.360**	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	**0.700**	**0.110** J	**16.000** J	**11.000** J	**36.000**	**0.083** J	**0.560** J	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	**1.200** J	**0.210**	**28.000**	**20.000**	**72.000**	**0.140**	**1.100**	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	**0.820**	0.067 U	**15.000** J	**10.000** J	**39.000**	**0.083** J	**0.480** J	NA
Benzo(k)fluoranthene	21.1	2	49	--	--	--	--	--	27	210	5900	--	--	**0.370**	0.067 U	**8.400**	**6.500**	**20.000**	0.067 U	**0.320**	NA
bis(2-Ethylhexyl)phthalate	123	180 (g)	3600 (g)	--	1020	4.5	--	--	--	--	--	--	--	**0.073**	0.068 U	**1.900**	**2.100**	0.670 U	0.067 U	0.067 U	NA
Butylbenzylphthalate	100000	810	930	--	1020 (i)	4.5 (i)	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.670 U	0.067 U	0.067 U	NA
Carbazole	86	0.03	0.6	--	--	--	--	--	--	--	--	--	--	0.067 U	0.067 U	**0.240** J	**2.100** J	**7.800**	0.067 U	0.067 U	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	**0.510** J	0.067 U	**9.800** J	**6.700** J	**37.000**	0.067 U	**0.420** J	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	0.067 U	0.067 U	**0.430** J	**0.690** J	**2.300**	0.067 U	0.067 U	NA
Dibenzofuran	3127	--	--	--	0.002	--	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 UJ	**0.600** J	**1.400**	0.067 U	0.067 U	NA
Diethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	NA
Dimethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	NA
Di-n-Butylphthalate	61561	270	2300	200	30000	0.45	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.670 U	0.067 U	0.067 U	NA
Di-n-Octyl phthalate	24624	10000	10000	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.670 U	0.067 U	0.067 U	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	**0.990** J	**0.150** J	**20.000** J	**15.000** J	**96.000**	**0.096** J	**1.100** J	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	0.067 U	0.067 U	**0.250** J	**1.600** J	**4.800**	0.067 U	0.067 U	NA
Hexachloroethane	123	0.02	0.5	--	--	--	--	--	--	--	--	--	--	0.130 U	0.130 U	0.130 U	**0.130**	0.130 U	0.130 U	0.130 U	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	**0.570**	0.067 U	**10.000**	**7.100**	**25.000**	0.067 U	**0.370**	NA
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	0.067 U	0.130 U	**0.110**	**0.190**	**0.490**	0.130 U	0.130 U	NA
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	0.330 U	0.330 U	0.330 U	0.330 U	3.30 U	0.330 U	0.330 U	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	**0.360** J	0.067 U	**8.200**	**6.300**	**72.000**	**0.100**	**0.510**	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	**1.200** J	**0.180** J	**21.000** J	**17.000** J	**95.000**	**0.120** J	**1.100** J	NA
SEMIVOLATILES (mg/kg)																					
EPA Method SW8270SIM																					
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA	0.0887
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA	0.213
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	0.258
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--	NA	NA	NA	NA	NA	NA	NA	0.0713 J
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	NA	NA	NA	NA	NA	NA	0.152
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA	0.0347
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA	0.157
Naphthalene	188	4	84	10	3900	--		--	770	710	20000	--	15	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
CHLORINATED PHENOLS (mg/kg)																					
Method 8040																					
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE C-4
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
EASTERN PORTION OF PHASE III STUDY AREA
PHASE III RI

														0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
	SCREENING CRITERIA																				
									Risk-Based Concentrations					COMP	COMP	COMP	COMP		COMP	COMP	
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater				BA19 (0-0.5)				
Sample Identification:														G19 (0-0.5)	BA7 (0-0.5)	BA8 (0-0.5)	Dup of BA8 (0-0.5)	BA9 (0-0.5)	BA10 (0-0.5)	BA11 (0-0.5)	EP-VS015-001 (0-0.5)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0108172-48	0108196-20	108196-16	0108196-15	0108182-23	0108196-12	0108196-08	0208160-19
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	8/22/2001	8/27/2001	8/27/2001	8/27/2001	8/23/2001	8/27/2001	8/27/2001	8/29/2002
VOLATILES (mg/kg)																					
EPA Method SW8260																					
1,2,4-Trimethylbenzene	170	--	--	--	3300 (m)	--	--	--	1500	1400	40000	790	55	0.001 U	0.001 U	**0.00178**	**0.00169**	0.001 U	0.002 U	0.002 U	NA
1,2-Dibromoethane	0.028	--	--	--	--	--	--	--	0.033	0.25	7.1	1.7	0.000059	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	NA
1,3,5-Trimethylbenzene	70	--	--	--	3300 (m)	--	--	--	1500	1400	40000	--	12	0.001 U	0.001 U	**0.00113**	**0.00108**	0.001 U	0.002 U	0.002 U	NA
2-Butanone	27102	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	NA
4-Isopropyltoluene	520 (a)	0.6 (a)	12 (a)	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	NA
Acetone	6036	0.8	16	--	1250	--	--	--	--	--	--	--	--	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	NA
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	NA
Carbon Disulfide	720	2	32	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	NA
Isopropylbenzene	1977	--	--	--	3300 (m)	--	--	--	51000	24000	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	NA
Methyl Iodide	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	NA
Methyl tert-butyl ether	157	--	--	--	--	--	--	--	760	9000	--	720	0.30	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	190	4	84	10	3900	--	--	--	770	710	20000	--	15	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.020 U	0.020 U	NA
n-Butylbenzene	240	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.004 U	0.004 U	NA
n-Propylbenzene	240	--	--	--	3300 (m)	--	--	--	19000	9300	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	NA
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	NA
sec-Butylbenzene	220	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	NA
tert-Butylbenzene	390	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	160	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	NA
HYDROCARBONS (mg/kg)																					
NWTPH-HCID																					
Gasoline	--	--	--	--	--	--	--	--	---	---	--	--	--	23.0 U	22.5 U	21.7 U	21.7 U	22.2 U	21.7 U	21.7 U	NA
Kerosene	--	--	--	--	--	--	--	--	--	--	--	--	--	57.5 U	56.2 U	54.3 U	54.3 U	55.6 U	54.3 U	54.8 U	NA
Diesel	--	--	--	--	--	--	--	--	---	---	--	--	--	57.5 U	56.2 U	**Diesel**	**Diesel**	**Diesel**	54.3 U	54.3 U	NA
Lube Oil	--	--	--	--	--	--	--	--	--	--	--	--	--	115 U	112 U	**Lube Oil**	**Lube Oil**	**Lube Oil**	**Lube Oil**	109 U	NA
NWTPH-Dx (mg/kg)																					
TPH-Diesel Range	2000 (p)	--	--	--	--	--	--	--	70000	23000	--	--	--	NA	NA	**266**	**295**	**496**	**25.1**	NA	NA
TPH-Kerosene Range	2000 (p)	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
TPH-Motor Oil Range	2000 (p)	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	**722**	**652**	**766**	**105**	NA	NA
NWTPH-G (mg/kg)																					
TPH-Gasoline Range	100 (p)	--	--	--	--	--	--	--	22000	13000	--	80000	110	NA	NA	NA	NA	NA	NA	NA	NA
PRIORITY POLLUTANT METALS (mg/kg)																					
Arsenic (7060)	1.6 (q)(*)	1 (r)(*)	29	10 (r)	29 (r)	10 (r)	60 (r)	5 (o)	--	--	--	--	--	**2.45**	**3.12**	**5.60**	**6.32**	**3.49**	**2.89**	**2.59**	NA
Chromium (6010)	450	2 (*)	38	1 (s)(*)	340000 (s)	4 (s)(*)	0.4 (s)(*)	23.1	--	--	--	--	--	**18.3**	**18.2**	**19.0**	**21.4**	**25**	**15.1**	**15.2**	NA
Copper (6010)	40877	--	--	100	390	190	50	19.1	--	--	--	--	--	**23.1**	**15.3**	**36.9**	**38.3**	**52.9**	**15.8**	**12.3**	NA
Lead (7421)	750	--	--	50	4000	16	500	9	750	750	750	--	30	**1170**	**11.7**	**26.2**	**25.9**	**42.2**	**12.6**	**14.3**	NA
Nickel (6010)	20439	7 (*)	130	30	625	320	200	21.4	--	--	--	--	--	**18.6**	**19.0**	**18.0**	**20.1**	**23.9**	**16.5**	**12.2**	NA
Zinc (6010)	100000	620	12000	50	20000	60	200	60.2	--	--	--	--	--	**201**	**56.1**	**86.4**	**95.1**	**151**	**72.4**	**65.5**	NA
Cadmium (6010)	451	0.4	8	4	125	6	20	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	
Mercury (7471)	307	--	--	0.3	73	1.5	0.1	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	

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TABLE C-4
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
EASTERN PORTION OF PHASE III STUDY AREA
PHASE III RI

														0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
	SCREENING CRITERIA																				
									Risk-Based Concentrations					COMP	COMP	COMP	COMP		COMP	COMP	
Sample Identification:									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	G19 (0-0.5)	BA7 (0-0.5)	BA8 (0-0.5)	BA19 (0-0.5) Dup of BA8 (0-0.5)	BA9 (0-0.5)	BA10 (0-0.5)	BA11 (0-0.5)	EP-VS015-001 (0-0.5)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0108172-48	0108196-20	108196-16	0108196-15	0108182-23	0108196-12	0108196-08	0208160-19
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	8/22/2001	8/27/2001	8/27/2001	8/27/2001	8/23/2001	8/27/2001	8/27/2001	8/29/2002
BETX (mg/kg)																					
EPA Method SW8021B																					
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, Total	420	10	210	--	--	--	--	--	24000	19000	--	--	100	NA	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	NA	NA	NA	NA	NA
DIOXINS AND FURANS (ng/kg)																					
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

BZTO104(e)019667

TABLE C-4
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
EASTERN PORTION OF PHASE III STUDY AREA
PHASE III RI

Sample Identification:														0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
	SCREENING CRITERIA																			
									Risk-Based Concentrations											
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater							
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			EP-VS015-002 (0-0.5)	EP-VSR-001 (0-0.5)	G07-3 (0-0.5)	G07-4 (0-0.5)	G07-5 (0-0.5)	G10-4 (0-0.5)	G10-5 (0-0.5)
														0208160-20	0208160-223	0309196-18	0309196-21	0309196-24	0309196-27	0309196-44
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	8/29/2002	8/29/2002	9/29/2003	9/29/2003	9/29/2003	9/29/2003	9/29/2003
SEMIVOLATILES (mg/kg)																				
EPA Method SW8270																				
2,6-Dinitrotoluene	616	0.00003	0.0007	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Anthracene	100000	590	12000	--	--	--		--	--	90000	--	--	--	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--		--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	21.1	2	49	--	--	--	--	--	27	210	5900	--	--	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	123	180 (g)	3600 (g)	--	1020	4.5	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	100000	810	930	--	1020 (i)	4.5 (i)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Carbazole	86	0.03	0.6	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	3127	--	--	--	0.002	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	61561	270	2300	200	30000	0.45	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Di-n-Octyl phthalate	24624	10000	10000	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	NA	NA	NA	NA	NA	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	123	0.02	0.5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (mg/kg)																				
EPA Method SW8270SIM																				
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	NA	NA	**0.118**	**0.0387**	0.00667 U	0.00667 U	0.00667 U
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	**0.744**	**0.253**	**0.02**	**0.012**	0.00667 U
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	NA	NA	**1.09**	**0.404**	**0.014**	**0.00933**	0.00667 U
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	0.02	0.215	**8.27**	**3.05**	**0.132**	**0.0407**	**0.024**
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	0.0347	0.53	**9.24**	**2.79**	**0.297**	**0.068**	**0.0447**
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	0.0387	0.538	**12.4**	**3.65**	**0.366**	**0.101**	**0.0507**
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	**2.88**	**0.92**	**0.134**	**0.022**	**0.046**
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--	0.0127 J	0.166 J	**3.8**	**1.16**	**0.107**	**0.0287**	**0.016**
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	0.028	0.27	**10**	**3.56**	**0.176**	**0.044**	**0.0273**
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	0.00667 U	0.0687	**0.66**	**0.303**	**0.028**	0.00667 U	**0.00867**
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	NA	**24.5**	**9.2**	**0.305**	**0.0807**	**0.048**
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	NA	**0.247**	**0.09**	0.00667 U	0.00667 U	0.00667 U
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	0.026	0.306	**2.6**	1.27	**0.115**	**0.02**	**0.0333**
Naphthalene	188	4	84	10	3900	--		--	770	710	20000	--	15	NA	NA	**0.0967**	**0.0413**	**0.014**	0.00667 U	0.00667 U
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	NA	**10.9**	**4.44**	**0.0847**	**0.0307**	**0.0127**
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	NA	**28.9**	**13.6**	**0.483**	**0.123**	**0.0673**
CHLORINATED PHENOLS (mg/kg)																				
Method 8040																				
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA

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TABLE C-4
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
EASTERN PORTION OF PHASE III STUDY AREA
PHASE III RI

Sample Identification:														0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
	SCREENING CRITERIA																			
									Risk-Based Concentrations											
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater							
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			EP-VS015-002 (0-0.5) 0208160-20	EP-VSR-001 (0-0.5) 0208160-223	G07-3 (0-0.5) 0309196-18	G07-4 (0-0.5) 0309196-21	G07-5 (0.0.5) 0309196-24	G10-4 (0-0.5) 0309196-27	G10-5 (0-0.5) 0309196-44
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	8/29/2002	8/29/2002	9/29/2003	9/29/2003	9/29/2003	9/29/2003	9/29/2003
VOLATILES (mg/kg)																				
EPA Method SW8260																				
1,2,4-Trimethylbenzene	170	--	--	--	3300 (m)	--	--	--	1500	1400	40000	790	55	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	0.028	--	--	--	--	--	--	--	0.033	0.25	7.1	1.7	0.000059	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	70	--	--	--	3300 (m)	--	--	--	1500	1400	40000	--	12	NA	NA	NA	NA	NA	NA	NA
2-Butanone	27102	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
4-Isopropyltoluene	520 (a)	0.6 (a)	12 (a)	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Acetone	6038	0.8	16	--	1250	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	720	2	32	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	1977	--	--	--	3300 (m)	--	--	--	51000	24000	--	--	--	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	NA	NA	NA	NA
Methyl Iodide	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	157	--	--	--	--	--	--	--	760	9000	--	720	0.30	NA	NA	NA	NA	NA	NA	NA
Naphthalene	190	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	240	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	240	--	--	--	3300 (m)	--	--	--	19000	9300	--	--	--	NA	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	220	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	390	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	160	NA	NA	NA	NA	NA	NA	NA
HYDROCARBONS (mg/kg)																				
NWTPH-HCID																				
Gasoline	--	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA	NA	NA	NA
Kerosene	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Diesel	--	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA	NA	NA	NA
Lube Oil	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
NWTPH-Dx (mg/kg)																				
TPH-Diesel Range	2000 (p)	--	--	--	--	--	--	--	70000	23000	--	--	--	NA	NA	NA	NA	NA	NA	NA
TPH-Kerosene Range	2000 (p)	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
TPH-Motor Oil Range	2000 (p)	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA	NA	NA	NA
NWTPH-G (mg/kg)																				
TPH-Gasoline Range	100 (p)	--	--	--	--	--	--	--	22000	13000	--	80000	110	NA	NA	NA	NA	NA	NA	NA
PRIORITY POLLUTANT METALS (mg/kg)																				
Arsenic (7060)	1.6 (q)(*)	1 (r)(*)	29	10 (r)	29 (r)	10 (r)	60 (r)	5 (o)	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Chromium (6010)	450	2 (*)	38	1 (s)(*)	340000 (s)	4 (s)(*)	0.4 (s)(*)	23.1	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Copper (6010)	40877	--	--	100	390	190	50	19.1	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Lead (7421)	750	--	--	50	4000	16	500	9	750	750	750	--	30	NA	NA	18.8	5.07	5.87	19.7	1.85 U
Nickel (6010)	20439	7 (*)	130	30	625	320	200	21.4	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Zinc (6010)	100000	620	12000	50	20000	60	200	60.2	--	--	--	--	--	NA	NA	97.9	70.3	102	68.9	57.7
Cadmium (6010)	451	0.4	8	4	125	6	20	--	--	--	--	--	--			NA	NA	NA	NA	NA
Mercury (7471)	307	--	--	0.3	73	1.5	0.1	--	--	--	--	--	--			NA	NA	NA	NA	NA

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TABLE C-4
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
EASTERN PORTION OF PHASE III STUDY AREA
PHASE III RI

														0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
	SCREENING CRITERIA																							
									Risk-Based Concentrations															
Sample Identification:									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	EP-VS015-002 (0-0.5)	EP-VSR-001 (0-0.5)	G07-3 (0-0.5)	G07-4 (0-0.5)	G07-5 (0.0.5)	G10-4 (0-0.5)	G10-5 (0-0.5)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0208160-20	0208160-223	0309196-18	0309196-21	0309196-24	0309196-27	0309196-44
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	8/29/2002	8/29/2002	9/29/2003	9/29/2003	9/29/2003	9/29/2003	9/29/2003
BETX (mg/kg)																				
EPA Method SW8021B																				
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	NA	NA	NA	NA	NA	NA	NA
Xylenes, Total	420	10	210	--	--	--	--	--	24000	19000	--	--	100	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	NA	NA	NA	NA
DIOXINS AND FURANS (ng/kg)																				
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA

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TABLE C-4
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
EASTERN PORTION OF PHASE III STUDY AREA
PHASE III RI

Sample Identification:														0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
	SCREENING CRITERIA																				
									Risk-Based Concentrations												
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater								
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			G11-3 (0-0.5)	G15-4 (0-0.5)	G15-5 (0-0.5)	G15-6 (0-0.5)	G17-4 (0-0.5)	G17-5 (0-0.5)	G17-6 (0-0.5)	G19-3 (0-0.5)
														0309196-29	0309196-38	0309196-10	0309196-35	0309196-07	0309196-01	0309196-04	0309196-13
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	9/29/2003	9/29/2003	9/29/2003	9/29/2003	9/29/2003	9/29/2003	9/29/2003	9/29/2003
SEMIVOLATILES (mg/kg)																					
EPA Method SW8270																					
2,6-Dinitrotoluene	616	0.00003	0.0007	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	100000	590	12000	--	--	--		--	--	90000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--		--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	21.1	2	49	--	--	--	--	--	27	210	5900	--	--	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	123	180 (g)	3600 (g)	--	1020	4.5	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	100000	810	930	--	1020 (i)	4.5 (i)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86	0.03	0.6	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	3127	--	--	--	0.002	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	61561	270	2300	200	30000	0.45	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octyl phthalate	24624	10000	10000	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	123	0.02	0.5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (mg/kg)																					
EPA Method SW8270SIM																					
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	0.00667 U	0.00667 U	0.00667 U	0.00667 U	**0.0647**	0.00667 U	0.00667 U	**0.018**
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	**0.0207**	**0.018**	**0.064**	**0.018**	**0.398**	**0.0113**	**0.0167**	**0.096**
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	**0.014**	**0.018**	**0.0553**	**0.018**	**0.671**	**0.0147**	**0.0387**	**0.131**
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	**0.148**	**0.1**	**0.456**	**0.118**	**4.11**	**0.0733**	**0.078**	**0.962**
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	**0.285**	**0.23**	**0.893**	**0.237**	**6.91**	**0.163**	**0.128**	1.43
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	**0.315**	**0.311**	**0.977**	**0.277**	**7.3**	**0.215**	**0.194**	**1.48**
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	**0.315**	**0.254**	**0.794**	**0.24**	**6.52**	**0.184**	**0.187**	1.33
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--	**0.078**	**0.0827**	**0.272**	**0.0793**	**2.12**	**0.0707**	**0.0527**	**0.511**
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	**0.204**	**0.145**	**0.597**	**0.151**	**5.39**	**0.109**	**0.0907**	1.17
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	**0.054**	**0.0473**	**0.133**	**0.042**	**0.881**	**0.038**	**0.044**	**0.227**
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	**0.466**	**0.263**	**1.52**	**0.277**	**13.9**	**0.161**	**0.142**	**2.77**
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	0.00667 U	0.00667 U	**0.0107**	0.00667 U	**0.173**	0.00667 U	0.00667 U	**0.04**
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	**0.223**	**0.185**	**0.583**	**0.173**	**4.81**	**0.136**	**0.144**	**0.983**
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	0.00667 U	**0.0147**	**0.016**	**0.012**	**0.0587**	0.00667 U	**0.038**	**0.0493**
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	**0.13**	**0.06**	**0.437**	**0.082**	**7.56**	**0.0393**	**0.0707**	1.46
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	**0.605**	**0.367**	**2.1**	**0.387**	**17.2**	**0.21**	**0.16**	**3.75**
CHLORINATED PHENOLS (mg/kg)																					
Method 8040																					
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE C-4
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
EASTERN PORTION OF PHASE III STUDY AREA
PHASE III RI

Sample Identification:														0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
	SCREENING CRITERIA																				
									Risk-Based Concentrations												
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater								
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			G11-3 (0-0.5)	G15-4 (0-0.5)	G15-5 (0-0.5)	G15-6 (0-0.5)	G17-4 (0-0.5)	G17-5 (0-0.5)	G17-6 (0-0.5)	G19-3 (0-0.5)
														0309196-29	0309196-38	0309196-10	0309196-35	0309196-07	0309196-01	0309196-04	0309196-13
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	9/29/2003	9/29/2003	9/29/2003	9/29/2003	9/29/2003	9/29/2003	9/29/2003	9/29/2003
VOLATILES (mg/kg)																					
EPA Method SW8260																					
1,2,4-Trimethylbenzene	170	--	--	--	3300 (m)	--	--	--	1500	1400	40000	790	55	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	0.028	--	--	--	--	--	--	--	0.033	0.25	7.1	1.7	0.000059	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	70	--	--	--	3300 (m)	--	--	--	1500	1400	40000	--	12	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	27102	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
4-Isopropyltoluene	520 (a)	0.6 (a)	12 (a)	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	6036	0.8	16	--	1250	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	720	2	32	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	1977	--	--	--	3300 (m)	--	--	--	51000	24000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Iodide	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	157	--	--	--	--	--	--	--	760	9000	--	720	0.30	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	190	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	240	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	240	--	--	--	3300 (m)	--	--	--	19000	9300	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	220	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	390	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	160	NA	NA	NA	NA	NA	NA	NA	NA
HYDROCARBONS (mg/kg)																					
NWTPH-HCID																					
Gasoline	--	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Kerosene	--	--	--	--	--	--	--	--	--	--				NA	NA	NA	NA	NA	NA	NA	NA
Diesel	--	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Lube Oil	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
NWTPH-Dx (mg/kg)																					
TPH-Diesel Range	2000 (p)	--	--	--	--	--	--	--	70000	23000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
TPH-Kerosene Range	2000 (p)	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
TPH-Motor Oil Range	2000 (p)	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
NWTPH-G (mg/kg)																					
TPH-Gasoline Range	100 (p)	--	--	--	--	--	--	--	22000	13000	--	80000	110	NA	NA	NA	NA	NA	NA	NA	NA
PRIORITY POLLUTANT METALS (mg/kg)																					
Arsenic (7060)	1.6 (q)(*)	1 (r)(*)	29	10 (r)	29 (r)	10 (r)	60 (r)	5 (o)	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Chromium (6010)	450	2 (*)	38	1 (s)(*)	340000 (s)	4 (s)(*)	0.4 (s)(*)	23.1	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Copper (6010)	40877	--	--	100	390	190	50	19.1	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Lead (7421)	750	--	--	50	4000	16	500	9	750	750	750	--	30	1.85 U	16.3	76.5	12.7	43	11.9 J	28	158
Nickel (6010)	20439	7 (*)	130	30	625	320	200	21.4	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (6010)	100000	620	12000	50	20000	60	200	60.2	--	--	--	--	--	86.6	77.7	73	63.9	148	80.8 J	410	87.1
Cadmium (6010)	451	0.4	8	4	125	6	20	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (7471)	307	--	--	0.3	73	1.5	0.1	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE C-4
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
EASTERN PORTION OF PHASE III STUDY AREA
PHASE III RI

														0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
	SCREENING CRITERIA																					
									Risk-Based Concentrations													
Sample Identification:									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	G11-3 (0-0.5)	G15-4 (0-0.5)	G15-5 (0-0.5)	G15-6 (0-0.5)	G17-4 (0-0.5)	G17-5 (0-0.5)	G17-6 (0-0.5)	G19-3 (0-0.5)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0309196-29	0309196-38	0309196-10	0309196-35	0309196-07	0309196-01	0309196-04	0309196-13
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	9/29/2003	9/29/2003	9/29/2003	9/29/2003	9/29/2003	9/29/2003	9/29/2003	9/29/2003
BETX (mg/kg)																					
EPA Method SW8021B																					
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, Total	420	10	210	--	--	--	--	--	24000	19000	--	--	100	NA	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	NA	NA	NA	NA	NA
DIOXINS AND FURANS (ng/kg)																					
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE C-4
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
EASTERN PORTION OF PHASE III STUDY AREA
PHASE III RI

Sample Identification:														0-0.5	0-0.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5
	SCREENING CRITERIA															COMP	COMP	COMP	COMP	COMP	COMP
									Risk-Based Concentrations												
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater							
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			G19-4 (0-0.5)	G19-5 (0-0.5)	G6 (1-1.5)	G7 (1-1.5)	G10 (1-1.5)	G11 (1-1.5)	G15 (1-1.5)	G17 (1-1.5)
														0309196-32	0309196-41	0108189-13	0108196-02	0108189-18	0108196-05	0108172-45	0108172-16
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	9/29/2003	9/29/2003	8/24/2001	8/27/2001	8/24/2001	8/27/2001	8/22/2001	8/21/2001
SEMIVOLATILES (mg/kg)																					
EPA Method SW8270																					
2,6-Dinitrotoluene	616	0.00003	0.0007	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	NA	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U
2-Methylnaphthalene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Acenaphthene	29219	29	570	20	--	--	--	--	41000	16000	--	--	--	NA	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	0.067 U	0.067 U	**0.092**	0.067 U	0.067 U	0.067 U
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	NA	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	NA	0.067 U	0.067 U	**0.300**	**0.100**	0.067 U	**0.120** J
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	NA	NA	**0.086**	**0.074** J	**0.640**	**0.170** J	0.067 U	**0.210**
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	NA	**0.130**	**0.120**	1.200	**0.290**	0.067 U	**0.360** J
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	**0.068**	0.067 U	**0.740**	**0.120** J	0.067 U	**0.310**
Benzo(k)fluoranthene	21.1	2	49	--	--	--	--	--	27	210	5900	--	--	NA	NA	0.067 U	0.067 U	**0.360**	**0.089**	0.067 U	**0.110**
bis(2-Ethylhexyl)phthalate	123	180 (g)	3600 (g)	--	1020	4.5	--	--	--	--	--	--	--	NA	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Butylbenzylphthalate	100000	810	930	--	1020 (i)	4.5 (i)	--	--	--	--	--	--	--	NA	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Carbazole	86	0.03	0.6	--	--	--	--	--	--	--	--	--	--	NA	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	NA	0.067 U	0.067 U	**0.460**	**0.110** J	0.067 U	**0.140** J
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Dibenzofuran	3127	--	--	--	0.002	--	--	--	--	--	--	--	--	NA	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Diethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Dimethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Di-n-Butylphthalate	61561	270	2300	200	30000	0.45	--	--	--	--	--	--	--	NA	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Di-n-Octyl phthalate	24624	10000	10000	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	NA	**0.078**	**0.140** J	1.100	**0.250** J	0.067 U	**0.310** J
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Hexachloroethane	123	0.02	0.5	--	--	--	--	--	--	--	--	--	--	NA	NA	0.130 U	0.130 U	0.130 U	0.130 U	0.130 U	0.130 U
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	NA	0.067 U	0.067 U	**0.530**	**0.095**	0.067 U	**0.200**
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	NA	0.067 U	**0.068**	**0.410**	0.067 U	0.067 U	**0.100** J
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	NA	**0.110**	**0.140** J	1.200	**0.260** J	0.067 U	**0.450** J
SEMIVOLATILES (mg/kg)																					
EPA Method SW8270SIM																					
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	**0.0153**	0.00667 U	NA	NA	NA	NA	NA	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	**0.174**	**0.008**	NA	NA	NA	NA	NA	NA
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	**0.133**	0.00667 U	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	1.15	**0.0547**	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	2.32	**0.113**	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	2.59	**0.128**	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	**2.73**	**0.115**	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--	**0.77**	**0.042**	NA	NA	NA	NA	NA	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	**1.57**	**0.068**	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	0.373	**0.0213**	NA	NA	NA	NA	NA	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	**3.71**	**0.103**	NA	NA	NA	NA	NA	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	**0.028**	0.00667 U	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	1.89	**0.0827**	NA	NA	NA	NA	NA	NA
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	**0.0507**	**0.016**	NA	NA	NA	NA	NA	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	**1.18**	**0.0327**	NA	NA	NA	NA	NA	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	**4.89**	**0.143**	NA	NA	NA	NA	NA	NA
CHLORINATED PHENOLS (mg/kg)																					
Method 8040																					
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE C-4
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
EASTERN PORTION OF PHASE III STUDY AREA
PHASE III RI

															0-0.5	0-0.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5
	SCREENING CRITERIA																					
									Risk-Based Concentrations								COMP	COMP	COMP	COMP	COMP	COMP
Sample Identification:									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater		G19-4 (0-0.5)	G19-5 (0-0.5)	G6 (1-1.5)	G7 (1-1.5)	G10 (1-1.5)	G11 (1-1.5)	G15 (1-1.5)	G17 (1-1.5)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation				0309196-32	0309196-41	0108189-13	0108196-02	0108189-18	0108196-05	0108172-45	0108172-16
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational		9/29/2003	9/29/2003	8/24/2001	8/27/2001	8/24/2001	8/27/2001	8/22/2001	8/21/2001
VOLATILES (mg/kg)																						
EPA Method SW8260																						
1,2,4-Trimethylbenzene	170	--	--	--	3300 (m)	--	--	--	1500	1400	40000	790	55		NA	NA	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U	0.001 U
1,2-Dibromoethane	0.028	--	--	--	--	--	--	--	0.033	0.25	7.1	1.7	0.000059		NA	NA	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U	0.001 U
1,3,5-Trimethylbenzene	70	--	--	--	3300 (m)	--	--	--	1500	1400	40000	--	12		NA	NA	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U	0.001 U
2-Butanone	27102	--	--	--	--	--	--	--	--	--	--	--	--		NA	NA	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
4-Isopropyltoluene	520 (a)	0.6 (a)	12 (a)	200 (a)	1440 (a)	--	--	--	--	--	--	--	--		NA	NA	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U	0.001 U
Acetone	6038	0.8	16	--	1250	--	--	--	--	--	--	--	--		NA	NA	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052		NA	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Disulfide	720	2	32	--	--	--	--	--	--	--	--	--	--		NA	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--		NA	NA	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U	0.001 U
Isopropylbenzene	1977	--	--	--	3300 (m)	--	--	--	51000	24000	--	--	--		NA	NA	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U	0.001 U
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--		NA	NA	0.002 U	0.002 U	0.002 U	0.004 U	0.002 U	0.002 U
Methyl Iodide	--	--	--	--	--	--	--	--	--	--	--	--	--		NA	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methyl tert-butyl ether	157	--	--	--	--	--	--	--	760	9000	--	720	0.30		NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	190	4	84	10	3900	--	--	--	770	710	20000	--	15		NA	NA	0.010 U	0.010 U	0.010 U	0.020 U	0.010 U	0.010 U
n-Butylbenzene	240	--	--	--	3300 (m)	--	--	--	--	--	--	--	--		NA	NA	0.002 U	0.002 U	0.002 U	0.004 U	0.002 U	0.002 U
n-Propylbenzene	240	--	--	--	3300 (m)	--	--	--	19000	9300	--	--	--		NA	NA	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U	0.001 U
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)		NA	NA	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U	0.001 U
sec-Butylbenzene	220	--	--	--	3300 (m)	--	--	--	--	--	--	--	--		NA	NA	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U	0.001 U
tert-Butylbenzene	390	--	--	--	3300 (m)	--	--	--	--	--	--	--	--		NA	NA	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U	0.001 U
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	160		NA	NA	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U	0.001 U
HYDROCARBONS (mg/kg)																						
NWTPH-HCID																						
Gasoline	--	--	--	--	--	--	--	--	---	---	--	--	--		NA	NA	22.5 U	21.7 U	21.7 U	22.2 U	21.3 U	21.7 U
Kerosene	--	--	--	--	--	--	--	--	--	--	--	--	--		NA	NA	56.2 U	54.3 U	54.3 U	55.6 U	53.2 U	54.3 U
Diesel	--	--	--	--	--	--	--	--	---	---	--	--	--		NA	NA	56.2 U	54.3 U	54.3 U	55.6 U	53.2 U	54.3 U
Lube Oil	--	--	--	--	--	--	--	--	--	--	--	--	--		NA	NA	112 U	109 U	109 U	111 U	106 U	109 U
NWTPH-Dx (mg/kg)																						
TPH-Diesel Range	2000 (p)	--	--	--	--	--	--	--	70000	23000	--	--	--		NA	NA	NA	NA	NA	NA	NA	NA
TPH-Kerosene Range	2000 (p)	--	--	--	--	--	--	--	--	--	--	--	--		NA	NA	NA	NA	NA	NA	NA	NA
TPH-Motor Oil Range	2000 (p)	--	--	--	--	--	--	--	---	---	--	--	--		NA	NA	NA	NA	NA	NA	NA	NA
NWTPH-G (mg/kg)																						
TPH-Gasoline Range	100 (p)	--	--	--	--	--	--	--	22000	13000	--	80000	110		NA	NA	NA	NA	NA	NA	NA	NA
PRIORITY POLLUTANT METALS (mg/kg)																						
Arsenic (7060)	1.6 (q)(*)	1 (r)(*)	29	10 (r)	29 (r)	10 (r)	60 (r)	5 (o)	--	--	--	--	--		NA	NA	**2.08**	**2.45**	**1.74**	**1.85**	**2.22**	**1.88**
Chromium (6010)	450	2 (*)	38	1 (s)(*)	340000 (s)	4 (s)(*)	0.4 (s)(*)	23.1	--	--	--	--	--		NA	NA	**15.1**	**16.2**	**16.2**	**18.2**	**17.8**	**16.4**
Copper (6010)	40877	--	--	100	390	190	50	19.1	--	--	--	--	--		NA	NA	**12.7** J	**13.1**	**15.9** J	**16.0**	**13.6**	**16.3**
Lead (7421)	750	--	--	50	4000	16	500	9	750	750	750	--	30		**236**	**6.96**	**8.72** J	**2.23**	**30.8** J	**2.98**	**2.19**	**7.38** J
Nickel (6010)	20439	7 (*)	130	30	625	320	200	21.4	--	--	--	--	--		NA	NA	**17.1**	**19.5**	**17.3**	**20.7**	**20.2**	**18.2**
Zinc (6010)	100000	620	12000	50	20000	60	200	60.2	--	--	--	--	--		**197**	**228**	**138**	**49.7**	**57.9**	**56.4**	**48.9**	**334** J
Cadmium (6010)	451	0.4	8	4	125	6	20	--	--	--	--	--	--		NA	NA	NA	NA	NA	NA	NA	NA
Mercury (7471)	307	--	--	0.3	73	1.5	0.1	--	--	--	--	--	--		NA	NA	NA	NA	NA	NA	NA	NA

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TABLE C-4
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
EASTERN PORTION OF PHASE III STUDY AREA
PHASE III RI

														0-0.5	0-0.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5
	SCREENING CRITERIA																					
									Risk-Based Concentrations							COMP	COMP	COMP	COMP	COMP	COMP
Sample Identification:									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	G19-4 (0-0.5)	G19-5 (0-0.5)	G6 (1-1.5)	G7 (1-1.5)	G10 (1-1.5)	G11 (1-1.5)	G15 (1-1.5)	G17 (1-1.5)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0309196-32	0309196-41	0108189-13	0108196-02	0108189-18	0108196-05	0108172-45	0108172-16
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	9/29/2003	9/29/2003	8/24/2001	8/27/2001	8/24/2001	8/27/2001	8/22/2001	8/21/2001
BETX (mg/kg)																					
EPA Method SW8021B																					
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, Total	420	10	210	--	--	--	--	--	24000	19000	--	--	100	NA	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	NA	NA	NA	NA	NA
DIOXINS AND FURANS (ng/kg)																					
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE C-4
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
EASTERN PORTION OF PHASE III STUDY AREA
PHASE III RI

														1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5
	SCREENING CRITERIA																					
									Risk-Based Concentrations					COMP	COMP	COMP	COMP		COMP	COMP	
Sample Identification:									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	G18 (1-1.5)	G19 (1-1.5)	BA7 (1-1.5)	BA8 (1-1.5)	BA9 (1-1.5)	BA10 (1-1.5)	BA11 (1-1.5)	G10-4 (1-1.5)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0108172-37	0108172-49	0108196-21	108196-17	0108182-24	0108196-13	0108196-09	0309196-28
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	8/22/2001	8/22/2001	8/27/2001	8/27/2001	8/23/2001	8/27/2001	8/27/2001	9/29/2003
SEMIVOLATILES (mg/kg)																					
EPA Method SW8270																					
2,6-Dinitrotoluene	616	0.00003	0.0007	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	NA
2-Methylnaphthalene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	**0.140**	NA
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	**0.350** J	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	**0.110**	0.067 U	0.067 U	**3.500**	NA
Anthracene	100000	590	12000	--	--	--		--	--	90000	--	--	--	0.067 U	0.067 U	0.067 U	**0.097**	0.067 U	**0.240**	**3.300**	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	0.067 U	0.067 U	0.067 U	**0.310**	0.067 U	0.067 U	**23.000**	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--		--	0.27	2.1	59	--	--	0.067 U	0.067 U	0.067 U	**0.500** J	0.067 U	**0.097** J	**34.000** J	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	**0.970**	**0.079**	**0.160**	**62.000**	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	**0.300** J	0.067 U	**0.110** J	**24.000** J	NA
Benzo(k)fluoranthene	21.1	2	49	--	--	--	--	--	27	210	5900	--	--	0.067 U	0.067 U	0.067 U	**0.290**	0.067 U	0.067 U	**19.000**	NA
bis(2-Ethylhexyl)phthalate	123	180 (g)	3600 (g)	--	1020	4.5	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	NA
Butylbenzylphthalate	100000	810	930	--	1020 (i)	4.5 (i)	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	NA
Carbazole	86	0.03	0.6	--	--	--	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	**0.750** J	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	0.067 U	0.067 U	0.067 U	**0.350** J	0.067 U	0.067 U	**26.000** J	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	**0.470** J	NA
Dibenzofuran	3127	--	--	--	0.002	--	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	**0.090** J	NA
Diethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	NA
Dimethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	NA
Di-n-Butylphthalate	61561	270	2300	200	30000	0.45	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	NA
Di-n-Octyl phthalate	24624	10000	10000	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	0.067 U	0.067 U	0.067 U	**0.910** J	0.067 U	**0.130** J	**55.000** J	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	**0.830** J	NA
Hexachloroethane	123	0.02	0.5	--	--	--	--	--	--	--	--	--	--	0.130 U	0.130 U	0.130 U	0.130 U	0.130 U	0.130 U	0.130 U	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	0.067 U	0.067 U	0.067 U	**0.230**	0.067 U	**0.076**	**18.000**	NA
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	0.067 U	0.067 U	0.130 U	**0.110**	0.130 U	0.130 U	**0.430**	NA
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	**0.450**	0.067 U	0.067 U	**29.000**	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	0.067 U	0.067 U	0.067 U	**1.100** J	**0.074**	**0.150** J	**56.000** J	NA
SEMIVOLATILES (mg/kg)																					
EPA Method SW8270SIM																					
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	NA	NA	NA	NA	NA	NA	NA	**0.01**
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	**0.0673**
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	NA	NA	NA	NA	NA	NA	NA	**0.078**
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA	0.481
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA	**0.936**
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	1.2
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	**0.386**
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--	NA	NA	NA	NA	NA	NA	NA	**0.379**
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	NA	NA	NA	NA	NA	NA	**0.561**
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA	**0.0773**
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	NA	NA	NA	NA	NA	NA	**1.36**
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	NA	NA	NA	NA	NA	NA	**0.0193**
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA	**0.337**
Naphthalene	188	4	84	10	3900	--		--	770	710	20000	--	15	NA	NA	NA	NA	NA	NA	NA	**0.016**
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	**0.547**
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	NA	NA	NA	NA	NA	NA	**2.08**
CHLORINATED PHENOLS (mg/kg)																					
Method 8040																					
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE C-4
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
EASTERN PORTION OF PHASE III STUDY AREA
PHASE III RI

														1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5
	SCREENING CRITERIA													COMP	COMP	COMP	COMP		COMP	COMP	
									Risk-Based Concentrations												
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater								
Sample Identification:														G18 (1-1.5)	G19 (1-1.5)	BA7 (1-1.5)	BA8 (1-1.5)	BA9 (1-1.5)	BA10 (1-1.5)	BA11 (1-1.5)	G10-4 (1-1.5)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0108172-37	0108172-49	0108196-21	108196-17	0108182-24	0108196-13	0108196-09	0309196-28
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	8/22/2001	8/22/2001	8/27/2001	8/27/2001	8/23/2001	8/27/2001	8/27/2001	9/29/2003
VOLATILES (mg/kg)																					
EPA Method SW8260																					
1,2,4-Trimethylbenzene	170	--	--	--	3300 (m)	--	--	--	1500	1400	40000	790	55	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	NA
1,2-Dibromoethane	0.028	--	--	--	--	--	--	--	0.033	0.25	7.1	1.7	0.000059	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	NA
1,3,5-Trimethylbenzene	70	--	--	--	3300 (m)	--	--	--	1500	1400	40000	--	12	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	NA
2-Butanone	27102	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	NA
4-Isopropyltoluene	520 (a)	0.6 (a)	12 (a)	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	NA
Acetone	6036	0.8	16	--	1250	--	--	--	--	--	--	--	--	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	**0.00692**	0.005 U	NA
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	NA
Carbon Disulfide	720	2	32	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	NA
Isopropylbenzene	1977	--	--	--	3300 (m)	--	--	--	51000	24000	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.004 U	NA
Methyl Iodide	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	NA
Methyl tert-butyl ether	157	--	--	--	--	--	--	--	760	9000	--	720	0.30	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	190	4	84	10	3900	--	--	--	770	710	20000	--	15	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.020 U	NA
n-Butylbenzene	240	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.004 U	NA
n-Propylbenzene	240	--	--	--	3300 (m)	--	--	--	19000	9300	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	NA
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	NA
sec-Butylbenzene	220	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	NA
tert-Butylbenzene	390	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	160	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	NA
HYDROCARBONS (mg/kg)																					
NWTPH-HCID																					
Gasoline	--	--	--	--	--	--	--	--	---	---	--	--	--	21.3 U	21.3 U	22.5 U	22.0 U	22.0 U	22.0 U	22.0 U	NA
Kerosene	--	--	--	--	--	--	--	--	--	--	--	--	--	53.2 U	53.2 U	56.2 U	54.9 U	54.9 U	54.9 U	54..9 U	NA
Diesel	--	--	--	--	--	--	--	--	---	---	--	--	--	53.2 U	53.2 U	56.2 U	54.9 U	54.9 U	54.9 U	**Diesel**	NA
Lube Oil	--	--	--	--	--	--	--	--	--	--	--	--	--	106 U	106 U	112 U	110 U	110 U	110 U	**Lube Oil**	NA
NWTPH-Dx (mg/kg)																					
TPH-Diesel Range	2000 (p)	--	--	--	--	--	--	--	70000	23000	--	--	--	NA	NA	NA	NA	NA	NA	**574**	NA
TPH-Kerosene Range	2000 (p)	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
TPH-Motor Oil Range	2000 (p)	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA	NA	NA	1120	NA
NWTPH-G (mg/kg)																					
TPH-Gasoline Range	100 (p)	--	--	--	--	--	--	--	22000	13000	--	80000	110	NA	NA	NA	NA	NA	NA	NA	NA
PRIORITY POLLUTANT METALS (mg/kg)																					
Arsenic (7060)	1.6 (q)(*)	1 (r)(*)	29	10 (r)	29 (r)	10 (r)	60 (r)	5 (o)	--	--	--	--	--	**2.52**	**2.20**	**3.05**	**2.54**	**2.07**	**2.60**	**3.59**	NA
Chromium (6010)	450	2 (*)	38	1 (s)(*)	340000 (s)	4 (s)(*)	0.4 (s)(*)	23.1	--	--	--	--	--	**16.3**	**16.6**	**20**	**16.5**	**16.7**	**20.6**	**17.9**	NA
Copper (6010)	40877	--	--	100	390	190	50	19.1	--	--	--	--	--	**13.9**	**16.7**	**12.7**	**14.0**	**13.4**	**14.6**	**20.3**	NA
Lead (7421)	750	--	--	50	4000	16	500	9	750	750	750	--	30	2.00 U	**2.63**	1.92 U	**3.10**	**2.04**	9.31 J	35.2	NA
Nickel (6010)	20439	7 (*)	130	30	625	320	200	21.4	--	--	--	--	--	**19.4**	**17.9**	**19.9**	**18.6**	**17.4**	**19.2**	**19.5**	NA
Zinc (6010)	100000	620	12000	50	20000	60	200	60.2	--	--	--	--	--	**68.2**	**50.8**	**49.9**	**63.0**	**49.3**	**82.7**	**87.9**	NA
Cadmium (6010)	451	0.4	8	4	125	6	20	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (7471)	307	--	--	0.3	73	1.5	0.1	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE C-4
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
EASTERN PORTION OF PHASE III STUDY AREA
PHASE III RI

														1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5
	SCREENING CRITERIA																				
									Risk-Based Concentrations					COMP	COMP	COMP	COMP		COMP	COMP	
Sample Identification:									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	G18 (1-1.5)	G19 (1-1.5)	BA7 (1-1.5)	BA8 (1-1.5)	BA9 (1-1.5)	BA10 (1-1.5)	BA11 (1-1.5)	G10-4 (1-1.5)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0108172-37	0108172-49	0108196-21	108196-17	0108182-24	0108196-13	0108196-09	0309196-28
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	8/22/2001	8/22/2001	8/27/2001	8/27/2001	8/23/2001	8/27/2001	8/27/2001	9/29/2003
BETX (mg/kg)																					
EPA Method SW8021B																					
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, Total	420	10	210	--	--	--	--	--	24000	19000	--	--	100	NA	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	NA	NA	NA	NA	NA
DIOXINS AND FURANS (ng/kg)																					
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE C-4
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
EASTERN PORTION OF PHASE III STUDY AREA
PHASE III RI

															1-1.5	1-1.5	5-5.5	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																COMP	COMP	COMP	COMP	COMP	COMP	COMP
									Risk-Based Concentrations														
Sample Identification:									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater		G10-5 (1-1.5)	G11-3 (1-1.5)	BA11 (5-5.5)	G10 (10.5-12)	G11 (5.5-6.5)	G15 (8-13)	G17 (13-15)	G18 (12-15)	G19 (9-11)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation				0309196-45	0309196-31	0108196-10	0108189-20	0108196-06	0108172-47	0108172-18	0108172-39	0108172-51
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational		9/29/2003	9/29/2003	8/27/2001	8/24/2001	8/27/2001	8/22/2001	8/21/2001	8/22/2001	8/22/2001
SEMIVOLATILES (mg/kg)																							
EPA Method SW8270																							
2,6-Dinitrotoluene	616	0.00003	0.0007	200 (a)	1440 (a)	--	--	--	--	--	--	--	--		NA	NA	0.330 UJ	0.330 U	0.330 U	0.330 U	**0.410**	0.330 U	0.330 U
2-Methylnaphthalene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--		NA	NA	0.067 UJ	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--		NA	NA	**0.350** J	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--		NA	NA	**0.170** J	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Anthracene	100000	590	12000	--	--	--		--	--	90000	--	--	--		NA	NA	**0.270** J	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--		NA	NA	1.500 J	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Benzo(a)pyrene	0.21	0.4	8	--	125	--		--	0.27	2.1	59	--	--		NA	NA	**2.000** J	0.067 U	**0.076** J	0.067 U	0.067 U	0.067 U	0.067 U
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--		NA	NA	**2.100** J	0.067 U	**0.110**	**0.082** J	0.067 U	0.067 U	0.067 U
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--		NA	NA	**1.700** J	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--		NA	NA	**0.660** J	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
bis(2-Ethylhexyl)phthalate	123	180 (g)	3600 (g)	--	1020	4.5	--	--	--	--	--	--	--		NA	NA	0.067 UJ	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Butylbenzylphthalate	100000	810	930	--	1020 (i)	4.5 (i)	--	--	--	--	--	--	--		NA	NA	0.067 UJ	0.067 U	0.067 U	0.067 U	0.067 U	**0.180**	0.067 U
Carbazole	86	0.03	0.6	--	--	--	--	--	--	--	--	--	--		NA	NA	0.067 UJ	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--		NA	NA	**1.600** J	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--		NA	NA	**0.100** J	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Dibenzofuran	3127	--	--	--	0.002	--	--	--	--	--	--	--	--		NA	NA	0.067 UJ	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Diethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--		NA	NA	0.067 UJ	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Dimethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--		NA	NA	0.067 UJ	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Di-n-Butylphthalate	61561	270	2300	200	30000	0.45	--	--	--	--	--	--	--		NA	NA	0.067 UJ	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Di-n-Octyl phthalate	24624	10000	10000	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--		NA	NA	0.067 UJ	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--		NA	NA	**4.700** J	0.067 U	**0.110** J	**0.093** J	0.067 U	**0.071** J	0.067 U
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--		NA	NA	**0.074** J	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Hexachloroethane	123	0.02	0.5	--	--	--	--	--	--	--	--	--	--		NA	NA	0.130 UJ	0.130 U	0.130 U	0.130 U	0.130 U	0.130 U	0.130 U
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--		NA	NA	1.300 J	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15		NA	NA	0.130 UJ	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--		NA	NA	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--		NA	NA	**2.100** J	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--		NA	NA	**5.400** J	0.067 U	**0.099** J	**0.110** J	0.067 U	**0.093** J	0.067 U
SEMIVOLATILES (mg/kg)																							
EPA Method SW8270SIM																							
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--		0.00667 U	0.00667 U	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--		**0.00933**	0.00667 U	NA	NA	NA	NA	NA	NA	NA
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--		0.00667 U	0.00667 U	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--		**0.028**	0.00667 U	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--		**0.066**	**0.01**	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--		**0.062**	**0.012**	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--		**0.0753**	**0.0113**	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--		**0.0213**	0.00667 U	NA	NA	NA	NA	NA	NA	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--		**0.032**	0.00667 U	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--		**0.012**	0.00667 U	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--		**0.0527**	**0.0113**	NA	NA	NA	NA	NA	NA	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--		0.00667 U	0.00667 U	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--		**0.0507**	**0.008**	NA	NA	NA	NA	NA	NA	NA
Naphthalene	188	4	84	10	3900	--		--	770	710	20000	--	15		0.00667 U	0.00667 U	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--		**0.0133**	0.00667 U	NA	NA	NA	NA	NA	NA	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--		**0.0753**	**0.0153**	NA	NA	NA	NA	NA	NA	NA
CHLORINATED PHENOLS (mg/kg)																							
Method 8040																							
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--		NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE C-4
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
EASTERN PORTION OF PHASE III STUDY AREA
PHASE III RI

														1-1.5	1-1.5	5-5.5	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																					
									Risk-Based Concentrations							COMP	COMP	COMP	COMP	COMP	COMP	COMP
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater									
Sample Identification:														G10-5 (1-1.5)	G11-3 (1-1.5)	BA11 (5-5.5)	G10 (10.5-12)	G11 (5.5-6.5)	G15 (8-13)	G17 (13-15)	G18 (12-15)	G19 (9-11)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0309196-45	0309196-31	0108196-10	0108189-20	0108196-06	0108172-47	0108172-18	0108172-39	0108172-51
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	9/29/2003	9/29/2003	8/27/2001	8/24/2001	8/27/2001	8/22/2001	8/21/2001	8/22/2001	8/22/2001
VOLATILES (mg/kg)																						
EPA Method SW8260																						
1,2,4-Trimethylbenzene	170	--	--	--	3300 (m)	--	--	--	1500	1400	40000	790	55	NA	NA	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dibromoethane	0.028	--	--	--	--	--	--	--	0.033	0.25	7.1	1.7	0.000059	NA	NA	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3,5-Trimethylbenzene	70	--	--	--	3300 (m)	--	--	--	1500	1400	40000	--	12	NA	NA	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone	27102	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	**0.00542**	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
4-Isopropyltoluene	520 (a)	0.6 (a)	12 (a)	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	NA	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Acetone	6036	0.8	16	--	1250	--	--	--	--	--	--	--	--	NA	NA	NA	**0.0275**	0.005 U	0.005 U	0.005 U	**0.00643**	0.005 U
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Disulfide	720	2	32	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	NA	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Isopropylbenzene	1977	--	--	--	3300 (m)	--	--	--	51000	24000	--	--	--	NA	NA	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Methyl Iodide	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methyl tert-butyl ether	157	--	--	--	--	--	--	--	760	9000	--	720	0.30	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	190	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	NA	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U
n-Butylbenzene	240	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
n-Propylbenzene	240	--	--	--	3300 (m)	--	--	--	19000	9300	--	--	--	NA	NA	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
sec-Butylbenzene	220	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
tert-Butylbenzene	390	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	160	NA	NA	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
HYDROCARBONS (mg/kg)																						
NWTPH-HCID																						
Gasoline	--	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	23.3 UJ	26.3 U	26.0 U	25.6 U	23.5 U	26.0 U	23.0 U
Kerosene	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	58.1 UJ	65.8 U	64.9 U	64.1 U	58.8 U	64.9 U	57.5 U
Diesel	--	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	58.1 UJ	65.8 U	64.9 U	64.1 U	58.8 U	64.9 U	57.5 U
Lube Oil	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	116 UJ	132 U	130 U	128 U	118 U	130 U	115 U
NWTPH-Dx (mg/kg)																						
TPH-Diesel Range	2000 (p)	--	--	--	--	--	--	--	70000	23000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH-Kerosene Range	2000 (p)	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH-Motor Oil Range	2000 (p)	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
NWTPH-G (mg/kg)																						
TPH-Gasoline Range	100 (p)	--	--	--	--	--	--	--	22000	13000	--	80000	110	NA	NA	NA	NA	NA	NA	NA	NA	NA
PRIORITY POLLUTANT METALS (mg/kg)																						
Arsenic (7060)	1.6 (q)(*)	1 (r)(*)	29	10 (r)	29 (r)	10 (r)	60 (r)	5 (o)	--	--	--	--	--	NA	NA	NA	**2.42**	**2.85**	**3.46**	**2.79**	**2.15**	**2.39**
Chromium (6010)	450	2 (*)	38	1 (s)(*)	340000 (s)	4 (s)(*)	0.4 (s)(*)	23.1	--	--	--	--	--	NA	NA	NA	**20.1**	**18.2**	**17.9**	**14.1**	**17.8**	**16.3**
Copper (6010)	40877	--	--	100	390	190	50	19.1	--	--	--	--	--	NA	NA	NA	**17.3** J	**15.4**	**20.3**	**13.2**	**15.9**	**15.2**
Lead (7421)	750	--	--	50	4000	16	500	9	750	750	750	--	30	NA	1.67 U	NA	**3.79** J	**2.71**	**8.13**	1.69 U	**1.85**	1.69 U
Nickel (6010)	20439	7 (*)	130	30	625	320	200	21.4	--	--	--	--	--	NA	NA	NA	**19.4**	**17.9**	**16.6**	**16.1**	**16.7**	**18.2**
Zinc (6010)	100000	620	12000	50	20000	60	200	60.2	--	--	--	--	--	NA	**52.1**	NA	**53.2**	**55.7**	**66.8**	**444**	**45.9**	**46.3**
Cadmium (6010)	451	0.4	8	4	125	6	20	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (7471)	307	--	--	0.3	73	1.5	0.1	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE C-4
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
EASTERN PORTION OF PHASE III STUDY AREA
PHASE III RI

														1-1.5	1-1.5	5-5.5	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																						
									Risk-Based Concentrations							COMP	COMP	COMP	COMP	COMP	COMP	COMP
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater									
Sample Identification:														G10-5 (1-1.5)	G11-3 (1-1.5)	BA11 (5-5.5)	G10 (10.5-12)	G11 (5.5-6.5)	G15 (8-13)	G17 (13-15)	G18 (12-15)	G19 (9-11)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0309196-45	0309196-31	0108196-10	0108189-20	0108196-06	0108172-47	0108172-18	0108172-39	0108172-51
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	9/29/2003	9/29/2003	8/27/2001	8/24/2001	8/27/2001	8/22/2001	8/21/2001	8/22/2001	8/22/2001
BETX (mg/kg)																						
EPA Method SW8021B																						
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, Total	420	10	210	--	--	--	--	--	24000	19000	--	--	100	NA	NA	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIOXINS AND FURANS (ng/kg)																						
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE C-4
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
EASTERN PORTION OF PHASE III STUDY AREA
PHASE III RI

														CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																		
									Risk-Based Concentrations					COMP	COMP		COMP	COMP	COMP
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater						BA20 (CF)
Sample Identification:														BA7 (10.5-11.5)	BA8 (9-13)	BA9 (13.5-14.5)	BA10 (5.5-7.5)	BA11 (6.5-11)	Dup of BA11 (6.5-11)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0108196-23	108196-19	0108182-26	0108196-14	0108196-11	0108196-07
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	8/27/2001	8/27/2001	8/23/2001	8/27/2001	8/27/2001	8/27/2001
SEMIVOLATILES (mg/kg)																			
EPA Method SW8270																			
2,6-Dinitrotoluene	616	0.00003	0.0007	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U
2-Methylnaphthalene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Anthracene	100000	590	12000	--	--	--		--	--	90000	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 UJ	**0.290** J
Benzo(a)pyrene	0.21	0.4	8	--	125	--		--	0.27	2.1	59	--	--	0.067 U	**0.110** J	0.067 U	0.067 U	**0.069** J	**0.280**
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	0.067 U	**0.190**	0.067 U	0.067 U	**0.075**	**0.450**
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	**0.120** J
Benzo(k)fluoranthene	21.1	2	49	--	--	--	--	--	27	210	5900	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	**0.160**
bis(2-Ethylhexyl)phthalate	123	180 (g)	3600 (g)	--	1020	4.5	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Butylbenzylphthalate	100000	810	930	--	1020 (i)	4.5 (i)	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Carbazole	86	0.03	0.6	--	--	--	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	0.067 U	0.067 U	0.067 U	0.067 U	**0.075** J	**0.230** J
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Dibenzofuran	3127	--	--	--	0.002	--	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Diethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Dimethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Di-n-Butylphthalate	61561	270	2300	200	30000	0.45	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Di-n-Octyl phthalate	24624	10000	10000	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	0.067 U	**0.150** J	**0.079**	0.067 U	**0.099** J	**0.420** J
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Hexachloroethane	123	0.02	0.5	--	--	--	--	--	--	--	--	--	--	0.130 U	0.130 U	0.130 U	0.130 U	0.130 U	0.130 U
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	**0.100**
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	0.130 U	0.130 U	0.130 U	0.130 U	0.130 U	0.130 U
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U	0.330 U
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	**0.100**	**0.075**
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	0.067 U	**0.220** J	**0.092**	0.067 U	**0.120** J	**0.400** J
SEMIVOLATILES (mg/kg)																			
EPA Method SW8270SIM																			
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	NA	NA	NA	NA	NA	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--	NA	NA	NA	NA	NA	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	NA	NA	NA	NA	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA
Naphthalene	188	4	84	10	3900	--		--	770	710	20000	--	15	NA	NA	NA	NA	NA	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	NA	NA	NA	NA	NA
CHLORINATED PHENOLS (mg/kg)																			
Method 8040																			
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA

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TABLE C-4
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
EASTERN PORTION OF PHASE III STUDY AREA
PHASE III RI

														CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																		
									Risk-Based Concentrations					COMP	COMP		COMP	COMP	COMP
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater						BA20 (CF)
Sample Identification:														BA7 (10.5-11.5)	BA8 (9-13)	BA9 (13.5-14.5)	BA10 (5.5-7.5)	BA11 (6.5-11)	Dup of BA11 (6.5-11)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0108196-23	108196-19	0108182-26	0108196-14	0108196-11	0108196-07
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	8/27/2001	8/27/2001	8/23/2001	8/27/2001	8/27/2001	8/27/2001
VOLATILES (mg/kg)																			
EPA Method SW8260																			
1,2,4-Trimethylbenzene	170	--	--	--	3300 (m)	--	--	--	1500	1400	40000	790	55	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.001 U
1,2-Dibromoethane	0.028	--	--	--	--	--	--	--	0.033	0.25	7.1	1.7	0.000059	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U	0.001 U
1,3,5-Trimethylbenzene	70	--	--	--	3300 (m)	--	--	--	1500	1400	40000	--	12	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.001 U
2-Butanone	27102	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	0.005 U	0.005 U	0.010 U	0.005 U	0.005 U
4-Isopropyltoluene	520 (a)	0.6 (a)	12 (a)	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.001 U
Acetone	6036	0.8	16	--	1250	--	--	--	--	--	--	--	--	0.005 U	**0.0099**	**0.00913**	**0.0191**	12.300 J	**0.0238** J
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U	0.001 U
Carbon Disulfide	720	2	32	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U	0.001 U
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U	0.001 U
Isopropylbenzene	1977	--	--	--	3300 (m)	--	--	--	51000	24000	--	--	--	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U	0.001 U
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	0.002 U	0.002 U	0.002 U	0.004 U	0.002 U	0.002 U
Methyl Iodide	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U	0.001 U
Methyl tert-butyl ether	157	--	--	--	--	--	--	--	760	9000	--	720	0.30	NA	NA	NA	NA	NA	NA
Naphthalene	190	4	84	10	3900	--	--	--	770	710	20000	--	15	0.010 U	0.010 U	0.010 U	0.020 U	0.020 U	0.010 U
n-Butylbenzene	240	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	0.002 U	0.002 U	0.002 U	0.004 U	0.004 U	0.002 U
n-Propylbenzene	240	--	--	--	3300 (m)	--	--	--	19000	9300	--	--	--	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.001 U
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U	0.001 U
sec-Butylbenzene	220	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.001 U
tert-Butylbenzene	390	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.001 U
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	160	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U	0.001 U
HYDROCARBONS (mg/kg)																			
NWTPH-HCID																			
Gasoline	--	--	--	--	--	--	--	--	---	---	--	--	--	23.5 U	23.8 U	22.7 U	22.2 U	23.3 U	24.1 U
Kerosene	--	--	--	--	--	--	--	--	--	--	--	--	--	58.8 U	59.5 U	56.8 U	55.6 U	58.1 U	60.2 U
Diesel	--	--	--	--	--	--	--	--	---	---	--	--	--	58.8 U	59.5 U	56.8 U	55.6 U	58.1 U	60.2 U
Lube Oil	--	--	--	--	--	--	--	--	--	--	--	--	--	118 U	119 U	114 U	111 U	116 U	120 U
NWTPH-Dx (mg/kg)																			
TPH-Diesel Range	2000 (p)	--	--	--	--	--	--	--	70000	23000	--	--	--	NA	NA	NA	NA	NA	NA
TPH-Kerosene Range	2000 (p)	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA
TPH-Motor Oil Range	2000 (p)	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA	NA	NA
NWTPH-G (mg/kg)																			
TPH-Gasoline Range	100 (p)	--	--	--	--	--	--	--	22000	13000	--	80000	110	NA	NA	NA	NA	NA	NA
PRIORITY POLLUTANT METALS (mg/kg)																			
Arsenic (7060)	1.6 (q)(*)	1 (r)(*)	29	10 (r)	29 (r)	10 (r)	60 (r)	5 (o)	--	--	--	--	--	**1.92**	**2.02**	**3.69**	**2.51**	**2.47**	**1.99**
Chromium (6010)	450	2 (*)	38	1 (s)(*)	340000 (s)	4 (s)(*)	0.4 (s)(*)	23.1	--	--	--	--	--	**17.0**	**17.4**	**16.6**	**18.1**	**17.5**	**17.2**
Copper (6010)	40877	--	--	100	390	190	50	19.1	--	--	--	--	--	**15.2**	**15.1**	**13.9**	**18.0**	**15.1**	**15.1**
Lead (7421)	750	--	--	50	4000	16	500	9	750	750	750	--	30	1.85 U	**2.85**	1.92 U	**11.1**	**2.25**	1.75 U
Nickel (6010)	20439	7 (*)	130	30	625	320	200	21.4	--	--	--	--	--	**18.4**	**18.2**	**18.4**	**18.9**	**19.0**	**18.0**
Zinc (6010)	100000	620	12000	50	20000	60	200	60.2	--	--	--	--	--	**47.4**	**50.9**	**46.5**	**59.4**	**52.0**	**49.7**
Cadmium (6010)	451	0.4	8	4	125	6	20	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA
Mercury (7471)	307	--	--	0.3	73	1.5	0.1	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA

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TABLE C-4
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
EASTERN PORTION OF PHASE III STUDY AREA
PHASE III RI

														CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																		
									Risk-Based Concentrations					COMP	COMP		COMP	COMP	COMP
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater						BA20 (CF)
Sample Identification:														BA7 (10.5-11.5)	BA8 (9-13)	BA9 (13.5-14.5)	BA10 (5.5-7.5)	BA11 (6.5-11)	Dup of BA11 (6.5-11)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0108196-23	108196-19	0108182-26	0108196-14	0108196-11	0108196-07
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	8/27/2001	8/27/2001	8/23/2001	8/27/2001	8/27/2001	8/27/2001
BETX (mg/kg)																			
EPA Method SW8021B																			
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	NA	NA	NA	NA	NA	NA
Xylenes, Total	420	10	210	--	--	--	--	--	24000	19000	--	--	100	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	NA	NA	NA
DIOXINS AND FURANS (ng/kg)																			
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA

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TABLE C-5
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
ASPHALT ROAD AREA
PHASE III RI

														0-0.5	1-1.5	CF	CF	
	SCREENING CRITERIA																	
									Risk-Based Concentrations									
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	COMP	COMP	COMP	COMP	
Sample Identification:														G20 (0-0.5)	G20 (1-1.5)	G20 (10.5-14.5)	G28 (CF) Dup of G20 (10.5-14.5)	
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0108208-02	0108208-03	0108208-05	0108208-01	
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	8/28/2001	8/28/2001	8/28/2001	8/28/2001	
SEMIVOLATILES (mg/kg)																		
EPA Method SW8270																		
2,6-Dinitrotoluene	616	0.00003	0.0007	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	0.330 U	0.330 U	0.330 U	0.330 U	
2-Methylnaphthalene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	
Anthracene	100000	590	12000	--	--	--		--	--	90000	--	--	--	**0.200**	0.067 U	0.067 U	0.067 U	
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	**0.320**	0.067 U	0.067 U	0.067 U	
Benzo(a)pyrene	0.21	0.4	8	--	125	--		--	0.27	2.1	59	--	--	**0.590**	0.067 U	0.067 U	0.067 U	
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	**1.400**	0.067 U	0.067 U	0.067 U	
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	**0.410**	0.067 U	0.067 U	0.067 U	
Benzo(k)fluoranthene	21.1	2	49	--	--	--	--	--	27	210	5900	--	--	**0.380**	0.067 U	0.067 U	0.067 U	
bis(2-Ethylhexyl)phthalate	123	180 (g)	3600 (g)	--	1020	4.5	--	--	--	--	--	--	--	**0.130**	**0.130**	0.067 U	0.067 U	
Butylbenzylphthalate	100000	810	930	--	1020 (i)	4.5 (i)	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	
Carbazole	86	0.03	0.6	--	--	--	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	**0.390**	0.067 U	0.067 U	0.067 U	
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	0.067 U	0.067 U	0.067 U	0.067 U	
Dibenzofuran	3127	--	--	--	0.002	--	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	
Diethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	
Dimethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	
Di-n-Butylphthalate	61561	270	2300	200	30000	0.45	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	
Di-n-Octyl phthalate	24624	10000	10000	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	**0.750**	0.067 U	0.067 U	0.067 U	
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	0.067 U	0.067 U	0.067 U	0.067 U	
Hexachloroethane	123	0.02	0.5	--	--	--	--	--	--	--	--	--	--	0.130 U	0.130 U	0.130 U	0.130 U	
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	**0.330**	0.067 U	0.067 U	0.067 U	
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	0.067 U	0.067 U	0.067 U	0.067 U	
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	0.330 U	0.330 U	0.330 U	0.330 U	
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	**0.200**	0.067 U	0.067 U	0.067 U	
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	**0.830**	0.067 U	0.067 U	0.067 U	
SEMIVOLATILES (mg/kg)																		
EPA Method SW8270SIM																		
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	NA	NA	NA	NA	
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	NA	NA	NA	NA	
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--	NA	NA	NA	NA	
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	NA	NA	NA	
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	NA	NA	NA	
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	NA	NA	NA	
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	
Naphthalene	188	4	84	10	3900	--		--	770	710	20000	--	15	NA	NA	NA	NA	
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	NA	NA	NA	
CHLORINATED PHENOLS (mg/kg)																		
Method 8040																		
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	NA	

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TABLE C-5
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
ASPHALT ROAD AREA
PHASE III RI

Sample Identification:														0-0.5	1-1.5	CF	CF
	SCREENING CRITERIA																
									Risk-Based Concentrations					COMP	COMP	COMP	COMP
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater				G28 (CF)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			G20 (0-0.5)	G20 (1-1.5)	G20 (10.5-14.5)	Dup of G20 (10.5-14.5)
														0108208-02	0108208-03	0108208-05	0108208-01
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	8/28/2001	8/28/2001	8/28/2001	8/28/2001
VOLATILES (mg/kg)																	
EPA Method SW8260																	
1,2,4-Trimethylbenzene	170	--	--	--	3300 (m)	--	--	--	1500	1400	40000	790	55	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dibromoethane	0.028	--	--	--	--	--	--	--	0.033	0.25	7.1	1.7	0.000059	0.001 U	0.001 U	0.001 U	0.001 U
1,3,5-Trimethylbenzene	70	--	--	--	3300 (m)	--	--	--	1500	1400	40000	--	12	0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone	27102	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	0.005 U	0.005 U	0.005 U
4-Isopropyltoluene	520 (a)	0.6 (a)	12 (a)	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U
Acetone	6038	0.8	16	--	1250	--	--	--	--	--	--	--	--	0.005 U	0.005 U	0.005 U	0.005 U
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Disulfide	720	2	32	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U
Isopropylbenzene	1977	--	--	--	3300 (m)	--	--	--	51000	24000	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	0.002 U	0.002 U	0.002 U	0.002 U
Methyl Iodide	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U
Methyl tert-butyl ether	157	--	--	--	--	--	--	--	760	9000	--	720	0.30	NA	NA	NA	NA
Naphthalene	190	4	84	10	3900	--	--	--	770	710	20000	--	15	0.010 U	0.010 U	0.010 U	0.010 U
n-Butylbenzene	240	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	0.002 U	0.002 U	0.002 U	0.002 U
n-Propylbenzene	240	--	--	--	3300 (m)	--	--	--	19000	9300	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	0.001 U	0.001 U	0.001 U	0.001 U
sec-Butylbenzene	220	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U
tert-Butylbenzene	390	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	160	0.001 U	0.001 U	0.001 U	0.001 U
HYDROCARBONS (mg/kg)																	
NWTPH-HCID																	
Gasoline	--	--	--	--	--	--	--	--	---	---	--	--	--	21.3 U	21.7 U	23.5 U	23.5 U
Kerosene	--	--	--	--	--	--	--	--	--	--	--	--	--	53.2 U	54.3 U	58.8 U	58.8 U
Diesel	--	--	--	--	--	--	--	--	---	---	--	--	--	53.2 U	54.3 U	58.8 U	58.8 U
Lube Oil	--	--	--	--	--	--	--	--	--	--	--	--	--	Lube Oil	109 U	118 U	118 U
NWTPH-Dx (mg/kg)																	
TPH-Diesel Range	2000 (p)	--	--	--	--	--	--	--	70000	23000	--	--	--	31.9 U	NA	NA	NA
TPH-Kerosene Range	2000 (p)	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA
TPH-Motor Oil Range	2000 (p)	--	--	--	--	--	--	--	---	---	--	--	--	301	NA	NA	NA
NWTPH-G (mg/kg)																	
TPH-Gasoline Range	100 (p)	--	--	--	--	--	--	--	22000	13000	--	80000	110	NA	NA	NA	NA
PRIORITY POLLUTANT METALS (mg/kg)																	
Arsenic (7060)	1.6 (q)(*)	1 (r)(*)	29	10 (r)	29 (r)	10 (r)	60 (r)	5 (o)	--	--	--	--	--	**6.73**	**2.47**	**3.03**	**2.67**
Chromium (6010)	450	2 (*)	38	1 (s)(*)	340000 (s)	4 (s)(*)	0.4 (s)(*)	23.1	--	--	--	--	--	**35.4**	**14.4**	**14.1**	**14.2**
Copper (6010)	40877	--	--	100	390	190	50	19.1	--	--	--	--	--	**176**	**12.8**	**12.7**	**12.7**
Lead (7421)	750	--	--	50	4000	16	500	9	750	750	750	--	30	**67.8**	2.00 U	2.00 U	1.79 U
Nickel (6010)	20439	7 (*)	130	30	625	320	200	21.4	--	--	--	--	--	**23.4**	**18.3**	**16.1**	**16.1**
Zinc (6010)	100000	620	12000	50	20000	60	200	60.2	--	--	--	--	--	**210**	**45.7**	**43.3**	**45.9**
Cadmium (6010)	451	0.4	8	4	125	6	20	--	--	--	--	--	--	NA	NA	NA	NA
Mercury (7471)	307	--	--	0.3	73	1.5	0.1	--	--	--	--	--	--	NA	NA	NA	NA

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TABLE C-5
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
ASPHALT ROAD AREA
PHASE III RI

														0-0.5	1-1.5	CF	CF
	SCREENING CRITERIA																
									Risk-Based Concentrations					COMP	COMP	COMP	COMP
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater				G28 (CF)
Sample Identification:														G20 (0-0.5)	G20 (1-1.5)	G20 (10.5-14.5)	Dup of G20 (10.5-14.5)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			0108208-02	0108208-03	0108208-05	0108208-01
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	8/28/2001	8/28/2001	8/28/2001	8/28/2001
BETX (mg/kg)																	
EPA Method SW8021B																	
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	NA	NA	NA	NA
Xylenes, Total	420	10	210	--	--	--	--	--	24000	19000	--	--	100	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	NA
DIOXINS AND FURANS (ng/kg)																	
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA

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TABLE C-6
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
PHASE II STUDY AREA

Sample Identification:														0-0.5	0-0.5	0-0.5	0-0.5	1-1.5	5-5.5	5-5.5	5-5.5
	SCREENING CRITERIA																				
									Risk-Based Concentrations												
								Site-Specific	Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater							
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			LB16 (0-0.5)	LS1(0-0.5)	LS2(0-0.5)	LW1D (0.0-0.5)	LB10(0.5-2.0)	LB8(3.5-5.0)	LB8(5-6.2)	LB15 (5-6.5)
														R923AY	Q650A	Q650B	R950O	Q650AL	Q650AH	Q650AI	R923O
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	03/12/97	10/23/96	10/23/96	03/14/97	10/24/96	10/24/96	10/24/96	03/10/97
SEMIVOLATILES (mg/kg)																					
EPA Method SW8270																					
2,6-Dinitrotoluene	616	0.00003	0.0007	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	0.38 U	0.36 U	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.076 U	0.073 U	NA	NA	NA	NA	NA	NA
Acenaphthene	29219	29	570	20	--	--	--	--	41000	16000	--	--	--	0.076 U	0.073 U	NA	NA	NA	NA	NA	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.076 U	0.073 U	NA	NA	NA	NA	NA	NA
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	0.076 U	0.073 U	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	**0.15**	0.073 U	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	**0.26**	0.073 U	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	**0.22**	0.073 U	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	**0.4**	0.073 U	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	21.1	2	49	--	--	--	--	--	27	210	5900	--	--	**0.15**	0.073 U	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	123	180 (g)	3600 (g)	--	1020	4.5	--	--	--	--	--	--	--	0.076 U	**0.31**	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	100000	810	930	--	1020 (i)	4.5 (i)	--	--	--	--	--	--	--	0.076 U	0.073 U	NA	NA	NA	NA	NA	NA
Carbazole	86	0.03	0.6	--	--	--	--	--	--	--	--	--	--	0.076 U	0.073 U	NA	NA	NA	NA	NA	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	**0.24**	0.073 U	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	**0.079**	0.073 U	NA	NA	NA	NA	NA	NA
Dibenzofuran	3127	--	--	--	0.002	--	--	--	--	--	--	--	--	0.076 U	0.073 U	NA	NA	NA	NA	NA	NA
Diethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.076 U	0.073 U	NA	NA	NA	NA	NA	NA
Dimethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.076 U	0.073 U	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	61561	270	2300	200	30000	0.45	--	--	--	--	--	--	--	0.076 U	0.073 U	NA	NA	NA	NA	NA	NA
Di-n-Octyl phthalate	24624	10000	10000	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.076 U	0.073 U	NA	NA	NA	NA	NA	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	**0.33**	0.073 U	NA	NA	NA	NA	NA	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	0.076 U	0.073 U	NA	NA	NA	NA	NA	NA
Hexachloroethane	123	0.02	0.5	--	--	--	--	--	--	--	--	--	--	0.15 U	0.15 U	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	**0.28**	0.073 U	NA	NA	NA	NA	NA	NA
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	0.076 U	0.073 U	NA	NA	NA	NA	NA	NA
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	0.38 U	0.36 U	NA	NA	NA	NA	NA	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	**0.14**	0.073 U	NA	NA	NA	NA	NA	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	**0.68**	0.073 U	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (mg/kg)																					
EPA Method SW8270SIM																					
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	NA	NA	NA	0.0071 U	NA	NA	NA	0.0075 U
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	**0.021**	NA	NA	NA	0.0075 U
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	NA	NA	NA	**0.22**	NA	NA	NA	**0.0082**
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	**0.11**	NA	NA	NA	**0.075**
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	**0.24**	NA	NA	NA	**0.15**
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	**0.23**	NA	NA	NA	**0.28**
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	**0.42**	NA	NA	NA	**0.068**
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--	NA	NA	NA	**0.15**	NA	NA	NA	**0.21**
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	NA	NA	**0.22**	NA	NA	NA	**0.19**
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	**0.035**	NA	NA	NA	**0.018**
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	NA	NA	**0.31**	NA	NA	NA	**0.098**
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	NA	NA	0.0071 U	NA	NA	NA	0.0075 U
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	**0.27**	NA	NA	NA	**0.089**
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	NA	0.0071 U	NA	NA	NA	0.0075 U
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	**0.09**	NA	NA	NA	0.0075 U
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	NA	NA	**0.41**	NA	NA	NA	**0.16** J
CHLORINATED PHENOLS (mg/kg)																					
Method 8040																					
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	**0.14**	0.05 U	0.2 U	**0.034** J	0.0067 U	**0.033**	0.0066 U	**0.037**

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TABLE C-6
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
PHASE II STUDY AREA

Sample Identification:														0-0.5	0-0.5	0-0.5	0-0.5	1-1.5	5-5.5	5-5.5	5-5.5
	SCREENING CRITERIA																				
									Risk-Based Concentrations												
								Site-Specific Background	Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	LB16 (0-0.5)	LS1(0-0.5)	LS2(0-0.5)	LW1D (0.0-0.5)	LB10(0.5-2.0)	LB8(3.5-5.0)	LB8(5-6.2)	LB15 (5-6.5)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs										R923AY	Q650A	Q650B	R950O	Q650AL	Q650AH	Q650AI	R923O
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Construction Worker	Excavation Worker	Occupational	Occupational	03/12/97	10/23/96	10/23/96	03/14/97	10/24/96	10/24/96	10/24/96	03/10/97
VOLATILES (mg/kg)																					
EPA Method SW8260																					
1,2,4-Trimethylbenzene	170	--	--	--	3300 (m)	--	--	--	1500	1400	40000	790	55	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	0.028	--	--	--	--	--	--	--	0.033	0.25	7.1	1.7	0.000059	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	70	--	--	--	3300 (m)	--	--	--	1500	1400	40000	--	12	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	27102	--	--	--	--	--	--	--	--	--	--	--	--	NA	0.0052 U	NA	NA	NA	NA	NA	NA
4-Isopropyltoluene	520 (a)	0.6 (a)	12 (a)	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	6038	0.8	16	--	1250	--	--	--	--	--	--	--	--	NA	0.0052 U	NA	NA	NA	NA	NA	NA
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	0.001 U	NA	NA	NA	NA	NA	NA
Carbon Disulfide	720	2	32	--	--	--	--	--	--	--	--	--	--	NA	0.001 U	NA	NA	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	0.001 U	NA	NA	NA	NA	NA	NA
Isopropylbenzene	1977	--	--	--	3300 (m)	--	--	--	51000	24000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	0.001 U	NA	NA	NA	NA	NA	NA
Methyl Iodide	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	157	--	--	--	--	--	--	--	760	9000	--	720	0.30	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	190	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	240	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	240	--	--	--	3300 (m)	--	--	--	19000	9300	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	0.001 U	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	220	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	390	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	160	NA	0.001 U	NA	NA	NA	NA	NA	NA
HYDROCARBONS (mg/kg)																					
NWTPH-HCID																					
Gasoline	--	--	--	--	--	--	--	--	---	---	--	--	--	NA	20 U	20 U	NA	20 U	20 U	20 U	NA
Kerosene	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Diesel	--	--	--	--	--	--	--	--	---	---	--	--	--	NA	140	35	NA	25 U	66	25 U	NA
Lube Oil	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	420	130	NA	50 U	98	50 U	NA
NWTPH-Dx (mg/kg)																					
TPH-Diesel Range	2000 (p)	--	--	--	--	--	--	--	70000	23000	--	--	--	45	160	NA	85	NA	NA	NA	5.6 U
TPH-Kerosene Range	2000 (p)	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
TPH-Motor Oil Range	2000 (p)	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
NWTPH-G (mg/kg)																					
TPH-Gasoline Range	100 (p)	--	--	--	--	--	--	--	22000	13000	--	80000	110	5.0 U	NA	NA	5.0 U	NA	NA	NA	5.1 U
PRIORITY POLLUTANT METALS (mg/kg)																					
Arsenic (7060)	1.6 (q)(*)	1 (r)(*)	29	10 (r)	29 (r)	10 (r)	60 (r)	5 (o)	--	--	--	--	--	NA	6 U	NA	NA	NA	NA	NA	NA
Chromium (6010)	450	2 (*)	38	1 (s)(*)	340000 (s)	4 (s)(*)	0.4 (s)(*)	23.1	--	--	--	--	--	NA	18.4	NA	NA	NA	NA	NA	NA
Copper (6010)	40877	--	--	100	390	190	50	19.1	--	--	--	--	--	350	26.3	NA	NA	NA	NA	NA	NA
Lead (7421)	750	--	--	50	4000	16	500	9	750	750	750	--	30	NA	26	NA	NA	NA	NA	NA	NA
Nickel (6010)	20439	7 (*)	130	30	625	320	200	21.4	--	--	--	--	--	NA	21	NA	NA	NA	NA	NA	NA
Zinc (6010)	100000	620	12000	50	20000	60	200	60.2	--	--	--	--	--	143	71.9	NA	NA	NA	NA	NA	NA
Cadmium (6010)	451	0.4	8	4	125	6	20	--	--	--	--	--	--		0.3	NA	NA	NA	NA	NA	NA
Mercury (7471)	307	--	--	0.3	73	1.5	0.1	--	--	--	--	--	--		0.05 U	NA	NA	NA	NA	NA	NA

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TABLE C-6
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
PHASE II STUDY AREA

													0-0.5	0-0.5	0-0.5	0-0.5	1-1.5	5-5.5	5-5.5	5-5.5
	SCREENING CRITERIA																				
									Risk-Based Concentrations												
Sample Identification:								Site-Specific	Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	LB16 (0-0.5)	LS1(0-0.5)	LS2(0-0.5)	LW1D (0.0-0.5)	LB10(0.5-2.0)	LB8(3.5-5.0)	LB8(5-6.2)	LB15 (5-6.5)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			R923AY	Q650A	Q650B	R950O	Q650AL	Q650AH	Q650AI	R923O
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	03/12/97	10/23/96	10/23/96	03/14/97	10/24/96	10/24/96	10/24/96	03/10/97
BETX (mg/kg)																					
EPA Method SW8021B																					
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	0.057 U	NA	NA	0.053 U	NA	NA	NA	0.057 U
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	0.057 U	NA	NA	0.053 U	NA	NA	NA	0.057 U
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	0.057 U	NA	NA	0.053 U	NA	NA	NA	0.057 U
Xylenes, Total	420	10	210	--	--	--	--	--	24000	19000	--	--	100	NA	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	0.057 U	NA	NA	0.053 U	NA	NA	NA	0.057 U
o-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	0.057 U	NA	NA	0.053 U	NA	NA	NA	0.057 U
DIOXINS AND FURANS (ng/kg)																					
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE C-6
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
PHASE II STUDY AREA

														5-5.5	5-5.5	5-5.5	CF	CF	CF	CF	CF
	SCREENING CRITERIA																				
									Risk-Based Concentrations												
Sample Identification:								Site-Specific	Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	LB16 (5-6.5)	LB20 (2.5-4.0)	LB24 (2.5-4.0)	LB1(11-12.5)	LB1(15.5-16.5)	LB2(12-13.5)	LB2(18.5-19.5)	LB3(12-13.5)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			R923AZ	R923AJ	S057A	Q650P	Q650Q	Q650S	Q650T	Q650V
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	03/12/97	03/11/97	03/21/97	10/23/96	10/23/96	10/23/96	10/23/96	10/23/96
SEMIVOLATILES (mg/kg)																					
EPA Method SW8270																					
2,6-Dinitrotoluene	616	0.00003	0.0007	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	0.4 U
2-Methylnaphthalene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	0.08 U
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	NA	NA	NA	NA	NA	NA	NA	0.08 U
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	0.08 U
Anthracene	100000	590	12000	--	--	--		--	--	90000	--	--	--	NA	NA	NA	NA	NA	NA	NA	0.08 U
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA	0.08 U
Benzo(a)pyrene	0.21	0.4	8	--	125	--		--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA	0.08 U
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	0.08 U
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	0.08 U
Benzo(k)fluoranthene	21.1	2	49	--	--	--	--	--	27	210	5900	--	--	NA	NA	NA	NA	NA	NA	NA	0.08 U
bis(2-Ethylhexyl)phthalate	123	180 (g)	3600 (g)	--	1020	4.5	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	0.08 U
Butylbenzylphthalate	100000	810	930	--	1020 (i)	4.5 (i)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	0.08 U
Carbazole	86	0.03	0.6	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	0.08 U
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	NA	NA	NA	NA	NA	NA	0.08 U
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA	0.08 U
Dibenzofuran	3127	--	--	--	0.002	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	0.08 U
Diethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	0.08 U
Dimethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	0.08 U
Di-n-Butylphthalate	61561	270	2300	200	30000	0.45	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	0.08 U
Di-n-Octyl phthalate	24624	10000	10000	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	0.08 U
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	NA	NA	NA	NA	NA	NA	0.08 U
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	NA	NA	NA	NA	NA	NA	0.08 U
Hexachloroethane	123	0.02	0.5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	0.16 U
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA	0.08 U
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	NA	NA	NA	NA	NA	0.08 U
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	0.4 U
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	0.08 U
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	NA	NA	NA	NA	NA	NA	0.08 U
SEMIVOLATILES (mg/kg)																					
EPA Method SW8270SIM																					
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	0.0076 U	0.0075 U	NA	NA	NA	NA	NA	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.0076 U	0.0075 U	NA	NA	NA	NA	NA	NA
Anthracene	100000	590	12000	--	--	--		--	--	90000	--	--	--	0.0076 U	0.0075 U	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	0.0076 U	0.0075 U	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--		--	0.27	2.1	59	--	--	**0.031**	0.0075 U	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	0.0076 U	0.0075 U	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	**0.0092**	**0.0089**	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--	0.0076 U	0.0075 U	NA	NA	NA	NA	NA	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	**0.038**	0.0075 U	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	0.0076 U	0.0075 U	NA	NA	NA	NA	NA	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	**0.0076**	0.0075 U	NA	NA	NA	NA	NA	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	0.0076 U	0.0075 U	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	**0.0084**	0.0075 U	NA	NA	NA	NA	NA	NA
Naphthalene	188	4	84	10	3900	--		--	770	710	20000	--	15	0.0076 U	0.0075 U	NA	NA	NA	NA	NA	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	0.0076 U	0.0075 U	NA	NA	NA	NA	NA	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	**0.011**	0.0075 U	NA	NA	NA	NA	NA	NA
CHLORINATED PHENOLS (mg/kg)																					
Method 8040																					
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	0.0071 U	**0.7**	NA	0.008 U	0.008 U	**0.004**	0.0083 U	**0.05**

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TABLE C-6
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
PHASE II STUDY AREA

Sample Identification:														5-5.5	5-5.5	5-5.5	CF	CF	CF	CF	CF
	SCREENING CRITERIA																				
									Risk-Based Concentrations												
								Site-Specific Background	Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	LB16 (5-6.5)	LB20 (2.5-4.0)	LB24 (2.5-4.0)	LB1(11-12.5)	LB1(15.5-16.5)	LB2(12-13.5)	LB2(18.5-19.5)	LB3(12-13.5)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs						Construction	Excavation			R923AZ	R923AJ	S057A	Q650P	Q650Q	Q650S	Q650T	Q650V
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	03/12/97	03/11/97	03/21/97	10/23/96	10/23/96	10/23/96	10/23/96	10/23/96
VOLATILES (mg/kg)																					
EPA Method SW8260																					
1,2,4-Trimethylbenzene	170	--	--	--	3300 (m)	--	--	--	1500	1400	40000	790	55	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	0.028	--	--	--	--	--	--	--	0.033	0.25	7.1	1.7	0.000059	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	70	--	--	--	3300 (m)	--	--	--	1500	1400	40000	--	12	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	27102	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	0.74 U
4-Isopropyltoluene	520 (a)	0.6 (a)	12 (a)	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	6036	0.8	16	--	1250	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	0.96 U
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	NA	NA	NA	NA	NA	0.15 U
Carbon Disulfide	720	2	32	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	0.15 U
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	NA	NA	NA	NA	NA	NA	0.15 U
Isopropylbenzene	1977	--	--	--	3300 (m)	--	--	--	51000	24000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	NA	NA	NA	NA	0.15 U
Methyl Iodide	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	157	--	--	--	--	--	--	--	760	9000	--	720	0.30	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	190	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	240	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	240	--	--	--	3300 (m)	--	--	--	19000	9300	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	NA	NA	NA	NA	0.15 U
sec-Butylbenzene	220	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	390	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	160	NA	NA	NA	NA	NA	NA	NA	0.15 U
HYDROCARBONS (mg/kg)																					
NWTPH-HCID																					
Gasoline	--	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	20 U	20 U	20 U	20 U	**1100**
Kerosene	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Diesel	--	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	25 U	25 U	25 U	25 U	**790**
Lube Oil	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	50 U	50 U	50 U	50 U	50 U
NWTPH-Dx (mg/kg)																					
TPH-Diesel Range	2000 (p)	--	--	--	--	--	--	--	70000	23000	--	--	--	**56**	5.6 U	**6.4**	NA	NA	NA	NA	**280**
TPH-Kerosene Range	2000 (p)	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
TPH-Motor Oil Range	2000 (p)	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
NWTPH-G (mg/kg)																					
TPH-Gasoline Range	100 (p)	--	--	--	--	--	--	--	22000	13000	--	80000	110	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA
PRIORITY POLLUTANT METALS (mg/kg)																					
Arsenic (7060)	1.6 (q)(*)	1 (r)(*)	29	10 (r)	29 (r)	10 (r)	60 (r)	5 (o)	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	6 U
Chromium (6010)	450	2 (*)	38	1 (s)(*)	340000 (s)	4 (s)(*)	0.4 (s)(*)	23.1	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	**20.2**
Copper (6010)	40877	--	--	100	390	190	50	19.1	--	--	--	--	--	**18.1**	**17.8**	NA	NA	NA	NA	NA	**19.3**
Lead (7421)	750	--	--	50	4000	16	500	9	750	750	750	--	30	NA	NA	NA	NA	NA	NA	NA	**5**
Nickel (6010)	20439	7 (*)	130	30	625	320	200	21.4	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	**23**
Zinc (6010)	100000	620	12000	50	20000	60	200	60.2	--	--	--	--	--	**52.9**	**54.7**	NA	NA	NA	NA	NA	**56**
Cadmium (6010)	451	0.4	8	4	125	6	20	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	0.2 U
Mercury (7471)	307	--	--	0.3	73	1.5	0.1	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	0.05 U

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TABLE C-6
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
PHASE II STUDY AREA

														5-5.5	5-5.5	5-5.5	CF	CF	CF	CF	CF
	SCREENING CRITERIA																				
									Risk-Based Concentrations												
Sample Identification:								Site-Specific	Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	LB16 (5-6.5)	LB20 (2.5-4.0)	LB24 (2.5-4.0)	LB1(11-12.5)	LB1(15.5-16.5)	LB2(12-13.5)	LB2(18.5-19.5)	LB3(12-13.5)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			R923AZ	R923AJ	S057A	Q650P	Q650Q	Q650S	Q650T	Q650V
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	03/12/97	03/11/97	03/21/97	10/23/96	10/23/96	10/23/96	10/23/96	10/23/96
BETX (mg/kg)																					
EPA Method SW8021B																					
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	0.057 U	0.057 U	NA	NA	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	0.057 U	0.057 U	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	0.057 U	0.057 U	NA	NA	NA	NA	NA	NA
Xylenes, Total	420	10	210	--	--	--	--	--	24000	19000	--	--	100	NA	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	0.057 U	0.057 U	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	0.057 U	0.057 U	NA	NA	NA	NA	NA	NA
DIOXINS AND FURANS (ng/kg)																					
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE C-6
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
PHASE II STUDY AREA

Sample Identification:														CF	CF	CF	CF	CF	CF	CF	CF
Laboratory Identification:	SCREENING CRITERIA													LB3(17-18) Q650X	LB4(12-13.5) Q650AS	LB4(17-18) Q650AT	LB6(12-13.5) Q650AE	LB6(17-18) Q650AF	LB7(12-13.5) Q650AW	LB7(17-18) Q650AX	LB10(6.5-8.0) Q650AM
Date Collected:	EPA Region 9 PRGs			Oregon SLVs				Site-Specific Background	Risk-Based Concentrations: Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	10/23/96	10/25/96	10/25/96	10/23/96	10/23/96	10/25/96	10/25/96	10/24/96
	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Construction Worker	Excavation Worker	Occupational	Occupational								
SEMIVOLATILES (mg/kg)																					
EPA Method SW8270																					
2,6-Dinitrotoluene	616	0.00003	0.0007	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	NA	NA	0.43 U	NA	NA	NA	NA
2-Methylnaphthalene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	0.087 U	NA	NA	NA	NA
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	NA	NA	NA	0.087 U	NA	NA	NA	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	0.087 U	NA	NA	NA	NA
Anthracene	100000	590	12000	--	--	--		--	--	90000	--	--	--	NA	NA	NA	0.087 U	NA	NA	NA	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	0.087 U	NA	NA	NA	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--		--	0.27	2.1	59	--	--	NA	NA	NA	0.087 U	NA	NA	NA	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	0.087 U	NA	NA	NA	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	0.087 U	NA	NA	NA	NA
Benzo(k)fluoranthene	21.1	2	49	--	--	--	--	--	27	210	5900	--	--	NA	NA	NA	0.087 U	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	123	180 (g)	3600 (g)	--	1020	4.5	--	--	--	--	--	--	--	NA	NA	NA	0.087 U	NA	NA	NA	NA
Butylbenzylphthalate	100000	810	930	--	1020 (i)	4.5 (i)	--	--	--	--	--	--	--	NA	NA	NA	0.087 U	NA	NA	NA	NA
Carbazole	86	0.03	0.6	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	0.087 U	NA	NA	NA	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	NA	NA	0.087 U	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	0.087 U	NA	NA	NA	NA
Dibenzofuran	3127	--	--	--	0.002	--	--	--	--	--	--	--	--	NA	NA	NA	0.087 U	NA	NA	NA	NA
Diethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	0.087 U	NA	NA	NA	NA
Dimethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	0.087 U	NA	NA	NA	NA
Di-n-Butylphthalate	61561	270	2300	200	30000	0.45	--	--	--	--	--	--	--	NA	NA	NA	0.087 U	NA	NA	NA	NA
Di-n-Octyl phthalate	24624	10000	10000	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	0.087 U	NA	NA	NA	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	NA	NA	0.087 U	NA	NA	NA	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	NA	NA	0.087 U	NA	NA	NA	NA
Hexachloroethane	123	0.02	0.5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	0.17 U	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	0.087 U	NA	NA	NA	NA
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	NA	0.087 U	NA	NA	NA	NA
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	0.43 U	NA	NA	NA	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	0.087 U	NA	NA	NA	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	NA	NA	0.087 U	NA	NA	NA	NA
SEMIVOLATILES (mg/kg)																					
EPA Method SW8270SIM																					
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	188	4	84	10	3900	--		--	770	710	20000	--	15	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
CHLORINATED PHENOLS (mg/kg)																					
Method 8040																					
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	0.001	25	2.6	0.008 U	0.013	0.0099	0.0082 U	0.0044

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TABLE C-6
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
PHASE II STUDY AREA

														CF	CF	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																			
									Risk-Based Concentrations											
Sample Identification:								Site-Specific	Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	LB3(17-18)	LB4(12-13.5)	LB4(17-18)	LB6(12-13.5)	LB6(17-18)	LB7(12-13.5)	LB7(17-18)	LB10(6.5-8.0)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			Q650X	Q650AS	Q650AT	Q650AE	Q650AF	Q650AW	Q650AX	Q650AM
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	10/23/96	10/25/96	10/25/96	10/23/96	10/23/96	10/25/96	10/25/96	10/24/96
VOLATILES (mg/kg)																					
EPA Method SW8260																					
1,2,4-Trimethylbenzene	170	--	--	--	3300 (m)	--	--	--	1500	1400	40000	790	55	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	0.028	--	--	--	--	--	--	--	0.033	0.25	7.1	1.7	0.000059	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	70	--	--	--	3300 (m)	--	--	--	1500	1400	40000	--	12	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	27102	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	0.0064 U	NA	NA	NA	NA
4-Isopropyltoluene	520 (a)	0.6 (a)	12 (a)	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	6036	0.8	16	--	1250	--	--	--	--	--	--	--	--	NA	NA	NA	0.011 U	NA	NA	NA	NA
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	NA	0.0013 U	NA	NA	NA	NA
Carbon Disulfide	720	2	32	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	0.0013 U	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	NA	NA	0.0013 U	NA	NA	NA	NA
Isopropylbenzene	1977	--	--	--	3300 (m)	--	--	--	51000	24000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	0.0013 U	NA	NA	NA	NA
Methyl Iodide	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	157	--	--	--	--	--	--	--	760	9000	--	720	0.30	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	190	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	240	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	240	--	--	--	3300 (m)	--	--	--	19000	9300	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	0.0013 U	NA	NA	NA	NA
sec-Butylbenzene	220	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	390	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	160	NA	NA	NA	0.0013 U	NA	NA	NA	NA
HYDROCARBONS (mg/kg)																					
NWTPH-HCID																					
Gasoline	--	--	--	--	--	--	--	--	---	---	--	--	--	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Kerosene	--	--	--	--	--	--	--	--	--	--				NA	NA	NA	NA	NA	NA	NA	NA
Diesel	--	--	--	--	--	--	--	--	---	---	--	--	--	25 U	25 U	25 U	25 U	**57**	25 U	25 U	25 U
Lube Oil	--	--	--	--	--	--	--	--	--	--	--	--	--	50 U	50 U	50 U	50 U	**120**	50 U	50 U	50 U
NWTPH-Dx (mg/kg)																					
TPH-Diesel Range	2000 (p)	--	--	--	--	--	--	--	70000	23000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
TPH-Kerosene Range	2000 (p)	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
TPH-Motor Oil Range	2000 (p)	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
NWTPH-G (mg/kg)																					
TPH-Gasoline Range	100 (p)	--	--	--	--	--	--	--	22000	13000	--	80000	110	NA	NA	NA	NA	NA	NA	NA	NA
PRIORITY POLLUTANT METALS (mg/kg)																					
Arsenic (7060)	1.6 (q)(*)	1 (r)(*)	29	10 (r)	29 (r)	10 (r)	60 (r)	5 (o)	--	--	--	--	--	NA	NA	NA	6 U	NA	NA	NA	NA
Chromium (6010)	450	2 (*)	38	1 (s)(*)	340000 (s)	4 (s)(*)	0.4 (s)(*)	23.1	--	--	--	--	--	NA	NA	NA	**23.3**	NA	NA	NA	NA
Copper (6010)	40877	--	--	100	390	190	50	19.1	--	--	--	--	--	NA	NA	NA	**21.6**	NA	NA	NA	NA
Lead (7421)	750	--	--	50	4000	16	500	9	750	750	750	--	30	NA	NA	NA	**5**	NA	NA	NA	NA
Nickel (6010)	20439	7 (*)	130	30	625	320	200	21.4	--	--	--	--	--	NA	NA	NA	**24**	NA	NA	NA	NA
Zinc (6010)	100000	620	12000	50	20000	60	200	60.2	--	--	--	--	--	NA	NA	NA	**59.7**	NA	NA	NA	NA
Cadmium (6010)	451	0.4	8	4	125	6	20	--	--	--	--	--	--	NA	NA	NA	0.3 U	NA	NA	NA	NA
Mercury (7471)	307	--	--	0.3	73	1.5	0.1	--	--	--	--	--	--	NA	NA	NA	0.06 U	NA	NA	NA	NA

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TABLE C-6
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
PHASE II STUDY AREA

														CF	CF	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																				
									Risk-Based Concentrations												
Sample Identification:								Site-Specific	Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	LB3(17-18)	LB4(12-13.5)	LB4(17-18)	LB6(12-13.5)	LB6(17-18)	LB7(12-13.5)	LB7(17-18)	LB10(6.5-8.0)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			Q650X	Q650AS	Q650AT	Q650AE	Q650AF	Q650AW	Q650AX	Q650AM
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	10/23/96	10/25/96	10/25/96	10/23/96	10/23/96	10/25/96	10/25/96	10/24/96
BETX (mg/kg)																					
EPA Method SW8021B																					
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, Total	420	10	210	--	--	--	--	--	24000	19000	--	--	100	NA	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	NA	NA	NA	NA	NA
DIOXINS AND FURANS (ng/kg)																					
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	**2132.5**	NA	NA	NA	NA	NA	NA

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TABLE C-6
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
PHASE II STUDY AREA

														CF	CF	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																				
									Risk-Based Concentrations												
Sample Identification:								Site-Specific	Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	LB11 (12.5-14.2)	LB11 (17-17.6)	LB12 (13.2-14.0)	LB12 (15-16)	LB13 (12.5-14)	LB13 (15-16.5)	LB14 (12.5-14.0)	LB14 (18-19)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			R923C	R923D	R923F	R923G	R923I	R923J	R923M	R923N
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	03/10/97	03/10/97	03/10/97	03/10/97	03/10/97	03/10/97	03/10/97	03/10/97
SEMIVOLATILES (mg/kg)																					
EPA Method SW8270																					
2,6-Dinitrotoluene	616	0.00003	0.0007	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	NA	0.43 U	0.42 U	0.62 U	0.43 U	2.6 U	0.43 U
2-Methylnaphthalene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	0.085 U	0.085 U	**0.27**	0.085 U	**4.4**	0.086 U
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	NA	NA	0.085 U	0.085 U	0.12 U	0.085 U	0.51 U	0.086 U
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	0.085 U	0.085 U	0.12 U	0.085 U	0.51 U	0.086 U
Anthracene	100000	590	12000	--	--	--		--	--	90000	--	--	--	NA	NA	0.085 U	0.085 U	0.12 U	0.085 U	0.51 U	0.086 U
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	NA	0.085 U	0.085 U	0.12 U	0.085 U	0.51 U	0.086 U
Benzo(a)pyrene	0.21	0.4	8	--	125	--		--	0.27	2.1	59	--	--	NA	NA	0.085 U	0.085 U	0.12 U	0.085 U	0.51 U	0.086 U
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	NA	0.085 U	0.085 U	0.12 U	0.085 U	0.51 U	0.086 U
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	0.085 U	0.085 U	0.12 U	0.085 U	0.51 U	0.086 U
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--	NA	NA	0.085 U	0.085 U	0.12 U	0.085 U	0.51 U	0.086 U
bis(2-Ethylhexyl)phthalate	123	180 (g)	3600 (g)	--	1020	4.5	--	--	--	--	--	--	--	NA	NA	**0.12**	**0.27**	0.12 U	0.085 U	0.51 U	0.086 U
Butylbenzylphthalate	100000	810	930	--	1020 (i)	4.5 (i)	--	--	--	--	--	--	--	NA	NA	0.085 U	0.085 U	0.12 U	0.085 U	0.51 U	0.086 U
Carbazole	86	0.03	0.6	--	--	--	--	--	--	--	--	--	--	NA	NA	0.085 U	0.085 U	**0.42**	0.085 U	0.51 U	0.086 U
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	NA	0.085 U	0.085 U	0.12 U	0.085 U	0.51 U	0.086 U
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	NA	0.085 U	0.085 U	0.12 U	0.085 U	0.51 U	0.086 U
Dibenzofuran	3127	--	--	--	0.002	--	--	--	--	--	--	--	--	NA	NA	0.085 U	0.085 U	0.12 U	0.085 U	0.51 U	0.086 U
Diethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	0.085 U	0.085 U	0.12 U	0.085 U	0.51 U	0.086 U
Dimethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	0.085 U	0.085 U	0.12 U	0.085 U	0.51 U	0.086 U
Di-n-Butylphthalate	61561	270	2300	200	30000	0.45	--	--	--	--	--	--	--	NA	NA	0.085 U	0.085 U	0.12 U	0.085 U	0.51 U	0.086 U
Di-n-Octyl phthalate	24624	10000	10000	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	0.085 U	0.085 U	0.12 U	0.085 U	0.51 U	0.086 U
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	NA	0.085 U	**0.1**	0.12 U	0.085 U	0.51 U	0.086 U
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	NA	0.085 U	0.085 U	0.12 U	0.085 U	0.51 U	0.086 U
Hexachloroethane	123	0.02	0.5	--	--	--	--	--	--	--	--	--	--	NA	NA	0.17 U	0.17 U	0.25 U	0.17 U	1 U	0.17 U
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	NA	0.085 U	0.085 U	0.12 U	0.085 U	0.51 U	0.086 U
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	0.085 U	0.085 U	**0.84**	0.085 U	**6.6**	0.086 U
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	0.43 U	0.42 U	0.62 U	0.43 U	2.6 U	0.43 U
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	NA	0.085 U	0.085 U	0.12 U	0.085 U	0.51 U	0.086 U
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	NA	0.085 U	**0.12**	0.12 U	0.085 U	0.51 U	**0.14**
SEMIVOLATILES (mg/kg)																					
EPA Method SW8270SIM																					
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	0.0087 UJ	0.0083 UJ	NA	NA	NA	NA	NA	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.0087 UJ	0.0083 UJ	NA	NA	NA	NA	NA	NA
Anthracene	100000	590	12000	--	--	--		--	--	90000	--	--	--	0.0087 UJ	0.0083 U	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	0.0087 UJ	**0.03** J	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--		--	0.27	2.1	59	--	--	0.0087 UJ	**0.028** J	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	0.0087 UJ	**0.017** J	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.0087 UJ	**0.016** J	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--	0.0087 UJ	**0.023** J	NA	NA	NA	NA	NA	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	0.0087 UJ	**0.032** J	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	0.0087 UJ	0.0083 UJ	NA	NA	NA	NA	NA	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	**0.0096** J	**0.055** J	NA	NA	NA	NA	NA	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	0.0087 UJ	0.0083 UJ	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	0.0087 UJ	**0.014** J	NA	NA	NA	NA	NA	NA
Naphthalene	188	4	84	10	3900	--		--	770	710	20000	--	15	1.4 J	0.0083 UJ	NA	NA	NA	NA	NA	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	0.0087 UJ	**0.026** J	NA	NA	NA	NA	NA	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	**0.013** J	**0.065** J	NA	NA	NA	NA	NA	NA
CHLORINATED PHENOLS (mg/kg)																					
Method 8040																					
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	0.035	0.015	0.028	0.091	79	6.7	180	0.85

BZTO104(e)019698

TABLE C-6
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
PHASE II STUDY AREA

Sample Identification:														CF	CF	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																				
									Risk-Based Concentrations												
								Site-Specific Background	Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	LB11 (12.5-14.2)	LB11 (17-17.6)	LB12 (13.2-14.0)	LB12 (15-16)	LB13 (12.5-14)	LB13 (15-16.5)	LB14 (12.5-14.0)	LB14 (18-19)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs						Construction	Excavation			R923C	R923D	R923F	R923G	R923I	R923J	R923M	R923N
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	03/10/97	03/10/97	03/10/97	03/10/97	03/10/97	03/10/97	03/10/97	03/10/97
VOLATILES (mg/kg)																					
EPA Method SW8260																					
1,2,4-Trimethylbenzene	170	--	--	--	3300 (m)	--	--	--	1500	1400	40000	790	55	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	0.028	--	--	--	--	--	--	--	0.033	0.25	7.1	1.7	0.000059	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	70	--	--	--	3300 (m)	--	--	--	1500	1400	40000	--	12	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	27102	--	--	--	--	--	--	--	--	--	--	--	--	1.5 U	NA	NA	NA	0.74 U	0.061 U	1.4 U	NA
4-Isopropyltoluene	520 (a)	0.6 (a)	12 (a)	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	6036	0.8	16	--	1250	--	--	--	--	--	--	--	--	1.5 U	NA	NA	NA	0.74 U	0.18	1.4 U	NA
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	0.31 U	NA	NA	NA	0.15 U	0.012 U	0.29 U	NA
Carbon Disulfide	720	2	32	--	--	--	--	--	--	--	--	--	--	0.31 U	NA	NA	NA	0.15 U	0.012 U	0.29 U	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	**0.81** M	NA	NA	NA	**0.38**	0.012 U	**9.9**	NA
Isopropylbenzene	1977	--	--	--	3300 (m)	--	--	--	51000	24000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	**1.9** M	NA	NA	NA	**2**	**0.033** M	**40**	NA
Methyl Iodide	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	157	--	--	--	--	--	--	--	760	9000	--	720	0.30	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	190	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	240	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	240	--	--	--	3300 (m)	--	--	--	19000	9300	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	**0.49** M	NA	NA	NA	**1.4** M	**0.027** M	**19** M	NA
sec-Butylbenzene	220	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	390	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	160	0.31 U	NA	NA	NA	0.15 U	0.012 U	0.29 U	NA
HYDROCARBONS (mg/kg)																					
NWTPH-HCID																					
Gasoline	--	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Kerosene	--	--	--	--	--	--	--	--	--	--				NA	NA	NA	NA	NA	NA	NA	NA
Diesel	--	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Lube Oil	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
NWTPH-Dx (mg/kg)																					
TPH-Diesel Range	2000 (p)	--	--	--	--	--	--	--	70000	23000	--	--	--	**1100**	**43**	6.3 U	6.4 U	**1500**	**70**	**4700**	**24**
TPH-Kerosene Range	2000 (p)	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
TPH-Motor Oil Range	2000 (p)	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
NWTPH-G (mg/kg)																					
TPH-Gasoline Range	100 (p)	--	--	--	--	--	--	--	22000	13000	--	80000	110	NA	**210**	5.0 U	5.0 U	NA	NA	NA	5.0 U
PRIORITY POLLUTANT METALS (mg/kg)																					
Arsenic (7060)	1.6 (q)(*)	1 (r)(*)	29	10 (r)	29 (r)	10 (r)	60 (r)	5 (o)	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Chromium (6010)	450	2 (*)	38	1 (s)(*)	340000 (s)	4 (s)(*)	0.4 (s)(*)	23.1	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Copper (6010)	40877	--	--	100	390	190	50	19.1	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Lead (7421)	750	--	--	50	4000	16	500	9	750	750	750	--	30	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (6010)	20439	7 (*)	130	30	625	320	200	21.4	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (6010)	100000	620	12000	50	20000	60	200	60.2	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (6010)	451	0.4	8	4	125	6	20	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (7471)	307	--	--	0.3	73	1.5	0.1	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

BZTO104(e)019699

TABLE C-6
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
PHASE II STUDY AREA

														CF	CF	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																				
									Risk-Based Concentrations												
Sample Identification:								Site-Specific	Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	LB11 (12.5-14.2)	LB11 (17-17.6)	LB12 (13.2-14.0)	LB12 (15-16)	LB13 (12.5-14)	LB13 (15-16.5)	LB14 (12.5-14.0)	LB14 (18-19)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			R923C	R923D	R923F	R923G	R923I	R923J	R923M	R923N
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	03/10/97	03/10/97	03/10/97	03/10/97	03/10/97	03/10/97	03/10/97	03/10/97
BETX (mg/kg)																					
EPA Method SW8021B																					
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	0.064 U	0.069 U	0.066 U	NA	NA	NA	0.064 U
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	0.81 U	0.069 U	0.066 U	NA	NA	NA	0.064 U
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	NA	0.064 U	0.069 U	0.066 U	NA	NA	NA	0.064 U
Xylenes, Total	420	10	210	--	--	--	--	--	24000	19000	--	--	100	NA	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	0.064 U	0.069 U	0.066 U	NA	NA	NA	0.064 U
o-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	2.3	0.069 U	0.066 U	NA	NA	NA	0.064 U
DIOXINS AND FURANS (ng/kg)																					
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

BZTO104(e)019700

TABLE C-6
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
PHASE II STUDY AREA

														CF	CF	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																					
									Risk-Based Concentrations													
Sample Identification:								Site-Specific	Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	LB15 (7.5-9.0)	LB15 (12.5-14)	LB15 (16.5-17.3)	LB16 (7.5-9.0)	LS7 (27.5-29.0) Dup of LB16 (7.5-9.0)	LB16 (21-22.5)	LB17 (7.5-9.0)	LB17 (10-11.5)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs						Construction	Excavation			R923P	R923Q	R923R	R923BA	R923T	R923BB	R923Z	R923AA
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts	Background	Occupational	Worker	Worker	Occupational	Occupational	03/10/97	03/10/97	03/10/97	03/12/97	03/12/97	03/12/97	03/11/97	03/11/97
SEMIVOLATILES (mg/kg)																						
EPA Method SW8270																						
2,6-Dinitrotoluene	616	0.00003	0.0007	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	0.42 U	0.42 U
2-Methylnaphthalene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	0.084 U	0.084 U
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	NA	NA	NA	NA	NA	NA	0.084 U	0.084 U
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	0.084 U	0.084 U
Anthracene	100000	590	12000	--	--	--		--	--	90000	--	--	--	NA	NA	NA	NA	NA	NA	0.084 U	0.084 U
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	0.084 U	0.084 U
Benzo(a)pyrene	0.21	0.4	8	--	125	--		--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	0.084 U	0.084 U
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	0.084 U	0.084 U
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	0.084 U	0.084 U
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--	NA	NA	NA	NA	NA	NA	0.084 U	0.084 U
bis(2-Ethylhexyl)phthalate	123	180 (g)	3600 (g)	--	1020	4.5	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	0.084 U	0.084 U
Butylbenzylphthalate	100000	810	930	--	1020 (i)	4.5 (i)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	0.084 U	0.084 U
Carbazole	86	0.03	0.6	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	0.084 U	0.084 U
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	NA	NA	NA	NA	NA	0.084 U	0.084 U
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	NA	0.084 U	0.084 U
Dibenzofuran	3127	--	--	--	0.002	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	0.084 U	0.084 U
Diethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	0.084 U	0.084 U
Dimethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	0.084 U	0.084 U
Di-n-Butylphthalate	61561	270	2300	200	30000	0.45	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	0.084 U	0.084 U
Di-n-Octyl phthalate	24624	10000	10000	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	0.084 U	0.084 U
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	NA	NA	NA	NA	NA	0.084 U	0.084 U
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	NA	NA	NA	NA	NA	0.084 U	0.084 U
Hexachloroethane	123	0.02	0.5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	0.17 U	0.17 U
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	NA	0.084 U	0.084 U
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	NA	NA	NA	NA	0.084 U	0.084 U
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	0.42 U	0.42 U
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	0.084 U	0.084 U
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	NA	NA	NA	NA	NA	0.084 U	0.084 U
SEMIVOLATILES (mg/kg)																						
EPA Method SW8270SIM																						
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	0.0086 U	0.0085 U	0.0092 UJ	0.0083 U	0.0083 U	**0.0094**	NA	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.0086 U	0.0085 U	**0.061** J	0.0083 U	0.0083 U	**0.022**	NA	NA
Anthracene	100000	590	12000	--	--	--		--	--	90000	--	--	--	0.0086 U	0.0085 U	**0.64** J	0.0083 U	0.0083 U	**0.1**	NA	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	0.0086 U	**0.024**	**0.76** J	0.0083 U	0.0083 U	**0.25**	NA	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--		--	0.27	2.1	59	--	--	0.0086 U	**0.035**	**0.65** J	0.0083 U	0.0083 U	**0.23**	NA	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	0.0086 U	**0.071**	**0.4** J	0.0083 U	0.0083 U	**0.11**	NA	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.0086 U	**0.011** M	**0.26** J	0.0083 U	0.0083 U	**0.09**	NA	NA
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--	0.0086 U	**0.07**	**0.46** J	0.0083 U	0.0083 U	**0.17**	NA	NA
Chrysene	211	8	160	--	--	--		--	270	2100	59000	--	--	0.0086 U	**0.039**	**0.83** J	0.0083 U	0.0083 U	**0.24**	NA	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	0.0086 U	0.0085 U	**0.062** J	0.0083 U	0.0083 U	**0.022**	NA	NA
Fluoranthene	22000	210	4300	--	--	--		--	29000	8900	--	--	--	0.0086 U	**0.048**	1 J	0.0083 U	0.0083 U	**0.35**	NA	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	0.0086 U	0.0085 U	**0.017** J	0.0083 U	0.0083 U	**0.011**	NA	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--		--	2.7	21	590	--	--	0.0086 U	**0.016**	**0.25** J	0.0083 U	0.0083 U	**0.09**	NA	NA
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	0.0086 U	0.0085 U	0.0092 UJ	0.0083 U	0.0083 U	**0.01**	NA	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--		--	--	--	--	--	--	0.0086 U	0.0085 U	**0.48** J	0.0083 U	0.0083 U	**0.21**	NA	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	0.0086 U	**0.064** J	**1.3** J	0.0083 U	0.0083 U	**0.4**	NA	NA
CHLORINATED PHENOLS (mg/kg)																						
Method 8040																						
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	0.0081 U	**0.071**	**0.14**	0.0078 U	0.0078 U	0.0087 U	0.0079 U	0.008 U

BZTO104(e)019701

TABLE C-6
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
PHASE II STUDY AREA

														CF	CF	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																				
								Site-Specific Background	Risk-Based Concentrations												
Sample Identification:									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	LB15 (7.5-9.0)	LB15 (12.5-14)	LB15 (16.5-17.3)	LB16 (7.5-9.0)	LS7 (27.5-29.0) Dup of LB16 (7.5-9.0)	LB16 (21-22.5)	LB17 (7.5-9.0)	LB17 (10-11.5)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs						Construction	Excavation			R923P	R923Q	R923R	R923BA	R923T	R923BB	R923Z	R923AA
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	03/10/97	03/10/97	03/10/97	03/12/97	03/12/97	03/12/97	03/11/97	03/11/97
VOLATILES (mg/kg)																					
EPA Method SW8260																					
1,2,4-Trimethylbenzene	170	--	--	--	3300 (m)	--	--	--	1500	1400	40000	790	55	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	0.028	--	--	--	--	--	--	--	0.033	0.25	7.1	1.7	0.000059	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	70	--	--	--	3300 (m)	--	--	--	1500	1400	40000	--	12	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	27102	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	0.0081 U
4-Isopropyltoluene	520 (a)	0.6 (a)	12 (a)	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	6036	0.8	16	--	1250	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	0.0082 U
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	NA	NA	NA	NA	NA	0.0012 U
Carbon Disulfide	720	2	32	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	0.0012 U
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	NA	NA	NA	NA	NA	NA	0.0012 U
Isopropylbenzene	1977	--	--	--	3300 (m)	--	--	--	51000	24000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	NA	NA	NA	NA	0.0012 U
Methyl Iodide	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	157	--	--	--	--	--	--	--	760	9000	--	720	0.30	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	190	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	240	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	240	--	--	--	3300 (m)	--	--	--	19000	9300	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	NA	NA	NA	NA	0.0012 U
sec-Butylbenzene	220	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	390	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	160	NA	NA	NA	NA	NA	NA	NA	0.0012 U
HYDROCARBONS (mg/kg)																					
NWTPH-HCID																					
Gasoline	--	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Kerosene	--	--	--	--	--	--	--	--	--	--				NA	NA	NA	NA	NA	NA	NA	NA
Diesel	--	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Lube Oil	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
NWTPH-Dx (mg/kg)																					
TPH-Diesel Range	2000 (p)	--	--	--	--	--	--	--	70000	23000	--	--	--	6.5 U	6.4 U	**39**	6.3 U	6.2 U	**19**	6.4 U	6.4 U
TPH-Kerosene Range	2000 (p)	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
TPH-Motor Oil Range	2000 (p)	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
NWTPH-G (mg/kg)																					
TPH-Gasoline Range	100 (p)	--	--	--	--	--	--	--	22000	13000	--	80000	110	4.9 U	5.1 U	4.9 U	5.1 U	5.0 U	4.9 U	5.0 U	NA
PRIORITY POLLUTANT METALS (mg/kg)																					
Arsenic (7060)	1.6 (q)(*)	1 (r)(*)	29	10 (r)	29 (r)	10 (r)	60 (r)	5 (o)	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Chromium (6010)	450	2 (*)	38	1 (s)(*)	340000 (s)	4 (s)(*)	0.4 (s)(*)	23.1	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Copper (6010)	40877	--	--	100	390	190	50	19.1	--	--	--	--	--	NA	NA	NA	**17.3**	**16.9**	**18.1**	**16.0**	**17.9**
Lead (7421)	750	--	--	50	4000	16	500	9	750	750	750	--	30	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (6010)	20439	7 (*)	130	30	625	320	200	21.4	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (6010)	100000	620	12000	50	20000	60	200	60.2	--	--	--	--	--	NA	NA	NA	**48.7**	**50.2**	**55.9**	**49.8**	**51.5**
Cadmium (6010)	451	0.4	8	4	125	6	20	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (7471)	307	--	--	0.3	73	1.5	0.1	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

BZTO104(e)019702

TABLE C-6
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
PHASE II STUDY AREA

														CF		CF		CF		CF		CF		CF	
	SCREENING CRITERIA																							
									Risk-Based Concentrations															
Sample Identification:								Site-Specific	Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	LB15 (7.5-9.0)		LB15 (12.5-14)		LB15 (16.5-17.3)		LB16 (7.5-9.0)		LS7 (27.5-29.0) Dup of LB16 (7.5-9.0)		LB16 (21-22.5)		LB17 (7.5-9.0)		LB17 (10-11.5)	
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			R923P		R923Q		R923R		R923BA		R923T		R923BB		R923Z		R923AA	
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	03/10/97		03/10/97		03/10/97		03/12/97		03/12/97		03/12/97		03/11/97		03/11/97	
BETX (mg/kg)																													
EPA Method SW8021B																													
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	0.068	U	0.069	U	0.068	U	0.061	U	0.062	U	0.064	U	0.066	U	NA	
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	0.068	U	0.069	U	0.068	U	0.061	U	0.062	U	0.064	U	0.066	U	NA	
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	0.068	U	0.069	U	0.068	U	0.061	U	0.062	U	0.064	U	0.066	U	NA	
Xylenes, Total	420	10	210	--	--	--	--	--	24000	19000	--	--	100	NA		NA		NA		NA		NA		NA		NA		NA	
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	0.068	U	0.069	U	0.068	U	0.061	U	0.062	U	0.064	U	0.066	U	NA	
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	0.068	U	0.069	U	0.068	U	0.061	U	0.062	U	0.064	U	0.066	U	NA	
DIOXINS AND FURANS (ng/kg)																													
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	--	NA		NA		NA		NA		NA		NA		NA		NA	

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TABLE C-6
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
PHASE II STUDY AREA

Sample Identification:														CF	CF	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																				
								Site-Specific Background	Risk-Based Concentrations												
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater							
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs						Construction	Excavation			LB17 (18-19.5)	LB18 (7.5-9.0)	LB18 (18-19.5)	LB19 (7.5-9.0)	LB19 (18.0-20.2)	LB20 (7.5-9.0)	LB20 (16.3-17.0)	LB21 (7.5-9.0)
														R923AB	R923AD	R923AE	R923AG	R923AH	R923AK	R923AL	R923AN
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	03/11/97	03/11/97	03/11/97	03/11/97	03/11/97	03/11/97	03/11/97	03/11/97
SEMIVOLATILES (mg/kg)																					
EPA Method SW8270																					
2,6-Dinitrotoluene	616	0.00003	0.0007	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	0.44 U	NA	NA	NA	NA	0.41 U	0.34 U	NA
2-Methylnaphthalene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	**0.13**	NA	NA	NA	NA	0.082 U	0.068 U	NA
Acenaphthene	29219	29	570	20	--	--	--	--	41000	16000	--	--	--	0.088 U	NA	NA	NA	NA	0.082 U	0.068 U	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.088 U	NA	NA	NA	NA	0.082 U	0.068 U	NA
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	0.088 U	NA	NA	NA	NA	0.082 U	0.068 U	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	**0.14**	NA	NA	NA	NA	0.082 U	0.068 U	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	**0.11**	NA	NA	NA	NA	0.082 U	0.068 U	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	0.088 U	NA	NA	NA	NA	0.082 U	0.068 U	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.088 U	NA	NA	NA	NA	0.082 U	0.068 U	NA
Benzo(k)fluoranthene	21.1	2	49	--	--	--	--	--	27	210	5900	--	--	0.088 U	NA	NA	NA	NA	0.082 U	0.068 U	NA
bis(2-Ethylhexyl)phthalate	123	180 (g)	3600 (g)	--	1020	4.5	--	--	--	--	--	--	--	**0.48**	NA	NA	NA	NA	0.082 U	0.068 U	NA
Butylbenzylphthalate	100000	810	930	--	1020 (i)	4.5 (i)	--	--	--	--	--	--	--	0.088 U	NA	NA	NA	NA	0.082 U	0.068 U	NA
Carbazole	86	0.03	0.6	--	--	--	--	--	--	--	--	--	--	0.088 U	NA	NA	NA	NA	0.082 U	0.068 U	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	**0.16**	NA	NA	NA	NA	0.082 U	0.068 U	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	0.088 U	NA	NA	NA	NA	0.082 U	0.068 U	NA
Dibenzofuran	3127	--	--	--	0.002	--	--	--	--	--	--	--	--	0.088 U	NA	NA	NA	NA	0.082 U	0.068 U	NA
Diethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.088 U	NA	NA	NA	NA	0.082 U	0.068 U	NA
Dimethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.088 U	NA	NA	NA	NA	0.082 U	0.068 U	NA
Di-n-Butylphthalate	61561	270	2300	200	30000	0.45	--	--	--	--	--	--	--	0.088 U	NA	NA	NA	NA	0.082 U	0.068 U	NA
Di-n-Octyl phthalate	24624	10000	10000	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.088 U	NA	NA	NA	NA	0.082 U	0.068 U	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	**0.18**	NA	NA	NA	NA	0.082 U	0.068 U	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	0.088 U	NA	NA	NA	NA	0.082 U	0.068 U	NA
Hexachloroethane	123	0.02	0.5	--	--	--	--	--	--	--	--	--	--	0.18 U	NA	NA	NA	NA	0.16 U	0.14 U	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	0.088 U	NA	NA	NA	NA	0.082 U	0.068 U	NA
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	0.088 U	NA	NA	NA	NA	0.082 U	0.068 U	NA
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	0.44 U	NA	NA	NA	NA	0.41 U	0.34 U	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	**0.18**	NA	NA	NA	NA	0.082 U	0.068 U	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	**0.3**	NA	NA	NA	NA	0.082 U	0.068 U	NA
SEMIVOLATILES (mg/kg)																					
EPA Method SW8270SIM																					
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	NA	0.0083 U	0.009 U	0.0088 U	**0.012** J	NA	NA	0.009 U
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	0.0083 U	0.009 U	0.0088 U	**0.036** J	NA	NA	0.009 U
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	NA	0.0083 U	**0.0099**	0.0088 U	**0.3** J	NA	NA	0.009 U
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	0.0083 U	**0.044**	0.0088 U	0.42 J	NA	NA	0.009 U
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	NA	0.0083 U	**0.042**	0.0088 U	0.42 J	NA	NA	0.009 U
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	0.0083 U	**0.023**	0.0088 U	0.22 J	NA	NA	0.009 U
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	0.0083 U	**0.021**	0.0088 U	**0.2** J	NA	NA	0.009 U
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--	NA	0.0083 U	**0.026**	0.0088 U	**0.29** J	NA	NA	0.009 U
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	0.0083 U	**0.039** J	0.0088 U	**0.44** J	NA	NA	0.009 U
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	0.0083 U	0.009 U	0.0088 U	**0.031** J	NA	NA	0.009 U
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	0.0083 U	**0.071** J	**0.016** J	**0.59** J	NA	NA	0.009 U
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	0.0083 U	0.009 U	0.0088 U	**0.023** J	NA	NA	0.009 U
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	0.0083 U	**0.018**	0.0088 U	**0.2** J	NA	NA	0.009 U
Naphthalene	188	4	84	10	3900	--		--	770	710	20000	--	15	NA	0.0083 U	0.009 U	0.0088 U	0.0087 UJ	NA	NA	0.009 U
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	0.0083 U	**0.024** J	0.0088 U	**0.56** J	NA	NA	0.009 U
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	0.0083 U	**0.094** J	**0.019** J	**0.83** J	NA	NA	0.009 U
CHLORINATED PHENOLS (mg/kg)																					
Method 8040																					
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	0.0083 U	0.0078 U	0.0084 U	0.0083 U	0.0081 U	0.044	0.0063 U	0.0084 U

BZTO104(e)019704

TABLE C-6
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
PHASE II STUDY AREA

Sample Identification:														CF	CF	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																				
									Risk-Based Concentrations												
								Site-Specific Background	Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	LB17 (18-19.5)	LB18 (7.5-9.0)	LB18 (18-19.5)	LB19 (7.5-9.0)	LB19 (18.0-20.2)	LB20 (7.5-9.0)	LB20 (16.3-17.0)	LB21 (7.5-9.0)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs						Construction	Excavation			R923AB	R923AD	R923AE	R923AG	R923AH	R923AK	R923AL	R923AN
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	03/11/97	03/11/97	03/11/97	03/11/97	03/11/97	03/11/97	03/11/97	03/11/97
VOLATILES (mg/kg)																					
EPA Method SW8260																					
1,2,4-Trimethylbenzene	170	--	--	--	3300 (m)	--	--	--	1500	1400	40000	790	55	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	0.028	--	--	--	--	--	--	--	0.033	0.25	7.1	1.7	0.000059	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	70	--	--	--	3300 (m)	--	--	--	1500	1400	40000	--	12	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	27102	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
4-Isopropyltoluene	520 (a)	0.6 (a)	12 (a)	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	6036	0.8	16	--	1250	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	720	2	32	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	1977	--	--	--	3300 (m)	--	--	--	51000	24000	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Iodide	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	157	--	--	--	--	--	--	--	760	9000	--	720	0.30	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	190	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	240	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	240	--	--	--	3300 (m)	--	--	--	19000	9300	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	220	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	390	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	160	NA	NA	NA	NA	NA	NA	NA	NA
HYDROCARBONS (mg/kg)																					
NWTPH-HCID																					
Gasoline	--	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Kerosene	--	--	--	--	--	--	--	--	--	--				NA	NA	NA	NA	NA	NA	NA	NA
Diesel	--	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Lube Oil	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
NWTPH-Dx (mg/kg)																					
TPH-Diesel Range	2000 (p)	--	--	--	--	--	--	--	70000	23000	--	--	--	**38**	6.2 U	**10**	6.6 U	**18**	6.2 U	5.1 U	6.7 U
TPH-Kerosene Range	2000 (p)	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
TPH-Motor Oil Range	2000 (p)	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
NWTPH-G (mg/kg)																					
TPH-Gasoline Range	100 (p)	--	--	--	--	--	--	--	22000	13000	--	80000	110	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.1 U	5.1 U
PRIORITY POLLUTANT METALS (mg/kg)																					
Arsenic (7060)	1.6 (q)(*)	1 (r)(*)	29	10 (r)	29 (r)	10 (r)	60 (r)	5 (o)	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Chromium (6010)	450	2 (*)	38	1 (s)(*)	340000 (s)	4 (s)(*)	0.4 (s)(*)	23.1	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Copper (6010)	40877	--	--	100	390	190	50	19.1	--	--	--	--	--	**18.8**	**16.9**	**21.5**	**17.3**	**18.8**	**23.4**	**16.4**	**16.5**
Lead (7421)	750	--	--	50	4000	16	500	9	750	750	750	--	30	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (6010)	20439	7 (*)	130	30	625	320	200	21.4	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (6010)	100000	620	12000	50	20000	60	200	60.2	--	--	--	--	--	51.4	49.7	60.3	53.8	54.9	55.9	52.8	51.3
Cadmium (6010)	451	0.4	8	4	125	6	20	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (7471)	307	--	--	0.3	73	1.5	0.1	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE C-6
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
PHASE II STUDY AREA

														CF	CF	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																				
									Risk-Based Concentrations												
Sample Identification:								Site-Specific	Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	LB17 (18-19.5)	LB18 (7.5-9.0)	LB18 (18-19.5)	LB19 (7.5-9.0)	LB19 (18.0-20.2)	LB20 (7.5-9.0)	LB20 (16.3-17.0)	LB21 (7.5-9.0)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			R923AB	R923AD	R923AE	R923AG	R923AH	R923AK	R923AL	R923AN
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	03/11/97	03/11/97	03/11/97	03/11/97	03/11/97	03/11/97	03/11/97	03/11/97
BETX (mg/kg)																					
EPA Method SW8021B																					
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	0.068 U	0.064 U	0.069 U	0.066 U	0.064 U	0.062 U	0.068 U	0.068 U
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	0.068 U	0.064 U	0.069 U	0.066 U	0.064 U	0.062 U	0.068 U	0.068 U
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	0.068 U	0.064 U	0.069 U	0.066 U	0.064 U	0.062 U	0.068 U	0.068 U
Xylenes, Total	420	10	210	--	--	--	--	--	24000	19000	--	--	100	NA	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	0.068 U	0.064 U	0.069 U	0.066 U	0.064 U	0.062 U	0.068 U	0.068 U
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	0.068 U	0.064 U	0.069 U	0.066 U	0.064 U	0.062 U	0.068 U	0.068 U
DIOXINS AND FURANS (ng/kg)																					
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

BZTO104(e)019706

TABLE C-6
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
PHASE II STUDY AREA

Sample Identification:														CF	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																			
									Risk-Based Concentrations											
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Site-Specific Background	Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	LB21 (15.4-16.4) R923AO	LB22 (7.5-9.0) R923AQ	LB22 (16.8-17.3) R923AR	LB23 (7.5-9.0) R923AT	LB23 (16.7-17.7) R923AU	LB24 (7.5-9.0) S057B	LB24 (12.5-14.0) S057C
										Construction	Excavation									
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	03/11/97	03/11/97	03/11/97	03/11/97	03/11/97	03/21/97	03/21/97
SEMIVOLATILES (mg/kg)																				
EPA Method SW8270																				
2,6-Dinitrotoluene	616	0.00003	0.0007	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	0.42 U	0.42 U	NA	NA	NA	NA
2-Methylnaphthalene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	0.083 U	0.084 U	NA	NA	NA	NA
Acenaphthene	29219	29	570	20	--	--	--	--	41000	16000	--	--	--	NA	0.083 U	0.084 U	NA	NA	NA	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	0.083 U	0.084 U	NA	NA	NA	NA
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	NA	0.083 U	0.084 U	NA	NA	NA	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	0.083 U	0.084 U	NA	NA	NA	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	NA	0.083 U	0.084 U	NA	NA	NA	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	0.083 U	0.084 U	NA	NA	NA	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	**0.12**	0.084 U	NA	NA	NA	NA
Benzo(k)fluoranthene	21.1	2	49	--	--	--	--	--	27	210	5900	--	--	NA	0.083 U	0.084 U	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	123	180 (g)	3600 (g)	--	1020	4.5	--	--	--	--	--	--	--	NA	**0.22**	**0.19**	NA	NA	NA	NA
Butylbenzylphthalate	100000	810	930	--	1020 (i)	4.5 (i)	--	--	--	--	--	--	--	NA	0.083 U	0.084 U	NA	NA	NA	NA
Carbazole	86	0.03	0.6	--	--	--	--	--	--	--	--	--	--	NA	0.083 U	0.084 U	NA	NA	NA	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	0.083 U	0.084 U	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	0.083 U	0.084 U	NA	NA	NA	NA
Dibenzofuran	3127	--	--	--	0.002	--	--	--	--	--	--	--	--	NA	0.083 U	0.084 U	NA	NA	NA	NA
Diethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	0.083 U	0.084 U	NA	NA	NA	NA
Dimethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	0.083 U	0.084 U	NA	NA	NA	NA
Di-n-Butylphthalate	61561	270	2300	200	30000	0.45	--	--	--	--	--	--	--	NA	0.083 U	0.084 U	NA	NA	NA	NA
Di-n-Octyl phthalate	24624	10000	10000	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	0.083 U	0.084 U	NA	NA	NA	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	**0.15**	0.091	NA	NA	NA	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	0.083 U	0.084 U	NA	NA	NA	NA
Hexachloroethane	123	0.02	0.5	--	--	--	--	--	--	--	--	--	--	NA	0.17 U	0.17 U	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	0.083 U	0.084 U	NA	NA	NA	NA
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	0.083 U	0.084 U	NA	NA	NA	NA
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	0.42 U	0.42 U	NA	NA	NA	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	**0.13**	0.084 U	NA	NA	NA	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	**0.24**	**0.13**	NA	NA	NA	NA
SEMIVOLATILES (mg/kg)																				
EPA Method SW8270SIM																				
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	0.0087 U	NA	NA	0.0088 U	0.0088 U	NA	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.0087 U	NA	NA	0.0088 U	**0.01**	NA	NA
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	0.0087 U	NA	NA	0.0088 U	**0.029**	NA	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	0.0087 U	NA	NA	**0.019**	**0.094**	NA	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	0.0087 U	NA	NA	**0.026**	**0.13**	NA	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	0.0087 U	NA	NA	**0.021**	**0.081**	NA	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.0087 U	NA	NA	**0.02**	**0.087**	NA	NA
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--	0.0087 U	NA	NA	**0.02**	**0.096**	NA	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	0.0087 U	NA	NA	**0.027** J	**0.11** J	NA	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	0.0087 U	NA	NA	0.0088 U	**0.013**	NA	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	0.0087 U	NA	NA	**0.072** J	**0.22** J	NA	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	0.0087 U	NA	NA	0.0088 U	0.0088 U	NA	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	0.0087 U	NA	NA	**0.018**	**0.079**	NA	NA
Naphthalene	188	4	84	10	3900	--		--	770	710	20000	--	15	0.0087 U	NA	NA	0.0088 U	0.0088 U	NA	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	0.0087 U	NA	NA	**0.04** J	**0.079** J	NA	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	0.0087 U	NA	NA	**0.078** J	**0.25** J	NA	NA
CHLORINATED PHENOLS (mg/kg)																				
Method 8040																				
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	0.0081 U	**0.0084**	0.0079 U	0.0082 U	**0.011**	NA	NA

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TABLE C-6
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
PHASE II STUDY AREA

Sample Identification:														CF	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																			
									Risk-Based Concentrations											
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Site-Specific Background	Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	LB21 (15.4-16.4) R923AO	LB22 (7.5-9.0) R923AQ	LB22 (16.8-17.3) R923AR	LB23 (7.5-9.0) R923AT	LB23 (16.7-17.7) R923AU	LB24 (7.5-9.0) S057B	LB24 (12.5-14.0) S057C
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Construction Worker	Excavation Worker	Occupational	Occupational	03/11/97	03/11/97	03/11/97	03/11/97	03/11/97	03/21/97	03/21/97
VOLATILES (mg/kg)																				
EPA Method SW8260																				
1,2,4-Trimethylbenzene	170	--	--	--	3300 (m)	--	--	--	1500	1400	40000	790	55	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	0.028	--	--	--	--	--	--	--	0.033	0.25	7.1	1.7	0.000059	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	70	--	--	--	3300 (m)	--	--	--	1500	1400	40000	--	12	NA	NA	NA	NA	NA	NA	NA
2-Butanone	27102	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
4-Isopropyltoluene	520 (a)	0.6 (a)	12 (a)	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Acetone	6038	0.8	16	--	1250	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	720	2	32	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	1977	--	--	--	3300 (m)	--	--	--	51000	24000	--	--	--	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	NA	NA	NA	NA
Methyl Iodide	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	157	--	--	--	--	--	--	--	760	9000	--	720	0.30	NA	NA	NA	NA	NA	NA	NA
Naphthalene	190	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	240	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	240	--	--	--	3300 (m)	--	--	--	19000	9300	--	--	--	NA	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	220	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	390	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	160	NA	NA	NA	NA	NA	NA	NA
HYDROCARBONS (mg/kg)																				
NWTPH-HCID																				
Gasoline	--	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA	NA	NA	NA
Kerosene	--	--	--	--	--	--	--	--	--	--				NA	NA	NA	NA	NA	NA	NA
Diesel	--	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA	NA	NA	NA
Lube Oil	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
NWTPH-Dx (mg/kg)																				
TPH-Diesel Range	2000 (p)	--	--	--	--	--	--	--	70000	23000	--	--	--	6.5 U	11	**7.3**	6.6 U	6.5 U	6.4 U	6.4 U
TPH-Kerosene Range	2000 (p)	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
TPH-Motor Oil Range	2000 (p)	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA	NA	NA	NA
NWTPH-G (mg/kg)																				
TPH-Gasoline Range	100 (p)	--	--	--	--	--	--	--	22000	13000	--	80000	110	5.0 U	5.0 U	5.0 U	5.0 U	5.1 U	NA	NA
PRIORITY POLLUTANT METALS (mg/kg)																				
Arsenic (7060)	1.6 (q)(*)	1 (r)(*)	29	10 (r)	29 (r)	10 (r)	60 (r)	5 (o)	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Chromium (6010)	450	2 (*)	38	1 (s)(*)	340000 (s)	4 (s)(*)	0.4 (s)(*)	23.1	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Copper (6010)	40877	--	--	100	390	190	50	19.1	--	--	--	--	--	**17.8**	**19.7**	**19.2**	**16.8**	**18.3**	NA	NA
Lead (7421)	750	--	--	50	4000	16	500	9	750	750	750	--	30	NA	NA	NA	NA	NA	NA	NA
Nickel (6010)	20439	7 (*)	130	30	625	320	200	21.4	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Zinc (6010)	100000	620	12000	50	20000	60	200	60.2	--	--	--	--	--	**53.2**	**54.9**	**56.7**	**52.5**	**55.4**	NA	NA
Cadmium (6010)	451	0.4	8	4	125	6	20	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Mercury (7471)	307	--	--	0.3	73	1.5	0.1	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA

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TABLE C-6
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
PHASE II STUDY AREA

														CF	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																			
									Risk-Based Concentrations											
Sample Identification:								Site-Specific	Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	LB21 (15.4-16.4)	LB22 (7.5-9.0)	LB22 (16.8-17.3)	LB23 (7.5-9.0)	LB23 (16.7-17.7)	LB24 (7.5-9.0)	LB24 (12.5-14.0)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			R923AO	R923AQ	R923AR	R923AT	R923AU	S057B	S057C
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	03/11/97	03/11/97	03/11/97	03/11/97	03/11/97	03/21/97	03/21/97
BETX (mg/kg)																				
EPA Method SW8021B																				
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	0.066 U	0.064 U	0.068 U	0.066 U	0.068 U	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	0.066 U	0.064 U	0.068 U	0.066 U	0.068 U	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	0.066 U	0.064 U	0.068 U	0.066 U	0.068 U	NA	NA
Xylenes, Total	420	10	210	--	--	--	--	--	24000	19000	--	--	100	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	0.066 U	0.064 U	0.068 U	0.066 U	0.068 U	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	0.066 U	0.064 U	0.068 U	0.066 U	0.068 U	NA	NA
DIOXINS AND FURANS (ng/kg)																				
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA

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TABLE C-6
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
PHASE II STUDY AREA

														CF	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																			
									Risk-Based Concentrations											
Sample Identification:								Site-Specific	Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	LW1D (7.5-9.0)	LS7 (17.5-19.0) Dup of LW1D (7.5-9.0)	LW1D (16.5-19.0)	LW1S (15-16.50)	LW1D (30-31.5)	LW2S (12.5-14.0)	LS7 (22.5-24.0) Dup of LW2S (12.5-14.0)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			R950P	R950S	R950Q	R950R	S037B	S037P	S037R
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	03/14/97	03/14/97	03/14/97	03/14/97	03/17/97	03/18/97	03/18/97
SEMIVOLATILES (mg/kg)																				
EPA Method SW8270																				
2,6-Dinitrotoluene	616	0.00003	0.0007	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	0.67 U	0.89 U
2-Methylnaphthalene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	**0.21**	**0.19**
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	NA	NA	NA	NA	NA	0.13 U	0.18 U
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	0.13 U	0.18 U
Anthracene	100000	590	12000	--	--	--		--	--	90000	--	--	--	NA	NA	NA	NA	NA	0.13 U	0.18 U
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	0.13 U	0.18 U
Benzo(a)pyrene	0.21	0.4	8	--	125	--		--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	0.13 U	0.18 U
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	0.13 U	0.18 U
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	0.13 U	0.18 U
Benzo(k)fluoranthene	21.1	2	49	--	--	--	--	--	27	210	5900	--	--	NA	NA	NA	NA	NA	0.13 U	0.18 U
bis(2-Ethylhexyl)phthalate	123	180 (g)	3600 (g)	--	1020	4.5	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	0.13 U	0.18 U
Butylbenzylphthalate	100000	810	930	--	1020 (i)	4.5 (i)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	0.13 U	0.18 U
Carbazole	86	0.03	0.6	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	0.13 U	0.18 U
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	NA	NA	NA	NA	0.13 U	0.18 U
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	NA	NA	NA	NA	0.13 U	0.18 U
Dibenzofuran	3127	--	--	--	0.002	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	0.13 U	0.18 U
Diethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	0.13 U	0.18 U
Dimethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	0.13 U	0.18 U
Di-n-Butylphthalate	61561	270	2300	200	30000	0.45	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	0.13 U	0.18 U
Di-n-Octyl phthalate	24624	10000	10000	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	0.13 U	0.18 U
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	NA	NA	NA	NA	0.13 U	0.18 U
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	NA	NA	NA	NA	0.13 U	0.18 U
Hexachloroethane	123	0.02	0.5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	0.27 U	0.36 U
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA	NA	NA	0.13 U	0.18 U
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	NA	NA	NA	**0.77**	**0.74**
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	NA	NA	NA	NA	NA	0.67 U	0.89 U
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	0.13 U	0.18 U
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	NA	NA	NA	NA	0.13 U	0.18 U
SEMIVOLATILES (mg/kg)																				
EPA Method SW8270SIM																				
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	0.0084 U	0.0085 U	0.01 U	NA	0.0086 U	NA	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.0084 U	0.0085 U	0.01 U	NA	0.0086 U	NA	NA
Anthracene	100000	590	12000	--	--	--		--	--	90000	--	--	--	0.0084 U	0.0085 U	0.01 U	NA	0.0086 U	NA	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	0.0084 U	0.0085 U	**0.022**	NA	0.0086 U	NA	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	0.0084 U	0.0085 U	**0.02**	NA	0.0086 U	NA	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	0.0084 U	0.0085 U	**0.015**	NA	0.0086 U	NA	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.0084 U	0.0085 U	0.01 U	NA	0.0086 U	NA	NA
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--	0.0084 U	0.0085 U	**0.02**	NA	0.0086 U	NA	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	0.0084 U	0.0085 U	**0.027**	NA	0.0086 U	NA	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	0.0084 U	0.0085 U	0.01 U	NA	0.0086 U	NA	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	0.0084 U	0.0085 U	**0.041**	NA	0.0086 U	NA	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	0.0084 U	0.0085 U	0.01 U	NA	0.0086 U	NA	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	0.0084 U	0.0085 U	0.01 U	NA	0.0086 U	NA	NA
Naphthalene	188	4	84	10	3900	--		--	770	710	20000	--	15	0.0084 U	0.0085 U	0.01 U	NA	0.0086 U	NA	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	0.0084 U	0.0085 U	**0.023**	NA	0.0086 U	NA	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	0.0084 U	0.0085 U	**0.041**	NA	0.0086 U	NA	NA
CHLORINATED PHENOLS (mg/kg)																				
Method 8040																				
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	0.0079 U	0.008 U	0.0095 U	NA	0.0081 U	110	82

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TABLE C-6
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
PHASE II STUDY AREA

														CF	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																			
									Risk-Based Concentrations											
Sample Identification:								Site-Specific	Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	LW1D (7.5-9.0)	LS7 (17.5-19.0) Dup of LW1D (7.5-9.0)	LW1D (16.5-19.0)	LW1S (15-16.50)	LW1D (30-31.5)	LW2S (12.5-14.0)	LS7 (22.5-24.0) Dup of LW2S (12.5-14.0)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			R950P	R950S	R950Q	R950R	S037B	S037P	S037R
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	03/14/97	03/14/97	03/14/97	03/14/97	03/17/97	03/18/97	03/18/97
VOLATILES (mg/kg)																				
EPA Method SW8260																				
1,2,4-Trimethylbenzene	170	--	--	--	3300 (m)	--	--	--	1500	1400	40000	790	55	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	0.028	--	--	--	--	--	--	--	0.033	0.25	7.1	1.7	0.000059	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	70	--	--	--	3300 (m)	--	--	--	1500	1400	40000	--	12	NA	NA	NA	NA	NA	NA	NA
2-Butanone	27102	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	1.5 U	1.6 U
4-Isopropyltoluene	520 (a)	0.6 (a)	12 (a)	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Acetone	6036	0.8	16	--	1250	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	1.5 U	1.6 U
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	NA	NA	NA	0.31 U	0.32 U
Carbon Disulfide	720	2	32	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	0.31 U	0.32 U
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	NA	NA	NA	NA	0.31 U	0.32 U
Isopropylbenzene	1977	--	--	--	3300 (m)	--	--	--	51000	24000	--	--	--	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA	NA	NA	0.31 U	0.32 U
Methyl Iodide	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	157	--	--	--	--	--	--	--	760	9000	--	720	0.30	NA	NA	NA	NA	NA	NA	NA
Naphthalene	190	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	240	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	240	--	--	--	3300 (m)	--	--	--	19000	9300	--	--	--	NA	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA	NA	NA	0.31 U	0.32 U
sec-Butylbenzene	220	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	390	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	160	NA	NA	NA	NA	NA	0.31 U	0.32 U
HYDROCARBONS (mg/kg)																				
NWTPH-HCID																				
Gasoline	--	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA	NA	NA	NA
Kerosene	--	--	--	--	--	--	--	--	--	--				NA	NA	NA	NA	NA	NA	NA
Diesel	--	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA	NA	NA	NA
Lube Oil	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
NWTPH-Dx (mg/kg)																				
TPH-Diesel Range	2000 (p)	--	--	--	--	--	--	--	70000	23000	--	--	--	6.4 U	6.4 U	6.8 U	NA	6.5 U	1200	1600
TPH-Kerosene Range	2000 (p)	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
TPH-Motor Oil Range	2000 (p)	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA	NA	NA	NA
NWTPH-G (mg/kg)																				
TPH-Gasoline Range	100 (p)	--	--	--	--	--	--	--	22000	13000	--	80000	110	5.0 U	4.9 U	5.0 U	NA	5.1 U	NA	NA
PRIORITY POLLUTANT METALS (mg/kg)																				
Arsenic (7060)	1.6 (q)(*)	1 (r)(*)	29	10 (r)	29 (r)	10 (r)	60 (r)	5 (o)	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Chromium (6010)	450	2 (*)	38	1 (s)(*)	340000 (s)	4 (s)(*)	0.4 (s)(*)	23.1	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Copper (6010)	40877	--	--	100	390	190	50	19.1	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Lead (7421)	750	--	--	50	4000	16	500	9	750	750	750	--	30	NA	NA	NA	NA	NA	NA	NA
Nickel (6010)	20439	7 (*)	130	30	625	320	200	21.4	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Zinc (6010)	100000	620	12000	50	20000	60	200	60.2	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Cadmium (6010)	451	0.4	8	4	125	6	20	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Mercury (7471)	307	--	--	0.3	73	1.5	0.1	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA

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TABLE C-6
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
PHASE II STUDY AREA

													CF	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																		
									Risk-Based Concentrations										
Sample Identification:								Site-Specific	Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	LW1D (7.5-9.0)	LS7 (17.5-19.0) Dup of LW1D (7.5-9.0)	LW1D (16.5-19.0)	LW1S (15-16.50)	LW1D (30-31.5)	LW2S (12.5-14.0)	LS7 (22.5-24.0) Dup of LW2S (12.5-14.0)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			R950P	R950S	R950Q	R950R	S037B	S037P	S037R
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	03/14/97	03/14/97	03/14/97	03/14/97	03/17/97	03/18/97	03/18/97
BETX (mg/kg)																				
EPA Method SW8021B																				
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	0.066 U	0.066 U	0.068 U	NA	0.066 U	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	0.066 U	0.066 U	0.068 U	NA	0.066 U	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	0.066 U	0.066 U	0.068 U	NA	0.066 U	NA	NA
Xylenes, Total	420	10	210	--	--	--	--	--	24000	19000	--	--	100	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	0.066 U	0.066 U	0.068 U	NA	0.066 U	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	0.066 U	0.066 U	0.068 U	NA	0.066 U	NA	NA
DIOXINS AND FURANS (ng/kg)																				
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	**5110.9**	NA

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TABLE C-6
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
PHASE II STUDY AREA

Sample Identification:														CF	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																			
								Site-Specific Background	Risk-Based Concentrations											
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs					Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	LW2S (16.5-17.0)	LW3D (7.5-9.0)	LW3D (12.5-14.0)	LW3D (16.0-17.2)	LW3D (24.0-25.5)	LW3D (36.5-39.0)	LW5S (10-11.5)
										Construction	Excavation			S037Q	S037T	S037U	S037V	S037Z	S037AA	R923V
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	03/18/97	03/18/97	03/18/97	03/18/97	03/19/97	03/19/97	03/12/97
SEMIVOLATILES (mg/kg)																				
EPA Method SW8270																				
2,6-Dinitrotoluene	616	0.00003	0.0007	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	0.48 U	NA	NA	NA	0.48 U	0.44 U	0.43 U
2-Methylnaphthalene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.097 U	NA	NA	NA	0.096 U	0.088 U	0.086 U
Acenaphthene	29219	29	570	20	--	--	--	--	41000	16000	--	--	--	0.097 U	NA	NA	NA	0.096 U	0.088 U	0.086 U
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.097 U	NA	NA	NA	0.096 U	0.088 U	0.086 U
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	0.097 U	NA	NA	NA	0.096 U	0.088 U	0.086 U
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	0.097 U	NA	NA	NA	0.096 U	0.088 U	0.15
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	0.097 U	NA	NA	NA	0.096 U	0.088 U	**0.22**
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	0.097 U	NA	NA	NA	0.096 U	0.088 U	**0.2**
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.097 U	NA	NA	NA	0.096 U	0.088 U	**0.33**
Benzo(k)fluoranthene	21.1	2	49	--	--	--	--	--	27	210	5900	--	--	0.097 U	NA	NA	NA	0.096 U	0.088 U	0.17
bis(2-Ethylhexyl)phthalate	123	180 (g)	3600 (g)	--	1020	4.5	--	--	--	--	--	--	--	0.097 U	NA	NA	NA	0.096 U	0.088 U	0.086 U
Butylbenzylphthalate	100000	810	930	--	1020 (i)	4.5 (i)	--	--	--	--	--	--	--	0.097 U	NA	NA	NA	0.096 U	0.088 U	0.086 U
Carbazole	86	0.03	0.6	--	--	--	--	--	--	--	--	--	--	0.097 U	NA	NA	NA	0.096 U	0.088 U	0.086 U
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	0.097 U	NA	NA	NA	0.096 U	0.088 U	**0.23**
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	0.097 U	NA	NA	NA	0.096 U	0.088 U	0.086 U
Dibenzofuran	3127	--	--	--	0.002	--	--	--	--	--	--	--	--	0.097 U	NA	NA	NA	0.096 U	0.088 U	0.086 U
Diethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.097 U	NA	NA	NA	0.096 U	0.088 U	0.086 U
Dimethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.097 U	NA	NA	NA	0.096 U	0.088 U	0.086 U
Di-n-Butylphthalate	61561	270	2300	200	30000	0.45	--	--	--	--	--	--	--	0.097 U	NA	NA	NA	0.096 U	0.088 U	0.086 U
Di-n-Octyl phthalate	24624	10000	10000	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.097 U	NA	NA	NA	0.096 U	0.088 U	0.086 U
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	**0.14**	NA	NA	NA	0.096 U	0.088 U	**0.32**
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	0.097 U	NA	NA	NA	0.096 U	0.088 U	0.086 U
Hexachloroethane	123	0.02	0.5	--	--	--	--	--	--	--	--	--	--	0.19 U	NA	NA	NA	0.19 U	0.18 U	0.17 U
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	0.097 U	NA	NA	NA	0.096 U	0.088 U	**0.21**
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	0.097 U	NA	NA	NA	0.096 U	0.088 U	0.086 U
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	0.48 U	NA	NA	NA	0.48 U	0.44 U	0.43 U
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	0.097 U	NA	NA	NA	0.096 U	0.088 U	**0.13**
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	**0.18**	NA	NA	NA	0.096 U	0.088 U	**0.57**
SEMIVOLATILES (mg/kg)																				
EPA Method SW8270SIM																				
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	NA	0.0085 U	0.0088 U	0.009 U	0.0097 U	0.0089 U	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	0.0085 U	0.0088 U	0.009 U	0.0097 U	0.0089 U	NA
Anthracene	100000	590	12000	--	--	--	--	--	--	90000	--	--	--	NA	0.0085 U	0.0088 U	**0.017**	0.0097 U	0.0089 U	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	0.0085 U	0.0088 U	**0.043**	0.0097 U	0.0089 U	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--	--	--	0.27	2.1	59	--	--	NA	0.0085 U	0.0088 U	**0.046**	0.0097 U	0.0089 U	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	0.0085 U	0.0088 U	**0.019**	0.0097 U	0.0089 U	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	0.0085 U	0.0088 U	**0.028**	0.0097 U	0.0089 U	NA
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--	NA	0.0085 U	0.0088 U	**0.029**	0.0097 U	0.0089 U	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	0.0085 U	0.0088 U	**0.04**	0.0097 U	0.0089 U	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	0.0085 U	0.0088 U	0.009 U	0.0097 U	0.0089 U	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	0.0085 U	0.0088 U	**0.073**	0.0097 U	0.0089 U	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	0.0085 U	0.0088 U	0.009 U	0.0097 U	0.0089 U	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	0.0085 U	0.0088 U	**0.03**	0.0097 U	0.0089 U	NA
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	0.0085 U	0.0088 U	0.009 U	0.0097 U	0.0089 U	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	0.0085 U	0.0088 U	**0.029**	0.0097 U	0.0089 U	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	0.0085 U	0.0088 U	**0.073**	0.0097 U	0.0089 U	NA
CHLORINATED PHENOLS (mg/kg)																				
Method 8040																				
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	12	**0.083**	0.0083 U	0.0084 U	0.0091 U	0.0084 U	**0.0077** J

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TABLE C-6
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
PHASE II STUDY AREA

														CF	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																			
									Risk-Based Concentrations											
Sample Identification:								Site-Specific	Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	LW2S (16.5-17.0)	LW3D (7.5-9.0)	LW3D (12.5-14.0)	LW3D (16.0-17.2)	LW3D (24.0-25.5)	LW3D (36.5-39.0)	LW5S (10-11.5)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			S037Q	S037T	S037U	S037V	S037Z	S037AA	R923V
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	03/18/97	03/18/97	03/18/97	03/18/97	03/19/97	03/19/97	03/12/97
VOLATILES (mg/kg)																				
EPA Method SW8260																				
1,2,4-Trimethylbenzene	170	--	--	--	3300 (m)	--	--	--	1500	1400	40000	790	55	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	0.028	--	--	--	--	--	--	--	0.033	0.25	7.1	1.7	0.000059	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	70	--	--	--	3300 (m)	--	--	--	1500	1400	40000	--	12	NA	NA	NA	NA	NA	NA	NA
2-Butanone	27102	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	0.0068 U	NA	NA	NA	NA
4-Isopropyltoluene	520 (a)	0.6 (a)	12 (a)	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Acetone	6036	0.8	16	--	1250	--	--	--	--	--	--	--	--	NA	NA	**0.02**	NA	NA	NA	NA
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	0.0014 U	NA	NA	NA	NA
Carbon Disulfide	720	2	32	--	--	--	--	--	--	--	--	--	--	NA	NA	0.0014 U	NA	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	NA	0.0014 U	NA	NA	NA	NA
Isopropylbenzene	1977	--	--	--	3300 (m)	--	--	--	51000	24000	--	--	--	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	0.0014 U	NA	NA	NA	NA
Methyl Iodide	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	157	--	--	--	--	--	--	--	760	9000	--	720	0.30	NA	NA	NA	NA	NA	NA	NA
Naphthalene	190	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	240	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	240	--	--	--	3300 (m)	--	--	--	19000	9300	--	--	--	NA	NA	NA	NA	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	0.0014 U	NA	NA	NA	NA
sec-Butylbenzene	220	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	390	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	160	NA	NA	0.0055 U	NA	NA	NA	NA
HYDROCARBONS (mg/kg)																				
NWTPH-HCID																				
Gasoline	--	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA	NA	NA	NA
Kerosene	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Diesel	--	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA	NA	NA	NA
Lube Oil	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
NWTPH-Dx (mg/kg)																				
TPH-Diesel Range	2000 (p)	--	--	--	--	--	--	--	70000	23000	--	--	--	**210**	6.4 U	6.6 U	6.7 U	**49**	6.7 U	**8.3**
TPH-Kerosene Range	2000 (p)	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
TPH-Motor Oil Range	2000 (p)	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA	NA	NA	NA	NA
NWTPH-G (mg/kg)																				
TPH-Gasoline Range	100 (p)	--	--	--	--	--	--	--	22000	13000	--	80000	110	**80**	5.0 U	NA	5.0 U	5.1 U	NA	5.0 U
PRIORITY POLLUTANT METALS (mg/kg)																				
Arsenic (7060)	1.6 (q)(*)	1 (r)(*)	29	10 (r)	29 (r)	10 (r)	60 (r)	5 (o)	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Chromium (6010)	450	2 (*)	38	1 (s)(*)	340000 (s)	4 (s)(*)	0.4 (s)(*)	23.1	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Copper (6010)	40877	--	--	100	390	190	50	19.1	--	--	--	--	--	NA	**16.7**	**15.8**	**16.9**	**33.6**	**14.7**	**18.8**
Lead (7421)	750	--	--	50	4000	16	500	9	750	750	750	--	30	NA	NA	NA	NA	NA	NA	NA
Nickel (6010)	20439	7 (*)	130	30	625	320	200	21.4	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Zinc (6010)	100000	620	12000	50	20000	60	200	60.2	--	--	--	--	--	NA	**50.6**	**52.0**	**52.0**	**71.0**	**49.3**	**56.9**
Cadmium (6010)	451	0.4	8	4	125	6	20	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
Mercury (7471)	307	--	--	0.3	73	1.5	0.1	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA

BZTO104(e)019714

TABLE C-6
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
PHASE II STUDY AREA

														CF	CF	CF	CF	CF	CF	CF
	SCREENING CRITERIA																			
									Risk-Based Concentrations											
Sample Identification:								Site-Specific	Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	LW2S (16.5-17.0)	LW3D (7.5-9.0)	LW3D (12.5-14.0)	LW3D (16.0-17.2)	LW3D (24.0-25.5)	LW3D (36.5-39.0)	LW5S (10-11.5)
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs				Background		Construction	Excavation			S037Q	S037T	S037U	S037V	S037Z	S037AA	R923V
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	03/18/97	03/18/97	03/18/97	03/18/97	03/19/97	03/19/97	03/12/97
BETX (mg/kg)																				
EPA Method SW8021B																				
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	0.064 U	0.066 U	NA	0.071 U	0.074 U	0.064 U	0.068 U
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	0.25 U	0.066 U	NA	0.071 U	0.074 U	0.064 U	0.068 U
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	0.064 U	0.066 U	NA	0.071 U	0.074 U	0.064 U	0.068 U
Xylenes, Total	420	10	210	--	--	--	--	--	24000	19000	--	--	100	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	0.064 U	0.066 U	NA	0.071 U	0.074 U	0.064 U	0.068 U
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	0.55 U	0.066 U	NA	0.071 U	0.074 U	0.064 U	0.068 U
DIOXINS AND FURANS (ng/kg)																				
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.0706**	NA	NA	NA	NA	NA	NA

BZTO104(e)019715

TABLE C-6
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
PHASE II STUDY AREA

														CF	CF	CF
	SCREENING CRITERIA															
									Risk-Based Concentrations							
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater			
Sample Identification:	EPA Region 9 PRGs			Oregon SLVs				Site-Specific Background		Construction	Excavation			LW5S (16.5-17.2)	RW3	RW3
Laboratory Identification:														R923X	12.5-14'	15-16.5'
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	03/12/97	11/22/99	11/22/99
SEMIVOLATILES (mg/kg)																
EPA Method SW8270																
2,6-Dinitrotoluene	616	0.00003	0.0007	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	0.43 U	NA	NA
2-Methylnaphthalene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.086 U	NA	NA
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	0.086 U	NA	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	0.086 U	NA	NA
Anthracene	100000	590	12000	--	--	--		--	--	90000	--	--	--	**0.17**	NA	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	**0.39**	NA	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--		--	0.27	2.1	59	--	--	**0.5**	NA	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	**0.29**	NA	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	**0.49**	NA	NA
Benzo(k)fluoranthene	21.1	2	49	--	--	--	--	--	27	210	5900	--	--	**0.38**	NA	NA
bis(2-Ethylhexyl)phthalate	123	180 (g)	3600 (g)	--	1020	4.5	--	--	--	--	--	--	--	0.086 U	NA	NA
Butylbenzylphthalate	100000	810	930	--	1020 (i)	4.5 (i)	--	--	--	--	--	--	--	0.086 U	NA	NA
Carbazole	86	0.03	0.6	--	--	--	--	--	--	--	--	--	--	0.086 U	NA	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	**0.5**	NA	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	**0.089**	NA	NA
Dibenzofuran	3127	--	--	--	0.002	--	--	--	--	--	--	--	--	0.086 U	NA	NA
Diethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.086 U	NA	NA
Dimethylphthalate	100000	180 (g)	3600 (g)	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.086 U	NA	NA
Di-n-Butylphthalate	61561	270	2300	200	30000	0.45	--	--	--	--	--	--	--	0.086 U	NA	NA
Di-n-Octyl phthalate	24624	10000	10000	200 (j)	30000 (j)	0.45 (j)	--	--	--	--	--	--	--	0.086 U	NA	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	**0.97**	NA	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	0.086 U	NA	NA
Hexachloroethane	123	0.02	0.5	--	--	--	--	--	--	--	--	--	--	0.17 U	NA	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	**0.37**	NA	NA
Naphthalene	188	4	84	10	3900	--	--	--	770	710	20000	--	15	0.086 U	NA	NA
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	0.43 U		
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	**0.72**	NA	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	**1.3**	NA	NA
SEMIVOLATILES (mg/kg)																
EPA Method SW8270SIM																
Acenaphthene	29219	29	570	20	--	--		--	41000	16000	--	--	--	NA	NA	NA
Acenaphthylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA
Anthracene	100000	590	12000	--	--	--		--	--	90000	--	--	--	NA	NA	NA
Benzo(a)anthracene	2.1	0.08	2	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA
Benzo(a)pyrene	0.21	0.4	8	--	125	--		--	0.27	2.1	59	--	--	NA	NA	NA
Benzo(b)fluoranthene	2.1	0.2	5	--	--	--	--	--	--	--	--	--	--	NA	NA	NA
Benzo(g,h,i)perylene	188 (b)	4 (b)	84 (b)	10 (b)	3900 (b)	--	--	--	--	--	--	--	--	NA	NA	NA
Benzo(k)fluoranthene	21	2	49	--	--	--	--	--	27	210	5900	--	--	NA	NA	NA
Chrysene	211	8	160	--	--	--	--	--	270	2100	59000	--	--	NA	NA	NA
Dibenz(a,h)anthracene	0.21	0.08	2	--	--	--	--	--	0.27	2.1	59	--	--	NA	NA	NA
Fluoranthene	22000	210	4300	--	--	--	--	--	29000	8900	--	--	--	NA	NA	NA
Fluorene	26281	28	560	--	--	--	30	--	35000	12000	--	--	--	NA	NA	NA
Indeno(1,2,3-cd)pyrene	2.1	0.7	14	--	--	--	--	--	2.7	21	590	--	--	NA	NA	NA
Naphthalene	188	4	84	10	3900	--		--	770	710	20000	--	15	NA	NA	NA
Phenanthrene	188 (b)	4 (b)	84 (b)	--	--	--	--	--	--	--	--	--	--	NA	NA	NA
Pyrene	29126	210	4200	--	--	--	--	--	21000	6700	--	--	--	NA	NA	NA
CHLORINATED PHENOLS (mg/kg)																
Method 8040																
Pentachlorophenol	8.99	0.001	0.03	3	30	--	4	--	--	--	--	--	--	**0.013**	NA	NA

BZTO104(e)019716

TABLE C-6
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
PHASE II STUDY AREA

Sample Identification:														CF	CF	CF
	SCREENING CRITERIA															
								Site-Specific Background	Risk-Based Concentrations							
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	LW5S (16.5-17.2)	RW3	RW3
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs						Construction	Excavation			R923X	12.5-14'	15-16.5'
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	03/12/97	11/22/99	11/22/99
VOLATILES (mg/kg)																
EPA Method SW8260																
1,2,4-Trimethylbenzene	170	--	--	--	3300 (m)	--	--	--	1500	1400	40000	790	55	NA	NA	NA
1,2-Dibromoethane	0.028	--	--	--	--	--	--	--	0.033	0.25	7.1	1.7	0.000059	NA	NA	NA
1,3,5-Trimethylbenzene	70	--	--	--	3300 (m)	--	--	--	1500	1400	40000	--	12	NA	NA	NA
2-Butanone	27102	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA
4-Isopropyltoluene	520 (a)	0.6 (a)	12 (a)	200 (a)	1440 (a)	--	--	--	--	--	--	--	--	NA	NA	NA
Acetone	6036	0.8	16	--	1250	--	--	--	--	--	--	--	--	NA	NA	NA
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	NA	NA	NA
Carbon Disulfide	720	2	32	--	--	--	--	--	--	--	--	--	--	NA	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	NA	NA	NA
Isopropylbenzene	1977	--	--	--	3300 (m)	--	--	--	51000	24000	--	--	--	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	NA	NA	NA
Methyl Iodide	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA
Methyl tert-butyl ether	157	--	--	--	--	--	--	--	760	9000	--	720	0.30	NA	NA	NA
Naphthalene	190	4	84	10	3900	--	--	--	770	710	20000	--	15	NA	NA	NA
n-Butylbenzene	240	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA
n-Propylbenzene	240	--	--	--	3300 (m)	--	--	--	19000	9300	--	--	--	NA	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	1	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	NA	NA	NA
sec-Butylbenzene	220	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA
tert-Butylbenzene	390	--	--	--	3300 (m)	--	--	--	--	--	--	--	--	NA	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	160	NA	NA	NA
HYDROCARBONS (mg/kg)																
NWTPH-HCID																
Gasoline	--	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA
Kerosene	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA
Diesel	--	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA
Lube Oil	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA
NWTPH-Dx (mg/kg)																
TPH-Diesel Range	2000 (p)	--	--	--	--	--	--	--	70000	23000	--	--	--	17	NA	NA
TPH-Kerosene Range	2000 (p)	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA
TPH-Motor Oil Range	2000 (p)	--	--	--	--	--	--	--	---	---	--	--	--	NA	NA	NA
NWTPH-G (mg/kg)																
TPH-Gasoline Range	100 (p)	--	--	--	--	--	--	--	22000	13000	--	80000	110	5.0 U	NA	NA
PRIORITY POLLUTANT METALS (mg/kg)																
Arsenic (7060)	1.6 (q)(*)	1 (r)(*)	29	10 (r)	29 (r)	10 (r)	60 (r)	5 (o)	--	--	--	--	--	NA	NA	NA
Chromium (6010)	450	2 (*)	38	1 (s)(*)	340000 (s)	4 (s)(*)	0.4 (s)(*)	23.1	--	--	--	--	--	NA	NA	NA
Copper (6010)	40877	--	--	100	390	190	50	19.1	--	--	--	--	--	18.1	NA	NA
Lead (7421)	750	--	--	50	4000	16	500	9	750	750	750	--	30	NA	NA	NA
Nickel (6010)	20439	7 (*)	130	30	625	320	200	21.4	--	--	--	--	--	NA	NA	NA
Zinc (6010)	100000	620	12000	50	20000	60	200	60.2	--	--	--	--	--	54.9	NA	NA
Cadmium (6010)	451	0.4	8	4	125	6	20	--	--	--	--	--	--	NA	NA	NA
Mercury (7471)	307	--	--	0.3	73	1.5	0.1	--	--	--	--	--	--	NA	NA	NA

BZTO104(e)019717

TABLE C-6
SUMMARY OF DETECTED ANALYTICAL RESULTS IN SOIL:
PHASE II STUDY AREA

Sample Identification:														CF	CF	CF
	SCREENING CRITERIA															
								Site-Specific Background	Risk-Based Concentrations							
									Soil Ingestion, Dermal Contact, and Inhalation			Volatilization to Outdoor Air	Leaching to Groundwater	LW5S (16.5-17.2)	RW3	RW3
Laboratory Identification:	EPA Region 9 PRGs			Oregon SLVs						Construction	Excavation			R923X	12.5-14'	15-16.5'
Date Collected:	Industrial	DAF=1	DAF=20	Plants	Mammals	Birds	Inverts		Occupational	Worker	Worker	Occupational	Occupational	03/12/97	11/22/99	11/22/99
BETX (mg/kg)																
EPA Method SW8021B																
Benzene	1.3	0.002	0.03	--	3300	--	--	--	34	340	9400	48	0.052	0.074 U	NA	NA
Ethylbenzene	20	0.7	13	--	3300 (m)	--	--	--	74000	28000	--	--	--	0.074 U	NA	NA
Toluene	520	0.6	12	200	1440	--	--	--	68000	39000	--	--	180	0.074 U	NA	NA
Xylenes, Total	420	10	210	--	--	--	--	--	24000	19000	--	--	100	NA	NA	NA
m,p-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	--	0.074 U	NA	NA
o-Xylene	420 (n)	10 (n)	210 (n)	--	--	--	--	--	24000 (aa)	19000 (aa)	--	--	100 (aa)	0.074 U	NA	NA
DIOXINS AND FURANS (ng/kg)																
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA

BZTO104(e)019718

TABLE C-7
SUMMARY OF DETECTED ANALYTICAL RESULTS
SOIL FOOTNOTES

Footnotes - Soil

U = Indicates compound was analyzed for, but was not detected at the reported sample detection limit.

UJ = Data validation flag indicating the analyte was not detected in the sample; the reported sample detection limit is an estimate.

J = Data validation flag indicating the analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

NA = Not analyzed.

Bold indicates value is a detected constituent.

Box indicates value exceeds one or more screening criteria.

(*) Preliminary screening level less than site-specific background.

(a) Risk-based concentration not available due to lack of toxicity data; therefore, the risk-based concentration for the structurally similar compound and mode of toxic action (toluene) was used for the comparison.

(b) Risk-based concentration not available due to lack of toxicity data; therefore, the risk-based concentration for the structurally similar compound and mode of toxic action (naphthalene) was used for the comparison.

(g) Values calculated using equation 10 in EPA's Soil Screening Guidance (EPA 1986).

(i) Risk-based concentration not available due to lack of toxicity data; therefore, the risk-based concentration for the structurally similar compound and mode of toxic action (bis(2-Ethylhexyl)phthalate) was used for comparison.

(j) Risk-based concentration not available due to lack of toxicity data; therefore, the risk-based concentration for the structurally similar compound and mode of toxic action (Di-n-butylphthalate) was used for the comparison.

(m) Risk-based concentration not available due to lack of toxicity data; therefore, the risk-based concentration for the structurally similar compound and mode of toxic action (benzene) was used for the comparison.

(o) Site-specific background concentration was determined for arsenic during the COPC screening process of Phase I and II soil. However, since that time, additional information obtained from DEQ indicates that arsenic background in the Portland area are typically about 5 mg/kg (DEQ 1999).

(p) Value shown is the Washington State soil cleanup level for industrial properties under the Model Toxics Control Act (MTCA) (WAC 173-340).

(q) Criteria less than site-specific background.

(r) SLVs shown are for Arsenic III.

(s) SLVs shown are for Chromium III.

(aa) Value is for total xylenes.

APPENDIX D

Detected Constituents – Groundwater Data Summary Tables

TABLE D-1
SUMMARY OF DETECTED ANALYTICAL RESULTS
UPPER ZONE GROUNDWATER SAMPLES
PHASE III RI

															MTF	MTF	MTF	MTF	MTF	MTF
	SCREENING CRITERIA																			
	Oregon SLVs - Surface Water			Oregon Ambient Water Quality Criteria				National Recommended Water Quality Criteria				Risk-Based Concentration								
Sample Identification:						Water and	Fish					Construction	Volatilization	Site-	GW2-1	GW3-2	GW28-1 Dup of GW3-2	GW9-1	GW9-2	GW9-3
Laboratory Identification:				Fresh	Fresh	Fish	Consumption	Fresh	Fresh	Water &	Organism	and Excavation	to Outdoor Air	Specific	0108228-1	0108228-03	0108228-02	0110174-01	0110174-02	0110174-03
Date Collected:	Aquatic	Birds	Mammals	Acute	Chronic	Ingestion	Only	CMC (Acute)	CCC (Chronic)	Organism	Only	Worker	Occupational	Background	8/30/2001	8/30/2001	8/30/2001	10/24/2001	10/24/2001	10/24/2001
SEMIVOLATILES (µg/L)																				
EPA Method SW8270																				
2,4-Dimethylphenol	42	--	--	2120 (aa)	--	--	--	--	--	380	850	--	---	---	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U
2-Methylnaphthalene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	23.2
Acenaphthene	520	--	--	1700 (aa)	520 (aa)	--	--	--	--	670	990	--	---	---	1.00 U	1.00 U	1.00 U	4.31	2.46	1.00 U
bis(2-Ethylhexyl)phthalate	3.0	8000	73000	--	--	15000	50000	--	--	1.2	2.2	--	---	---	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
Carbazole	--	--	--	--	--	--	--	--	--	--	--	--	---	---	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
Dibenzofuran	3.7	--	--	--	--	--	--	--	--	--	--	--	---	---	1.00 U	1.00 U	1.00 U	1.00 U	1.53	1.00 U
Di-n-Butylphthalate	35	800	2200000	--	--	35000	154000	--	--	2000	4500	--	---	---	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
Fluorene	3.9	--	--	--	--	--	--	--	--	1100	5300	--	---	---	1.00 U	1.00 U	1.00 U	13.8	7.37	2.81
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	23.7
Pentachlorophenol	15	--	1800	20 (ab)	13 (ab)	1010	--	19	15	13	7.9	--	---	---	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Phenanthrene	6.3	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	1.00 U	1.00 U	1.00 U	10.4	3.86	1.65
Phenol	110	--	--	10200 (aa)	2560 (aa)	3500	--	--	--	--	--	--	---	---	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
EPA Method SW8270SIM																				
Pentachlorophenol	15	--	1800	20 (ab)	13 (ab)	1010	--	19	15	13	7.9	--	---	---	0.500 U	0.500 U	0.500 U	NA	NA	NA
PAHs (µg/L)																				
EPA Method SW8270 - SIM																				
2-Methylnaphthalene	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
Acenaphthene	520	--	--	1700 (aa)	520 (aa)	--	--	--	--	670	990	--	---	---	NA	0.0500	0.0800	NA	NA	NA
Acenaphthylene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	NA	0.0500 U	0.0500 U	NA	NA	NA
Anthracene	13	--	--	--	--	--	--	--	--	8300	40000	--	---	---	NA	0.0500 U	0.0500 U	NA	NA	NA
Benzo(a)anthracene	0.027	--	--	--	--	--	--	--	--	0.0038	0.018	9.1	---	---	0.0500 U	0.0500 U	0.0500 U	NA	NA	NA
Benzo(a)pyrene	0.014	--	--	--	--	--	--	--	--	0.0038	0.018	0.53	---	---	0.0500 U	0.0500 U	0.0500 U	NA	NA	NA
Benzo(b)fluoranthene	6.16 (c)	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	NA	0.0500 U	0.0500 U	NA	NA	NA
Benzo(g,h,i)perylene	--	--	--	--	--	--	--	--	--	--	--	--	---	---	0.0500 U	0.0500 U	0.0500 U	NA	NA	NA
Benzo(k)fluoranthene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	0.0500 U	0.0500 U	0.0500 U	NA	NA	NA
Chrysene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	0.0500 U	0.0500 U	0.0500 U	NA	NA	NA
Dibenzofuran	3.7	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
Fluoranthene	6.16	--	--	3980 (aa)	--	42	54	--	--	130	140	--	---	---	NA	0.0500 U	0.0500 U	NA	NA	NA
Fluorene	3.9	--	--	--	--	--	--	--	--	1100	5300	--	---	---	NA	0.0500 U	0.0500 U	NA	NA	NA
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	0.0500 U	0.0500 U	0.0500 U	NA	NA	NA
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	NA	0.0500 U	0.0500	NA	NA	NA
Phenanthrene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	NA	0.0500	0.0600	NA	NA	NA
Pyrene	--	--	--	--	--	--	--	--	--	830	4000	--	---	---	NA	0.120	0.160	NA	NA	NA
VOLATILES (µg/L)																				
EPA Method SW8260																				
1,2,4-Trimethylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	1300	---	---	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	306
1,3,5-Trimethylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	1400	---	---	0.200 U	0.200 U	0.200 U	1.53	0.200 U	29.2
4-Isopropyltoluene	9.8 (d)	--	104000 (d)	--	--	--	--	--	--	--	--	--	---	---	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	5.74
Benzene	130	--	200000	5300 (aa)	--	0.66 (ad)	40 (ad)	--	--	2.2	51	1700	13000	---	50.8	0.200 U	0.200 U	0.300	0.200 U	14.1
Ethylbenzene	7.3	--	200000 (e)	32000 (aa)	--	1400	3280	--	--	3100	29000	110000	---	---	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	51.3
Isopropylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	16.6	0.410	0.380	15.4	11.4	63.1
m,p-Xylene	13 (f)	--	8000 (f)	--	--	--	--	--	--	--	--	22000 (ae)	---	---	0.400 U	0.400 U	0.400 U	1.72	0.400 U	113
Methyl tert-Butyl Ether	--	--	--	--	--	--	--	--	--	--	--	31000	550000	---	NA	NA	NA	NA	NA	NA
n-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	4.01	0.200	0.200 U	3.01	3.37	4.97
n-Propylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	23.3	0.730	0.690	15.0	14.2	72.0
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	0.920	0.500 U	0.500 U	2.22	2.38	66.2
o-Xylene	1.8	--	8000 (f)	--	--	--	--	--	--	--	--	22000 (ae)	---	---	0.260	0.200 U	0.200 U	0.910	0.370	53.9
sec-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	5.42	0.200 U	0.200 U	3.12	3.48	5.43
tert-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	0.210	0.200 U	0.200 U	0.200 U	0.260	0.200 U
Toluene	9.8	--	104000	17500 (aa)	--	14300	424000	--	--	6800	200000	78000	---	---	1.42	0.200 U	0.200 U	3.04	0.200 U	9.02

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TABLE D-1
SUMMARY OF DETECTED ANALYTICAL RESULTS
UPPER ZONE GROUNDWATER SAMPLES
PHASE III RI

														MTF	MTF	MTF	MTF	MTF	MTF
	SCREENING CRITERIA																		
	Oregon SLVs - Surface Water			Oregon Ambient Water Quality Criteria				National Recommended Water Quality Criteria				Risk-Based Concentration						
Sample Identification:						Water and	Fish					Construction	Volatilization	Site-	GW2-1	GW3-2	GW28-1 Dup of GW3-2	GW9-1	GW9-2	GW9-3
Laboratory Identification:				Fresh	Fresh	Fish	Consumption	Fresh	Fresh	Water &	Organism	and Excavation	to Outdoor Air	Specific	0108228-1	0108228-03	0108228-02	0110174-01	0110174-02	0110174-03
Date Collected:	Aquatic	Birds	Mammals	Acute	Chronic	Ingestion	Only	CMC (Acute)	CCC (Chronic)	Organism	Only	Worker	Occupational	Background	8/30/2001	8/30/2001	8/30/2001	10/24/2001	10/24/2001	10/24/2001
HYDROCARBONS (mg/L)																				
NWTPH-HCID																				
Gasoline	--	--	--	--	--	--	--	--	--	--	--	12	---	---	**Gasoline**	0.25 U	0.25 U	0.25 U	0.25 UJ	**Gasoline**
Diesel	--	--	--	--	--	--	--	--	--	--	--	--	---	---	**Diesel**	0.63 U	0.63 U	**Diesel**	**Diesel**	**Diesel**
NWTPH-Dx																				
TPH-Diesel Range	--	--	--	--	--	--	--	--	--	--	--	--	---	---	**6.35** J	NA	NA	**19.6** J	**2.93** J	**2.81** J
TPH-Motor Oil Range	--	--	--	--	--	--	--	--	--	--	--	--	---	---	**0.548** J	NA	NA	0.500 U	0.500 U	0.500 U
NWTPH-G																				
TPH-Gasoline Range	--	--	--	--	--	--	--	--	--	--	--	12	---	---	**3.46**	NA	NA	NA	NA	**4.44**
PRIORITY POLLUTANT METALS (mg/L)																				
Arsenic (7060)	0.15 (i)(*)	18 (i)	6 (i)	--	--	0.0000022 (ad)(*)	0.0000175 (ad)(*)	0.34 (*)	0.15 (*)	0.000018 (*)	0.00014 (*)	--	---	1.5	**0.0329**	**0.0149**	**0.0163**	**0.0211**	**0.0196**	**0.0316**
Chromium (6010)	0.011 (j)	--	28 (j)	1.7 (ac)	0.21 (ac)	170	3433	0.57	0.074			--	---	0.005	0.00500 U	0.00500 U	0.00500 U	**0.00770**	0.00500 U	0.00500 U
Copper (6010)	0.009	341	53	0.018 (ac)	0.012 (ac)	--	--	0.013	0.009	1.3		--	---	0.004	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U
Lead (7421)	0.0025 (*)	28	323	0.082 (ac)	0.0032 (ac)(*)	0.05	--	0.065	0.0025 (*)			--	---	0.02	**0.00338**	0.00200 U	0.00200 U	**0.00236**	0.00200 U	**0.00289**
Nickel (6010)	0.052	562	38	1.4 (ac)	0.160 (ac)	0.0134	0.1	0.47	0.052	0.61	4.6	--	---	0.01	0.00500 U	0.00500 U	0.00500 U	0.00500 U	0.00500 U	0.00500 U
Zinc (6010)	0.120	105	1230	0.12 (ac)	0.11 (ac)	--	--	0.12	0.12	7.4	26	--	---	0.015	0.0100 U	0.0100 U	0.0100 U	**0.0269**	0.0100 U	0.0100 U
BETX (µg/L)																				
EPA Method SW8021B																				
Benzene	130	--	200000	5300 (aa)	--	0.66 (ad)	40 (ad)			2.2	51	1700	13000		NA	NA	NA	NA	NA	NA
Ethylbenzene	7.3	--	200000 (e)	32000 (aa)	--	1400	3280			3100	29000	110000	---	---	NA	NA	NA	NA	NA	NA
Toluene	9.8	--	104000	17500 (aa)	--	14300	424000			6800	200000	78000	---	---	NA	NA	NA	NA	NA	NA
Xylenes, Total	13 (f)		8000 (f)	--	--	--	--					22000	---	---	NA	NA	NA	NA	NA	NA
DIOXIN/FURANS (pg/L)																				
EPA Method SW8290																				
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA

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TABLE D-1
SUMMARY OF DETECTED ANALYTICAL RESULTS
UPPER ZONE GROUNDWATER SAMPLES
PHASE III RI

														MTF	MTF	MTF	MTF	MTF	MTF
	SCREENING CRITERIA																	
	Oregon SLVs - Surface Water			Oregon Ambient Water Quality Criteria				National Recommended Water Quality Criteria				Risk-Based Concentration						
Sample Identification:						Water and	Fish					Construction	Volatilization	Site-	GW9-4	GW12-1	GW13-1	GW13-2	GW14-1	GW16-1
Laboratory Identification:				Fresh	Fresh	Fish	Consumption	Fresh	Fresh	Water &	Organism	and Excavation	to Outdoor Air	Specific	0110174-04	0108228-04	0108228-08	0108228-05	0108228-06	0108228-07
Date Collected:	Aquatic	Birds	Mammals	Acute	Chronic	Ingestion	Only	CMC (Acute)	CCC (Chronic)	Organism	Only	Worker	Occupational	Background	10/24/2001	8/30/2001	8/30/2001	8/30/2001	8/30/2001	8/30/2001
SEMIVOLATILES (µg/L)																				
EPA Method SW8270																				
2,4-Dimethylphenol	42	--	--	2120 (aa)	--	--	--	--	--	380	850	--	---	---	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U
2-Methylnaphthalene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	1.00 U	1.00 U	1.00 U	1.00 U	**7.06**	**6.19**
Acenaphthene	520	--	--	1700 (aa)	520 (aa)	--	--	--	--	670	990	--	---	---	**1.95**	**1.53**	1.00 U	**15.4**	1.00 U	1.00 U
bis(2-Ethylhexyl)phthalate	3.0	8000	73000	--	--	15000	50000	--	--	1.2	2.2	--	---	---	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
Carbazole	--	--	--	--	--	--	--	--	--	--	--	--	---	---	1.00 U	1.00 U	1.00 U	**19.6**	1.00 U	1.00 U
Dibenzofuran	3.7	--	--	--	--	--	--	--	--	--	--	--	---	---	**1.63**	1.00 U	1.00 U	**9.76**	1.00 U	1.00 U
Di-n-Butylphthalate	35	800	2200000	--	--	35000	154000	--	--	2000	4500	--	---	---	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
Fluorene	3.9	--	--	--	--	--	--	--	--	1100	5300	--	---	---	**5.60**	**3.45**	1.00 U	**11.9**	1.00 U	1.00 U
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	1.00 U	1.00 U	1.00 U	**7.42**	**17.0**	**8.86**
Pentachlorophenol	15	--	1800	20 (ab)	13 (ab)	1010	--	19	15	13	7.9	--	---	---	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Phenanthrene	6.3	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	**2.95**	**2.58**	1.00 U	**6.20**	1.00 U	1.00 U
Phenol	110	--	--	10200 (aa)	2560 (aa)	3500	--	--	--	--	--	--	---	---	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
EPA Method SW8270SIM																				
Pentachlorophenol	15	--	1800	20 (ab)	13 (ab)	1010	--	19	15	13	7.9	--	---	---	NA	0.500 U	0.500 U	0.500 U	**4.35**	0.500 U
PAHs (µg/L)																				
EPA Method SW8270 - SIM																				
2-Methylnaphthalene	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
Acenaphthene	520	--	--	1700 (aa)	520 (aa)	--	--	--	--	670	990	--	---	---	NA	NA	**0.280**	**0.150**	**15.7**	NA
Acenaphthylene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	NA	NA	**0.060**	0.0500 U	**0.350**	NA
Anthracene	13	--	--	--	--	--	--	--	--	8300	40000	--	---	---	NA	NA	**0.170**	0.0500 U	**0.490**	NA
Benzo(a)anthracene	0.027	--	--	--	--	--	--	--	--	0.0038	0.018	9.1	---	---	NA	NA	0.0500 U	0.0500 U	0.0500 U	NA
Benzo(a)pyrene	0.014	--	--	--	--	--	--	--	--	0.0038	0.018	0.53	---	---	NA	NA	0.0500 U	0.0500 U	0.0500 U	NA
Benzo(b)fluoranthene	6.16 (c)	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	NA	NA	0.0500 U	0.0500 U	0.0500 U	NA
Benzo(g,h,i)perylene	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	0.0500 U	0.0500 U	0.0500 U	NA
Benzo(k)fluoranthene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	NA	NA	0.0500 U	0.0500 U	0.0500 U	NA
Chrysene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	NA	NA	0.0500 U	0.0500 U	0.0500 U	NA
Dibenzofuran	3.7	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
Fluoranthene	6.16	--	--	3980 (aa)	--	42	54	--	--	130	140	--	---	---	NA	NA	**0.210**	0.0500 U	**0.410**	NA
Fluorene	3.9	--	--	--	--	--	--	--	--	1100	5300	--	---	---	NA	NA	**0.300**	**0.210**	**14.0**	NA
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	NA	NA	0.0500 U	0.0500 U	0.0500 U	NA
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	NA	NA	**0.3600**	**17.5**	**7.94**	NA
Phenanthrene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	NA	NA	**0.570**	**0.100**	**6.03**	NA
Pyrene	--	--	--	--	--	--	--	--	--	830	4000	--	---	---	NA	NA	**0.320**	**0.0800**	**0.310**	NA
VOLATILES (µg/L)																				
EPA Method SW8260																				
1,2,4-Trimethylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	1300	---	---	0.200 U	0.200 U	0.200 U	**0.540**	**87.7**	**23.6**
1,3,5-Trimethylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	1400	---	---	0.200 U	0.200 U	0.200 U	0.200 U	**10.0**	**1.61**
4-Isopropyltoluene	9.8 (d)	--	104000 (d)	--	--	--	--	--	--	--	--	--	---	---	0.200 U	0.200 U	0.200 U	0.200 U	**1.55**	**1.26**
Benzene	130	--	200000	5300 (aa)	--	0.66 (ad)	40 (ad)	--	--	2.2	51	1700	13000	---	**0.550**	0.200 U	0.200 U	**13.0**	0.200 U	**0.390**
Ethylbenzene	7.3	--	200000 (e)	32000 (aa)	--	1400	3280	--	--	3100	29000	110000	---	---	0.200 U	0.200 U	0.200 U	**4.61**	**61.6**	**44.5**
Isopropylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	**14.6**	**12.1**	**140**	**31.3**	**19.9**	**232**
m,p-Xylene	13 (f)	--	8000 (f)	--	--	--	--	--	--	--	--	22000 (ae)	---	---	0.400 U	0.400 U	0.400 U	**1.74**	**7.62**	**8.71**
Methyl tert-Butyl Ether	--	--	--	--	--	--	--	--	--	--	--	31000	550000	---	NA	NA	NA	NA	NA	NA
n-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	**3.88**	**3.72**	**3.29**	**5.86**	**3.57**	**13.8**
n-Propylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	**18.8**	**14.5**	**86.2**	**31.8**	**30.3**	**237**
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	**2.74**	0.500 U	0.500 U	**20.3**	**33.6**	**29.2**
o-Xylene	1.8	--	8000 (f)	--	--	--	--	--	--	--	--	22000 (ae)	---	---	**0.920**	**0.290**	**0.370**	**0.640**	**1.39**	**0.480**
sec-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	**3.80**	**5.68**	**9.29**	**7.43**	**3.98**	**21.4**
tert-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	**0.300**	**0.330**	**2.14**	**0.750**	**0.590**	**3.87**
Toluene	9.8	--	104000	17500 (aa)	--	14300	424000	--	--	6800	200000	78000	---	---	**2.18**	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U

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TABLE D-1
SUMMARY OF DETECTED ANALYTICAL RESULTS
UPPER ZONE GROUNDWATER SAMPLES
PHASE III RI

														MTF	MTF	MTF	MTF	MTF	MTF
	SCREENING CRITERIA																	
	Oregon SLVs - Surface Water			Oregon Ambient Water Quality Criteria				National Recommended Water Quality Criteria				Risk-Based Concentration						
Sample Identification:						Water and	Fish					Construction	Volatilization	Site-	GW9-4	GW12-1	GW13-1	GW13-2	GW14-1	GW16-1
Laboratory Identification:				Fresh	Fresh	Fish	Consumption	Fresh	Fresh	Water &	Organism	and Excavation	to Outdoor Air	Specific	0110174-04	0108228-04	0108228-08	0108228-05	0108228-06	0108228-07
Date Collected:	Aquatic	Birds	Mammals	Acute	Chronic	Ingestion	Only	CMC (Acute)	CCC (Chronic)	Organism	Only	Worker	Occupational	Background	10/24/2001	8/30/2001	8/30/2001	8/30/2001	8/30/2001	8/30/2001
HYDROCARBONS (mg/L)																				
NWTPH-HCID																				
Gasoline	--	--	--	--	--	--	--	--	--	--	--	12	---	---	0.25 UJ	0.25 U	**Gasoline**	**Gasoline**	**Gasoline**	**Gasoline**
Diesel	--	--	--	--	--	--	--	--	--	--	--	--	---	---	**Diesel**	**Diesel**	**Diesel**	**Diesel**	0.63 U	**Diesel**
NWTPH-Dx																				
TPH-Diesel Range	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA (**)	**6.67** J	**1.42** J	**2.11** J	NA	**2.37** J
TPH-Motor Oil Range	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA (**)	**0.566** J	0.500 UJ	0.500 UJ	NA	0.500 UJ
NWTPH-G																				
TPH-Gasoline Range	--	--	--	--	--	--	--	--	--	--	--	12	---	---	NA	NA	**1.88**	**1.02**	**1.57**	**2.92**
PRIORITY POLLUTANT METALS (mg/L)																				
Arsenic (7060)	0.15 (i)(*)	18 (i)	6 (i)	--	--	0.0000022 (ad)(*)	0.0000175 (ad)(*)	0.34 (*)	0.15 (*)	0.000018 (*)	0.00014 (*)	--	---	1.5	**0.0381**	**0.0393**	**0.0198**	**0.0215**	**0.00755**	**0.0236**
Chromium (6010)	0.011 (j)	--	28 (j)	1.7 (ac)	0.21 (ac)	170	3433	0.57	0.074			--	---	0.005	0.00500 U	0.00500 U	0.00500 U	0.00500 U	0.00500 U	0.00500 U
Copper (6010)	0.009	341	53	0.018 (ac)	0.012 (ac)	--	--	0.013	0.009	1.3		--	---	0.004	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U
Lead (7421)	0.0025 (*)	28	323	0.082 (ac)	0.0032 (ac)(*)	0.05	--	0.065	0.0025 (*)			--	---	0.02	0.00200 U	0.00200 U	0.00200 U	0.00200 U	0.00200 U	0.00200 U
Nickel (6010)	0.052	562	38	1.4 (ac)	0.160 (ac)	0.0134	0.1	0.47	0.052	0.61	4.6	--	---	0.01	0.00500 U	0.00500 U	0.00500 U	0.00500 U	0.00500 U	0.00500 U
Zinc (6010)	0.120	105	1230	0.12 (ac)	0.11 (ac)	--	--	0.12	0.12	7.4	26	--	---	0.015	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U
BETX (µg/L)																				
EPA Method SW8021B																				
Benzene	130	--	200000	5300 (aa)	--	0.66 (ad)	40 (ad)			2.2	51	1700	13000		NA	NA	NA	NA	NA	NA
Ethylbenzene	7.3	--	200000 (e)	32000 (aa)	--	1400	3280			3100	29000	110000	---	---	NA	NA	NA	NA	NA	NA
Toluene	9.8	--	104000	17500 (aa)	--	14300	424000			6800	200000	78000	---	---	NA	NA	NA	NA	NA	NA
Xylenes, Total	13 (f)		8000 (f)	--	--	--	--					22000	---	---	NA	NA	NA	NA	NA	NA
DIOXIN/FURANS (pg/L)																				
EPA Method SW8290																				
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA

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TABLE D-1
SUMMARY OF DETECTED ANALYTICAL RESULTS
UPPER ZONE GROUNDWATER SAMPLES
PHASE III RI

															MTF	MTF	MTF	MTF	MTF	MTF
	SCREENING CRITERIA																		
	Oregon SLVs - Surface Water			Oregon Ambient Water Quality Criteria				National Recommended Water Quality Criteria				Risk-Based Concentration							
Sample Identification:						Water and	Fish					Construction	Volatilization	Site-	LW4S	LW8S	LW13S	LW19S	LW20S	LW21S
Laboratory Identification:				Fresh	Fresh	Fish	Consumption	Fresh	Fresh	Water &	Organism	and Excavation	to Outdoor Air	Specific	FY82K	FY64L	FY82E	FZ04O	FZ04M	FZ04Q
Date Collected:	Aquatic	Birds	Mammals	Acute	Chronic	Ingestion	Only	CMC (Acute)	CCC (Chronic)	Organism	Only	Worker	Occupational	Background	10/24/2003	10/21/2003	10/23/2003	10/28/2003	10/28/2003	10/28/2003
SEMIVOLATILES (µg/L)																				
EPA Method SW8270																				
2,4-Dimethylphenol	42	--	--	2120 (aa)	--	--	--	--	--	380	850	--	---	---	3 U	3.3 U	NA	3 U	3.3 U	5.4
2-Methylnaphthalene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	1 U	3.1	NA	1 U	1.1 U	46
Acenaphthene	520	--	--	1700 (aa)	520 (aa)	--	--	--	--	670	990	--	---	---	1 U	1.1 U	NA	1.1	1.4	1.2 U
bis(2-Ethylhexyl)phthalate	3.0	8000	73000	--	--	15000	50000	--	--	1.2	2.2	--	---	---	1 U	1.1 U	NA	1 U	1.1 U	1.2 U
Carbazole	--	--	--	--	--	--	--	--	--	--	--	--	---	---	1 U	1.1 U	NA	1 U	1.1 U	1.2 U
Dibenzofuran	3.7	--	--	--	--	--	--	--	--	--	--	--	---	---	1 U	1.1 U	NA	1.5	1.1 U	1.2 U
Di-n-Butylphthalate	35	800	2200000	--	--	35000	154000	--	--	2000	4500	--	---	---	1 U	1.1 U	NA	1 U	1.1 U	1.2 U
Fluorene	3.9	--	--	--	--	--	--	--	--	1100	5300	--	---	---	1 U	1.1 U	NA	3.5	3.8	1.9
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	1 U	2.2	NA	1 U	1.1 U	100
Pentachlorophenol	15	--	1800	20 (ab)	13 (ab)	1010	--	19	15	13	7.9	--	---	---	5 U	5.5 U	NA	5 U	5.6 U	6 U
Phenanthrene	6.3	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	1 U	1.1 U	NA	3.3	2.3	1.3
Phenol	110	--	--	10200 (aa)	2560 (aa)	3500	--	--	--	--	--	--	---	---	2 U	2.2 U	NA	2 U	2.2 U	11
EPA Method SW8270SIM																				
Pentachlorophenol	15	--	1800	20 (ab)	13 (ab)	1010	--	19	15	13	7.9	--	---	---	3.9	0.55 U	1.0	NA	NA	NA
PAHs (µg/L)																				
EPA Method SW8270 - SIM																				
2-Methylnaphthalene	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	0.1 U	0.11 U	46
Acenaphthene	520	--	--	1700 (aa)	520 (aa)	--	--	--	--	670	990	--	---	---	NA	NA	NA	0.84	1.3	0.8
Acenaphthylene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	0.1 U	0.11 U	0.12 U
Anthracene	13	--	--	--	--	--	--	--	--	8300	40000	--	---	---	NA	NA	NA	0.1 U	0.14	0.12 U
Benzo(a)anthracene	0.027	--	--	--	--	--	--	--	--	0.0038	0.018	9.1	---	---	NA	NA	NA	0.1 U	0.11 U	0.12 U
Benzo(a)pyrene	0.014	--	--	--	--	--	--	--	--	0.0038	0.018	0.53	---	---	NA	NA	NA	0.1 U	0.11 U	0.12 U
Benzo(b)fluoranthene	6.16 (c)	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	NA	NA	NA	0.1 U	0.11 U	0.12 U
Benzo(g,h,i)perylene	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	0.1 U	0.11 U	0.12 U
Benzo(k)fluoranthene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	NA	NA	NA	0.1 U	0.11 U	0.12 U
Chrysene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	NA	NA	NA	0.1 U	0.11 U	0.12 U
Dibenzofuran	3.7	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	0.77	0.59	0.57
Fluoranthene	6.16	--	--	3980 (aa)	--	42	54	--	--	130	140	--	---	---	NA	NA	NA	0.1 U	0.11 U	0.12 U
Fluorene	3.9	--	--	--	--	--	--	--	--	1100	5300	--	---	---	NA	NA	NA	2.5	3.3	2.1
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	NA	NA	NA	0.1 U	0.11 U	0.12 U
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	NA	NA	NA	0.1 U	0.11 U	100
Phenanthrene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	2	2.3	1.5
Pyrene	--	--	--	--	--	--	--	--	--	830	4000	--	---	---	NA	NA	NA	0.1 U	0.11 U	0.12 U
VOLATILES (µg/L)																				
EPA Method SW8260																				
1,2,4-Trimethylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	1300	---	---	1.4	1 U	NA	1 U	1 U	540
1,3,5-Trimethylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	1400	---	---	1 U	1 U	NA	1 U	1 U	120
4-Isopropyltoluene	9.8 (d)	--	104000 (d)	--	--	--	--	--	--	--	--	--	---	---	1 U	1 U	NA	1 U	1 U	1 U
Benzene	130	--	200000	5300 (aa)	--	0.66 (ad)	40 (ad)	--	--	2.2	51	1700	13000	---	1 U	1 U	NA	1 U	1 U	1600
Ethylbenzene	7.3	--	200000 (e)	32000 (aa)	--	1400	3280	--	--	3100	29000	110000	---	---	1 U	7.2	NA	1 U	1 U	940
Isopropylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	1 U	140	NA	6.5	7	72
m,p-Xylene	13 (f)	--	8000 (f)	--	--	--	--	--	--	--	--	22000 (ae)	---	---	1 U	1 U	NA	1 U	1 U	2400
Methyl tert-Butyl Ether	--	--	--	--	--	--	--	--	--	--	--	31000	550000	---	NA	NA	NA	1 U	1 U	7.5 M
n-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	1 U	9	NA	2.9 M	2.2	8
n-Propylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	1 U	94	NA	8.9	9.2	110
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	5 U	5 U	NA	5 U	5 U	190
o-Xylene	1.8	--	8000 (f)	--	--	--	--	--	--	--	--	22000 (ae)	---	---	1 U	1 U	NA	1 U	1 U	770
sec-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	1 U	19	NA	4.7	5.1	1 U
tert-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	1 U	7.4	NA	1 U	1 U	1 U
Toluene	9.8	--	104000	17500 (aa)	--	14300	424000	--	--	6800	200000	78000	---	---	1 U	1 U	NA	1 U	1 U	72

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TABLE D-1
SUMMARY OF DETECTED ANALYTICAL RESULTS
UPPER ZONE GROUNDWATER SAMPLES
PHASE III RI

														MTF	MTF	MTF	MTF	MTF	MTF
	SCREENING CRITERIA																	
	Oregon SLVs - Surface Water			Oregon Ambient Water Quality Criteria				National Recommended Water Quality Criteria				Risk-Based Concentration						
Sample Identification:						Water and	Fish					Construction	Volatilization	Site-	LW4S	LW8S	LW13S	LW19S	LW20S	LW21S
Laboratory Identification:				Fresh	Fresh	Fish	Consumption	Fresh	Fresh	Water &	Organism	and Excavation	to Outdoor Air	Specific	FY82K	FY64L	FY82E	FZ04O	FZ04M	FZ04Q
Date Collected:	Aquatic	Birds	Mammals	Acute	Chronic	Ingestion	Only	CMC (Acute)	CCC (Chronic)	Organism	Only	Worker	Occupational	Background	10/24/2003	10/21/2003	10/23/2003	10/28/2003	10/28/2003	10/28/2003
HYDROCARBONS (mg/L)																				
NWTPH-HCID																				
Gasoline	--	--	--	--	--	--	--	--	--	--	--	12	---	---	NA	NA	NA	NA	NA	NA
Diesel	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
NWTPH-Dx																				
TPH-Diesel Range	--	--	--	--	--	--	--	--	--	--	--	--	---	---	**0.26**	**3.5**	NA	**4.4**	**5.4**	**4.3**
TPH-Motor Oil Range	--	--	--	--	--	--	--	--	--	--	--	--	---	---	0.5 U	0.5 U	NA	0.5 U	0.5 U	0.5 U
NWTPH-G																				
TPH-Gasoline Range	--	--	--	--	--	--	--	--	--	--	--	12	---	---	NA	**4.6**	NA	**1.1**	**0.96**	24
PRIORITY POLLUTANT METALS (mg/L)																				
Arsenic (7060)	0.15 (i)(*)	18 (i)	6 (i)	--	--	0.0000022 (ad)(*)	0.0000175 (ad)(*)	0.34 (*)	0.15 (*)	0.000018 (*)	0.00014 (*)	--	---	1.5	**0.001**	**0.021**	NA	**0.046**	**0.04**	**0.025**
Chromium (6010)	0.011 (j)	--	28 (j)	1.7 (ac)	0.21 (ac)	170	3433	0.57	0.074			--	---	0.005	**0.006**	**0.007**	NA	0.005 U	0.005 U	0.005 U
Copper (6010)	0.009	341	53	0.018 (ac)	0.012 (ac)	--	--	0.013	0.009	1.3		--	---	0.004	**0.006**	**0.007**	NA	0.002 U	0.002 U	**0.005**
Lead (7421)	0.0025 (*)	28	323	0.082 (ac)	0.0032 (ac)(*)	0.05	--	0.065	0.0025 (*)			--	---	0.02	0.001 U	**0.002**	NA	**0.001**	0.001 U	**0.005**
Nickel (6010)	0.052	562	38	1.4 (ac)	0.160 (ac)	0.0134	0.1	0.47	0.052	0.61	4.6	--	---	0.01	0.01 U	**0.02**	NA	0.01 U	0.01 U	0.01 U
Zinc (6010)	0.120	105	1230	0.12 (ac)	0.11 (ac)	--	--	0.12	0.12	7.4	26	--	---	0.015	**0.009**	**0.027**	NA	0.006 U	**0.01**	**0.012**
BETX (µg/L)																				
EPA Method SW8021B																				
Benzene	130	--	200000	5300 (aa)	--	0.66 (ad)	40 (ad)			2.2	51	1700	13000		NA	NA	NA	NA	NA	NA
Ethylbenzene	7.3	--	200000 (e)	32000 (aa)	--	1400	3280			3100	29000	110000	---	---	NA	NA	NA	NA	NA	NA
Toluene	9.8	--	104000	17500 (aa)	--	14300	424000			6800	200000	78000	---	---	NA	NA	NA	NA	NA	NA
Xylenes, Total	13 (f)		8000 (f)	--	--	--	--					22000	---	---	NA	NA	NA	NA	NA	NA
DIOXIN/FURANS (pg/L)																				
EPA Method SW8290																				
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA

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TABLE D-1
SUMMARY OF DETECTED ANALYTICAL RESULTS
UPPER ZONE GROUNDWATER SAMPLES
PHASE III RI

															MTF	MTF	BTTF	BTTF	BTTF	BTTF
	SCREENING CRITERIA																			
	Oregon SLVs - Surface Water			Oregon Ambient Water Quality Criteria				National Recommended Water Quality Criteria				Risk-Based Concentration								
Sample Identification:						Water and	Fish					Construction	Volatilization	Site-	LW27S	RW1	GW22-1	GW23-1	GW24-1	GW24-2
Laboratory Identification:				Fresh	Fresh	Fish	Consumption	Fresh	Fresh	Water &	Organism	and Excavation	to Outdoor Air	Specific	FZ04R	FY72J	0108238-05	0108238-07	0109006-02	0109006-03
Date Collected:	Aquatic	Birds	Mammals	Acute	Chronic	Ingestion	Only	CMC (Acute)	CCC (Chronic)	Organism	Only	Worker	Occupational	Background	10/28/2003	10/22/2003	8/31/2001	8/31/2001	9/4/2001	9/4/2001
SEMIVOLATILES (µg/L)																				
EPA Method SW8270																				
2,4-Dimethylphenol	42	--	--	2120 (aa)	--	--	--	--	--	380	850	--	---	---	1.2 U	6.4 U	3.00 U	3.00 U	3.00 U	3.00 U
2-Methylnaphthalene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	1.2 U	1 U	1.00 U	1.00 U	1.00 U	1.00 U
Acenaphthene	520	--	--	1700 (aa)	520 (aa)	--	--	--	--	670	990	--	---	---	**1.2**	1 U	1.00 U	1.00 U	1.00 U	1.00 U
bis(2-Ethylhexyl)phthalate	3.0	8000	73000	--	--	15000	50000	--	--	1.2	2.2	--	---	---	1.2 U	1 U	1.00 U	1.00 U	1.00 U	1.00 U
Carbazole	--	--	--	--	--	--	--	--	--	--	--	--	---	---	1.2 U	1 U	1.00 U	1.00 U	1.00 U	1.00 U
Dibenzofuran	3.7	--	--	--	--	--	--	--	--	--	--	--	---	---	1.2 U	1 U	1.00 U	1.00 U	1.00 U	1.00 U
Di-n-Butylphthalate	35	800	2200000	--	--	35000	154000	--	--	2000	4500	--	---	---	**2.3**	1 U	1.00 U	1.00 U	1.00 U	1.00 U
Fluorene	3.9	--	--	--	--	--	--	--	--	1100	5300	--	---	---	2.4 U	1 U	1.00 U	1.00 U	1.00 U	1.00 U
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	1.2 U	**5.1**	1.00 U	1.00 U	1.00 U	1.00 U
Pentachlorophenol	15	--	1800	20 (ab)	13 (ab)	1010	--	19	15	13	7.9	--	---	---	6.1 U	350	5.00 U	5.00 U	5.00 U	5.00 U
Phenanthrene	6.3	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	1.2 U	1 U	1.00 U	1.00 U	1.00 U	1.00 U
Phenol	110	--	--	10200 (aa)	2560 (aa)	3500	--	--	--	--	--	--	---	---	3.7 U	**3.7** M	1.00 U	1.00 U	1.00 U	1.00 U
EPA Method SW8270SIM																				
Pentachlorophenol	15	--	1800	20 (ab)	13 (ab)	1010	--	19	15	13	7.9	--	---	---	NA	NA	0.500 U	0.500 U	0.500 U	0.500 U
PAHs (µg/L)																				
EPA Method SW8270 - SIM																				
2-Methylnaphthalene	--	--	--	--	--	--	--	--	--	--	--	--	---	---	0.12 U	NA	NA	NA	NA	NA
Acenaphthene	520	--	--	1700 (aa)	520 (aa)	--	--	--	--	670	990	--	---	---	**1.1**	NA	**0.220**	**0.460**	0.0500 U	0.0500 U
Acenaphthylene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	0.12 U	NA	0.0500 U	**0.340**	0.0500 U	0.0500 U
Anthracene	13	--	--	--	--	--	--	--	--	8300	40000	--	---	---	**0.16**	NA	0.0500 U	**0.0800**	0.0500 U	0.0500 U
Benzo(a)anthracene	0.027	--	--	--	--	--	--	--	--	0.0038	0.018	9.1	---	---	0.12 U	NA	0.0500 U	0.0500 U	0.0500 U	0.0500 U
Benzo(a)pyrene	0.014	--	--	--	--	--	--	--	--	0.0038	0.018	0.53	---	---	0.12 U	NA	0.0500 U	0.0500 U	0.0500 U	0.0500 U
Benzo(b)fluoranthene	6.16 (c)	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	0.12 U	NA	0.0500 U	0.0500 U	**0.0500**	0.0500 U
Benzo(g,h,i)perylene	--	--	--	--	--	--	--	--	--	--	--	--	---	---	0.12 U	NA	0.0500 U	0.0500 U	0.0500 U	0.0500 U
Benzo(k)fluoranthene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	0.12 U	NA	0.0500 U	0.0500 U	0.0500 U	0.0500 U
Chrysene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	0.12 U	NA	0.0500 U	0.0500 U	0.0500 U	0.0500 U
Dibenzofuran	3.7	--	--	--	--	--	--	--	--	--	--	--	---	---	**0.71**	NA	NA	NA	NA	NA
Fluoranthene	6.16	--	--	3980 (aa)	--	42	54	--	--	130	140	--	---	---	0.12 U	NA	0.0500 U	**0.170**	0.0500 U	0.0500 U
Fluorene	3.9	--	--	--	--	--	--	--	--	1100	5300	--	---	---	**2.3**	NA	0.0500 U	**0.660**	0.0500 U	0.0500 U
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	0.12 U	NA	0.0500 U	0.0500 U	0.0500 U	0.0500 U
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	0.12 U	NA	**0.410**	**1.06**	0.0500 U	0.0500 U
Phenanthrene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	**0.33**	NA	**0.0600**	**0.440**	0.0500 U	0.0500 U
Pyrene	--	--	--	--	--	--	--	--	--	830	4000	--	---	---	0.12 U	NA	**0.0500**	**0.240**	**0.0900**	0.0500 U
VOLATILES (µg/L)																				
EPA Method SW8260																				
1,2,4-Trimethylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	1300	---	---	1 U	170	0.200 U	0.200 U	0.200 U	0.200 U
1,3,5-Trimethylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	1400	---	---	1 U	31	0.200 U	0.200 U	0.200 U	0.200 U
4-Isopropyltoluene	9.8 (d)	--	104000 (d)	--	--	--	--	--	--	--	--	--	---	---	1 U	**3.6**	0.200 U	0.200 U	0.200 U	0.200 U
Benzene	130	--	200000	5300 (aa)	--	0.66 (ad)	40 (ad)	--	--	2.2	51	1700	13000	---	1 U	4.9	0.200 U	0.200 U	0.200 U	0.200 U
Ethylbenzene	7.3	--	200000 (e)	32000 (aa)	--	1400	3280	--	--	3100	29000	110000	---	---	1 U	64	0.200 U	0.200 U	0.200 U	0.200 U
Isopropylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	**12**	34	0.200 U	**13.6**	0.200 U	0.200 U
m,p-Xylene	13 (f)	--	8000 (f)	--	--	--	--	--	--	--	--	22000 (ae)	---	---	1 U	62	0.400 U	0.400 U	0.400 U	0.400 U
Methyl tert-Butyl Ether	--	--	--	--	--	--	--	--	--	--	--	31000	550000	---	1 U	NA	NA	NA	NA	NA
n-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	**3.3**	**4.7** M	0.200 U	**2.17**	0.200 U	0.200 U
n-Propylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	**13**	**40**	0.200 U	**10.8**	0.200 U	0.200 U
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	5 U	**13**	**0.690**	**2.34**	0.500 U	0.500 U
o-Xylene	1.8	--	8000 (f)	--	--	--	--	--	--	--	--	22000 (ae)	---	---	1 U	90	0.200 U	0.200 U	0.200 U	0.200 U
sec-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	**4**	11	**0.260**	**5.58**	0.200 U	0.200 U
tert-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	1 U	2	**0.610**	1.41	0.200 U	0.200 U
Toluene	9.8	--	104000	17500 (aa)	--	14300	424000	--	--	6800	200000	78000	---	---	1 U	1 U	0.200 U	0.200 U	0.200 U	0.200 U

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TABLE D-1
SUMMARY OF DETECTED ANALYTICAL RESULTS
UPPER ZONE GROUNDWATER SAMPLES
PHASE III RI

														MTF	MTF	BTTF	BTTF	BTTF	BTTF
	SCREENING CRITERIA																		
	Oregon SLVs - Surface Water			Oregon Ambient Water Quality Criteria				National Recommended Water Quality Criteria				Risk-Based Concentration							
Sample Identification:						Water and	Fish					Construction	Volatilization	Site-	LW27S	RW1	GW22-1	GW23-1	GW24-1	GW24-2
Laboratory Identification:				Fresh	Fresh	Fish	Consumption	Fresh	Fresh	Water &	Organism	and Excavation	to Outdoor Air	Specific	FZ04R	FY72J	0108238-05	0108238-07	0109006-02	0109006-03
Date Collected:	Aquatic	Birds	Mammals	Acute	Chronic	Ingestion	Only	CMC (Acute)	CCC (Chronic)	Organism	Only	Worker	Occupational	Background	10/28/2003	10/22/2003	8/31/2001	8/31/2001	9/4/2001	9/4/2001
HYDROCARBONS (mg/L)																				
NWTPH-HCID																				
Gasoline	--	--	--	--	--	--	--	--	--	--	--	12	---	---	NA	NA	0.25 U	**Gasoline**	0.25 U	0.25 U
Diesel	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	0.63 U	**Diesel**	0.63 U	0.63 U
NWTPH-Dx																				
TPH-Diesel Range	--	--	--	--	--	--	--	--	--	--	--	--	---	---	**4.4**	**5.8**	NA	**4.66**	NA	NA
TPH-Motor Oil Range	--	--	--	--	--	--	--	--	--	--	--	--	---	---	0.5 U	0.5 U	NA	0.500 U	NA	NA
NWTPH-G																				
TPH-Gasoline Range	--	--	--	--	--	--	--	--	--	--	--	12	---	---	**1.6**	**7**	NA	**1.65** J	NA	NA
PRIORITY POLLUTANT METALS (mg/L)																				
Arsenic (7060)	0.15 (i)(*)	18 (i)	6 (i)	--	--	0.0000022 (ad)(*)	0.0000175 (ad)(*)	0.34 (*)	0.15 (*)	0.000018 (*)	0.00014 (*)	--	---	1.5	**0.038**	**0.005**	**0.0248**	**0.0353**	**0.00521**	**0.019**
Chromium (6010)	0.011 (j)	--	28 (j)	1.7 (ac)	0.21 (ac)	170	3433	0.57	0.074			--	---	0.005	0.005 U	0.005 U	0.00500 U	0.00500 U	**0.0069**	0.00500 U
Copper (6010)	0.009	341	53	0.018 (ac)	0.012 (ac)	--	--	0.013	0.009	1.3		--	---	0.004	**0.002**	**0.005**	0.0100 U	0.0100 U	**0.0577**	0.0100 U
Lead (7421)	0.0025 (*)	28	323	0.082 (ac)	0.0032 (ac)(*)	0.05	--	0.065	0.0025 (*)			--	---	0.02	**0.002**	0.001 U	0.00200 U	0.00200 U	**0.00940**	0.00200 U
Nickel (6010)	0.052	562	38	1.4 (ac)	0.160 (ac)	0.0134	0.1	0.47	0.052	0.61	4.6	--	---	0.01	0.01 U	0.01 U	0.00500 U	0.00500 U	**0.00740**	0.00500 U
Zinc (6010)	0.120	165	1230	0.12 (ac)	0.11 (ac)	--	--	0.12	0.12	7.4	26	--	---	0.015	**0.008**	**0.01**	0.0100 U	0.0100 U	**0.0551**	0.0100 U
BETX (µg/L)																				
EPA Method SW8021B																				
Benzene	130	--	200000	5300 (aa)	--	0.66 (ad)	40 (ad)			2.2	51	1700	13000		NA	NA	NA	NA	NA	NA
Ethylbenzene	7.3	--	200000 (e)	32000 (aa)	--	1400	3280			3100	29000	110000	---	---	NA	NA	NA	NA	NA	NA
Toluene	9.8	--	104000	17500 (aa)	--	14300	424000			6800	200000	78000	---	---	NA	NA	NA	NA	NA	NA
Xylenes, Total	13 (f)		8000 (f)	--	--	--	--					22000	---	---	NA	NA	NA	NA	NA	NA
DIOXIN/FURANS (pg/L)																				
EPA Method SW8290																				
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	**2.778**	NA	NA	NA	NA

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TABLE D-1
SUMMARY OF DETECTED ANALYTICAL RESULTS
UPPER ZONE GROUNDWATER SAMPLES
PHASE III RI

														BTTF	BTTF	BTTF	BTTF	BTTF	BTTF
	SCREENING CRITERIA																		
	Oregon SLVs - Surface Water			Oregon Ambient Water Quality Criteria				National Recommended Water Quality Criteria				Risk-Based Concentration							
Sample Identification:						Water and	Fish					Construction	Volatilization	Site-	GW25-1	GW26-1	GW27-1	SCH56-GW	SCH60-GW	SCH61-GW
Laboratory Identification:				Fresh	Fresh	Fish	Consumption	Fresh	Fresh	Water &	Organism	and Excavation	to Outdoor Air	Specific	0108238-06	0108238-08	0109006-04	0110064-01	0110064-02	0110064-03
Date Collected:	Aquatic	Birds	Mammals	Acute	Chronic	Ingestion	Only	CMC (Acute)	CCC (Chronic)	Organism	Only	Worker	Occupational	Background	8/31/2001	8/31/2001	9/4/2001	10/9/2001	10/9/2001	10/9/2001
SEMIVOLATILES (µg/L)																				
EPA Method SW8270																				
2,4-Dimethylphenol	42	--	--	2120 (aa)	--	--	--	--	--	380	850	--	---	---	3.00 U	3.00 U	3.00 U	NA	NA	NA
2-Methylnaphthalene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	1.00 U	1.00 U	1.00 U	NA	NA	NA
Acenaphthene	520	--	--	1700 (aa)	520 (aa)	--	--	--	--	670	990	--	---	---	1.00 U	1.00 U	1.00 U	NA	NA	NA
bis(2-Ethylhexyl)phthalate	3.0	8000	73000	--	--	15000	50000	--	--	1.2	2.2	--	---	---	1.00 U	1.00 U	1.00 U	NA	NA	NA
Carbazole	--	--	--	--	--	--	--	--	--	--	--	--	---	---	1.00 U	1.00 U	1.00 U	NA	NA	NA
Dibenzofuran	3.7	--	--	--	--	--	--	--	--	--	--	--	---	---	1.00 U	1.00 U	1.00 U	NA	NA	NA
Di-n-Butylphthalate	35	800	2200000	--	--	35000	154000	--	--	2000	4500	--	---	---	1.00 U	1.00 U	1.00 U	NA	NA	NA
Fluorene	3.9	--	--	--	--	--	--	--	--	1100	5300	--	---	---	1.00 U	1.00 U	1.00 U	NA	NA	NA
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	1.00 U	1.00 U	1.00 U	NA	NA	NA
Pentachlorophenol	15	--	1800	20 (ab)	13 (ab)	1010	--	19	15	13	7.9	--	---	---	5.00 U	5.00 U	5.00 U	NA	NA	NA
Phenanthrene	6.3	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	1.00 U	1.00 U	1.00 U	NA	NA	NA
Phenol	110	--	--	10200 (aa)	2560 (aa)	3500	--	--	--	--	--	--	---	---	1.00 U	1.00 U	1.00 U	NA	NA	NA
EPA Method SW8270SIM																				
Pentachlorophenol	15	--	1800	20 (ab)	13 (ab)	1010	--	19	15	13	7.9	--	---	---	0.500 U	0.500 U	0.500 U	NA	NA	NA
PAHs (µg/L)																				
EPA Method SW8270 - SIM																				
2-Methylnaphthalene	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
Acenaphthene	520	--	--	1700 (aa)	520 (aa)	--	--	--	--	670	990	--	---	---	**0.250**	NA	0.0500 U	NA	NA	NA
Acenaphthylene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	0.0500 U	NA	0.0500 U	NA	NA	NA
Anthracene	13	--	--	--	--	--	--	--	--	8300	40000	--	---	---	0.0500 U	NA	0.0500 U	NA	NA	NA
Benzo(a)anthracene	0.027	--	--	--	--	--	--	--	--	0.0038	0.018	9.1	---	---	0.0500 U	NA	0.0500 U	NA	NA	NA
Benzo(a)pyrene	0.014	--	--	--	--	--	--	--	--	0.0038	0.018	0.53	---	---	0.0500 U	NA	0.0500 U	NA	NA	NA
Benzo(b)fluoranthene	6.16 (c)	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	0.0500 U	NA	0.0500 U	NA	NA	NA
Benzo(g,h,i)perylene	--	--	--	--	--	--	--	--	--	--	--	--	---	---	0.0500 U	NA	0.0500 U	NA	NA	NA
Benzo(k)fluoranthene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	0.0500 U	NA	0.0500 U	NA	NA	NA
Chrysene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	0.0500 U	NA	0.0500 U	NA	NA	NA
Dibenzofuran	3.7	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
Fluoranthene	6.16	--	--	3980 (aa)	--	42	54	--	--	130	140	--	---	---	0.0500 U	NA	0.0500 U	NA	NA	NA
Fluorene	3.9	--	--	--	--	--	--	--	--	1100	5300	--	---	---	0.0500 U	NA	0.0500 U	NA	NA	NA
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	0.0500 U	NA	0.0500 U	NA	NA	NA
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	**0.280**	NA	0.0500 U	NA	NA	NA
Phenanthrene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	0.0500 U	NA	0.0500 U	NA	NA	NA
Pyrene	--	--	--	--	--	--	--	--	--	830	4000	--	---	---	0.0500 U	NA	**0.0500**	NA	NA	NA
VOLATILES (µg/L)																				
EPA Method SW8260																				
1,2,4-Trimethylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	1300	---	---	0.200 U	0.200 U	0.200 U	**0.540**	NA	356
1,3,5-Trimethylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	1400	---	---	0.200 U	0.200 U	0.200 U	**0.240**	NA	185
4-Isopropyltoluene	9.8 (d)	--	104000 (d)	--	--	--	--	--	--	--	--	--	---	---	0.200 U	0.200 U	0.200 U	**0.560**	NA	21.3
Benzene	130	--	200000	5300 (aa)	--	0.66 (ad)	40 (ad)	--	--	2.2	51	1700	13000	---	0.200 U	0.200 U	0.200 U	**0.210**	NA	0.270
Ethylbenzene	7.3	--	200000 (e)	32000 (aa)	--	1400	3280	--	--	3100	29000	110000	---	---	0.200 U	0.200 U	0.200 U	**3.33**	NA	9.73
Isopropylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	0.200 U	**3.37**	0.200 U	**23.4**	NA	65.8
m,p-Xylene	13 (f)	--	8000 (f)	--	--	--	--	--	--	--	--	22000 (ae)	---	---	0.400 U	0.400 U	0.400 U	0.400 U	NA	0.400 U
Methyl tert-Butyl Ether	--	--	--	--	--	--	--	--	--	--	--	31000	550000	---	NA	NA	NA	NA	NA	NA
n-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	0.200 U	**0.680**	0.200 U	**10.0**	NA	72.4
n-Propylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	0.200 U	**4.63**	0.200 U	**79.1**	NA	191
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	**0.700**	**0.730**	0.500 U	**39.7**	NA	256
o-Xylene	1.8	--	8000 (f)	--	--	--	--	--	--	--	--	22000 (ae)	---	---	0.200 U	0.200 U	0.200 U	0.200 U	NA	0.200 U
sec-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	0.200 U	**0.810**	0.200 U	**6.81**	NA	31.5
tert-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	**0.240**	0.200 U	0.200 U	**0.560**	NA	0.200 U
Toluene	9.8	--	104000	17500 (aa)	--	14300	424000	--	--	6800	200000	78000	---	---	0.200 U	0.200 U	0.200 U	**0.280**	NA	**0.970**

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TABLE D-1
SUMMARY OF DETECTED ANALYTICAL RESULTS
UPPER ZONE GROUNDWATER SAMPLES
PHASE III RI

															BTTF	BTTF	BTTF	BTTF	BTTF	BTTF
	SCREENING CRITERIA																			
	Oregon SLVs - Surface Water			Oregon Ambient Water Quality Criteria				National Recommended Water Quality Criteria				Risk-Based Concentration								
Sample Identification:						Water and	Fish					Construction	Volatilization	Site-	GW25-1	GW26-1	GW27-1	SCH56-GW	SCH60-GW	SCH61-GW
Laboratory Identification:				Fresh	Fresh	Fish	Consumption	Fresh	Fresh	Water &	Organism	and Excavation	to Outdoor Air	Specific	0108238-06	0108238-08	0109006-04	0110064-01	0110064-02	0110064-03
Date Collected:	Aquatic	Birds	Mammals	Acute	Chronic	Ingestion	Only	CMC (Acute)	CCC (Chronic)	Organism	Only	Worker	Occupational	Background	8/31/2001	8/31/2001	9/4/2001	10/9/2001	10/9/2001	10/9/2001
HYDROCARBONS (mg/L)																				
NWTPH-HCID																				
Gasoline	--	--	--	--	--	--	--	--	--	--	--	12	---	---	0.25 U	0.25 U	0.25 U	NA	NA	NA
Diesel	--	--	--	--	--	--	--	--	--	--	--	--	---	---	0.63 U	0.63 U	0.63 U	NA	NA	NA
NWTPH-Dx																				
TPH-Diesel Range	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	**1.14**	0.250 UJ	**1.10**
TPH-Motor Oil Range	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	0.500 U	0.500 UJ	0.500 U
NWTPH-G																				
TPH-Gasoline Range	--	--	--	--	--	--	--	--	--	--	--	12	---	---	NA	NA	NA	**1.21**	0.100 U	**6.02**
PRIORITY POLLUTANT METALS (mg/L)																				
Arsenic (7060)	0.15 (i)(*)	18 (i)	6 (i)	--	--	0.0000022 (ad)(*)	0.0000175 (ad)(*)	0.34 (*)	0.15 (*)	0.000018 (*)	0.00014 (*)	--	---	1.5	**0.00658**	**0.0315**	0.00500 U	NA	NA	NA
Chromium (6010)	0.011 (j)	--	28 (j)	1.7 (ac)	0.21 (ac)	170	3433	0.57	0.074			--	---	0.005	0.00500 U	0.00500 U	0.00500 U	NA	NA	NA
Copper (6010)	0.009	341	53	0.018 (ac)	0.012 (ac)	--	--	0.013	0.009	1.3		--	---	0.004	0.0100 U	0.0100 U	0.0100 U	NA	NA	NA
Lead (7421)	0.0025 (*)	28	323	0.082 (ac)	0.0032 (ac)(*)	0.05	--	0.065	0.0025 (*)			--	---	0.02	0.00200 U	0.00200 U	0.00200 U	NA	NA	NA
Nickel (6010)	0.052	562	38	1.4 (ac)	0.160 (ac)	0.0134	0.1	0.47	0.052	0.61	4.6	--	---	0.01	0.00500 U	0.00500 U	0.00500 U	NA	NA	NA
Zinc (6010)	0.120	105	1230	0.12 (ac)	0.11 (ac)	--	--	0.12	0.12	7.4	26	--	---	0.015	0.0100 U	0.0100 U	0.0100 U	NA	NA	NA
BETX (µg/L)																				
EPA Method SW8021B																				
Benzene	130	--	200000	5300 (aa)	--	0.66 (ad)	40 (ad)			2.2	51	1700	13000		NA	NA	NA	NA	NA	NA
Ethylbenzene	7.3	--	200000 (e)	32000 (aa)	--	1400	3280			3100	29000	110000	---	---	NA	NA	NA	NA	NA	NA
Toluene	9.8	--	104000	17500 (aa)	--	14300	424000			6800	200000	78000	---	---	NA	NA	NA	NA	NA	NA
Xylenes, Total	13 (f)		8000 (f)	--	--	--	--					22000	---	---	NA	NA	NA	NA	NA	NA
DIOXIN/FURANS (pg/L)																				
EPA Method SW8290																				
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA

BZTO104(e)019730

TABLE D-1
SUMMARY OF DETECTED ANALYTICAL RESULTS
UPPER ZONE GROUNDWATER SAMPLES
PHASE III RI

														BTTF	BTTF	BTTF	BTTF	BTTF	BTTF
	SCREENING CRITERIA																		
	Oregon SLVs - Surface Water			Oregon Ambient Water Quality Criteria				National Recommended Water Quality Criteria				Risk-Based Concentration							
Sample Identification:						Water and	Fish					Construction	Volatilization	Site-	SCH62-GW	SCH63B-GW	BT-01 -GW	BT-02 -GW	BT-03 -GW	BT-04 -GW
Laboratory Identification:				Fresh	Fresh	Fish	Consumption	Fresh	Fresh	Water &	Organism	and Excavation	to Outdoor Air	Specific	0110064-04	0110079-01	0207039-01	0207039-02	0207039-03	0207061-04
Date Collected:	Aquatic	Birds	Mammals	Acute	Chronic	Ingestion	Only	CMC (Acute)	CCC (Chronic)	Organism	Only	Worker	Occupational	Background	10/9/2001	10/10/2001	7/8/2002	7/8/2002	7/8/2002	7/9/2002
SEMIVOLATILES (µg/L)																				
EPA Method SW8270																				
2,4-Dimethylphenol	42	--	--	2120 (aa)	--	--	--	--	--	380	850	--	---	---	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
Acenaphthene	520	--	--	1700 (aa)	520 (aa)	--	--	--	--	670	990	--	---	---	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	3.0	8000	73000	--	--	15000	50000	--	--	1.2	2.2	--	---	---	NA	NA	NA	NA	NA	NA
Carbazole	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
Dibenzofuran	3.7	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	35	800	2200000	--	--	35000	154000	--	--	2000	4500	--	---	---	NA	NA	NA	NA	NA	NA
Fluorene	3.9	--	--	--	--	--	--	--	--	1100	5300	--	---	---	NA	NA	NA	NA	NA	NA
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	NA	NA	NA	NA	NA	NA
Pentachlorophenol	15	--	1800	20 (ab)	13 (ab)	1010	--	19	15	13	7.9	--	---	---	NA	NA	NA	NA	NA	NA
Phenanthrene	6.3	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
Phenol	110	--	--	10200 (aa)	2560 (aa)	3500	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
EPA Method SW8270SIM																				
Pentachlorophenol	15	--	1800	20 (ab)	13 (ab)	1010	--	19	15	13	7.9	--	---	---	NA	NA	NA	NA	NA	NA
PAHs (µg/L)																				
EPA Method SW8270 - SIM																				
2-Methylnaphthalene	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
Acenaphthene	520	--	--	1700 (aa)	520 (aa)	--	--	--	--	670	990	--	---	---	NA	NA	NA	NA	NA	NA
Acenaphthylene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
Anthracene	13	--	--	--	--	--	--	--	--	8300	40000	--	---	---	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	0.027	--	--	--	--	--	--	--	--	0.0038	0.018	9.1	---	---	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.014	--	--	--	--	--	--	--	--	0.0038	0.018	0.53	---	---	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	6.16 (c)	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	NA	NA	NA	NA	NA	NA
Chrysene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	NA	NA	NA	NA	NA	NA
Dibenzofuran	3.7	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
Fluoranthene	6.16	--	--	3980 (aa)	--	42	54	--	--	130	140	--	---	---	NA	NA	NA	NA	NA	NA
Fluorene	3.9	--	--	--	--	--	--	--	--	1100	5300	--	---	---	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	NA	NA	NA	NA	NA	NA
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	NA	NA	NA	NA	NA	NA
Phenanthrene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
Pyrene	--	--	--	--	--	--	--	--	--	830	4000	--	---	---	NA	NA	NA	NA	NA	NA
VOLATILES (µg/L)																				
EPA Method SW8260																				
1,2,4-Trimethylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	1300	---	---	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	1400	---	---	NA	NA	NA	NA	NA	NA
4-Isopropyltoluene	9.8 (d)	--	104000 (d)	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
Benzene	130	--	200000	5300 (aa)	--	0.66 (ad)	40 (ad)	--	--	2.2	51	1700	13000	---	NA	NA	NA	NA	NA	NA
Ethylbenzene	7.3	--	200000 (e)	32000 (aa)	--	1400	3280	--	--	3100	29000	110000	---	---	NA	NA	NA	NA	NA	NA
Isopropylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
m,p-Xylene	13 (f)	--	8000 (f)	--	--	--	--	--	--	--	--	22000 (ae)	---	---	NA	NA	NA	NA	NA	NA
Methyl tert-Butyl Ether	--	--	--	--	--	--	--	--	--	--	--	31000	550000	---	NA	NA	NA	NA	NA	NA
n-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
n-Propylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	NA	NA	NA	NA	NA	NA
o-Xylene	1.8	--	8000 (f)	--	--	--	--	--	--	--	--	22000 (ae)	---	---	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
Toluene	9.8	--	104000	17500 (aa)	--	14300	424000	--	--	6800	200000	78000	---	---	NA	NA	NA	NA	NA	NA

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TABLE D-1
SUMMARY OF DETECTED ANALYTICAL RESULTS
UPPER ZONE GROUNDWATER SAMPLES
PHASE III RI

															BTTF	BTTF	BTTF	BTTF	BTTF	BTTF
	SCREENING CRITERIA																			
	Oregon SLVs - Surface Water			Oregon Ambient Water Quality Criteria				National Recommended Water Quality Criteria				Risk-Based Concentration								
Sample Identification:						Water and	Fish					Construction	Volatilization	Site-	SCH62-GW	SCH63B-GW	BT-01 -GW	BT-02 -GW	BT-03 -GW	BT-04 -GW
Laboratory Identification:				Fresh	Fresh	Fish	Consumption	Fresh	Fresh	Water &	Organism	and Excavation	to Outdoor Air	Specific	0110064-04	0110079-01	0207039-01	0207039-02	0207039-03	0207061-04
Date Collected:	Aquatic	Birds	Mammals	Acute	Chronic	Ingestion	Only	CMC (Acute)	CCC (Chronic)	Organism	Only	Worker	Occupational	Background	10/9/2001	10/10/2001	7/8/2002	7/8/2002	7/8/2002	7/9/2002
HYDROCARBONS (mg/L)																				
NWTPH-HCID																				
Gasoline	--	--	--	--	--	--	--	--	--	--	--	12	---	---	NA	NA	NA	NA	NA	NA
Diesel	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
NWTPH-Dx																				
TPH-Diesel Range	--	--	--	--	--	--	--	--	--	--	--	--	---	---	**0.966**	**796** J	**1.94**	**0.625**	**22.2**	**7.45**
TPH-Motor Oil Range	--	--	--	--	--	--	--	--	--	--	--	--	---	---	0.500 U	10.0 U	0.500 U	0.500 U	0.500 U	0.500 U
NWTPH-G																				
TPH-Gasoline Range	--	--	--	--	--	--	--	--	--	--	--	12	---	---	0.100 U	NA	**1.87**	0.100 U	**5.57**	**5.29**
PRIORITY POLLUTANT METALS (mg/L)																				
Arsenic (7060)	0.15 (i)(*)	18 (i)	6 (i)	--	--	0.0000022 (ad)(*)	0.0000175 (ad)(*)	0.34 (*)	0.15 (*)	0.000018 (*)	0.00014 (*)	--	---	1.5	NA	NA	NA	NA	NA	NA
Chromium (6010)	0.011 (j)	--	29 (j)	1.7 (ac)	0.21 (ac)	170	3433	0.57	0.074			--	---	0.005	NA	NA	NA	NA	NA	NA
Copper (6010)	0.009	341	53	0.018 (ac)	0.012 (ac)	--	--	0.013	0.009	1.3		--	---	0.004	NA	NA	NA	NA	NA	NA
Lead (7421)	0.0025 (*)	28	323	0.082 (ac)	0.0032 (ac)(*)	0.05	--	0.065	0.0025 (*)			--	---	0.02	NA	NA	NA	NA	NA	NA
Nickel (6010)	0.052	562	38	1.4 (ac)	0.160 (ac)	0.0134	0.1	0.47	0.052	0.61	4.6	--	---	0.01	NA	NA	NA	NA	NA	NA
Zinc (6010)	0.120	105	1230	0.12 (ac)	0.11 (ac)	--	--	0.12	0.12	7.4	26	--	---	0.015	NA	NA	NA	NA	NA	NA
BETX (µg/L)																				
EPA Method SW8021B																				
Benzene	130	--	200000	5300 (aa)	--	0.66 (ad)	40 (ad)			2.2	51	1700	13000		NA	NA	0.400 U	0.400 U	0.400 U	**1.08**
Ethylbenzene	7.3	--	200000 (e)	32000 (aa)	--	1400	3280			3100	29000	110000	---	---	NA	NA	**15.6**	0.500 U	0.500 U	**6.10**
Toluene	9.8	--	104000	17500 (aa)	--	14300	424000			6800	200000	78000	---	---	NA	NA	**5.43**	**0.544**	0.500 U	**4.99**
Xylenes, Total	13 (f)		8000 (f)	--	--	--	--					22000	---	---	NA	NA	1.50 U	1.50 U	1.50 U	**12.1**
DIOXIN/FURANS (pg/L)																				
EPA Method SW8290																				
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA

BZTO104(e)019732

TABLE D-1
SUMMARY OF DETECTED ANALYTICAL RESULTS
UPPER ZONE GROUNDWATER SAMPLES
PHASE III RI

														BTTF	BTTF	BTTF	BTTF	BTTF	BTTF
	SCREENING CRITERIA																		
	Oregon SLVs - Surface Water			Oregon Ambient Water Quality Criteria				National Recommended Water Quality Criteria				Risk-Based Concentration							
Sample Identification:						Water and	Fish					Construction	Volatilization	Site-	BT-05 -GW	BT-06 -GW	BT-07 -GW	BT-11 -GW Dup of BT-07-GW	BT-08 -GW	BT-09 -GW
Laboratory Identification:				Fresh	Fresh	Fish	Consumption	Fresh	Fresh	Water &	Organism	and Excavation	to Outdoor Air	Specific	0207039-04	0207061-03	0207039-06	0207039-05	0207039-07	0207061-02
Date Collected:	Aquatic	Birds	Mammals	Acute	Chronic	Ingestion	Only	CMC (Acute)	CCC (Chronic)	Organism	Only	Worker	Occupational	Background	7/8/2002	7/9/2002	7/8/2002	7/8/2002	7/8/2002	7/9/2002
SEMIVOLATILES (µg/L)																				
EPA Method SW8270																				
2,4-Dimethylphenol	42	--	--	2120 (aa)	--	--	--	--	--	380	850	--	---	---	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
Acenaphthene	520	--	--	1700 (aa)	520 (aa)	--	--	--	--	670	990	--	---	---	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	3.0	8000	73000	--	--	15000	50000	--	--	1.2	2.2	--	---	---	NA	NA	NA	NA	NA	NA
Carbazole	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
Dibenzofuran	3.7	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	35	800	2200000	--	--	35000	154000	--	--	2000	4500	--	---	---	NA	NA	NA	NA	NA	NA
Fluorene	3.9	--	--	--	--	--	--	--	--	1100	5300	--	---	---	NA	NA	NA	NA	NA	NA
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	NA	NA	NA	NA	NA	NA
Pentachlorophenol	15	--	1800	20 (ab)	13 (ab)	1010	--	19	15	13	7.9	--	---	---	NA	NA	NA	NA	NA	NA
Phenanthrene	6.3	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
Phenol	110	--	--	10200 (aa)	2560 (aa)	3500	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
EPA Method SW8270SIM																				
Pentachlorophenol	15	--	1800	20 (ab)	13 (ab)	1010	--	19	15	13	7.9	--	---	---	NA	NA	NA	NA	NA	NA
PAHs (µg/L)																				
EPA Method SW8270 - SIM																				
2-Methylnaphthalene	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
Acenaphthene	520	--	--	1700 (aa)	520 (aa)	--	--	--	--	670	990	--	---	---	NA	NA	NA	NA	NA	NA
Acenaphthylene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
Anthracene	13	--	--	--	--	--	--	--	--	8300	40000	--	---	---	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	0.027	--	--	--	--	--	--	--	--	0.0038	0.018	9.1	---	---	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.014	--	--	--	--	--	--	--	--	0.0038	0.018	0.53	---	---	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	6.16 (c)	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	NA	NA	NA	NA	NA	NA
Chrysene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	NA	NA	NA	NA	NA	NA
Dibenzofuran	3.7	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
Fluoranthene	6.16	--	--	3980 (aa)	--	42	54	--	--	130	140	--	---	---	NA	NA	NA	NA	NA	NA
Fluorene	3.9	--	--	--	--	--	--	--	--	1100	5300	--	---	---	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	NA	NA	NA	NA	NA	NA
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	NA	NA	NA	NA	NA	NA
Phenanthrene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
Pyrene	--	--	--	--	--	--	--	--	--	830	4000	--	---	---	NA	NA	NA	NA	NA	NA
VOLATILES (µg/L)																				
EPA Method SW8260																				
1,2,4-Trimethylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	1300	---	---	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	1400	---	---	NA	NA	NA	NA	NA	NA
4-Isopropyltoluene	9.8 (d)	--	104000 (d)	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
Benzene	130	--	200000	5300 (aa)	--	0.66 (ad)	40 (ad)	--	--	2.2	51	1700	13000	---	NA	NA	NA	NA	NA	NA
Ethylbenzene	7.3	--	200000 (e)	32000 (aa)	--	1400	3280	--	--	3100	29000	110000	---	---	NA	NA	NA	NA	NA	NA
Isopropylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
m,p-Xylene	13 (f)	--	8000 (f)	--	--	--	--	--	--	--	--	22000 (ae)	---	---	NA	NA	NA	NA	NA	NA
Methyl tert-Butyl Ether	--	--	--	--	--	--	--	--	--	--	--	31000	550000	---	NA	NA	NA	NA	NA	NA
n-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
n-Propylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	NA	NA	NA	NA	NA	NA
o-Xylene	1.8	--	8000 (f)	--	--	--	--	--	--	--	--	22000 (ae)	---	---	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
Toluene	9.8	--	104000	17500 (aa)	--	14300	424000	--	--	6800	200000	78000	---	---	NA	NA	NA	NA	NA	NA

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TABLE D-1
SUMMARY OF DETECTED ANALYTICAL RESULTS
UPPER ZONE GROUNDWATER SAMPLES
PHASE III RI

															BTTF	BTTF	BTTF	BTTF	BTTF	BTTF
	SCREENING CRITERIA																			
	Oregon SLVs - Surface Water			Oregon Ambient Water Quality Criteria				National Recommended Water Quality Criteria				Risk-Based Concentration							
Sample Identification:						Water and	Fish					Construction	Volatilization	Site-	BT-05 -GW	BT-06 -GW	BT-07 -GW	BT-11 -GW Dup of BT-07-GW	BT-08 -GW	BT-09 -GW
Laboratory Identification:				Fresh	Fresh	Fish	Consumption	Fresh	Fresh	Water &	Organism	and Excavation	to Outdoor Air	Specific	0207039-04	0207061-03	0207039-06	0207039-05	0207039-07	0207061-02
Date Collected:	Aquatic	Birds	Mammals	Acute	Chronic	Ingestion	Only	CMC (Acute)	CCC (Chronic)	Organism	Only	Worker	Occupational	Background	7/8/2002	7/9/2002	7/8/2002	7/8/2002	7/8/2002	7/9/2002
HYDROCARBONS (mg/L)																				
NWTPH-HCID																				
Gasoline	--	--	--	--	--	--	--	--	--	--	--	12	---	---	NA	NA	NA	NA	NA	NA
Diesel	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
NWTPH-Dx																				
TPH-Diesel Range	--	--	--	--	--	--	--	--	--	--	--	--	---	---	**2.06** J	**5.61**	**1.06**	**1.50** J	**2.47**	**5.28**
TPH-Motor Oil Range	--	--	--	--	--	--	--	--	--	--	--	--	---	---	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
NWTPH-G																				
TPH-Gasoline Range	--	--	--	--	--	--	--	--	--	--	--	12	---	---	**0.981**	**12.2**	**0.933**	**0.981**	**3.42**	**2.7**
PRIORITY POLLUTANT METALS (mg/L)																				
Arsenic (7060)	0.15 (i)(*)	18 (i)	6 (i)	--	--	0.0000022 (ad)(*)	0.0000175 (ad)(*)	0.34 (*)	0.15 (*)	0.000018 (*)	0.00014 (*)	--	---	1.5	NA	NA	NA	NA	NA	NA
Chromium (6010)	0.011 (j)	--	29 (j)	1.7 (ac)	0.21 (ac)	170	3433	0.57	0.074			--	---	0.005	NA	NA	NA	NA	NA	NA
Copper (6010)	0.009	341	53	0.018 (ac)	0.012 (ac)	--	--	0.013	0.009	1.3		--	---	0.004	NA	NA	NA	NA	NA	NA
Lead (7421)	0.0025 (*)	28	323	0.082 (ac)	0.0032 (ac)(*)	0.05	--	0.065	0.0025 (*)			--	---	0.02	NA	NA	NA	NA	NA	NA
Nickel (6010)	0.052	562	38	1.4 (ac)	0.160 (ac)	0.0134	0.1	0.47	0.052	0.61	4.6	--	---	0.01	NA	NA	NA	NA	NA	NA
Zinc (6010)	0.120	105	1230	0.12 (ac)	0.11 (ac)	--	--	0.12	0.12	7.4	26	--	---	0.015	NA	NA	NA	NA	NA	NA
BETX (µg/L)																				
EPA Method SW8021B																				
Benzene	130	--	200000	5300 (aa)	--	0.66 (ad)	40 (ad)			2.2	51	1700	13000		0.400 U	**18.6**	0.400 U	0.400 U	0.400 U	**1.09**
Ethylbenzene	7.3	--	200000 (e)	32000 (aa)	--	1400	3280			3100	29000	110000	---	---	0.500 U	**24.9**	0.500 U	0.500 U	**3.30**	0.500 U
Toluene	9.8	--	104000	17500 (aa)	--	14300	424000			6800	200000	78000	---	---	**3.40** J	**15.6**	**2.40**	**1.30** J	**7.83**	**4.49**
Xylenes, Total	13 (f)		8000 (f)	--	--	--	--					22000	---	---	1.50 U	**68.2**	**1.66**	**2.91**	**17.0**	**23.7**
DIOXIN/FURANS (pg/L)																				
EPA Method SW8290																				
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA

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TABLE D-1
SUMMARY OF DETECTED ANALYTICAL RESULTS
UPPER ZONE GROUNDWATER SAMPLES
PHASE III RI

															BTTF	BTTF	BTTF	BTTF	BTTF	BTTF
	SCREENING CRITERIA																			
	Oregon SLVs - Surface Water			Oregon Ambient Water Quality Criteria				National Recommended Water Quality Criteria				Risk-Based Concentration								
Sample Identification:						Water and	Fish					Construction	Volatilization	Site-	BT-10 -GW	LW29S	LW30S	X Dup of LW30S	LW31S	LW32S
Laboratory Identification:				Fresh	Fresh	Fish	Consumption	Fresh	Fresh	Water &	Organism	and Excavation	to Outdoor Air	Specific	0207061-01	FZ04C	FZ04E	FZ04L	FZ04G	FZ04H
Date Collected:	Aquatic	Birds	Mammals	Acute	Chronic	Ingestion	Only	CMC (Acute)	CCC (Chronic)	Organism	Only	Worker	Occupational	Background	7/9/2002	10/27/2003	10/27/2003	10/27/2003	10/27/2003	10/27/2003
SEMIVOLATILES (µg/L)																				
EPA Method SW8270																				
2,4-Dimethylphenol	42	--	--	2120 (aa)	--	--	--	--	--	380	850	--	---	---	NA	3 U	3.3 U	3.3 U	3 U	3.1 U
2-Methylnaphthalene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	NA	1 U	1.1 U	1.1 U	1 U	1 U
Acenaphthene	520	--	--	1700 (aa)	520 (aa)	--	--	--	--	670	990	--	---	---	NA	1 U	1.1 U	1.1 U	1 U	1 U
bis(2-Ethylhexyl)phthalate	3.0	8000	73000	--	--	15000	50000	--	--	1.2	2.2	--	---	---	NA	1 U	1.1 U	1.7	2.4	2.1
Carbazole	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	1 U	1.1 U	1.1 U	1 U	1 U
Dibenzofuran	3.7	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	1 U	1.1 U	1.1 U	1 U	1 U
Di-n-Butylphthalate	35	800	2200000	--	--	35000	154000	--	--	2000	4500	--	---	---	NA	1 U	1.1 U	1.1 U	1 U	1 U
Fluorene	3.9	--	--	--	--	--	--	--	--	1100	5300	--	---	---	NA	1 U	**1.4**	**1.5**	1 U	1 U
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	NA	1 U	1.1 U	1.1 U	1 U	1 U
Pentachlorophenol	15	--	1800	20 (ab)	13 (ab)	1010	--	19	15	13	7.9	--	---	---	NA	5 U	5.5 U	5.4 U	5.1 U	5.2 U
Phenanthrene	6.3	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	NA	1 U	**1.5**	**1.5**	1 U	1 U
Phenol	110	--	--	10200 (aa)	2560 (aa)	3500	--	--	--	--	--	--	---	---	NA	2 U	2.2 U	2.2 U	2 U	2.1 U
EPA Method SW8270SIM																				
Pentachlorophenol	15	--	1800	20 (ab)	13 (ab)	1010	--	19	15	13	7.9	--	---	---	NA	NA	NA	NA	NA	NA
PAHs (µg/L)																				
EPA Method SW8270 - SIM																				
2-Methylnaphthalene	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	0.1 U	0.11 U	0.11 U	0.1 U	0.1 U
Acenaphthene	520	--	--	1700 (aa)	520 (aa)	--	--	--	--	670	990	--	---	---	NA	0.1 U	**0.84**	**0.84**	0.1 U	**0.52**
Acenaphthylene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	NA	0.1 U	0.11 U	0.11 U	0.1 U	0.1 U
Anthracene	13	--	--	--	--	--	--	--	--	8300	40000	--	---	---	NA	0.1 U	0.11 U	0.11 U	0.1 U	0.1 U
Benzo(a)anthracene	0.027	--	--	--	--	--	--	--	--	0.0038	0.018	9.1	---	---	NA	0.1 U	0.11 U	0.11 U	0.1 U	0.1 U
Benzo(a)pyrene	0.014	--	--	--	--	--	--	--	--	0.0038	0.018	0.53	---	---	NA	0.1 U	0.11 U	0.11 U	0.1 U	0.1 U
Benzo(b)fluoranthene	6.16 (c)	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	NA	0.1 U	0.11 U	0.11 U	0.1 U	0.1 U
Benzo(g,h,i)perylene	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	0.1 U	0.11 U	0.11 U	0.1 U	0.1 U
Benzo(k)fluoranthene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	NA	0.1 U	0.11 U	0.11 U	0.1 U	0.1 U
Chrysene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	NA	0.1 U	0.11 U	0.11 U	0.1 U	0.1 U
Dibenzofuran	3.7	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	0.1 U	**0.8**	**0.82**	0.1 U	**0.38**
Fluoranthene	6.16	--	--	3980 (aa)	--	42	54	--	--	130	140	--	---	---	NA	0.1 U	0.11 U	0.11 U	0.1 U	0.1 U
Fluorene	3.9	--	--	--	--	--	--	--	--	1100	5300	--	---	---	NA	0.1 U	**1.6**	**1.7**	0.1 U	**0.67**
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	NA	0.1 U	0.11 U	0.11 U	0.1 U	0.1 U
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	NA	0.1 U	0.11 U	0.11 U	0.1 U	0.1 U
Phenanthrene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	NA	0.1 U	**1.6**	**1.6**	0.1 U	**0.31**
Pyrene	--	--	--	--	--	--	--	--	--	830	4000	--	---	---	NA	0.1 U	0.11 U	0.11 U	0.1 U	0.1 U
VOLATILES (µg/L)																				
EPA Method SW8260																				
1,2,4-Trimethylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	1300	---	---	NA	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	1400	---	---	NA	1 U	1 U	**1.3**	1 U	1 U
4-Isopropyltoluene	9.8 (d)	--	104000 (d)	--	--	--	--	--	--	--	--	--	---	---	NA	1 U	1 U	1 U	1 U	1 U
Benzene	130	--	200000	5300 (aa)	--	0.66 (ad)	40 (ad)	--	--	2.2	51	1700	13000	---	NA	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	7.3	--	200000 (e)	32000 (aa)	--	1400	3280	--	--	3100	29000	110000	---	---	NA	1 U	1 U	1 U	1 U	1 U
Isopropylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	NA	1 U	**9.8**	**9.6**	1 U	**18**
m,p-Xylene	13 (f)	--	8000 (f)	--	--	--	--	--	--	--	--	22000 (ae)	---	---	NA	1 U	1 U	**1**	1 U	1 U
Methyl tert-Butyl Ether	--	--	--	--	--	--	--	--	--	--	--	31000	550000	---	NA	1 U	1 U	1 U	1 U	1 U
n-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	NA	1 U	**3.5**	**3.2** M	1 U	**6.1**
n-Propylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	NA	1 U	**25**	**23**	1 U	**20**
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	NA	5 U	5 U	5 U	5 U	5 U
o-Xylene	1.8	--	8000 (f)	--	--	--	--	--	--	--	--	22000 (ae)	---	---	NA	1 U	1 U	1 U	1 U	1 U
sec-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	NA	1 U	**2.5**	**2.4**	1 U	**6.5**
tert-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	NA	1 U	1 U	1 U	1 U	**1**
Toluene	9.8	--	104000	17500 (aa)	--	14300	424000	--	--	6800	200000	78000	---	---	NA	1 U	1 U	1 U	1 U	1 U

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TABLE D-1
SUMMARY OF DETECTED ANALYTICAL RESULTS
UPPER ZONE GROUNDWATER SAMPLES
PHASE III RI

															BTTF	BTTF	BTTF	BTTF	BTTF	BTTF
	SCREENING CRITERIA																			
	Oregon SLVs - Surface Water			Oregon Ambient Water Quality Criteria				National Recommended Water Quality Criteria				Risk-Based Concentration							
Sample Identification:						Water and	Fish					Construction	Volatilization	Site-	BT-10 -GW	LW29S	LW30S	X Dup of LW30S	LW31S	LW32S
Laboratory Identification:				Fresh	Fresh	Fish	Consumption	Fresh	Fresh	Water &	Organism	and Excavation	to Outdoor Air	Specific	0207061-01	FZ04C	FZ04E	FZ04L	FZ04G	FZ04H
Date Collected:	Aquatic	Birds	Mammals	Acute	Chronic	Ingestion	Only	CMC (Acute)	CCC (Chronic)	Organism	Only	Worker	Occupational	Background	7/9/2002	10/27/2003	10/27/2003	10/27/2003	10/27/2003	10/27/2003
HYDROCARBONS (mg/L)																				
NWTPH-HCID																				
Gasoline	--	--	--	--	--	--	--	--	--	--	--	12	---	---	NA	NA	NA	NA	NA	NA
Diesel	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
NWTPH-Dx																				
TPH-Diesel Range	--	--	--	--	--	--	--	--	--	--	--	--	---	---	**0.918**	0.25 U	**0.87**	**0.86**	**0.59**	**3.3**
TPH-Motor Oil Range	--	--	--	--	--	--	--	--	--	--	--	--	---	---	0.500 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
NWTPH-G																				
TPH-Gasoline Range	--	--	--	--	--	--	--	--	--	--	--	12	---	---	0.100 U	0.25 U	**0.84**	**0.89**	0.25 U	**1.8**
PRIORITY POLLUTANT METALS (mg/L)																				
Arsenic (7060)	0.15 (i)(*)	18 (i)	6 (i)	--	--	0.0000022 (ad)(*)	0.0000175 (ad)(*)	0.34 (*)	0.15 (*)	0.000018 (*)	0.00014 (*)	--	---	1.5	NA	**0.002**	**0.013**	**0.013**	0.001 U	**0.034**
Chromium (6010)	0.011 (j)	--	28 (j)	1.7 (ac)	0.21 (ac)	170	3433	0.57	0.074			--	---	0.005	NA	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Copper (6010)	0.009	341	53	0.018 (ac)	0.012 (ac)	--	--	0.013	0.009	1.3		--	---	0.004	NA	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Lead (7421)	0.0025 (*)	28	323	0.082 (ac)	0.0032 (ac)(*)	0.05	--	0.065	0.0025 (*)			--	---	0.02	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Nickel (6010)	0.052	562	38	1.4 (ac)	0.160 (ac)	0.0134	0.1	0.47	0.052	0.61	4.6	--	---	0.01	NA	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Zinc (6010)	0.120	105	1230	0.12 (ac)	0.11 (ac)	--	--	0.12	0.12	7.4	26	--	---	0.015	NA	**0.007**	0.008 U	**0.007**	**0.008**	**0.008**
BETX (µg/L)																				
EPA Method SW8021B																				
Benzene	130	--	200000	5300 (aa)	--	0.66 (ad)	40 (ad)			2.2	51	1700	13000		0.400 U	NA	NA	NA	NA	NA
Ethylbenzene	7.3	--	200000 (e)	32000 (aa)	--	1400	3280			3100	29000	110000	---	---	0.500 U	NA	NA	NA	NA	NA
Toluene	9.8	--	104000	17500 (aa)	--	14300	424000			6800	200000	78000	---	---	**0.923**	NA	NA	NA	NA	NA
Xylenes, Total	13 (f)		8000 (f)	--	--	--	--					22000	---	---	1.50 U	NA	NA	NA	NA	NA
DIOXIN/FURANS (pg/L)																				
EPA Method SW8290																				
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA

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TABLE D-1
SUMMARY OF DETECTED ANALYTICAL RESULTS
UPPER ZONE GROUNDWATER SAMPLES
PHASE III RI

															BTTF	LR	LR	EP	EP	EP
	SCREENING CRITERIA																			
	Oregon SLVs - Surface Water			Oregon Ambient Water Quality Criteria				National Recommended Water Quality Criteria				Risk-Based Concentration								
Sample Identification:						Water and	Fish					Construction	Volatilization	Site-	LW34S	GW4-1	LW7S	GW6-1	GW15-1	GW17-1
Laboratory Identification:				Fresh	Fresh	Fish	Consumption	Fresh	Fresh	Water &	Organism	and Excavation	to Outdoor Air	Specific	FZ04J	0108238-01	FY64F	0108238-02	0108238-04	0108238-03
Date Collected:	Aquatic	Birds	Mammals	Acute	Chronic	Ingestion	Only	CMC (Acute)	CCC (Chronic)	Organism	Only	Worker	Occupational	Background	10/27/2003	8/31/2001	10/20/2003	8/31/2001	8/31/2001	8/31/2001
SEMIVOLATILES (µg/L)																				
EPA Method SW8270																				
2,4-Dimethylphenol	42	--	--	2120 (aa)	--	--	--	--	--	380	850	--	---	---	3.1 U	3.00 U	3 U	3.00 U	3.00 U	3.00 U
2-Methylnaphthalene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	1 U	1.00 U	**1.9**	1.00 U	1.00 U	1.00 U
Acenaphthene	520	--	--	1700 (aa)	520 (aa)	--	--	--	--	670	990	--	---	---	1 U	1.00 U	1 U	1.00 U	1.00 U	1.00 U
bis(2-Ethylhexyl)phthalate	3.0	8000	73000	--	--	15000	50000	--	--	1.2	2.2	--	---	---	**4.9**	1.00 U	1 U	1.00 U	1.00 U	1.00 U
Carbazole	--	--	--	--	--	--	--	--	--	--	--	--	---	---	1 U	1.00 U	1 U	1.00 U	1.00 U	1.00 U
Dibenzofuran	3.7	--	--	--	--	--	--	--	--	--	--	--	---	---	1 U	1.00 U	1 U	1.00 U	1.00 U	1.00 U
Di-n-Butylphthalate	35	800	2200000	--	--	35000	154000	--	--	2000	4500	--	---	---	1 U	1.00 U	1 U	1.00 U	1.00 U	1.00 U
Fluorene	3.9	--	--	--	--	--	--	--	--	1100	5300	--	---	---	1 U	1.00 U	1 U	1.00 U	1.00 U	1.00 U
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	1 U	1.00 U	**4.4**	1.00 U	1.00 U	1.00 U
Pentachlorophenol	15	--	1800	20 (ab)	13 (ab)	1010	--	19	15	13	7.9	--	---	---	5.1 U	5.00 U	5 U	5.00 U	5.00 U	5.00 U
Phenanthrene	6.3	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	1 U	1.00 U	1 U	1.00 U	1.00 U	1.00 U
Phenol	110	--	--	10200 (aa)	2560 (aa)	3500	--	--	--	--	--	--	---	---	2 U	1.00 U	2 U	1.00 U	1.00 U	1.00 U
EPA Method SW8270SIM																				
Pentachlorophenol	15	--	1800	20 (ab)	13 (ab)	1010	--	19	15	13	7.9	--	---	---	NA	0.500 U	0.5 U	0.500 U	0.500 U	0.500 U
PAHs (µg/L)																				
EPA Method SW8270 - SIM																				
2-Methylnaphthalene	--	--	--	--	--	--	--	--	--	--	--	--	---	---	0.1 U	NA	**1.6**	NA	NA	NA
Acenaphthene	520	--	--	1700 (aa)	520 (aa)	--	--	--	--	670	990	--	---	---	0.1 U	**0.0500**	0.1 U	0.0500 U	0.0500 U	0.0500 U
Acenaphthylene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	0.1 U	0.0500 U	0.1 U	0.0500 U	0.0500 U	0.0500 U
Anthracene	13	--	--	--	--	--	--	--	--	8300	40000	--	---	---	0.1 U	0.0500 U	0.1 U	0.0500 U	0.0500 U	0.0500 U
Benzo(a)anthracene	0.027	--	--	--	--	--	--	--	--	0.0038	0.018	9.1	---	---	0.1 U	0.0500 U	0.1 U	0.0500 U	0.0500 U	0.0500 U
Benzo(a)pyrene	0.014	--	--	--	--	--	--	--	--	0.0038	0.018	0.53	---	---	0.1 U	0.0500 U	0.1 U	0.0500 U	0.0500 U	0.0500 U
Benzo(b)fluoranthene	6.16 (c)	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	0.1 U	0.0500 U	0.1 U	0.0500 U	0.0500 U	0.0500 U
Benzo(g,h,i)perylene	--	--	--	--	--	--	--	--	--	--	--	--	---	---	0.1 U	0.0500 U	0.1 U	0.0500 U	0.0500 U	0.0500 U
Benzo(k)fluoranthene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	0.1 U	0.0500 U	0.1 U	0.0500 U	0.0500 U	0.0500 U
Chrysene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	0.1 U	0.0500 U	0.1 U	0.0500 U	0.0500 U	0.0500 U
Dibenzofuran	3.7	--	--	--	--	--	--	--	--	--	--	--	---	---	0.1 U	NA	0.1 U	NA	NA	NA
Fluoranthene	6.16	--	--	3980 (aa)	--	42	54	--	--	130	140	--	---	---	0.1 U	0.0500 U	0.1 U	0.0500 U	0.0500 U	0.0500 U
Fluorene	3.9	--	--	--	--	--	--	--	--	1100	5300	--	---	---	0.1 U	0.0500 U	0.1 U	0.0500 U	0.0500 U	0.0500 U
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	0.1 U	0.0500 U	0.1 U	0.0500 U	0.0500 U	0.0500 U
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	0.1 U	0.0500 U	**4.1**	0.0500 U	0.0500 U	0.0500 U
Phenanthrene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	0.1 U	0.0500 U	0.1 U	0.0500 U	0.0500 U	0.0500 U
Pyrene	--	--	--	--	--	--	--	--	--	830	4000	--	---	---	0.1 U	**0.120**	0.1 U	**0.0600**	**0.0700**	**0.0500**
VOLATILES (µg/L)																				
EPA Method SW8260																				
1,2,4-Trimethylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	1300	---	---	1 U	0.200 U	**2.2**	0.200 U	0.200 U	0.200 U
1,3,5-Trimethylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	1400	---	---	1 U	0.200 U	**3.3**	0.200 U	0.200 U	0.200 U
4-Isopropyltoluene	9.8 (d)	--	104000 (d)	--	--	--	--	--	--	--	--	--	---	---	1 U	0.200 U	**1.6**	0.200 U	0.200 U	0.200 U
Benzene	130	--	200000	5300 (aa)	--	0.66 (ad)	40 (ad)	--	--	2.2	51	1700	13000	---	1 U	0.200 U	1 U	0.200 U	0.200 U	0.200 U
Ethylbenzene	7.3	--	200000 (e)	32000 (aa)	--	1400	3280	--	--	3100	29000	110000	---	---	1 U	0.200 U	**29**	0.200 U	0.200 U	0.200 U
Isopropylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	1 U	0.200 U	**42**	0.200 U	0.200 U	0.200 U
m,p-Xylene	13 (f)	--	8000 (f)	--	--	--	--	--	--	--	--	22000 (ae)	---	---	1 U	0.400 U	**16**	0.400 U	0.400 U	0.400 U
Methyl tert-Butyl Ether	--	--	--	--	--	--	--	--	--	--	--	31000	550000	---	1 U	NA	1 U	NA	NA	NA
n-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	1 U	0.200 U	**4.3**	0.200 U	0.200 U	0.200 U
n-Propylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	1 U	0.200 U	**54**	0.200 U	0.200 U	0.200 U
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	5 U	0.500 U	**5.5**	0.500 U	0.500 U	0.500 U
o-Xylene	1.8	--	8000 (f)	--	--	--	--	--	--	--	--	22000 (ae)	---	---	1 U	0.200 U	1 U	0.200 U	0.200 U	0.200 U
sec-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	1 U	0.200 U	**3.7**	0.200 U	0.200 U	0.200 U
tert-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	1 U	0.200 U	1 U	0.200 U	0.200 U	0.200 U
Toluene	9.8	--	104000	17500 (aa)	--	14300	424000	--	--	6800	200000	78000	---	---	1 U	0.200 U	1 U	0.200 U	0.200 U	0.200 U

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TABLE D-1
SUMMARY OF DETECTED ANALYTICAL RESULTS
UPPER ZONE GROUNDWATER SAMPLES
PHASE III RI

															BTTF	LR	LR	EP	EP	EP
	SCREENING CRITERIA																			
	Oregon SLVs - Surface Water			Oregon Ambient Water Quality Criteria				National Recommended Water Quality Criteria				Risk-Based Concentration								
Sample Identification:						Water and	Fish					Construction	Volatilization	Site-	LW34S	GW4-1	LW7S	GW6-1	GW15-1	GW17-1
Laboratory Identification:				Fresh	Fresh	Fish	Consumption	Fresh	Fresh	Water &	Organism	and Excavation	to Outdoor Air	Specific	FZ04J	0108238-01	FY64F	0108238-02	0108238-04	0108238-03
Date Collected:	Aquatic	Birds	Mammals	Acute	Chronic	Ingestion	Only	CMC (Acute)	CCC (Chronic)	Organism	Only	Worker	Occupational	Background	10/27/2003	8/31/2001	10/20/2003	8/31/2001	8/31/2001	8/31/2001
HYDROCARBONS (mg/L)																				
NWTPH-HCID																				
Gasoline	--	--	--	--	--	--	--	--	--	--	--	12	---	---	NA	0.25 U	NA	0.25 U	0.25 U	0.25 U
Diesel	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	0.63 U	NA	0.63 U	0.63 U	0.63 U
NWTPH-Dx																				
TPH-Diesel Range	--	--	--	--	--	--	--	--	--	--	--	--	---	---	0.25 U	NA	**0.6**	NA	NA	NA
TPH-Motor Oil Range	--	--	--	--	--	--	--	--	--	--	--	--	---	---	0.5 U	NA	0.5 U	NA	NA	NA
NWTPH-G																				
TPH-Gasoline Range	--	--	--	--	--	--	--	--	--	--	--	12	---	---	0.25 U	NA	**2.1**	NA	NA	NA
PRIORITY POLLUTANT METALS (mg/L)																				
Arsenic (7060)	0.15 (i)(*)	18 (i)	6 (i)	--	--	0.0000022 (ad)(*)	0.0000175 (ad)(*)	0.34 (*)	0.15 (*)	0.000018 (*)	0.00014 (*)	--	---	1.5	**0.001**	**0.0251**	**0.012**	**0.0193**	**0.00705**	**0.0100**
Chromium (6010)	0.011 (j)	--	29 (j)	1.7 (ac)	0.21 (ac)	170	3433	0.57	0.074			--	---	0.005	0.005 U	0.00500 U	0.005 U	0.00500 U	0.00500 U	0.00500 U
Copper (6010)	0.009	341	53	0.018 (ac)	0.012 (ac)	--	--	0.013	0.009	1.3		--	---	0.004	0.002 U	0.0100 U	**0.003**	0.0100 U	0.0100 U	0.0100 U
Lead (7421)	0.0025 (*)	28	323	0.082 (ac)	0.0032 (ac)(*)	0.05	--	0.065	0.0025 (*)			--	---	0.02	0.001 U	0.00200 U	0.001 U	0.00200 U	0.00200 U	0.00200 U
Nickel (6010)	0.052	562	38	1.4 (ac)	0.160 (ac)	0.0134	0.1	0.47	0.052	0.61	4.6	--	---	0.01	0.01 U	0.00500 U	0.01 U	0.00500 U	0.00500 U	0.00500 U
Zinc (6010)	0.120	105	1230	0.12 (ac)	0.11 (ac)	--	--	0.12	0.12	7.4	26	--	---	0.015	**0.009**	0.0100 U	0.008 U	0.0100 U	0.0100 U	0.0100 U
BETX (µg/L)																				
EPA Method SW8021B																				
Benzene	130	--	200000	5300 (aa)	--	0.66 (ad)	40 (ad)			2.2	51	1700	13000		NA	NA	NA	NA	NA	NA
Ethylbenzene	7.3	--	200000 (e)	32000 (aa)	--	1400	3280			3100	29000	110000	---	---	NA	NA	NA	NA	NA	NA
Toluene	9.8	--	104000	17500 (aa)	--	14300	424000			6800	200000	78000	---	---	NA	NA	NA	NA	NA	NA
Xylenes, Total	13 (f)		8000 (f)	--	--	--	--					22000	---	---	NA	NA	NA	NA	NA	NA
DIOXIN/FURANS (pg/L)																				
EPA Method SW8290																				
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA

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TABLE D-1
SUMMARY OF DETECTED ANALYTICAL RESULTS
UPPER ZONE GROUNDWATER SAMPLES
PHASE III RI

															AR	PH II	PH II	PH II	PH II	PH II
	SCREENING CRITERIA																			
	Oregon SLVs - Surface Water			Oregon Ambient Water Quality Criteria				National Recommended Water Quality Criteria				Risk-Based Concentration								
Sample Identification:						Water and	Fish					Construction	Volatilization	Site-	GW20-1	B1	D	J1	K	LW1S
Laboratory Identification:				Fresh	Fresh	Fish	Consumption	Fresh	Fresh	Water &	Organism	and Excavation	to Outdoor Air	Specific	0109006-01	FY64D	FY82H	FY64H	FY64G	FY64J
Date Collected:	Aquatic	Birds	Mammals	Acute	Chronic	Ingestion	Only	CMC (Acute)	CCC (Chronic)	Organism	Only	Worker	Occupational	Background	9/4/2001	10/20/2003	10/23/2003	10/21/2003	10/21/2003	10/21/2003
SEMIVOLATILES (µg/L)																				
EPA Method SW8270																				
2,4-Dimethylphenol	42	--	--	2120 (aa)	--	--	--	--	--	380	850	--	---	---	3.00 U	**4.4**	3 U	3.2 U	NA	3 U
2-Methylnaphthalene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	1.00 U	**3**	1 U	**1.4**	NA	1 U
Acenaphthene	520	--	--	1700 (aa)	520 (aa)	--	--	--	--	670	990	--	---	---	1.00 U	1 U	1 U	1.1 U	NA	1 U
bis(2-Ethylhexyl)phthalate	3.0	8000	73000	--	--	15000	50000	--	--	1.2	2.2	--	---	---	1.00 U	**6.3**	1 U	1.1 U	NA	1 U
Carbazole	--	--	--	--	--	--	--	--	--	--	--	--	---	---	1.00 U	1 U	1 U	1.1 U	NA	1 U
Dibenzofuran	3.7	--	--	--	--	--	--	--	--	--	--	--	---	---	1.00 U	1 U	1 U	1.1 U	NA	1 U
Di-n-Butylphthalate	35	800	2200000	--	--	35000	154000	--	--	2000	4500	--	---	---	1.00 U	1 U	1 U	1.1 U	NA	1 U
Fluorene	3.9	--	--	--	--	--	--	--	--	1100	5300	--	---	---	1.00 U	1 U	1 U	1.1 U	NA	1 U
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	1.00 U	**3.5**	1 U	**2.1**	NA	1 U
Pentachlorophenol	15	--	1800	20 (ab)	13 (ab)	1010	--	19	15	13	7.9	--	---	---	5.00 U	5.2 U	5.1 U	5.3 U	NA	5 U
Phenanthrene	6.3	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	1.00 U	1 U	1 U	1.1 U	NA	1 U
Phenol	110	--	--	10200 (aa)	2560 (aa)	3500	--	--	--	--	--	--	---	---	1.00 U	2.1 U	2 U	2.1 U	NA	2 U
EPA Method SW8270SIM																				
Pentachlorophenol	15	--	1800	20 (ab)	13 (ab)	1010	--	19	15	13	7.9	--	---	---	0.500 U	0.52 U	**0.61**	**0.65**	NA	0.5 U
PAHs (µg/L)																				
EPA Method SW8270 - SIM																				
2-Methylnaphthalene	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	0.1 U	0.1 U
Acenaphthene	520	--	--	1700 (aa)	520 (aa)	--	--	--	--	670	990	--	---	---	0.0500 U	NA	NA	NA	0.1 U	0.1 U
Acenaphthylene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	0.0500 U	NA	NA	NA	0.1 U	0.1 U
Anthracene	13	--	--	--	--	--	--	--	--	8300	40000	--	---	---	0.0500 U	NA	NA	NA	0.1 U	0.1 U
Benzo(a)anthracene	0.027	--	--	--	--	--	--	--	--	0.0038	0.018	9.1	---	---	0.0500 U	NA	NA	NA	0.1 U	0.1 U
Benzo(a)pyrene	0.014	--	--	--	--	--	--	--	--	0.0038	0.018	0.53	---	---	0.0500 U	NA	NA	NA	0.1 U	0.1 U
Benzo(b)fluoranthene	6.16 (c)	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	0.0500 U	NA	NA	NA	0.1 U	0.1 U
Benzo(g,h,i)perylene	--	--	--	--	--	--	--	--	--	--	--	--	---	---	0.0500 U	NA	NA	NA	0.1 U	0.1 U
Benzo(k)fluoranthene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	0.0500 U	NA	NA	NA	0.1 U	0.1 U
Chrysene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	0.0500 U	NA	NA	NA	0.1 U	0.1 U
Dibenzofuran	3.7	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	0.1 U	0.1 U
Fluoranthene	6.16	--	--	3980 (aa)	--	42	54	--	--	130	140	--	---	---	0.0500 U	NA	NA	NA	0.1 U	0.1 U
Fluorene	3.9	--	--	--	--	--	--	--	--	1100	5300	--	---	---	0.0500 U	NA	NA	NA	0.1 U	0.1 U
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	0.0500 U	NA	NA	NA	0.1 U	0.1 U
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	0.0500 U	NA	NA	NA	0.1 U	0.1 U
Phenanthrene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	0.0500 U	NA	NA	NA	0.1 U	0.1 U
Pyrene	--	--	--	--	--	--	--	--	--	830	4000	--	---	---	0.0500 U	NA	NA	NA	0.1 U	0.1 U
VOLATILES (µg/L)																				
EPA Method SW8260																				
1,2,4-Trimethylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	1300	---	---	0.200 U	**12**	1 U	1 U	NA	1 U
1,3,5-Trimethylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	1400	---	---	0.200 U	**3.6**	1 U	1 U	NA	1 U
4-Isopropyltoluene	9.8 (d)	--	104000 (d)	--	--	--	--	--	--	--	--	--	---	---	0.200 U	1 U	1 U	1 U	NA	1 U
Benzene	130	--	200000	5300 (aa)	--	0.66 (ad)	40 (ad)	--	--	2.2	51	1700	13000	---	0.200 U	**5.6**	1 U	1 U	NA	1 U
Ethylbenzene	7.3	--	200000 (e)	32000 (aa)	--	1400	3280	--	--	3100	29000	110000	---	---	0.200 U	**31**	1 U	1 U	NA	1 U
Isopropylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	0.200 U	**3.3**	**1.1**	**7.1**	NA	1 U
m,p-Xylene	13 (f)	--	8000 (f)	--	--	--	--	--	--	--	--	22000 (ae)	---	---	0.400 U	**40**	1 U	1 U	NA	1 U
Methyl tert-Butyl Ether	--	--	--	--	--	--	--	--	--	--	--	31000	550000	---	NA	NA	NA	NA	1 U	NA
n-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	0.200 U	1 U	1 U	1 U	NA	1 U
n-Propylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	0.200 U	**4.5**	1 U	**11**	NA	1 U
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	0.500 U	5 U	5 U	5 U	NA	5 U
o-Xylene	1.8	--	8000 (f)	--	--	--	--	--	--	--	--	22000 (ae)	---	---	0.200 U	**9.2**	1 U	1 U	NA	1 U
sec-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	0.200 U	1 U	1 U	1 U	NA	1 U
tert-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	0.200 U	1 U	1 U	1 U	NA	1 U
Toluene	9.8	--	104000	17500 (aa)	--	14300	424000	--	--	6800	200000	78000	---	---	0.200 U	**2.1**	1 U	1 U	NA	1 U

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TABLE D-1
SUMMARY OF DETECTED ANALYTICAL RESULTS
UPPER ZONE GROUNDWATER SAMPLES
PHASE III RI

														AR	PH II	PH II	PH II	PH II	PH II
	SCREENING CRITERIA																		
	Oregon SLVs - Surface Water			Oregon Ambient Water Quality Criteria				National Recommended Water Quality Criteria				Risk-Based Concentration						
Sample Identification:						Water and	Fish					Construction	Volatilization	Site-	GW20-1	B1	D	J1	K	LW1S
Laboratory Identification:				Fresh	Fresh	Fish	Consumption	Fresh	Fresh	Water &	Organism	and Excavation	to Outdoor Air	Specific	0109006-01	FY64D	FY82H	FY64H	FY64G	FY64J
Date Collected:	Aquatic	Birds	Mammals	Acute	Chronic	Ingestion	Only	CMC (Acute)	CCC (Chronic)	Organism	Only	Worker	Occupational	Background	9/4/2001	10/20/2003	10/23/2003	10/21/2003	10/21/2003	10/21/2003
HYDROCARBONS (mg/L)																				
NWTPH-HCID																				
Gasoline	--	--	--	--	--	--	--	--	--	--	--	12	---	---	0.25 U	NA	NA	NA	NA	NA
Diesel	--	--	--	--	--	--	--	--	--	--	--	--	---	---	0.63 U	NA	NA	NA	NA	NA
NWTPH-Dx																				
TPH-Diesel Range	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	**2.7**	NA	NA	NA	NA
TPH-Motor Oil Range	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	0.5 U	NA	NA	NA	NA
NWTPH-G																				
TPH-Gasoline Range	--	--	--	--	--	--	--	--	--	--	--	12	---	---	NA	**1.2**	NA	NA	0.25 U	0.25 U
PRIORITY POLLUTANT METALS (mg/L)																				
Arsenic (7060)	0.15 (i)(*)	18 (i)	6 (i)	--	--	0.0000022 (ad)(*)	0.0000175 (ad)(*)	0.34 (*)	0.15 (*)	0.000018 (*)	0.00014 (*)	--	---	1.5	0.00500 U	**0.007**	**0.018**	**0.006**	0.001 U	**0.008**
Chromium (6010)	0.011 (j)	--	28 (j)	1.7 (ac)	0.21 (ac)	170	3433	0.57	0.074			--	---	0.005	0.00500 U	**0.006**	0.005 U	0.005 U	0.005 U	0.005 U
Copper (6010)	0.009	341	53	0.018 (ac)	0.012 (ac)	--	--	0.013	0.009	1.3		--	---	0.004	0.0100 U	**0.015**	0.002 U	**0.002**	**0.006**	**0.003**
Lead (7421)	0.0025 (*)	28	323	0.082 (ac)	0.0032 (ac)(*)	0.05	--	0.065	0.0025 (*)			--	---	0.02	0.00200 U	**0.005**	0.001 U	0.001 U	0.001 U	0.001 U
Nickel (6010)	0.052	562	38	1.4 (ac)	0.160 (ac)	0.0134	0.1	0.47	0.052	0.61	4.6	--	---	0.01	0.00500 U	**0.01**	0.01 U	0.01 U	**0.03**	0.01 U
Zinc (6010)	0.120	105	1230	0.12 (ac)	0.11 (ac)	--	--	0.12	0.12	7.4	26	--	---	0.015	0.0100 U	**0.018**	0.006 U	0.006 U	**0.014**	**0.007**
BETX (µg/L)																				
EPA Method SW8021B																				
Benzene	130	--	200000	5300 (aa)	--	0.66 (ad)	40 (ad)			2.2	51	1700	13000		NA	NA	NA	NA	NA	NA
Ethylbenzene	7.3	--	200000 (e)	32000 (aa)	--	1400	3280			3100	29000	110000	---	---	NA	NA	NA	NA	NA	NA
Toluene	9.8	--	104000	17500 (aa)	--	14300	424000			6800	200000	78000	---	---	NA	NA	NA	NA	NA	NA
Xylenes, Total	13 (f)		8000 (f)	--	--	--	--					22000	---	---	NA	NA	NA	NA	NA	NA
DIOXIN/FURANS (pg/L)																				
EPA Method SW8290																				
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA

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TABLE D-1
SUMMARY OF DETECTED ANALYTICAL RESULTS
UPPER ZONE GROUNDWATER SAMPLES
PHASE III RI

															PH II	PH II	PH II	PH II	PH II	PH II
	SCREENING CRITERIA																		
	Oregon SLVs - Surface Water			Oregon Ambient Water Quality Criteria				National Recommended Water Quality Criteria				Risk-Based Concentration							
Sample Identification:						Water and	Fish					Construction	Volatilization	Site-	LW11S	OX1S	OX3S	OX5S	OX6S	OX7S
Laboratory Identification:				Fresh	Fresh	Fish	Consumption	Fresh	Fresh	Water &	Organism	and Excavation	to Outdoor Air	Specific	FY72I	FY72G	FY72H	FY72A	FY72B	FY72C
Date Collected:	Aquatic	Birds	Mammals	Acute	Chronic	Ingestion	Only	CMC (Acute)	CCC (Chronic)	Organism	Only	Worker	Occupational	Background	10/22/2003	10/22/2003	10/22/2003	10/22/2003	10/22/2003	10/22/2003
SEMIVOLATILES (µg/L)																				
EPA Method SW8270																				
2,4-Dimethylphenol	42	--	--	2120 (aa)	--	--	--	--	--	380	850	--	---	---	3 U	NA	NA	NA	NA	NA
2-Methylnaphthalene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	**2.9**	NA	NA	NA	NA	NA
Acenaphthene	520	--	--	1700 (aa)	520 (aa)	--	--	--	--	670	990	--	---	---	1 U	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	3.0	8000	73000	--	--	15000	50000	--	--	1.2	2.2	--	---	---	1 U	NA	NA	NA	NA	NA
Carbazole	--	--	--	--	--	--	--	--	--	--	--	--	---	---	1 U	NA	NA	NA	NA	NA
Dibenzofuran	3.7	--	--	--	--	--	--	--	--	--	--	--	---	---	1 U	NA	NA	NA	NA	NA
Di-n-Butylphthalate	35	800	2200000	--	--	35000	154000	--	--	2000	4500	--	---	---	1 U	NA	NA	NA	NA	NA
Fluorene	3.9	--	--	--	--	--	--	--	--	1100	5300	--	---	---	1 U	NA	NA	NA	NA	NA
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	**3.2**	NA	NA	NA	NA	NA
Pentachlorophenol	15	--	1800	20 (ab)	13 (ab)	1010	--	19	15	13	7.9	--	---	---	**900**	NA	NA	NA	NA	NA
Phenanthrene	6.3	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	1 U	NA	NA	NA	NA	NA
Phenol	110	--	--	10200 (aa)	2560 (aa)	3500	--	--	--	--	--	--	---	---	2 U	NA	NA	NA	NA	NA
EPA Method SW8270SIM																				
Pentachlorophenol	15	--	1800	20 (ab)	13 (ab)	1010	--	19	15	13	7.9	--	---	---	NA	**0.69**	**130**	0.5 U	**2100**	**720**
PAHs (µg/L)																				
EPA Method SW8270 - SIM																				
2-Methylnaphthalene	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
Acenaphthene	520	--	--	1700 (aa)	520 (aa)	--	--	--	--	670	990	--	---	---	NA	NA	NA	NA	NA	NA
Acenaphthylene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
Anthracene	13	--	--	--	--	--	--	--	--	8300	40000	--	---	---	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	0.027	--	--	--	--	--	--	--	--	0.0038	0.018	9.1	---	---	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.014	--	--	--	--	--	--	--	--	0.0038	0.018	0.53	---	---	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	6.16 (c)	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	NA	NA	NA	NA	NA	NA
Chrysene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	NA	NA	NA	NA	NA	NA
Dibenzofuran	3.7	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
Fluoranthene	6.16	--	--	3980 (aa)	--	42	54	--	--	130	140	--	---	---	NA	NA	NA	NA	NA	NA
Fluorene	3.9	--	--	--	--	--	--	--	--	1100	5300	--	---	---	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	NA	NA	NA	NA	NA	NA
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	NA	NA	NA	NA	NA	NA
Phenanthrene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
Pyrene	--	--	--	--	--	--	--	--	--	830	4000	--	---	---	NA	NA	NA	NA	NA	NA
VOLATILES (µg/L)																				
EPA Method SW8260																				
1,2,4-Trimethylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	1300	---	---	**73**	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	1400	---	---	**16**	NA	NA	NA	NA	NA
4-Isopropyltoluene	9.8 (d)	--	104000 (d)	--	--	--	--	--	--	--	--	--	---	---	**3.2**	NA	NA	NA	NA	NA
Benzene	130	--	200000	5300 (aa)	--	0.66 (ad)	40 (ad)	--	--	2.2	51	1700	13000	---	**2.1**	NA	NA	NA	NA	NA
Ethylbenzene	7.3	--	200000 (e)	32000 (aa)	--	1400	3280	--	--	3100	29000	110000	---	---	**14**	NA	NA	NA	NA	NA
Isopropylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	**7.6**	NA	NA	NA	NA	NA
m,p-Xylene	13 (f)	--	8000 (f)	--	--	--	--	--	--	--	--	22000 (ae)	---	---	**20**	NA	NA	NA	NA	NA
Methyl tert-Butyl Ether	--	--	--	--	--	--	--	--	--	--	--	31000	550000	---	NA	NA	NA	NA	NA	NA
n-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	**3.7** M	NA	NA	NA	NA	NA
n-Propylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	**13**	NA	NA	NA	NA	NA
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	5 U	NA	NA	NA	NA	NA
o-Xylene	1.8	--	8000 (f)	--	--	--	--	--	--	--	--	22000 (ae)	---	---	**23**	NA	NA	NA	NA	NA
sec-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	**4.7**	NA	NA	NA	NA	NA
tert-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	**1**	NA	NA	NA	NA	NA
Toluene	9.8	--	104000	17500 (aa)	--	14300	424000	--	--	6800	200000	78000	---	---	1 U	NA	NA	NA	NA	NA

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TABLE D-1
SUMMARY OF DETECTED ANALYTICAL RESULTS
UPPER ZONE GROUNDWATER SAMPLES
PHASE III RI

														PH II	PH II	PH II	PH II	PH II	PH II
	SCREENING CRITERIA																	
	Oregon SLVs - Surface Water			Oregon Ambient Water Quality Criteria				National Recommended Water Quality Criteria				Risk-Based Concentration						
Sample Identification:						Water and	Fish					Construction	Volatilization	Site-	LW11S	OX1S	OX3S	OX5S	OX6S	OX7S
Laboratory Identification:				Fresh	Fresh	Fish	Consumption	Fresh	Fresh	Water &	Organism	and Excavation	to Outdoor Air	Specific	FY72I	FY72G	FY72H	FY72A	FY72B	FY72C
Date Collected:	Aquatic	Birds	Mammals	Acute	Chronic	Ingestion	Only	CMC (Acute)	CCC (Chronic)	Organism	Only	Worker	Occupational	Background	10/22/2003	10/22/2003	10/22/2003	10/22/2003	10/22/2003	10/22/2003
HYDROCARBONS (mg/L)																				
NWTPH-HCID																				
Gasoline	--	--	--	--	--	--	--	--	--	--	--	12	---	---	NA	NA	NA	NA	NA	NA
Diesel	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
NWTPH-Dx																				
TPH-Diesel Range	--	--	--	--	--	--	--	--	--	--	--	--	---	---	**2.3**	NA	NA	NA	NA	NA
TPH-Motor Oil Range	--	--	--	--	--	--	--	--	--	--	--	--	---	---	0.5 U	NA	NA	NA	NA	NA
NWTPH-G																				
TPH-Gasoline Range	--	--	--	--	--	--	--	--	--	--	--	12	---	---	**2.8**	NA	NA	NA	NA	NA
PRIORITY POLLUTANT METALS (mg/L)																				
Arsenic (7060)	0.15 (i)(*)	18 (i)	6 (i)	--	--	0.0000022 (ad)(*)	0.0000175 (ad)(*)	0.34 (*)	0.15 (*)	0.000018 (*)	0.00014 (*)	--	---	1.5	**0.006**	NA	NA	NA	NA	NA
Chromium (6010)	0.011 (j)	--	29 (j)	1.7 (ac)	0.21 (ac)	170	3433	0.57	0.074			--	---	0.005	0.005 U	NA	NA	NA	NA	NA
Copper (6010)	0.009	341	53	0.018 (ac)	0.012 (ac)	--	--	0.013	0.009	1.3		--	---	0.004	**0.002**	NA	NA	NA	NA	NA
Lead (7421)	0.0025 (*)	28	323	0.082 (ac)	0.0032 (ac)(*)	0.05	--	0.065	0.0025 (*)			--	---	0.02	0.001 U	NA	NA	NA	NA	NA
Nickel (6010)	0.052	562	38	1.4 (ac)	0.160 (ac)	0.0134	0.1	0.47	0.052	0.61	4.6	--	---	0.01	0.01 U	NA	NA	NA	NA	NA
Zinc (6010)	0.120	105	1230	0.12 (ac)	0.11 (ac)	--	--	0.12	0.12	7.4	26	--	---	0.015	0.008 U	NA	NA	NA	NA	NA
BETX (µg/L)																				
EPA Method SW8021B																				
Benzene	130	--	200000	5300 (aa)	--	0.66 (ad)	40 (ad)			2.2	51	1700	13000		NA	NA	NA	NA	NA	NA
Ethylbenzene	7.3	--	200000 (e)	32000 (aa)	--	1400	3280			3100	29000	110000	---	---	NA	NA	NA	NA	NA	NA
Toluene	9.8	--	104000	17500 (aa)	--	14300	424000			6800	200000	78000	---	---	NA	NA	NA	NA	NA	NA
Xylenes, Total	13 (f)		8000 (f)	--	--	--	--					22000	---	---	NA	NA	NA	NA	NA	NA
DIOXIN/FURANS (pg/L)																				
EPA Method SW8290																				
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	---	---	**855**	NA	NA	NA	NA	NA

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TABLE D-1
SUMMARY OF DETECTED ANALYTICAL RESULTS
UPPER ZONE GROUNDWATER SAMPLES
PHASE III RI

														PH II	PH II
	SCREENING CRITERIA														
	Oregon SLVs - Surface Water			Oregon Ambient Water Quality Criteria				National Recommended Water Quality Criteria				Risk-Based Concentration			
Sample Identification:						Water and	Fish					Construction	Volatilization	Site-	OX8S	Y Dup of OX8S
Laboratory Identification:				Fresh	Fresh	Fish	Consumption	Fresh	Fresh	Water &	Organism	and Excavation	to Outdoor Air	Specific	FY72E	FY72D
Date Collected:	Aquatic	Birds	Mammals	Acute	Chronic	Ingestion	Only	CMC (Acute)	CCC (Chronic)	Organism	Only	Worker	Occupational	Background	10/22/2003	10/22/2003
SEMIVOLATILES (µg/L)																
EPA Method SW8270																
2,4-Dimethylphenol	42	--	--	2120 (aa)	--	--	--	--	--	380	850	--	---	---	NA	NA
2-Methylnaphthalene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	NA	NA
Acenaphthene	520	--	--	1700 (aa)	520 (aa)	--	--	--	--	670	990	--	---	---	NA	NA
bis(2-Ethylhexyl)phthalate	3.0	8000	73000	--	--	15000	50000	--	--	1.2	2.2	--	---	---	NA	NA
Carbazole	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA
Dibenzofuran	3.7	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA
Di-n-Butylphthalate	35	800	2200000	--	--	35000	154000	--	--	2000	4500	--	---	---	NA	NA
Fluorene	3.9	--	--	--	--	--	--	--	--	1100	5300	--	---	---	NA	NA
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	NA	NA
Pentachlorophenol	15	--	1800	20 (ab)	13 (ab)	1010	--	19	15	13	7.9	--	---	---	NA	NA
Phenanthrene	6.3	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	NA	NA
Phenol	110	--	--	10200 (aa)	2560 (aa)	3500	--	--	--	--	--	--	---	---	NA	NA
EPA Method SW8270SIM																
Pentachlorophenol	15	--	1800	20 (ab)	13 (ab)	1010	--	19	15	13	7.9	--	---	---	**260**	**300**
PAHs (µg/L)																
EPA Method SW8270 - SIM																
2-Methylnaphthalene	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA
Acenaphthene	520	--	--	1700 (aa)	520 (aa)	--	--	--	--	670	990	--	---	---	NA	NA
Acenaphthylene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	NA	NA
Anthracene	13	--	--	--	--	--	--	--	--	8300	40000	--	---	---	NA	NA
Benzo(a)anthracene	0.027	--	--	--	--	--	--	--	--	0.0038	0.018	9.1	---	---	NA	NA
Benzo(a)pyrene	0.014	--	--	--	--	--	--	--	--	0.0038	0.018	0.53	---	---	NA	NA
Benzo(b)fluoranthene	6.16 (c)	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	NA	NA
Benzo(g,h,i)perylene	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA
Benzo(k)fluoranthene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	NA	NA
Chrysene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	NA	NA
Dibenzofuran	3.7	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA
Fluoranthene	6.16	--	--	3980 (aa)	--	42	54	--	--	130	140	--	---	---	NA	NA
Fluorene	3.9	--	--	--	--	--	--	--	--	1100	5300	--	---	---	NA	NA
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	NA	NA
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	NA	NA
Phenanthrene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	NA	NA
Pyrene	--	--	--	--	--	--	--	--	--	830	4000	--	---	---	NA	NA
VOLATILES (µg/L)																
EPA Method SW8260																
1,2,4-Trimethylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	1300	---	---	NA	NA
1,3,5-Trimethylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	1400	---	---	NA	NA
4-Isopropyltoluene	9.8 (d)	--	104000 (d)	--	--	--	--	--	--	--	--	--	---	---	NA	NA
Benzene	130	--	200000	5300 (aa)	--	0.66 (ad)	40 (ad)	--	--	2.2	51	1700	13000	---	NA	NA
Ethylbenzene	7.3	--	200000 (e)	32000 (aa)	--	1400	3280	--	--	3100	29000	110000	---	---	NA	NA
Isopropylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	NA	NA
m,p-Xylene	13 (f)	--	8000 (f)	--	--	--	--	--	--	--	--	22000 (ae)	---	---	NA	NA
Methyl tert-Butyl Ether	--	--	--	--	--	--	--	--	--	--	--	31000	550000	---	NA	NA
n-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	NA	NA
n-Propylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	NA	NA
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	NA	NA
o-Xylene	1.8	--	8000 (f)	--	--	--	--	--	--	--	--	22000 (ae)	---	---	NA	NA
sec-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	NA	NA
tert-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	NA	NA
Toluene	9.8	--	104000	17500 (aa)	--	14300	424000	--	--	6800	200000	78000	---	---	NA	NA

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TABLE D-1
SUMMARY OF DETECTED ANALYTICAL RESULTS
UPPER ZONE GROUNDWATER SAMPLES
PHASE III RI

														PH II	PH II
	SCREENING CRITERIA														
	Oregon SLVs - Surface Water			Oregon Ambient Water Quality Criteria				National Recommended Water Quality Criteria				Risk-Based Concentration			
Sample Identification:						Water and	Fish					Construction	Volatilization	Site-	OX8S	Y Dup of OX8S
Laboratory Identification:				Fresh	Fresh	Fish	Consumption	Fresh	Fresh	Water &	Organism	and Excavation	to Outdoor Air	Specific	FY72E	FY72D
Date Collected:	Aquatic	Birds	Mammals	Acute	Chronic	Ingestion	Only	CMC (Acute)	CCC (Chronic)	Organism	Only	Worker	Occupational	Background	10/22/2003	10/22/2003
HYDROCARBONS (mg/L)																
NWTPH-HCID																
Gasoline	--	--	--	--	--	--	--	--	--	--	--	12	---	---	NA	NA
Diesel	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA
NWTPH-Dx																
TPH-Diesel Range	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA
TPH-Motor Oil Range	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA
NWTPH-G																
TPH-Gasoline Range	--	--	--	--	--	--	--	--	--	--	--	12	---	---	NA	NA
PRIORITY POLLUTANT METALS (mg/L)																
Arsenic (7060)	0.15 (i)(*)	18 (i)	6 (i)	--	--	0.0000022 (ad)(*)	0.0000175 (ad)(*)	0.34 (*)	0.15 (*)	0.000018 (*)	0.00014 (*)	--	---	1.5	NA	NA
Chromium (6010)	0.011 (j)	--	28 (j)	1.7 (ac)	0.21 (ac)	170	3433	0.57	0.074			--	---	0.005	NA	NA
Copper (6010)	0.009	341	53	0.018 (ac)	0.012 (ac)	--	--	0.013	0.009	1.3		--	---	0.004	NA	NA
Lead (7421)	0.0025 (*)	28	323	0.082 (ac)	0.0032 (ac)(*)	0.05	--	0.065	0.0025 (*)			--	---	0.02	NA	NA
Nickel (6010)	0.052	562	38	1.4 (ac)	0.160 (ac)	0.0134	0.1	0.47	0.052	0.61	4.6	--	---	0.01	NA	NA
Zinc (6010)	0.120	105	1230	0.12 (ac)	0.11 (ac)	--	--	0.12	0.12	7.4	26	--	---	0.015	NA	NA
BETX (µg/L)																
EPA Method SW8021B																
Benzene	130	--	200000	5300 (aa)	--	0.66 (ad)	40 (ad)			2.2	51	1700	13000		NA	NA
Ethylbenzene	7.3	--	200000 (e)	32000 (aa)	--	1400	3280			3100	29000	110000	---	---	NA	NA
Toluene	9.8	--	104000	17500 (aa)	--	14300	424000			6800	200000	78000	---	---	NA	NA
Xylenes, Total	13 (f)		8000 (f)	--	--	--	--					22000	---	---	NA	NA
DIOXIN/FURANS (pg/L)																
EPA Method SW8290																
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	---	---	0.7011	NA

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TABLE D-2
SUMMARY OF DETECTED ANALYTICAL RESULTS
LOWER ZONE GROUNDWATER SAMPLES
PHASE III RI

														MTF	MTF	MTF	MTF	MTF	MTF
	SCREENING CRITERIA																		
	Oregon SLVs - Surface Water			Oregon Ambient Water Quality Criteria				National Recommended Water Quality Criteria				Risk-Based Concentration							
Sample Identification:						Water and	Fish					Construction	Volatilization	Site-	G1A	LW4D	LW6D	LW9D	LW14D	LW17D
Laboratory Identification:				Fresh	Fresh	Fish	Consumption	Fresh	Fresh	Water &	Organism	and Excavation	to Outdoor Air	Specific	FY82N	FY82L	FY82O	FY82M	FY82C	FY82G
Date Collected:	Aquatic	Birds	Mammals	Acute	Chronic	Ingestion	Only	CMC (Acute)	CCC (Chronic)	Organism	Only	Worker	Occupational	Background	10/24/2003	10/24/2003	10/24/2003	10/24/2003	10/23/2003	10/23/2003
SEMIVOLATILES (µg/L)																				
EPA Method SW8270																				
2,4-Dimethylphenol	42	--	--	2120 (aa)	--	--	--	--	--	380	850	--	---	---	3 U	3 U	3.1 U	3.1 U	NA	NA
2-Methylnaphthalene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	1 U	1 U	1 U	1 U	NA	NA
Acenaphthene	520	--	--	1700 (aa)	520 (aa)	--	--	--	--	670	990	--	---	---	1 U	1 U	1 U	1 U	NA	NA
bis(2-Ethylhexyl)phthalate	3.0	8000	73000	--	--	15000	50000	--	--	1.2	2.2	--	---	---	1 U	1 U	1 U	1 U	NA	NA
Carbazole	--	--	--	--	--	--	--	--	--	--	--	--	---	---	1 U	1 U	1 U	1 U	NA	NA
Dibenzofuran	3.7	--	--	--	--	--	--	--	--	--	--	--	---	---	1 U	1 U	1 U	1 U	NA	NA
Di-n-Butylphthalate	35	800	2200000	--	--	35000	154000	--	--	2000	4500	--	---	---	1 U	1 U	1 U	1 U	NA	NA
Fluorene	3.9	--	--	--	--	--	--	--	--	1100	5300	--	---	---	1 U	1 U	1 U	1 U	NA	NA
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	1 U	1 U	1 U	1 U	NA	NA
Pentachlorophenol	15	--	1800	20 (ab)	13 (ab)	1010	--	19	15	13	7.9	--	---	---	5 U	5 U	5.1 U	5.1 U	NA	NA
Phenanthrene	6.3	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	1 U	1 U	1 U	1 U	NA	NA
Phenol	110	--	--	10200 (aa)	2560 (aa)	3600	--	--	--	--	--	--	---	---	2 U	2 U	2 U	2 U	NA	NA
EPA Method SW8270SIM																				
Pentachlorophenol	15	--	1800	20 (ab)	13 (ab)	1010	--	19	15	13	7.9	--	---	---	0.5 U	0.5 U	1.1	0.51 U	0.5 U	0.51 U
PAHs (µg/L)																				
EPA Method SW8270 - SIM																				
2-Methylnaphthalene	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
Acenaphthene	520	--	--	1700 (aa)	520 (aa)	--	--	--	--	670	990	--	---	---	NA	NA	NA	NA	NA	NA
Acenaphthylene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
Anthracene	13	--	--	--	--	--	--	--	--	8300	40000	--	---	---	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	0.027	--	--	--	--	--	--	--	--	0.0038	0.018	9.1	---	---	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.014	--	--	--	--	--	--	--	--	0.0038	0.018	0.53	---	---	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	6.16 (c)	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	NA	NA	NA	NA	NA	NA
Chrysene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	NA	NA	NA	NA	NA	NA
Dibenzofuran	3.7	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
Fluoranthene	6.16	--	--	3980 (aa)	--	42	54	--	--	130	140	--	---	---	NA	NA	NA	NA	NA	NA
Fluorene	3.9	--	--	--	--	--	--	--	--	1100	5300	--	---	---	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	NA	NA	NA	NA	NA	NA
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	NA	NA	NA	NA	NA	NA
Phenanthrene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
Pyrene	--	--	--	--	--	--	--	--	--	830	4000	--	---	---	NA	NA	NA	NA	NA	NA
VOLATILES (µg/L)																				
EPA Method SW8260																				
1,2,4-Trimethylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	1300	---	---	1 U	1.4	1 U	1 U	NA	NA
1,3,5-Trimethylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	1400	---	---	1 U	1 U	1 U	1 U	NA	NA
4-Isopropyltoluene	9.8 (d)	--	104000 (d)	--	--	--	--	--	--	--	--	--	---	---	1 U	1 U	1 U	1 U	NA	NA
Benzene	130	--	200000	5300 (aa)	--	0.66 (ad)	40 (ad)	--	--	2.2	51	1700	13000	---	1 U	1 U	1 U	1 U	NA	NA
Ethylbenzene	7.3	--	200000 (e)	32000 (aa)	--	1400	3280	--	--	3100	29000	110000	---	---	1 U	1 U	1 U	1 U	NA	NA
Isopropylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	150	1.9	4.2	12	NA	NA
m,p-Xylene	13 (f)	--	8000 (f)	--	--	--	--	--	--	--	--	22000 (ae)	---	---	1 U	1 U	1 U	1 U	NA	NA
Methyl tert-Butyl Ether	--	--	--	--	--	--	--	--	--	--	--	31000	550000	---	NA	NA	NA	NA	NA	NA
n-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	10	1 U	1 U	1 U	NA	NA
n-Propylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	130	1.6	1 U	5.4	NA	NA
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	5 U	5 U	5 U	5 U	NA	NA
o-Xylene	1.8	--	8000 (f)	--	--	--	--	--	--	--	--	22000 (ae)	---	---	1 U	1 U	1 U	1 U	NA	NA
sec-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	17	1 U	2.1	1.3	NA	NA
tert-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	3.5	1 U	2.9	1 U	NA	NA
Toluene	9.8	--	104000	17500 (aa)	--	14300	424000	--	--	6800	200000	78000	---	---	1 U	1 U	1 U	1 U	NA	NA

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TABLE D-2
SUMMARY OF DETECTED ANALYTICAL RESULTS
LOWER ZONE GROUNDWATER SAMPLES
PHASE III RI

														MTF	MTF	MTF	MTF	MTF	MTF
	SCREENING CRITERIA																		
	Oregon SLVs - Surface Water			Oregon Ambient Water Quality Criteria				National Recommended Water Quality Criteria				Risk-Based Concentration						
Sample Identification:																			
Laboratory Identification:																			
Date Collected:	Aquatic	Birds	Mammals	Fresh Acute	Fresh Chronic	Water and Fish Ingestion	Fish Consumption Only	Fresh CMC (Acute)	Fresh CCC (Chronic)	Water & Organism	Organism Only	Construction and Excavation Worker	Volatilization to Outdoor Air Occupational	Site-Specific Background	G1A FY82N 10/24/2003	LW4D FY82L 10/24/2003	LW6D FY82O 10/24/2003	LW9D FY82M 10/24/2003	LW14D FY82C 10/23/2003	LW17D FY82G 10/23/2003
HYDROCARBONS (mg/L)																			
NWTPH-HCID																			
Gasoline	--	--	--	--	--	--	--	--	--	--	--	12	---	---	NA	NA	NA	NA	NA	NA
Diesel	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
NWTPH-Dx																			
TPH-Diesel Range	--	--	--	--	--	--	--	--	--	--	--	--	---	---	**2.2**	**1.6**	1.1	0.25 U	NA	NA
TPH-Motor Oil Range	--	--	--	--	--	--	--	--	--	--	--	--	---	---	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA
NWTPH-G																			
TPH-Gasoline Range	--	--	--	--	--	--	--	--	--	--	--	12	---	---	NA	NA	NA	NA	NA	NA
PRIORITY POLLUTANT METALS (mg/L)																			
Arsenic (7060)	0.15 (i)(*)	18 (i)	6 (i)	--	--	0.0000022 (ad)(*)	0.0000175 (ad)(*)	0.34 (*)	0.15 (*)	0.000018 (*)	0.00014 (*)	--	---	1.5	**0.035**	**0.028**	**0.016**	**0.038**	NA	NA
Chromium (6010)	0.011 (j)	--	25 (j)	1.7 (ac)	0.21 (ac)	170	3433	0.57	0.074			--	---	0.008	**0.01**	**0.009**	**0.008**	0.012	NA	NA
Copper (6010)	0.009	341	53	0.018 (ac)	0.012 (ac)	--	--	0.013	0.009	1.3		--	---	0.004	**0.007**	**0.006**	**0.005**	0.011	NA	NA
Lead (7421)	0.0025 (*)	28	323	0.082 (ac)	0.0032 (ac)(*)	0.05	--	0.065	0.0025 (*)			--	---	0.02	**0.003**	0.001 U	**0.003**	**0.002**	NA	NA
Nickel (6010)	0.052	562	38	1.4 (ac)	0.160 (ac)	0.0134	0.1	0.47	0.052	0.61	4.6	--	---	0.01	**0.08**	0.01 U	0.01 U	0.01 U	NA	NA
Zinc (6010)	0.120	105	1230	0.12 (ac)	0.11 (ac)	--	--	0.12	0.12	7.4	26	--	---	0.015	**0.021**	**0.017**	**0.013**	**0.027**	NA	NA
BETX (µg/L)																			
EPA Method SW8021B																			
Benzene	130	--	200000	5300 (aa)	--	0.66 (ad)	40 (ad)			2.2	51	1700	13000		NA	NA	NA	NA	NA	NA
Ethylbenzene	7.3	--	200000 (e)	32000 (aa)	--	1400	3280			3100	29000	110000	---	---	NA	NA	NA	NA	NA	NA
Toluene	9.8	--	104000	17500 (aa)	--	14300	424000			6800	200000	78000	---	---	NA	NA	NA	NA	NA	NA
Xylenes, Total	13 (f)		8000 (f)	--	--	--	--					22000	---	---	NA	NA	NA	NA	NA	NA
DIOXIN/FURANS (pg/L)																			
EPA Method SW8290																			
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA

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TABLE D-2
SUMMARY OF DETECTED ANALYTICAL RESULTS
LOWER ZONE GROUNDWATER SAMPLES
PHASE III RI

														MTF	MTF	MTF	MTF	MTF	MTF
	SCREENING CRITERIA																		
	Oregon SLVs - Surface Water			Oregon Ambient Water Quality Criteria				National Recommended Water Quality Criteria				Risk-Based Concentration							
Sample Identification:						Water and	Fish					Construction	Volatilization	Site-	LW18D	LW20D	LW22D	LW23D	LW24D	LW25D
Laboratory Identification:				Fresh	Fresh	Fish	Consumption	Fresh	Fresh	Water &	Organism	and Excavation	to Outdoor Air	Specific	FY82F	FZ04N	FZ04A	FZ04B	FZ04U	FZ04V
Date Collected:	Aquatic	Birds	Mammals	Acute	Chronic	Ingestion	Only	CMC (Acute)	CCC (Chronic)	Organism	Only	Worker	Occupational	Background	10/23/2003	10/28/2003	10/27/2003	10/27/2003	10/28/2003	10/28/2003
SEMIVOLATILES (µg/L)																				
EPA Method SW8270																				
2,4-Dimethylphenol	42	--	--	2120 (aa)	--	--	--	--	--	380	850	--	---	---	NA	3 U	4.2 U	1 U	1 U	1.2 U
2-Methylnaphthalene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	NA	1 U	1.4 U	6.8	5.6	1.2 U
Acenaphthene	520	--	--	1700 (aa)	520 (aa)	--	--	--	--	670	990	--	---	---	NA	1 U	1.4 U	1 U	1 U	1.2 U
bis(2-Ethylhexyl)phthalate	3.0	8000	73000	--	--	15000	50000	--	--	1.2	2.2	--	---	---	NA	3.9	1.4 U	1 U	1 U	1.2 U
Carbazole	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	1 U	1.4 U	1 U	1 U	1.4
Dibenzofuran	3.7	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	1 U	1.4 U	1 U	1 U	1.2 U
Di-n-Butylphthalate	35	800	2200000	--	--	35000	154000	--	--	2000	4500	--	---	---	NA	1 U	1.4 U	1 U	1 U	1.2 U
Fluorene	3.9	--	--	--	--	--	--	--	--	1100	5300	--	---	---	NA	1 U	1.4 U	2 U	2 U	2.3 U
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	NA	1 U	1.4 U	1 U	1 U	1.2 U
Pentachlorophenol	15	--	1800	20 (ab)	13 (ab)	1010	--	19	15	13	7.9	--	---	---	NA	6 U	7 U	5 U	5 U	5.8 U
Phenanthrene	6.3	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	NA	1 U	1.4 U	1 U	1 U	1.2 U
Phenol	110	--	--	10200 (aa)	2560 (aa)	3600	--	--	--	--	--	--	---	---	NA	2 U	4.1	3 U	3 U	3.5 U
EPA Method SW8270SIM																				
Pentachlorophenol	15	--	1800	20 (ab)	13 (ab)	1010	--	19	15	13	7.9	--	---	---	**0.58**	NA	NA	NA	NA	NA
PAHs (µg/L)																				
EPA Method SW8270 - SIM																				
2-Methylnaphthalene	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	0.1 U	0.14 U	0.1 U	0.1 U	0.12 U
Acenaphthene	520	--	--	1700 (aa)	520 (aa)	--	--	--	--	670	990	--	---	---	NA	0.1 U	1	**0.61**	**0.91**	**0.45**
Acenaphthylene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	NA	0.1 U	0.14 U	0.1 U	0.1 U	0.12 U
Anthracene	13	--	--	--	--	--	--	--	--	8300	40000	--	---	---	NA	0.1 U	0.14 U	**0.11**	**0.43**	0.12 U
Benzo(a)anthracene	0.027	--	--	--	--	--	--	--	--	0.0038	0.018	9.1	---	---	NA	0.1 U	0.14 U	**0.16**	**0.4**	0.12 U
Benzo(a)pyrene	0.014	--	--	--	--	--	--	--	--	0.0038	0.018	0.53	---	---	NA	0.1 U	0.14 U	**0.33**	**0.34**	0.12 U
Benzo(b)fluoranthene	6.16 (c)	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	NA	0.1 U	0.14 U	**0.13**	**0.18**	0.12 U
Benzo(g,h,i)perylene	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	0.1 U	0.14 U	**0.15**	**0.13**	0.12 U
Benzo(k)fluoranthene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	NA	0.1 U	0.14 U	**0.15**	**0.27**	0.12 U
Chrysene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	NA	0.1 U	0.14 U	**0.21**	**0.4**	0.12 U
Dibenzofuran	3.7	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	0.1 U	0.14 U	0.1 U	0.1 U	0.12 U
Fluoranthene	6.16	--	--	3980 (aa)	--	42	54	--	--	130	140	--	---	---	NA	0.1 U	0.14 U	**0.36**	**0.78**	**0.13**
Fluorene	3.9	--	--	--	--	--	--	--	--	1100	5300	--	---	---	NA	0.1 U	**0.35**	**0.31**	**0.7**	**0.57**
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	NA	0.1 U	0.14 U	**0.12**	**0.12**	0.12 U
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	NA	0.1 U	0.14 U	0.1 U	0.1 U	0.12 U
Phenanthrene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	NA	0.1 U	0.14 U	**0.2**	**1.2**	**0.33**
Pyrene	--	--	--	--	--	--	--	--	--	830	4000	--	---	---	NA	0.1 U	0.14 U	**0.44**	**0.94**	**0.16**
VOLATILES (µg/L)																				
EPA Method SW8260																				
1,2,4-Trimethylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	1300	---	---	NA	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	1400	---	---	NA	1 U	1 U	1 U	1 U	1 U
4-Isopropyltoluene	9.8 (d)	--	104000 (d)	--	--	--	--	--	--	--	--	--	---	---	NA	1 U	1 U	1 U	1 U	1 U
Benzene	130	--	200000	5300 (aa)	--	0.66 (ad)	40 (ad)	--	--	2.2	51	1700	13000	---	NA	1 U	**2.9**	**40**	1 U	1 U
Ethylbenzene	7.3	--	200000 (e)	32000 (aa)	--	1400	3280	--	--	3100	29000	110000	---	---	NA	1 U	1 U	1 U	1 U	1 U
Isopropylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	NA	1 U	**14**	**16**	**2.2**	**5.6**
m,p-Xylene	13 (f)	--	8000 (f)	--	--	--	--	--	--	--	--	22000 (ae)	---	---	NA	1 U	**1.6**	**1.2**	1 U	**1.6**
Methyl tert-Butyl Ether	--	--	--	--	--	--	--	--	--	--	--	31000	550000	---	NA	**1.5**	**1.9 M**	**33**	1 U	1 U
n-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	NA	1 U	1 U	**1.6**	1 U	1 U
n-Propylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	NA	1 U	**12**	**8.6**	1 U	**2**
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	NA	5 U	5 U	5 U	5 U	5 U
o-Xylene	1.8	--	8000 (f)	--	--	--	--	--	--	--	--	22000 (ae)	---	---	NA	1 U	1 U	1 U	1 U	1 U
sec-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	NA	1 U	**1.5**	**3.3**	**1.3**	**1.2**
tert-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	NA	1 U	1 U	1 U	1 U	1 U
Toluene	9.8	--	104000	17500 (aa)	--	14300	424000	--	--	6800	200000	78000	---	---	NA	1 U	**1.6**	**1.2**	1 U	1 U

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TABLE D-2
SUMMARY OF DETECTED ANALYTICAL RESULTS
LOWER ZONE GROUNDWATER SAMPLES
PHASE III RI

														MTF	MTF	MTF	MTF	MTF	MTF
	SCREENING CRITERIA																		
	Oregon SLVs - Surface Water			Oregon Ambient Water Quality Criteria				National Recommended Water Quality Criteria				Risk-Based Concentration							
Sample Identification:						Water and	Fish					Construction	Volatilization	Site-	LW18D	LW20D	LW22D	LW23D	LW24D	LW25D
Laboratory Identification:				Fresh	Fresh	Fish	Consumption	Fresh	Fresh	Water &	Organism	and Excavation	to Outdoor Air	Specific	FY82F	FZ04N	FZ04A	FZ04B	FZ04U	FZ04V
Date Collected:	Aquatic	Birds	Mammals	Acute	Chronic	Ingestion	Only	CMC (Acute)	CCC (Chronic)	Organism	Only	Worker	Occupational	Background	10/23/2003	10/28/2003	10/27/2003	10/27/2003	10/28/2003	10/28/2003
HYDROCARBONS (mg/L)																				
NWTPH-HCID																				
Gasoline	--	--	--	--	--	--	--	--	--	--	--	12	---	---	NA	NA	NA	NA	NA	NA
Diesel	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
NWTPH-Dx																				
TPH-Diesel Range	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	**0.4**	**2**	**2.9**	**2.5**	**1.3**
TPH-Motor Oil Range	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
NWTPH-G																				
TPH-Gasoline Range	--	--	--	--	--	--	--	--	--	--	--	12	---	---	NA	0.25 U	**0.54**	**0.88**	**0.92**	**0.43**
PRIORITY POLLUTANT METALS (mg/L)																				
Arsenic (7060)	0.15 (i)(*)	18 (i)	6 (i)	--	--	0.0000022 (ad)(*)	0.0000175 (ad)(*)	0.34 (*)	0.15 (*)	0.000018 (*)	0.00014 (*)	--	---	1.5	NA	**0.021**	**0.023**	**0.021**	**0.009**	**0.032**
Chromium (6010)	0.011 (j)	--	25 (j)	1.7 (ac)	0.21 (ac)	170	3433	0.57	0.074			--	---	0.008	NA	0.005 U	**0.15**	**0.135**	**0.125**	**0.31**
Copper (6010)	0.009	341	53	0.018 (ac)	0.012 (ac)	--	--	0.013	0.009	1.3		--	---	0.004	NA	**0.004**	**0.199**	**0.201**	**0.163**	**0.373**
Lead (7421)	0.0025 (*)	28	323	0.082 (ac)	0.0032 (ac)(*)	0.05	--	0.065	0.0025 (*)			--	---	0.02	NA	0.001 U	**0.056**	**0.068**	**0.058**	**0.15**
Nickel (6010)	0.052	562	38	1.4 (ac)	0.160 (ac)	0.0134	0.1	0.47	0.052	0.61	4.6	--	---	0.01	NA	0.01 U	**0.14**	**0.11**	**0.11**	**0.28**
Zinc (6010)	0.120	105	1230	0.12 (ac)	0.11 (ac)	--	--	0.12	0.12	7.4	26	--	---	0.015	NA	**0.015**	**0.4**	**0.348**	**0.327**	**0.83**
BETX (µg/L) EPA Method SW8021B																				
Benzene	130	--	200000	5300 (aa)	--	0.66 (ad)	40 (ad)			2.2	51	1700	13000		NA	NA	NA	NA	NA	NA
Ethylbenzene	7.3	--	200000 (e)	32000 (aa)	--	1400	3280			3100	29000	110000	---	---	NA	NA	NA	NA	NA	NA
Toluene	9.8	--	104000	17500 (aa)	--	14300	424000			6800	200000	78000	---	---	NA	NA	NA	NA	NA	NA
Xylenes, Total	13 (f)		8000 (f)	--	--	--	--					22000	---	---	NA	NA	NA	NA	NA	NA
DIOXIN/FURANS (pg/L) EPA Method SW8290																				
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA

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TABLE D-2
SUMMARY OF DETECTED ANALYTICAL RESULTS
LOWER ZONE GROUNDWATER SAMPLES
PHASE III RI

														MTF	MTF	MTF	MTF	MTF	MTF
	SCREENING CRITERIA																		
	Oregon SLVs - Surface Water			Oregon Ambient Water Quality Criteria				National Recommended Water Quality Criteria				Risk-Based Concentration							
Sample Identification:						Water and	Fish					Construction	Volatilization	Site-	LW26D	LW27D	LW35D	O	R	RW2
Laboratory Identification:				Fresh	Fresh	Fish	Consumption	Fresh	Fresh	Water &	Organism	and Excavation	to Outdoor Air	Specific	FZ04T	FZ04S	FZ04K	FY82Q	FY82R	FY82D
Date Collected:	Aquatic	Birds	Mammals	Acute	Chronic	Ingestion	Only	CMC (Acute)	CCC (Chronic)	Organism	Only	Worker	Occupational	Background	10/28/2003	10/28/2003	10/27/2003	10/24/2003	10/24/2003	10/23/2003
SEMIVOLATILES (µg/L)																				
EPA Method SW8270																				
2,4-Dimethylphenol	42	--	--	2120 (aa)	--	--	--	--	--	380	850	--	---	---	1.1 U	1.1 U	1.4 U	1 U	1 U	3 U
2-Methylnaphthalene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	1.1 U	1.1 U	2.7	1 U	1 U	7.2 J
Acenaphthene	520	--	--	1700 (aa)	520 (aa)	--	--	--	--	670	990	--	---	---	1.1 U	1.1 U	1.4 U	1.2	1 U	1 U
bis(2-Ethylhexyl)phthalate	3.0	8000	73000	--	--	15000	50000	--	--	1.2	2.2	--	---	---	1.1 U	1.1 U	1.4 U	1 U	1 U	1 U
Carbazole	--	--	--	--	--	--	--	--	--	--	--	--	---	---	1.1 U	1.1 U	1.4 U	1 U	1 U	1 U
Dibenzofuran	3.7	--	--	--	--	--	--	--	--	--	--	--	---	---	1.1 U	1.1 U	1.4 U	1 U	1 U	1 U
Di-n-Butylphthalate	35	800	2200000	--	--	35000	154000	--	--	2000	4500	--	---	---	1.1 U	1.1 U	1.4 U	1.8	1 U	1 U
Fluorene	3.9	--	--	--	--	--	--	--	--	1100	5300	--	---	---	2.2 U	2.2 U	2.9 U	2.1 U	2 U	1 U
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	1.1 U	1.1 U	1.4 U	1 U	1 U	1.8
Pentachlorophenol	15	--	1800	20 (ab)	13 (ab)	1010	--	19	15	13	7.9	--	---	---	5.5 U	5.4 U	7.1 U	5.2 U	5 U	8.1
Phenanthrene	6.3	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	1.1 U	1.1 U	1.4 U	1 U	1 U	1 U
Phenol	110	--	--	10200 (aa)	2560 (aa)	3600	--	--	--	--	--	--	---	---	3.3 U	3.2 U	4.3 U	3.1 U	3 U	2 U
EPA Method SW8270SIM																				
Pentachlorophenol	15	--	1800	20 (ab)	13 (ab)	1010	--	19	15	13	7.9	--	---	---	NA	NA	NA	NA	NA	NA
PAHs (µg/L)																				
EPA Method SW8270 - SIM																				
2-Methylnaphthalene	--	--	--	--	--	--	--	--	--	--	--	--	---	---	0.11 U	0.11 U	0.14 U	NA	NA	NA
Acenaphthene	520	--	--	1700 (aa)	520 (aa)	--	--	--	--	670	990	--	---	---	0.11 U	0.11 U	0.14 U	NA	NA	NA
Acenaphthylene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	0.11 U	0.11 U	0.14 U	NA	NA	NA
Anthracene	13	--	--	--	--	--	--	--	--	8300	40000	--	---	---	0.11 U	0.11 U	0.14 U	NA	NA	NA
Benzo(a)anthracene	0.027	--	--	--	--	--	--	--	--	0.0038	0.018	9.1	---	---	0.11 U	0.11 U	0.14 U	NA	NA	NA
Benzo(a)pyrene	0.014	--	--	--	--	--	--	--	--	0.0038	0.018	0.53	---	---	0.11 U	0.11 U	0.14 U	NA	NA	NA
Benzo(b)fluoranthene	6.16 (c)	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	0.11 U	0.11 U	0.14 U	NA	NA	NA
Benzo(g,h,i)perylene	--	--	--	--	--	--	--	--	--	--	--	--	---	---	0.11 U	0.11 U	0.14 U	NA	NA	NA
Benzo(k)fluoranthene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	0.11 U	0.11 U	0.14 U	NA	NA	NA
Chrysene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	0.11 U	0.11 U	0.14 U	NA	NA	NA
Dibenzofuran	3.7	--	--	--	--	--	--	--	--	--	--	--	---	---	0.11 U	0.11 U	0.14 U	NA	NA	NA
Fluoranthene	6.16	--	--	3980 (aa)	--	42	54	--	--	130	140	--	---	---	0.11 U	0.11 U	0.14 U	NA	NA	NA
Fluorene	3.9	--	--	--	--	--	--	--	--	1100	5300	--	---	---	0.11 U	0.11 U	0.14 U	NA	NA	NA
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	0.11 U	0.11 U	0.14 U	NA	NA	NA
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	0.11 U	0.11 U	0.14 U	NA	NA	NA
Phenanthrene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	0.11 U	0.11 U	0.14 U	NA	NA	NA
Pyrene	--	--	--	--	--	--	--	--	--	830	4000	--	---	---	0.11 U	0.11 U	0.14 U	NA	NA	NA
VOLATILES (µg/L)																				
EPA Method SW8260																				
1,2,4-Trimethylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	1300	---	---	1 U	1 U	1 U	1 U	1 U	16
1,3,5-Trimethylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	1400	---	---	1 U	1 U	1 U	1 U	1 U	4.4
4-Isopropyltoluene	9.8 (d)	--	104000 (d)	--	--	--	--	--	--	--	--	--	---	---	1 U	1 U	1 U	1 U	1 U	1 U
Benzene	130	--	200000	5300 (aa)	--	0.66 (ad)	40 (ad)	--	--	2.2	51	1700	13000	---	1 U	1 U	1 U	1.5	1 U	3.6
Ethylbenzene	7.3	--	200000 (e)	32000 (aa)	--	1400	3280	--	--	3100	29000	110000	---	---	1 U	1 U	1 U	1 U	3.8	2.6
Isopropylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	1 U	1 U	2.2	27	43	28
m,p-Xylene	13 (f)	--	8000 (f)	--	--	--	--	--	--	--	--	22000 (ae)	---	---	1 U	1 U	1 U	1 U	9.4	4.3
Methyl tert-Butyl Ether	--	--	--	--	--	--	--	--	--	--	--	31000	550000	---	1.2	1 U	1.5	NA	NA	NA
n-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	1 U	1 U	1 U	3	1.7	3.6
n-Propylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	1 U	1 U	1 U	29	20	35
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	5 U	5 U	5 U	5 U	5 U	5 U
o-Xylene	1.8	--	8000 (f)	--	--	--	--	--	--	--	--	22000 (ae)	---	---	1 U	1 U	1 U	1 U	1 U	1 U
sec-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	1 U	1 U	1 U	5.6	4.3	5.1
tert-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	1 U	1 U	1 U	1 U	1 U	1.2
Toluene	9.8	--	104000	17500 (aa)	--	14300	424000	--	--	6800	200000	78000	---	---	1 U	1 U	1 U	1.4	2.5	1 U

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TABLE D-2
SUMMARY OF DETECTED ANALYTICAL RESULTS
LOWER ZONE GROUNDWATER SAMPLES
PHASE III RI

															MTF	MTF	MTF	MTF	MTF	MTF
	SCREENING CRITERIA																			
	Oregon SLVs - Surface Water			Oregon Ambient Water Quality Criteria				National Recommended Water Quality Criteria				Risk-Based Concentration								
Sample Identification:						Water and	Fish					Construction	Volatilization	Site-	LW26D	LW27D	LW35D	O	R	RW2
Laboratory Identification:				Fresh	Fresh	Fish	Consumption	Fresh	Fresh	Water &	Organism	and Excavation	to Outdoor Air	Specific	FZ04T	FZ04S	FZ04K	FY82Q	FY82R	FY82D
Date Collected:	Aquatic	Birds	Mammals	Acute	Chronic	Ingestion	Only	CMC (Acute)	CCC (Chronic)	Organism	Only	Worker	Occupational	Background	10/28/2003	10/28/2003	10/27/2003	10/24/2003	10/24/2003	10/23/2003
HYDROCARBONS (mg/L)																				
NWTPH-HCID																				
Gasoline	--	--	--	--	--	--	--	--	--	--	--	12	---	---	NA	NA	NA	NA	NA	NA
Diesel	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
NWTPH-Dx																				
TPH-Diesel Range	--	--	--	--	--	--	--	--	--	--	--	--	---	---	1.1	**0.54**	3.1	NA	NA	**0.73**
TPH-Motor Oil Range	--	--	--	--	--	--	--	--	--	--	--	--	---	---	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
NWTPH-G																				
TPH-Gasoline Range	--	--	--	--	--	--	--	--	--	--	--	12	---	---	**0.35**	0.25 U	0.25 U	NA	NA	**1.2**
PRIORITY POLLUTANT METALS (mg/L)																				
Arsenic (7060)	0.15 (i)(*)	18 (i)	6 (i)	--	--	0.0000022 (ad)(*)	0.0000175 (ad)(*)	0.34 (*)	0.15 (*)	0.000018 (*)	0.00014 (*)	--	---	1.5	**0.007**	**0.006**	**0.018**	NA	NA	**0.019**
Chromium (6010)	0.011 (j)	--	25 (j)	1.7 (ac)	0.21 (ac)	170	3433	0.57	0.074			--	---	0.005	**0.012**	**0.009**	**0.35**	NA	NA	0.005 U
Copper (6010)	0.009	341	53	0.018 (ac)	0.012 (ac)	--	--	0.013	0.009	1.3		--	---	0.004	**0.016**	**0.02**	**0.37**	NA	NA	0.002 U
Lead (7421)	0.0025 (*)	28	323	0.082 (ac)	0.0032 (ac)(*)	0.05	--	0.065	0.0025 (*)			--	---	0.02	**0.006**	**0.014**	**0.12**	NA	NA	0.001 U
Nickel (6010)	0.052	562	38	1.4 (ac)	0.160 (ac)	0.0134	0.1	0.47	0.052	0.61	4.6	--	---	0.01	**0.01**	**0.01**	**0.32**	NA	NA	0.01 U
Zinc (6010)	0.120	105	1230	0.12 (ac)	0.11 (ac)	--	--	0.12	0.12	7.4	26	--	---	0.015	**0.036**	**0.047**	**0.93**	NA	NA	**0.062** J
BETX (µg/L)																				
EPA Method SW8021B																				
Benzene	130	--	200000	5300 (aa)	--	0.66 (ad)	40 (ad)			2.2	51	1700	13000		NA	NA	NA	NA	NA	NA
Ethylbenzene	7.3	--	200000 (e)	32000 (aa)	--	1400	3280			3100	29000	110000	---	---	NA	NA	NA	NA	NA	NA
Toluene	9.8	--	104000	17500 (aa)	--	14300	424000			6800	200000	78000	---	---	NA	NA	NA	NA	NA	NA
Xylenes, Total	13 (f)		8000 (f)	--	--	--	--					22000	---	---	NA	NA	NA	NA	NA	NA
DIOXIN/FURANS (pg/L)																				
EPA Method SW8290																				
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA

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TABLE D-2
SUMMARY OF DETECTED ANALYTICAL RESULTS
LOWER ZONE GROUNDWATER SAMPLES
PHASE III RI

														MTF	BTTF	BTTF	BTTF	AR	PH II
	SCREENING CRITERIA																		
	Oregon SLVs - Surface Water			Oregon Ambient Water Quality Criteria				National Recommended Water Quality Criteria				Risk-Based Concentration							
Sample Identification:						Water and	Fish					Construction	Volatilization	Site-	W Dup of RW2	LW29D	LW30D	LW32D	LW10D	B2
Laboratory Identification:				Fresh	Fresh	Fish	Consumption	Fresh	Fresh	Water &	Organism	and Excavation	to Outdoor Air	Specific	FY82A	FZ04D	FZ04F	FZ04I	FY82B	FY64E
Date Collected:	Aquatic	Birds	Mammals	Acute	Chronic	Ingestion	Only	CMC (Acute)	CCC (Chronic)	Organism	Only	Worker	Occupational	Background	10/23/2003	10/27/2003	10/27/2003	10/27/2003	10/23/2003	10/20/2003
SEMIVOLATILES (µg/L)																				
EPA Method SW8270																				
2,4-Dimethylphenol	42	--	--	2120 (aa)	--	--	--	--	--	380	850	--	---	---	3 U	3.1 U	3.3 U	3.2 U	3 U	3 U
2-Methylnaphthalene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	5.4 J	1 U	1.1 U	1.1 U	1 U	1 U
Acenaphthene	520	--	--	1700 (aa)	520 (aa)	--	--	--	--	670	990	--	---	---	1 U	1 U	1.1 U	1.1 U	1 U	1 U
bis(2-Ethylhexyl)phthalate	3.0	8000	73000	--	--	15000	50000	--	--	1.2	2.2	--	---	---	1 U	1 U	1.1 U	2.2	1 U	1 U
Carbazole	--	--	--	--	--	--	--	--	--	--	--	--	---	---	1 U	1 U	1.1 U	1.1 U	1 U	1 U
Dibenzofuran	3.7	--	--	--	--	--	--	--	--	--	--	--	---	---	1 U	1 U	1.1 U	1.1 U	1 U	1 U
Di-n-Butylphthalate	35	800	2200000	--	--	35000	154000	--	--	2000	4500	--	---	---	1 U	1 U	1.1 U	1.1 U	1 U	1 U
Fluorene	3.9	--	--	--	--	--	--	--	--	1100	5300	--	---	---	1 U	1 U	1.1 U	1.1 U	1 U	1 U
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	1.3	1 U	1.1 U	1.1 U	1 U	1 U
Pentachlorophenol	15	--	1800	20 (ab)	13 (ab)	1010	--	19	15	13	7.9	--	---	---	6.4	5.2 U	5.6 U	5.3 U	5 U	5 U
Phenanthrene	6.3	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	1 U	1 U	1.1 U	1.1 U	1 U	1 U
Phenol	110	--	--	10200 (aa)	2560 (aa)	3600	--	--	--	--	--	--	---	---	2 U	2.1 U	2.2 U	2.1 U	2 U	2 U
EPA Method SW8270SIM																				
Pentachlorophenol	15	--	1800	20 (ab)	13 (ab)	1010	--	19	15	13	7.9	--	---	---	NA	NA	NA	NA	0.94	0.5 U
PAHs (µg/L)																				
EPA Method SW8270 - SIM																				
2-Methylnaphthalene	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	0.1 U	0.11 U	0.11 U	NA	NA
Acenaphthene	520	--	--	1700 (aa)	520 (aa)	--	--	--	--	670	990	--	---	---	NA	0.1 U	0.11 U	0.11 U	NA	NA
Acenaphthylene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	NA	0.1 U	0.11 U	0.11 U	NA	NA
Anthracene	13	--	--	--	--	--	--	--	--	8300	40000	--	---	---	NA	0.1 U	0.11 U	0.11 U	NA	NA
Benzo(a)anthracene	0.027	--	--	--	--	--	--	--	--	0.0038	0.018	9.1	---	---	NA	0.1 U	0.11 U	0.11 U	NA	NA
Benzo(a)pyrene	0.014	--	--	--	--	--	--	--	--	0.0038	0.018	0.53	---	---	NA	0.1 U	0.11 U	0.11 U	NA	NA
Benzo(b)fluoranthene	6.16 (c)	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	NA	0.1 U	0.11 U	0.11 U	NA	NA
Benzo(g,h,i)perylene	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	0.1 U	0.11 U	0.11 U	NA	NA
Benzo(k)fluoranthene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	NA	0.1 U	0.11 U	0.11 U	NA	NA
Chrysene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	NA	0.1 U	0.11 U	0.11 U	NA	NA
Dibenzofuran	3.7	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	0.1 U	0.11 U	0.11 U	NA	NA
Fluoranthene	6.16	--	--	3980 (aa)	--	42	54	--	--	130	140	--	---	---	NA	0.1 U	0.11 U	0.11 U	NA	NA
Fluorene	3.9	--	--	--	--	--	--	--	--	1100	5300	--	---	---	NA	0.1 U	0.11 U	0.11 U	NA	NA
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	NA	0.1 U	0.11 U	0.11 U	NA	NA
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	NA	0.1 U	0.11 U	0.11 U	NA	NA
Phenanthrene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	NA	0.1 U	0.11 U	0.11 U	NA	NA
Pyrene	--	--	--	--	--	--	--	--	--	830	4000	--	---	---	NA	0.1 U	0.11 U	0.11 U	NA	NA
VOLATILES (µg/L)																				
EPA Method SW8260																				
1,2,4-Trimethylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	1300	---	---	17	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	1400	---	---	5.1	1 U	1 U	1 U	1 U	1 U
4-Isopropyltoluene	9.8 (d)	--	104000 (d)	--	--	--	--	--	--	--	--	--	---	---	1 U	1 U	1 U	1 U	1 U	1 U
Benzene	130	--	200000	5300 (aa)	--	0.66 (ad)	40 (ad)	--	--	2.2	51	1700	13000	---	3.4	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	7.3	--	200000 (e)	32000 (aa)	--	1400	3280	--	--	3100	29000	110000	---	---	2.7	1 U	1 U	1 U	1 U	1 U
Isopropylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	29	1 U	1 U	1 U	1 U	1 U
m,p-Xylene	13 (f)	--	8000 (f)	--	--	--	--	--	--	--	--	22000 (ae)	---	---	4.5	1 U	1 U	1 U	1 U	1 U
Methyl tert-Butyl Ether	--	--	--	--	--	--	--	--	--	--	--	31000	550000	---	NA	1 U	1 U	1 U	NA	NA
n-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	3.9	1 U	1 U	1 U	1 U	1 U
n-Propylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	36	1 U	1 U	1 U	1 U	1 U
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	5 U	5 U	5 U	5 U	5 U	5 U
o-Xylene	1.8	--	8000 (f)	--	--	--	--	--	--	--	--	22000 (ae)	---	---	1 U	1 U	1 U	1 U	1 U	1 U
sec-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	5.4	1 U	1 U	1 U	1 U	1 U
tert-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	1.2	1 U	1 U	1 U	1 U	1 U
Toluene	9.8	--	104000	17500 (aa)	--	14300	424000	--	--	6800	200000	78000	---	---	1 U	1 U	1 U	1 U	1 U	1 U

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TABLE D-2
SUMMARY OF DETECTED ANALYTICAL RESULTS
LOWER ZONE GROUNDWATER SAMPLES
PHASE III RI

															MTF	BTTF	BTTF	BTTF	AR	PH II
	SCREENING CRITERIA																			
	Oregon SLVs - Surface Water			Oregon Ambient Water Quality Criteria				National Recommended Water Quality Criteria				Risk-Based Concentration								
Sample Identification:						Water and	Fish					Construction	Volatilization	Site-	W Dup of RW2	LW29D	LW30D	LW32D	LW10D	B2
Laboratory Identification:				Fresh	Fresh	Fish	Consumption	Fresh	Fresh	Water &	Organism	and Excavation	to Outdoor Air	Specific	FY82A	FZ04D	FZ04F	FZ04I	FY82B	FY64E
Date Collected:	Aquatic	Birds	Mammals	Acute	Chronic	Ingestion	Only	CMC (Acute)	CCC (Chronic)	Organism	Only	Worker	Occupational	Background	10/23/2003	10/27/2003	10/27/2003	10/27/2003	10/23/2003	10/20/2003
HYDROCARBONS (mg/L)																				
NWTPH-HCID																				
Gasoline	--	--	--	--	--	--	--	--	--	--	--	12	---	---	NA	NA	NA	NA	NA	NA
Diesel	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA
NWTPH-Dx																				
TPH-Diesel Range	--	--	--	--	--	--	--	--	--	--	--	--	---	---	**0.72**	0.25 U	0.25 U	**0.35**	0.25 U	NA
TPH-Motor Oil Range	--	--	--	--	--	--	--	--	--	--	--	--	---	---	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
NWTPH-G																				
TPH-Gasoline Range	--	--	--	--	--	--	--	--	--	--	--	12	---	---	**1.2**	0.25 U	0.25 U	0.25 U	NA	NA
PRIORITY POLLUTANT METALS (mg/L)																				
Arsenic (7060)	0.15 (i)(*)	18 (i)	6 (i)	--	--	0.0000022 (ad)(*)	0.0000175 (ad)(*)	0.34 (*)	0.15 (*)	0.000018 (*)	0.00014 (*)	--	---	1.5	**0.018**	**0.004**	**0.01**	**0.004**	**0.024**	**0.002**
Chromium (6010)	0.011 (j)	--	25 (j)	1.7 (ac)	0.21 (ac)	170	3433	0.57	0.074			--	---	0.008	0.005 U	**0.019**	**0.026**	**0.063**	**0.012**	0.005 U
Copper (6010)	0.009	341	53	0.018 (ac)	0.012 (ac)	--	--	0.013	0.009	1.3		--	---	0.004	0.002 U	**0.019**	**0.04**	**0.082**	**0.011**	0.002 U
Lead (7421)	0.0025 (*)	28	323	0.082 (ac)	0.0032 (ac)(*)	0.05	--	0.065	0.0025 (*)			--	---	0.02	0.001 U	**0.006**	**0.008**	**0.018**	**0.003**	0.001 U
Nickel (6010)	0.052	562	38	1.4 (ac)	0.160 (ac)	0.0134	0.1	0.47	0.052	0.61	4.6	--	---	0.01	0.01 U	**0.02**	**0.03**	**0.05**	0.01 U	0.01 U
Zinc (6010)	0.120	105	1230	0.12 (ac)	0.11 (ac)	--	--	0.12	0.12	7.4	26	--	---	0.015	**0.008** J	**0.04**	**0.07**	**0.146**	**0.024**	0.008 U
BETX (µg/L)																				
EPA Method SW8021B																				
Benzene	130	--	200000	5300 (aa)	--	0.66 (ad)	40 (ad)			2.2	51	1700	13000		NA	NA	NA	NA	NA	NA
Ethylbenzene	7.3	--	200000 (e)	32000 (aa)	--	1400	3280			3100	29000	110000	---	---	NA	NA	NA	NA	NA	NA
Toluene	9.8	--	104000	17500 (aa)	--	14300	424000			6800	200000	78000	---	---	NA	NA	NA	NA	NA	NA
Xylenes, Total	13 (f)		8000 (f)	--	--	--	--					22000	---	---	NA	NA	NA	NA	NA	NA
DIOXIN/FURANS (pg/L)																				
EPA Method SW8290																				
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA	NA

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TABLE D-2
SUMMARY OF DETECTED ANALYTICAL RESULTS
LOWER ZONE GROUNDWATER SAMPLES
PHASE III RI

														PH II	PH II	PH II	PH II	PH II
	SCREENING CRITERIA																	
	Oregon SLVs - Surface Water			Oregon Ambient Water Quality Criteria				National Recommended Water Quality Criteria				Risk-Based Concentration						
Sample Identification:						Water and	Fish					Construction	Volatilization	Site-	J2	LW1D	LW3D	LW11D	OX8D
Laboratory Identification:				Fresh	Fresh	Fish	Consumption	Fresh	Fresh	Water &	Organism	and Excavation	to Outdoor Air	Specific	FY64I	FY64K	FY82I	FY82J	FY72F
Date Collected:	Aquatic	Birds	Mammals	Acute	Chronic	Ingestion	Only	CMC (Acute)	CCC (Chronic)	Organism	Only	Worker	Occupational	Background	10/21/2003	10/21/2003	10/24/2003	10/24/2003	10/22/2003
SEMIVOLATILES (µg/L)																			
EPA Method SW8270																			
2,4-Dimethylphenol	42	--	--	2120 (aa)	--	--	--	--	--	380	850	--	---	---	3 U	3 U	3.3 U	3.3 U	NA
2-Methylnaphthalene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	1 U	1 U	1.1 U	1.1 U	NA
Acenaphthene	520	--	--	1700 (aa)	520 (aa)	--	--	--	--	670	990	--	---	---	1 U	1 U	1.1 U	1.1 U	NA
bis(2-Ethylhexyl)phthalate	3.0	8000	73000	--	--	15000	50000	--	--	1.2	2.2	--	---	---	1 U	1 U	1.1 U	1.5	NA
Carbazole	--	--	--	--	--	--	--	--	--	--	--	--	---	---	1 U	1 U	1.1 U	1.1 U	NA
Dibenzofuran	3.7	--	--	--	--	--	--	--	--	--	--	--	---	---	1 U	1 U	1.1 U	1.1 U	NA
Di-n-Butylphthalate	35	800	2200000	--	--	35000	154000	--	--	2000	4500	--	---	---	1 U	1 U	1.1 U	1.1 U	NA
Fluorene	3.9	--	--	--	--	--	--	--	--	1100	5300	--	---	---	1 U	1 U	1.1 U	1.1 U	NA
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	1 U	1 U	1.1 U	1.1 U	NA
Pentachlorophenol	15	--	1800	20 (ab)	13 (ab)	1010	--	19	15	13	7.9	--	---	---	5 U	5 U	5.5 U	5.5 U	NA
Phenanthrene	6.3	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	1 U	1 U	1.1 U	1.1 U	NA
Phenol	110	--	--	10200 (aa)	2560 (aa)	3600	--	--	--	--	--	--	---	---	2 U	2 U	2.2 U	2.2 U	NA
EPA Method SW8270SIM																			
Pentachlorophenol	15	--	1800	20 (ab)	13 (ab)	1010	--	19	15	13	7.9	--	---	---	0.5 U	0.5 U	**0.62**	0.55 U	**0.62**
PAHs (µg/L)																			
EPA Method SW8270 - SIM																			
2-Methylnaphthalene	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA
Acenaphthene	520	--	--	1700 (aa)	520 (aa)	--	--	--	--	670	990	--	---	---	NA	NA	NA	NA	NA
Acenaphthylene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA
Anthracene	13	--	--	--	--	--	--	--	--	8300	40000	--	---	---	NA	NA	NA	NA	NA
Benzo(a)anthracene	0.027	--	--	--	--	--	--	--	--	0.0038	0.018	9.1	---	---	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.014	--	--	--	--	--	--	--	--	0.0038	0.018	0.53	---	---	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	6.16 (c)	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	NA	NA	NA	NA	NA
Chrysene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	NA	NA	NA	NA	NA
Dibenzofuran	3.7	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA
Fluoranthene	6.16	--	--	3980 (aa)	--	42	54	--	--	130	140	--	---	---	NA	NA	NA	NA	NA
Fluorene	3.9	--	--	--	--	--	--	--	--	1100	5300	--	---	---	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--	--	--	--	0.0038	0.018	--	---	---	NA	NA	NA	NA	NA
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	NA	NA	NA	NA	NA
Phenanthrene	620 (b)	--	284000 (b)	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA
Pyrene	--	--	--	--	--	--	--	--	--	830	4000	--	---	---	NA	NA	NA	NA	NA
VOLATILES (µg/L)																			
EPA Method SW8260																			
1,2,4-Trimethylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	1300	---	---	1 U	1 U	1 U	1 U	NA
1,3,5-Trimethylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	1400	---	---	1 U	1 U	1 U	1 U	NA
4-Isopropyltoluene	9.8 (d)	--	104000 (d)	--	--	--	--	--	--	--	--	--	---	---	1 U	1 U	1 U	1 U	NA
Benzene	130	--	200000	5300 (aa)	--	0.66 (ad)	40 (ad)	--	--	2.2	51	1700	13000	---	1 U	1 U	1 U	1 U	NA
Ethylbenzene	7.3	--	200000 (e)	32000 (aa)	--	1400	3280	--	--	3100	29000	110000	---	---	1 U	1 U	1 U	1 U	NA
Isopropylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	1 U	1 U	1 U	1 U	NA
m,p-Xylene	13 (f)	--	8000 (f)	--	--	--	--	--	--	--	--	22000 (ae)	---	---	1 U	1 U	1 U	1 U	NA
Methyl tert-Butyl Ether	--	--	--	--	--	--	--	--	--	--	--	31000	550000	---	NA	NA	NA	NA	NA
n-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	1 U	1 U	1 U	1 U	NA
n-Propylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	1 U	1 U	1 U	1 U	NA
Naphthalene	620	--	284000	2300 (aa)	620 (aa)	--	--	--	--	--	--	680	---	---	5 U	5 U	5 U	5 U	NA
o-Xylene	1.8	--	8000 (f)	--	--	--	--	--	--	--	--	22000 (ae)	---	---	1 U	1 U	1 U	1 U	NA
sec-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	1 U	1 U	1 U	1 U	NA
tert-Butylbenzene	130 (e)	--	200000 (e)	--	--	--	--	--	--	--	--	--	---	---	1 U	1 U	1 U	1 U	NA
Toluene	9.8	--	104000	17500 (aa)	--	14300	424000	--	--	6800	200000	78000	---	---	1 U	1 U	1 U	1 U	NA

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TABLE D-2
SUMMARY OF DETECTED ANALYTICAL RESULTS
LOWER ZONE GROUNDWATER SAMPLES
PHASE III RI

															PH II	PH II	PH II	PH II	PH II
	SCREENING CRITERIA																	
	Oregon SLVs - Surface Water			Oregon Ambient Water Quality Criteria				National Recommended Water Quality Criteria				Risk-Based Concentration						
Sample Identification:						Water and	Fish					Construction	Volatilization	Site-	J2	LW1D	LW3D	LW11D	OX8D
Laboratory Identification:				Fresh	Fresh	Fish	Consumption	Fresh	Fresh	Water &	Organism	and Excavation	to Outdoor Air	Specific	FY64I	FY64K	FY82I	FY82J	FY72F
Date Collected:	Aquatic	Birds	Mammals	Acute	Chronic	Ingestion	Only	CMC (Acute)	CCC (Chronic)	Organism	Only	Worker	Occupational	Background	10/21/2003	10/21/2003	10/24/2003	10/24/2003	10/22/2003
HYDROCARBONS (mg/L)																			
NWTPH-HCID																			
Gasoline	--	--	--	--	--	--	--	--	--	--	--	12	---	---	NA	NA	NA	NA	NA
Diesel	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA
NWTPH-Dx																			
TPH-Diesel Range	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	**0.66**	NA
TPH-Motor Oil Range	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	0.5 U	NA
NWTPH-G																			
TPH-Gasoline Range	--	--	--	--	--	--	--	--	--	--	--	12	---	---	NA	NA	NA	NA	NA
PRIORITY POLLUTANT METALS (mg/L)																			
Arsenic (7060)	0.15 (i)(*)	18 (i)	6 (i)	--	--	0.0000022 (ad)(*)	0.0000175 (ad)(*)	0.34 (*)	0.15 (*)	0.000018 (*)	0.00014 (*)	--	---	1.5	**0.004**	**0.006**	**0.018**	**0.005**	NA
Chromium (6010)	0.011 (j)	--	25 (j)	1.7 (ac)	0.21 (ac)	170	3433	0.57	0.074			--	---	0.008	0.005 U	**0.005**	**0.006**	**0.016**	NA
Copper (6010)	0.009	341	53	0.018 (ac)	0.012 (ac)	--	--	0.013	0.009	1.3		--	---	0.004	**0.004**	**0.005**	**0.004**	**0.015**	NA
Lead (7421)	0.0025 (*)	28	323	0.082 (ac)	0.0032 (ac)(*)	0.05	--	0.065	0.0025 (*)			--	---	0.02	0.001 U	**0.036**	**0.001**	**0.004**	NA
Nickel (6010)	0.052	562	38	1.4 (ac)	0.160 (ac)	0.0134	0.1	0.47	0.052	0.61	4.6	--	---	0.01	0.01 U	0.01 U	0.01 U	**0.02**	NA
Zinc (6010)	0.120	105	1230	0.12 (ac)	0.11 (ac)	--	--	0.12	0.12	7.4	26	--	---	0.015	**0.006**	**0.019**	**0.013**	**0.041**	NA
BETX (µg/L)																			
EPA Method SW8021B																			
Benzene	130	--	200000	5300 (aa)	--	0.66 (ad)	40 (ad)			2.2	51	1700	13000		NA	NA	NA	NA	NA
Ethylbenzene	7.3	--	200000 (e)	32000 (aa)	--	1400	3280			3100	29000	110000	---	---	NA	NA	NA	NA	NA
Toluene	9.8	--	104000	17500 (aa)	--	14300	424000			6800	200000	78000	---	---	NA	NA	NA	NA	NA
Xylenes, Total	13 (f)		8000 (f)	--	--	--	--					22000	---	---	NA	NA	NA	NA	NA
DIOXIN/FURANS (pg/L)																			
EPA Method SW8290																			
Total TEQ	--	--	--	--	--	--	--	--	--	--	--	--	---	---	NA	NA	NA	NA	NA

BZTO104(e)019754

TABLE D-3
SUMMARY OF DETECTED ANALYTICAL RESULTS
GROUNDWATER FOOTNOTES

Footnotes - Groundwater

U = Indicates compound was analyzed for, but was not detected at the reported sample detection limit.

UJ = Data validation flag indicating the analyte was not detected in the sample; the reported sample detection limit is an estimate.

J = Data validation flag indicating the analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

(*) Preliminary screening level less than site-specific background.

(**) The NWTPH-HCID analysis of sample GW9-4 indicated the presence of diesel; however, due to laboratory error no NWTPH-Dx analysis was performed to quantify the diesel concentration.

NA= Not analyzed.

Bold indicates value is a detected constituent.

Box indicates value exceeds one or more screening criteria.

(b) Risk-based concentration not available due to lack of toxicity data; therefore, the risk-based concentration for the noncarcinogenic PAH with the lowest risk-based concentration (naphthalene) was used for the comparison.

(c) Risk-based concentration not available due to lack of toxicity data; therefore, the risk-based concentration for the structurally similar compound and mode of toxic action (fluoranthene) was used for the comparison.

(d) Risk-based concentration not available due to lack of toxicity data; therefore, the risk-based concentration for the structurally similar compound and mode of toxic action (toluene) was used for the comparison.

(e) Risk-based concentration not available due to lack of toxicity data; therefore, the risk-based concentration for the structurally similar compound and mode of toxic action (benzene) was used for the comparison.

(f) Risk-based concentration not available due to lack of toxicity data; therefore, the risk-based concentration for the structurally similar compound and mode of toxic action (mixed xylenes) was used for the comparison.

(i) SBVs shown are for Arsenic III.

(j) SBVs shown are for Chromium III.

(aa) Insufficient data to develop criteria; value presented is the L.O.E.L. - Lower Observed Effect Level.

(ab) pH Dependent Criteria (7.8 pH is used).

(ac) Hardness Dependent Criteria (100 mg/L used).

(ad) Human health risk criteria for carcinogens reported for three risk levels. Value presented is the 10-6 risk level, which means the probability of one concern case per million people at the stated concentration.

(ae) Total xylenes.

Specialty Analytical

19761 S.W. 95th Place
Tualatin, OR 97062
(503) 612-9007
Fax (503) 612-8572
1 (877) 612-9007

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LANDAU ASSOCIATES, INC.

October 28, 2003

Kevin Murphy
Time Oil Co.
2737 West Commodore Way
Seattle, WA 981991233

TEL: 206-286-6443
FAX (206) 285-7833

RE: NW Terminal-Hand Probes / 231009.31

Dear Kevin Murphy:

Order No.: 0310117

Specialty Analytical received 23 samples on 10/16/2003 for the analyses presented in the following report.

There were no problems with the analysis and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative, or as qualified with flags. Results apply only to the samples analyzed. Without approval of the laboratory, the reproduction of this report is only permitted in its entirety.

If you have any questions regarding these tests, please feel free to call.

Sincerely,

Andy Helgerd for Dan Marrin
Project Manager

Technical Review

CC:
Rebekah Brooks @ Landau Associates

BZTO104(e)019756

☒ Seattle (Edmonds) (425) 778-0907
☐ Tacoma (253) 926-2493
☐ Spokane (509) 327-9737
☐ Portland (Tigard) (503) 443-6010
☐ _____

LANDAU ASSOCIATES

0310117

Date 10/15/03

Page 1 of 2

Chain-of-Custody Record

Project Name TIME OIL PHASE III Project No: 031009.31

Project Location/Event NEW TACOMA / HAND PROBES

Sampler's Name CHRISTY JOHNSON

Project Contact: STACY POLKER

Send Results To: DEBBIE FREEDS & MEGAN MURRAY

Turnaround Time
☑ Standard
☐ Accelerated
☐ _____

Sample I.D.	Date	Time	Matrix	No. of Containers	Testing Parameters	Observations/Comments
HBO1 (0.5-1)	10/15/03	0850	SOIL	1	ARCHIVE	
HBO1 (1-1.5)	10/15/03	0935				* VOCs: BTEX, MTBE, EDB, EDC, 1,2,4-TRIMETHYLBENZENE, 1,3,5-TRIMETHYLBENZENE, ISO-PROPYLBENZENE, & n-PROPYLBENZENE
HBO1 (5-6)	10/15/03	0940				
HBO1 (10-11)	10/15/03	0955				
HBO1 (14-15)	10/15/03	0940				
HBO2 (0.5-1)	10/15/03	1010			ARCHIVE	
HBO2 (1-1.5)	10/15/03	1015				
HBO2 (5-6)	10/15/03	1033				
HBO2 (10-11)	10/15/03	1045				
HBO2 (13-14)	10/15/03	1100				
HBO5 (0.5-1)	10/15/03	1125			ARCHIVE	
HBO5 (1-1.5)	10/15/03	1130				
HBO5 (5-6)	10/15/03	1140				
HBO5 (10-11)	10/15/03	1150				
HBO4 (0.5-1)	10/15/03	1345			ARCHIVE	
HBO4 (1-1.5)	10/15/03	1350				

Special Shipment/Handling or Storage Requirements: 3 COOLERS ON ICE

Method of Shipment: HAND DELIVERED

Relinquished by	Received by	Relinquished by	Received by
Signature: [signature]	Signature: [signature]	Signature:	Signature:
Printed Name: CHRISTY JOHNSON	Printed Name: Cindy Hilyard	Printed Name:	Printed Name:
Company: LANDAU ASSOC	Company: Received by	Company:	Company:
Date: 10/16/03 Time: 825	Date: 10/16/03 Time: 8:25	Date: Time:	Date: Time:

WHITE COPY - Project File YELLOW COPY - Laboratory PINK COPY - Client Representative

Rev. 8/02

BZTO104(e)019757

Specialty Analytical

Date: *28-Oct-03*

CLIENT:	Time Oil Co.	**Client Sample ID:**	HB01(0.5-1)/101503
Lab Order:	0310117	**Collection Date:**	10/15/2003 8:50:00 AM
Project:	NW Terminal-Hand Probes / 231009.31		
Lab ID:	0310117-01	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
HOLD PER CLIENT REQUEST		**PER CLIENT**				Analyst: **ADM**
Hold	HOLD				1	10/20/2003

BZTO104(e)019758

Specialty Analytical

Date: *28-Oct-03*

CLIENT: Time Oil Co.
Client Sample ID: HB01(1-1.5)/101503
Lab Order: 0310117
Collection Date: 10/15/2003 8:55:00 AM
Project: NW Terminal-Hand Probes / 231009.31
Lab ID: 0310117-02
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **btf**
Diesel	33.9	16.9		mg/Kg-dry	1	10/20/2003
Lube Oil	ND	56.4		mg/Kg-dry	1	10/20/2003
Surr: o-Terphenyl	87.0	50-150		%REC	1	10/20/2003
NWTPH-GX		**NWTPH-GX**				Analyst: **btf**
Gasoline	32.4	2.82		mg/Kg-dry	1	10/17/2003
Surr: 4-Bromofluorobenzene	62.1	50-150		%REC	1	10/17/2003
TOTAL METALS BY ICP		**E6010**				Analyst: **tlf**
Lead	53.2	2.00		mg/Kg	1	10/18/2003 3:11:28 PM
Zinc	199	8.93		mg/Kg	10	10/20/2003 3:18:47 PM
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	ND	6.67		µg/Kg	1	10/20/2003 7:41:00 PM
Acenaphthylene	8.00	6.67		µg/Kg	1	10/20/2003 7:41:00 PM
Anthracene	13.3	6.67		µg/Kg	1	10/20/2003 7:41:00 PM
Benz(a)anthracene	24.7	6.67		µg/Kg	1	10/20/2003 7:41:00 PM
Benzo(a)pyrene	32.0	6.67		µg/Kg	1	10/20/2003 7:41:00 PM
Benzo(b)fluoranthene	58.0	6.67		µg/Kg	1	10/20/2003 7:41:00 PM
Benzo(g,h,i)perylene	32.7	6.67		µg/Kg	1	10/20/2003 7:41:00 PM
Benzo(k)fluoranthene	15.3	6.67		µg/Kg	1	10/20/2003 7:41:00 PM
Chrysene	82.0	6.67		µg/Kg	1	10/20/2003 7:41:00 PM
Dibenz(a,h)anthracene	10.0	6.67		µg/Kg	1	10/20/2003 7:41:00 PM
Fluoranthene	37.3	6.67		µg/Kg	1	10/20/2003 7:41:00 PM
Fluorene	7.33	6.67		µg/Kg	1	10/20/2003 7:41:00 PM
Indeno(1,2,3-cd)pyrene	22.7	6.67		µg/Kg	1	10/20/2003 7:41:00 PM
Naphthalene	22.0	6.67		µg/Kg	1	10/20/2003 7:41:00 PM
Phenanthrene	37.3	6.67		µg/Kg	1	10/20/2003 7:41:00 PM
Pyrene	52.0	6.67		µg/Kg	1	10/20/2003 7:41:00 PM
Surr: 2-Fluorobiphenyl	74.6	42.6-128		%REC	1	10/20/2003 7:41:00 PM
Surr: Nitrobenzene-d5	36.8	21.7-155		%REC	1	10/20/2003 7:41:00 PM
Surr: p-Terphenyl-d14	78.9	44.9-155		%REC	1	10/20/2003 7:41:00 PM
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
1,2,4-Trimethylbenzene	ND	10.0		µg/Kg	1	10/17/2003 1:01:00 AM
1,2-Dibromoethane	ND	10.0		µg/Kg	1	10/17/2003 1:01:00 AM
1,2-Dichloroethane	ND	10.0		µg/Kg	1	10/17/2003 1:01:00 AM
1,3,5-Trimethylbenzene	ND	10.0		µg/Kg	1	10/17/2003 1:01:00 AM
Benzene	ND	10.0		µg/Kg	1	10/17/2003 1:01:00 AM
Ethylbenzene	ND	10.0		µg/Kg	1	10/17/2003 1:01:00 AM
Isopropylbenzene	ND	10.0		µg/Kg	1	10/17/2003 1:01:00 AM
m,p-Xylene	ND	20.0		µg/Kg	1	10/17/2003 1:01:00 AM
Methyl tert-butyl ether	ND	10.0		µg/Kg	1	10/17/2003 1:01:00 AM

BZTO104(e)019759

Specialty Analytical

Date: *28-Oct-03*

CLIENT:	Time Oil Co.	**Client Sample ID:**	HB01(1-1.5)/101503
Lab Order:	0310117	**Collection Date:**	10/15/2003 8:55:00 AM
Project:	NW Terminal-Hand Probes / 231009.31		
Lab ID:	0310117-02	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
n-Propylbenzene	ND	10.0		µg/Kg	1	10/17/2003 1:01:00 AM
o-Xylene	ND	10.0		µg/Kg	1	10/17/2003 1:01:00 AM
Toluene	ND	10.0		µg/Kg	1	10/17/2003 1:01:00 AM
Surr: 1,2-Dichloroethane-d4	76.7	71.5-112		%REC	1	10/17/2003 1:01:00 AM
Surr: 4-Bromofluorobenzene	93.7	75.7-122		%REC	1	10/17/2003 1:01:00 AM
Surr: Dibromofluoromethane	81.5	64.3-124		%REC	1	10/17/2003 1:01:00 AM
Surr: Toluene-d8	96.3	74.9-120		%REC	1	10/17/2003 1:01:00 AM

BZTO104(e)019760

Specialty Analytical

Date: *28-Oct-03*

CLIENT: Time Oil Co.
Client Sample ID: HB01(5-6)/101503
Lab Order: 0310117
Collection Date: 10/15/2003 9:10:00 AM
Project: NW Terminal-Hand Probes / 231009.31
Lab ID: 0310117-03
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **btf**
Diesel	2710	18.1		mg/Kg-dry	1	10/20/2003
Lube Oil	109	60.4		mg/Kg-dry	1	10/20/2003
Surr: o-Terphenyl	182	50-150	S,MI	%REC	1	10/20/2003
NWTPH-GX		**NWTPH-GX**				Analyst: **btf**
Gasoline	2540	151		mg/Kg-dry	50	10/17/2003
Surr: 4-Bromofluorobenzene	0	50-150	S,D	%REC	50	10/17/2003
TOTAL METALS BY ICP		**E6010**				Analyst: **tlf**
Lead	29.1	1.59		mg/Kg	1	10/18/2003 3:16:55 PM
Zinc	43.8	0.794		mg/Kg	1	10/18/2003 3:16:55 PM
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	355	6.67		µg/Kg	1	10/20/2003 8:14:00 PM
Acenaphthylene	70.7	6.67		µg/Kg	1	10/20/2003 8:14:00 PM
Anthracene	156	6.67		µg/Kg	1	10/20/2003 8:14:00 PM
Benz(a)anthracene	12.7	6.67		µg/Kg	1	10/20/2003 8:14:00 PM
Benzo(a)pyrene	ND	6.67		µg/Kg	1	10/20/2003 8:14:00 PM
Benzo(b)fluoranthene	9.33	6.67		µg/Kg	1	10/20/2003 8:14:00 PM
Benzo(g,h,i)perylene	11.3	6.67		µg/Kg	1	10/20/2003 8:14:00 PM
Benzo(k)fluoranthene	ND	6.67		µg/Kg	1	10/20/2003 8:14:00 PM
Chrysene	12.0	6.67		µg/Kg	1	10/20/2003 8:14:00 PM
Dibenz(a,h)anthracene	ND	6.67		µg/Kg	1	10/20/2003 8:14:00 PM
Fluoranthene	29.3	6.67		µg/Kg	1	10/20/2003 8:14:00 PM
Fluorene	517	6.67		µg/Kg	1	10/20/2003 8:14:00 PM
Indeno(1,2,3-cd)pyrene	ND	6.67		µg/Kg	1	10/20/2003 8:14:00 PM
Naphthalene	865	6.67		µg/Kg	1	10/20/2003 8:14:00 PM
Phenanthrene	797	6.67		µg/Kg	1	10/20/2003 8:14:00 PM
Pyrene	96.0	6.67		µg/Kg	1	10/20/2003 8:14:00 PM
Surr: 2-Fluorobiphenyl	80.3	42.6-128		%REC	1	10/20/2003 8:14:00 PM
Surr: Nitrobenzene-d5	74.8	21.7-155		%REC	1	10/20/2003 8:14:00 PM
Surr: p-Terphenyl-d14	80.5	44.9-155		%REC	1	10/20/2003 8:14:00 PM
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
1,2,4-Trimethylbenzene	36000	10000		µg/Kg	1000	10/17/2003 2:42:00 PM
1,2-Dibromoethane	ND	10.0		µg/Kg	1	10/17/2003 1:36:00 AM
1,2-Dichloroethane	ND	10.0		µg/Kg	1	10/17/2003 1:36:00 AM
1,3,5-Trimethylbenzene	652	100		µg/Kg	10	10/17/2003 4:59:00 PM
Benzene	ND	10.0		µg/Kg	1	10/17/2003 1:36:00 AM
Ethylbenzene	608	100		µg/Kg	10	10/17/2003 4:59:00 PM
Isopropylbenzene	657	100		µg/Kg	10	10/17/2003 4:59:00 PM
m,p-Xylene	4330	200		µg/Kg	10	10/17/2003 4:59:00 PM
Methyl tert-butyl ether	ND	10.0		µg/Kg	1	10/17/2003 1:36:00 AM

BZTO104(e)019761

Specialty Analytical

Date: *28-Oct-03*

CLIENT: Time Oil Co.
Client Sample ID: HB01(5-6)/101503
Lab Order: 0310117
Collection Date: 10/15/2003 9:10:00 AM
Project: NW Terminal-Hand Probes / 231009.31
Lab ID: 0310117-03
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
n-Propylbenzene	2240	100		µg/Kg	10	10/17/2003 4:59:00 PM
o-Xylene	1680	100		µg/Kg	10	10/17/2003 4:59:00 PM
Toluene	196	10.0		µg/Kg	1	10/17/2003 1:36:00 AM
Surr: 1,2-Dichloroethane-d4	64.8	71.5-112	S,MI	%REC	1	10/17/2003 1:36:00 AM
Surr: 4-Bromofluorobenzene	196	75.7-122	S,MI	%REC	1	10/17/2003 1:36:00 AM
Surr: Dibromofluoromethane	68.7	64.3-124		%REC	1	10/17/2003 1:36:00 AM
Surr: Toluene-d8	109	74.9-120		%REC	1	10/17/2003 1:36:00 AM

BZTO104(e)019762

Specialty Analytical

Date: *28-Oct-03*

CLIENT: Time Oil Co.
Client Sample ID: HB01(10-11)/101503
Lab Order: 0310117
Collection Date: 10/15/2003 9:25:00 AM
Project: NW Terminal-Hand Probes / 231009.31
Lab ID: 0310117-04
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **btf**
Diesel	4020	17.5		mg/Kg-dry	1	10/20/2003
Lube Oil	83.0	58.5	M	mg/Kg-dry	1	10/20/2003
Surr: o-Terphenyl	198	50-150	S,MI	%REC	1	10/20/2003
NWTPH-GX		**NWTPH-GX**				Analyst: **btf**
Gasoline	3280	146		mg/Kg-dry	50	10/17/2003
Surr: 4-Bromofluorobenzene	93.0	50-150		%REC	50	10/17/2003
TOTAL METALS BY ICP		**E6010**				Analyst: **tlf**
Lead	37.1	1.54		mg/Kg	1	10/18/2003 3:22:22 PM
Zinc	42.5	0.769		mg/Kg	1	10/18/2003 3:22:22 PM
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	442	6.67		µg/Kg	1	10/20/2003 8:47:00 PM
Acenaphthylene	76.0	6.67		µg/Kg	1	10/20/2003 8:47:00 PM
Anthracene	187	6.67		µg/Kg	1	10/20/2003 8:47:00 PM
Benz(a)anthracene	14.7	6.67		µg/Kg	1	10/20/2003 8:47:00 PM
Benzo(a)pyrene	ND	6.67		µg/Kg	1	10/20/2003 8:47:00 PM
Benzo(b)fluoranthene	7.33	6.67		µg/Kg	1	10/20/2003 8:47:00 PM
Benzo(g,h,i)perylene	ND	6.67		µg/Kg	1	10/20/2003 8:47:00 PM
Benzo(k)fluoranthene	ND	6.67		µg/Kg	1	10/20/2003 8:47:00 PM
Chrysene	14.7	6.67		µg/Kg	1	10/20/2003 8:47:00 PM
Dibenz(a,h)anthracene	ND	6.67		µg/Kg	1	10/20/2003 8:47:00 PM
Fluoranthene	34.0	6.67		µg/Kg	1	10/20/2003 8:47:00 PM
Fluorene	655	6.67		µg/Kg	1	10/20/2003 8:47:00 PM
Indeno(1,2,3-cd)pyrene	ND	6.67		µg/Kg	1	10/20/2003 8:47:00 PM
Naphthalene	2560	33.3		µg/Kg	5	10/22/2003 1:15:00 PM
Phenanthrene	1110	6.67		µg/Kg	1	10/20/2003 8:47:00 PM
Pyrene	88.7	6.67		µg/Kg	1	10/20/2003 8:47:00 PM
Surr: 2-Fluorobiphenyl	92.3	42.6-128		%REC	1	10/20/2003 8:47:00 PM
Surr: Nitrobenzene-d5	80.8	21.7-155		%REC	1	10/20/2003 8:47:00 PM
Surr: p-Terphenyl-d14	88.5	44.9-155		%REC	1	10/20/2003 8:47:00 PM
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
1,2,4-Trimethylbenzene	116000	10000		µg/Kg	1000	10/17/2003 3:16:00 PM
1,2-Dibromoethane	ND	10.0		µg/Kg	1	10/17/2003 2:10:00 AM
1,2-Dichloroethane	ND	100	Q	µg/Kg	10	10/17/2003 5:33:00 PM
1,3,5-Trimethylbenzene	5810	5000		µg/Kg	1000	10/17/2003 3:16:00 PM
Benzene	ND	100	Q	µg/Kg	10	10/17/2003 5:33:00 PM
Ethylbenzene	11800	10000		µg/Kg	1000	10/17/2003 3:16:00 PM
Isopropylbenzene	6470	5000		µg/Kg	1000	10/17/2003 3:16:00 PM
m,p-Xylene	89600	20000		µg/Kg	1000	10/17/2003 3:16:00 PM
Methyl tert-butyl ether	ND	100	Q	µg/Kg	10	10/17/2003 5:33:00 PM

BZTO104(e)019763

Specialty Analytical

Date: *28-Oct-03*

CLIENT: Time Oil Co.
Client Sample ID: HB01(10-11)/101503
Lab Order: 0310117
Collection Date: 10/15/2003 9:25:00 AM
Project: NW Terminal-Hand Probes / 231009.31
Lab ID: 0310117-04
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
n-Propylbenzene	16200	10000		µg/Kg	1000	10/17/2003 3:16:00 PM
o-Xylene	35400	10000		µg/Kg	1000	10/17/2003 3:16:00 PM
Toluene	1520	100		µg/Kg	10	10/17/2003 5:33:00 PM
Surr: 1,2-Dichloroethane-d4	65.9	71.5-112	S,MI	%REC	10	10/17/2003 5:33:00 PM
Surr: 4-Bromofluorobenzene	338	75.7-122	S,E,MI	%REC	1	10/17/2003 2:10:00 AM
Surr: Dibromofluoromethane	65.7	64.3-124		%REC	10	10/17/2003 5:33:00 PM
Surr: Toluene-d8	101	74.9-120		%REC	1	10/17/2003 2:10:00 AM

BZTO104(e)019764

Specialty Analytical

Date: *28-Oct-03*

CLIENT: Time Oil Co.
Client Sample ID: HB01(14-15)/101503
Lab Order: 0310117
Collection Date: 10/15/2003 9:40:00 AM
Project: NW Terminal-Hand Probes / 231009.31
Lab ID: 0310117-05
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **btf**
Diesel	10100	176		mg/Kg-dry	10	10/21/2003
Lube Oil	ND	588	A3	mg/Kg-dry	10	10/21/2003
Surr: o-Terphenyl	291	50-150	S,D	%REC	10	10/21/2003
NWTPH-GX		**NWTPH-GX**				Analyst: **btf**
Gasoline	6880	294		mg/Kg-dry	100	10/17/2003
Surr: 4-Bromofluorobenzene	41.6	50-150	S,D	%REC	100	10/17/2003
TOTAL METALS BY ICP		**E6010**				Analyst: **tlf**
Lead	3.22	1.61		mg/Kg	1	10/18/2003 3:27:50 PM
Zinc	47.7	0.806		mg/Kg	1	10/18/2003 3:27:50 PM
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	1010	6.67		µg/Kg	1	10/20/2003 9:19:00 PM
Acenaphthylene	208	6.67		µg/Kg	1	10/20/2003 9:19:00 PM
Anthracene	409	6.67		µg/Kg	1	10/20/2003 9:19:00 PM
Benz(a)anthracene	18.0	6.67		µg/Kg	1	10/20/2003 9:19:00 PM
Benzo(a)pyrene	ND	6.67		µg/Kg	1	10/20/2003 9:19:00 PM
Benzo(b)fluoranthene	10.0	6.67		µg/Kg	1	10/20/2003 9:19:00 PM
Benzo(g,h,i)perylene	ND	6.67		µg/Kg	1	10/20/2003 9:19:00 PM
Benzo(k)fluoranthene	ND	6.67		µg/Kg	1	10/20/2003 9:19:00 PM
Chrysene	22.0	6.67		µg/Kg	1	10/20/2003 9:19:00 PM
Dibenz(a,h)anthracene	ND	6.67		µg/Kg	1	10/20/2003 9:19:00 PM
Fluoranthene	50.0	6.67		µg/Kg	1	10/20/2003 9:19:00 PM
Fluorene	2180	66.7		µg/Kg	10	10/22/2003 1:48:00 PM
Indeno(1,2,3-cd)pyrene	ND	6.67		µg/Kg	1	10/20/2003 9:19:00 PM
Naphthalene	6300	66.7		µg/Kg	10	10/22/2003 1:48:00 PM
Phenanthrene	3240	66.7		µg/Kg	10	10/22/2003 1:48:00 PM
Pyrene	99.3	6.67		µg/Kg	1	10/20/2003 9:19:00 PM
Surr: 2-Fluorobiphenyl	89.2	42.6-128		%REC	1	10/20/2003 9:19:00 PM
Surr: Nitrobenzene-d5	65.8	21.7-155		%REC	1	10/20/2003 9:19:00 PM
Surr: p-Terphenyl-d14	51.0	44.9-155		%REC	1	10/20/2003 9:19:00 PM
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
1,2,4-Trimethylbenzene	141000	50000		µg/Kg	5000	10/20/2003 6:00:00 PM
1,2-Dibromoethane	ND	10.0		µg/Kg	1	10/17/2003 2:44:00 AM
1,2-Dichloroethane	ND	100	Q	µg/Kg	10	10/17/2003 6:07:00 PM
1,3,5-Trimethylbenzene	8290	5000		µg/Kg	1000	10/17/2003 3:50:00 PM
Benzene	136	100		µg/Kg	10	10/17/2003 6:07:00 PM
Ethylbenzene	33600	10000		µg/Kg	1000	10/17/2003 3:50:00 PM
Isopropylbenzene	8300	5000		µg/Kg	1000	10/17/2003 3:50:00 PM
m,p-Xylene	239000	20000		µg/Kg	1000	10/17/2003 3:50:00 PM
Methyl tert-butyl ether	ND	100	Q	µg/Kg	10	10/17/2003 6:07:00 PM

BZTO104(e)019765

Specialty Analytical

Date: *28-Oct-03*

CLIENT: Time Oil Co.
Client Sample ID: HB01(14-15)/101503
Lab Order: 0310117
Collection Date: 10/15/2003 9:40:00 AM
Project: NW Terminal-Hand Probes / 231009.31
Lab ID: 0310117-05
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
n-Propylbenzene	21900	10000		µg/Kg	1000	10/17/2003 3:50:00 PM
o-Xylene	88600	10000		µg/Kg	1000	10/17/2003 3:50:00 PM
Toluene	20000	10000		µg/Kg	1000	10/17/2003 3:50:00 PM
Surr: 1,2-Dichloroethane-d4	53.7	71.5-112	S,MI	%REC	10	10/17/2003 6:07:00 PM
Surr: 4-Bromofluorobenzene	309	75.7-122	S,E,MI	%REC	1	10/17/2003 2:44:00 AM
Surr: Dibromofluoromethane	53.1	64.3-124	S,MI	%REC	10	10/17/2003 6:07:00 PM
Surr: Toluene-d8	106	74.9-120		%REC	1	10/17/2003 2:44:00 AM

BZTO104(e)019766

Specialty Analytical

Date: *28-Oct-03*

CLIENT:	Time Oil Co.	**Client Sample ID:**	HB02(0.5-1)/101503
Lab Order:	0310117	**Collection Date:**	10/15/2003 10:10:00 AM
Project:	NW Terminal-Hand Probes / 231009.31		
Lab ID:	0310117-06	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
HOLD PER CLIENT REQUEST		**PER CLIENT**				Analyst: **ADM**
Hold	HOLD				1	10/20/2003

BZTO104(e)019767

Specialty Analytical

Date: *28-Oct-03*

CLIENT: Time Oil Co.
Client Sample ID: HB02(1-1.5)/101503
Lab Order: 0310117
Collection Date: 10/15/2003 10:15:00 AM
Project: NW Terminal-Hand Probes / 231009.31
Lab ID: 0310117-07
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **btf**
Diesel	97.4	16.1		mg/Kg-dry	1	10/20/2003
Lube Oil	63.6	53.7		mg/Kg-dry	1	10/20/2003
Surr: o-Terphenyl	102	50-150		%REC	1	10/20/2003
NWTPH-GX		**NWTPH-GX**				Analyst: **btf**
Gasoline	ND	2.68		mg/Kg-dry	1	10/20/2003
Surr: 4-Bromofluorobenzene	58.3	50-150		%REC	1	10/20/2003
TOTAL METALS BY ICP		**E6010**				Analyst: **tlf**
Lead	ND	1.56		mg/Kg	1	10/18/2003 3:33:17 PM
Zinc	56.1	0.781		mg/Kg	1	10/18/2003 3:33:17 PM
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	ND	6.67		µg/Kg	1	10/20/2003 10:24:00 PM
Acenaphthylene	ND	6.67		µg/Kg	1	10/20/2003 10:24:00 PM
Anthracene	ND	6.67		µg/Kg	1	10/20/2003 10:24:00 PM
Benz(a)anthracene	ND	6.67		µg/Kg	1	10/20/2003 10:24:00 PM
Benzo(a)pyrene	ND	6.67		µg/Kg	1	10/20/2003 10:24:00 PM
Benzo(b)fluoranthene	ND	6.67		µg/Kg	1	10/20/2003 10:24:00 PM
Benzo(g,h,i)perylene	ND	6.67		µg/Kg	1	10/20/2003 10:24:00 PM
Benzo(k)fluoranthene	ND	6.67		µg/Kg	1	10/20/2003 10:24:00 PM
Chrysene	ND	6.67		µg/Kg	1	10/20/2003 10:24:00 PM
Dibenz(a,h)anthracene	ND	6.67		µg/Kg	1	10/20/2003 10:24:00 PM
Fluoranthene	ND	6.67		µg/Kg	1	10/20/2003 10:24:00 PM
Fluorene	ND	6.67		µg/Kg	1	10/20/2003 10:24:00 PM
Indeno(1,2,3-cd)pyrene	ND	6.67		µg/Kg	1	10/20/2003 10:24:00 PM
Naphthalene	ND	6.67		µg/Kg	1	10/20/2003 10:24:00 PM
Phenanthrene	ND	6.67		µg/Kg	1	10/20/2003 10:24:00 PM
Pyrene	ND	6.67		µg/Kg	1	10/20/2003 10:24:00 PM
Surr: 2-Fluorobiphenyl	90.7	42.6-128		%REC	1	10/20/2003 10:24:00 PM
Surr: Nitrobenzene-d5	63.1	21.7-155		%REC	1	10/20/2003 10:24:00 PM
Surr: p-Terphenyl-d14	87.7	44.9-155		%REC	1	10/20/2003 10:24:00 PM
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
1,2,4-Trimethylbenzene	ND	10.0		µg/Kg	1	10/17/2003 1:33:00 PM
1,2-Dibromoethane	ND	10.0		µg/Kg	1	10/17/2003 1:33:00 PM
1,2-Dichloroethane	ND	10.0		µg/Kg	1	10/17/2003 1:33:00 PM
1,3,5-Trimethylbenzene	ND	10.0		µg/Kg	1	10/17/2003 1:33:00 PM
Benzene	ND	10.0		µg/Kg	1	10/17/2003 1:33:00 PM
Ethylbenzene	ND	10.0		µg/Kg	1	10/17/2003 1:33:00 PM
Isopropylbenzene	ND	10.0		µg/Kg	1	10/17/2003 1:33:00 PM
m,p-Xylene	ND	20.0		µg/Kg	1	10/17/2003 1:33:00 PM
Methyl tert-butyl ether	ND	10.0		µg/Kg	1	10/17/2003 1:33:00 PM

BZTO104(e)019768

Specialty Analytical

Date: *28-Oct-03*

CLIENT:	Time Oil Co.	**Client Sample ID:**	HB02(1-1.5)/101503
Lab Order:	0310117	**Collection Date:**	10/15/2003 10:15:00 AM
Project:	NW Terminal-Hand Probes / 231009.31		
Lab ID:	0310117-07	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
n-Propylbenzene	ND	10.0		µg/Kg	1	10/17/2003 1:33:00 PM
o-Xylene	ND	10.0		µg/Kg	1	10/17/2003 1:33:00 PM
Toluene	ND	10.0		µg/Kg	1	10/17/2003 1:33:00 PM
Surr: 1,2-Dichloroethane-d4	74.0	71.5-112		%REC	1	10/17/2003 1:33:00 PM
Surr: 4-Bromofluorobenzene	88.6	75.7-122		%REC	1	10/17/2003 1:33:00 PM
Surr: Dibromofluoromethane	74.2	64.3-124		%REC	1	10/17/2003 1:33:00 PM
Surr: Toluene-d8	95.4	74.9-120		%REC	1	10/17/2003 1:33:00 PM

BZTO104(e)019769

Specialty Analytical

Date: *28-Oct-03*

CLIENT: Time Oil Co.
Client Sample ID: HB02(5-6)/101503
Lab Order: 0310117
Collection Date: 10/15/2003 10:33:00 AM
Project: NW Terminal-Hand Probes / 231009.31
Lab ID: 0310117-08
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **btf**
Diesel	7170	16.7		mg/Kg-dry	1	10/20/2003
Lube Oil	280	55.6	M	mg/Kg-dry	1	10/20/2003
Surr: o-Terphenyl	522	50-150	S,MI	%REC	1	10/20/2003
NWTPH-GX		**NWTPH-GX**				Analyst: **btf**
Gasoline	1540	27.8		mg/Kg-dry	10	10/17/2003
Surr: 4-Bromofluorobenzene	227	50-150	S,D	%REC	10	10/17/2003
TOTAL METALS BY ICP		**E6010**				Analyst: **tlf**
Lead	ND	1.45		mg/Kg	1	10/18/2003 3:38:45 PM
Zinc	39.1	0.725		mg/Kg	1	10/18/2003 3:38:45 PM
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	507	33.3		µg/Kg	5	10/22/2003 5:04:00 PM
Acenaphthylene	223	33.3		µg/Kg	5	10/22/2003 5:04:00 PM
Anthracene	363	33.3		µg/Kg	5	10/22/2003 5:04:00 PM
Benz(a)anthracene	14.7	6.67		µg/Kg	1	10/22/2003 11:04:00 AM
Benzo(a)pyrene	ND	6.67		µg/Kg	1	10/22/2003 11:04:00 AM
Benzo(b)fluoranthene	ND	6.67		µg/Kg	1	10/22/2003 11:04:00 AM
Benzo(g,h,i)perylene	ND	6.67		µg/Kg	1	10/22/2003 11:04:00 AM
Benzo(k)fluoranthene	ND	6.67		µg/Kg	1	10/22/2003 11:04:00 AM
Chrysene	21.3	6.67		µg/Kg	1	10/22/2003 11:04:00 AM
Dibenz(a,h)anthracene	ND	6.67		µg/Kg	1	10/22/2003 11:04:00 AM
Fluoranthene	33.3	33.3		µg/Kg	5	10/22/2003 5:04:00 PM
Fluorene	1530	33.3		µg/Kg	5	10/22/2003 5:04:00 PM
Indeno(1,2,3-cd)pyrene	ND	6.67		µg/Kg	1	10/22/2003 11:04:00 AM
Naphthalene	383	33.3		µg/Kg	5	10/22/2003 5:04:00 PM
Phenanthrene	2350	33.3		µg/Kg	5	10/22/2003 5:04:00 PM
Pyrene	207	6.67		µg/Kg	1	10/22/2003 11:04:00 AM
Surr: 2-Fluorobiphenyl	41.6	42.6-128	S	%REC	1	10/22/2003 11:04:00 AM
Surr: Nitrobenzene-d5	16.9	21.7-155	S	%REC	1	10/22/2003 11:04:00 AM
Surr: p-Terphenyl-d14	75.4	44.9-155		%REC	1	10/22/2003 11:04:00 AM
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
1,2,4-Trimethylbenzene	12000	1000		µg/Kg	100	10/17/2003 6:41:00 PM
1,2-Dibromoethane	ND	10.0		µg/Kg	1	10/17/2003 4:24:00 PM
1,2-Dichloroethane	ND	10.0		µg/Kg	1	10/17/2003 4:24:00 PM
1,3,5-Trimethylbenzene	1260	100		µg/Kg	10	10/17/2003 2:08:00 PM
Benzene	36.8	10.0		µg/Kg	1	10/17/2003 4:24:00 PM
Ethylbenzene	212	10.0		µg/Kg	1	10/17/2003 4:24:00 PM
Isopropylbenzene	1370	100		µg/Kg	10	10/17/2003 2:08:00 PM
m,p-Xylene	982	200		µg/Kg	10	10/17/2003 2:08:00 PM
Methyl tert-butyl ether	ND	10.0		µg/Kg	1	10/17/2003 4:24:00 PM

BZTO104(e)019770

Specialty Analytical

Date: *28-Oct-03*

CLIENT:	Time Oil Co.	**Client Sample ID:**	HB02(5-6)/101503
Lab Order:	0310117	**Collection Date:**	10/15/2003 10:33:00 AM
Project:	NW Terminal-Hand Probes / 231009.31		
Lab ID:	0310117-08	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
n-Propylbenzene	3390	1000		µg/Kg	100	10/17/2003 6:41:00 PM
o-Xylene	471	100		µg/Kg	10	10/17/2003 2:08:00 PM
Toluene	33.2	10.0		µg/Kg	1	10/17/2003 4:24:00 PM
Surr: 1,2-Dichloroethane-d4	55.4	71.5-112	S,MI	%REC	1	10/17/2003 4:24:00 PM
Surr: 4-Bromofluorobenzene	309	75.7-122	S,E,MI	%REC	1	10/17/2003 4:24:00 PM
Surr: Dibromofluoromethane	57.2	64.3-124	S,MI	%REC	1	10/17/2003 4:24:00 PM
Surr: Toluene-d8	123	74.9-120	S,MI	%REC	1	10/17/2003 4:24:00 PM

BZTO104(e)019771

Specialty Analytical

Date: *28-Oct-03*

CLIENT: Time Oil Co.
Client Sample ID: HB02(10-11)/101503
Lab Order: 0310117
Collection Date: 10/15/2003 10:45:00 AM
Project: NW Terminal-Hand Probes / 231009.31
Lab ID: 0310117-09
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **btf**
Diesel	12000	175		mg/Kg-dry	10	10/21/2003
Lube Oil	ND	585	A3	mg/Kg-dry	10	10/21/2003
Surr: o-Terphenyl	524	50-150	S,D	%REC	10	10/21/2003
NWTPH-GX		**NWTPH-GX**				Analyst: **btf**
Gasoline	1830	29.2		mg/Kg-dry	10	10/17/2003
Surr: 4-Bromofluorobenzene	256	50-150	S,D	%REC	10	10/17/2003
TOTAL METALS BY ICP		**E6010**				Analyst: **tlf**
Lead	ND	1.61		mg/Kg	1	10/18/2003 3:44:13 PM
Zinc	50.1	0.806		mg/Kg	1	10/18/2003 3:44:13 PM
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	1130	66.7		µg/Kg	10	10/22/2003 2:20:00 PM
Acenaphthylene	440	66.7		µg/Kg	10	10/22/2003 2:20:00 PM
Anthracene	653	66.7		µg/Kg	10	10/22/2003 2:20:00 PM
Benz(a)anthracene	35.3	6.67		µg/Kg	1	10/21/2003 12:23:00 PM
Benzo(a)pyrene	12.0	6.67		µg/Kg	1	10/21/2003 12:23:00 PM
Benzo(b)fluoranthene	14.7	6.67		µg/Kg	1	10/21/2003 12:23:00 PM
Benzo(g,h,i)perylene	ND	6.67		µg/Kg	1	10/21/2003 12:23:00 PM
Benzo(k)fluoranthene	ND	6.67		µg/Kg	1	10/21/2003 12:23:00 PM
Chrysene	47.3	6.67		µg/Kg	1	10/21/2003 12:23:00 PM
Dibenz(a,h)anthracene	ND	6.67		µg/Kg	1	10/21/2003 12:23:00 PM
Fluoranthene	107	66.7		µg/Kg	10	10/22/2003 2:20:00 PM
Fluorene	3160	66.7		µg/Kg	10	10/22/2003 2:20:00 PM
Indeno(1,2,3-cd)pyrene	ND	6.67		µg/Kg	1	10/21/2003 12:23:00 PM
Naphthalene	507	66.7		µg/Kg	10	10/22/2003 2:20:00 PM
Phenanthrene	4340	66.7		µg/Kg	10	10/22/2003 2:20:00 PM
Pyrene	471	6.67		µg/Kg	1	10/21/2003 12:23:00 PM
Surr: 2-Fluorobiphenyl	232	42.6-128	S,E,MI	%REC	1	10/21/2003 12:23:00 PM
Surr: Nitrobenzene-d5	62.5	21.7-155	MI	%REC	1	10/21/2003 12:23:00 PM
Surr: p-Terphenyl-d14	90.7	44.9-155		%REC	1	10/21/2003 12:23:00 PM
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
1,2,4-Trimethylbenzene	22.0	10.0		µg/Kg	1	10/18/2003 7:51:00 AM
1,2-Dibromoethane	ND	10.0		µg/Kg	1	10/18/2003 7:51:00 AM
1,2-Dichloroethane	ND	10.0		µg/Kg	1	10/18/2003 7:51:00 AM
1,3,5-Trimethylbenzene	1710	1000		µg/Kg	100	10/21/2003 12:47:00 AM
Benzene	85.7	10.0		µg/Kg	1	10/18/2003 7:51:00 AM
Ethylbenzene	57.4	10.0		µg/Kg	1	10/18/2003 7:51:00 AM
Isopropylbenzene	1930	1000		µg/Kg	100	10/21/2003 12:47:00 AM
m,p-Xylene	194	20.0		µg/Kg	1	10/18/2003 7:51:00 AM
Methyl tert-butyl ether	ND	10.0		µg/Kg	1	10/18/2003 7:51:00 AM

BZTO104(e)019772

Specialty Analytical

Date: *28-Oct-03*

CLIENT:	Time Oil Co.	**Client Sample ID:**	HB02(10-11)/101503
Lab Order:	0310117	**Collection Date:**	10/15/2003 10:45:00 AM
Project:	NW Terminal-Hand Probes / 231009.31		
Lab ID:	0310117-09	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
n-Propylbenzene	3820	1000		µg/Kg	100	10/21/2003 12:47:00 AM
o-Xylene	94.1	10.0		µg/Kg	1	10/18/2003 7:51:00 AM
Toluene	62.5	10.0		µg/Kg	1	10/18/2003 7:51:00 AM
Surr: 1,2-Dichloroethane-d4	43.2	71.5-112	S,MI	%REC	1	10/18/2003 7:51:00 AM
Surr: 4-Bromofluorobenzene	516	75.7-122	S,MI,E	%REC	1	10/18/2003 7:51:00 AM
Surr: Dibromofluoromethane	44.8	64.3-124	S,MI	%REC	1	10/18/2003 7:51:00 AM
Surr: Toluene-d8	143	74.9-120	S,MI	%REC	1	10/18/2003 7:51:00 AM

BZTO104(e)019773

Specialty Analytical

Date: *28-Oct-03*

CLIENT: Time Oil Co.
Client Sample ID: HB02(13-14)/101503
Lab Order: 0310117
Collection Date: 10/15/2003 11:00:00 AM
Project: NW Terminal-Hand Probes / 231009.31
Lab ID: 0310117-10
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **btf**
Diesel	13100	168		mg/Kg-dry	10	10/21/2003
Lube Oil	ND	561	A3	mg/Kg-dry	10	10/21/2003
Surr: o-Terphenyl	540	50-150	S,D	%REC	10	10/21/2003
NWTPH-GX		**NWTPH-GX**				Analyst: **btf**
Gasoline	2670	140		mg/Kg-dry	50	10/20/2003
Surr: 4-Bromofluorobenzene	0	50-150	S	%REC	50	10/20/2003
TOTAL METALS BY ICP		**E6010**				Analyst: **tlf**
Lead	ND	1.43		mg/Kg	1	10/18/2003 3:49:39 PM
Zinc	40.1	0.714		mg/Kg	1	10/18/2003 3:49:39 PM
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	1480	33.3		µg/Kg	5	10/22/2003 2:53:00 PM
Acenaphthylene	483	33.3		µg/Kg	5	10/22/2003 2:53:00 PM
Anthracene	793	33.3		µg/Kg	5	10/22/2003 2:53:00 PM
Benz(a)anthracene	120	33.3		µg/Kg	5	10/22/2003 2:53:00 PM
Benzo(a)pyrene	72.0	6.67		µg/Kg	1	10/21/2003 12:55:00 PM
Benzo(b)fluoranthene	58.7	6.67		µg/Kg	1	10/21/2003 12:55:00 PM
Benzo(g,h,i)perylene	58.7	6.67		µg/Kg	1	10/21/2003 12:55:00 PM
Benzo(k)fluoranthene	20.7	6.67		µg/Kg	1	10/21/2003 12:55:00 PM
Chrysene	147	33.3		µg/Kg	5	10/22/2003 2:53:00 PM
Dibenz(a,h)anthracene	14.0	6.67		µg/Kg	1	10/21/2003 12:55:00 PM
Fluoranthene	107	33.3		µg/Kg	5	10/22/2003 2:53:00 PM
Fluorene	3530	33.3		µg/Kg	5	10/22/2003 2:53:00 PM
Indeno(1,2,3-cd)pyrene	47.3	6.67		µg/Kg	1	10/21/2003 12:55:00 PM
Naphthalene	960	133		µg/Kg	20	10/22/2003 3:26:00 PM
Phenanthrene	6170	33.3		µg/Kg	5	10/22/2003 2:53:00 PM
Pyrene	270	33.3		µg/Kg	5	10/22/2003 2:53:00 PM
Surr: 2-Fluorobiphenyl	40.9	42.6-128	S,MI	%REC	1	10/21/2003 12:55:00 PM
Surr: Nitrobenzene-d5	45.7	21.7-155	MI	%REC	1	10/21/2003 12:55:00 PM
Surr: p-Terphenyl-d14	93.7	44.9-155		%REC	1	10/21/2003 12:55:00 PM
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
1,2,4-Trimethylbenzene	16.9	10.0		µg/Kg	1	10/18/2003 8:26:00 AM
1,2-Dibromoethane	ND	10.0		µg/Kg	1	10/18/2003 8:26:00 AM
1,2-Dichloroethane	ND	10.0		µg/Kg	1	10/18/2003 8:26:00 AM
1,3,5-Trimethylbenzene	2420	1000		µg/Kg	100	10/21/2003 1:21:00 AM
Benzene	94.2	10.0		µg/Kg	1	10/18/2003 8:26:00 AM
Ethylbenzene	56.3	10.0		µg/Kg	1	10/18/2003 8:26:00 AM
Isopropylbenzene	2720	1000		µg/Kg	100	10/21/2003 1:21:00 AM
m,p-Xylene	332	20.0		µg/Kg	1	10/18/2003 8:26:00 AM
Methyl tert-butyl ether	ND	10.0		µg/Kg	1	10/18/2003 8:26:00 AM

BZTO104(e)019774

Specialty Analytical

Date: *28-Oct-03*

CLIENT:	Time Oil Co.	**Client Sample ID:**	HB02(13-14)/101503
Lab Order:	0310117	**Collection Date:**	10/15/2003 11:00:00 AM
Project:	NW Terminal-Hand Probes / 231009.31		
Lab ID:	0310117-10	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
n-Propylbenzene	5630	1000		µg/Kg	100	10/21/2003 1:21:00 AM
o-Xylene	114	10.0		µg/Kg	1	10/18/2003 8:26:00 AM
Toluene	225	10.0		µg/Kg	1	10/18/2003 8:26:00 AM
Surr: 1,2-Dichloroethane-d4	39.3	71.5-112	S,MI	%REC	1	10/18/2003 8:26:00 AM
Surr: 4-Bromofluorobenzene	361	75.7-122	S,MI,E	%REC	1	10/18/2003 8:26:00 AM
Surr: Dibromofluoromethane	41.2	64.3-124	S,MI	%REC	1	10/18/2003 8:26:00 AM
Surr: Toluene-d8	152	74.9-120	S,MI	%REC	1	10/18/2003 8:26:00 AM

BZTO104(e)019775

Specialty Analytical

Date: *28-Oct-03*

CLIENT:	Time Oil Co.	**Client Sample ID:**	HB05(0.5-1)/101503
Lab Order:	0310117	**Collection Date:**	10/15/2003 11:25:00 AM
Project:	NW Terminal-Hand Probes / 231009.31		
Lab ID:	0310117-11	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
HOLD PER CLIENT REQUEST		**PER CLIENT**				Analyst: **ADM**
Hold	HOLD				1	10/20/2003

BZTO104(e)019776

Specialty Analytical

Date: *28-Oct-03*

CLIENT: Time Oil Co.
Client Sample ID: HB05(1-1.5)/101503
Lab Order: 0310117
Collection Date: 10/15/2003 11:30:00 AM
Project: NW Terminal-Hand Probes / 231009.31
Lab ID: 0310117-12
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **btf**
Diesel	2330	16.9		mg/Kg-dry	1	10/20/2003
Lube Oil	429	56.4	M	mg/Kg-dry	1	10/20/2003
Surr: o-Terphenyl	230	50-150	S,MI	%REC	1	10/20/2003
NWTPH-GX		**NWTPH-GX**				Analyst: **btf**
Gasoline	32.8	2.82		mg/Kg-dry	1	10/17/2003
Surr: 4-Bromofluorobenzene	59.2	50-150		%REC	1	10/17/2003
TOTAL METALS BY ICP		**E6010**				Analyst: **tlf**
Lead	28.9	1.52		mg/Kg	1	10/18/2003 3:55:07 PM
Zinc	55.9	0.758		mg/Kg	1	10/18/2003 3:55:07 PM
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	ND	6.67		µg/Kg	1	10/21/2003 1:28:00 PM
Acenaphthylene	ND	6.67		µg/Kg	1	10/21/2003 1:28:00 PM
Anthracene	7.33	6.67		µg/Kg	1	10/21/2003 1:28:00 PM
Benz(a)anthracene	18.0	6.67		µg/Kg	1	10/21/2003 1:28:00 PM
Benzo(a)pyrene	ND	6.67		µg/Kg	1	10/21/2003 1:28:00 PM
Benzo(b)fluoranthene	9.33	6.67		µg/Kg	1	10/21/2003 1:28:00 PM
Benzo(g,h,i)perylene	16.0	6.67		µg/Kg	1	10/21/2003 1:28:00 PM
Benzo(k)fluoranthene	ND	6.67		µg/Kg	1	10/21/2003 1:28:00 PM
Chrysene	ND	6.67		µg/Kg	1	10/21/2003 1:28:00 PM
Dibenz(a,h)anthracene	ND	6.67		µg/Kg	1	10/21/2003 1:28:00 PM
Fluoranthene	14.7	6.67		µg/Kg	1	10/21/2003 1:28:00 PM
Fluorene	13.3	6.67		µg/Kg	1	10/21/2003 1:28:00 PM
Indeno(1,2,3-cd)pyrene	ND	6.67		µg/Kg	1	10/21/2003 1:28:00 PM
Naphthalene	8.00	6.67		µg/Kg	1	10/21/2003 1:28:00 PM
Phenanthrene	16.7	6.67		µg/Kg	1	10/21/2003 1:28:00 PM
Pyrene	ND	6.67		µg/Kg	1	10/21/2003 1:28:00 PM
Surr: 2-Fluorobiphenyl	24.3	42.6-128	S	%REC	1	10/21/2003 1:28:00 PM
Surr: Nitrobenzene-d5	73.3	21.7-155		%REC	1	10/21/2003 1:28:00 PM
Surr: p-Terphenyl-d14	73.8	44.9-155		%REC	1	10/21/2003 1:28:00 PM
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
1,2,4-Trimethylbenzene	ND	10.0		µg/Kg	1	10/20/2003 7:08:00 PM
1,2-Dibromoethane	ND	10.0		µg/Kg	1	10/20/2003 7:08:00 PM
1,2-Dichloroethane	ND	10.0		µg/Kg	1	10/20/2003 7:08:00 PM
1,3,5-Trimethylbenzene	ND	10.0		µg/Kg	1	10/20/2003 7:08:00 PM
Benzene	ND	10.0		µg/Kg	1	10/20/2003 7:08:00 PM
Ethylbenzene	ND	10.0		µg/Kg	1	10/20/2003 7:08:00 PM
Isopropylbenzene	ND	10.0		µg/Kg	1	10/20/2003 7:08:00 PM
m,p-Xylene	29.1	20.0		µg/Kg	1	10/20/2003 7:08:00 PM
Methyl tert-butyl ether	ND	10.0		µg/Kg	1	10/20/2003 7:08:00 PM

BZTO104(e)019777

Specialty Analytical

Date: *28-Oct-03*

CLIENT:	Time Oil Co.	**Client Sample ID:**	HB05(1-1.5)/101503
Lab Order:	0310117	**Collection Date:**	10/15/2003 11:30:00 AM
Project:	NW Terminal-Hand Probes / 231009.31		
Lab ID:	0310117-12	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
n-Propylbenzene	ND	10.0		µg/Kg	1	10/20/2003 7:08:00 PM
o-Xylene	10.2	10.0		µg/Kg	1	10/20/2003 7:08:00 PM
Toluene	ND	10.0		µg/Kg	1	10/20/2003 7:08:00 PM
Surr: 1,2-Dichloroethane-d4	71.5	71.5-112	S	%REC	1	10/20/2003 7:08:00 PM
Surr: 4-Bromofluorobenzene	93.5	75.7-122		%REC	1	10/20/2003 7:08:00 PM
Surr: Dibromofluoromethane	78.1	64.3-124		%REC	1	10/20/2003 7:08:00 PM
Surr: Toluene-d8	92.9	74.9-120		%REC	1	10/20/2003 7:08:00 PM

BZTO104(e)019778

Specialty Analytical

Date: *28-Oct-03*

CLIENT: Time Oil Co.
Client Sample ID: HB05(5-6)/101503
Lab Order: 0310117
Collection Date: 10/15/2003 11:40:00 AM
Project: NW Terminal-Hand Probes / 231009.31
Lab ID: 0310117-13
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **btf**
Diesel	2200	16.7		mg/Kg-dry	1	10/20/2003
Lube Oil	83.3	55.8	M	mg/Kg-dry	1	10/20/2003
Surr: o-Terphenyl	147	50-150		%REC	1	10/20/2003
NWTPH-GX		**NWTPH-GX**				Analyst: **btf**
Gasoline	8120	279		mg/Kg-dry	100	10/17/2003
Surr: 4-Bromofluorobenzene	44.3	50-150	S,D	%REC	100	10/17/2003
TOTAL METALS BY ICP		**E6010**				Analyst: **tlf**
Lead	ND	1.61		mg/Kg	1	10/18/2003 4:00:34 PM
Zinc	44.9	0.806		mg/Kg	1	10/18/2003 4:00:34 PM
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	403	6.67		µg/Kg	1	10/21/2003 2:00:00 PM
Acenaphthylene	68.0	6.67		µg/Kg	1	10/21/2003 2:00:00 PM
Anthracene	96.7	6.67		µg/Kg	1	10/21/2003 2:00:00 PM
Benz(a)anthracene	21.3	6.67		µg/Kg	1	10/21/2003 2:00:00 PM
Benzo(a)pyrene	15.3	6.67		µg/Kg	1	10/21/2003 2:00:00 PM
Benzo(b)fluoranthene	12.7	6.67		µg/Kg	1	10/21/2003 2:00:00 PM
Benzo(g,h,i)perylene	16.7	6.67		µg/Kg	1	10/21/2003 2:00:00 PM
Benzo(k)fluoranthene	ND	6.67		µg/Kg	1	10/21/2003 2:00:00 PM
Chrysene	24.0	6.67		µg/Kg	1	10/21/2003 2:00:00 PM
Dibenz(a,h)anthracene	ND	6.67		µg/Kg	1	10/21/2003 2:00:00 PM
Fluoranthene	43.3	6.67		µg/Kg	1	10/21/2003 2:00:00 PM
Fluorene	647	6.67		µg/Kg	1	10/21/2003 2:00:00 PM
Indeno(1,2,3-cd)pyrene	ND	6.67		µg/Kg	1	10/21/2003 2:00:00 PM
Naphthalene	2090	33.3		µg/Kg	5	10/22/2003 3:58:00 PM
Phenanthrene	779	6.67		µg/Kg	1	10/21/2003 2:00:00 PM
Pyrene	107	6.67		µg/Kg	1	10/21/2003 2:00:00 PM
Surr: 2-Fluorobiphenyl	75.8	42.6-128		%REC	1	10/21/2003 2:00:00 PM
Surr: Nitrobenzene-d5	73.6	21.7-155		%REC	1	10/21/2003 2:00:00 PM
Surr: p-Terphenyl-d14	71.5	44.9-155		%REC	1	10/21/2003 2:00:00 PM
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
1,2,4-Trimethylbenzene	153000	50000		µg/Kg	5000	10/21/2003 7:33:00 PM
1,2-Dibromoethane	ND	10.0		µg/Kg	1	10/18/2003 9:35:00 AM
1,2-Dichloroethane	ND	10.0		µg/Kg	1	10/18/2003 9:35:00 AM
1,3,5-Trimethylbenzene	3890	2500		µg/Kg	500	10/21/2003 2:28:00 AM
Benzene	21.0	10.0		µg/Kg	1	10/18/2003 9:35:00 AM
Ethylbenzene	11400	5000		µg/Kg	500	10/21/2003 2:28:00 AM
Isopropylbenzene	4240	2500		µg/Kg	500	10/21/2003 2:28:00 AM
m,p-Xylene	99400	10000		µg/Kg	500	10/21/2003 2:28:00 AM
Methyl tert-butyl ether	ND	10.0		µg/Kg	1	10/18/2003 9:35:00 AM

BZTO104(e)019779

Specialty Analytical

Date: *28-Oct-03*

CLIENT:	Time Oil Co.	**Client Sample ID:**	HB05(5-6)/101503
Lab Order:	0310117	**Collection Date:**	10/15/2003 11:40:00 AM
Project:	NW Terminal-Hand Probes / 231009.31		
Lab ID:	0310117-13	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
n-Propylbenzene	20000	5000		µg/Kg	500	10/21/2003 2:28:00 AM
o-Xylene	41900	5000		µg/Kg	500	10/21/2003 2:28:00 AM
Toluene	3230	2500		µg/Kg	500	10/21/2003 2:28:00 AM
Surr: 1,2-Dichloroethane-d4	60.0	71.5-112	S,MI	%REC	1	10/18/2003 9:35:00 AM
Surr: 4-Bromofluorobenzene	243	75.7-122	S,E,MI	%REC	1	10/18/2003 9:35:00 AM
Surr: Dibromofluoromethane	58.7	64.3-124	S,MI	%REC	1	10/18/2003 9:35:00 AM
Surr: Toluene-d8	113	74.9-120		%REC	1	10/18/2003 9:35:00 AM

BZTO104(e)019780

Specialty Analytical

Date: *28-Oct-03*

CLIENT: Time Oil Co.
Client Sample ID: HB05(10-11)/101503
Lab Order: 0310117
Collection Date: 10/15/2003 11:50:00 AM
Project: NW Terminal-Hand Probes / 231009.31
Lab ID: 0310117-14
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **btf**
Diesel	5910	17.3		mg/Kg-dry	1	10/20/2003
Lube Oil	101	57.7	M	mg/Kg-dry	1	10/20/2003
Surr: o-Terphenyl	194	50-150	S,MI	%REC	1	10/20/2003
NWTPH-GX		**NWTPH-GX**				Analyst: **btf**
Gasoline	3070	288		mg/Kg-dry	100	10/20/2003
Surr: 4-Bromofluorobenzene	0	50-150	S,D	%REC	100	10/20/2003
TOTAL METALS BY ICP		**E6010**				Analyst: **tlf**
Lead	ND	1.64		mg/Kg	1	10/18/2003 4:44:56 PM
Zinc	45.0	0.820		mg/Kg	1	10/18/2003 4:44:56 PM
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	588	6.67		µg/Kg	1	10/21/2003 2:33:00 PM
Acenaphthylene	162	6.67		µg/Kg	1	10/21/2003 2:33:00 PM
Anthracene	179	6.67		µg/Kg	1	10/21/2003 2:33:00 PM
Benz(a)anthracene	23.3	6.67		µg/Kg	1	10/21/2003 2:33:00 PM
Benzo(a)pyrene	16.7	6.67		µg/Kg	1	10/21/2003 2:33:00 PM
Benzo(b)fluoranthene	17.3	6.67		µg/Kg	1	10/21/2003 2:33:00 PM
Benzo(g,h,i)perylene	11.3	6.67		µg/Kg	1	10/21/2003 2:33:00 PM
Benzo(k)fluoranthene	ND	6.67		µg/Kg	1	10/21/2003 2:33:00 PM
Chrysene	24.7	6.67		µg/Kg	1	10/21/2003 2:33:00 PM
Dibenz(a,h)anthracene	ND	6.67		µg/Kg	1	10/21/2003 2:33:00 PM
Fluoranthene	50.7	6.67		µg/Kg	1	10/21/2003 2:33:00 PM
Fluorene	855	6.67		µg/Kg	1	10/21/2003 2:33:00 PM
Indeno(1,2,3-cd)pyrene	ND	6.67		µg/Kg	1	10/21/2003 2:33:00 PM
Naphthalene	6620	66.7		µg/Kg	10	10/22/2003 4:31:00 PM
Phenanthrene	1170	6.67		µg/Kg	1	10/21/2003 2:33:00 PM
Pyrene	121	6.67		µg/Kg	1	10/21/2003 2:33:00 PM
Surr: 2-Fluorobiphenyl	94.0	42.6-128		%REC	1	10/21/2003 2:33:00 PM
Surr: Nitrobenzene-d5	83.8	21.7-155		%REC	1	10/21/2003 2:33:00 PM
Surr: p-Terphenyl-d14	69.8	44.9-155		%REC	1	10/21/2003 2:33:00 PM
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
1,2,4-Trimethylbenzene	114000	10000		µg/Kg	1000	10/21/2003 3:02:00 AM
1,2-Dibromoethane	ND	10.0		µg/Kg	1	10/18/2003 10:10:00 AM
1,2-Dichloroethane	ND	10.0		µg/Kg	1	10/18/2003 10:10:00 AM
1,3,5-Trimethylbenzene	5130	5000		µg/Kg	1000	10/21/2003 3:02:00 AM
Benzene	5290	5000		µg/Kg	1000	10/21/2003 3:02:00 AM
Ethylbenzene	26800	10000		µg/Kg	1000	10/21/2003 3:02:00 AM
Isopropylbenzene	5270	5000		µg/Kg	1000	10/21/2003 3:02:00 AM
m,p-Xylene	182000	20000		µg/Kg	1000	10/21/2003 3:02:00 AM
Methyl tert-butyl ether	ND	10.0		µg/Kg	1	10/18/2003 10:10:00 AM

BZTO104(e)019781

Specialty Analytical

Date: *28-Oct-03*

CLIENT:	Time Oil Co.	**Client Sample ID:**	HB05(10-11)/101503
Lab Order:	0310117	**Collection Date:**	10/15/2003 11:50:00 AM
Project:	NW Terminal-Hand Probes / 231009.31		
Lab ID:	0310117-14	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
n-Propylbenzene	16000	10000		µg/Kg	1000	10/21/2003 3:02:00 AM
o-Xylene	67900	10000		µg/Kg	1000	10/21/2003 3:02:00 AM
Toluene	64900	10000		µg/Kg	1000	10/21/2003 3:02:00 AM
Surr: 1,2-Dichloroethane-d4	41.8	71.5-112	S,MI	%REC	1	10/18/2003 10:10:00 AM
Surr: 4-Bromofluorobenzene	312	75.7-122	S,MI,E	%REC	1	10/18/2003 10:10:00 AM
Surr: Dibromofluoromethane	39.7	64.3-124	S,MI	%REC	1	10/18/2003 10:10:00 AM
Surr: Toluene-d8	118	74.9-120		%REC	1	10/18/2003 10:10:00 AM

BZTO104(e)019782

Specialty Analytical

Date: *28-Oct-03*

CLIENT:	Time Oil Co.	**Client Sample ID:**	HB04(0.5-1)/101503
Lab Order:	0310117	**Collection Date:**	10/15/2003 1:45:00 PM
Project:	NW Terminal-Hand Probes / 231009.31		
Lab ID:	0310117-15	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
HOLD PER CLIENT REQUEST		**PER CLIENT**				Analyst: **ADM**
Hold	HOLD				1	10/20/2003

BZTO104(e)019783

Specialty Analytical

Date: *28-Oct-03*

CLIENT:	Time Oil Co.	**Client Sample ID:**	HB04(1-1.5)/101503
Lab Order:	0310117	**Collection Date:**	10/15/2003 1:50:00 PM
Project:	NW Terminal-Hand Probes / 231009.31		
Lab ID:	0310117-16	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **btf**
Diesel	31.6	16.1		mg/Kg-dry	1	10/20/2003
Lube Oil	ND	53.6		mg/Kg-dry	1	10/20/2003
Surr: o-Terphenyl	86.2	50-150		%REC	1	10/20/2003
NWTPH-GX		**NWTPH-GX**				Analyst: **btf**
Gasoline	5.70	2.68		mg/Kg-dry	1	10/20/2003
Surr: 4-Bromofluorobenzene	72.1	50-150		%REC	1	10/20/2003
TOTAL METALS BY ICP		**E6010**				Analyst: **tlf**
Lead	ND	1.61		mg/Kg	1	10/18/2003 5:34:12 PM
Zinc	51.0	0.806		mg/Kg	1	10/18/2003 5:34:12 PM
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	ND	6.67		µg/Kg	1	10/21/2003 3:06:00 PM
Acenaphthylene	ND	6.67		µg/Kg	1	10/21/2003 3:06:00 PM
Anthracene	ND	6.67		µg/Kg	1	10/21/2003 3:06:00 PM
Benz(a)anthracene	ND	6.67		µg/Kg	1	10/21/2003 3:06:00 PM
Benzo(a)pyrene	ND	6.67		µg/Kg	1	10/21/2003 3:06:00 PM
Benzo(b)fluoranthene	11.3	6.67		µg/Kg	1	10/21/2003 3:06:00 PM
Benzo(g,h,i)perylene	ND	6.67		µg/Kg	1	10/21/2003 3:06:00 PM
Benzo(k)fluoranthene	ND	6.67		µg/Kg	1	10/21/2003 3:06:00 PM
Chrysene	ND	6.67		µg/Kg	1	10/21/2003 3:06:00 PM
Dibenz(a,h)anthracene	ND	6.67		µg/Kg	1	10/21/2003 3:06:00 PM
Fluoranthene	ND	6.67		µg/Kg	1	10/21/2003 3:06:00 PM
Fluorene	ND	6.67		µg/Kg	1	10/21/2003 3:06:00 PM
Indeno(1,2,3-cd)pyrene	ND	6.67		µg/Kg	1	10/21/2003 3:06:00 PM
Naphthalene	ND	6.67		µg/Kg	1	10/21/2003 3:06:00 PM
Phenanthrene	ND	6.67		µg/Kg	1	10/21/2003 3:06:00 PM
Pyrene	ND	6.67		µg/Kg	1	10/21/2003 3:06:00 PM
Surr: 2-Fluorobiphenyl	76.2	42.6-128		%REC	1	10/21/2003 3:06:00 PM
Surr: Nitrobenzene-d5	64.6	21.7-155		%REC	1	10/21/2003 3:06:00 PM
Surr: p-Terphenyl-d14	75.2	44.9-155		%REC	1	10/21/2003 3:06:00 PM
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
1,2,4-Trimethylbenzene	ND	10.0		µg/Kg	1	10/21/2003 5:46:00 PM
1,2-Dibromoethane	ND	10.0		µg/Kg	1	10/21/2003 5:46:00 PM
1,2-Dichloroethane	ND	10.0		µg/Kg	1	10/21/2003 5:46:00 PM
1,3,5-Trimethylbenzene	ND	10.0		µg/Kg	1	10/21/2003 5:46:00 PM
Benzene	ND	10.0		µg/Kg	1	10/21/2003 5:46:00 PM
Ethylbenzene	ND	10.0		µg/Kg	1	10/21/2003 5:46:00 PM
Isopropylbenzene	ND	10.0		µg/Kg	1	10/21/2003 5:46:00 PM
m,p-Xylene	ND	20.0		µg/Kg	1	10/21/2003 5:46:00 PM
Methyl tert-butyl ether	ND	10.0		µg/Kg	1	10/21/2003 5:46:00 PM

BZTO104(e)019784

Specialty Analytical

Date: *28-Oct-03*

CLIENT:	Time Oil Co.	**Client Sample ID:**	HB04(1-1.5)/101503
Lab Order:	0310117	**Collection Date:**	10/15/2003 1:50:00 PM
Project:	NW Terminal-Hand Probes / 231009.31		
Lab ID:	0310117-16	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
n-Propylbenzene	ND	10.0		µg/Kg	1	10/21/2003 5:46:00 PM
o-Xylene	ND	10.0		µg/Kg	1	10/21/2003 5:46:00 PM
Toluene	ND	10.0		µg/Kg	1	10/21/2003 5:46:00 PM
Surr: 1,2-Dichloroethane-d4	63.4	71.5-112	S	%REC	1	10/21/2003 5:46:00 PM
Surr: 4-Bromofluorobenzene	96.5	75.7-122		%REC	1	10/21/2003 5:46:00 PM
Surr: Dibromofluoromethane	75.9	64.3-124		%REC	1	10/21/2003 5:46:00 PM
Surr: Toluene-d8	99.0	74.9-120		%REC	1	10/21/2003 5:46:00 PM

BZTO104(e)019785

Specialty Analytical

Date: *28-Oct-03*

CLIENT: Time Oil Co.
Client Sample ID: HB04(5-6)/101503
Lab Order: 0310117
Collection Date: 10/15/2003 2:10:00 PM
Project: NW Terminal-Hand Probes / 231009.31
Lab ID: 0310117-17
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **btf**
Diesel	ND	16.9		mg/Kg-dry	1	10/20/2003
Lube Oil	ND	56.2		mg/Kg-dry	1	10/20/2003
Surr: o-Terphenyl	70.4	50-150		%REC	1	10/20/2003
NWTPH-GX		**NWTPH-GX**				Analyst: **btf**
Gasoline	121	28.1		mg/Kg-dry	10	10/17/2003
Surr: 4-Bromofluorobenzene	52.0	50-150		%REC	10	10/17/2003
TOTAL METALS BY ICP		**E6010**				Analyst: **tlf**
Lead	ND	1.67		mg/Kg	1	10/18/2003 5:39:39 PM
Zinc	48.4	0.833		mg/Kg	1	10/18/2003 5:39:39 PM
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	ND	6.67		µg/Kg	1	10/21/2003 3:38:00 PM
Acenaphthylene	ND	6.67		µg/Kg	1	10/21/2003 3:38:00 PM
Anthracene	ND	6.67		µg/Kg	1	10/21/2003 3:38:00 PM
Benz(a)anthracene	ND	6.67		µg/Kg	1	10/21/2003 3:38:00 PM
Benzo(a)pyrene	ND	6.67		µg/Kg	1	10/21/2003 3:38:00 PM
Benzo(b)fluoranthene	ND	6.67		µg/Kg	1	10/21/2003 3:38:00 PM
Benzo(g,h,i)perylene	ND	6.67		µg/Kg	1	10/21/2003 3:38:00 PM
Benzo(k)fluoranthene	ND	6.67		µg/Kg	1	10/21/2003 3:38:00 PM
Chrysene	ND	6.67		µg/Kg	1	10/21/2003 3:38:00 PM
Dibenz(a,h)anthracene	ND	6.67		µg/Kg	1	10/21/2003 3:38:00 PM
Fluoranthene	ND	6.67		µg/Kg	1	10/21/2003 3:38:00 PM
Fluorene	ND	6.67		µg/Kg	1	10/21/2003 3:38:00 PM
Indeno(1,2,3-cd)pyrene	ND	6.67		µg/Kg	1	10/21/2003 3:38:00 PM
Naphthalene	ND	6.67		µg/Kg	1	10/21/2003 3:38:00 PM
Phenanthrene	ND	6.67		µg/Kg	1	10/21/2003 3:38:00 PM
Pyrene	ND	6.67		µg/Kg	1	10/21/2003 3:38:00 PM
Surr: 2-Fluorobiphenyl	58.9	42.6-128		%REC	1	10/21/2003 3:38:00 PM
Surr: Nitrobenzene-d5	54.0	21.7-155		%REC	1	10/21/2003 3:38:00 PM
Surr: p-Terphenyl-d14	72.7	44.9-155		%REC	1	10/21/2003 3:38:00 PM
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
1,2,4-Trimethylbenzene	ND	10.0		µg/Kg	1	10/20/2003 7:42:00 PM
1,2-Dibromoethane	ND	10.0		µg/Kg	1	10/20/2003 7:42:00 PM
1,2-Dichloroethane	ND	10.0		µg/Kg	1	10/20/2003 7:42:00 PM
1,3,5-Trimethylbenzene	ND	10.0		µg/Kg	1	10/20/2003 7:42:00 PM
Benzene	ND	10.0		µg/Kg	1	10/20/2003 7:42:00 PM
Ethylbenzene	ND	10.0		µg/Kg	1	10/20/2003 7:42:00 PM
Isopropylbenzene	ND	10.0		µg/Kg	1	10/20/2003 7:42:00 PM
m,p-Xylene	ND	20.0		µg/Kg	1	10/20/2003 7:42:00 PM
Methyl tert-butyl ether	ND	10.0		µg/Kg	1	10/20/2003 7:42:00 PM

BZTO104(e)019786

Specialty Analytical

Date: *28-Oct-03*

CLIENT: Time Oil Co.
Client Sample ID: HB04(5-6)/101503
Lab Order: 0310117
Collection Date: 10/15/2003 2:10:00 PM
Project: NW Terminal-Hand Probes / 231009.31
Lab ID: 0310117-17
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
n-Propylbenzene	ND	10.0		µg/Kg	1	10/20/2003 7:42:00 PM
o-Xylene	ND	10.0		µg/Kg	1	10/20/2003 7:42:00 PM
Toluene	ND	10.0		µg/Kg	1	10/20/2003 7:42:00 PM
Surr: 1,2-Dichloroethane-d4	69.8	71.5-112	S	%REC	1	10/20/2003 7:42:00 PM
Surr: 4-Bromofluorobenzene	96.2	75.7-122		%REC	1	10/20/2003 7:42:00 PM
Surr: Dibromofluoromethane	78.7	64.3-124		%REC	1	10/20/2003 7:42:00 PM
Surr: Toluene-d8	93.0	74.9-120		%REC	1	10/20/2003 7:42:00 PM

BZTO104(e)019787

Specialty Analytical

Date: *28-Oct-03*

CLIENT: Time Oil Co.
Client Sample ID: HB04(10-11)/101503
Lab Order: 0310117
Collection Date: 10/15/2003 2:25:00 PM
Project: NW Terminal-Hand Probes / 231009.31
Lab ID: 0310117-18
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **btf**
Diesel	893	17.0		mg/Kg-dry	1	10/20/2003
Lube Oil	190	56.6	M	mg/Kg-dry	1	10/20/2003
Surr: o-Terphenyl	152	50-150	S,MI	%REC	1	10/20/2003
NWTPH-GX		**NWTPH-GX**				Analyst: **btf**
Gasoline	10.1	2.83		mg/Kg-dry	1	10/20/2003
Surr: 4-Bromofluorobenzene	52.4	50-150		%REC	1	10/20/2003
TOTAL METALS BY ICP		**E6010**				Analyst: **tlf**
Lead	ND	1.64		mg/Kg	1	10/18/2003 5:45:07 PM
Zinc	45.4	0.820		mg/Kg	1	10/18/2003 5:45:07 PM
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	ND	6.67		µg/Kg	1	10/21/2003 4:11:00 PM
Acenaphthylene	ND	6.67		µg/Kg	1	10/21/2003 4:11:00 PM
Anthracene	ND	6.67		µg/Kg	1	10/21/2003 4:11:00 PM
Benz(a)anthracene	ND	6.67		µg/Kg	1	10/21/2003 4:11:00 PM
Benzo(a)pyrene	ND	6.67		µg/Kg	1	10/21/2003 4:11:00 PM
Benzo(b)fluoranthene	ND	6.67		µg/Kg	1	10/21/2003 4:11:00 PM
Benzo(g,h,i)perylene	ND	6.67		µg/Kg	1	10/21/2003 4:11:00 PM
Benzo(k)fluoranthene	ND	6.67		µg/Kg	1	10/21/2003 4:11:00 PM
Chrysene	ND	6.67		µg/Kg	1	10/21/2003 4:11:00 PM
Dibenz(a,h)anthracene	ND	6.67		µg/Kg	1	10/21/2003 4:11:00 PM
Fluoranthene	ND	6.67		µg/Kg	1	10/21/2003 4:11:00 PM
Fluorene	11.3	6.67		µg/Kg	1	10/21/2003 4:11:00 PM
Indeno(1,2,3-cd)pyrene	ND	6.67		µg/Kg	1	10/21/2003 4:11:00 PM
Naphthalene	ND	6.67		µg/Kg	1	10/21/2003 4:11:00 PM
Phenanthrene	ND	6.67		µg/Kg	1	10/21/2003 4:11:00 PM
Pyrene	ND	6.67		µg/Kg	1	10/21/2003 4:11:00 PM
Surr: 2-Fluorobiphenyl	73.6	42.6-128		%REC	1	10/21/2003 4:11:00 PM
Surr: Nitrobenzene-d5	64.7	21.7-155		%REC	1	10/21/2003 4:11:00 PM
Surr: p-Terphenyl-d14	74.5	44.9-155		%REC	1	10/21/2003 4:11:00 PM
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
1,2,4-Trimethylbenzene	ND	10.0		µg/Kg	1	10/20/2003 8:16:00 PM
1,2-Dibromoethane	ND	10.0		µg/Kg	1	10/20/2003 8:16:00 PM
1,2-Dichloroethane	ND	10.0		µg/Kg	1	10/20/2003 8:16:00 PM
1,3,5-Trimethylbenzene	ND	10.0		µg/Kg	1	10/20/2003 8:16:00 PM
Benzene	ND	10.0		µg/Kg	1	10/20/2003 8:16:00 PM
Ethylbenzene	ND	10.0		µg/Kg	1	10/20/2003 8:16:00 PM
Isopropylbenzene	ND	10.0		µg/Kg	1	10/20/2003 8:16:00 PM
m,p-Xylene	ND	20.0		µg/Kg	1	10/20/2003 8:16:00 PM
Methyl tert-butyl ether	ND	10.0		µg/Kg	1	10/20/2003 8:16:00 PM

BZTO104(e)019788

Specialty Analytical

Date: *28-Oct-03*

CLIENT: Time Oil Co.
Client Sample ID: HB04(10-11)/101503
Lab Order: 0310117
Collection Date: 10/15/2003 2:25:00 PM
Project: NW Terminal-Hand Probes / 231009.31
Lab ID: 0310117-18
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
n-Propylbenzene	ND	10.0		µg/Kg	1	10/20/2003 8:16:00 PM
o-Xylene	ND	10.0		µg/Kg	1	10/20/2003 8:16:00 PM
Toluene	ND	10.0		µg/Kg	1	10/20/2003 8:16:00 PM
Surr: 1,2-Dichloroethane-d4	72.8	71.5-112		%REC	1	10/20/2003 8:16:00 PM
Surr: 4-Bromofluorobenzene	92.6	75.7-122		%REC	1	10/20/2003 8:16:00 PM
Surr: Dibromofluoromethane	80.1	64.3-124		%REC	1	10/20/2003 8:16:00 PM
Surr: Toluene-d8	94.6	74.9-120		%REC	1	10/20/2003 8:16:00 PM

BZTO104(e)019789

Specialty Analytical

Date: *28-Oct-03*

CLIENT: Time Oil Co.
Client Sample ID: HB04(12-13)/101503
Lab Order: 0310117
Collection Date: 10/15/2003 2:40:00 PM
Project: NW Terminal-Hand Probes / 231009.31
Lab ID: 0310117-19
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **btf**
Diesel	2430	17.6		mg/Kg-dry	1	10/20/2003
Lube Oil	117	58.8	M	mg/Kg-dry	1	10/20/2003
Surr: o-Terphenyl	206	50-150	S,MI	%REC	1	10/20/2003
NWTPH-GX		**NWTPH-GX**				Analyst: **btf**
Gasoline	1330	29.4		mg/Kg-dry	10	10/17/2003
Surr: 4-Bromofluorobenzene	235	50-150	S,D	%REC	10	10/17/2003
TOTAL METALS BY ICP		**E6010**				Analyst: **tlf**
Lead	ND	1.56		mg/Kg	1	10/18/2003 5:50:34 PM
Zinc	43.2	0.781		mg/Kg	1	10/18/2003 5:50:34 PM
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	22.7	6.67		µg/Kg	1	10/21/2003 4:44:00 PM
Acenaphthylene	82.0	6.67		µg/Kg	1	10/21/2003 4:44:00 PM
Anthracene	36.0	6.67		µg/Kg	1	10/21/2003 4:44:00 PM
Benz(a)anthracene	30.0	6.67		µg/Kg	1	10/21/2003 4:44:00 PM
Benzo(a)pyrene	27.3	6.67		µg/Kg	1	10/21/2003 4:44:00 PM
Benzo(b)fluoranthene	26.0	6.67		µg/Kg	1	10/21/2003 4:44:00 PM
Benzo(g,h,i)perylene	12.7	6.67		µg/Kg	1	10/21/2003 4:44:00 PM
Benzo(k)fluoranthene	10.7	6.67		µg/Kg	1	10/21/2003 4:44:00 PM
Chrysene	25.3	6.67		µg/Kg	1	10/21/2003 4:44:00 PM
Dibenz(a,h)anthracene	ND	6.67		µg/Kg	1	10/21/2003 4:44:00 PM
Fluoranthene	60.0	6.67		µg/Kg	1	10/21/2003 4:44:00 PM
Fluorene	451	6.67		µg/Kg	1	10/21/2003 4:44:00 PM
Indeno(1,2,3-cd)pyrene	10.0	6.67		µg/Kg	1	10/21/2003 4:44:00 PM
Naphthalene	125	6.67		µg/Kg	1	10/21/2003 4:44:00 PM
Phenanthrene	101	6.67		µg/Kg	1	10/21/2003 4:44:00 PM
Pyrene	101	6.67		µg/Kg	1	10/21/2003 4:44:00 PM
Surr: 2-Fluorobiphenyl	87.5	42.6-128		%REC	1	10/21/2003 4:44:00 PM
Surr: Nitrobenzene-d5	76.9	21.7-155		%REC	1	10/21/2003 4:44:00 PM
Surr: p-Terphenyl-d14	78.7	44.9-155		%REC	1	10/21/2003 4:44:00 PM
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
1,2,4-Trimethylbenzene	15.7	10.0		µg/Kg	1	10/18/2003 12:28:00 PM
1,2-Dibromoethane	ND	10.0		µg/Kg	1	10/18/2003 12:28:00 PM
1,2-Dichloroethane	ND	10.0		µg/Kg	1	10/18/2003 12:28:00 PM
1,3,5-Trimethylbenzene	1090	100		µg/Kg	10	10/21/2003 1:55:00 AM
Benzene	ND	10.0		µg/Kg	1	10/18/2003 12:28:00 PM
Ethylbenzene	ND	10.0		µg/Kg	1	10/18/2003 12:28:00 PM
Isopropylbenzene	1420	100		µg/Kg	10	10/21/2003 1:55:00 AM
m,p-Xylene	44.8	20.0		µg/Kg	1	10/18/2003 12:28:00 PM
Methyl tert-butyl ether	ND	10.0		µg/Kg	1	10/18/2003 12:28:00 PM

BZTO104(e)019790

Specialty Analytical

Date: *28-Oct-03*

CLIENT: Time Oil Co.
Client Sample ID: HB04(12-13)/101503
Lab Order: 0310117
Collection Date: 10/15/2003 2:40:00 PM
Project: NW Terminal-Hand Probes / 231009.31
Lab ID: 0310117-19
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
n-Propylbenzene	1600	100		µg/Kg	10	10/21/2003 1:55:00 AM
o-Xylene	30.4	10.0		µg/Kg	1	10/18/2003 12:28:00 PM
Toluene	20.5	10.0		µg/Kg	1	10/18/2003 12:28:00 PM
Surr: 1,2-Dichloroethane-d4	70.7	71.5-112	S,MI	%REC	1	10/18/2003 12:28:00 PM
Surr: 4-Bromofluorobenzene	265	75.7-122	S,MI,E	%REC	1	10/18/2003 12:28:00 PM
Surr: Dibromofluoromethane	70.6	64.3-124		%REC	1	10/18/2003 12:28:00 PM
Surr: Toluene-d8	133	74.9-120	S,MI	%REC	1	10/18/2003 12:28:00 PM

BZTO104(e)019791

Specialty Analytical

Date: *28-Oct-03*

CLIENT:	Time Oil Co.	**Client Sample ID:**	HB03(0.5-1)/101503
Lab Order:	0310117	**Collection Date:**	10/15/2003 3:35:00 PM
Project:	NW Terminal-Hand Probes / 231009.31		
Lab ID:	0310117-20	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
HOLD PER CLIENT REQUEST		**PER CLIENT**				Analyst: **ADM**
Hold	HOLD				1	10/20/2003

BZTO104(e)019792

Specialty Analytical

Date: *28-Oct-03*

CLIENT:	Time Oil Co.	**Client Sample ID:**	HB03(1-1.5)/101503
Lab Order:	0310117	**Collection Date:**	10/15/2003 3:40:00 PM
Project:	NW Terminal-Hand Probes / 231009.31		
Lab ID:	0310117-21	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **btf**
Diesel	681	16.7		mg/Kg-dry	1	10/20/2003
Lube Oil	229	55.6	M	mg/Kg-dry	1	10/20/2003
Surr: o-Terphenyl	149	50-150		%REC	1	10/20/2003
NWTPH-GX		**NWTPH-GX**				Analyst: **btf**
Gasoline	ND	2.78		mg/Kg-dry	1	10/20/2003
Surr: 4-Bromofluorobenzene	63.1	50-150		%REC	1	10/20/2003
TOTAL METALS BY ICP		**E6010**				Analyst: **tlf**
Lead	2.99	1.61		mg/Kg	1	10/18/2003 5:56:02 PM
Zinc	70.0	0.806		mg/Kg	1	10/18/2003 5:56:02 PM
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	ND	6.67		µg/Kg	1	10/22/2003 9:59:00 AM
Acenaphthylene	ND	6.67		µg/Kg	1	10/22/2003 9:59:00 AM
Anthracene	ND	6.67		µg/Kg	1	10/22/2003 9:59:00 AM
Benz(a)anthracene	16.0	6.67		µg/Kg	1	10/22/2003 9:59:00 AM
Benzo(a)pyrene	ND	6.67		µg/Kg	1	10/22/2003 9:59:00 AM
Benzo(b)fluoranthene	ND	6.67		µg/Kg	1	10/22/2003 9:59:00 AM
Benzo(g,h,i)perylene	11.3	6.67		µg/Kg	1	10/22/2003 9:59:00 AM
Benzo(k)fluoranthene	ND	6.67		µg/Kg	1	10/22/2003 9:59:00 AM
Chrysene	ND	6.67		µg/Kg	1	10/22/2003 9:59:00 AM
Dibenz(a,h)anthracene	ND	6.67		µg/Kg	1	10/22/2003 9:59:00 AM
Fluoranthene	ND	6.67		µg/Kg	1	10/22/2003 9:59:00 AM
Fluorene	ND	6.67		µg/Kg	1	10/22/2003 9:59:00 AM
Indeno(1,2,3-cd)pyrene	ND	6.67		µg/Kg	1	10/22/2003 9:59:00 AM
Naphthalene	ND	6.67		µg/Kg	1	10/22/2003 9:59:00 AM
Phenanthrene	8.00	6.67		µg/Kg	1	10/22/2003 9:59:00 AM
Pyrene	ND	6.67		µg/Kg	1	10/22/2003 9:59:00 AM
Surr: 2-Fluorobiphenyl	46.8	42.6-128		%REC	1	10/22/2003 9:59:00 AM
Surr: Nitrobenzene-d5	47.1	21.7-155		%REC	1	10/22/2003 9:59:00 AM
Surr: p-Terphenyl-d14	87.3	44.9-155		%REC	1	10/22/2003 9:59:00 AM
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
1,2,4-Trimethylbenzene	ND	10.0		µg/Kg	1	10/18/2003 1:02:00 PM
1,2-Dibromoethane	ND	10.0		µg/Kg	1	10/18/2003 1:02:00 PM
1,2-Dichloroethane	ND	10.0		µg/Kg	1	10/18/2003 1:02:00 PM
1,3,5-Trimethylbenzene	ND	10.0		µg/Kg	1	10/18/2003 1:02:00 PM
Benzene	ND	10.0		µg/Kg	1	10/18/2003 1:02:00 PM
Ethylbenzene	ND	10.0		µg/Kg	1	10/18/2003 1:02:00 PM
Isopropylbenzene	ND	10.0		µg/Kg	1	10/18/2003 1:02:00 PM
m,p-Xylene	30.4	20.0		µg/Kg	1	10/18/2003 1:02:00 PM
Methyl tert-butyl ether	ND	10.0		µg/Kg	1	10/18/2003 1:02:00 PM

BZTO104(e)019793

Specialty Analytical

Date: *28-Oct-03*

CLIENT: Time Oil Co.
Client Sample ID: HB03(1-1.5)/101503
Lab Order: 0310117
Collection Date: 10/15/2003 3:40:00 PM
Project: NW Terminal-Hand Probes / 231009.31
Lab ID: 0310117-21
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
n-Propylbenzene	ND	10.0		µg/Kg	1	10/18/2003 1:02:00 PM
o-Xylene	ND	10.0		µg/Kg	1	10/18/2003 1:02:00 PM
Toluene	ND	10.0		µg/Kg	1	10/18/2003 1:02:00 PM
Surr: 1,2-Dichloroethane-d4	86.6	71.5-112		%REC	1	10/18/2003 1:02:00 PM
Surr: 4-Bromofluorobenzene	87.4	75.7-122		%REC	1	10/18/2003 1:02:00 PM
Surr: Dibromofluoromethane	78.4	64.3-124		%REC	1	10/18/2003 1:02:00 PM
Surr: Toluene-d8	88.6	74.9-120		%REC	1	10/18/2003 1:02:00 PM

BZTO104(e)019794

Specialty Analytical

Date: *28-Oct-03*

CLIENT: Time Oil Co.
Client Sample ID: HB03(5-6)/101503
Lab Order: 0310117
Collection Date: 10/15/2003 4:00:00 PM
Project: NW Terminal-Hand Probes / 231009.31
Lab ID: 0310117-22
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **btf**
Diesel	159	16.7		mg/Kg-dry	1	10/20/2003
Lube Oil	70.7	55.6	M	mg/Kg-dry	1	10/20/2003
Surr: o-Terphenyl	106	50-150		%REC	1	10/20/2003
NWTPH-GX		**NWTPH-GX**				Analyst: **btf**
Gasoline	3.43	2.78		mg/Kg-dry	1	10/20/2003
Surr: 4-Bromofluorobenzene	61.7	50-150		%REC	1	10/20/2003
TOTAL METALS BY ICP		**E6010**				Analyst: **tlf**
Lead	3.58	1.54		mg/Kg	1	10/18/2003 6:01:30 PM
Zinc	45.4	0.769		mg/Kg	1	10/18/2003 6:01:30 PM
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	ND	6.67		µg/Kg	1	10/22/2003 10:31:00 AM
Acenaphthylene	ND	6.67		µg/Kg	1	10/22/2003 10:31:00 AM
Anthracene	ND	6.67		µg/Kg	1	10/22/2003 10:31:00 AM
Benz(a)anthracene	ND	6.67		µg/Kg	1	10/22/2003 10:31:00 AM
Benzo(a)pyrene	ND	6.67		µg/Kg	1	10/22/2003 10:31:00 AM
Benzo(b)fluoranthene	ND	6.67		µg/Kg	1	10/22/2003 10:31:00 AM
Benzo(g,h,i)perylene	ND	6.67		µg/Kg	1	10/22/2003 10:31:00 AM
Benzo(k)fluoranthene	ND	6.67		µg/Kg	1	10/22/2003 10:31:00 AM
Chrysene	ND	6.67		µg/Kg	1	10/22/2003 10:31:00 AM
Dibenz(a,h)anthracene	ND	6.67		µg/Kg	1	10/22/2003 10:31:00 AM
Fluoranthene	ND	6.67		µg/Kg	1	10/22/2003 10:31:00 AM
Fluorene	ND	6.67		µg/Kg	1	10/22/2003 10:31:00 AM
Indeno(1,2,3-cd)pyrene	ND	6.67		µg/Kg	1	10/22/2003 10:31:00 AM
Naphthalene	ND	6.67		µg/Kg	1	10/22/2003 10:31:00 AM
Phenanthrene	ND	6.67		µg/Kg	1	10/22/2003 10:31:00 AM
Pyrene	ND	6.67		µg/Kg	1	10/22/2003 10:31:00 AM
Surr: 2-Fluorobiphenyl	75.6	42.6-128		%REC	1	10/22/2003 10:31:00 AM
Surr: Nitrobenzene-d5	67.9	21.7-155		%REC	1	10/22/2003 10:31:00 AM
Surr: p-Terphenyl-d14	88.1	44.9-155		%REC	1	10/22/2003 10:31:00 AM
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
1,2,4-Trimethylbenzene	ND	10.0		µg/Kg	1	10/20/2003 8:50:00 PM
1,2-Dibromoethane	ND	10.0		µg/Kg	1	10/20/2003 8:50:00 PM
1,2-Dichloroethane	ND	10.0		µg/Kg	1	10/20/2003 8:50:00 PM
1,3,5-Trimethylbenzene	ND	10.0		µg/Kg	1	10/20/2003 8:50:00 PM
Benzene	ND	10.0		µg/Kg	1	10/20/2003 8:50:00 PM
Ethylbenzene	ND	10.0		µg/Kg	1	10/20/2003 8:50:00 PM
Isopropylbenzene	ND	10.0		µg/Kg	1	10/20/2003 8:50:00 PM
m,p-Xylene	ND	20.0		µg/Kg	1	10/20/2003 8:50:00 PM
Methyl tert-butyl ether	ND	10.0		µg/Kg	1	10/20/2003 8:50:00 PM

BZTO104(e)019795

Specialty Analytical

Date: *28-Oct-03*

CLIENT:	Time Oil Co.	**Client Sample ID:**	HB03(5-6)/101503
Lab Order:	0310117	**Collection Date:**	10/15/2003 4:00:00 PM
Project:	NW Terminal-Hand Probes / 231009.31		
Lab ID:	0310117-22	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
n-Propylbenzene	ND	10.0		µg/Kg	1	10/20/2003 8:50:00 PM
o-Xylene	ND	10.0		µg/Kg	1	10/20/2003 8:50:00 PM
Toluene	ND	10.0		µg/Kg	1	10/20/2003 8:50:00 PM
Surr: 1,2-Dichloroethane-d4	72.6	71.5-112		%REC	1	10/20/2003 8:50:00 PM
Surr: 4-Bromofluorobenzene	99.3	75.7-122		%REC	1	10/20/2003 8:50:00 PM
Surr: Dibromofluoromethane	81.5	64.3-124		%REC	1	10/20/2003 8:50:00 PM
Surr: Toluene-d8	95.8	74.9-120		%REC	1	10/20/2003 8:50:00 PM

BZTO104(e)019796

Specialty Analytical

Date: *28-Oct-03*

CLIENT: Time Oil Co.
Client Sample ID: HB03(10-11)/101503
Lab Order: 0310117
Collection Date: 10/15/2003 4:15:00 PM
Project: NW Terminal-Hand Probes / 231009.31
Lab ID: 0310117-23
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **btf**
Diesel	5250	17.4		mg/Kg-dry	1	10/20/2003
Lube Oil	218	57.9	M	mg/Kg-dry	1	10/20/2003
Surr: o-Terphenyl	226	50-150	S,MI	%REC	1	10/20/2003
NWTPH-GX		**NWTPH-GX**				Analyst: **btf**
Gasoline	8560	290		mg/Kg-dry	100	10/21/2003
Surr: 4-Bromofluorobenzene	0.671	50-150	S,D	%REC	100	10/21/2003
TOTAL METALS BY ICP		**E6010**				Analyst: **tlf**
Lead	2.05	1.61		mg/Kg	1	10/18/2003 6:06:57 PM
Zinc	44.8	0.806		mg/Kg	1	10/18/2003 6:06:57 PM
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	656	6.67		µg/Kg	1	10/20/2003 9:52:00 PM
Acenaphthylene	162	6.67		µg/Kg	1	10/20/2003 9:52:00 PM
Anthracene	312	6.67		µg/Kg	1	10/20/2003 9:52:00 PM
Benz(a)anthracene	17.3	6.67		µg/Kg	1	10/20/2003 9:52:00 PM
Benzo(a)pyrene	7.33	6.67		µg/Kg	1	10/20/2003 9:52:00 PM
Benzo(b)fluoranthene	10.0	6.67		µg/Kg	1	10/20/2003 9:52:00 PM
Benzo(g,h,i)perylene	ND	6.67		µg/Kg	1	10/20/2003 9:52:00 PM
Benzo(k)fluoranthene	ND	6.67		µg/Kg	1	10/20/2003 9:52:00 PM
Chrysene	24.0	6.67		µg/Kg	1	10/20/2003 9:52:00 PM
Dibenz(a,h)anthracene	ND	6.67		µg/Kg	1	10/20/2003 9:52:00 PM
Fluoranthene	65.3	6.67		µg/Kg	1	10/20/2003 9:52:00 PM
Fluorene	1220	6.67		µg/Kg	1	10/20/2003 9:52:00 PM
Indeno(1,2,3-cd)pyrene	ND	6.67		µg/Kg	1	10/20/2003 9:52:00 PM
Naphthalene	10600	66.7		µg/Kg	10	10/22/2003 11:37:00 AM
Phenanthrene	2030	66.7		µg/Kg	10	10/22/2003 11:37:00 AM
Pyrene	152	6.67		µg/Kg	1	10/20/2003 9:52:00 PM
Surr: 2-Fluorobiphenyl	108	42.6-128		%REC	1	10/20/2003 9:52:00 PM
Surr: Nitrobenzene-d5	86.8	21.7-155		%REC	1	10/20/2003 9:52:00 PM
Surr: p-Terphenyl-d14	93.4	44.9-155		%REC	1	10/20/2003 9:52:00 PM
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
1,2,4-Trimethylbenzene	151000	50000		µg/Kg	5000	10/21/2003 8:08:00 PM
1,2-Dibromoethane	ND	10.0		µg/Kg	1	10/18/2003 2:11:00 PM
1,2-Dichloroethane	ND	100	Q	µg/Kg	10	10/21/2003 6:59:00 AM
1,3,5-Trimethylbenzene	8130	5000		µg/Kg	1000	10/21/2003 3:36:00 AM
Benzene	ND	100	Q	µg/Kg	10	10/21/2003 6:59:00 AM
Ethylbenzene	39000	10000		µg/Kg	1000	10/21/2003 3:36:00 AM
Isopropylbenzene	8930	5000		µg/Kg	1000	10/21/2003 3:36:00 AM
m,p-Xylene	182000	100000		µg/Kg	5000	10/21/2003 8:08:00 PM
Methyl tert-butyl ether	ND	100	Q	µg/Kg	10	10/21/2003 6:59:00 AM

BZTO104(e)019797

Specialty Analytical

Date: *28-Oct-03*

CLIENT: Time Oil Co.
Client Sample ID: HB03(10-11)/101503
Lab Order: 0310117
Collection Date: 10/15/2003 4:15:00 PM
Project: NW Terminal-Hand Probes / 231009.31
Lab ID: 0310117-23
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
n-Propylbenzene	28800	10000		µg/Kg	1000	10/21/2003 3:36:00 AM
o-Xylene	112000	10000		µg/Kg	1000	10/21/2003 3:36:00 AM
Toluene	1780	100		µg/Kg	10	10/21/2003 6:59:00 AM
Surr: 1,2-Dichloroethane-d4	25.5	71.5-112	S,MI	%REC	1	10/18/2003 2:11:00 PM
Surr: 1,2-Dichloroethane-d4	51.4	71.5-112	S,MI	%REC	10	10/21/2003 6:59:00 AM
Surr: 4-Bromofluorobenzene	228	75.7-122	S,MI	%REC	1	10/18/2003 2:11:00 PM
Surr: Dibromofluoromethane	28.6	64.3-124	S,MI	%REC	1	10/18/2003 2:11:00 PM
Surr: Dibromofluoromethane	51.2	64.3-124	S,MI	%REC	10	10/21/2003 6:59:00 AM
Surr: Toluene-d8	110	74.9-120		%REC	1	10/18/2003 2:11:00 PM

BZTO104(e)019798

KEY TO FLAGS

A. This sample contains a Gasoline Range Organic not identified as a specific hydrocarbon product. The result was quantified against gasoline calibration standards.

A1. This sample contains a Diesel Range Organic not identified as a specific hydrocarbon product. The result was quantified against diesel calibration standards.

A2. This sample contains a Lube Oil Range Organic not identified as a specific hydrocarbon product. The result was quantified against lube oil calibration standards.

A3. Results determined to be non detect based on hydrocarbon pattern recognition. The product was carry-over from another hydrocarbon type.

B. The blank exhibited a positive result greater than the reporting limit for this compound.

C. The result confirmed by secondary column or GC/MS analysis.

CN. See case narrative.

CR. Result for this analyte maybe biased due to interferences. Confirmation by GC/MS or other technique is recommended.

D. Surrogate was diluted outside reporting range.

E. Result exceeds the calibration range for the compound. The result should be considered an estimate.

F. The positive result for this hydrocarbon is due to single component contamination. The product does not match any hydrocarbon in the fuels library.

G. Result may be biased high due to biogenic interferences. Silica gel clean-up recommended.

H. Sample was analyzed outside recommended holding times.

HT. At clients request, sample was analyzed outside method recommended holding time.

J. The result for this analyte is between the MDL and the PQL, and should be considered an estimated concentration.

K. Diesel result is biased high due to amount of oil contained in the sample.

L. Diesel result is biased high due to amount of gasoline contained in the sample.

M. Oil result is biased high due to amount of diesel contained in the sample.

MC. Sample concentration is greater than 4x the spiked value; the spiked value is considered insignificant.

MI. Outside control limits due to Matrix Interference.

MSA. Value determined by Method of Standard Addition.

N. Sample appears to contain biogenic material biasing quantification.

O. Laboratory Control Standard (LCS) exceeded laboratory control limits, meets CCV criteria. Data meets EPA requirements.

P. Detected levels of Methylene Chloride may be due to laboratory contamination, due to previous analysis or background levels.

Q. Detection limits elevated due to sample matrix.

R. RPD control limits were exceeded.

RF. Duplicate failed, due to result being at or near method reporting limit.

RP. Matrix spike values exceed established QC limits, post digestion spike is in control.

S. Recovery outside control limits.

*. The result for this parameter was greater than the maximum contaminant level or the TCLP regulatory limit.

rev. October 23, 2001

CLIENT: Time Oil Co.
Work Order: 0310117
Project: NW Terminal-Hand Probes / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID	MBLK-9786	SampType:	MBLK	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	10/17/2003	Run ID:	TJA IRIS_031018A
Client ID:	ZZZZZ	Batch ID:	9786	TestNo:	E6010			Analysis Date:	10/18/2003	SeqNo:	219764

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	2.00									
Cadmium	ND	0.100									
Chromium	0.22	0.500									J
Lead	1.23	2.00									J
Selenium	ND	2.00									
Zinc	ND	1.00									

Sample ID	MBLK-9787	SampType:	MBLK	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	10/17/2003	Run ID:	TJA IRIS_031018B
Client ID:	ZZZZZ	Batch ID:	9787	TestNo:	E6010			Analysis Date:	10/18/2003	SeqNo:	219805

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	2.00									
Zinc	ND	1.00									

Sample ID	MBLK-9786	SampType:	MBLK	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	10/17/2003	Run ID:	TJA IRIS_031018C
Client ID:	ZZZZZ	Batch ID:	9786	TestNo:	E6010			Analysis Date:	10/18/2003	SeqNo:	219863

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	2.00									
Beryllium	ND	0.100									
Cadmium	ND	0.100									
Calcium	ND	5.00									
Chromium	0.22	0.500									J
Cobalt	ND	0.500									
Lead	ND	2.00									
Magnesium	ND	1.00									
Nickel	ND	0.500									
Selenium	ND	2.00									
Vanadium	ND	1.00									

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019800

CLIENT: Time Oil Co.
Work Order: 0310117
Project: NW Terminal-Hand Probes / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID	MBLK-9786	SampType:	MBLK	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	10/17/2003	Run ID:	TJA IRIS_031020A
Client ID:	ZZZZZ	Batch ID:	9786	TestNo:	E6010			Analysis Date:	10/20/2003	SeqNo:	219953

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Zinc	0.13	1.00									J

Sample ID	MBLK-9786	SampType:	MBLK	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	10/17/2003	Run ID:	TJA IRIS_031020B
Client ID:	ZZZZZ	Batch ID:	9786	TestNo:	E6010			Analysis Date:	10/20/2003	SeqNo:	220056

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	ND	1.00									
Zinc	0.13	1.00									J

Sample ID	LCS-9786	SampType:	LCS	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	10/17/2003	Run ID:	TJA IRIS_031018A
Client ID:	ZZZZZ	Batch ID:	9786	TestNo:	E6010			Analysis Date:	10/18/2003	SeqNo:	219765

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	91.79	2.00	100	0	91.8	87.6	110	0	0		
Cadmium	4.76	0.100	5	0	95.2	90.8	109	0	0		
Chromium	22.74	0.500	25	0.22	90.1	91.7	114	0	0		S,O
Lead	93.43	2.00	100	1.23	92.2	92.9	109	0	0		S,O
Selenium	97.78	2.00	100	0	97.8	90.2	112	0	0		
Zinc	48.26	1.00	50	0	96.5	88.1	111	0	0		

Sample ID	LCS-9787	SampType:	LCS	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	10/17/2003	Run ID:	TJA IRIS_031018B
Client ID:	ZZZZZ	Batch ID:	9787	TestNo:	E6010			Analysis Date:	10/18/2003	SeqNo:	219806

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	94.64	2.00	100	0	94.6	92.9	109	0	0		
Zinc	49.93	1.00	50	0	99.9	88.1	111	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019801

CLIENT: Time Oil Co.
Work Order: 0310117
Project: NW Terminal-Hand Probes / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID LCS-9786	SampType: LCS	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/17/2003	Run ID: TJA IRIS_031018C
Client ID: ZZZZZ	Batch ID: 9786	TestNo: E6010		Analysis Date: 10/18/2003	SeqNo: 219864

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	91.79	2.00	100	0	91.8	87.6	110	0	0		
Beryllium	4.794	0.100	5	0	95.9	89.2	112	0	0		
Cadmium	4.76	0.100	5	0	95.2	90.8	109	0	0		
Calcium	2352	5.00	2500	0	94.1	88.3	108	0	0		
Chromium	22.74	0.500	25	0.22	90.1	91.7	114	0	0		S,O
Cobalt	23.6	0.500	25	0	94.4	80	120	0	0		
Lead	93.43	2.00	100	0	93.4	92.9	109	0	0		
Magnesium	471.4	1.00	500	0	94.3	80	120	0	0		
Nickel	23.38	0.500	25	0	93.5	91.8	109	0	0		
Selenium	97.78	2.00	100	0	97.8	90.2	112	0	0		
Vanadium	48.81	1.00	50	0	97.6	80	120	0	0		

Sample ID LCS-9786	SampType: LCS	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/17/2003	Run ID: TJA IRIS_031020A
Client ID: ZZZZZ	Batch ID: 9786	TestNo: E6010		Analysis Date: 10/20/2003	SeqNo: 219954

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Zinc	48.6	1.00	50	0	97.2	88.1	111	0	0		

Sample ID LCS-9786	SampType: LCS	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/17/2003	Run ID: TJA IRIS_031020B
Client ID: ZZZZZ	Batch ID: 9786	TestNo: E6010		Analysis Date: 10/20/2003	SeqNo: 220057

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	47.87	1.00	50	0	95.7	91.3	111	0	0		
Zinc	48.6	1.00	50	0.13	96.9	88.1	111	0	0		

Sample ID 0310119-01BMS	SampType: MS	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/17/2003	Run ID: TJA IRIS_031018A
Client ID: ZZZZZ	Batch ID: 9786	TestNo: E6010		Analysis Date: 10/18/2003	SeqNo: 219769

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	88.07	1.82	90.91	1.223	95.5	86.1	109	0	0		
Cadmium	4.436	0.0909	4.545	0	97.6	86.4	113	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank
J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

BZTO104(e)019802

CLIENT: Time Oil Co.
Work Order: 0310117
Project: NW Terminal-Hand Probes / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID 0310119-01BMS	SampType: MS	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/17/2003	Run ID: TJA IRIS_031018A
Client ID: ZZZZZ	Batch ID: 9786	TestNo: E6010		Analysis Date: 10/18/2003	SeqNo: 219769

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	40.46	0.455	22.73	17.96	99	75	121	0	0		
Lead	87.91	1.82	90.91	0	96.7	92.1	104	0	0		
Selenium	88.37	1.82	90.91	0	97.2	77.7	116	0	0		
Zinc	91.91	0.909	45.45	46.05	101	86.2	113	0	0		E

Sample ID 0310117-14BMS	SampType: MS	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/17/2003	Run ID: TJA IRIS_031018B
Client ID: HB05(10-11)/101503	Batch ID: 9787	TestNo: E6010		Analysis Date: 10/18/2003	SeqNo: 219809

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	92.15	1.89	94.34	1.279	96.3	92.1	104	0	0		
Zinc	94.81	0.943	47.17	45	106	86.2	113	0	0		E

Sample ID A0310119-01AMS	SampType: MS	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/17/2003	Run ID: TJA IRIS_031018C
Client ID: ZZZZZ	Batch ID: 9786	TestNo: E6010		Analysis Date: 10/18/2003	SeqNo: 219868

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	96.88	2.00	100	1.37	95.5	86.1	109	0	0		
Beryllium	5.523	0.100	5	0.824	94	84.3	112	0	0		
Cadmium	4.88	0.100	5	0	97.6	86.4	113	0	0		
Calcium	4016	5.00	2500	1552	98.6	75	125	0	0		
Chromium	44.51	0.500	25	20.11	97.6	75	121	0	0		
Cobalt	38.68	0.500	25	13.51	101	75	125	0	0		
Lead	96.7	2.00	100	0	96.7	92.1	104	0	0		
Magnesium	1754	1.00	500	835.1	184	75	125	0	0		S
Nickel	37.21	0.500	25	11.91	101	89.3	105	0	0		
Potassium	1577	20.0	1000	810.4	76.7	75	125	0	0		
Selenium	97.21	2.00	100	0	97.2	77.7	116	0	0		
Vanadium	119.5	1.00	50	77.88	83.2	75	125	0	0		E

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

BZTO104(e)019803

CLIENT: Time Oil Co.
Work Order: 0310117
Project: NW Terminal-Hand Probes / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID 0310119-01BMS	SampType: MS	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/17/2003	Run ID: TJA IRIS_031020A
Client ID: ZZZZZ	Batch ID: 9786	TestNo: E6010		Analysis Date: 10/20/2003	SeqNo: 219961

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Zinc	95.18	0.909	45.45	46.1	108	86.2	113	0	0		E

Sample ID A0310119-01BMS	SampType: MS	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/17/2003	Run ID: TJA IRIS_031020B
Client ID: ZZZZZ	Batch ID: 9786	TestNo: E6010		Analysis Date: 10/20/2003	SeqNo: 220060

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	59.64	1.00	50	10.66	98	75.1	126	0	0		
Zinc	104.7	1.00	50	51.63	106	86.2	113	0	0		E

Sample ID A0310119-01BMS	SampType: MS	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/17/2003	Run ID: TJA IRIS_031021B
Client ID: ZZZZZ	Batch ID: 9786	TestNo: E6010		Analysis Date: 10/21/2003	SeqNo: 220388

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Silver	45.23	1.82	45.45	0	99.5	75	123	0	0		
Thallium	120.5	2.27	113.6	0	106	75	112	0	0		

Sample ID A0310119-01BMS	SampType: MS	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/17/2003	Run ID: TJA IRIS_031021B
Client ID: ZZZZZ	Batch ID: 9786	TestNo: E6010		Analysis Date: 10/21/2003	SeqNo: 220401

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	14280	3.64	45.45	13240	2280	75	125	0	0		S

Sample ID 0310119-01BMSD	SampType: MSD	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/17/2003	Run ID: TJA IRIS_031018A
Client ID: ZZZZZ	Batch ID: 9786	TestNo: E6010		Analysis Date: 10/18/2003	SeqNo: 219770

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	85.78	1.79	89.29	1.223	94.7	86.1	109	88.07	2.64	20	
Cadmium	4.33	0.0893	4.464	0	97	86.4	113	4.436	2.42	20	
Chromium	39.96	0.446	22.32	17.96	98.6	75	121	40.46	1.24	20	
Lead	83.47	1.79	89.29	0	93.5	92.1	104	87.91	5.18	20	

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

BZTO104(e)019804

CLIENT: Time Oil Co.
Work Order: 0310117
Project: NW Terminal-Hand Probes / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID 0310119-01BMSD	SampType: MSD	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/17/2003	Run ID: TJA IRIS_031018A
Client ID: ZZZZZ	Batch ID: 9786	TestNo: E6010		Analysis Date: 10/18/2003	SeqNo: 219770

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	83.46	1.79	89.29	0	93.5	77.7	116	88.37	5.72	20	
Zinc	90.63	0.893	44.64	46.05	99.8	86.2	113	91.91	1.41	20	E

Sample ID 0310117-14BMSD	SampType: MSD	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/17/2003	Run ID: TJA IRIS_031018B
Client ID: HB05(10-11)/101503	Batch ID: 9787	TestNo: E6010		Analysis Date: 10/18/2003	SeqNo: 219810

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	84.83	1.67	83.33	1.279	100	92.1	104	92.15	8.27	20	
Zinc	89.58	0.833	41.67	45	107	86.2	113	94.81	5.67	20	E

Sample ID A0310119-01AMSD	SampType: MSD	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/17/2003	Run ID: TJA IRIS_031018C
Client ID: ZZZZZ	Batch ID: 9786	TestNo: E6010		Analysis Date: 10/18/2003	SeqNo: 219869

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	96.07	2.00	100	1.37	94.7	86.1	109	96.88	0.840	20	
Beryllium	5.458	0.100	5	0.824	92.7	84.3	112	5.523	1.18	20	
Cadmium	4.85	0.100	5	0	97	86.4	113	4.88	0.617	20	
Calcium	3955	5.00	2500	1552	96.1	75	125	4016	1.53	20	
Chromium	44.76	0.500	25	20.11	98.6	75	121	44.51	0.560	20	
Cobalt	38.78	0.500	25	13.51	101	75	125	38.68	0.258	20	
Lead	93.49	2.00	100	0	93.5	92.1	104	96.7	3.38	20	
Magnesium	1579	1.00	500	835.1	149	75	125	1754	10.5	20	S
Nickel	37.59	0.500	25	11.91	103	89.3	105	37.21	1.28	20	
Selenium	93.47	2.00	100	0	93.5	77.7	116	97.21	3.92	20	
Vanadium	125.9	1.00	50	77.88	96	75	125	119.5	5.22	20	E

Sample ID 0310119-01BMSD	SampType: MSD	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/17/2003	Run ID: TJA IRIS_031020A
Client ID: ZZZZZ	Batch ID: 9786	TestNo: E6010		Analysis Date: 10/20/2003	SeqNo: 219962

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Zinc	98.57	0.893	44.64	46.1	118	86.2	113	95.18	3.50	20	SE

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

BZTO104(e)019805

CLIENT: Time Oil Co.
Work Order: 0310117
Project: NW Terminal-Hand Probes / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID	A0310119-01BMSD	SampType:	MSD	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	10/17/2003	Run ID:	TJA IRIS_031020B
Client ID:	ZZZZZ	Batch ID:	9786	TestNo:	E6010			Analysis Date:	10/20/2003	SeqNo:	220061

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	59.8	1.00	50	10.66	98.3	75.1	126	59.64	0.268	20	
Zinc	110.4	1.00	50	51.63	118	86.2	113	104.7	5.30	20	SE

Sample ID	A0310119-01BMSD	SampType:	MSD	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	10/17/2003	Run ID:	TJA IRIS_031021B
Client ID:	ZZZZZ	Batch ID:	9786	TestNo:	E6010			Analysis Date:	10/21/2003	SeqNo:	220389

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Silver	43.79	1.79	44.64	0	98.1	75	123	45.23	3.22	20	
Thallium	117.1	2.23	111.6	0	105	75	112	120.5	2.86	20	

Sample ID	A0310119-01BMSD	SampType:	MSD	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	10/17/2003	Run ID:	TJA IRIS_031021B
Client ID:	ZZZZZ	Batch ID:	9786	TestNo:	E6010			Analysis Date:	10/21/2003	SeqNo:	220402

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	13020	3.57	44.64	13240	-496	75	125	14280	9.21	20	S

Sample ID	0310119-01BDUP	SampType:	DUP	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	10/17/2003	Run ID:	TJA IRIS_031018A
Client ID:	ZZZZZ	Batch ID:	9786	TestNo:	E6010			Analysis Date:	10/18/2003	SeqNo:	219767

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.9831	1.69	0	0	0	0	0	1.223	0	20	J
Cadmium	ND	0.0847	0	0	0	0	0	0	0	20	
Chromium	17.4	0.424	0	0	0	0	0	17.96	3.15	20	
Gold	5.559	4.24	0	0	0	0	0	4.92	12.2	20	
Lead	ND	1.69	0	0	0	0	0	0	0	20	
Selenium	ND	1.69	0	0	0	0	0	0	0	20	
Zinc	45.12	0.847	0	0	0	0	0	46.05	2.05	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019806

CLIENT: Time Oil Co.
Work Order: 0310117
Project: NW Terminal-Hand Probes / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID	0310117-14BDUP	SampType:	DUP	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	10/17/2003	Run ID:	TJA IRIS_031018B
Client ID:	HB05(10-11)/101503	Batch ID:	9787	TestNo:	E6010			Analysis Date:	10/18/2003	SeqNo:	219808

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	1.52	0	0	0	0	0	1.279	0	20	
Zinc	46.61	0.758	0	0	0	0	0	45	3.52	20	

Sample ID	A0310119-01ADUP	SampType:	DUP	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	10/17/2003	Run ID:	TJA IRIS_031018C
Client ID:	ZZZZZ	Batch ID:	9786	TestNo:	E6010			Analysis Date:	10/18/2003	SeqNo:	219866

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	1.16	2.00	0	0	0	0	0	1.37	0	20	J
Beryllium	0.864	0.100	0	0	0	0	0	0.824	4.74	20	
Cadmium	ND	0.100	0	0	0	0	0	0	0	20	
Calcium	1635	5.00	0	0	0	0	0	1552	5.21	20	
Chromium	20.53	0.500	0	0	0	0	0	20.11	2.07	20	
Cobalt	13.96	0.500	0	0	0	0	0	13.51	3.28	20	
Lead	ND	2.00	0	0	0	0	0	0	0	20	
Magnesium	1002	1.00	0	0	0	0	0	835.1	18.2	20	
Nickel	12.17	0.500	0	0	0	0	0	11.91	2.16	20	
Selenium	ND	2.00	0	0	0	0	0	0	0	20	
Vanadium	78.15	1.00	0	0	0	0	0	77.88	0.346	20	

Sample ID	0310119-01BDUP	SampType:	DUP	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	10/17/2003	Run ID:	TJA IRIS_031020A
Client ID:	ZZZZZ	Batch ID:	9786	TestNo:	E6010			Analysis Date:	10/20/2003	SeqNo:	219960

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Zinc	47.17	0.847	0	0	0	0	0	46.1	2.30	20	

Sample ID	A0310119-01BDUP	SampType:	DUP	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	10/17/2003	Run ID:	TJA IRIS_031020B
Client ID:	ZZZZZ	Batch ID:	9786	TestNo:	E6010			Analysis Date:	10/20/2003	SeqNo:	220059

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	11.74	1.00	0	0	0	0	0	10.66	9.64	20	
Zinc	55.66	1.00	0	0	0	0	0	51.63	7.51	20	

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

BZTO104(e)019807

CLIENT: Time Oil Co.
Work Order: 0310117
Project: NW Terminal-Hand Probes / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID	A0310119-01BDUP	SampType:	DUP	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	10/17/2003	Run ID:	TJA IRIS_031021B
Client ID:	ZZZZZ	Batch ID:	9786	TestNo:	E6010			Analysis Date:	10/21/2003	SeqNo:	220387

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Silver	0.2542	1.69	0	0	0	0	0	0	0	20	J
Thallium	ND	2.12	0	0	0	0	0	0	0	20	

Sample ID	A0310119-01BDUP	SampType:	DUP	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	10/17/2003	Run ID:	TJA IRIS_031021B
Client ID:	ZZZZZ	Batch ID:	9786	TestNo:	E6010			Analysis Date:	10/21/2003	SeqNo:	220400

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	11690	3.39	0	0	0	0	0	13240	12.4	20	

Sample ID	CCV	SampType:	CCV	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	10/17/2003	Run ID:	TJA IRIS_031018A
Client ID:	ZZZZZ	Batch ID:	9786	TestNo:	E6010			Analysis Date:	10/18/2003	SeqNo:	219768

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	93.53	2.00	100	0	93.5	90	110	0	0		
Cadmium	4.91	0.100	5	0	98.2	90	110	0	0		
Chromium	24.09	0.500	25	0	96.4	90	110	0	0		
Lead	96.66	2.00	100	0	96.7	90	110	0	0		
Selenium	96.92	2.00	100	0	96.9	90	110	0	0		
Zinc	48.27	1.00	50	0	96.5	90	110	0	0		

Sample ID	CCV	SampType:	CCV	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	10/17/2003	Run ID:	TJA IRIS_031018A
Client ID:	ZZZZZ	Batch ID:	9786	TestNo:	E6010			Analysis Date:	10/18/2003	SeqNo:	219779

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	97.8	200	100	0	97.8	90	110	0	0		
Cadmium	4.92	10.0	5	0	98.4	90	110	0	0		
Chromium	23.66	50.0	25	0	94.6	90	110	0	0		
Lead	96.28	200	100	0	96.3	90	110	0	0		
Selenium	100.6	200	100	0	101	90	110	0	0		
Zinc	49.99	100	50	0	100	90	110	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

BZTO104(e)019808

CLIENT: Time Oil Co.
Work Order: 0310117
Project: NW Terminal-Hand Probes / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/17/2003	Run ID: TJA IRIS_031018A
Client ID: ZZZZZ	Batch ID: 9786	TestNo: E6010		Analysis Date: 10/18/2003	SeqNo: 219790

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	99.99	2.00	100	0	100	90	110	0	0		
Zinc	52.48	1.00	50	0	105	90	110	0	0		

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/17/2003	Run ID: TJA IRIS_031018B
Client ID: ZZZZZ	Batch ID: 9787	TestNo: E6010		Analysis Date: 10/18/2003	SeqNo: 219804

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	99.99	2.00	100	0	100	90	110	0	0		
Zinc	52.48	1.00	50	0	105	90	110	0	0		

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/17/2003	Run ID: TJA IRIS_031018B
Client ID: ZZZZZ	Batch ID: 9787	TestNo: E6010		Analysis Date: 10/18/2003	SeqNo: 219813

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	99.84	2.00	100	0	99.8	90	110	0	0		
Zinc	52.06	1.00	50	0	104	90	110	0	0		

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/17/2003	Run ID: TJA IRIS_031018B
Client ID: ZZZZZ	Batch ID: 9787	TestNo: E6010		Analysis Date: 10/18/2003	SeqNo: 219821

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	95.01	2.00	100	0	95	90	110	0	0		
Zinc	51.79	1.00	50	0	104	90	110	0	0		

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/17/2003	Run ID: TJA IRIS_031018C
Client ID: ZZZZZ	Batch ID: 9786	TestNo: E6010		Analysis Date: 10/18/2003	SeqNo: 219867

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	93.53	2.00	100	0	93.5	90	110	0	0		
Beryllium	4.846	0.100	5	0	96.9	90	110	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

BZTO104(e)019809

CLIENT: Time Oil Co.
Work Order: 0310117
Project: NW Terminal-Hand Probes / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/17/2003	Run ID: TJA IRIS_031018C
Client ID: ZZZZZ	Batch ID: 9786	TestNo: E6010		Analysis Date: 10/18/2003	SeqNo: 219867

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	4.91	0.100	5	0	98.2	90	110	0	0		
Calcium	2300	5.00	2500	0	92	90	110	0	0		
Chromium	24.09	0.500	25	0	96.4	90	110	0	0		
Cobalt	24.98	0.500	25	0	99.9	90	110	0	0		
Lead	96.66	2.00	100	0	96.7	90	110	0	0		
Magnesium	456.7	1.00	500	0	91.3	90	110	0	0		
Nickel	24.68	0.500	25	0	98.7	90	110	0	0		
Selenium	96.92	2.00	100	0	96.9	90	110	0	0		
Vanadium	48.46	1.00	50	0	96.9	90	110	0	0		

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/17/2003	Run ID: TJA IRIS_031018C
Client ID: ZZZZZ	Batch ID: 9786	TestNo: E6010		Analysis Date: 10/18/2003	SeqNo: 219872

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	102.4	2.00	100	0	102	90	110	0	0		
Beryllium	5.26	0.100	5	0	105	90	110	0	0		
Cadmium	5.19	0.100	5	0	104	90	110	0	0		
Calcium	2612	5.00	2500	0	104	90	110	0	0		
Chromium	25.58	0.500	25	0	102	90	110	0	0		
Cobalt	25.57	0.500	25	0	102	90	110	0	0		
Lead	99.99	2.00	100	0	100	90	110	0	0		
Magnesium	520	1.00	500	0	104	90	110	0	0		
Nickel	25.52	0.500	25	0	102	90	110	0	0		
Selenium	105	2.00	100	0	105	90	110	0	0		
Vanadium	51.46	1.00	50	0	103	90	110	0	0		

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/17/2003	Run ID: TJA IRIS_031018C
Client ID: ZZZZZ	Batch ID: 9786	TestNo: E6010		Analysis Date: 10/18/2003	SeqNo: 219874

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	101.9	2.00	100	0	102	90	110	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank
J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

BZTO104(e)019810

CLIENT: Time Oil Co.
Work Order: 0310117
Project: NW Terminal-Hand Probes / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/17/2003	Run ID: TJA IRIS_031018C
Client ID: ZZZZZ	Batch ID: 9786	TestNo: E6010		Analysis Date: 10/18/2003	SeqNo: 219874

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	5.26	0.100	5	0	105	90	110	0	0		
Cadmium	5.03	0.100	5	0	101	90	110	0	0		
Calcium	2616	5.00	2500	0	105	90	110	0	0		
Chromium	24.43	0.500	25	0	97.7	90	110	0	0		
Cobalt	25.34	0.500	25	0	101	90	110	0	0		
Lead	99.84	2.00	100	0	99.8	90	110	0	0		
Magnesium	525.3	1.00	500	0	105	90	110	0	0		
Nickel	25.28	0.500	25	0	101	90	110	0	0		
Selenium	105.1	2.00	100	0	105	90	110	0	0		
Vanadium	52.15	1.00	50	0	104	90	110	0	0		

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/17/2003	Run ID: TJA IRIS_031020A
Client ID: ZZZZZ	Batch ID: 9786	TestNo: E6010		Analysis Date: 10/20/2003	SeqNo: 219963

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Zinc	50.12	1.00	50	0	100	90	110	0	0		

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/17/2003	Run ID: TJA IRIS_031020A
Client ID: ZZZZZ	Batch ID: 9786	TestNo: E6010		Analysis Date: 10/20/2003	SeqNo: 219974

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Zinc	49.25	1.00	50	0	98.5	90	110	0	0		

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/17/2003	Run ID: TJA IRIS_031020A
Client ID: ZZZZZ	Batch ID: 9786	TestNo: E6010		Analysis Date: 10/20/2003	SeqNo: 219981

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	50.16	1.00	50	0	100	90	110	0	0		
Zinc	50.46	1.00	50	0	101	90	110	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019811

CLIENT: Time Oil Co.
Work Order: 0310117
Project: NW Terminal-Hand Probes / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/17/2003	Run ID: TJA IRIS_031020B
Client ID: ZZZZZ	Batch ID: 9786	TestNo: E6010		Analysis Date: 10/20/2003	SeqNo: 220062

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	48.08	1.00	50	0	96.2	90	110	0	0		
Zinc	50.12	1.00	50	0	100	90	110	0	0		

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/17/2003	Run ID: TJA IRIS_031020B
Client ID: ZZZZZ	Batch ID: 9786	TestNo: E6010		Analysis Date: 10/20/2003	SeqNo: 220063

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	47.7	1.00	50	0	95.4	90	110	0	0		
Zinc	49.25	1.00	50	0	98.5	90	110	0	0		

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/17/2003	Run ID: TJA IRIS_031020B
Client ID: ZZZZZ	Batch ID: 9786	TestNo: E6010		Analysis Date: 10/20/2003	SeqNo: 220067

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	50.55	1.00	50	0	101	90	110	0	0		
Zinc	50.46	1.00	50	0	101	90	110	0	0		

Sample ID ICV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/21/2003	Run ID: TJA IRIS_031021B
Client ID: ZZZZZ	Batch ID: 9803	TestNo: E6010		Analysis Date: 10/21/2003	SeqNo: 220394

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	49.27	2.00	50	0	98.5	90	110	0	0		
Silver	50.18	2.00	50	0	100	90	110	0	0		
Thallium	121.6	2.50	125	0	97.3	90	110	0	0		

Sample ID ICV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/21/2003	Run ID: TJA IRIS_031021B
Client ID: ZZZZZ	Batch ID: 9803	TestNo: E6010		Analysis Date: 10/21/2003	SeqNo: 220405

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	47.44	2.00	50	0	94.9	90	110	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZT0104(e)019812

CLIENT: Time Oil Co.
Work Order: 0310117
Project: NW Terminal-Hand Probes / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID ICV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/21/2003	Run ID: TJA IRIS_031021B
Client ID: ZZZZZ	Batch ID: 9803	TestNo: E6010		Analysis Date: 10/21/2003	SeqNo: 220405

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Silver	50.29	2.00	50	0	101	90	110	0	0		
Thallium	123.1	2.50	125	0	98.5	90	110	0	0		

Sample ID ICV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/21/2003	Run ID: TJA IRIS_031021B
Client ID: ZZZZZ	Batch ID: 9803	TestNo: E6010		Analysis Date: 10/21/2003	SeqNo: 220415

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	46.12	2.00	50	0	92.2	90	110	0	0		
Silver	49.32	2.00	50	0	98.6	90	110	0	0		
Thallium	130.5	2.50	125	0	104	90	110	0	0		

Sample ID ICV	SampType: ICV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/17/2003	Run ID: TJA IRIS_031018A
Client ID: ZZZZZ	Batch ID: 9786	TestNo: E6010		Analysis Date: 10/18/2003	SeqNo: 219763

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	96.2	2.00	100	0	96.2	90	110	0	0		
Cadmium	4.98	0.100	5	0	99.6	90	110	0	0		
Chromium	24.89	0.500	25	0	99.6	90	110	0	0		
Lead	94.91	2.00	100	0	94.9	90	110	0	0		
Selenium	99.24	2.00	100	0	99.2	90	110	0	0		
Zinc	49.2	1.00	50	0	98.4	90	110	0	0		

Sample ID ICV	SampType: ICV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/17/2003	Run ID: TJA IRIS_031018B
Client ID: ZZZZZ	Batch ID: 9787	TestNo: E6010		Analysis Date: 10/18/2003	SeqNo: 219803

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	94.91	2.00	100	0	94.9	90	110	0	0		
Zinc	49.2	1.00	50	0	98.4	90	110	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019813

CLIENT: Time Oil Co.
Work Order: 0310117
Project: NW Terminal-Hand Probes / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID ICV	SampType: ICV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/17/2003	Run ID: TJA IRIS_031018C
Client ID: ZZZZZ	Batch ID: 9786	TestNo: E6010		Analysis Date: 10/18/2003	SeqNo: 219862

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	96.2	2.00	100	0	96.2	90	110	0	0		
Beryllium	4.952	0.100	5	0	99.2	90	110	0	0		
Cadmium	4.98	0.100	5	0	99.6	90	110	0	0		
Calcium	2476	5.00	2500	0	99	90	110	0	0		
Chromium	24.89	0.500	25	0	99.6	90	110	0	0		
Cobalt	24.28	0.500	25	0	97.1	90	110	0	0		
Lead	94.91	2.00	100	0	94.9	90	110	0	0		
Magnesium	484.2	1.00	500	0	96.8	90	110	0	0		
Nickel	24.27	0.500	25	0	97.1	90	110	0	0		
Selenium	99.24	2.00	100	0	99.2	90	110	0	0		
Vanadium	49.52	1.00	50	0	99	90	110	0	0		

Sample ID ICV	SampType: ICV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/17/2003	Run ID: TJA IRIS_031020A
Client ID: ZZZZZ	Batch ID: 9786	TestNo: E6010		Analysis Date: 10/20/2003	SeqNo: 219952

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Zinc	49.82	1.00	50	0	99.6	90	110	0	0		

Sample ID ICV	SampType: ICV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/17/2003	Run ID: TJA IRIS_031020B
Client ID: ZZZZZ	Batch ID: 9786	TestNo: E6010		Analysis Date: 10/20/2003	SeqNo: 220055

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	49.96	1.00	50	0	99.9	90	110	0	0		
Zinc	49.82	1.00	50	0	99.6	90	110	0	0		

Sample ID ICV	SampType: ICV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/21/2003	Run ID: TJA IRIS_031021B
Client ID: ZZZZZ	Batch ID: 9803	TestNo: E6010		Analysis Date: 10/21/2003	SeqNo: 220383

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	50.45	2.00	50	0	101	90	110	0	0		
Silver	49.99	2.00	50	0	100	90	110	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

BZTO104(e)019814

CLIENT: Time Oil Co.
Work Order: 0310117
Project: NW Terminal-Hand Probes / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID: ICV	SampType: ICV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/21/2003	Run ID: TJA IRIS_031021B
Client ID: ZZZZZ	Batch ID: 9803	TestNo: E6010		Analysis Date: 10/21/2003	SeqNo: 220383

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thallium	119.6	2.50	125	0	95.7	90	110	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019815

CLIENT: Time Oil Co.
Work Order: 0310117
Project: NW Terminal-Hand Probes / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S

Sample ID: MB	SampType: MBLK	TestCode: 8260_S	Units: µg/Kg	Prep Date: 10/15/2003	Run ID: 5973J_031015C
Client ID: ZZZZZ	Batch ID: 9782	TestNo: SW8260B		Analysis Date: 10/15/2003	SeqNo: 219442

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	10.0									
1,1,1-Trichloroethane	ND	10.0									
1,1,2,2-Tetrachloroethane	ND	10.0									
1,1,2-Trichloroethane	ND	10.0									
1,1-Dichloroethane	ND	10.0									
1,1-Dichloroethene	ND	10.0									
1,1-Dichloropropene	ND	10.0									
1,2,3-Trichlorobenzene	6.95	10.0									J
1,2,3-Trichloropropane	ND	10.0									
1,2,4-Trichlorobenzene	7.53	10.0									J
1,2,4-Trimethylbenzene	1.25	10.0									J
1,2-Dibromo-3-chloropropane	ND	10.0									
1,2-Dibromoethane	ND	10.0									
1,2-Dichlorobenzene	ND	10.0									
1,2-Dichloroethane	ND	10.0									
1,2-Dichloropropane	ND	10.0									
1,3,5-Trimethylbenzene	ND	10.0									
1,3-Dichlorobenzene	ND	10.0									
1,3-Dichloropropane	ND	10.0									
1,4-Dichlorobenzene	ND	10.0									
2,2-Dichloropropane	ND	10.0									
2-Butanone	ND	40.0									
2-Chlorotoluene	ND	10.0									
2-Hexanone	ND	20.0									
4-Chlorotoluene	ND	10.0									
4-Isopropyltoluene	ND	10.0									
4-Methyl-2-pentanone	ND	40.0									
Acetone	ND	100									
Benzene	ND	10.0									
Bromobenzene	ND	10.0									
Bromochloromethane	ND	10.0									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019816

CLIENT: Time Oil Co.
Work Order: 0310117
Project: NW Terminal-Hand Probes / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S

Sample ID: MB	SampType: MBLK	TestCode: 8260_S	Units: µg/Kg	Prep Date: 10/15/2003	Run ID: 5973J_031015C
Client ID: ZZZZZ	Batch ID: 9782	TestNo: SW8260B		Analysis Date: 10/15/2003	SeqNo: 219442

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromodichloromethane	ND	10.0									
Bromoform	ND	10.0									
Bromomethane	ND	10.0									
Carbon disulfide	1.05	10.0									J
Carbon tetrachloride	ND	10.0									
Chlorobenzene	ND	10.0									
Chloroethane	ND	10.0									
Chloroform	ND	10.0									
Chloromethane	ND	10.0									
cis-1,2-Dichloroethene	ND	10.0									
cis-1,3-Dichloropropene	ND	10.0									
Dibromochloromethane	ND	10.0									
Dibromomethane	ND	10.0									
Dichlorodifluoromethane	ND	10.0									
Ethylbenzene	ND	10.0									
Hexachlorobutadiene	ND	10.0									
Isopropylbenzene	ND	10.0									
m,p-Xylene	1.71	20.0									J
Methyl tert-butyl ether	ND	10.0									
Methylene chloride	ND	50.0									
n-Butylbenzene	3.73	10.0									J
n-Propylbenzene	ND	10.0									
Naphthalene	7.68	10.0									J
o-Xylene	ND	10.0									
sec-Butylbenzene	ND	10.0									
Styrene	ND	10.0									
tert-Butylbenzene	ND	10.0									
Tetrachloroethene	ND	10.0									
Toluene	ND	10.0									
trans-1,2-Dichloroethene	ND	10.0									
trans-1,3-Dichloropropene	ND	10.0									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019817

CLIENT: Time Oil Co.
Work Order: 0310117
Project: NW Terminal-Hand Probes / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S

Sample ID MB	SampType: MBLK	TestCode: 8260_S	Units: µg/Kg	Prep Date: 10/15/2003	Run ID: 5973J_031015C
Client ID: ZZZZZ	Batch ID: 9782	TestNo: SW8260B		Analysis Date: 10/15/2003	SeqNo: 219442

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichloroethene	ND	10.0									
Trichlorofluoromethane	ND	10.0									
Vinyl chloride	ND	10.0									
Surr: 1,2-Dichloroethane-d4	73.32	1.00	100	0	73.3	71.5	112	0	0		
Surr: 4-Bromofluorobenzene	105.1	1.00	100	0	105	75.7	122	0	0		
Surr: Dibromofluoromethane	88.64	1.00	100	0	88.6	64.3	124	0	0		
Surr: Toluene-d8	107.6	1.00	100	0	108	74.9	120	0	0		

Sample ID MB	SampType: MBLK	TestCode: 8260_S	Units: µg/Kg	Prep Date: 10/17/2003	Run ID: 5973J_031020A
Client ID: ZZZZZ	Batch ID: 9807	TestNo: SW8260B		Analysis Date: 10/18/2003	SeqNo: 220252

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	10.0									
1,1,1-Trichloroethane	ND	10.0									
1,1,2,2-Tetrachloroethane	ND	10.0									
1,1,2-Trichloroethane	ND	10.0									
1,1-Dichloroethane	ND	10.0									
1,1-Dichloroethene	ND	10.0									
1,1-Dichloropropene	ND	10.0									
1,2,3-Trichlorobenzene	ND	10.0									
1,2,3-Trichloropropane	ND	10.0									
1,2,4-Trichlorobenzene	ND	10.0									
1,2,4-Trimethylbenzene	1.32	10.0									J
1,2-Dibromo-3-chloropropane	ND	10.0									
1,2-Dibromoethane	ND	10.0									
1,2-Dichlorobenzene	ND	10.0									
1,2-Dichloroethane	ND	10.0									
1,2-Dichloropropane	ND	10.0									
1,3,5-Trimethylbenzene	ND	10.0									
1,3-Dichlorobenzene	ND	10.0									
1,3-Dichloropropane	ND	10.0									

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019818

CLIENT: Time Oil Co.
Work Order: 0310117
Project: NW Terminal-Hand Probes / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S

Sample ID: MB	SampType: MBLK	TestCode: 8260_S	Units: µg/Kg	Prep Date: 10/17/2003	Run ID: 5973J_031020A
Client ID: ZZZZZ	Batch ID: 9807	TestNo: SW8260B		Analysis Date: 10/18/2003	SeqNo: 220252

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	ND	10.0									
2,2-Dichloropropane	ND	10.0									
2-Butanone	ND	40.0									
2-Chlorotoluene	ND	10.0									
2-Hexanone	ND	20.0									
4-Chlorotoluene	ND	10.0									
4-Isopropyltoluene	ND	10.0									
4-Methyl-2-pentanone	ND	40.0									
Acetone	ND	100									
Benzene	ND	10.0									
Bromobenzene	ND	10.0									
Bromochloromethane	ND	10.0									
Bromodichloromethane	ND	10.0									
Bromoform	ND	10.0									
Bromomethane	ND	10.0									
Carbon disulfide	1.28	10.0									J
Carbon tetrachloride	ND	10.0									
Chlorobenzene	ND	10.0									
Chloroethane	ND	10.0									
Chloroform	ND	10.0									
Chloromethane	ND	10.0									
cis-1,2-Dichloroethene	ND	10.0									
cis-1,3-Dichloropropene	ND	10.0									
Dibromochloromethane	ND	10.0									
Dibromomethane	ND	10.0									
Dichlorodifluoromethane	ND	10.0									
Ethylbenzene	0.82	10.0									J
Hexachlorobutadiene	ND	10.0									
Isopropylbenzene	ND	10.0									
m,p-Xylene	3.03	20.0									J
Methyl tert-butyl ether	ND	10.0									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019819

CLIENT: Time Oil Co.
Work Order: 0310117
Project: NW Terminal-Hand Probes / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S

Sample ID: MB	SampType: MBLK	TestCode: 8260_S	Units: µg/Kg	Prep Date: 10/17/2003	Run ID: 5973J_031020A
Client ID: ZZZZZ	Batch ID: 9807	TestNo: SW8260B		Analysis Date: 10/18/2003	SeqNo: 220252

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methylene chloride	ND	50.0									
n-Butylbenzene	3.82	10.0									J
n-Propylbenzene	ND	10.0									
Naphthalene	ND	10.0									
o-Xylene	2.92	10.0									J
sec-Butylbenzene	ND	10.0									
Styrene	ND	10.0									
tert-Butylbenzene	ND	10.0									
Tetrachloroethene	ND	10.0									
Toluene	1.53	10.0									J
trans-1,2-Dichloroethene	ND	10.0									
trans-1,3-Dichloropropene	ND	10.0									
Trichloroethene	2.55	10.0									J
Trichlorofluoromethane	ND	10.0									
Vinyl chloride	ND	10.0									
Surr: 1,2-Dichloroethane-d4	72.78	1.00	100	0	72.8	71.5	112	0	0		
Surr: 4-Bromofluorobenzene	96.93	1.00	100	0	96.9	75.7	122	0	0		
Surr: Dibromofluoromethane	85.08	1.00	100	0	85.1	64.3	124	0	0		
Surr: Toluene-d8	101.2	1.00	100	0	101	74.9	120	0	0		

Sample ID: LCS	SampType: LCS	TestCode: 8260_S	Units: µg/Kg	Prep Date: 10/15/2003	Run ID: 5973J_031015C
Client ID: ZZZZZ	Batch ID: 9782	TestNo: SW8260B		Analysis Date: 10/15/2003	SeqNo: 219441

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	104.8	10.0	80	0	131	65.4	133	0	0		
Benzene	78.59	10.0	80	0	98.2	78	123	0	0		
Chlorobenzene	99.75	10.0	80	0	125	79.5	125	0	0		
Toluene	81.47	10.0	80	0	102	77.5	132	0	0		
Trichloroethene	97.47	10.0	80	0	122	72.4	124	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

BZTO104(e)019820

CLIENT: Time Oil Co.
Work Order: 0310117
Project: NW Terminal-Hand Probes / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S

Sample ID LCS	SampType: LCS	TestCode: 8260_S	Units: µg/Kg	Prep Date: 10/17/2003	Run ID: 5973J_031020A
Client ID: ZZZZZ	Batch ID: 9807	TestNo: SW8260B		Analysis Date: 10/18/2003	SeqNo: 220251

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	99.45	10.0	80	0	124	65.4	133	0	0		
Benzene	71.98	10.0	80	0	90	78	123	0	0		
Chlorobenzene	86.84	10.0	80	0	109	79.5	125	0	0		
Toluene	72.37	10.0	80	1.53	88.6	77.5	132	0	0		
Trichloroethene	89.36	10.0	80	2.55	109	72.4	124	0	0		

Sample ID 0310052-01AMS	SampType: MS	TestCode: 8260_S	Units: µg/Kg	Prep Date: 10/15/2003	Run ID: 5973J_031015C
Client ID: ZZZZZ	Batch ID: 9782	TestNo: SW8260B		Analysis Date: 10/16/2003	SeqNo: 219446

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	49.92	10.0	40	0	125	69.2	158	0	0		
Benzene	37.11	10.0	40	0	92.8	71.7	147	0	0		
Chlorobenzene	40.75	10.0	40	0	102	85.6	148	0	0		
Toluene	37.09	10.0	40	0	92.7	75.8	153	0	0		
Trichloroethene	50.85	10.0	40	0	127	77.1	138	0	0		

Sample ID 0310117-22BMS	SampType: MS	TestCode: 8260_S	Units: µg/Kg	Prep Date: 10/17/2003	Run ID: 5973J_031021A
Client ID: HB03(5-6)/101503	Batch ID: 9807	TestNo: SW8260B		Analysis Date: 10/21/2003	SeqNo: 220568

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	50.15	10.0	40	0	125	69.2	158	0	0		
Benzene	36.26	10.0	40	0	90.7	71.7	147	0	0		
Chlorobenzene	45.94	10.0	40	0	115	85.6	148	0	0		
Toluene	38.36	10.0	40	2.01	90.9	75.8	153	0	0		
Trichloroethene	41.22	10.0	40	4	93	77.1	138	0	0		

Sample ID 0310052-01AMSD	SampType: MSD	TestCode: 8260_S	Units: µg/Kg	Prep Date: 10/15/2003	Run ID: 5973J_031015C
Client ID: ZZZZZ	Batch ID: 9782	TestNo: SW8260B		Analysis Date: 10/16/2003	SeqNo: 219447

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	48.15	10.0	40	0	120	69.2	158	49.92	3.61	20	

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

BZTO104(e)019821

CLIENT: Time Oil Co.
Work Order: 0310117
Project: NW Terminal-Hand Probes / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S

Sample ID 0310052-01AMSD	SampType: MSD	TestCode: 8260_S	Units: µg/Kg	Prep Date: 10/15/2003	Run ID: 5973J_031015C
Client ID: ZZZZZ	Batch ID: 9782	TestNo: SW8260B		Analysis Date: 10/16/2003	SeqNo: 219447

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	32.83	10.0	40	0	82.1	71.7	147	37.11	12.2	20	
Chlorobenzene	37.49	10.0	40	0	93.7	85.6	148	40.75	8.33	20	
Toluene	33.2	10.0	40	0	83	75.8	153	37.09	11.1	20	
Trichloroethene	46.48	10.0	40	0	116	77.1	138	50.85	8.98	20	

Sample ID 0310117-22BMSD	SampType: MSD	TestCode: 8260_S	Units: µg/Kg	Prep Date: 10/17/2003	Run ID: 5973J_031021A
Client ID: HB03(5-6)/101503	Batch ID: 9807	TestNo: SW8260B		Analysis Date: 10/21/2003	SeqNo: 220569

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	50.96	10.0	40	0	127	69.2	158	50.15	1.60	20	
Benzene	37.96	10.0	40	0	94.9	71.7	147	36.26	4.58	20	
Chlorobenzene	49.83	10.0	40	0	125	85.6	148	45.94	8.12	20	
Toluene	42.24	10.0	40	2.01	101	75.8	153	38.36	9.63	20	
Trichloroethene	45.25	10.0	40	4	103	77.1	138	41.22	9.32	20	

Sample ID CCV	SampType: CCV	TestCode: 8260_S	Units: µg/Kg	Prep Date: 10/15/2003	Run ID: 5973J_031015C
Client ID: ZZZZZ	Batch ID: 9782	TestNo: SW8260B		Analysis Date: 10/15/2003	SeqNo: 219440

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	58.01	10.0	70	0	82.9	80	120	0	0		
1,2-Dichloropropane	71.28	10.0	70	0	102	80	120	0	0		
Chloroform	67.87	10.0	70	0	97	80	120	0	0		
Ethylbenzene	64.9	10.0	70	0	92.7	80	120	0	0		
Toluene	60.16	10.0	70	0	85.9	80	120	0	0		
Vinyl chloride	83.6	10.0	70	0	119	80	120	0	0		

Sample ID CCV	SampType: CCV	TestCode: 8260_S	Units: µg/Kg	Prep Date: 10/17/2003	Run ID: 5973J_031020A
Client ID: ZZZZZ	Batch ID: 9807	TestNo: SW8260B		Analysis Date: 10/18/2003	SeqNo: 220250

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	41.78	10.0	40	0	104	80	120	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019822

CLIENT: Time Oil Co.
Work Order: 0310117
Project: NW Terminal-Hand Probes / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S

Sample ID CCV	SampType: CCV	TestCode: 8260_S	Units: µg/Kg	Prep Date: 10/17/2003	Run ID: 5973J_031020A
Client ID: ZZZZZ	Batch ID: 9807	TestNo: SW8260B		Analysis Date: 10/18/2003	SeqNo: 220250

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dichloropropane	43.6	10.0	40	0	109	80	120	0	0		
Chloroform	43.22	10.0	40	0	108	80	120	0	0		
Ethylbenzene	34.19	10.0	40	0	85.5	80	120	0	0		
Toluene	33.92	10.0	40	0	84.8	80	120	0	0		
Vinyl chloride	33.95	10.0	40	0	84.9	80	120	0	0		

Sample ID CCV	SampType: CCV	TestCode: 8260_S	Units: µg/Kg	Prep Date: 10/17/2003	Run ID: 5973J_031020A
Client ID: ZZZZZ	Batch ID: 9807	TestNo: SW8260B		Analysis Date: 10/20/2003	SeqNo: 220266

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	52.55	10.0	50	0	105	80	120	0	0		
1,2-Dichloropropane	53.78	10.0	50	0	108	80	120	0	0		
Chloroform	46.06	10.0	50	0	92.1	80	120	0	0		
Ethylbenzene	47.98	10.0	50	0	96	80	120	0	0		
Toluene	47.06	10.0	50	0	94.1	80	120	0	0		
Vinyl chloride	44.11	10.0	50	0	88.2	80	120	0	0		

Sample ID CCV	SampType: CCV	TestCode: 8260_S	Units: µg/Kg	Prep Date: 10/17/2003	Run ID: 5973J_031020A
Client ID: ZZZZZ	Batch ID: 9807	TestNo: SW8260B		Analysis Date: 10/20/2003	SeqNo: 220550

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	47.93	10.0	50	0	95.9	80	120	0	0		
1,2-Dichloropropane	59.75	10.0	50	0	120	80	120	0	0		
Chloroform	54.97	10.0	50	0	110	80	120	0	0		
Ethylbenzene	47.37	10.0	50	0	94.7	80	120	0	0		
Toluene	53.04	10.0	50	0	106	80	120	0	0		
Vinyl chloride	44.2	10.0	50	0	88.4	80	120	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank; J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

BZTO104(e)019823

CLIENT: Time Oil Co.
Work Order: 0310117
Project: NW Terminal-Hand Probes / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S

Sample ID CCV	SampType: CCV	TestCode: 8260_S	Units: µg/Kg	Prep Date: 10/17/2003	Run ID: 5973J_031021A
Client ID: ZZZZZ	Batch ID: 9807	TestNo: SW8260B		Analysis Date: 10/21/2003	SeqNo: 220565

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	53.27	10.0	50	0	107	80	120	0	0		
1,2-Dichloropropane	58.61	10.0	50	0	117	80	120	0	0		
Chloroform	52.67	10.0	50	0	105	80	120	0	0		
Ethylbenzene	57.5	10.0	50	0	115	80	120	0	0		
Toluene	55.5	10.0	50	0	111	80	120	0	0		
Vinyl chloride	40.39	10.0	50	0	80.8	80	120	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019824

CLIENT: Time Oil Co.
Work Order: 0310117
Project: NW Terminal-Hand Probes / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHDX_S

Sample ID MBLK	SampType: MBLK	TestCode: NWTPHDX_S	Units: mg/Kg	Prep Date: 10/17/2003	Run ID: GC-M_031020D
Client ID: ZZZZZ	Batch ID: 9788	TestNo: NWTPH-Dx		Analysis Date: 10/20/2003	SeqNo: 220121

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	ND	5.00									
Lube Oil	ND	16.7									
Surr: o-Terphenyl	29.13	0.333	33.33	0	87.4	50	150	0	0		

Sample ID MBLK	SampType: MBLK	TestCode: NWTPHDX_S	Units: mg/Kg	Prep Date: 10/17/2003	Run ID: GC-M_031021A
Client ID: ZZZZZ	Batch ID: 9788	TestNo: NWTPH-Dx		Analysis Date: 10/21/2003	SeqNo: 220293

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	ND	15.0									
Lube Oil	ND	50.0									
Surr: o-Terphenyl	27.36	1.00	33.33	0	82.1	50	150	0	0		

Sample ID LCS	SampType: LCS	TestCode: NWTPHDX_S	Units: mg/Kg	Prep Date: 10/17/2003	Run ID: GC-M_031020D
Client ID: ZZZZZ	Batch ID: 9788	TestNo: NWTPH-Dx		Analysis Date: 10/20/2003	SeqNo: 220122

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	157.6	5.00	167.6	0	94	76.3	122	0	0		
Lube Oil	183.5	16.7	167.6	0	109	69.9	127	0	0		

Sample ID 0310117-23ADUP	SampType: DUP	TestCode: NWTPHDX_S	Units: mg/Kg-dry	Prep Date: 10/17/2003	Run ID: GC-M_031020D
Client ID: HB03(10-11)/101503	Batch ID: 9788	TestNo: NWTPH-Dx		Analysis Date: 10/20/2003	SeqNo: 220140

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	6178	17.4	0	0	0	0	0	5252	16.2	20	
Lube Oil	250.2	57.9	0	0	0	0	0	218.4	13.6	20	M

Sample ID 0310117-22ADUP	SampType: DUP	TestCode: NWTPHDX_S	Units: mg/Kg-dry	Prep Date: 10/17/2003	Run ID: GC-M_031020D
Client ID: HB03(5-6)/101503	Batch ID: 9788	TestNo: NWTPH-Dx		Analysis Date: 10/20/2003	SeqNo: 220141

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019825

CLIENT: Time Oil Co.
Work Order: 0310117
Project: NW Terminal-Hand Probes / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHDX_S

Sample ID	0310117-22ADUP	SampType:	DUP	TestCode:	NWTPHDX_S	Units:	mg/Kg-dry	Prep Date:	10/17/2003	Run ID:	GC-M_031020D
Client ID:	HB03(5-6)/101503	Batch ID:	9788	TestNo:	NWTPH-Dx			Analysis Date:	10/20/2003	SeqNo:	220141

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	159	16.7	0	0	0	0	0	158.7	0.210	20	
Lube Oil	47.68	55.6	0	0	0	0	0	70.67	0	20	J,M

Sample ID	CCV	SampType:	CCV	TestCode:	NWTPHDX_S	Units:	mg/Kg	Prep Date:	10/17/2003	Run ID:	GC-M_031020D
Client ID:	ZZZZZ	Batch ID:	9788	TestNo:	NWTPH-Dx			Analysis Date:	10/20/2003	SeqNo:	220123

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	292.9	5.00	333.6	0	87.8	85	115	0	0		
Lube Oil	266.4	16.7	250.6	0	106	85	115	0	0		

Sample ID	CCV	SampType:	CCV	TestCode:	NWTPHDX_S	Units:	mg/Kg	Prep Date:	10/17/2003	Run ID:	GC-M_031020D
Client ID:	ZZZZZ	Batch ID:	9788	TestNo:	NWTPH-Dx			Analysis Date:	10/20/2003	SeqNo:	220124

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	585.1	5.00	667.2	0	87.7	85	115	0	0		
Lube Oil	361.6	16.7	339	0	107	85	115	0	0		

Sample ID	CCV	SampType:	CCV	TestCode:	NWTPHDX_S	Units:	mg/Kg	Prep Date:	10/17/2003	Run ID:	GC-M_031021A
Client ID:	ZZZZZ	Batch ID:	9788	TestNo:	NWTPH-Dx			Analysis Date:	10/21/2003	SeqNo:	220294

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	589.9	15.0	667.2	0	88.4	85	115	0	0		
Lube Oil	364.7	50.0	339	0	108	85	115	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019826

CLIENT: Time Oil Co.
Work Order: 0310117
Project: NW Terminal-Hand Probes / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHGX_S

Sample ID MBLK	SampType: MBLK	TestCode: NWTPHGX_S	Units: mg/Kg	Prep Date: 10/16/2003	Run ID: GC-I_031016D
Client ID: ZZZZZ	Batch ID: 9780	TestNo: NWTPH-Gx		Analysis Date: 10/16/2003	SeqNo: 219644

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	2.50									
Surr: 4-Bromofluorobenzene	59.8	1.00	100	0	59.8	50	150	0	0		

Sample ID MBLK	SampType: MBLK	TestCode: NWTPHGX_S	Units: mg/Kg	Prep Date: 10/17/2003	Run ID: GC-I_031017A
Client ID: ZZZZZ	Batch ID: 9784	TestNo: NWTPH-Gx		Analysis Date: 10/17/2003	SeqNo: 219879

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	2.50									
Surr: 4-Bromofluorobenzene	65.3	1.00	100	0	65.3	50	150	0	0		

Sample ID MBLK	SampType: MBLK	TestCode: NWTPHGX_S	Units: mg/Kg	Prep Date: 10/16/2003	Run ID: GC-I_031017B
Client ID: ZZZZZ	Batch ID: 9780	TestNo: NWTPH-Gx		Analysis Date: 10/17/2003	SeqNo: 219892

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	2.76	2.50									
Surr: 4-Bromofluorobenzene	62.9	1.00	100	0	62.9	50	150	0	0		

Sample ID MBLK	SampType: MBLK	TestCode: NWTPHGX_S	Units: mg/Kg	Prep Date: 10/17/2003	Run ID: GC-I_031020B
Client ID: ZZZZZ	Batch ID: 9780	TestNo: NWTPH-Gx		Analysis Date: 10/20/2003	SeqNo: 220196

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	2.50									
Surr: 4-Bromofluorobenzene	67.6	1.00	100	0	67.6	50	150	0	0		

Sample ID MBLK	SampType: MBLK	TestCode: NWTPHGX_S	Units: mg/Kg	Prep Date: 10/17/2003	Run ID: GC-I_031020E
Client ID: ZZZZZ	Batch ID: 9784	TestNo: NWTPH-Gx		Analysis Date: 10/20/2003	SeqNo: 220202

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	2.50									
Surr: 4-Bromofluorobenzene	67.6	1.00	100	0	67.6	50	150	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

BZTO104(e)019827

CLIENT: Time Oil Co.
Work Order: 0310117
Project: NW Terminal-Hand Probes / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHGX_S

Sample ID MBLK	SampType: MBLK	TestCode: NWTPHGX_S	Units: mg/Kg	Prep Date: 10/16/2003	Run ID: GC-I_031021A
Client ID: ZZZZZ	Batch ID: 9780	TestNo: NWTPH-Gx		Analysis Date: 10/21/2003	SeqNo: 220300

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	2.50									
Surr: 4-Bromofluorobenzene	64.8	1.00	100	0	64.8	50	150	0	0		

Sample ID MBLK	SampType: MBLK	TestCode: NWTPHGX_S	Units: mg/Kg	Prep Date: 10/17/2003	Run ID: GC-I_031021B
Client ID: ZZZZZ	Batch ID: 9784	TestNo: NWTPH-Gx		Analysis Date: 10/21/2003	SeqNo: 220304

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	2.50									
Surr: 4-Bromofluorobenzene	64.8	1.00	100	0	64.8	50	150	0	0		

Sample ID LCS	SampType: LCS	TestCode: NWTPHGX_S	Units: mg/Kg	Prep Date: 10/16/2003	Run ID: GC-I_031016D
Client ID: ZZZZZ	Batch ID: 9780	TestNo: NWTPH-Gx		Analysis Date: 10/16/2003	SeqNo: 219645

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	21.5	2.50	30	0	71.7	53.5	101	0	0		

Sample ID LCS	SampType: LCS	TestCode: NWTPHGX_S	Units: mg/Kg	Prep Date: 10/17/2003	Run ID: GC-I_031017A
Client ID: ZZZZZ	Batch ID: 9784	TestNo: NWTPH-Gx		Analysis Date: 10/17/2003	SeqNo: 219880

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	19.4	2.50	30	0	64.7	53.5	101	0	0		

Sample ID 0310112-01ADUP	SampType: DUP	TestCode: NWTPHGX_S	Units: mg/Kg-dry	Prep Date: 10/16/2003	Run ID: GC-I_031016D
Client ID: ZZZZZ	Batch ID: 9780	TestNo: NWTPH-Gx		Analysis Date: 10/16/2003	SeqNo: 219649

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	98.25	3.37	0	0	0	0	0	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

BZTO104(e)019828

CLIENT: Time Oil Co.
Work Order: 0310117
Project: NW Terminal-Hand Probes / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHGX_S

Sample ID	0310119-01ADUP	SampType:	DUP	TestCode:	NWTPHGX_S	Units:	mg/Kg-dry	Prep Date:	10/17/2003	Run ID:	GC-I_031020E
Client ID:	ZZZZZ	Batch ID:	9784	TestNo:	NWTPH-Gx			Analysis Date:	10/20/2003	SeqNo:	220209

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	2.98	0	0	0	0	0	0	0	20	

Sample ID	0310119-02ADUP	SampType:	DUP	TestCode:	NWTPHGX_S	Units:	mg/Kg-dry	Prep Date:	10/17/2003	Run ID:	GC-I_031020E
Client ID:	ZZZZZ	Batch ID:	9784	TestNo:	NWTPH-Gx			Analysis Date:	10/20/2003	SeqNo:	220210

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	2.85	0	0	0	0	0	0	0	20	

Sample ID	CCV	SampType:	CCV	TestCode:	NWTPHGX_S	Units:	mg/Kg	Prep Date:	10/16/2003	Run ID:	GC-I_031016D
Client ID:	ZZZZZ	Batch ID:	9780	TestNo:	NWTPH-Gx			Analysis Date:	10/16/2003	SeqNo:	219646

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	1948	2.50	2000	0	97.4	80	120	0	0		

Sample ID	CCV	SampType:	CCV	TestCode:	NWTPHGX_S	Units:	mg/Kg	Prep Date:	10/17/2003	Run ID:	GC-I_031017A
Client ID:	ZZZZZ	Batch ID:	9784	TestNo:	NWTPH-Gx			Analysis Date:	10/17/2003	SeqNo:	219881

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	2565	2.50	2500	0	103	80	120	0	0		

Sample ID	CCV	SampType:	CCV	TestCode:	NWTPHGX_S	Units:	mg/Kg	Prep Date:	10/16/2003	Run ID:	GC-I_031017B
Client ID:	ZZZZZ	Batch ID:	9780	TestNo:	NWTPH-Gx			Analysis Date:	10/17/2003	SeqNo:	219893

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	1113	2.50	1000	0	111	80	120	0	0		

Sample ID	CCV	SampType:	CCV	TestCode:	NWTPHGX_S	Units:	mg/Kg	Prep Date:	10/17/2003	Run ID:	GC-I_031020B
Client ID:	ZZZZZ	Batch ID:	9780	TestNo:	NWTPH-Gx			Analysis Date:	10/20/2003	SeqNo:	220197

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019829

CLIENT: Time Oil Co.
Work Order: 0310117
Project: NW Terminal-Hand Probes / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHGX_S

Sample ID CCV	SampType: CCV	TestCode: NWTPHGX_S	Units: mg/Kg	Prep Date: 10/17/2003	Run ID: GC-I_031020B
Client ID: ZZZZZ	Batch ID: 9780	TestNo: NWTPH-Gx		Analysis Date: 10/20/2003	SeqNo: 220197

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	1545	2.50	1500	0	103	80	120	0	0		

Sample ID CCV	SampType: CCV	TestCode: NWTPHGX_S	Units: mg/Kg	Prep Date: 10/17/2003	Run ID: GC-I_031020E
Client ID: ZZZZZ	Batch ID: 9784	TestNo: NWTPH-Gx		Analysis Date: 10/20/2003	SeqNo: 220203

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	2267	2.50	2500	0	90.7	80	120	0	0		

Sample ID CCV	SampType: CCV	TestCode: NWTPHGX_S	Units: mg/Kg	Prep Date: 10/17/2003	Run ID: GC-I_031020E
Client ID: ZZZZZ	Batch ID: 9784	TestNo: NWTPH-Gx		Analysis Date: 10/20/2003	SeqNo: 220211

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	1545	2.50	1500	0	103	80	120	0	0		

Sample ID CCV	SampType: CCV	TestCode: NWTPHGX_S	Units: mg/Kg	Prep Date: 10/16/2003	Run ID: GC-I_031021A
Client ID: ZZZZZ	Batch ID: 9780	TestNo: NWTPH-Gx		Analysis Date: 10/21/2003	SeqNo: 220301

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	1772	2.50	2000	0	88.6	80	120	0	0		

Sample ID CCV	SampType: CCV	TestCode: NWTPHGX_S	Units: mg/Kg	Prep Date: 10/17/2003	Run ID: GC-I_031021B
Client ID: ZZZZZ	Batch ID: 9784	TestNo: NWTPH-Gx		Analysis Date: 10/21/2003	SeqNo: 220305

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	1772	2.50	2000	0	88.6	80	120	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

BZTO104(e)019830

CLIENT: Time Oil Co.
Work Order: 0310117
Project: NW Terminal-Hand Probes / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: PAHLL_S

Sample ID MB-9789	SampType: MBLK	TestCode: PAHLL_S	Units: µg/Kg	Prep Date: 10/17/2003	Run ID: 5973G_031020A
Client ID: ZZZZZ	Batch ID: 9789	TestNo: 8270SIM		Analysis Date: 10/20/2003	SeqNo: 220030

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	ND	6.67									
Acenaphthylene	ND	6.67									
Anthracene	ND	6.67									
Benz(a)anthracene	ND	6.67									
Benzo(a)pyrene	ND	6.67									
Benzo(b)fluoranthene	ND	6.67									
Benzo(g,h,i)perylene	ND	6.67									
Benzo(k)fluoranthene	ND	6.67									
Chrysene	ND	6.67									
Dibenz(a,h)anthracene	ND	6.67									
Fluoranthene	ND	6.67									
Fluorene	ND	6.67									
Indeno(1,2,3-cd)pyrene	ND	6.67									
Naphthalene	ND	6.67									
Phenanthrene	ND	6.67									
Pyrene	ND	6.67									
Surr: 2-Fluorobiphenyl	6687	0	6667	0	100	42.6	128	0	0		
Surr: Nitrobenzene-d5	5873	0	6667	0	88.1	21.7	155	0	0		
Surr: p-Terphenyl-d14	6157	0	6667	0	92.4	44.9	155	0	0		

Sample ID LCS-9789	SampType: LCS	TestCode: PAHLL_S	Units: µg/Kg	Prep Date: 10/17/2003	Run ID: 5973G_031020A
Client ID: ZZZZZ	Batch ID: 9789	TestNo: 8270SIM		Analysis Date: 10/20/2003	SeqNo: 220031

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	109.3	6.67	166.7	0	65.6	40.4	107	0	0		
Benzo(g,h,i)perylene	158	6.67	166.7	0	94.8	44.6	125	0	0		
Chrysene	144	6.67	166.7	0	86.4	59.9	121	0	0		
Naphthalene	97.33	6.67	166.7	0	58.4	33.5	96.1	0	0		
Phenanthrene	119.3	6.67	166.7	0	71.6	52.2	108	0	0		
Pyrene	148.7	6.67	166.7	0	89.2	53.8	120	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank
J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

BZTO104(e)019831

CLIENT: Time Oil Co.
Work Order: 0310117
Project: NW Terminal-Hand Probes / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: PAHLL_S

Sample ID	0310117-23BMS	SampType:	MS	TestCode:	PAHLL_S	Units:	µg/Kg	Prep Date:	10/20/2003	Run ID:	5973G_031020A
Client ID:	HB03(10-11)/101503	Batch ID:	9789	TestNo:	8270SIM			Analysis Date:	10/20/2003	SeqNo:	220034

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	772	6.67	166.7	656	69.6	33.7	107	0	0		
Benzo(g,h,i)perylene	137.3	6.67	166.7	6	78.8	15	128	0	0		
Chrysene	171.3	6.67	166.7	24	88.4	37.5	125	0	0		
Pyrene	290.7	6.67	166.7	152	83.2	26.8	134	0	0		

Sample ID	0310117-23BMS	SampType:	MS	TestCode:	PAHLL_S	Units:	µg/Kg	Prep Date:	10/20/2003	Run ID:	5973G_031022A
Client ID:	HB03(10-11)/101503	Batch ID:	9789	TestNo:	8270SIM			Analysis Date:	10/22/2003	SeqNo:	220668

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenanthrene	2040	66.7	166.7	2033	4	20.2	139	0	0		S,MC

Sample ID	0310117-23BMSD	SampType:	MSD	TestCode:	PAHLL_S	Units:	µg/Kg	Prep Date:	10/20/2003	Run ID:	5973G_031020A
Client ID:	HB03(10-11)/101503	Batch ID:	9789	TestNo:	8270SIM			Analysis Date:	10/20/2003	SeqNo:	220035

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	814.7	6.67	166.7	656	95.2	33.7	107	772	5.38	20	
Benzo(g,h,i)perylene	138	6.67	166.7	6	79.2	15	128	137.3	0.484	20	
Chrysene	172.7	6.67	166.7	24	89.2	37.5	125	171.3	0.775	20	
Pyrene	294	6.67	166.7	152	85.2	26.8	134	290.7	1.14	20	

Sample ID	0310117-23BMSD	SampType:	MSD	TestCode:	PAHLL_S	Units:	µg/Kg	Prep Date:	10/20/2003	Run ID:	5973G_031022A
Client ID:	HB03(10-11)/101503	Batch ID:	9789	TestNo:	8270SIM			Analysis Date:	10/22/2003	SeqNo:	220669

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenanthrene	2420	66.7	166.7	2033	232	20.2	139	2040	17.0	20	S,MC

Sample ID	CCV-9789	SampType:	CCV	TestCode:	PAHLL_S	Units:	µg/Kg	Prep Date:		Run ID:	5973G_031020A
Client ID:	ZZZZZ	Batch ID:	9789	TestNo:	8270SIM			Analysis Date:	10/20/2003	SeqNo:	220029

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019832

CLIENT: Time Oil Co.
Work Order: 0310117
Project: NW Terminal-Hand Probes / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: PAHLL_S

Sample ID CCV-9789	SampType: CCV	TestCode: PAHLL_S	Units: µg/Kg	Prep Date:	Run ID: 5973G_031020A
Client ID: ZZZZZ	Batch ID: 9789	TestNo: 8270SIM		Analysis Date: 10/20/2003	SeqNo: 220029

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	336	6.67	333.3	0	101	70	130	0	0		
Acenaphthylene	370.7	6.67	333.3	0	111	70	130	0	0		
Anthracene	422	6.67	333.3	0	127	70	130	0	0		
Benz(a)anthracene	375.3	6.67	333.3	0	113	70	130	0	0		
Benzo(a)pyrene	413.3	6.67	333.3	0	124	70	130	0	0		
Benzo(b)fluoranthene	378	6.67	333.3	0	113	70	130	0	0		
Benzo(g,h,i)perylene	417.3	6.67	333.3	0	125	70	130	0	0		
Benzo(k)fluoranthene	382	6.67	333.3	0	115	70	130	0	0		
Chrysene	365.3	6.67	333.3	0	110	70	130	0	0		
Dibenz(a,h)anthracene	412	6.67	333.3	0	124	70	130	0	0		
Fluoranthene	372	6.67	333.3	0	112	70	130	0	0		
Fluorene	366.7	6.67	333.3	0	110	70	130	0	0		
Indeno(1,2,3-cd)pyrene	419.3	6.67	333.3	0	126	70	130	0	0		
Naphthalene	325.3	6.67	333.3	0	97.6	70	130	0	0		
Phenanthrene	344	6.67	333.3	0	103	70	130	0	0		
Pyrene	376	6.67	333.3	0	113	70	130	0	0		

Sample ID CCV-9789	SampType: CCV	TestCode: PAHLL_S	Units: µg/Kg	Prep Date:	Run ID: 5973G_031022A
Client ID: ZZZZZ	Batch ID: 9789	TestNo: 8270SIM		Analysis Date: 10/22/2003	SeqNo: 220662

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	326	6.67	333.3	0	97.8	70	130	0	0		
Acenaphthylene	352	6.67	333.3	0	106	70	130	0	0		
Anthracene	409.3	6.67	333.3	0	123	70	130	0	0		
Benz(a)anthracene	353.3	6.67	333.3	0	106	70	130	0	0		
Benzo(a)pyrene	393.3	6.67	333.3	0	118	70	130	0	0		
Benzo(b)fluoranthene	372.7	6.67	333.3	0	112	70	130	0	0		
Benzo(g,h,i)perylene	368	6.67	333.3	0	110	70	130	0	0		
Benzo(k)fluoranthene	383.3	6.67	333.3	0	115	70	130	0	0		
Chrysene	355.3	6.67	333.3	0	107	70	130	0	0		
Dibenz(a,h)anthracene	373.3	6.67	333.3	0	112	70	130	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

BZTO104(e)019833

CLIENT: Time Oil Co.
Work Order: 0310117
Project: NW Terminal-Hand Probes / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: PAHLL_S

Sample ID CCV-9789	SampType: CCV	TestCode: PAHLL_S	Units: µg/Kg	Prep Date:	Run ID: 5973G_031022A
Client ID: ZZZZZ	Batch ID: 9789	TestNo: 8270SIM		Analysis Date: 10/22/2003	SeqNo: 220662

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoranthene	366.7	6.67	333.3	0	110	70	130	0	0		
Fluorene	370	6.67	333.3	0	111	70	130	0	0		
Indeno(1,2,3-cd)pyrene	377.3	6.67	333.3	0	113	70	130	0	0		
Naphthalene	316	6.67	333.3	0	94.8	70	130	0	0		
Phenanthrene	334	6.67	333.3	0	100	70	130	0	0		
Pyrene	363.3	6.67	333.3	0	109	70	130	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019834

Specialty Analytical

19761 S.W. 95th Place
Tualatin, OR 97062
(503) 612-9007
Fax (503) 612-8572
1 (877) 612-9007

September 30, 2003

Kevin Murphy
Time Oil Co.
2737 West Commodore Way
Seattle, WA 981991233

TEL: 206-286-6443
FAX (206) 285-7833

RE: NW Terminal/PHIII Wells

Dear Kevin Murphy:

Order No.: 0309137

Specialty Analytical received 1 sample on 9/19/2003 for the analyses presented in the following report.

There were no problems with the analysis and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative, or as qualified with flags. Results apply only to the samples analyzed. Without approval of the laboratory, the reproduction of this report is only permitted in its entirety.

If you have any questions regarding these tests, please feel free to call.

Sincerely,

Cindy Hillyard for Dan Marrin
Project Manager

Technical Review

CC:
Rebekah Brooks @ Landau Associates

BZTO104(e)019835

☑ Seattle (Edmonds) (425) 778-0907
☐ Tacoma (253) 926-2493
☐ Spokane (509) 327-9737
☐ Portland (Lake Oswego) (503) 443-6010
☐

Landau Associates

0309137

Date 9/19/03
Page 1 of 1

Chain-of-Custody Record

Project Name Time Oil Project No. 231009
Project Location/Event NW TERMINAL / PHII WELLS
Sampler's Name CHRISTY JOHNSON
Project Contact STACEY FISCHER
Send Results To REBEKAH BROOKS & KEVIN MORAN

Testing Parameters

Turnaround Time
☐ Standard
☐ Accelerated
☐

Sample I.D.	Date	Time	Matrix	No. of Containers	GROUP	Observations/Comments
LW03DS(13.5-14.5)	9/19/03	755	SOIL	1		

Special Shipment/Handling or Storage Requirements STORED ON ICE

Method of Shipment HAND DELIVERED

Relinquished by	Received by	Relinquished by	Received by
Signature [signature]	Signature Cindy Hillyard	Signature	Signature
Printed Name CHRISTY JOHNSON	Printed Name Cindy Hillyard	Printed Name	Printed Name
Company LANDAU ASSOC	Company Specialty	Company	Company
Date 9/19/03 Time 1500	Date 9/19/03 Time 16:40	Date Time	Date Time

WHITE COPY - Project File YELLOW COPY - Laboratory PINK COPY - Client Representative

Rev 4/01

BZTO104(e)019836

Specialty Analytical

Date: *30-Sep-03*

CLIENT: Time Oil Co.
Lab Order: 0309137
Project: NW Terminal/PHIII Wells
Lab ID: 0309137-01

Client Sample ID: LW030s(13.5-14.5)
Collection Date: 9/19/2003 7:55:00 AM
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **btf**
Diesel	6260	16.5		mg/Kg-dry	1	9/25/2003
Lube Oil	ND	55.0		mg/Kg-dry	1	9/25/2003
Surr: o-Terphenyl	327	50-150	S,MI	%REC	1	9/25/2003
BTEX - RBC		**SW8021B**				Analyst: **btf**
Benzene	ND	0.0275		mg/Kg-dry	1	9/23/2003
Toluene	0.304	0.110		mg/Kg-dry	1	9/23/2003
Ethylbenzene	0.759	0.110		mg/Kg-dry	1	9/23/2003
Xylenes, Total	3.21	0.330		mg/Kg-dry	1	9/23/2003
Surr: 4-Bromofluorobenzene	80.6	42.6-126		%REC	1	9/23/2003
NWTPH-GX		**NWTPH-GX**				Analyst: **btf**
Gasoline	1880	27.5		mg/Kg-dry	10	9/23/2003
Surr: 4-Bromofluorobenzene	391	50-150	S,D	%REC	10	9/23/2003
TOTAL METALS BY ICP		**E6010**				Analyst: **tlf**
Lead	ND	1.79		mg/Kg	1	9/26/2003 4:47:44 PM
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	1280	13.3		µg/Kg	2	9/26/2003 5:16:00 PM
Acenaphthylene	1490	13.3		µg/Kg	2	9/26/2003 5:16:00 PM
Anthracene	545	13.3		µg/Kg	2	9/26/2003 5:16:00 PM
Benz(a)anthracene	ND	13.3	Q	µg/Kg	2	9/26/2003 5:16:00 PM
Benzo(a)pyrene	ND	13.3	Q	µg/Kg	2	9/26/2003 5:16:00 PM
Benzo(b)fluoranthene	ND	13.3	Q	µg/Kg	2	9/26/2003 5:16:00 PM
Benzo(g,h,i)perylene	ND	13.3	Q	µg/Kg	2	9/26/2003 5:16:00 PM
Benzo(k)fluoranthene	ND	13.3	Q	µg/Kg	2	9/26/2003 5:16:00 PM
Chrysene	ND	13.3	Q	µg/Kg	2	9/26/2003 5:16:00 PM
Dibenz(a,h)anthracene	ND	13.3	Q	µg/Kg	2	9/26/2003 5:16:00 PM
Fluoranthene	61.3	13.3		µg/Kg	2	9/26/2003 5:16:00 PM
Fluorene	3330	66.7		µg/Kg	10	9/27/2003 9:39:00 AM
Indeno(1,2,3-cd)pyrene	ND	13.3	Q	µg/Kg	2	9/26/2003 5:16:00 PM
Naphthalene	624	13.3		µg/Kg	2	9/26/2003 5:16:00 PM
Phenanthrene	5290	66.7		µg/Kg	10	9/27/2003 9:39:00 AM
Pyrene	171	13.3		µg/Kg	2	9/26/2003 5:16:00 PM
Surr: 2-Fluorobiphenyl	103	42.6-128		%REC	2	9/26/2003 5:16:00 PM
Surr: Nitrobenzene-d5	121	21.7-155		%REC	2	9/26/2003 5:16:00 PM
Surr: p-Terphenyl-d14	84.5	44.9-155		%REC	2	9/26/2003 5:16:00 PM
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
1,2-Dibromoethane	ND	10.0		µg/Kg	1	9/24/2003 7:48:00 PM
1,2-Dichloroethane	ND	10.0		µg/Kg	1	9/24/2003 7:48:00 PM
Methyl tert-butyl ether	ND	10.0		µg/Kg	1	9/24/2003 7:48:00 PM

BZTO104(e)019837

Specialty Analytical

Date: *30-Sep-03*

CLIENT:	Time Oil Co.	**Client Sample ID:**	LW030s(13.5-14.5)
Lab Order:	0309137	**Collection Date:**	9/19/2003 7:55:00 AM
Project:	NW Terminal/PHIII Wells		
Lab ID:	0309137-01	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
Surr: 1,2-Dichloroethane-d4	77.7	71.5-112		%REC	1	9/24/2003 7:48:00 PM
Surr: 4-Bromofluorobenzene	261	75.7-122	S,E,MI	%REC	1	9/24/2003 7:48:00 PM
Surr: Dibromofluoromethane	72.9	64.3-124		%REC	1	9/24/2003 7:48:00 PM
Surr: Toluene-d8	129	74.9-120	S,MI	%REC	1	9/24/2003 7:48:00 PM

BZTO104(e)019838

KEY TO FLAGS

A. This sample contains a Gasoline Range Organic not identified as a specific hydrocarbon product. The result was quantified against gasoline calibration standards.

A1. This sample contains a Diesel Range Organic not identified as a specific hydrocarbon product. The result was quantified against diesel calibration standards.

A2. This sample contains a Lube Oil Range Organic not identified as a specific hydrocarbon product. The result was quantified against lube oil calibration standards.

A3. Results determined to be non detect based on hydrocarbon pattern recognition. The product was carry-over from another hydrocarbon type.

B. The blank exhibited a positive result greater than the reporting limit for this compound.

C. The result confirmed by secondary column or GC/MS analysis.

CN. See case narrative.

CR. Result for this analyte maybe biased due to interferences. Confirmation by GC/MS or other technique is recommended.

D. Surrogate was diluted outside reporting range.

E. Result exceeds the calibration range for the compound. The result should be considered an estimate.

F. The positive result for this hydrocarbon is due to single component contamination. The product does not match any hydrocarbon in the fuels library.

G. Result may be biased high due to biogenic interferences. Silica gel clean-up recommended.

H. Sample was analyzed outside recommended holding times.

HT. At clients request, sample was analyzed outside method recommended holding time.

J. The result for this analyte is between the MDL and the PQL, and should be considered an estimated concentration.

K. Diesel result is biased high due to amount of oil contained in the sample.

L. Diesel result is biased high due to amount of gasoline contained in the sample.

M. Oil result is biased high due to amount of diesel contained in the sample.

MC. Sample concentration is greater than 4x the spiked value; the spiked value is considered insignificant.

MI. Outside control limits due to Matrix Interference.

MSA. Value determined by Method of Standard Addition.

N. Sample appears to contain biogenic material biasing quantification.

O. Laboratory Control Standard (LCS) exceeded laboratory control limits, meets CCV criteria. Data meets EPA requirements.

P. Detected levels of Methylene Chloride may be due to laboratory contamination, due to previous analysis or background levels.

Q. Detection limits elevated due to sample matrix.

R. RPD control limits were exceeded.

RF. Duplicate failed, due to result being at or near method reporting limit.

RP. Matrix spike values exceed established QC limits, post digestion spike is in control.

S. Recovery outside control limits.

*. The result for this parameter was greater than the maximum contaminant level or the TCLP regulatory limit.

rev. October 23, 2001

CLIENT: Time Oil Co.
Work Order: 0309137
Project: NW Terminal/PHIII Wells

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID	MBLK-9613	SampType:	MBLK	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	9/25/2003	Run ID:	TJA IRIS_030926B
Client ID:	ZZZZZ	Batch ID:	9613	TestNo:	E6010			Analysis Date:	9/26/2003	SeqNo:	214723

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	2.00									

Sample ID	LCS-9613	SampType:	LCS	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	9/25/2003	Run ID:	TJA IRIS_030926B
Client ID:	ZZZZZ	Batch ID:	9613	TestNo:	E6010			Analysis Date:	9/26/2003	SeqNo:	214724

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	91.49	2.00	100	0	91.5	92.9	109	0	0		S,O

Sample ID	0309163-01CMS	SampType:	MS	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	9/25/2003	Run ID:	TJA IRIS_030926B
Client ID:	ZZZZZ	Batch ID:	9613	TestNo:	E6010			Analysis Date:	9/26/2003	SeqNo:	214732

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	92.98	1.92	96.15	0	96.7	92.1	104	0	0		

Sample ID	0309163-01CMSD	SampType:	MSD	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	9/25/2003	Run ID:	TJA IRIS_030926B
Client ID:	ZZZZZ	Batch ID:	9613	TestNo:	E6010			Analysis Date:	9/26/2003	SeqNo:	214735

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	84.57	1.79	89.29	0	94.7	92.1	104	92.98	9.47	20	

Sample ID	0309163-01CDUP	SampType:	DUP	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	9/25/2003	Run ID:	TJA IRIS_030926B
Client ID:	ZZZZZ	Batch ID:	9613	TestNo:	E6010			Analysis Date:	9/26/2003	SeqNo:	214729

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	2.00	0	0	0	0	0	0	0	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019840

CLIENT: Time Oil Co.
Work Order: 0309137
Project: NW Terminal/PHIII Wells

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/25/2003	Run ID: TJA IRIS_030926B
Client ID: ZZZZZ	Batch ID: 9613	TestNo: E6010		Analysis Date: 9/26/2003	SeqNo: 214731

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	95.52	2.00	100	0	95.5	90	110	0	0		

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/25/2003	Run ID: TJA IRIS_030926B
Client ID: ZZZZZ	Batch ID: 9613	TestNo: E5010		Analysis Date: 9/26/2003	SeqNo: 214748

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	92.4	2.00	100	0	92.4	90	110	0	0		

Sample ID ICV	SampType: ICV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/25/2003	Run ID: TJA IRIS_030926B
Client ID: ZZZZZ	Batch ID: 9613	TestNo: E6010		Analysis Date: 9/26/2003	SeqNo: 214721

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	96.84	2.00	100	0	96.8	90	110	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019841

CLIENT: Time Oil Co.
Work Order: 0309137
Project: NW Terminal/PHIII Wells

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S

Sample ID: MB	SampType: MBLK	TestCode: 8260_S	Units: µg/Kg	Prep Date: 9/24/2003	Run ID: 5973J_030924A
Client ID: ZZZZZ	Batch ID: 9608	TestNo: SW8260B		Analysis Date: 9/24/2003	SeqNo: 214451

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	10.0									
1,1,1-Trichloroethane	ND	10.0									
1,1,2,2-Tetrachloroethane	ND	10.0									
1,1,2-Trichloroethane	ND	10.0									
1,1-Dichloroethane	ND	10.0									
1,1-Dichloroethene	ND	10.0									
1,1-Dichloropropene	ND	10.0									
1,2,3-Trichlorobenzene	ND	10.0									
1,2,3-Trichloropropane	ND	10.0									
1,2,4-Trichlorobenzene	ND	10.0									
1,2,4-Trimethylbenzene	0.88	10.0									J
1,2-Dibromo-3-chloropropane	ND	10.0									
1,2-Dibromoethane	ND	10.0									
1,2-Dichlorobenzene	ND	10.0									
1,2-Dichloroethane	ND	10.0									
1,2-Dichloropropane	ND	10.0									
1,3,5-Trimethylbenzene	ND	10.0									
1,3-Dichlorobenzene	ND	10.0									
1,3-Dichloropropane	ND	10.0									
1,4-Dichlorobenzene	ND	10.0									
2,2-Dichloropropane	ND	10.0									
2-Butanone	ND	40.0									
2-Chlorotoluene	ND	10.0									
2-Hexanone	ND	20.0									
4-Chlorotoluene	ND	10.0									
4-Isopropyltoluene	ND	10.0									
4-Methyl-2-pentanone	ND	40.0									
Acetone	ND	100									
Benzene	ND	10.0									
Bromobenzene	ND	10.0									
Bromochloromethane	ND	10.0									

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

BZTO104(e)019842

CLIENT: Time Oil Co.
Work Order: 0309137
Project: NW Terminal/PHIII Wells

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S

Sample ID: MB	SampType: MBLK	TestCode: 8260_S	Units: µg/Kg	Prep Date: 9/24/2003	Run ID: 5973J_030924A
Client ID: ZZZZZ	Batch ID: 9608	TestNo: SW8260B		Analysis Date: 9/24/2003	SeqNo: 214451

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromodichloromethane	ND	10.0									
Bromoform	ND	10.0									
Bromomethane	ND	10.0									
Carbon disulfide	ND	10.0									
Carbon tetrachloride	ND	10.0									
Chlorobenzene	ND	10.0									
Chloroethane	ND	10.0									
Chloroform	ND	10.0									
Chloromethane	ND	10.0									
cis-1,2-Dichloroethene	ND	10.0									
cis-1,3-Dichloropropene	ND	10.0									
Dibromochloromethane	ND	10.0									
Dibromomethane	ND	10.0									
Dichlorodifluoromethane	ND	10.0									
Ethylbenzene	ND	10.0									
Hexachlorobutadiene	ND	10.0									
Isopropylbenzene	ND	10.0									
m,p-Xylene	ND	20.0									
Methyl tert-butyl ether	ND	10.0									
Methylene chloride	ND	50.0									
n-Butylbenzene	ND	10.0									
n-Propylbenzene	ND	10.0									
Naphthalene	ND	10.0									
o-Xylene	ND	10.0									
sec-Butylbenzene	ND	10.0									
Styrene	ND	10.0									
tert-Butylbenzene	ND	10.0									
Tetrachloroethene	ND	10.0									
Toluene	ND	10.0									
trans-1,2-Dichloroethene	ND	10.0									
trans-1,3-Dichloropropene	ND	10.0									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019843

CLIENT: Time Oil Co.
Work Order: 0309137
Project: NW Terminal/PHIII Wells

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S

Sample ID MB	SampType: MBLK	TestCode: 8260_S	Units: µg/Kg	Prep Date: 9/24/2003	Run ID: 5973J_030924A
Client ID: ZZZZZ	Batch ID: 9608	TestNo: SW8260B		Analysis Date: 9/24/2003	SeqNo: 214451

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichloroethene	ND	10.0									
Trichlorofluoromethane	ND	10.0									
Vinyl chloride	ND	10.0									
Surr: 1,2-Dichloroethane-d4	74.86	1.00	100	0	74.9	71.5	112	0	0		
Surr: 4-Bromofluorobenzene	101.1	1.00	100	0	101	75.7	122	0	0		
Surr: Dibromofluoromethane	64.47	1.00	100	0	64.5	64.3	124	0	0		
Surr: Toluene-d8	115.9	1.00	100	0	116	74.9	120	0	0		

Sample ID LCS	SampType: LCS	TestCode: 8260_S	Units: µg/Kg	Prep Date: 9/24/2003	Run ID: 5973J_030924A
Client ID: ZZZZZ	Batch ID: 9608	TestNo: SW8260B		Analysis Date: 9/24/2003	SeqNo: 214450

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	81.72	10.0	80	0	102	66.4	133	0	0		
Benzene	83.22	10.0	80	0	104	78	123	0	0		
Chlorobenzene	96.7	10.0	80	0	121	79.5	125	0	0		
Toluene	83.15	10.0	80	0	104	77.5	132	0	0		
Trichloroethene	88.41	10.0	80	0	111	72.4	124	0	0		

Sample ID 0309073-07AMS	SampType: MS	TestCode: 8260_S	Units: µg/Kg	Prep Date: 9/24/2003	Run ID: 5973J_030924A
Client ID: ZZZZZ	Batch ID: 9608	TestNo: SW8260B		Analysis Date: 9/24/2003	SeqNo: 214458

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	39.98	10.0	40	0	100	69.2	158	0	0		
Benzene	34.2	10.0	40	0	85.5	71.7	147	0	0		
Chlorobenzene	38.16	10.0	40	0	95.4	85.6	148	0	0		
Toluene	31.58	10.0	40	0	79	75.8	153	0	0		
Trichloroethene	36.9	10.0	40	0	92.2	77.1	138	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019844

CLIENT: Time Oil Co.
Work Order: 0309137
Project: NW Terminal/PHIII Wells

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S

Sample ID 0309073-07AMSD	SampType: MSD	TestCode: 8260_S	Units: µg/Kg	Prep Date: 9/24/2003	Run ID: 5973J_030924A
Client ID: ZZZZZ	Batch ID: 9608	TestNo: SW8260B		Analysis Date: 9/25/2003	SeqNo: 214464

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	30.4	10.0	40	0	76	69.2	158	39.98	27.2	20	R
Benzene	32.02	10.0	40	0	80	71.7	147	34.2	6.58	20	
Chlorobenzene	37.8	10.0	40	0	94.5	85.6	148	38.16	0.948	20	
Toluene	33.32	10.0	40	0	83.3	75.8	153	31.58	5.36	20	
Trichloroethene	33.56	10.0	40	0	83.9	77.1	138	36.9	9.48	20	

Sample ID CCV	SampType: CCV	TestCode: 8260_S	Units: µg/Kg	Prep Date: 9/24/2003	Run ID: 5973J_030924A
Client ID: ZZZZZ	Batch ID: 9608	TestNo: SW8260B		Analysis Date: 9/24/2003	SeqNo: 214449

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	55.55	10.0	50	0	111	80	120	0	0		
1,2-Dichloropropane	46.03	10.0	50	0	92.1	80	120	0	0		
Chloroform	58.99	10.0	50	0	118	80	120	0	0		
Ethylbenzene	51	10.0	50	0	102	80	120	0	0		
Toluene	52.68	10.0	50	0	105	80	120	0	0		
Vinyl chloride	45.16	10.0	50	0	90.3	80	120	0	0		

Sample ID CCV	SampType: CCV	TestCode: 8260_S	Units: µg/Kg	Prep Date: 9/24/2003	Run ID: 5973J_030924A
Client ID: ZZZZZ	Batch ID: 9608	TestNo: SW8260B		Analysis Date: 9/25/2003	SeqNo: 214462

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	73.97	10.0	80	0	92.5	80	120	0	0		
1,2-Dichloropropane	64.58	10.0	80	0	80.7	80	120	0	0		
Chloroform	68.57	10.0	80	0	85.7	80	120	0	0		
Ethylbenzene	78.03	10.0	80	0	97.5	80	120	0	0		
Toluene	75.84	10.0	80	0	94.8	80	120	0	0		
Vinyl chloride	74.31	10.0	80	0	92.9	80	120	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019845

CLIENT: Time Oil Co.
Work Order: 0309137
Project: NW Terminal/PHIII Wells

ANALYTICAL QC SUMMARY REPORT

TestCode: BTEXRBC_S

Sample ID MBLK	SampType: MBLK	TestCode: BTEXRBC_S	Units: mg/Kg	Prep Date: 9/22/2003	Run ID: GC-H_030922C
Client ID: ZZZZZ	Batch ID: 9578	TestNo: SW8021B		Analysis Date: 9/22/2003	SeqNo: 213700

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0250									
Toluene	ND	0.100									
Ethylbenzene	ND	0.100									
Xylenes, Total	ND	0.300									
Surr: 4-Bromofluorobenzene	3.57	0	5	0	71.4	42.6	126	0	0		

Sample ID MBLK	SampType: MBLK	TestCode: BTEXRBC_S	Units: mg/Kg	Prep Date: 9/23/2003	Run ID: GC-H_030923B
Client ID: ZZZZZ	Batch ID: 9578	TestNo: SW8021B		Analysis Date: 9/23/2003	SeqNo: 214268

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0250									
Toluene	ND	0.100									
Ethylbenzene	ND	0.100									
Xylenes, Total	ND	0.300									
Surr: 4-Bromofluorobenzene	3.78	0	5	0	75.6	42.6	126	0	0		

Sample ID LCS	SampType: LCS	TestCode: BTEXRBC_S	Units: mg/Kg	Prep Date: 9/22/2003	Run ID: GC-H_030922C
Client ID: ZZZZZ	Batch ID: 9578	TestNo: SW8021B		Analysis Date: 9/22/2003	SeqNo: 213701

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1.01	0.0250	1.25	0	80.8	56.1	102	0	0		
Toluene	1.14	0.100	1.25	0	91.2	64.8	107	0	0		
Ethylbenzene	1.12	0.100	1.25	0	89.6	65.5	106	0	0		
Xylenes, Total	3.53	0.300	3.75	0	94.1	65.2	119	0	0		

Sample ID 0309132-03AMS	SampType: MS	TestCode: BTEXRBC_S	Units: mg/Kg-dry	Prep Date: 9/22/2003	Run ID: GC-H_030922C
Client ID: ZZZZZ	Batch ID: 9578	TestNo: SW8021B		Analysis Date: 9/22/2003	SeqNo: 213706

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.557	0.0413	2.066	0	27	32.2	108	0	0		S,MI
Toluene	0.914	0.165	2.066	0.1686	36.1	56.7	101	0	0		S,MI

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank
J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

BZTO104(e)019846

CLIENT: Time Oil Co.
Work Order: 0309137
Project: NW Terminal/PHH Wells

ANALYTICAL QC SUMMARY REPORT

TestCode: BTEXRBC_S

Sample ID 0309132-03AMS	SampType: MS	TestCode: BTEXRBC_S	Units: mg/Kg-dry	Prep Date: 9/22/2003	Run ID: GC-H_030922C
Client ID: ZZZZZ	Batch ID: 9578	TestNo: SW8021B		Analysis Date: 9/22/2003	SeqNo: 213706

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethylbenzene	0.9174	0.165	2.066	0.1835	35.5	53.3	107	0	0		S,MI
Xylenes, Total	2.81	0.496	6.198	0.6231	35.3	47.5	119	0	0		S,MI

Sample ID 0309132-03AMSD	SampType MSD	TestCode: BTEXRBC_S	Units: mg/Kg-dry	Prep Date: 9/22/2003	Run ID: GC-H_030922C
Client ID: ZZZZZ	Batch ID: 9578	TestNo: SW8021B		Analysis Date: 9/22/2003	SeqNo: 213707

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.8893	0.0413	2.066	0	43	32.2	108	0.557	45.9	20	R,MI
Toluene	1.159	0.165	2.066	0.1686	47.9	56.7	101	0.914	23.6	20	S,R,MI
Ethylbenzene	1.286	0.165	2.066	0.1835	53.4	53.3	107	0.9174	33.5	20	R,MI
Xylenes, Total	3.851	0.496	6.198	0.6231	52.1	47.5	119	2.81	31.3	20	R,MI

Sample ID CCV	SampType: CCV	TestCode: BTEXRBC_S	Units: mg/Kg	Prep Date: 9/22/2003	Run ID: GC-H_030922C
Client ID: ZZZZZ	Batch ID: 9578	TestNo: SW8021B		Analysis Date: 9/22/2003	SeqNo: 213702

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	44.8	0.0250	50	0	89.6	85	115	0	0		
Toluene	47.5	0.100	50	0	95	85	115	0	0		
Ethylbenzene	48.1	0.100	50	0	96.2	85	115	0	0		
Xylenes, Total	148.3	0.300	150	0	98.9	85	115	0	0		

Sample ID CCV	SampType: CCV	TestCode: BTEXRBC_S	Units: mg/Kg	Prep Date: 9/23/2003	Run ID: GC-H_030923B
Client ID: ZZZZZ	Batch ID: 9578	TestNo: SW8021B		Analysis Date: 9/23/2003	SeqNo: 214269

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	46.7	0.0250	50	0	93.4	85	115	0	0		
Toluene	49.6	0.100	50	0	99.2	85	115	0	0		
Ethylbenzene	50.1	0.100	50	0	100	85	115	0	0		
Xylenes, Total	153.3	0.300	150	0	102	85	115	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

BZTO104(e)019847

CLIENT: Time Oil Co.
Work Order: 0309137
Project: NW Terminal/PHIII Wells

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHDX_S

Sample ID MBLK	SampType: MBLK	TestCode: NWTPHDX_S	Units mg/Kg	Prep Date: 9/24/2003	Run ID: GC-M_030925A
Client ID: ZZZZZ	Batch ID: 9609	TestNo: NWTPH-Dx		Analysis Date: 9/25/2003	SeqNo: 214542

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	ND	15.0									
Lube Oil	ND	50.0									
Surr: o-Terphenyl	28.23	1.00	33.33	0	84.7	50	150	0	0		

Sample ID LCS	SampType: LCS	TestCode: NWTPHDX_S	Units: mg/Kg	Prep Date: 9/24/2003	Run ID: GC-M_030925A
Client ID: ZZZZZ	Batch ID 9609	TestNo: NWTPH-Dx		Analysis Date: 9/25/2003	SeqNo: 214543

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	156.2	15.0	167.6	0	93.1	76.3	122	0	0		
Lube Oil	154.3	50.0	167.6	0	92	69.9	127	0	0		

Sample ID 0309132-01ADUP	SampType: DUP	TestCode: NWTPHDX_S	Units: mg/Kg-dry	Prep Date: 9/22/2003	Run ID: GC-M_030925A
Client ID: ZZZZZ	Batch ID: 9609	TestNo: NWTPH-Dx		Analysis Date: 9/25/2003	SeqNo: 214551

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	623.3	188	0	0	0	0	0	550.3	12.4	20	
Lube Oil	2302	626	0	0	0	0	0	1879	20.2	20	R

Sample ID 0309162-15ADUP	SampType: DUP	TestCode: NWTPHDX_S	Units: mg/Kg-dry	Prep Date: 9/24/2003	Run ID: GC-M_030926A
Client ID: ZZZZZ	Batch ID: 9609	TestNo: NWTPH-Dx		Analysis Date: 9/26/2003	SeqNo: 214844

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	97.81	19.7	0	0	0	0	0	86.42	12.4	20	
Lube Oil	ND	65.7	0	0	0	0	0	0	0	20	

Sample ID CCV	SampType: CCV	TestCode: NWTPHDX_S	Units: mg/Kg	Prep Date: 9/24/2003	Run ID: GC-M_030925A
Client ID: ZZZZZ	Batch ID: 9609	TestNo: NWTPH-Dx		Analysis Date: 9/25/2003	SeqNo: 214544

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	622.8	15.0	667.2	0	93.4	85	115	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZT0104(e)019848

CLIENT: Time Oil Co.
Work Order: 0309137
Project: NW Terminal/PHIII Wells

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHDX_S

Sample ID CCV	SampType: CCV	TestCode: NWTPHDX_S	Units: mg/Kg	Prep Date: 9/24/2003	Run ID: GC-M_030925A
Client ID: ZZZZZ	Batch ID: 9609	TestNo: NWTPH-Dx		Analysis Date: 9/25/2003	SeqNo: 214544

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lube Oil	230.2	50.0	250.6	0	91.8	85	115	0	0		

Sample ID CCV	SampType: CCV	TestCode: NWTPHDX_S	Units: mg/Kg	Prep Date: 9/24/2003	Run ID: GC-M_030925A
Client ID: ZZZZZ	Batch ID: 9609	TestNo: NWTPH-Dx		Analysis Date: 9/25/2003	SeqNo: 214545

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	643.4	15.0	667.2	0	96.4	85	115	0	0		
Lube Oil	235.6	50.0	250.6	0	94	85	115	0	0		

Sample ID CCV	SampType: CCV	TestCode: NWTPHDX_S	Units: mg/Kg	Prep Date:	Run ID: GC-M_030926A
Client ID: ZZZZZ	Batch ID: 9609	TestNo: NWTPH-Dx		Analysis Date: 9/26/2003	SeqNo: 214829

Analyte	Result	PQL	SPK value	SPK Ref Va	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	599.9	15.0	667.2	0	89.9	85	115	0	0		
Lube Oil	216.9	50.0	250.6	0	86.5	85	115	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

BZTO104(e)019849

CLIENT: Time Oil Co.
Work Order: 0309137
Project: NW Terminal/PHIII Wells

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHGX_S

Sample ID MBLK	SampType: MBLK	TestCode: NWTPHGX_S	Units: mg/Kg	Prep Date: 9/22/2003	Run ID: GC-H_030922B
Client ID: ZZZZZ	Batch ID: 9579	TestNo: NWTPH-Gx		Analysis Date: 9/22/2003	SeqNo: 213694

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	2.50									
Surr: 4-Bromofluorobenzene	77	1.00	100	0	77	50	150	0	0		

Sample ID MBLK	SampType: MBLK	TestCode: NWTPHGX_S	Units: mg/Kg	Prep Date: 9/22/2003	Run ID: GC-H_030923A
Client ID: ZZZZZ	Batch ID: 9579	TestNo: NWTPH-Gx		Analysis Date: 9/23/2003	SeqNo: 213845

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	2.50									
Surr: 4-Bromofluorobenzene	79.1	1.00	100	0	79.1	50	150	0	0		

Sample ID LCS	SampType: LCS	TestCode: NWTPHGX_S	Units: mg/Kg	Prep Date: 9/22/2003	Run ID: GC-H_030922B
Client ID: ZZZZZ	Batch ID: 9579	TestNo: NWTPH-Gx		Analysis Date: 9/22/2003	SeqNo: 213695

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	25.6	2.50	30	0	85.3	53.5	101	0	0		

Sample ID 0309138-02ADUP	SampType: DUP	TestCode: NWTPHGX_S	Units: mg/Kg-dry	Prep Date: 9/22/2003	Run ID: GC-H_030923A
Client ID: ZZZZZ	Batch ID: 9579	TestNo: NWTPH-Gx		Analysis Date: 9/23/2003	SeqNo: 213849

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	8.957	2.90	0	0	0	0	0	7.613	16.2	20	

Sample ID CCV	SampType: CCV	TestCode: NWTPHGX_S	Units: mg/Kg	Prep Date: 9/22/2003	Run ID: GC-H_030922B
Client ID: ZZZZZ	Batch ID: 9579	TestNo: NWTPH-Gx		Analysis Date: 9/22/2003	SeqNo: 213696

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	2752	2.50	3000	0	91.7	80	120	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019850

CLIENT: Time Oil Co.
Work Order: 0309137
Project: NW Terminal/PHIII Wells

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHGX_S

Sample ID: CCV	SampType: CCV	TestCode: NWTPHGX_S	Units: mg/Kg	Prep Date: 9/22/2003	Run ID: GC-H_030923A
Client ID: ZZZZZ	Batch ID: 9579	TestNo: NWTPH-Gx		Analysis Date: 9/23/2003	SeqNo: 213846

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	1978	2.50	2000	0	98.9	80	120	0	0		

Sample ID: CCV	SampType: CCV	TestCode: NWTPHGX_S	Units: mg/Kg	Prep Date: 9/22/2003	Run ID: GC-H_030923A
Client ID: ZZZZZ	Batch ID: 9579	TestNo: NWTPH-Gx		Analysis Date: 9/23/2003	SeqNo: 214079

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	3258	2.50	3000	0	109	80	120	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019851

CLIENT: Time Oil Co.
Work Order: 0309137
Project: NW Terminal/PHIII Wells

ANALYTICAL QC SUMMARY REPORT

TestCode: PAHLL_S

Sample ID: MB-9612	SampType: MBLK	TestCode: PAHLL_S	Units: µg/Kg	Prep Date: 9/25/2003	Run ID: 5973G_030926B
Client ID: ZZZZZ	Batch ID: 9612	TestNo: 8270SIM		Analysis Date: 9/26/2003	SeqNo: 214770

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	ND	6.67									
Acenaphthylene	ND	6.67									
Anthracene	ND	6.67									
Benz(a)anthracene	ND	6.67									
Benzo(a)pyrene	ND	6.67									
Benzo(b)fluoranthene	ND	6.67									
Benzo(g,h,i)perylene	ND	6.67									
Benzo(k)fluoranthene	ND	6.67									
Chrysene	ND	6.67									
Dibenz(a,h)anthracene	ND	6.67									
Fluoranthene	ND	6.67									
Fluorene	ND	6.67									
Indeno(1,2,3-cd)pyrene	ND	6.67									
Naphthalene	ND	6.67									
Phenanthrene	ND	6.67									
Pyrene	ND	6.67									
Surr: 2-Fluorobiphenyl	3931	0	6667	0	59	42.6	128	0	0		
Surr: Nitrobenzene-d5	3741	0	6667	0	56.1	21.7	155	0	0		
Surr: p-Terphenyl-d14	5750	0	6667	0	86.2	44.9	155	0	0		

Sample ID: LCS-9612	SampType: LCS	TestCode: PAHLL_S	Units: µg/Kg	Prep Date: 9/25/2003	Run ID: 5973G_030926B
Client ID: ZZZZZ	Batch ID: 9612	TestNo: 8270SIM		Analysis Date: 9/26/2003	SeqNo: 214775

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	95.33	6.67	166.7	0	57.2	40.4	107	0	0		
Benzo(g,h,i)perylene	120.7	6.67	166.7	0	72.4	44.6	125	0	0		
Chrysene	140.7	6.67	166.7	0	84.4	59.9	121	0	0		
Naphthalene	82	6.67	166.7	0	49.2	33.5	96.1	0	0		
Phenanthrene	116	6.67	166.7	0	69.6	52.2	108	0	0		
Pyrene	140	6.67	166.7	0	84	53.8	120	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019852

CLIENT: Time Oil Co.
Work Order: 0309137
Project: NW Terminal/PHIII Wells

ANALYTICAL QC SUMMARY REPORT

TestCode: PAHLL_S

Sample ID 0309137-01BMS	SampType: MS	TestCode: PAHLL_S	Units: µg/Kg	Prep Date: 9/25/2003	Run ID: 5973G_030926B
Client ID: LW030s(13.5-14.5)	Batch ID: 9612	TestNo: 8270SIM		Analysis Date: 9/26/2003	SeqNo: 214777

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	1441	13.3	166.7	1284	94.4	33.7	107	0	0		
Benzo(g,h,i)perylene	109.3	13.3	166.7	0	65.6	15	128	0	0		
Chrysene	164	13.3	166.7	10.67	92	37.5	125	0	0		
Naphthalene	566.7	13.3	166.7	624	-34.4	27.7	108	0	0		S
Pyrene	360	13.3	166.7	170.7	114	26.8	134	0	0		

Sample ID 0309137-01BMS	SampType: MS	TestCode: PAHLL_S	Units: µg/Kg	Prep Date: 9/25/2003	Run ID: 5973G_030927A
Client ID: LW030s(13.5-14.5)	Batch ID: 9612	TestNo: 8270SIM		Analysis Date: 9/27/2003	SeqNo: 214782

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenanthrene	5340	66.7	166.7	5287	32	20.2	139	0	0		MC

Sample ID 0309137-01BMSD	SampType: MSD	TestCode: PAHLL_S	Units: µg/Kg	Prep Date: 9/25/2003	Run ID: 5973G_030926B
Client ID: LW030s(13.5-14.5)	Batch ID: 9612	TestNo: 8270SIM		Analysis Date: 9/26/2003	SeqNo: 214778

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	1147	13.3	166.7	1284	-82.4	33.7	107	1441	22.8	20	SR
Benzo(g,h,i)perylene	84	13.3	166.7	0	50.4	15	128	109.3	26.2	20	R
Chrysene	130.7	13.3	166.7	10.67	72	37.5	125	164	22.6	20	R
Naphthalene	470.7	13.3	166.7	624	-92	27.7	108	566.7	18.5	20	S
Pyrene	273.3	13.3	166.7	170.7	61.6	26.8	134	360	27.4	20	R

Sample ID 0309137-01BMSD	SampType: MSD	TestCode: PAHLL_S	Units: µg/Kg	Prep Date: 9/25/2003	Run ID: 5973G_030927A
Client ID: LW030s(13.5-14.5)	Batch ID: 9612	TestNo: 8270SIM		Analysis Date: 9/27/2003	SeqNo: 214783

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenanthrene	4400	66.7	166.7	5287	-532	20.2	139	5340	19.3	20	S

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

BZTO104(e)019853

CLIENT: Time Oil Co.
Work Order: 0309137
Project: NW Terminal/PHIII Wells

ANALYTICAL QC SUMMARY REPORT

TestCode: PAHLL_S

Sample ID: CCV-9612	SampType: CCV	TestCode: PAHLL_S	Units: µg/Kg	Prep Date:	Run ID: 5973G_030926B
Client ID: ZZZZZ	Batch ID: 9612	TestNo: 8270SIM		Analysis Date: 9/26/2003	SeqNo: 214769

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	62	6.67	66.67	0	93	70	130	0	0		
Acenaphthylene	70	6.67	66.67	0	105	70	130	0	0		
Anthracene	72	6.67	66.67	0	108	70	130	0	0		
Benz(a)anthracene	70	6.67	66.67	0	105	70	130	0	0		
Benzo(a)pyrene	68	6.67	66.67	0	102	70	130	0	0		
Benzo(b)fluoranthene	66.67	6.67	66.67	0	100	70	130	0	0		
Benzo(g,h,i)perylene	60.67	6.67	66.67	0	91	70	130	0	0		
Benzo(k)fluoranthene	66	6.67	66.67	0	99	70	130	0	0		
Chrysene	65.33	6.67	66.67	0	98	70	130	0	0		
Dibenz(a,h)anthracene	61.33	6.67	66.67	0	92	70	130	0	0		
Fluoranthene	70.67	6.67	66.67	0	106	70	130	0	0		
Fluorene	71.33	6.67	66.67	0	107	70	130	0	0		
Indeno(1,2,3-cd)pyrene	62.67	6.67	66.67	0	94	70	130	0	0		
Naphthalene	61.33	6.67	66.67	0	92	70	130	0	0		
Phenanthrene	64.67	6.67	66.67	0	97	70	130	0	0		
Pyrene	67.33	6.67	66.67	0	101	70	130	0	0		

Sample ID: CCV-9612	SampType: CCV	TestCode: PAHLL_S	Units: µg/Kg	Prep Date:	Run ID: 5973G_030927A
Client ID: ZZZZZ	Batch ID: 9612	TestNo: 8270SIM		Analysis Date: 9/27/2003	SeqNo: 214779

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	62	6.67	66.67	0	93	70	130	0	0		
Acenaphthylene	66.67	6.67	66.67	0	100	70	130	0	0		
Anthracene	70.67	6.67	66.67	0	106	70	130	0	0		
Benz(a)anthracene	66	6.67	66.67	0	99	70	130	0	0		
Benzo(a)pyrene	65.33	6.67	66.67	0	98	70	130	0	0		
Benzo(b)fluoranthene	64	6.67	66.67	0	96	70	130	0	0		
Benzo(g,h,i)perylene	56.67	6.67	66.67	0	85	70	130	0	0		
Benzo(k)fluoranthene	67.33	6.67	66.67	0	101	70	130	0	0		
Chrysene	66.67	6.67	66.67	0	100	70	130	0	0		
Dibenz(a,h)anthracene	57.33	6.67	66.67	0	86	70	130	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

BZTO104(e)019854

CLIENT: Time Oil Co.
Work Order: 0309137
Project: NW Terminal/PHIII Wells

ANALYTICAL QC SUMMARY REPORT

TestCode: PAHLL_S

Sample ID: CCV-9612	SampType: CCV	TestCode: PAHLL_S	Units: µg/Kg	Prep Date:	Run ID: 5973G_030927A
Client ID: ZZZZZ	Batch ID: 9612	TestNo: 8270SIM		Analysis Date: 9/27/2003	SeqNo: 214779

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoranthene	68	6.67	66.67	0	102	70	130	0	0		
Fluorene	70	6.67	66.67	0	105	70	130	0	0		
Indeno(1,2,3-cd)pyrene	58.67	6.67	66.67	0	88	70	130	0	0		
Naphthalene	61.33	6.67	66.67	0	92	70	130	0	0		
Phenanthrene	64.67	6.67	66.67	0	97	70	130	0	0		
Pyrene	68.67	6.67	66.67	0	103	70	130	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019855

Specialty Analytical

19761 S.W. 95th Place
Tualatin, OR 97062
(503) 612-9007
Fax (503) 612-8572
1 (877) 612-9007

October 01, 2003

Kevin Murphy
Time Oil Co.
2737 West Commodore Way
Seattle, WA 981991233

TEL: 206-286-6443
FAX (206) 285-7833

RE: PHIII Well Install / 231009.31

Dear Kevin Murphy:

Order No.: 0309163

Specialty Analytical received 4 samples on 9/24/2003 for the analyses presented in the following report.

There were no problems with the analysis and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative, or as qualified with flags. Results apply only to the samples analyzed. Without approval of the laboratory, the reproduction of this report is only permitted in its entirety.

If you have any questions regarding these tests, please feel free to call.

Sincerely,

Dan Marrin
Project Manager

Technical Review

CC:
Rebekah Brooks @ Landau Associates

BZTO104(e)019856

0309163

☒ Seattle (Edmonds) (425) 778-0907
☐ Tacoma (253) 926-2493
☐ Spokane (509) 327-9737
☐ Portland (Lake Oswego) (503) 443-6010
☐ _____

Landau Associates

Date 9/22/03
Page 1 of 1

Chain-of-Custody Record

Project Name RHTII WELLINSTALLS Project No. 231009.31
Project Location/Event TIME OIL NW TERMINAL
Sampler's Name CHRISTY JOHNSON
Project Contact STACY FISCHER
Send Results To [illegible] Tracin Murray (Time Oil)

Testing Parameters

Turnaround Time
☒ Standard
☐ Accelerated
☐ _____

Sample I.D.	Date	Time	Matrix	No. of Containers	NWTPH-DX	NWTPH-GX	BETX	TAH	MTBE	LEAD	EDB	EDC	Observations/Comments
~~[illegible]~~ LW029D(15-16)	9/22/03	1150	SOIL	1	/	/	/	/	/	/	/	/	
LW028S(12-13)	9/23/03	1450	↓	1	/	/	/	/	/	/	/	/	
LW023D(22.5-23.5)	9/24/03	1020	↓	2	/	/	/	/	/	/	/	/	
LW022D(24-25)	9/24/03	1445	↓	2	/	/	/	/	/	/	/	/	

Special Shipment/Handling or Storage Requirements: STORED ON ICE

Method of Shipment: HAND DELIVERED

Relinquished by	Received by	Relinquished by	Received by
[signature]	[signature]		
Signature	Signature	Signature	Signature
CHRISTY JOHNSON	Dean Strom		
Printed Name	Printed Name	Printed Name	Printed Name
LANDAU ASSOC	Specialty		
Company	Company	Company	Company
Date 9/24/03 Time 1640	Date 9/24/03 Time 1640	Date _____ Time _____	Date _____ Time _____

WHITE COPY - Project File YELLOW COPY - Laboratory PINK COPY - Client Representative

Rev 4/01

BZTO104(e)019857

Specialty Analytical

Date: *01-Oct-03*

CLIENT: Time Oil Co.
Lab Order: 0309163
Project: PHIII Well Install / 231009.31
Lab ID: 0309163-01

Client Sample ID: LW029D (15-16)
Collection Date: 9/22/2003 11:50:00 AM
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **btf**
Diesel	ND	18.1		mg/Kg-dry	1	9/29/2003
Lube Oil	ND	60.4		mg/Kg-dry	1	9/29/2003
Surr: o-Terphenyl	70.7	50-150		%REC	1	9/29/2003
BTEX - RBC		**SW8021B**				Analyst: **btf**
Benzene	ND	0.0302		mg/Kg-dry	1	9/25/2003
Toluene	ND	0.121		mg/Kg-dry	1	9/25/2003
Ethylbenzene	ND	0.121		mg/Kg-dry	1	9/25/2003
Xylenes, Total	ND	0.362		mg/Kg-dry	1	9/25/2003
Surr: 4-Bromofluorobenzene	77.8	42.6-126		%REC	1	9/25/2003
NWTPH-GX		**NWTPH-GX**				Analyst: **btf**
Gasoline	ND	3.02		mg/Kg-dry	1	9/25/2003
Surr: 4-Bromofluorobenzene	81.8	50-150		%REC	1	9/25/2003
TOTAL METALS BY ICP		**E6010**				Analyst: **tlf**
Lead	ND	1.85		mg/Kg	1	9/26/2003 3:42:08 PM
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	ND	6.67		µg/Kg	1	9/26/2003 2:00:00 PM
Acenaphthylene	ND	6.67		µg/Kg	1	9/26/2003 2:00:00 PM
Anthracene	ND	6.67		µg/Kg	1	9/26/2003 2:00:00 PM
Benz(a)anthracene	ND	6.67		µg/Kg	1	9/26/2003 2:00:00 PM
Benzo(a)pyrene	ND	6.67		µg/Kg	1	9/26/2003 2:00:00 PM
Benzo(b)fluoranthene	ND	6.67		µg/Kg	1	9/26/2003 2:00:00 PM
Benzo(g,h,i)perylene	ND	6.67		µg/Kg	1	9/26/2003 2:00:00 PM
Benzo(k)fluoranthene	ND	6.67		µg/Kg	1	9/26/2003 2:00:00 PM
Chrysene	ND	6.67		µg/Kg	1	9/26/2003 2:00:00 PM
Dibenz(a,h)anthracene	ND	6.67		µg/Kg	1	9/26/2003 2:00:00 PM
Fluoranthene	ND	6.67		µg/Kg	1	9/26/2003 2:00:00 PM
Fluorene	ND	6.67		µg/Kg	1	9/26/2003 2:00:00 PM
Indeno(1,2,3-cd)pyrene	ND	6.67		µg/Kg	1	9/26/2003 2:00:00 PM
Naphthalene	ND	6.67		µg/Kg	1	9/26/2003 2:00:00 PM
Phenanthrene	ND	6.67		µg/Kg	1	9/26/2003 2:00:00 PM
Pyrene	ND	6.67		µg/Kg	1	9/26/2003 2:00:00 PM
Surr: 2-Fluorobiphenyl	58.6	42.6-128		%REC	1	9/26/2003 2:00:00 PM
Surr: Nitrobenzene-d5	61.2	21.7-155		%REC	1	9/26/2003 2:00:00 PM
Surr: p-Terphenyl-d14	82.5	44.9-155		%REC	1	9/26/2003 2:00:00 PM
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
1,2-Dibromoethane	ND	10.0		µg/Kg	1	9/26/2003 6:51:00 PM
1,2-Dichloroethane	ND	10.0		µg/Kg	1	9/26/2003 6:51:00 PM
Methyl tert-butyl ether	ND	10.0		µg/Kg	1	9/26/2003 6:51:00 PM

BZTO104(e)019858

Specialty Analytical

Date: *01-Oct-03*

CLIENT:	Time Oil Co.	**Client Sample ID:**	LW029D (15-16)
Lab Order:	0309163	**Collection Date:**	9/22/2003 11:50:00 AM
Project:	PHIII Well Install / 231009.31		
Lab ID:	0309163-01	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
Surr: 1,2-Dichloroethane-d4	102	71.5-112		%REC	1	9/26/2003 6:51:00 PM
Surr: 4-Bromofluorobenzene	126	75.7-122	S	%REC	1	9/26/2003 6:51:00 PM
Surr: Dibromofluoromethane	91.6	64.3-124		%REC	1	9/26/2003 6:51:00 PM
Surr: Toluene-d8	112	74.9-120		%REC	1	9/26/2003 6:51:00 PM

BZTO104(e)019859

Specialty Analytical

Date: *01-Oct-03*

CLIENT: Time Oil Co.
Lab Order: 0309163
Project: PHIII Well Install / 231009.31
Lab ID: 0309163-02

Client Sample ID: LW028C (12-13)
Collection Date: 9/23/2003 2:50:00 PM
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **btf**
Diesel	ND	17.9		mg/Kg-dry	1	9/29/2003
Lube Oil	ND	59.7		mg/Kg-dry	1	9/29/2003
Surr: o-Terphenyl	76.7	50-150		%REC	1	9/29/2003
BTEX - RBC		**SW8021B**				Analyst: **btf**
Benzene	ND	0.0298		mg/Kg-dry	1	9/25/2003
Toluene	ND	0.119		mg/Kg-dry	1	9/25/2003
Ethylbenzene	ND	0.119		mg/Kg-dry	1	9/25/2003
Xylenes, Total	ND	0.358		mg/Kg-dry	1	9/25/2003
Surr: 4-Bromofluorobenzene	86.0	42.6-126		%REC	1	9/25/2003
NWTPH-GX		**NWTPH-GX**				Analyst: **btf**
Gasoline	ND	2.98		mg/Kg-dry	1	9/25/2003
Surr: 4-Bromofluorobenzene	83.5	50-150		%REC	1	9/25/2003
TOTAL METALS BY ICP		**E6010**				Analyst: **tlf**
Lead	ND	1.67		mg/Kg	1	9/26/2003 4:31:22 PM
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	ND	6.67		µg/Kg	1	9/26/2003 2:33:00 PM
Acenaphthylene	ND	6.67		µg/Kg	1	9/26/2003 2:33:00 PM
Anthracene	ND	6.67		µg/Kg	1	9/26/2003 2:33:00 PM
Benz(a)anthracene	ND	6.67		µg/Kg	1	9/26/2003 2:33:00 PM
Benzo(a)pyrene	ND	6.67		µg/Kg	1	9/26/2003 2:33:00 PM
Benzo(b)fluoranthene	ND	6.67		µg/Kg	1	9/26/2003 2:33:00 PM
Benzo(g,h,i)perylene	ND	6.67		µg/Kg	1	9/26/2003 2:33:00 PM
Benzo(k)fluoranthene	ND	6.67		µg/Kg	1	9/26/2003 2:33:00 PM
Chrysene	ND	6.67		µg/Kg	1	9/26/2003 2:33:00 PM
Dibenz(a,h)anthracene	ND	6.67		µg/Kg	1	9/26/2003 2:33:00 PM
Fluoranthene	ND	6.67		µg/Kg	1	9/26/2003 2:33:00 PM
Fluorene	ND	6.67		µg/Kg	1	9/26/2003 2:33:00 PM
Indeno(1,2,3-cd)pyrene	ND	6.67		µg/Kg	1	9/26/2003 2:33:00 PM
Naphthalene	ND	6.67		µg/Kg	1	9/26/2003 2:33:00 PM
Phenanthrene	ND	6.67		µg/Kg	1	9/26/2003 2:33:00 PM
Pyrene	ND	6.67		µg/Kg	1	9/26/2003 2:33:00 PM
Surr: 2-Fluorobiphenyl	88.0	42.6-128		%REC	1	9/26/2003 2:33:00 PM
Surr: Nitrobenzene-d5	87.9	21.7-155		%REC	1	9/26/2003 2:33:00 PM
Surr: p-Terphenyl-d14	95.7	44.9-155		%REC	1	9/26/2003 2:33:00 PM
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
1,2-Dibromoethane	ND	10.0		µg/Kg	1	9/26/2003 7:25:00 PM
1,2-Dichloroethane	ND	10.0		µg/Kg	1	9/26/2003 7:25:00 PM
Methyl tert-butyl ether	ND	10.0		µg/Kg	1	9/26/2003 7:25:00 PM

BZTO104(e)019860

Specialty Analytical

Date: *01-Oct-03*

CLIENT:	Time Oil Co.	**Client Sample ID:**	LW028C (12-13)
Lab Order:	0309163	**Collection Date:**	9/23/2003 2:50:00 PM
Project:	PHIII Well Install / 231009.31		
Lab ID:	0309163-02	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
Surr: 1,2-Dichloroethane-d4	103	71.5-112		%REC	1	9/26/2003 7:25:00 PM
Surr: 4-Bromofluorobenzene	121	75.7-122		%REC	1	9/26/2003 7:25:00 PM
Surr: Dibromofluoromethane	103	64.3-124		%REC	1	9/26/2003 7:25:00 PM
Surr: Toluene-d8	114	74.9-120		%REC	1	9/26/2003 7:25:00 PM

BZTO104(e)019861

Specialty Analytical

Date: *01-Oct-03*

CLIENT:	Time Oil Co.	**Client Sample ID:**	LW023D (22.5-23.5)
Lab Order:	0309163	**Collection Date:**	9/24/2003 10:20:00 AM
Project:	PHIII Well Install / 231009.31		
Lab ID:	0309163-03	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **btf**
Diesel	ND	16.6		mg/Kg-dry	1	9/29/2003
Lube Oil	ND	55.3		mg/Kg-dry	1	9/29/2003
Surr: o-Terphenyl	86.1	50-150		%REC	1	9/29/2003
BTEX - RBC		**SW8021B**				Analyst: **btf**
Benzene	ND	0.0276		mg/Kg-dry	1	9/25/2003
Toluene	ND	0.111		mg/Kg-dry	1	9/25/2003
Ethylbenzene	ND	0.111		mg/Kg-dry	1	9/25/2003
Xylenes, Total	ND	0.332		mg/Kg-dry	1	9/25/2003
Surr: 4-Bromofluorobenzene	84.0	42.6-126		%REC	1	9/25/2003
NWTPH-GX		**NWTPH-GX**				Analyst: **btf**
Gasoline	ND	2.76		mg/Kg-dry	1	9/25/2003
Surr: 4-Bromofluorobenzene	83.6	50-150		%REC	1	9/25/2003
TOTAL METALS BY ICP		**E6010**				Analyst: **tlf**
Lead	ND	1.92		mg/Kg	1	9/26/2003 4:36:49 PM
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	ND	6.67		µg/Kg	1	9/26/2003 3:06:00 PM
Acenaphthylene	8.00	6.67		µg/Kg	1	9/26/2003 3:06:00 PM
Anthracene	22.0	6.67		µg/Kg	1	9/26/2003 3:06:00 PM
Benz(a)anthracene	41.3	6.67		µg/Kg	1	9/26/2003 3:06:00 PM
Benzo(a)pyrene	31.3	6.67		µg/Kg	1	9/26/2003 3:06:00 PM
Benzo(b)fluoranthene	29.3	6.67		µg/Kg	1	9/26/2003 3:06:00 PM
Benzo(g,h,i)perylene	14.0	6.67		µg/Kg	1	9/26/2003 3:06:00 PM
Benzo(k)fluoranthene	11.3	6.67		µg/Kg	1	9/26/2003 3:06:00 PM
Chrysene	36.7	6.67		µg/Kg	1	9/26/2003 3:06:00 PM
Dibenz(a,h)anthracene	ND	6.67		µg/Kg	1	9/26/2003 3:06:00 PM
Fluoranthene	73.3	6.67		µg/Kg	1	9/26/2003 3:06:00 PM
Fluorene	ND	6.67		µg/Kg	1	9/26/2003 3:06:00 PM
Indeno(1,2,3-cd)pyrene	12.0	6.67		µg/Kg	1	9/26/2003 3:06:00 PM
Naphthalene	ND	6.67		µg/Kg	1	9/26/2003 3:06:00 PM
Phenanthrene	62.7	6.67		µg/Kg	1	9/26/2003 3:06:00 PM
Pyrene	94.7	6.67		µg/Kg	1	9/26/2003 3:06:00 PM
Surr: 2-Fluorobiphenyl	78.7	42.6-128		%REC	1	9/26/2003 3:06:00 PM
Surr: Nitrobenzene-d5	75.8	21.7-155		%REC	1	9/26/2003 3:06:00 PM
Surr: p-Terphenyl-d14	87.2	44.9-155		%REC	1	9/26/2003 3:06:00 PM
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
1,2-Dibromoethane	ND	10.0		µg/Kg	1	9/26/2003 7:59:00 PM
1,2-Dichloroethane	ND	10.0		µg/Kg	1	9/26/2003 7:59:00 PM
Methyl tert-butyl ether	ND	10.0		µg/Kg	1	9/26/2003 7:59:00 PM

BZTO104(e)019862

Specialty Analytical

Date: *01-Oct-03*

CLIENT:	Time Oil Co.	**Client Sample ID:**	LW023D (22.5-23.5)
Lab Order:	0309163	**Collection Date:**	9/24/2003 10:20:00 AM
Project:	PHIII Well Install / 231009.31		
Lab ID:	0309163-03	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
Surr: 1,2-Dichloroethane-d4	89.2	71.5-112		%REC	1	9/26/2003 7:59:00 PM
Surr: 4-Bromofluorobenzene	120	75.7-122		%REC	1	9/26/2003 7:59:00 PM
Surr: Dibromofluoromethane	86.1	64.3-124		%REC	1	9/26/2003 7:59:00 PM
Surr: Toluene-d8	116	74.9-120		%REC	1	9/26/2003 7:59:00 PM

BZTO104(e)019863

Specialty Analytical

Date: *01-Oct-03*

CLIENT: Time Oil Co.
Client Sample ID: LW022D (24-25)
Lab Order: 0309163
Collection Date: 9/24/2003 2:45:00 PM
Project: PHIII Well Install / 231009.31
Lab ID: 0309163-04
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **btf**
Diesel	ND	16.6		mg/Kg-dry	1	9/29/2003
Lube Oil	ND	55.2		mg/Kg-dry	1	9/29/2003
Surr: o-Terphenyl	77.0	50-150		%REC	1	9/29/2003
BTEX - RBC		**SW8021B**				Analyst: **btf**
Benzene	ND	0.0276		mg/Kg-dry	1	9/25/2003
Toluene	ND	0.110		mg/Kg-dry	1	9/25/2003
Ethylbenzene	ND	0.110		mg/Kg-dry	1	9/25/2003
Xylenes, Total	ND	0.331		mg/Kg-dry	1	9/25/2003
Surr: 4-Bromofluorobenzene	86.0	42.6-126		%REC	1	9/25/2003
NWTPH-GX		**NWTPH-GX**				Analyst: **btf**
Gasoline	ND	2.76		mg/Kg-dry	1	9/25/2003
Surr: 4-Bromofluorobenzene	85.9	50-150		%REC	1	9/25/2003
TOTAL METALS BY ICP		**E6010**				Analyst: **tlf**
Lead	4.49	1.85		mg/Kg	1	9/26/2003 4:42:17 PM
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	ND	6.67		µg/Kg	1	9/26/2003 3:38:00 PM
Acenaphthylene	ND	6.67		µg/Kg	1	9/26/2003 3:38:00 PM
Anthracene	8.00	6.67		µg/Kg	1	9/26/2003 3:38:00 PM
Benz(a)anthracene	16.7	6.67		µg/Kg	1	9/26/2003 3:38:00 PM
Benzo(a)pyrene	12.7	6.67		µg/Kg	1	9/26/2003 3:38:00 PM
Benzo(b)fluoranthene	12.7	6.67		µg/Kg	1	9/26/2003 3:38:00 PM
Benzo(g,h,i)perylene	ND	6.67		µg/Kg	1	9/26/2003 3:38:00 PM
Benzo(k)fluoranthene	ND	6.67		µg/Kg	1	9/26/2003 3:38:00 PM
Chrysene	14.0	6.67		µg/Kg	1	9/26/2003 3:38:00 PM
Dibenz(a,h)anthracene	ND	6.67		µg/Kg	1	9/26/2003 3:38:00 PM
Fluoranthene	29.3	6.67		µg/Kg	1	9/26/2003 3:38:00 PM
Fluorene	ND	6.67		µg/Kg	1	9/26/2003 3:38:00 PM
Indeno(1,2,3-cd)pyrene	ND	6.67		µg/Kg	1	9/26/2003 3:38:00 PM
Naphthalene	ND	6.67		µg/Kg	1	9/26/2003 3:38:00 PM
Phenanthrene	32.7	6.67		µg/Kg	1	9/26/2003 3:38:00 PM
Pyrene	38.0	6.67		µg/Kg	1	9/26/2003 3:38:00 PM
Surr: 2-Fluorobiphenyl	70.7	42.6-128		%REC	1	9/26/2003 3:38:00 PM
Surr: Nitrobenzene-d5	60.5	21.7-155		%REC	1	9/26/2003 3:38:00 PM
Surr: p-Terphenyl-d14	88.4	44.9-155		%REC	1	9/26/2003 3:38:00 PM
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
1,2-Dibromoethane	ND	10.0		µg/Kg	1	9/26/2003 8:34:00 PM
1,2-Dichloroethane	ND	10.0		µg/Kg	1	9/26/2003 8:34:00 PM
Methyl tert-butyl ether	ND	10.0		µg/Kg	1	9/26/2003 8:34:00 PM

BZTO104(e)019864

Specialty Analytical

Date: *01-Oct-03*

CLIENT:	Time Oil Co.	**Client Sample ID:**	LW022D (24-25)
Lab Order:	0309163	**Collection Date:**	9/24/2003 2:45:00 PM
Project:	PHIII Well Install / 231009.31		
Lab ID:	0309163-04	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
Surr: 1,2-Dichloroethane-d4	97.5	71.5-112		%REC	1	9/26/2003 8:34:00 PM
Surr: 4-Bromofluorobenzene	135	75.7-122	S	%REC	1	9/26/2003 8:34:00 PM
Surr: Dibromofluoromethane	99.5	64.3-124		%REC	1	9/26/2003 8:34:00 PM
Surr: Toluene-d8	130	74.9-120	S	%REC	1	9/26/2003 8:34:00 PM

BZTO104(e)019865

Specialty Analytical

Date: *01-Oct-03*

CLIENT: Time Oil Co.
Work Order: 0309163
Project: PHII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID	MBLK-9613	SampType:	MBLK	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	9/25/2003	Run ID:	TJA IRIS_030926B
Client ID:	ZZZZZ	Batch ID:	9613	TestNo:	E6010			Analysis Date:	9/26/2003	SeqNo:	214723

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	2.00									

Sample ID	LCS-9613	SampType:	LCS	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	9/25/2003	Run ID:	TJA IRIS_030926B
Client ID:	ZZZZZ	Batch ID:	9613	TestNo:	E6010			Analysis Date:	9/26/2003	SeqNo:	214724

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	91.49	2.00	100	0	91.5	92.9	109	0	0		S,O

Sample ID	0309163-01CMS	SampType:	MS	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	9/25/2003	Run ID:	TJA IRIS_030926B
Client ID:	LW029D (15-16)	Batch ID:	9613	TestNo:	E6010			Analysis Date:	9/26/2003	SeqNo:	214732

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	92.98	1.92	96.15	0	96.7	92.1	104	0	0		

Sample ID	0309163-01CMSD	SampType:	MSD	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	9/25/2003	Run ID:	TJA IRIS_030926B
Client ID:	LW029D (15-16)	Batch ID:	9613	TestNo:	E6010			Analysis Date:	9/26/2003	SeqNo:	214735

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	84.57	1.79	89.29	0	94.7	92.1	104	92.98	9.47	20	

Sample ID	0309163-01CDUP	SampType	DUP	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	9/25/2003	Run ID:	TJA IRIS_030926B
Client ID:	LW029D (15-16)	Batch ID:	9613	TestNo:	E6010			Analysis Date:	9/26/2003	SeqNo:	214729

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	2.00	0	0	0	0	0	0	0	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019866

CLIENT: Time Oil Co.
Work Order: 0309163
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID: CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/25/2003	Run ID: TJA IRIS_030926B
Client ID: ZZZZZ	Batch ID: 9613	TestNo: E6010		Analysis Date: 9/26/2003	SeqNo: 214731

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	95.52	2.00	100	0	95.5	90	110	0	0		

Sample ID: CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/25/2003	Run ID: TJA IRIS_030926B
Client ID: ZZZZZ	Batch ID: 9613	TestNo: E6010		Analysis Date: 9/26/2003	SeqNo: 214748

Analyte	Result	PQL	SPK value	SPK Ref Va	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	92.4	2.00	100	0	92.4	90	110	0	0		

Sample ID: ICV	SampType: ICV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/25/2003	Run ID: TJA IRIS_030926B
Client ID: ZZZZZ	Batch ID: 9613	TestNo: E6010		Analysis Date: 9/26/2003	SeqNo: 214721

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	96.84	2.00	100	0	96.8	90	110	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019867

CLIENT: Time Oil Co.
Work Order: 0309163
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S

Sample ID: MB	SampType: MBLK	TestCode: 8260_S	Units: µg/Kg	Prep Date: 9/26/2003	Run ID: 5973L_030926B
Client ID: ZZZZZ	Batch ID: 9638	TestNo: SW8260B		Analysis Date: 9/26/2003	SeqNo: 215489

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	10.0									
1,1,1-Trichloroethane	ND	10.0									
1,1,2,2-Tetrachloroethane	ND	10.0									
1,1,2-Trichloroethane	ND	10.0									
1,1-Dichloroethane	ND	10.0									
1,1-Dichloroethene	ND	10.0									
1,1-Dichloropropene	ND	10.0									
1,2,3-Trichlorobenzene	1.12	10.0									J
1,2,3-Trichloropropane	3.97	10.0									J
1,2,4-Trichlorobenzene	ND	10.0									
1,2,4-Trimethylbenzene	ND	10.0									
1,2-Dibromo-3-chloropropane	5.01	10.0									J
1,2-Dibromoethane	ND	10.0									
1,2-Dichlorobenzene	ND	10.0									
1,2-Dichloroethane	ND	10.0									
1,2-Dichloropropane	ND	10.0									
1,3,5-Trimethylbenzene	ND	10.0									
1,3-Dichlorobenzene	ND	10.0									
1,3-Dichloropropane	ND	10.0									
1,4-Dichlorobenzene	ND	10.0									
2,2-Dichloropropane	ND	10.0									
2-Butanone	ND	40.0									
2-Chlorotoluene	ND	10.0									
2-Hexanone	ND	20.0									
4-Chlorotoluene	ND	10.0									
4-Isopropyltoluene	ND	10.0									
4-Methyl-2-pentanone	ND	40.0									
Acetone	ND	100									
Benzene	4.03	10.0									J
Bromobenzene	ND	10.0									
Bromochloromethane	ND	10.0									

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019868

CLIENT: Time Oil Co.
Work Order: 0309163
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S

Sample ID: MB	SampType: MBLK	TestCode: 8260_S	Units: µg/Kg	Prep Date: 9/26/2003	Run ID: 5973L_030926B
Client ID: ZZZZZ	Batch ID: 9638	TestNo: SW8260B		Analysis Date: 9/26/2003	SeqNo: 215489

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromodichloromethane	ND	10.0									
Bromoform	ND	10.0									
Bromomethane	ND	10.0									
Carbon disulfide	ND	10.0									
Carbon tetrachloride	ND	10.0									
Chlorobenzene	ND	10.0									
Chloroethane	ND	10.0									
Chloroform	ND	10.0									
Chloromethane	ND	10.0									
cis-1,2-Dichloroethene	ND	10.0									
cis-1,3-Dichloropropene	ND	10.0									
Dibromochloromethane	ND	10.0									
Dibromomethane	ND	10.0									
Dichlorodifluoromethane	ND	10.0									
Ethylbenzene	ND	10.0									
Hexachlorobutadiene	ND	10.0									
Isopropylbenzene	ND	10.0									
m,p-Xylene	ND	20.0									
Methyl tert-butyl ether	ND	10.0									
Methylene chloride	ND	50.0									
n-Butylbenzene	ND	10.0									
n-Propylbenzene	ND	10.0									
Naphthalene	ND	10.0									
o-Xylene	ND	10.0									
sec-Butylbenzene	4.75	10.0									J
Styrene	ND	10.0									
tert-Butylbenzene	ND	10.0									
Tetrachloroethene	ND	10.0									
Toluene	2.56	10.0									J
trans-1,2-Dichloroethene	ND	10.0									
trans-1,3-Dichloropropene	ND	10.0									

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

BZTO104(e)019869

CLIENT: Time Oil Co.
Work Order: 0309163
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S

Sample ID MB	SampType: MBLK	TestCode: 8260_S	Units: µg/Kg	Prep Date: 9/26/2003	Run ID: 5973L_030926B
Client ID: ZZZZZ	Batch ID: 9638	TestNo: SW8260B		Analysis Date: 9/26/2003	SeqNo: 215489

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichloroethene	ND	10.0									
Trichlorofluoromethane	ND	10.0									
Vinyl chloride	ND	10.0									
Surr: 1,2-Dichloroethane-d4	83.47	1.00	100	0	83.5	71.5	112	0	0		
Surr: 4-Bromofluorobenzene	134.4	1.00	100	0	134	75.7	122	0	0		S
Surr: Dibromofluoromethane	80.77	1.00	100	0	80.8	64.3	124	0	0		
Surr: Toluene-d8	129.1	1.00	100	0	129	74.9	120	0	0		S

Sample ID LCS	SampType: LCS	TestCode: 8260_S	Units: µg/Kg	Prep Date: 9/26/2003	Run ID: 5973L_030926B
Client ID: ZZZZZ	Batch ID: 9638	TestNo: SW8260B		Analysis Date: 9/26/2003	SeqNo: 215488

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	66.18	10.0	80	0	82.7	65.4	133	0	0		
Benzene	85.65	10.0	80	4.03	102	78	123	0	0		
Chlorobenzene	75.89	10.0	80	0	94.9	79.5	125	0	0		
Toluene	82.29	10.0	80	2.56	99.7	77.5	132	0	0		
Trichloroethene	72.2	10.0	80	0	90.2	72.4	124	0	0		

Sample ID 0309163-04BMS	SampType: MS	TestCode: 8260_S	Units: µg/Kg	Prep Date: 9/26/2003	Run ID: 5973L_030926B
Client ID: LW022D (24-25)	Batch ID: 9638	TestNo: SW8260B		Analysis Date: 9/26/2003	SeqNo: 215494

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	39.47	10.0	40	0	98.7	59.2	158	0	0		
Benzene	56.74	10.0	40	3.9	132	71.7	147	0	0		
Chlorobenzene	46.82	10.0	40	0	117	85.6	148	0	0		
Toluene	51.54	10.0	40	2.56	122	75.8	153	0	0		
Trichloroethene	47.47	10.0	40	1.06	116	77.1	138	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

BZTO104(e)019870

CLIENT: Time Oil Co.
Work Order: 0309163
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S

Sample ID 0309163-04BMSD	SampType: MSD	TestCode: 8260_S	Units: µg/Kg	Prep Date: 9/26/2003	Run ID: 5973L_030926B
Client ID: LW022D (24-25)	Batch ID: 9638	TestNo: SW8260B		Analysis Date: 9/26/2003	SeqNo: 215495

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	31.04	10.0	40	0	77.6	59.2	158	39.47	23.9	20	R
Benzene	49.2	10.0	40	3.9	113	71.7	147	56.74	14.2	20	
Chlorobenzene	43.59	10.0	40	0	109	85.6	148	46.82	7.15	20	
Toluene	46.63	10.0	40	2.56	110	75.8	153	51.54	10.0	20	
Trichloroethene	41.95	10.0	40	1.06	102	77.1	138	47.47	12.3	20	

Sample ID CCV	SampType: CCV	TestCode: 8260_S	Units: µg/Kg	Prep Date: 9/26/2003	Run ID: 5973L_030926B
Client ID: ZZZZZ	Batch ID: 9638	TestNo: SW8260B		Analysis Date: 9/26/2003	SeqNo: 215487

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	41.13	10.0	50	0	82.3	80	120	0	0		
1,2-Dichloropropane	44.77	10.0	50	0	89.5	80	120	0	0		
Chloroform	41.76	10.0	50	0	83.5	80	120	0	0		
Ethylbenzene	52.38	10.0	50	0	105	80	120	0	0		
Toluene	49	10.0	50	0	98	80	120	0	0		
Vinyl chloride	48.01	10.0	50	0	96	80	120	0	0		

Sample ID CCV	SampType: CCV	TestCode: 8260_S	Units: µg/Kg	Prep Date: 9/26/2003	Run ID: 5973L_030926B
Client ID: ZZZZZ	Batch ID: 9638	TestNo: SW8260B		Analysis Date: 9/29/2003	SeqNo: 215498

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	46.48	10.0	50	0	93	80	120	0	0		
1,2-Dichloropropane	45.2	10.0	50	0	90.4	80	120	0	0		
Chloroform	57.35	10.0	50	0	115	80	120	0	0		
Ethylbenzene	58.11	10.0	50	0	116	80	120	0	0		
Toluene	53.68	10.0	50	0	107	80	120	0	0		
Vinyl chloride	40.5	10.0	50	0	81	80	120	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

BZTO104(e)019871

CLIENT: Time Oil Co.
Work Order: 0309163
Project: PHill Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: BTEXRBC_S

Sample ID MBLK	SampType: MBLK	TestCode: BTEXRBC_S	Units: mg/Kg	Prep Date: 9/25/2003	Run ID: GC-H_030925B
Client ID: ZZZZZ	Batch ID: 9611	TestNo: SW8021B		Analysis Date: 9/25/2003	SeqNo: 214625

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0250									
Toluene	ND	0.100									
Ethylbenzene	ND	0.100									
Xylenes, Total	ND	0.300									
Surr: 4-Bromofluorobenzene	4.15	0	5	0	83	42.6	126	0	0		

Sample ID MBLK	SampType: MBLK	TestCode: BTEXRBC_S	Units: mg/Kg	Prep Date: 9/25/2003	Run ID: GC-H_030926C
Client ID: ZZZZZ	Batch ID: 9611	TestNo: SW8021B		Analysis Date: 9/26/2003	SeqNo: 214961

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0250									
Toluene	ND	0.100									
Ethylbenzene	ND	0.100									
Xylenes, Total	ND	0.300									
Surr: 4-Bromofluorobenzene	4.1	0	5	0	82	42.6	126	0	0		

Sample ID MBLK	SampType: MBLK	TestCode: BTEXRBC_S	Units: mg/Kg	Prep Date: 9/26/2003	Run ID: GC-I_030929C
Client ID: ZZZZZ	Batch ID: 9611	TestNo: SW8021B		Analysis Date: 9/29/2003	SeqNo: 215380

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0250									
Toluene	ND	0.100									
Ethylbenzene	ND	0.100									
Xylenes, Total	ND	0.300									
Naphthalene	ND	0.500									
Surr: 4-Bromofluorobenzene	4.55	0	5	0	91	42.6	126	0	0		

Sample ID LCS	SampType: LCS	TestCode: BTEXRBC_S	Units: mg/Kg	Prep Date: 9/25/2003	Run ID: GC-H_030926C
Client ID: ZZZZZ	Batch ID: 9611	TestNo: SW8021B		Analysis Date: 9/26/2003	SeqNo: 214962

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019872

CLIENT: Time Oil Co.
Work Order: 0309163
Project: PHill Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: BTEXRBC_S

Sample ID LCS	SampType: LCS	TestCode: BTEXRBC_S	Units: mg/Kg	Prep Date: 9/25/2003	Run ID: GC-H_030926C
Client ID: ZZZZZ	Batch ID: 9611	TestNo: SW8021B		Analysis Date: 9/26/2003	SeqNo: 214962

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1.02	0.0250	1.25	0	81.6	56.1	102	0	0		
Toluene	1.21	0.100	1.25	0	96.8	64.8	107	0	0		
Ethylbenzene	1.26	0.100	1.25	0	101	65.5	106	0	0		
Xylenes, Total	3.99	0.300	3.75	0	106	65.2	119	0	0		

Sample ID 0309163-04AMS	SampType: MS	TestCode: BTEXRBC_S	Units: mg/Kg-dry	Prep Date: 9/25/2003	Run ID: GC-H_030925B
Client ID: LW022D (24-25)	Batch ID: 9611	TestNo: SW8021B		Analysis Date: 9/25/2003	SeqNo: 214633

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1.048	0.0276	1.379	0	76	32.2	108	0	0		
Toluene	1.269	0.110	1.379	0	92	56.7	101	0	0		
Ethylbenzene	1.247	0.110	1.379	0	90.4	53.3	107	0	0		
Xylenes, Total	3.951	0.331	4.138	0	95.5	47.5	119	0	0		

Sample ID 0309163-04AMSD	SampType: MSD	TestCode: BTEXRBC_S	Units: mg/Kg-dry	Prep Date: 9/25/2003	Run ID: GC-H_030925B
Client ID: LW022D (24-25)	Batch ID: 9611	TestNo: SW8021B		Analysis Date: 9/25/2003	SeqNo: 214634

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1.016	0.0276	1.379	0	73.7	32.2	108	1.048	3.10	20	
Toluene	1.247	0.110	1.379	0	90.4	56.7	101	1.269	1.75	20	
Ethylbenzene	1.302	0.110	1.379	0	94.4	53.3	107	1.247	4.33	20	
Xylenes, Total	4.061	0.331	4.138	0	98.1	47.5	119	3.951	2.75	20	

Sample ID CCV	SampType: CCV	TestCode: BTEXRBC_S	Units: mg/Kg	Prep Date: 9/25/2003	Run ID: GC-H_030925B
Client ID: ZZZZZ	Batch ID: 9611	TestNo: SW8021B		Analysis Date: 9/25/2003	SeqNo: 214627

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	43	0.0250	50	0	86	85	115	0	0		
Toluene	45.8	0.100	50	0	91.6	85	115	0	0		
Ethylbenzene	46.2	0.100	50	0	92.4	85	115	0	0		
Xylenes, Total	139.8	0.300	150	0	93.2	85	115	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

BZTO104(e)019873

CLIENT: Time Oil Co.
Work Order: 0309163
Project: PHII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: BTEXRBC_S

Sample ID CCV	SampType: CCV	TestCode: BTEXRBC_S	Units: mg/Kg	Prep Date: 9/25/2003	Run ID: GC-H_030926C
Client ID: ZZZZZ	Batch ID: 9611	TestNo: SW8021B		Analysis Date: 9/26/2003	SeqNo: 214963

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	43.7	0.0250	50	0	87.4	85	115	0	0		
Toluene	48.4	0.100	50	0	96.8	85	115	0	0		
Ethylbenzene	47.2	0.100	50	0	94.4	85	115	0	0		
Xylenes, Total	145.8	0.300	150	0	97.2	85	115	0	0		

Sample ID CCV	SampType: CCV	TestCode: BTEXRBC_S	Units: mg/Kg	Prep Date: 9/26/2003	Run ID: GC-I_030929C
Client ID: ZZZZZ	Batch ID: 9611	TestNo: SW8021B		Analysis Date: 9/29/2003	SeqNo: 215381

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	51.8	0.0250	60	0	86.3	85	115	0	0		
Toluene	53.5	0.100	60	0	89.2	85	115	0	0		
Ethylbenzene	54	0.100	60	0	90	85	115	0	0		
Xylenes, Total	162.3	0.300	180	0	90.2	85	115	0	0		
Naphthalene	59	0.500	60	0	98.3	85	115	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

BZTO104(e)019874

CLIENT: Time Oil Co.
Work Order: 0309163
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHDX_S

Sample ID MBLK	SampType: MBLK	TestCode: NWTPHDX_S	Units: mg/Kg	Prep Date: 9/25/2003	Run ID: GC-M_030929B
Client ID: ZZZZZ	Batch ID: 9618	TestNo: NWTPH-Dx		Analysis Date: 9/29/2003	SeqNo: 215606

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	ND	15.0									
Lube Oil	ND	50.0									
Surr: o-Terphenyl	24.93	1.00	33.33	0	74.8	50	150	0	0		

Sample ID LCS	SampType: LCS	TestCode: NWTPHDX_S	Units: mg/Kg	Prep Date: 9/25/2003	Run ID: GC-M_030929B
Client ID: ZZZZZ	Batch ID: 9618	TestNo: NWTPH-Dx		Analysis Date: 9/29/2003	SeqNo: 215607

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	150.6	15.0	167.6	0	89.8	76.3	122	0	0		
Lube Oil	180.8	50.0	167.6	0	108	69.9	127	0	0		

Sample ID 0309164-01ADUP	SampType: DUP	TestCode: NWTPHDX_S	Units: mg/Kg-dry	Prep Date: 9/25/2003	Run ID: GC-M_030929B
Client ID: ZZZZZ	Batch ID: 9618	TestNo: NWTPH-Dx		Analysis Date: 9/29/2003	SeqNo: 215630

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	ND	22.3	0	0	0	0	0	0	0	20	
Lube Oil	ND	74.3	0	0	0	0	0	0	0	20	

Sample ID 0309163-03ADUP	SampType: DUP	TestCode: NWTPHDX_S	Units: mg/Kg-dry	Prep Date: 9/25/2003	Run ID: GC-M_030929B
Client ID: LW023D (22.5-23.5)	Batch ID: 9618	TestNo: NWTPH-Dx		Analysis Date: 9/29/2003	SeqNo: 215631

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	ND	16.6	0	0	0	0	0	0	0	20	
Lube Oil	ND	55.3	0	0	0	0	0	0	0	20	

Sample ID CCV	SampType: CCV	TestCode: NWTPHDX_S	Units: mg/Kg	Prep Date: 9/25/2003	Run ID: GC-M_030929B
Client ID: ZZZZZ	Batch ID: 9618	TestNo: NWTPH-Dx		Analysis Date: 9/29/2003	SeqNo: 215608

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	591.6	15.0	667.2	0	88.7	85	115	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZT0104(e)019875

CLIENT: Time Oil Co.
Work Order: 0309163
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHDX_S

Sample ID CCV	SampType: CCV	TestCode: NWTPHDX_S	Units: mg/Kg	Prep Date: 9/25/2003	Run ID: GC-M_030929B
Client ID: ZZZZZ	Batch ID: 9618	TestNo: NWTPH-Dx		Analysis Date: 9/29/2003	SeqNo: 215608

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lube Oil	260.9	50.0	250.6	0	104	85	115	0	0		

Sample ID CCV	SampType: CCV	TestCode: NWTPHDX_S	Units: mg/Kg	Prep Date: 9/25/2003	Run ID: GC-M_030929B
Client ID: ZZZZZ	Batch ID: 9618	TestNo: NWTPH-Dx		Analysis Date: 9/29/2003	SeqNo: 215609

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	592.9	15.0	667.2	0	88.9	85	115	0	0		
Lube Oil	268.9	50.0	250.6	0	107	85	115	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

BZTO104(e)019876

CLIENT: Time Oil Co.
Work Order: 0309163
Project: PHII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHGX_S

Sample ID MBLK	SampType: MBLK	TestCode: NWTPHGX_S	Units: mg/Kg	Prep Date:	Run ID: GC-H_030924A
Client ID: ZZZZZ	Batch ID: 9603	TestNo: NWTPH-Gx		Analysis Date: 9/24/2003	SeqNo: 214271

Analyte	Result	PQL	SPK value	SPK Ref Va	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	2.50									
Surr: 4-Bromofluorobenzene	81.6	1.00	100	0	81.6	50	150	0	0		

Sample ID MBLK	SampType: MBLK	TestCode: NWTPHGX_S	Units: mg/Kg	Prep Date: 9/24/2003	Run ID: GC-H_030925A
Client ID: ZZZZZ	Batch ID: 9603	TestNo: NWTPH-Gx		Analysis Date: 9/25/2003	SeqNo: 214443

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	2.50									
Surr: 4-Bromofluorobenzene	79.5	1.00	100	0	79.5	50	150	0	0		

Sample ID MBLK	SampType: MBLK	TestCode: NWTPHGX_S	Units: mg/Kg	Prep Date: 9/25/2003	Run ID: GC-H_030925C
Client ID: ZZZZZ	Batch ID: 9603	TestNo: NWTPH-Gx		Analysis Date: 9/25/2003	SeqNo: 214635

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	2.50									
Surr: 4-Bromofluorobenzene	83.9	1.00	100	0	83.9	50	150	0	0		

Sample ID MBLK	SampType: MBLK	TestCode: NWTPHGX_S	Units: mg/Kg	Prep Date: 9/25/2003	Run ID: GC-H_030926B
Client ID: ZZZZZ	Batch ID 9603	TestNo: NWTPH-Gx		Analysis Date: 9/26/2003	SeqNo: 214955

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	2.50									
Surr: 4-Bromofluorobenzene	79.9	1.00	100	0	79.9	50	150	0	0		

Sample ID MBLK	SampType: MBLK	TestCode NWTPHGX_S	Units: mg/Kg	Prep Date: 9/25/2003	Run ID: GC-I_030929A
Client ID: ZZZZZ	Batch ID: 9603	TestNo: NWTPH-Gx		Analysis Date: 9/29/2003	SeqNo: 215355

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	2.50									
Surr: 4-Bromofluorobenzene	97.6	1.00	100	0	97.6	50	150	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

BZTO104(e)019877

CLIENT: Time Oil Co.
Work Order: 0309163
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHGX_S

Sample ID	LCS	SampType:	LCS	TestCode:	NWTPHGX_S	Units:	mg/Kg	Prep Date:		Run ID:	GC-H_030924A	
Client ID:	ZZZZZ	Batch ID:	9603	TestNo:	NWTPH-Gx			Analysis Date:	9/24/2003	SeqNo:	214272	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	22.5	2.50	30	0	75	53.5	101	0	0		

Sample ID	0309153-11ADUP	SampType:	DUP	TestCode:	NWTPHGX_S	Units:	mg/Kg-dry	Prep Date:	9/24/2003	Run ID:	GC-H_030925A	
Client ID:	ZZZZZ	Batch ID:	9603	TestNo:	NWTPH-Gx			Analysis Date:	9/25/2003	SeqNo:	214448	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	14.57	3.94	0	0	0	0	0	4.464	106	20	RF

Sample ID	0309162-19ADUP	SampType:	DUP	TestCode:	NWTPHGX_S	Units:	mg/Kg-dry	Prep Date:	9/25/2003	Run ID:	GC-H_030926B	
Client ID:	ZZZZZ	Batch ID:	9603	TestNo:	NWTPH-Gx			Analysis Date:	9/26/2003	SeqNo:	214960	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	721	16.8	0	0	0	0	0	692	4.10	20	

Sample ID	CCV	SampType:	CCV	TestCode:	NWTPHGX_S	Units:	mg/Kg	Prep Date:		Run ID:	GC-H_030924A	
Client ID:	ZZZZZ	Batch ID:	9603	TestNo:	NWTPH-Gx			Analysis Date:	9/24/2003	SeqNo:	214273	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	1856	2.50	2000	0	92.8	80	120	0	0		

Sample ID	CCV	SampType:	CCV	TestCode:	NWTPHGX_S	Units:	mg/Kg	Prep Date:	9/24/2003	Run ID:	GC-H_030925A	
Client ID:	ZZZZZ	Batch ID:	9603	TestNo:	NWTPH-Gx			Analysis Date:	9/25/2003	SeqNo:	214444	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	1910	2.50	2000	0	95.5	80	120	0	0		

Sample ID	CCV	SampType:	CCV	TestCode:	NWTPHGX_S	Units:	mg/Kg	Prep Date:	9/25/2003	Run ID:	GC-H_030925C	
Client ID:	ZZZZZ	Batch ID:	9603	TestNo:	NWTPH-Gx			Analysis Date:	9/25/2003	SeqNo:	214636	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019878

CLIENT: Time Oil Co.
Work Order: 0309163
Project: PHII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHGX_S

Sample ID CCV	SampType: CCV	TestCode: NWTPHGX_S	Units: mg/Kg	Prep Date: 9/25/2003	Run ID: GC-H_030925C
Client ID: ZZZZZ	Batch ID: 9603	TestNo: NWTPH-Gx		Analysis Date: 9/25/2003	SeqNo: 214636

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	2839	2.50	3000	0	94.6	80	120	0	0		

Sample ID CCV	SampType: CCV	TestCode: NWTPHGX_S	Units: mg/Kg	Prep Date: 9/25/2003	Run ID: GC-H_030926B
Client ID: ZZZZZ	Batch ID: 9603	TestNo: NWTPH-Gx		Analysis Date: 9/26/2003	SeqNo: 214956

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	1953	2.50	2000	0	97.6	80	120	0	0		

Sample ID CCV	SampType: CCV	TestCode: NWTPHGX_S	Units: mg/Kg	Prep Date: 9/25/2003	Run ID: GC-I_030929A
Client ID: ZZZZZ	Batch ID: 9603	TestNo: NWTPH-Gx		Analysis Date: 9/29/2003	SeqNo: 215356

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	2654	2.50	3000	0	88.5	80	120	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019879

CLIENT: Time Oil Co.
Work Order: 0309163
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: PAHLL_S

Sample ID MB-9612	SampType: MBLK	TestCode: PAHLL_S	Units: µg/Kg	Prep Date: 9/25/2003	Run ID: 5973G_030926B
Client ID: ZZZZZ	Batch ID: 9612	TestNo: 8270SIM		Analysis Date: 9/26/2003	SeqNo: 214770

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	ND	6.67									
Acenaphthylene	ND	6.67									
Anthracene	ND	6.67									
Benz(a)anthracene	ND	6.67									
Benzo(a)pyrene	ND	6.67									
Benzo(b)fluoranthene	ND	6.67									
Benzo(g,h,i)perylene	ND	6.67									
Benzo(k)fluoranthene	ND	6.67									
Chrysene	ND	6.67									
Dibenz(a,h)anthracene	ND	6.67									
Fluoranthene	ND	6.67									
Fluorene	ND	6.67									
Indeno(1,2,3-cd)pyrene	ND	6.67									
Naphthalene	ND	6.67									
Phenanthrene	ND	6.67									
Pyrene	ND	6.67									
Surr: 2-Fluorobiphenyl	3931	0	6667	0	59	42.6	128	0	0		
Surr: Nitrobenzene-d5	3741	0	6667	0	56.1	21.7	155	0	0		
Surr: p-Terphenyl-d14	5750	0	6667	0	86.2	44.9	155	0	0		

Sample ID LCS-9612	SampType: LCS	TestCode: PAHLL_S	Units: µg/Kg	Prep Date: 9/25/2003	Run ID: 5973G_030926B
Client ID: ZZZZZ	Batch ID: 9612	TestNo: 8270SIM		Analysis Date: 9/26/2003	SeqNo: 214775

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	95.33	6.67	166.7	0	57.2	40.4	107	0	0		
Benzo(g,h,i)perylene	120.7	6.67	166.7	0	72.4	44.6	125	0	0		
Chrysene	140.7	6.67	166.7	0	84.4	59.9	121	0	0		
Naphthalene	82	6.67	166.7	0	49.2	33.5	96.1	0	0		
Phenanthrene	116	6.67	166.7	0	69.6	52.2	108	0	0		
Pyrene	140	6.67	166.7	0	84	53.8	120	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019880

CLIENT: Time Oil Co.
Work Order: 0309163
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: PAHLL_S

Sample ID 0309137-01BMS	SampType: MS	TestCode: PAHLL_S	Units: µg/Kg	Prep Date: 9/25/2003	Run ID: 5973G_030926B
Client ID: ZZZZZ	Batch ID: 9612	TestNo: 8270SIM		Analysis Date: 9/26/2003	SeqNo: 214777

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	1441	13.3	166.7	1284	94.4	33.7	107	0	0		
Benzo(g,h,i)perylene	109.3	13.3	166.7	0	65.6	15	128	0	0		
Chrysene	164	13.3	166.7	10.67	92	37.5	125	0	0		
Naphthalene	566.7	13.3	166.7	624	-34.4	27.7	108	0	0		S
Pyrene	360	13.3	166.7	170.7	114	26.8	134	0	0		

Sample ID 0309137-01BMS	SampType: MS	TestCode: PAHLL_S	Units: µg/Kg	Prep Date: 9/25/2003	Run ID: 5973G_030927A
Client ID: ZZZZZ	Batch ID: 9612	TestNo: 8270SIM		Analysis Date: 9/27/2003	SeqNo: 214782

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenanthrene	5340	66.7	166.7	5287	32	20.2	139	0	0		MC

Sample ID 0309137-01BMSD	SampType: MSD	TestCode: PAHLL_S	Units: µg/Kg	Prep Date: 9/25/2003	Run ID: 5973G_030926B
Client ID: ZZZZZ	Batch ID: 9612	TestNo: 8270SIM		Analysis Date: 9/26/2003	SeqNo: 214778

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	1147	13.3	166.7	1284	-82.4	33.7	107	1441	22.8	20	SR
Benzo(g,h,i)perylene	84	13.3	166.7	0	50.4	15	128	109.3	26.2	20	R
Chrysene	130.7	13.3	166.7	10.67	72	37.5	125	164	22.6	20	R
Naphthalene	470.7	13.3	166.7	624	-92	27.7	108	566.7	18.5	20	S
Pyrene	273.3	13.3	166.7	170.7	61.6	26.8	134	360	27.4	20	R

Sample ID 0309137-01BMSD	SampType: MSD	TestCode: PAHLL_S	Units: µg/Kg	Prep Date: 9/25/2003	Run ID: 5973G_030927A
Client ID: ZZZZZ	Batch ID: 9612	TestNo: 8270SIM		Analysis Date: 9/27/2003	SeqNo: 214783

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenanthrene	4400	66.7	166.7	5287	-532	20.2	139	5340	19.3	20	S

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019881

CLIENT: Time Oil Co.
Work Order: 0309163
Project: PHII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: PAHLL_S

Sample ID CCV-9612	SampType: CCV	TestCode: PAHLL_S	Units: µg/Kg	Prep Date:	Run ID: 5973G_030926B
Client ID: ZZZZZ	Batch ID: 9612	TestNo: 8270SIM		Analysis Date: 9/26/2003	SeqNo: 214769

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	62	6.67	66.67	0	93	70	130	0	0		
Acenaphthylene	70	6.67	66.67	0	105	70	130	0	0		
Anthracene	72	6.67	66.67	0	108	70	130	0	0		
Benz(a)anthracene	70	6.67	66.67	0	105	70	130	0	0		
Benzo(a)pyrene	68	6.67	66.67	0	102	70	130	0	0		
Benzo(b)fluoranthene	66.67	6.67	66.67	0	100	70	130	0	0		
Benzo(g,h,i)perylene	60.67	6.67	66.67	0	91	70	130	0	0		
Benzo(k)fluoranthene	66	6.67	66.67	0	99	70	130	0	0		
Chrysene	65.33	6.67	66.67	0	98	70	130	0	0		
Dibenz(a,h)anthracene	61.33	6.67	66.67	0	92	70	130	0	0		
Fluoranthene	70.67	6.67	66.67	0	106	70	130	0	0		
Fluorene	71.33	6.67	66.67	0	107	70	130	0	0		
Indeno(1,2,3-cd)pyrene	62.67	6.67	66.67	0	94	70	130	0	0		
Naphthalene	61.33	6.67	66.67	0	92	70	130	0	0		
Phenanthrene	64.67	6.67	66.67	0	97	70	130	0	0		
Pyrene	67.33	6.67	66.67	0	101	70	130	0	0		

Sample ID CCV-9612	SampType: CCV	TestCode: PAHLL_S	Units: µg/Kg	Prep Date:	Run ID: 5973G_030927A
Client ID: ZZZZZ	Batch ID: 9612	TestNo: 8270SIM		Analysis Date: 9/27/2003	SeqNo: 214779

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	62	6.67	66.67	0	93	70	130	0	0		
Acenaphthylene	66.67	6.67	66.67	0	100	70	130	0	0		
Anthracene	70.67	6.67	66.67	0	106	70	130	0	0		
Benz(a)anthracene	66	6.67	66.67	0	99	70	130	0	0		
Benzo(a)pyrene	65.33	6.67	66.67	0	98	70	130	0	0		
Benzo(b)fluoranthene	64	6.67	66.67	0	96	70	130	0	0		
Benzo(g,h,i)perylene	56.67	6.67	66.67	0	85	70	130	0	0		
Benzo(k)fluoranthene	67.33	6.67	66.67	0	101	70	130	0	0		
Chrysene	66.67	6.67	66.67	0	100	70	130	0	0		
Dibenz(a,h)anthracene	57.33	6.67	66.67	0	86	70	130	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019882

CLIENT: Time Oil Co.
Work Order: 0309163
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: PAHLL_S

Sample ID: CCV-9612	SampType: CCV	TestCode: PAHLL_S	Units: µg/Kg	Prep Date:	Run ID: 5973G_030927A
Client ID: ZZZZZ	Batch ID: 9612	TestNo: 8270SIM		Analysis Date: 9/27/2003	SeqNo: 214779

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoranthene	68	6.67	66.67	0	102	70	130	0	0		
Fluorene	70	6.67	66.67	0	105	70	130	0	0		
Indeno(1,2,3-cd)pyrene	58.67	6.67	66.67	0	88	70	130	0	0		
Naphthalene	61.33	6.67	66.67	0	92	70	130	0	0		
Phenanthrene	64.67	6.67	66.67	0	97	70	130	0	0		
Pyrene	68.67	6.67	66.67	0	103	70	130	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019883

Specialty Analytical

19761 S.W. 95th Place
Tualatin, OR 97062
(503) 612-9007
Fax (503) 612-8572
1 (877) 612-9007

Received
NOV 17 2003
ASSOCIATES

November 10, 2003

Kevin Murphy
Time Oil Co.
2737 West Commodore Way
Seattle, WA 981991233

TEL: 206-286-6443
FAX (206) 285-7833

RE: PHIII Well Install / 231009.31

Dear Kevin Murphy:

Order No.: 0309185

Specialty Analytical received 3 samples on 9/26/2003 for the analyses presented in the following report.

There were no problems with the analysis and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative, or as qualified with flags. Results apply only to the samples analyzed. Without approval of the laboratory, the reproduction of this report is only permitted in its entirety.

If you have any questions regarding these tests, please feel free to call.

Sincerely,

Ned Engleson
Project Manager

Technical Review

CC:
Rebekah Brooks @ Landau Associates

BZTO104(e)019884

☒ Seattle (Edmonds) (425) 778-0907
☐ Tacoma (253) 926-2493
☐ Spokane (509) 327-9737
☐ Portland (Lake Oswego) (503) 443-6010
☐

Landau Associates

0309185

Date 9/25/03
Page 1 of 1

Chain-of-Custody Record

Project Name PHILLIWELL/NSTALLS Project No. 231009.31
Project Location/Event NW TERMINAL/TIME OIL
Sampler's Name CHRISTY JOHNSON
Project Contact STACY FISCHER
Send Results To REBEKAH BROOKS & KEOM MORPHY

Testing Parameters

Turnaround Time
☒ Standard
☐ Accelerated
☐

Sample I.D.	Date	Time	Matrix	No. of Containers	NWTPH-DX	NWTPH-G	BEDX	PAH	MTBE	LEAD	EDB	EDC	Observations/Comments
LW026D (15-16)	9/25/03	925	SOIL	2	/	/	/	/	/	/	/	/	
LW027S (13.5-14.5)	9/26/03	830	↓	↓	/	/	/	/	/	/	/	/	
LW027S (21-22)		905	↓	↓	/	/	/	/	/	/	/	/	

Special Shipment/Handling or Storage Requirements

Method of Shipment

Relinquished by	Received by	Relinquished by	Received by
Signature: [signature]	Signature: Cindy Hillyard	Signature	Signature
Printed Name: CHRISTY JOHNSON	Printed Name: Cindy Hillyard	Printed Name	Printed Name
Company: LANDAU ASSOC	Company: Specialty	Company	Company
Date 9/26/03 Time 1650	Date 9/26/03 Time 16:50	Date Time	Date Time

WHITE COPY - Project File YELLOW COPY - Laboratory PINK COPY - Client Representative

Rev 4/01

BZTO104(e)019885

Specialty Analytical

Date: *10-Nov-03*

CLIENT: Time Oil Co.
Client Sample ID: LW026D (15-16)
Lab Order: 0309185
Collection Date: 9/25/2003 9:25:00 AM
Project: PHIII Well Install / 231009.31
Lab ID: 0309185-01
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **btf**
Diesel	12500	194		mg/Kg-dry	10	10/3/2003
Lube Oil	ND	64.5	A3	mg/Kg-dry	1	10/2/2003
Surr: o-Terphenyl	316	50-150	S,D	%REC	10	10/3/2003
Surr: o-Terphenyl	361	50-150	S,MI	%REC	1	10/2/2003
NWTPH-GX		**NWTPH-GX**				Analyst: **btf**
Gasoline	2270	32.3		mg/Kg-dry	10	10/2/2003
Surr: 4-Bromofluorobenzene	48.2	50-150	S,D	%REC	10	10/2/2003
TOTAL METALS BY ICP		**E6010**				Analyst: **tlf**
Lead	ND	1.85		mg/Kg	1	9/30/2003 2:56:43 PM
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	513	33.3		µg/Kg	5	10/3/2003 9:40:00 PM
Acenaphthylene	157	33.3		µg/Kg	5	10/3/2003 9:40:00 PM
Anthracene	94.7	6.67		µg/Kg	1	10/3/2003 10:40:00 AM
Benz(a)anthracene	13.3	6.67		µg/Kg	1	10/3/2003 10:40:00 AM
Benzo(a)pyrene	8.67	6.67		µg/Kg	1	10/3/2003 10:40:00 AM
Benzo(b)fluoranthene	8.00	6.67		µg/Kg	1	10/3/2003 10:40:00 AM
Benzo(g,h,i)perylene	ND	6.67		µg/Kg	1	10/3/2003 10:40:00 AM
Benzo(k)fluoranthene	ND	6.67		µg/Kg	1	10/3/2003 10:40:00 AM
Chrysene	11.3	6.67		µg/Kg	1	10/3/2003 10:40:00 AM
Dibenz(a,h)anthracene	ND	6.67		µg/Kg	1	10/3/2003 10:40:00 AM
Fluoranthene	26.0	6.67		µg/Kg	1	10/3/2003 10:40:00 AM
Fluorene	1130	33.3		µg/Kg	5	10/3/2003 9:40:00 PM
Indeno(1,2,3-cd)pyrene	ND	6.67		µg/Kg	1	10/3/2003 10:40:00 AM
Naphthalene	213	33.3		µg/Kg	5	10/3/2003 9:40:00 PM
Phenanthrene	1170	6.67		µg/Kg	1	10/3/2003 10:40:00 AM
Pyrene	52.7	6.67		µg/Kg	1	10/3/2003 10:40:00 AM
Surr: 2-Fluorobiphenyl	65.5	42.6-128		%REC	1	10/3/2003 10:40:00 AM
Surr: Nitrobenzene-d5	106	21.7-155		%REC	1	10/3/2003 10:40:00 AM
Surr: p-Terphenyl-d14	55.5	44.9-155		%REC	1	10/3/2003 10:40:00 AM
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
1,2,4-Trimethylbenzene	23.7	10.0		µg/Kg	1	9/29/2003 7:58:00 PM
1,2-Dibromoethane	ND	10.0		µg/Kg	1	9/29/2003 7:58:00 PM
1,2-Dichloroethane	ND	10.0		µg/Kg	1	9/29/2003 7:58:00 PM
1,3,5-Trimethylbenzene	1040	10.0	E	µg/Kg	1	9/29/2003 7:58:00 PM
Benzene	44.5	10.0		µg/Kg	1	9/29/2003 7:58:00 PM
Ethylbenzene	ND	10.0		µg/Kg	1	9/29/2003 7:58:00 PM
Isopropylbenzene	1000	10.0	E	µg/Kg	1	9/29/2003 7:58:00 PM
m,p-Xylene	84.6	20.0		µg/Kg	1	9/29/2003 7:58:00 PM
Methyl tert-butyl ether	ND	10.0		µg/Kg	1	9/29/2003 7:58:00 PM

BZTO104(e)019886

Specialty Analytical

Date: *10-Nov-03*

CLIENT:	Time Oil Co.	**Client Sample ID:**	LW026D (15-16)
Lab Order:	0309185	**Collection Date:**	9/25/2003 9:25:00 AM
Project:	PHIII Well Install / 231009.31		
Lab ID:	0309185-01	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
n-Propylbenzene	1430	10.0	E	µg/Kg	1	9/29/2003 7:58:00 PM
o-Xylene	66.0	10.0		µg/Kg	1	9/29/2003 7:58:00 PM
Toluene	29.9	10.0		µg/Kg	1	9/29/2003 7:58:00 PM
Surr: 1,2-Dichloroethane-d4	70.5	71.5-112	S	%REC	1	9/29/2003 7:58:00 PM
Surr: 4-Bromofluorobenzene	381	75.7-122	SE	%REC	1	9/29/2003 7:58:00 PM
Surr: Dibromofluoromethane	73.8	64.3-124		%REC	1	9/29/2003 7:58:00 PM
Surr: Toluene-d8	115	74.9-120		%REC	1	9/29/2003 7:58:00 PM

BZTO104(e)019887

Specialty Analytical

Date: *10-Nov-03*

CLIENT:	Time Oil Co.	**Client Sample ID:**	LW027S (13.5-14.5)
Lab Order:	0309185	**Collection Date:**	9/25/2003 8:30:00 AM
Project:	PHIII Well Install / 231009.31		
Lab ID:	0309185-02	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **btf**
Diesel	9000	178		mg/Kg-dry	10	10/3/2003
Lube Oil	ND	59.5	A3	mg/Kg-dry	1	10/2/2003
Surr: o-Terphenyl	47.3	50-150	S,D	%REC	10	10/3/2003
Surr: o-Terphenyl	258	50-150	S,MI	%REC	1	10/2/2003
NWTPH-GX		**NWTPH-GX**				Analyst: **btf**
Gasoline	4190	149		mg/Kg-dry	50	10/3/2003
Surr: 4-Bromofluorobenzene	28.9	50-150	S,D	%REC	50	10/3/2003
TOTAL METALS BY ICP		**E6010**				Analyst: **tlf**
Lead	ND	1.72		mg/Kg	1	9/30/2003 3:02:11 PM
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	953	33.3		µg/Kg	5	10/3/2003 10:13:00 PM
Acenaphthylene	353	33.3		µg/Kg	5	10/3/2003 10:13:00 PM
Anthracene	170	6.67		µg/Kg	1	10/3/2003 11:13:00 AM
Benz(a)anthracene	9.33	6.67		µg/Kg	1	10/3/2003 11:13:00 AM
Benzo(a)pyrene	ND	6.67		µg/Kg	1	10/3/2003 11:13:00 AM
Benzo(b)fluoranthene	ND	6.67		µg/Kg	1	10/3/2003 11:13:00 AM
Benzo(g,h,i)perylene	ND	6.67		µg/Kg	1	10/3/2003 11:13:00 AM
Benzo(k)fluoranthene	ND	6.67		µg/Kg	1	10/3/2003 11:13:00 AM
Chrysene	12.0	6.67		µg/Kg	1	10/3/2003 11:13:00 AM
Dibenz(a,h)anthracene	ND	6.67		µg/Kg	1	10/3/2003 11:13:00 AM
Fluoranthene	23.3	6.67		µg/Kg	1	10/3/2003 11:13:00 AM
Fluorene	2110	33.3		µg/Kg	5	10/3/2003 10:13:00 PM
Indeno(1,2,3-cd)pyrene	ND	6.67		µg/Kg	1	10/3/2003 11:13:00 AM
Naphthalene	680	33.3		µg/Kg	5	10/3/2003 10:13:00 PM
Phenanthrene	1880	33.3		µg/Kg	5	10/3/2003 10:13:00 PM
Pyrene	49.3	6.67		µg/Kg	1	10/3/2003 11:13:00 AM
Surr: 2-Fluorobiphenyl	84.5	42.6-128		%REC	1	10/3/2003 11:13:00 AM
Surr: Nitrobenzene-d5	148	21.7-155		%REC	1	10/3/2003 11:13:00 AM
Surr: p-Terphenyl-d14	68.9	44.9-155		%REC	1	10/3/2003 11:13:00 AM
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
1,2,4-Trimethylbenzene	15.6	10.0		µg/Kg	1	9/29/2003 8:32:00 PM
1,2-Dibromoethane	ND	10.0		µg/Kg	1	9/29/2003 8:32:00 PM
1,2-Dichloroethane	ND	10.0		µg/Kg	1	9/29/2003 8:32:00 PM
1,3,5-Trimethylbenzene	832	10.0	E	µg/Kg	1	9/29/2003 8:32:00 PM
Benzene	ND	10.0		µg/Kg	1	9/29/2003 8:32:00 PM
Ethylbenzene	ND	10.0		µg/Kg	1	9/29/2003 8:32:00 PM
Isopropylbenzene	835	10.0	E	µg/Kg	1	9/29/2003 8:32:00 PM
m,p-Xylene	38.2	20.0		µg/Kg	1	9/29/2003 8:32:00 PM
Methyl tert-butyl ether	ND	10.0		µg/Kg	1	9/29/2003 8:32:00 PM

BZTO104(e)019888

Specialty Analytical

Date: *10-Nov-03*

CLIENT:	Time Oil Co.	**Client Sample ID:**	LW027S (13.5-14.5)
Lab Order:	0309185	**Collection Date:**	9/25/2003 8:30:00 AM
Project:	PHIII Well Install / 231009.31		
Lab ID:	0309185-02	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
n-Propylbenzene	1170	10.0	E	µg/Kg	1	9/29/2003 8:32:00 PM
o-Xylene	ND	10.0		µg/Kg	1	9/29/2003 8:32:00 PM
Toluene	14.5	10.0		µg/Kg	1	9/29/2003 8:32:00 PM
Surr: 1,2-Dichloroethane-d4	78.4	71.5-112		%REC	1	9/29/2003 8:32:00 PM
Surr: 4-Bromofluorobenzene	457	75.7-122	SE	%REC	1	9/29/2003 8:32:00 PM
Surr: Dibromofluoromethane	75.9	64.3-124		%REC	1	9/29/2003 8:32:00 PM
Surr: Toluene-d8	140	74.9-120	S	%REC	1	9/29/2003 8:32:00 PM

BZTO104(e)019889

Specialty Analytical

Date: *10-Nov-03*

CLIENT:	Time Oil Co.	**Client Sample ID:**	LW027S (21-22)
Lab Order:	0309185	**Collection Date:**	9/25/2003 9:05:00 AM
Project:	PHIII Well Install / 231009.31		
Lab ID:	0309185-03	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **btf**
Diesel	9790	171		mg/Kg-dry	10	10/3/2003
Lube Oil	ND	56.9	A3	mg/Kg-dry	1	10/2/2003
Surr: o-Terphenyl	14.6	50-150	S,D	%REC	10	10/3/2003
Surr: o-Terphenyl	329	50-150	S,MI	%REC	1	10/2/2003
NWTPH-GX		**NWTPH-GX**				Analyst: **btf**
Gasoline	5010	285		mg/Kg-dry	100	10/3/2003
Surr: 4-Bromofluorobenzene	25.4	50-150	S,D	%REC	100	10/3/2003
TOTAL METALS BY ICP		**E6010**				Analyst: **tlf**
Lead	ND	1.72		mg/Kg	1	9/30/2003 3:07:40 PM
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	1520	33.3		µg/Kg	5	10/3/2003 10:45:00 PM
Acenaphthylene	470	33.3		µg/Kg	5	10/3/2003 10:45:00 PM
Anthracene	309	6.67		µg/Kg	1	10/3/2003 11:45:00 AM
Benz(a)anthracene	68.7	6.67		µg/Kg	1	10/3/2003 11:45:00 AM
Benzo(a)pyrene	52.7	6.67		µg/Kg	1	10/3/2003 11:45:00 AM
Benzo(b)fluoranthene	50.0	6.67		µg/Kg	1	10/3/2003 11:45:00 AM
Benzo(g,h,i)perylene	26.0	6.67		µg/Kg	1	10/3/2003 11:45:00 AM
Benzo(k)fluoranthene	15.3	6.67		µg/Kg	1	10/3/2003 11:45:00 AM
Chrysene	64.0	6.67		µg/Kg	1	10/3/2003 11:45:00 AM
Dibenz(a,h)anthracene	ND	6.67		µg/Kg	1	10/3/2003 11:45:00 AM
Fluoranthene	137	6.67		µg/Kg	1	10/3/2003 11:45:00 AM
Fluorene	2840	33.3		µg/Kg	5	10/3/2003 10:45:00 PM
Indeno(1,2,3-cd)pyrene	21.3	6.67		µg/Kg	1	10/3/2003 11:45:00 AM
Naphthalene	983	33.3		µg/Kg	5	10/3/2003 10:45:00 PM
Phenanthrene	2760	33.3		µg/Kg	5	10/3/2003 10:45:00 PM
Pyrene	240	6.67		µg/Kg	1	10/3/2003 11:45:00 AM
Surr: 2-Fluorobiphenyl	79.6	42.6-128		%REC	1	10/3/2003 11:45:00 AM
Surr: Nitrobenzene-d5	124	21.7-155		%REC	1	10/3/2003 11:45:00 AM
Surr: p-Terphenyl-d14	86.2	44.9-155		%REC	1	10/3/2003 11:45:00 AM
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
1,2,4-Trimethylbenzene	12.9	10.0		µg/Kg	1	9/29/2003 9:07:00 PM
1,2-Dibromoethane	ND	10.0		µg/Kg	1	9/29/2003 9:07:00 PM
1,2-Dichloroethane	ND	10.0		µg/Kg	1	9/29/2003 9:07:00 PM
1,3,5-Trimethylbenzene	1050	10.0	E	µg/Kg	1	9/29/2003 9:07:00 PM
Benzene	ND	10.0		µg/Kg	1	9/29/2003 9:07:00 PM
Ethylbenzene	ND	10.0		µg/Kg	1	9/29/2003 9:07:00 PM
Isopropylbenzene	1110	10.0	E	µg/Kg	1	9/29/2003 9:07:00 PM
m,p-Xylene	ND	20.0		µg/Kg	1	9/29/2003 9:07:00 PM
Methyl tert-butyl ether	ND	10.0		µg/Kg	1	9/29/2003 9:07:00 PM

BZTO104(e)019890

Specialty Analytical

Date: *10-Nov-03*

CLIENT:	Time Oil Co.	**Client Sample ID:**	LW027S (21-22)
Lab Order:	0309185	**Collection Date:**	9/25/2003 9:05:00 AM
Project:	PHIII Well Install / 231009.31		
Lab ID:	0309185-03	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
n-Propylbenzene	1260	10.0	E	µg/Kg	1	9/29/2003 9:07:00 PM
o-Xylene	ND	10.0		µg/Kg	1	9/29/2003 9:07:00 PM
Toluene	18.3	10.0		µg/Kg	1	9/29/2003 9:07:00 PM
Surr: 1,2-Dichloroethane-d4	75.7	71.5-112		%REC	1	9/29/2003 9:07:00 PM
Surr: 4-Bromofluorobenzene	403	75.7-122	SE	%REC	1	9/29/2003 9:07:00 PM
Surr: Dibromofluoromethane	73.2	64.3-124		%REC	1	9/29/2003 9:07:00 PM
Surr: Toluene-d8	147	74.9-120	S	%REC	1	9/29/2003 9:07:00 PM

BZTO104(e)019891

CLIENT: Time Oil Co.
Work Order: 0309185
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID	MBLK-9634	SampType:	MBLK	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	9/29/2003	Run ID:	TJA IRIS_030929C
Client ID:	ZZZZZ	Batch ID:	9634	TestNo:	E6010			Analysis Date:	9/29/2003	SeqNo:	215289

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	2.00									
Cadmium	ND	0.100									
Selenium	ND	2.00									
Silver	ND	2.00									

Sample ID	MBLK-9634	SampType:	MBLK	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	9/29/2003	Run ID:	TJA IRIS_030930B
Client ID:	ZZZZZ	Batch ID:	9634	TestNo:	E6010			Analysis Date:	9/30/2003	SeqNo:	215563

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	ND	1.00									
Chromium	ND	0.500									
Lead	ND	2.00									

Sample ID	ICB	SampType:	MBLK	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	9/29/2003	Run ID:	TJA IRIS_031001A
Client ID:	ZZZZZ	Batch ID:	9634	TestNo:	E6010			Analysis Date:	10/1/2003	SeqNo:	215833

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	0.24	0.500									J

Sample ID	LCS-9634	SampType:	LCS	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	9/29/2003	Run ID:	TJA IRIS_030929C
Client ID:	ZZZZZ	Batch ID:	9634	TestNo:	E6010			Analysis Date:	9/29/2003	SeqNo:	215290

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	93.27	2.00	100	0	93.3	87.6	110	0	0		
Cadmium	4.87	0.100	5	0	97.4	90.8	109	0	0		
Lead	91	2.00	100	0	91	92.9	109	0	0		S,O
Selenium	98.8	2.00	100	0	98.8	90.2	112	0	0		
Silver	44.34	2.00	50	0	88.7	85.1	108	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019892

CLIENT: Time Oil Co.
Work Order: 0309185
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID: LCS-9634	SampType: LCS	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/29/2003	Run ID: TJA IRIS_030930B
Client ID: ZZZZZ	Batch ID: 9634	TestNo: E6010		Analysis Date: 9/30/2003	SeqNo: 215564

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	46.47	1.00	50	0	92.9	92.7	109	0	0		
Chromium	23.8	0.500	25	0	95.2	91.7	114	0	0		
Lead	93.59	2.00	100	0	93.6	92.9	109	0	0		

Sample ID: 0309184-01BMS	SampType: MS	TestCode: 6010_S	Units: mg/Kg	Prep Date 9/29/2003	Run ID: TJA IRIS_030929C
Client ID: ZZZZZ	Batch ID: 9634	TestNo: E6010		Analysis Date 9/29/2003	SeqNo: 215293

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	83.29	1.79	89.29	0.9038	92.3	86.1	109	0	0		
Cadmium	4.589	0.0893	4.464	0.4423	92.9	86.4	113	0	0		
Selenium	87.52	1.79	89.29	0.8846	97	77.7	116	0	0		
Silver	38.33	1.79	44.64	0	85.9	75	123	0	0		

Sample ID: 0309184-01BMS	SampType: MS	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/29/2003	Run ID: TJA IRIS_030930B
Client ID: ZZZZZ	Batch ID: 9634	TestNo: E6010		Analysis Date: 9/30/2003	SeqNo: 215567

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	88.41	0.893	44.64	86.7	3.83	75	125	0	0		S,MI
Chromium	32.23	0.446	22.32	24.02	36.8	75	121	0	0		S,MI
Lead	121.2	1.79	89.29	101.2	22.4	92.1	104	0	0		S,MI

Sample ID: 0309184-01BMSD	SampType: MSD	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/29/2003	Run ID: TJA IRIS_030929C
Client ID: ZZZZZ	Batch ID: 9634	TestNo: E6010		Analysis Date: 9/29/2003	SeqNo: 215294

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	74.05	1.56	78.12	0.9038	93.6	86.1	109	83.29	11.7	20	
Cadmium	3.969	0.0781	3.906	0.4423	90.3	86.4	113	4.589	14.5	20	
Selenium	77.7	1.56	78.12	0.8846	98.3	77.7	116	87.52	11.9	20	
Silver	34.7	1.56	39.06	0	88.8	75	123	38.33	9.96	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019893

CLIENT: Time Oil Co.
Work Order: 0309185
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID 0309184-01BMSD	SampType: MSD	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/29/2003	Run ID: TJA IRIS_030930B
Client ID: ZZZZZ	Batch ID: 9634	TestNo: E6010		Analysis Date: 9/30/2003	SeqNo: 215568

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	73.91	0.781	39.06	86.7	-32.7	75	125	88.41	17.9	20	S,MI
Chromium	32.8	0.391	19.53	24.02	44.9	75	121	32.23	1.74	20	S,MI
Lead	124.3	1.56	78.12	101.2	29.6	92.1	104	121.2	2.56	20	S,MI

Sample ID 0309184-01BDUP	SampType: DUP	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/29/2003	Run ID: TJA IRIS_030929C
Client ID: ZZZZZ	Batch ID: 9634	TestNo: E6010		Analysis Date: 9/29/2003	SeqNo: 215292

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.9609	1.56	0	0	0	0	0	0.9038	0	20	J
Cadmium	0.2031	0.0781	0	0	0	0	0	0.4423	74.1	20	RF
Selenium	0.7812	1.56	0	0	0	0	0	0.8846	0	20	J
Silver	ND	1.56	0	0	0	0	0	0	0	20	

Sample ID 0309184-01BDUP	SampType: DUP	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/29/2003	Run ID: TJA IRIS_030930B
Client ID: ZZZZZ	Batch ID: 9634	TestNo: E6010		Analysis Date: 9/30/2003	SeqNo: 215566

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	43.27	0.781	0	0	0	0	0	86.7	66.8	20	R
Chromium	17.21	0.391	0	0	0	0	0	24.02	33.0	20	RF
Lead	61.23	1.56	0	0	0	0	0	101.2	49.2	20	R

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/29/2003	Run ID: TJA IRIS_030929C
Client ID: ZZZZZ	Batch ID: 9634	TestNo: E6010		Analysis Date: 9/29/2003	SeqNo: 215288

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	94.56	2.00	100	0	94.6	90	110	0	0		
Cadmium	4.91	0.100	5	0	98.2	90	110	0	0		
Lead	94.83	2.00	100	0	94.8	90	110	0	0		
Selenium	96.35	2.00	100	0	96.4	90	110	0	0		
Silver	47.34	2.00	50	0	94.7	90	110	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019894

CLIENT: Time Oil Co.
Work Order: 0309185
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/29/2003	Run ID: TJA IRIS_030929C
Client ID: ZZZZZ	Batch ID: 9634	TestNo: E6010		Analysis Date: 9/29/2003	SeqNo: 215296

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	91.91	2.00	100	0	91.9	90	110	0	0		
Cadmium	4.77	0.100	5	0	95.4	90	110	0	0		
Lead	93.81	2.00	100	0	93.8	90	110	0	0		
Selenium	96.75	2.00	100	0	96.8	90	110	0	0		
Silver	46.56	2.00	50	0	93.1	90	110	0	0		

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/29/2003	Run ID: TJA IRIS_030929C
Client ID: ZZZZZ	Batch ID: 9634	TestNo: E6010		Analysis Date: 9/29/2003	SeqNo: 215307

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	90.57	2.00	100	0	90.6	90	110	0	0		
Cadmium	4.64	0.100	5	0	92.8	90	110	0	0		
Selenium	94.02	2.00	100	0	94	90	110	0	0		
Silver	45.8	2.00	50	0	91.6	90	110	0	0		

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/29/2003	Run ID: TJA IRIS_030929C
Client ID: ZZZZZ	Batch ID: 9634	TestNo: E6010		Analysis Date: 9/29/2003	SeqNo: 215317

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	90.29	2.00	100	0	90.3	90	110	0	0		
Cadmium	4.63	0.100	5	0	92.6	90	110	0	0		
Selenium	95.2	2.00	100	0	95.2	90	110	0	0		
Silver	45.8	2.00	50	0	91.6	90	110	0	0		

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/29/2003	Run ID: TJA IRIS_030930B
Client ID: ZZZZZ	Batch ID: 9634	TestNo: E6010		Analysis Date: 9/30/2003	SeqNo: 215571

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	46.91	1.00	50	0	93.8	90	110	0	0		
Chromium	22.65	0.500	25	0	90.6	90	110	0	0		
Lead	93.99	2.00	100	0	94	90	110	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

BZTO104(e)019895

CLIENT: Time Oil Co.
Work Order: 0309185
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/29/2003	Run ID: TJA IRIS_030930B
Client ID: ZZZZZ	Batch ID: 9634	TestNo: E6010		Analysis Date: 9/30/2003	SeqNo: 215582

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	46.77	1.00	50	0	93.5	90	110	0	0		
Chromium	23	0.500	25	0	92	90	110	0	0		
Lead	93.24	2.00	100	0	93.2	90	110	0	0		

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/29/2003	Run ID: TJA IRIS_030930B
Client ID: ZZZZZ	Batch ID: 9634	TestNo: E6010		Analysis Date: 9/30/2003	SeqNo: 215589

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	45.38	1.00	50	0	90.8	90	110	0	0		
Lead	93.36	2.00	100	0	93.4	90	110	0	0		

Sample ID ICV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/29/2003	Run ID: TJA IRIS_031001A
Client ID: ZZZZZ	Batch ID: 9634	TestNo: E6010		Analysis Date: 10/1/2003	SeqNo: 215837

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	24.49	0.500	25	0	98	90	110	0	0		

Sample ID ICV	SampType: ICV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/29/2003	Run ID: TJA IRIS_030929C
Client ID: ZZZZZ	Batch ID: 9634	TestNo: E6010		Analysis Date: 9/29/2003	SeqNo: 215287

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	94.91	2.00	100	0	94.9	90	110	0	0		
Cadmium	4.85	0.100	5	0	97	90	110	0	0		
Lead	96.63	2.00	100	0	96.6	90	110	0	0		
Selenium	98.94	2.00	100	0	98.9	90	110	0	0		
Silver	47.18	2.00	50	0	94.4	90	110	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019896

CLIENT: Time Oil Co.
Work Order: 0309185
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID ICV	SampType: ICV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/29/2003	Run ID: TJA IRIS_030930B
Client ID: ZZZZZ	Batch ID: 9634	TestNo: E6010		Analysis Date: 9/30/2003	SeqNo: 215562

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	48.19	1.00	50	0	96.4	90	110	0	0		
Chromium	23.29	0.500	25	0	93.2	90	110	0	0		
Lead	94.56	2.00	100	0	94.6	90	110	0	0		

Sample ID ICV	SampType: ICV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/29/2003	Run ID: TJA IRIS_031001A
Client ID ZZZZZ	Batch ID: 9634	TestNo: E6010		Analysis Date: 10/1/2003	SeqNo: 215832

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	24.09	0.500	25	0	96.4	90	110	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

BZTO104(e)019897

CLIENT: Time Oil Co.
Work Order: 0309185
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S

Sample ID: MB	SampType: MBLK	TestCode: 8260_S	Units: µg/Kg	Prep Date: 9/30/2003	Run ID: 5973J_030929D
Client ID: ZZZZZ	Batch ID: 9655	TestNo: SW8260B		Analysis Date: 9/29/2003	SeqNo: 215727

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	10.0									
1,1,1-Trichloroethane	ND	10.0									
1,1,2,2-Tetrachloroethane	ND	10.0									
1,1,2-Trichloroethane	ND	10.0									
1,1-Dichloroethane	ND	10.0									
1,1-Dichloroethene	ND	10.0									
1,1-Dichloropropene	ND	10.0									
1,2,3-Trichlorobenzene	ND	10.0									
1,2,3-Trichloropropane	ND	10.0									
1,2,4-Trichlorobenzene	ND	10.0									
1,2,4-Trimethylbenzene	ND	10.0									
1,2-Dibromo-3-chloropropane	ND	10.0									
1,2-Dibromoethane	ND	10.0									
1,2-Dichlorobenzene	ND	10.0									
1,2-Dichloroethane	ND	10.0									
1,2-Dichloropropane	ND	10.0									
1,3,5-Trimethylbenzene	ND	10.0									
1,3-Dichlorobenzene	ND	10.0									
1,3-Dichloropropane	ND	10.0									
1,4-Dichlorobenzene	ND	10.0									
2,2-Dichloropropane	ND	10.0									
2-Butanone	ND	40.0									
2-Chlorotoluene	ND	10.0									
2-Hexanone	ND	20.0									
4-Chlorotoluene	ND	10.0									
4-Isopropyltoluene	ND	10.0									
4-Methyl-2-pentanone	ND	40.0									
Acetone	ND	100									
Benzene	2.76	10.0									J
Bromobenzene	ND	10.0									
Bromochloromethane	ND	10.0									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019898

CLIENT: Time Oil Co.
Work Order: 0309185
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S

Sample ID: MB	SampType: MBLK	TestCode: 8260_S	Units: µg/Kg	Prep Date: 9/30/2003	Run ID: 5973J_030929D
Client ID: ZZZZZ	Batch ID: 9655	TestNo: SW8260B		Analysis Date: 9/29/2003	SeqNo: 215727

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromodichloromethane	ND	10.0									
Bromoform	ND	10.0									
Bromomethane	ND	10.0									
Carbon disulfide	ND	10.0									
Carbon tetrachloride	ND	10.0									
Chlorobenzene	ND	10.0									
Chloroethane	ND	10.0									
Chloroform	ND	10.0									
Chloromethane	ND	10.0									
cis-1,2-Dichloroethene	ND	10.0									
cis-1,3-Dichloropropene	ND	10.0									
Dibromochloromethane	ND	10.0									
Dibromomethane	ND	10.0									
Dichlorodifluoromethane	ND	10.0									
Ethylbenzene	ND	10.0									
Hexachlorobutadiene	ND	10.0									
Isopropylbenzene	ND	10.0									
m,p-Xylene	ND	20.0									
Methyl tert-butyl ether	ND	10.0									
Methylene chloride	ND	50.0									
n-Butylbenzene	ND	10.0									
n-Propylbenzene	ND	10.0									
Naphthalene	ND	10.0									
o-Xylene	ND	10.0									
sec-Butylbenzene	ND	10.0									
Styrene	ND	10.0									
tert-Butylbenzene	ND	10.0									
Tetrachloroethene	ND	10.0									
Toluene	0.74	10.0									J
trans-1,2-Dichlorcethene	ND	10.0									
trans-1,3-Dichloropropene	ND	10.0									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019899

CLIENT: Time Oil Co.
Work Order: 0309185
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S

Sample ID MB	SampType: MBLK	TestCode: 8260_S	Units: µg/Kg	Prep Date: 9/30/2003	Run ID: 5973J_030929D
Client ID: ZZZZZ	Batch ID: 9655	TestNo: SW8260B		Analysis Date: 9/29/2003	SeqNo: 215727

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichloroethene	ND	10.0									
Trichlorofluoromethane	ND	10.0									
Vinyl chloride	ND	10.0									
Surr: 1,2-Dichloroethane-d4	67.93	1.00	100	0	67.9	71.5	112	0	0		S
Surr: 4-Bromofluorobenzene	107	1.00	100	0	107	75.7	122	0	0		
Surr: Dibromofluoromethane	76.59	1.00	100	0	76.6	64.3	124	0	0		
Surr: Toluene-d8	116	1.00	100	0	116	74.9	120	0	0		

Sample ID LCS	SampType: LCS	TestCode: 8260_S	Units: µg/Kg	Prep Date: 9/30/2003	Run ID: 5973J_030929D
Client ID: ZZZZZ	Batch ID: 9655	TestNo: SW8260B		Analysis Date: 9/29/2003	SeqNo: 215726

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	72.17	10.0	80	0	90.2	65.4	133	0	0		
Benzene	73.7	10.0	80	2.76	88.7	78	123	0	0		
Chlorobenzene	92.97	10.0	80	0	116	79.5	125	0	0		
Toluene	76.22	10.0	80	0.74	94.4	77.5	132	0	0		
Trichloroethene	83.66	10.0	80	0	105	72.4	124	0	0		

Sample ID 0309174-02AMS	SampType: MS	TestCode: 8260_S	Units: µg/Kg	Prep Date: 9/30/2003	Run ID: 5973J_030929D
Client ID: ZZZZZ	Batch ID: 9655	TestNo: SW8260B		Analysis Date: 9/29/2003	SeqNo: 215729

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	40.75	10.0	40	0	102	69.2	158	0	0		
Benzene	33.96	10.0	40	0.92	82.6	71.7	147	0	0		
Chlorobenzene	38.3	10.0	40	0	95.8	85.6	148	0	0		
Toluene	36.04	10.0	40	1.52	86.3	75.8	153	0	0		
Trichloroethene	39.57	10.0	40	0	98.9	77.1	138	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

BZTO104(e)019900

CLIENT: Time Oil Co.
Work Order: 0309185
Project: PHII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S

Sample ID: 0309174-02AMSD	SampType: MSD	TestCode: 8260_S	Units: µg/Kg	Prep Date: 9/30/2003	Run ID: 5973J_030929D
Client ID: ZZZZZ	Batch ID: 9655	TestNo: SW8260B		Analysis Date: 9/29/2003	SeqNo: 215730

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	36.7	10.0	40	0	91.8	69.2	158	40.75	10.5	20	
Benzene	26.62	10.0	40	0.92	64.3	71.7	147	33.96	24.2	20	SR
Chlorobenzene	31.74	10.0	40	0	79.4	85.6	148	38.3	18.7	20	S
Toluene	27.83	10.0	40	1.52	65.8	75.8	153	36.04	25.7	20	SR
Trichloroethene	28.19	10.0	40	0	70.5	77.1	138	39.57	33.6	20	SR

Sample ID: CCV	SampType: CCV	TestCode: 8260_S	Units: µg/Kg	Prep Date: 9/30/2003	Run ID: 5973J_030929D
Client ID: ZZZZZ	Batch ID: 9655	TestNo: SW8260B		Analysis Date: 9/29/2003	SeqNo: 215725

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	49.1	10.0	50	0	98.2	80	120	0	0		
1,2-Dichloropropane	44.4	10.0	50	0	88.8	80	120	0	0		
Chloroform	49.16	10.0	50	0	98.3	80	120	0	0		
Ethylbenzene	52.5	10.0	50	0	105	80	120	0	0		
Toluene	48.32	10.0	50	0	96.6	80	120	0	0		
Vinyl chloride	58.07	10.0	50	0	116	80	120	0	0		

Sample ID: CCV	SampType: CCV	TestCode: 8260_S	Units: µg/Kg	Prep Date: 9/30/2003	Run ID: 5973J_030929D
Client ID: ZZZZZ	Batch ID: 9655	TestNo: SW8260B		Analysis Date: 9/30/2003	SeqNo: 215754

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	56.74	10.0	50	0	113	80	120	0	0		
1,2-Dichloropropane	45.63	10.0	50	0	91.3	80	120	0	0		
Chloroform	48.4	10.0	50	0	96.8	80	120	0	0		
Ethylbenzene	51.56	10.0	50	0	103	80	120	0	0		
Toluene	51.25	10.0	50	0	103	80	120	0	0		
Vinyl chloride	49.04	10.0	50	0	98.1	80	120	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019901

CLIENT: Time Oil Co.
Work Order: 0309185
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S

Sample ID: CCV	SampType: CCV	TestCode: 8260_S	Units: µg/Kg	Prep Date: 9/30/2003	Run ID: 5973J_030929D
Client ID: ZZZZZ	Batch ID: 9655	TestNo: SW8260B		Analysis Date: 9/30/2003	SeqNo: 215763

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	73.52	10.0	80	0	91.9	80	120	0	0		
1,2-Dichloropropane	72.26	10.0	80	0	90.3	80	120	0	0		
Chloroform	65.74	10.0	80	0	82.2	80	120	0	0		
Ethylbenzene	66.89	10.0	80	0	83.6	80	120	0	0		
Toluene	66	10.0	80	0	82.5	80	120	0	0		
Vinyl chloride	84.34	10.0	80	0	105	80	120	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019902

CLIENT: Time Oil Co.
Work Order: 0309185
Project: PHII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHDX_S

Sample ID MBLK	SampType: MBLK	TestCode: NWTPHDX_S	Units: mg/Kg	Prep Date: 10/1/2003	Run ID: GC-M_031001C
Client ID: ZZZZZ	Batch ID: 9660	TestNo: NWTPH-Dx		Analysis Date: 10/1/2003	SeqNo: 215953

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	ND	15.0									
Lube Oil	ND	50.0									
Surr: o-Terphenyl	27.03	1.00	33.33	0	81.1	50	150	0	0		

Sample ID MBLK	SampType: MBLK	TestCode: NWTPHDX_S	Units: mg/Kg	Prep Date: 10/1/2003	Run ID: GC-M_031002F
Client ID: ZZZZZ	Batch ID: 9660	TestNo: NWTPH-Dx		Analysis Date: 10/2/2003	SeqNo: 215997

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	ND	15.0									
Lube Oil	ND	50.0									
Surr: o-Terphenyl	27.4	1.00	33.33	0	82.2	50	150	0	0		

Sample ID LCS	SampType: LCS	TestCode: NWTPHDX_S	Units: mg/Kg	Prep Date: 10/1/2003	Run ID: GC-M_031001C
Client ID: ZZZZZ	Batch ID: 9660	TestNo: NWTPH-Dx		Analysis Date: 10/1/2003	SeqNo: 215954

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	154.8	15.0	167.6	0	92.3	76.3	122	0	0		
Lube Oil	153.8	50.0	167.6	0	91.7	69.9	127	0	0		

Sample ID 0309185-01ADUP	SampType: DUP	TestCode: NWTPHDX_S	Units: mg/Kg-dry	Prep Date: 10/1/2003	Run ID: GC-M_031003A
Client ID: LW026D (15-16)	Batch ID 9660	TestNo: NWTPH-Dx		Analysis Date: 10/3/2003	SeqNo: 216983

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	8900	194	0	0	0	0	0	12550	34.0	20	R

Sample ID 0309185-03ADUP	SampType: DUP	TestCode: NWTPHDX_S	Units: mg/Kg-dry	Prep Date: 10/1/2003	Run ID: GC-M_031003A
Client ID: LW027S (21-22)	Batch ID: 9660	TestNo: NWTPH-Dx		Analysis Date: 10/3/2003	SeqNo: 216989

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	13110	171	0	0	0	0	0	9789	29.0	20	R

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

BZT0104(e)019903

CLIENT: Time Oil Co.
Work Order: 0309185
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHDX_S

Sample ID	0309185-01ADUP	SampType:	DUP	TestCode:	NWTPHDX_S	Units:	mg/Kg-dry	Prep Date:	10/1/2003	Run ID:	GC-M_031002F
Client ID:	LW026D (15-16)	Batch ID:	9660	TestNo:	NWTPH-Dx			Analysis Date:	10/2/2003	SeqNo:	217003

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lube Oil	ND	64.5	0	0	0	0	0	0	0	20	A3

Sample ID	0309185-03ADUP	SampType:	DUP	TestCode:	NWTPHDX_S	Units:	mg/Kg-dry	Prep Date:	10/1/2003	Run ID:	GC-M_031002F
Client ID:	LW027S (21-22)	Batch ID:	9660	TestNo:	NWTPH-Dx			Analysis Date:	10/2/2003	SeqNo:	217004

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lube Oil	ND	56.9	0	0	0	0	0	0	0	20	A3

Sample ID	CCV	SampType:	CCV	TestCode:	NWTPHDX_S	Units:	mg/Kg	Prep Date:	10/1/2003	Run ID:	GC-M_031001C
Client ID:	ZZZZZ	Batch ID:	9660	TestNo:	NWTPH-Dx			Analysis Date:	10/1/2003	SeqNo:	215955

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	636.1	15.0	667.2	0	95.3	85	115	0	0		
Lube Oil	248.1	50.0	250.6	0	99	85	115	0	0		

Sample ID	CCV	SampType:	CCV	TestCode:	NWTPHDX_S	Units:	mg/Kg	Prep Date:	10/1/2003	Run ID:	GC-M_031003A
Client ID:	ZZZZZ	Batch ID:	9660	TestNo:	NWTPH-Dx			Analysis Date:	10/3/2003	SeqNo:	216977

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	590.1	15.0	667.2	0	88.4	85	115	0	0		
Lube Oil	286.4	50.0	339	0	84.5	85	115	0	0		S

Sample ID	CCV	SampType:	CCV	TestCode:	NWTPHDX_S	Units:	mg/Kg	Prep Date:	10/1/2003	Run ID:	GC-M_031002F
Client ID:	ZZZZZ	Batch ID:	9660	TestNo:	NWTPH-Dx			Analysis Date:	10/2/2003	SeqNo:	216998

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	698.7	15.0	667.3	0	105	85	115	0	0		
Lube Oil	281.1	50.0	250.7	0	112	85	115	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019904

CLIENT: Time Oil Co.
Work Order: 0309185
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHGX_S

Sample ID MBLK	SampType: MBLK	TestCode: NWTPHGX_S	Units: mg/Kg	Prep Date: 10/20/2003	Run ID: GC-I_031002D
Client ID: ZZZZZ	Batch ID: 9673	TestNo: NWTPH-Gx		Analysis Date: 10/2/2003	SeqNo: 216631

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	2.50									
Surr: 4-Bromofluorobenzene	86.2	1.00	100	0	86.2	50	150	0	0		

Sample ID MBLK	SampType: MBLK	TestCode: NWTPHGX_S	Units: mg/Kg	Prep Date: 10/2/2003	Run ID: GC-I_031003B
Client ID: ZZZZZ	Batch ID: 9673	TestNo: NWTPH-Gx		Analysis Date: 10/3/2003	SeqNo: 216914

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	2.50									
Surr: 4-Bromofluorobenzene	85.9	1.00	100	0	85.9	50	150	0	0		

Sample ID MBLK	SampType: MBLK	TestCode: NWTPHGX_S	Units: mg/Kg	Prep Date: 10/2/2003	Run ID: GC-I_031006A
Client ID ZZZZZ	Batch ID: 9673	TestNo NWTPH-Gx		Analysis Date: 10/6/2003	SeqNo: 217185

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	2.50									
Surr: 4-Bromofluorobenzene	86.3	1.00	100	0	86.3	50	150	0	0		

Sample ID LCS	SampType: LCS	TestCode: NWTPHGX_S	Units: mg/Kg	Prep Date: 10/20/2003	Run ID: GC-I_031002D
Client ID: ZZZZZ	Batch ID: 9673	TestNo: NWTPH-Gx		Analysis Date: 10/2/2003	SeqNo: 216632

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	20.6	2.50	30	0	68.7	53.5	101	0	0		

Sample ID 0309162-30ADUP	SampType: DUP	TestCode: NWTPHGX_S	Units: mg/Kg-dry	Prep Date: 10/2/2003	Run ID: GC-I_031002D
Client ID: ZZZZZ	Batch ID: 9673	TestNo: NWTPH-Gx		Analysis Date: 10/2/2003	SeqNo: 216643

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	3.28	0	0	0	0	0	0	0	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019905

CLIENT: Time Oil Co.
Work Order: 0309185
Project: PHII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHGX_S

Sample ID CCV	SampType: CCV	TestCode: NWTPHGX_S	Units: mg/Kg	Prep Date: 10/20/2003	Run ID: GC-I_031002D
Client ID: ZZZZZ	Batch ID: 9673	TestNo: NWTPH-Gx		Analysis Date: 10/2/2003	SeqNo: 216633

Analyte	Result	PQL	SPK value	SPK Ref Va:	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	1681	2.50	2000	0	84	80	120	0	0		

Sample ID CCV	SampType: CCV	TestCode: NWTPHGX_S	Units: mg/Kg	Prep Date: 10/2/2003	Run ID: GC-I_031003B
Client ID: ZZZZZ	Batch ID: 9673	TestNo: NWTPH-Gx		Analysis Date: 10/3/2003	SeqNo: 216915

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	1223	2.50	1500	0	81.5	80	120	0	0		

Sample ID CCV	SampType: CCV	TestCode: NWTPHGX_S	Units: mg/Kg	Prep Date: 10/2/2003	Run ID: GC-I_031006A
Client ID: ZZZZZ	Batch ID: 9673	TestNo: NWTPH-Gx		Analysis Date: 10/6/2003	SeqNo: 217186

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	1443	2.50	1500	0	96.2	80	120	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019906

CLIENT: Time Oil Co.
Work Order: 0309185
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: PAHLL_S

Sample ID MB-9650	SampType: MBLK	TestCode: PAHLL_S	Units: µg/Kg	Prep Date: 9/30/2003	Run ID: 5973G_031001B
Client ID: ZZZZZ	Batch ID: 9650	TestNo: 8270SIM		Analysis Date: 10/1/2003	SeqNo: 216079

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	ND	6.67									
Acenaphthylene	ND	6.67									
Anthracene	0.6667	6.67									J
Benz(a)anthracene	1.333	6.67									J
Benzo(a)pyrene	2	6.67									J
Benzo(b)fluoranthene	1.333	6.67									J
Benzo(g,h,i)perylene	2	6.67									J
Benzo(k)fluoranthene	0.6667	6.67									J
Chrysene	ND	6.67									
Dibenz(a,h)anthracene	ND	6.67									
Fluoranthene	2	6.67									J
Fluorene	ND	6.67									
Indeno(1,2,3-cd)pyrene	1.333	6.67									J
Naphthalene	6	6.67									J
Phenanthrene	3.333	6.67									J
Pyrene	2.667	6.67									J
Surr: 2-Fluorobiphenyl	5047	0	6667	0	75.7	42.6	128	0	0		
Surr: Nitrobenzene-d5	4156	0	6667	0	62.3	21.7	155	0	0		
Surr: p-Terphenyl-d14	5385	0	6667	0	80.8	44.9	155	0	0		

Sample ID LCS-9650	SampType: LCS	TestCode: PAHLL_S	Units: µg/Kg	Prep Date: 9/30/2003	Run ID: 5973G_031001B
Client ID: ZZZZZ	Batch ID: 9650	TestNo: 8270SIM		Analysis Date: 10/1/2003	SeqNo: 216078

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	103.3	6.67	166.7	0	62	40.4	107	0	0		
Benzo(g,h,i)perylene	147.3	6.67	166.7	2	87.2	44.6	125	0	0		
Chrysene	134.7	6.67	166.7	0	80.8	59.9	121	0	0		
Naphthalene	88.67	6.67	166.7	6	49.6	33.5	96.1	0	0		
Phenanthrene	114	6.67	166.7	3.333	66.4	52.2	108	0	0		
Pyrene	132.7	6.67	166.7	2.667	78	53.8	120	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank
J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

BZTO104(e)019907

CLIENT: Time Oil Co.
Work Order: 0309185
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: PAHLL_S

Sample ID 0309132-04BMS	SampType: MS	TestCode: PAHLL_S	Units: µg/Kg	Prep Date: 9/30/2003	Run ID: 5973G_031001B
Client ID: ZZZZZ	Batch ID: 9650	TestNo: 8270SIM		Analysis Date: 10/1/2003	SeqNo: 216080

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	97.33	6.67	166.7	0	58.4	33.7	107	0	0		
Benzo(g,h,i)perylene	126	6.67	166.7	3.333	73.6	15	128	0	0		
Chrysene	120	6.67	166.7	2	70.8	37.5	125	0	0		
Naphthalene	84.67	6.67	166.7	0	50.8	27.7	108	0	0		
Phenanthrene	110.7	6.67	166.7	2.667	64.8	20.2	139	0	0		
Pyrene	124	6.67	166.7	4	72	26.8	134	0	0		

Sample ID 0309132-04BMSD	SampType: MSD	TestCode: PAHLL_S	Units: µg/Kg	Prep Date: 9/30/2003	Run ID: 5973G_031001B
Client ID: ZZZZZ	Batch ID: 9650	TestNo: 8270SIM		Analysis Date: 10/1/2003	SeqNo: 216081

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	94.67	6.67	166.7	0	56.8	33.7	107	97.33	2.78	20	
Benzo(g,h,i)perylene	116.7	6.67	166.7	3.333	68	15	128	126	7.69	20	
Chrysene	113.3	6.67	166.7	2	66.8	37.5	125	120	5.71	20	
Naphthalene	82.67	6.67	166.7	0	49.6	27.7	108	84.67	2.39	20	
Phenanthrene	105.3	6.67	166.7	2.667	61.6	20.2	139	110.7	4.94	20	
Pyrene	117.3	6.67	166.7	4	68	26.8	134	124	5.52	20	

Sample ID CCV-9650	SampType: CCV	TestCode: PAHLL_S	Units: µg/Kg	Prep Date:	Run ID: 5973G_031001B
Client ID: ZZZZZ	Batch ID: 9650	TestNo: 8270SIM		Analysis Date: 10/1/2003	SeqNo: 216077

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	128.7	6.67	133.3	0	96.5	70	130	0	0		
Acenaphthylene	146.7	6.67	133.3	0	110	70	130	0	0		
Anthracene	144.7	6.67	133.3	0	108	70	130	0	0		
Benz(a)anthracene	138.7	6.67	133.3	0	104	70	130	0	0		
Benzo(a)pyrene	149.3	6.67	133.3	0	112	70	130	0	0		
Benzo(b)fluoranthene	144	6.67	133.3	0	108	70	130	0	0		
Benzo(g,h,i)perylene	155.3	6.67	133.3	0	116	70	130	0	0		
Benzo(k)fluoranthene	138	6.67	133.3	0	104	70	130	0	0		
Chrysene	134	6.67	133.3	0	101	70	130	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019908

CLIENT: Time Oil Co.
Work Order: 0309185
Project: PHII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: PAHLL_S

Sample ID: CCV-9650	SampType: CCV	TestCode: PAHLL_S	Units: µg/Kg	Prep Date:	Run ID: 5973G_031001B
Client ID: ZZZZZ	Batch ID: 9650	TestNo: 8270SIM		Analysis Date: 10/1/2003	SeqNo: 216077

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dibenz(a,h)anthracene	154	6.67	133.3	0	116	70	130	0	0		
Fluoranthene	136	6.67	133.3	0	102	70	130	0	0		
Fluorene	146.7	6.67	133.3	0	110	70	130	0	0		
Indeno(1,2,3-cd)pyrene	157.3	6.67	133.3	0	118	70	130	0	0		
Naphthalene	126.7	6.67	133.3	0	95	70	130	0	0		
Phenanthrene	129.3	6.67	133.3	0	97	70	130	0	0		
Pyrene	145.3	6.67	133.3	0	109	70	130	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019909

Specialty Analytical

19761 S.W. 95th Place
Tualatin, OR 97062
(503) 612-9007
Fax (503) 612-8572
1 (877) 612-9007

October 21, 2003

RECEIVED
DEC - 8 2003
LANDAU ASSOCIATES, INC.

Kevin Murphy
Time Oil Co.
2737 West Commodore Way
Seattle, WA 981991233

TEL: 206-286-6443
FAX (206) 285-7833

RE: PHIII Well Install / 231009.31

Order No.: 0309195

Dear Kevin Murphy:

Specialty Analytical received 1 sample on 9/29/2003 for the analyses presented in the following report.

There were no problems with the analysis and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative, or as qualified with flags. Results apply only to the samples analyzed. Without approval of the laboratory, the reproduction of this report is only permitted in its entirety.

If you have any questions regarding these tests, please feel free to call.

Sincerely,

Ned Engleson
Project Manager

Technical Review

CC:
Rebekah Brooks @ Landau Associates

☐ Seattle (Edmonds) (425) 778-0907
☐ Tacoma (253) 926-2493
☐ Spokane (509) 327-9737
☐ Portland (Lake Oswego) (503) 443-6010
☐

Landau Associates

0309195

Date 9/29/03
Page 1 of 1

Chain-of-Custody Record

Project Name PHTII WELL INSTALLS Project No. 231009.31
Project Location/Event NW TERMINAL TRIO OIL
Sampler's Name CHRISTY JOHNSON
Project Contact STACY FISCHER
Send Results To REBEKAH BROOK & KEVIN MORPHY

Testing Parameters

Turnaround Time
☑ Standard
☐ Accelerated
☐

Sample I.D.	Date	Time	Matrix	No. of Containers	NWTPH-DX	NWTPH-Gx	BETX	PAH	MTBE	LEAD	EDB	EDC	Observations/Comments
LW0195(16.5-17.5)	9/29/03	1140	SOIL	2	/	/	/	/	/	/	/	/	

Special Shipment/Handling or Storage Requirements STORED ON ICE

Method of Shipment HAND DELIVERED

Relinquished by	Received by	Relinquished by	Received by
Signature [signature]	Signature Cindy Hillyard	Signature	Signature
Printed Name CHRISTY JOHNSON	Printed Name Cindy Hillyard	Printed Name	Printed Name
Company LANDAU ASSOC	Company Specialty	Company	Company
Date 9/29/03 Time 1655	Date 9/29/03 Time 16:55	Date Time	Date Time

WHITE COPY - Project File YELLOW COPY - Laboratory PINK COPY - Client Representative

Rev 4/01

BZTO104(e)019911

Specialty Analytical

Date: *21-Oct-03*

CLIENT: Time Oil Co.
Lab Order: 0309195
Project: PHIII Well Install / 231009.31
Lab ID: 0309195-01

Client Sample ID: LW019S (16.5-17.5)
Collection Date: 9/29/2003 11:40:00 AM
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **btf**
Diesel	36100	191		mg/Kg-dry	10	10/3/2003
Lube Oil	ND	63.8	A3	mg/Kg-dry	1	10/2/2003
Surr: o-Terphenyl	1160	50-150	S,D	%REC	10	10/3/2003
Surr: o-Terphenyl	326	50-150	S,MI	%REC	1	10/2/2003
NWTPH-GX		**NWTPH-GX**				Analyst: **btf**
Gasoline	2310	31.9		mg/Kg-dry	10	10/2/2003
Surr: 4-Bromofluorobenzene	50.0	50-150		%REC	10	10/2/2003
TOTAL METALS BY ICP		**E6010**				Analyst: **tlf**
Lead	ND	2.28		mg/Kg-dry	1	10/1/2003 6:18:06 PM
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	2240	33.3		µg/Kg	5	10/3/2003 11:18:00 PM
Acenaphthylene	963	33.3		µg/Kg	5	10/3/2003 11:18:00 PM
Anthracene	1140	33.3		µg/Kg	5	10/3/2003 11:18:00 PM
Benz(a)anthracene	70.7	13.3		µg/Kg	2	10/3/2003 11:50:00 PM
Benzo(a)pyrene	13.3	6.67		µg/Kg	1	10/3/2003 12:18:00 PM
Benzo(b)fluoranthene	12.7	6.67		µg/Kg	1	10/3/2003 12:18:00 PM
Benzo(g,h,i)perylene	10.0	6.67		µg/Kg	1	10/3/2003 12:18:00 PM
Benzo(k)fluoranthene	ND	6.67		µg/Kg	1	10/3/2003 12:18:00 PM
Chrysene	93.3	13.3		µg/Kg	2	10/3/2003 11:50:00 PM
Dibenz(a,h)anthracene	ND	6.67		µg/Kg	1	10/3/2003 12:18:00 PM
Fluoranthene	70.0	33.3		µg/Kg	5	10/3/2003 11:18:00 PM
Fluorene	5950	33.3		µg/Kg	5	10/3/2003 11:18:00 PM
Indeno(1,2,3-cd)pyrene	8.67	6.67		µg/Kg	1	10/3/2003 12:18:00 PM
Naphthalene	4360	33.3		µg/Kg	5	10/3/2003 11:18:00 PM
Phenanthrene	9610	133		µg/Kg	20	10/4/2003 3:09:00 PM
Pyrene	1250	13.3		µg/Kg	2	10/3/2003 11:50:00 PM
Surr: 2-Fluorobiphenyl	12.6	42.6-128	S,MI	%REC	1	10/3/2003 12:18:00 PM
Surr: Nitrobenzene-d5	117	21.7-155		%REC	1	10/3/2003 12:18:00 PM
Surr: p-Terphenyl-d14	105	44.9-155		%REC	1	10/3/2003 12:18:00 PM
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
1,2,4-Trimethylbenzene	ND	10.0		µg/Kg	1	9/30/2003 10:59:00 PM
1,2-Dibromoethane	ND	10.0		µg/Kg	1	9/30/2003 10:59:00 PM
1,2-Dichloroethane	ND	10.0		µg/Kg	1	9/30/2003 10:59:00 PM
1,3,5-Trimethylbenzene	ND	10.0		µg/Kg	1	9/30/2003 10:59:00 PM
Benzene	ND	10.0		µg/Kg	1	9/30/2003 10:59:00 PM
Ethylbenzene	ND	10.0		µg/Kg	1	9/30/2003 10:59:00 PM
Isopropylbenzene	2050	1000		µg/Kg	100	10/1/2003 11:17:00 AM
m,p-Xylene	ND	20.0		µg/Kg	1	9/30/2003 10:59:00 PM
Methyl tert-butyl ether	ND	10.0		µg/Kg	1	9/30/2003 10:59:00 PM

BZTO104(e)019912

Specialty Analytical

Date: *21-Oct-03*

CLIENT:	Time Oil Co.	**Client Sample ID:**	LW019S (16.5-17.5)
Lab Order:	0309195	**Collection Date:**	9/29/2003 11:40:00 AM
Project:	PHIII Well Install / 231009.31		
Lab ID:	0309195-01	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
n-Propylbenzene	4900	1000		µg/Kg	100	10/1/2003 11:17:00 AM
o-Xylene	ND	10.0		µg/Kg	1	9/30/2003 10:59:00 PM
Toluene	ND	10.0		µg/Kg	1	9/30/2003 10:59:00 PM
Surr: 1,2-Dichloroethane-d4	77.4	71.5-112		%REC	1	9/30/2003 10:59:00 PM
Surr: 4-Bromofluorobenzene	498	75.7-122	S,E,MI	%REC	1	9/30/2003 10:59:00 PM
Surr: Dibromofluoromethane	70.9	64.3-124		%REC	1	9/30/2003 10:59:00 PM
Surr: Toluene-d8	145	74.9-120	S,MI	%REC	1	9/30/2003 10:59:00 PM

BZTO104(e)019913

KEY TO FLAGS

A. This sample contains a Gasoline Range Organic not identified as a specific hydrocarbon product. The result was quantified against gasoline calibration standards.

A1. This sample contains a Diesel Range Organic not identified as a specific hydrocarbon product. The result was quantified against diesel calibration standards.

A2. This sample contains a Lube Oil Range Organic not identified as a specific hydrocarbon product. The result was quantified against lube oil calibration standards.

A3. Results determined to be non detect based on hydrocarbon pattern recognition. The product was carry-over from another hydrocarbon type.

B. The blank exhibited a positive result greater than the reporting limit for this compound.

C. The result confirmed by secondary column or GC/MS analysis.

CN. See case narrative.

CR. Result for this analyte maybe biased due to interferences. Confirmation by GC/MS or other technique is recommended.

D. Surrogate was diluted outside reporting range.

E. Result exceeds the calibration range for the compound. The result should be considered an estimate.

F. The positive result for this hydrocarbon is due to single component contamination. The product does not match any hydrocarbon in the fuels library.

G. Result may be biased high due to biogenic interferences. Silica gel clean-up recommended.

H. Sample was analyzed outside recommended holding times.

HT. At clients request, sample was analyzed outside method recommended holding time.

J. The result for this analyte is between the MDL and the PQL, and should be considered an estimated concentration.

K. Diesel result is biased high due to amount of oil contained in the sample.

L. Diesel result is biased high due to amount of gasoline contained in the sample.

M. Oil result is biased high due to amount of diesel contained in the sample.

MC. Sample concentration is greater than 4x the spiked value; the spiked value is considered insignificant.

MI. Outside control limits due to Matrix Interference.

MSA. Value determined by Method of Standard Addition.

N. Sample appears to contain biogenic material biasing quantification.

O. Laboratory Control Standard (LCS) exceeded laboratory control limits, meets CCV criteria. Data meets EPA requirements.

P. Detected levels of Methylene Chloride may be due to laboratory contamination, due to previous analysis or background levels.

Q. Detection limits elevated due to sample matrix.

R. RPD control limits were exceeded.

RF. Duplicate failed, due to result being at or near method reporting limit.

RP. Matrix spike values exceed established QC limits, post digestion spike is in control.

S. Recovery outside control limits.

*. The result for this parameter was greater than the maximum contaminant level or the TCLP regulatory limit.

rev. October 23, 2001

Specialty Analytical

Date: *21-Oct-03*

CLIENT: Time Oil Co.
Work Order: 0309195
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID	MBLK-9651	SampType:	MBLK	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	9/30/2003	Run ID:	TJA IRIS_031001D
Client ID:	ZZZZZ	Batch ID:	9651	TestNo:	E6010			Analysis Date:	10/1/2003	SeqNo:	215920

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	2.00									

Sample ID	MBLK-9651	SampType:	MBLK	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	9/30/2003	Run ID:	TJA IRIS_031002C
Client ID:	ZZZZZ	Batch ID:	9651	TestNo:	E6010			Analysis Date:	10/2/2003	SeqNo:	216320

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	2.00									

Sample ID	MBLK-9651	SampType:	MBLK	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	9/30/2003	Run ID:	TJA IRIS_031003C
Client ID:	ZZZZZ	Batch ID:	9651	TestNo:	E6010			Analysis Date:	10/3/2003	SeqNo:	216946

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Zinc	ND	1.00									

Sample ID	LCS-9651	SampType:	LCS	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	9/30/2003	Run ID:	TJA IRIS_031001D
Client ID:	ZZZZZ	Batch ID:	9651	TestNo:	E6010			Analysis Date:	10/1/2003	SeqNo:	215921

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	95.91	2.00	100	0	95.9	92.9	109	0	0		

Sample ID	LCS-9651	SampType:	LCS	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	9/30/2003	Run ID:	TJA IRIS_031002C
Client ID:	ZZZZZ	Batch ID:	9651	TestNo:	E6010			Analysis Date:	10/2/2003	SeqNo:	216321

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	98.67	2.00	100	0	98.7	92.9	109	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019915

CLIENT: Time Oil Co.
Work Order: 0309195
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID	LCS-9651	SampType:	LCS	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	9/30/2003	Run ID:	TJA IRIS_031003C
Client ID:	ZZZZZ	Batch ID:	9651	TestNo:	E6010			Analysis Date:	10/3/2003	SeqNo:	216947

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Zinc	49.35	1.00	50	0	98.7	88.1	111	0	0		

Sample ID	0309196-01AMS	SampType:	MS	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	9/30/2003	Run ID:	TJA IRIS_031001D
Client ID:	ZZZZZ	Batch ID:	9651	TestNo:	E6010			Analysis Date:	10/1/2003	SeqNo:	215925

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	116.2	1.85	92.59	10.07	115	92.1	104	0	0		S

Sample ID	0309196-01AMS	SampType:	MS	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	9/30/2003	Run ID:	TJA IRIS_031002C
Client ID:	ZZZZZ	Batch ID:	9651	TestNo:	E6010			Analysis Date:	10/2/2003	SeqNo:	216324

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	112.5	1.85	92.59	11.86	109	92.1	104	0	0		S
Zinc	114.9	0.926	46.3	80.75	73.8	86.2	113	0	0		SE

Sample ID	0309196-01AMS	SampType:	MS	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	9/30/2003	Run ID:	TJA IRIS_031003C
Client ID:	ZZZZZ	Batch ID:	9651	TestNo:	E6010			Analysis Date:	10/3/2003	SeqNo:	216950

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Zinc	120.6	0.926	46.3	84.44	78.2	86.2	113	0	0		SE

Sample ID	0309196-01AMSD	SampType:	MSD	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	9/30/2003	Run ID:	TJA IRIS_031001D
Client ID:	ZZZZZ	Batch ID:	9651	TestNo:	E6010			Analysis Date:	10/1/2003	SeqNo:	215926

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	103.7	1.79	89.29	10.07	105	92.1	104	116.2	11.4	20	S

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019916

CLIENT: Time Oil Co.
Work Order: 0309195
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID 0309196-01AMSD	SampType: MSD	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/30/2003	Run ID: TJA IRIS_031002C
Client ID: ZZZZZ	Batch ID: 9651	TestNo: E6010		Analysis Date: 10/2/2003	SeqNo: 216325

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	100.6	1.79	89.29	11.86	99.4	92.1	104	112.5	11.1	20	
Zinc	113	0.893	44.64	80.75	72.3	86.2	113	114.9	1.64	20	SE

Sample ID 0309196-01AMSD	SampType: MSD	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/30/2003	Run ID: TJA IRIS_031003C
Client ID: ZZZZZ	Batch ID: 9651	TestNo: E6010		Analysis Date: 10/3/2003	SeqNo: 216951

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Zinc	121.3	0.893	44.64	84.44	82.7	86.2	113	120.6	0.571	20	SE

Sample ID 0309196-01ADUP	SampType: DUP	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/30/2003	Run ID: TJA IRIS_031001D
Client ID: ZZZZZ	Batch ID: 9651	TestNo: E6010		Analysis Date: 10/1/2003	SeqNo: 215923

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	14.41	1.72	0	0	0	0	0	10.07	35.5	20	RF

Sample ID 0309196-01ADUP	SampType: DUP	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/30/2003	Run ID: TJA IRIS_031002C
Client ID: ZZZZZ	Batch ID: 9651	TestNo: E6010		Analysis Date: 10/2/2003	SeqNo: 216323

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	15.77	1.72	0	0	0	0	0	11.86	28.3	20	R
Zinc	73.43	0.862	0	0	0	0	0	80.75	9.49	20	

Sample ID 0309196-01ADUP	SampType: DUP	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/30/2003	Run ID: TJA IRIS_031003C
Client ID: ZZZZZ	Batch ID: 9651	TestNo: E6010		Analysis Date: 10/3/2003	SeqNo: 216949

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Zinc	78.56	0.862	0	0	0	0	0	84.44	7.21	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019917

CLIENT: Time Oil Co.
Work Order: 0309195
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/30/2003	Run ID: TJA IRIS_031001D
Client ID: ZZZZZ	Batch ID: 9651	TestNo: E6010		Analysis Date: 10/1/2003	SeqNo: 215919

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	94.68	2.00	100	0	94.7	90	110	0	0		

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/30/2003	Run ID: TJA IRIS_031001D
Client ID: ZZZZZ	Batch ID: 9651	TestNo: E6010		Analysis Date: 10/1/2003	SeqNo: 215924

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	96.8	2.00	100	0	96.8	90	110	0	0		

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/30/2003	Run ID: TJA IRIS_031001D
Client ID: ZZZZZ	Batch ID: 9651	TestNo: E6010		Analysis Date: 10/1/2003	SeqNo: 215935

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	96.01	2.00	100	0	96	90	110	0	0		

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/30/2003	Run ID: TJA IRIS_031001D
Client ID: ZZZZZ	Batch ID: 9651	TestNo: E6010		Analysis Date: 10/1/2003	SeqNo: 215946

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	92.45	2.00	100	0	92.4	90	110	0	0		

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/30/2003	Run ID: TJA IRIS_031001D
Client ID: ZZZZZ	Batch ID: 9651	TestNo: E6010		Analysis Date: 10/1/2003	SeqNo: 215948

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	98.27	2.00	100	0	98.3	90	110	0	0		

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/30/2003	Run ID: TJA IRIS_031002C
Client ID: ZZZZZ	Batch ID: 9651	TestNo: E6010		Analysis Date: 10/2/2003	SeqNo: 216319

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019918

CLIENT: Time Oil Co.
Work Order: 0309195
Project: PHII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/30/2003	Run ID: TJA IRIS_031002C
Client ID: ZZZZZ	Batch ID: 9651	TestNo: E6010		Analysis Date: 10/2/2003	SeqNo: 216319

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	94.64	2.00	100	0	94.6	90	110	0	0		
Zinc	45.66	1.00	50	0	91.3	90	110	0	0		

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/30/2003	Run ID: TJA IRIS_031002C
Client ID: ZZZZZ	Batch ID: 9651	TestNo: E6010		Analysis Date: 10/2/2003	SeqNo: 216326

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	98.22	2.00	100	0	98.2	90	110	0	0		

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/30/2003	Run ID: TJA IRIS_031002C
Client ID: ZZZZZ	Batch ID: 9651	TestNo: E6010		Analysis Date: 10/2/2003	SeqNo: 216337

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	93.86	2.00	100	0	93.9	90	110	0	0		
Zinc	45.21	1.00	50	0	90.4	90	110	0	0		

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/30/2003	Run ID: TJA IRIS_031002C
Client ID: ZZZZZ	Batch ID: 9651	TestNo: E6010		Analysis Date: 10/2/2003	SeqNo: 216343

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	98.52	2.00	100	0	98.5	90	110	0	0		
Zinc	51.6	1.00	50	0	103	90	110	0	0		

Sample ID ICV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/30/2003	Run ID: TJA IRIS_031003C
Client ID: ZZZZZ	Batch ID: 9651	TestNo: E6010		Analysis Date: 10/3/2003	SeqNo: 216945

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Zinc	47.33	1.00	50	0	94.7	90	110	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019919

CLIENT: Time Oil Co.
Work Order: 0309195
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/30/2003	Run ID: TJA IRIS_031003C
Client ID: ZZZZZ	Batch ID: 9651	TestNo: E6010		Analysis Date: 10/3/2003	SeqNo: 216954

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Zinc	47.58	1.00	50	0	95.1	90	110	0	0		

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/30/2003	Run ID: TJA IRIS_031003C
Client ID: ZZZZZ	Batch ID: 9651	TestNo: E6010		Analysis Date: 10/3/2003	SeqNo: 216963

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Zinc	47.15	1.00	50	0	94.3	90	110	0	0		

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/30/2003	Run ID: TJA IRIS_031003C
Client ID: ZZZZZ	Batch ID: 9651	TestNo: E6010		Analysis Date: 10/3/2003	SeqNo: 216964

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Zinc	47.33	1.00	50	0	94.7	90	110	0	0		

Sample ID ICV	SampType: ICV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/30/2003	Run ID: TJA IRIS_031001D
Client ID: ZZZZZ	Batch ID: 9651	TestNo: E6010		Analysis Date: 10/1/2003	SeqNo: 215918

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	95.78	2.00	100	0	95.8	90	110	0	0		

Sample ID ICV	SampType: ICV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/30/2003	Run ID: TJA IRIS_031002C
Client ID: ZZZZZ	Batch ID: 9651	TestNo: E6010		Analysis Date: 10/2/2003	SeqNo: 216318

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	93.8	2.00	100	0	93.8	90	110	0	0		
Zinc	49.58	1.00	50	0	99.2	90	110	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019920

CLIENT: Time Oil Co.
Work Order: 0309195
Project: PHII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S

Sample ID: MB	SampType: MBLK	TestCode: 8260_S	Units: µg/Kg	Prep Date: 9/30/2003	Run ID: 5973L_030929B
Client ID: ZZZZZ	Batch ID: 9654	TestNo: SW8260B		Analysis Date: 9/29/2003	SeqNo: 215465

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	10.0									
1,1,1-Trichloroethane	ND	10.0									
1,1,2,2-Tetrachloroethane	ND	10.0									
1,1,2-Trichloroethane	ND	10.0									
1,1-Dichloroethane	ND	10.0									
1,1-Dichloroethene	ND	10.0									
1,1-Dichloropropene	ND	10.0									
1,2,3-Trichlorobenzene	ND	10.0									
1,2,3-Trichloropropane	ND	10.0									
1,2,4-Trichlorobenzene	ND	10.0									
1,2,4-Trimethylbenzene	ND	10.0									
1,2-Dibromo-3-chloropropane	ND	10.0									
1,2-Dibromoethane	ND	10.0									
1,2-Dichlorobenzene	ND	10.0									
1,2-Dichloroethane	ND	10.0									
1,2-Dichloropropane	ND	10.0									
1,3,5-Trimethylbenzene	ND	10.0									
1,3-Dichlorobenzene	ND	10.0									
1,3-Dichloropropane	ND	10.0									
1,4-Dichlorobenzene	ND	10.0									
2,2-Dichloropropane	ND	10.0									
2-Butanone	ND	40.0									
2-Chlorotoluene	ND	10.0									
2-Hexanone	ND	20.0									
4-Chlorotoluene	ND	10.0									
4-Isopropyltoluene	ND	10.0									
4-Methyl-2-pentanone	ND	40.0									
Acetone	ND	100									
Benzene	1.1	10.0									J
Bromobenzene	ND	10.0									
Bromochloromethane	ND	10.0									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019921

CLIENT: Time Oil Co.
Work Order: 0309195
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S

Sample ID: MB	SampType: MBLK	TestCode: 8260_S	Units: µg/Kg	Prep Date: 9/30/2003	Run ID: 5973L_030929B
Client ID: ZZZZZ	Batch ID: 9654	TestNo: SW8260B		Analysis Date: 9/29/2003	SeqNo: 215465

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromodichloromethane	ND	10.0									
Bromoform	ND	10.0									
Bromomethane	ND	10.0									
Carbon disulfide	ND	10.0									
Carbon tetrachloride	ND	10.0									
Chlorobenzene	ND	10.0									
Chloroethane	ND	10.0									
Chloroform	2.34	10.0									J
Chloromethane	ND	10.0									
cis-1,2-Dichloroethene	ND	10.0									
cis-1,3-Dichloropropene	ND	10.0									
Dibromochloromethane	ND	10.0									
Dibromomethane	ND	10.0									
Dichlorodifluoromethane	ND	10.0									
Ethylbenzene	ND	10.0									
Hexachlorobutadiene	ND	10.0									
Isopropylbenzene	ND	10.0									
m,p-Xylene	ND	20.0									
Methyl tert-butyl ether	ND	10.0									
Methylene chloride	ND	50.0									
n-Butylbenzene	ND	10.0									
n-Propylbenzene	ND	10.0									
Naphthalene	ND	10.0									
o-Xylene	ND	10.0									
sec-Butylbenzene	ND	10.0									
Styrene	ND	10.0									
tert-Butylbenzene	ND	10.0									
Tetrachloroethene	ND	10.0									
Toluene	ND	10.0									
trans-1,2-Dichloroethene	ND	10.0									
trans-1,3-Dichloropropene	ND	10.0									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019922

CLIENT: Time Oil Co.
Work Order: 0309195
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S

Sample ID MB	SampType: MBLK	TestCode: 8260_S	Units: µg/Kg	Prep Date: 9/30/2003	Run ID: 5973L_030929B
Client ID: ZZZZZ	Batch ID: 9654	TestNo: SW8260B		Analysis Date: 9/29/2003	SeqNo: 215465

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichloroethene	ND	10.0									
Trichlorofluoromethane	ND	10.0									
Vinyl chloride	ND	10.0									
Surr: 1,2-Dichloroethane-d4	84.18	1.00	100	0	84.2	71.5	112	0	0		
Surr: 4-Bromofluorobenzene	115.4	1.00	100	0	115	75.7	122	0	0		
Surr: Dibromofluoromethane	85.58	1.00	100	0	85.6	64.3	124	0	0		
Surr: Toluene-d8	113.3	1.00	100	0	113	74.9	120	0	0		

Sample ID LCS	SampType: LCS	TestCode: 8260_S	Units: µg/Kg	Prep Date: 9/30/2003	Run ID: 5973L_030929B
Client ID: ZZZZZ	Batch ID: 9654	TestNo: SW8260B		Analysis Date: 9/29/2003	SeqNo: 215464

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	61.44	10.0	80	0	76.8	65.4	133	0	0		
Benzene	72.47	10.0	80	1.1	89.2	78	123	0	0		
Chlorobenzene	66.95	10.0	80	0	83.7	79.5	125	0	0		
Toluene	74.32	10.0	80	0	92.9	77.5	132	0	0		
Trichloroethene	69.78	10.0	80	0	87.2	72.4	124	0	0		

Sample ID 0309184-12BMS	SampType: MS	TestCode 8260_S	Units: µg/Kg	Prep Date: 9/30/2003	Run ID: 5973L_030929B
Client ID: ZZZZZ	Batch ID: 9654	TestNo: SW8260B		Analysis Date: 9/29/2003	SeqNo: 215470

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	38.68	10.0	40	0	96.7	69.2	158	0	0		
Benzene	52.69	10.0	40	0	132	71.7	147	0	0		
Chlorobenzene	48.74	10.0	40	0	122	85.8	148	0	0		
Toluene	51.86	10.0	40	0.76	128	75.8	153	0	0		
Trichloroethene	51.22	10.0	40	1.23	125	77.1	138	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

BZTO104(e)019923

CLIENT: Time Oil Co.
Work Order: 0309195
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S

Sample ID 0309184-12BMSD	SampType: MSD	TestCode: 8260_S	Units: µg/Kg	Prep Date: 9/30/2003	Run ID: 5973L_030929B
Client ID: ZZZZZ	Batch ID: 9654	TestNo: SW8260B		Analysis Date: 9/29/2003	SeqNo: 215471

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	45.9	10.0	40	0	115	59.2	158	38.68	17.1	20	
Benzene	57.8	10.0	40	0	145	71.7	147	52.69	9.25	20	
Chlorobenzene	52.59	10.0	40	0	131	85.6	148	48.74	7.60	20	
Toluene	54.96	10.0	40	0.76	136	75.8	153	51.86	5.80	20	
Trichloroethene	56.26	10.0	40	1.23	138	77.1	138	51.22	9.38	20	

Sample ID CCV	SampType: CCV	TestCode: 8260_S	Units: µg/Kg	Prep Date: 9/30/2003	Run ID: 5973L_030929B
Client ID: ZZZZZ	Batch ID: 9654	TestNo: SW8260B		Analysis Date: 9/29/2003	SeqNo: 215463

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	46.48	10.0	50	0	93	80	120	0	0		
1,2-Dichloropropane	45.2	10.0	50	0	90.4	80	120	0	0		
Chloroform	57.35	10.0	50	0	115	80	120	0	0		
Ethylbenzene	58.11	10.0	50	0	116	80	120	0	0		
Toluene	53.68	10.0	50	0	107	80	120	0	0		
Vinyl chloride	40.5	10.0	50	0	81	80	120	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019924

CLIENT: Time Oil Co.
Work Order: 0309195
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHDX_S

Sample ID MBLK	SampType: MBLK	TestCode: NWTPHDX_S	Units: mg/Kg	Prep Date: 10/1/2003	Run ID: GC-M_031001C
Client ID: ZZZZZ	Batch ID: 9660	TestNo: NWTPH-Dx		Analysis Date: 10/1/2003	SeqNo: 215953

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	ND	15.0									
Lube Oil	ND	50.0									
Surr: o-Terphenyl	27.03	1.00	33.33	0	81.1	50	150	0	0		

Sample ID MBLK	SampType: MBLK	TestCode: NWTPHDX_S	Units: mg/Kg	Prep Date: 10/1/2003	Run ID: GC-M_031002F
Client ID: ZZZZZ	Batch ID: 9660	TestNo: NWTPH-Dx		Analysis Date: 10/2/2003	SeqNo: 216997

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	ND	15.0									
Lube Oil	ND	50.0									
Surr: o-Terphenyl	27.4	1.00	33.33	0	82.2	50	150	0	0		

Sample ID LCS	SampType: LCS	TestCode: NWTPHDX_S	Units: mg/Kg	Prep Date: 10/1/2003	Run ID: GC-M_031001C
Client ID: ZZZZZ	Batch ID: 9660	TestNo: NWTPH-Dx		Analysis Date: 10/1/2003	SeqNo: 215954

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	154.8	15.0	167.6	0	92.3	76.3	122	0	0		
Lube Oil	153.8	50.0	167.6	0	91.7	69.9	127	0	0		

Sample ID 0309185-01ADUP	SampType: DUP	TestCode: NWTPHDX_S	Units: mg/Kg-dry	Prep Date: 10/1/2003	Run ID: GC-M_031003A
Client ID: ZZZZZ	Batch ID: 9660	TestNo: NWTPH-Dx		Analysis Date: 10/3/2003	SeqNo: 216983

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	8900	194	0	0	0	0	0	12550	34.0	20	R

Sample ID 0309185-03ADUP	SampType: DUP	TestCode: NWTPHDX_S	Units: mg/Kg-dry	Prep Date: 10/1/2003	Run ID: GC-M_031003A
Client ID: ZZZZZ	Batch ID: 9660	TestNo: NWTPH-Dx		Analysis Date: 10/3/2003	SeqNo: 216989

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	13110	171	0	0	0	0	0	9789	29.0	20	R

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZT0104(e)019925

CLIENT: Time Oil Co.
Work Order: 0309195
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHDX_S

Sample ID 0309185-01ADUP	SampType: DUP	TestCode: NWTPHDX_S	Units: mg/Kg-dry	Prep Date: 10/1/2003	Run ID: GC-M_031002F
Client ID: ZZZZZ	Batch ID: 9660	TestNo: NWTPH-Dx		Analysis Date: 10/2/2003	SeqNo: 217003

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lube Oil	ND	64.5	0	0	0	0	0	0	0	20	A3

Sample ID 0309185-03ADUP	SampType: DUP	TestCode: NWTPHDX_S	Units: mg/Kg-dry	Prep Date: 10/1/2003	Run ID: GC-M_031002F
Client ID: ZZZZZ	Batch ID: 9660	TestNo: NWTPH-Dx		Analysis Date: 10/2/2003	SeqNo: 217004

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lube Oil	ND	56.9	0	0	0	0	0	0	0	20	A3

Sample ID CCV	SampType: CCV	TestCode: NWTPHDX_S	Units: mg/Kg	Prep Date: 10/1/2003	Run ID: GC-M_031001C
Client ID: ZZZZZ	Batch ID: 9660	TestNo: NWTPH-Dx		Analysis Date: 10/1/2003	SeqNo: 215955

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	636.1	15.0	667.2	0	95.3	85	115	0	0		
Lube Oil	248.1	50.0	250.6	0	99	85	115	0	0		

Sample ID CCV	SampType: CCV	TestCode: NWTPHDX_S	Units: mg/Kg	Prep Date: 10/1/2003	Run ID: GC-M_031003A
Client ID: ZZZZZ	Batch ID: 9660	TestNo: NWTPH-Dx		Analysis Date: 10/3/2003	SeqNo: 216977

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	590.1	15.0	667.2	0	88.4	85	115	0	0		
Lube Oil	286.4	50.0	339	0	84.5	85	115	0	0		S

Sample ID CCV	SampType: CCV	TestCode: NWTPHDX_S	Units: mg/Kg	Prep Date: 10/1/2003	Run ID: GC-M_031002F
Client ID: ZZZZZ	Batch ID: 9660	TestNo: NWTPH-Dx		Analysis Date: 10/2/2003	SeqNo: 216998

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	698.7	15.0	667.3	0	105	85	115	0	0		
Lube Oil	281.1	50.0	250.7	0	112	85	115	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019926

CLIENT: Time Oil Co.
Work Order: 0309195
Project: PHill Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHGX_S

Sample ID MBLK	SampType: MBLK	TestCode: NWTPHGX_S	Units: mg/Kg	Prep Date: 10/20/2003	Run ID: GC-I_031002D
Client ID: ZZZZZ	Batch ID: 9673	TestNo: NWTPH-Gx		Analysis Date: 10/2/2003	SeqNo: 216631

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	2.50									
Surr: 4-Bromofluorobenzene	86.2	1.00	100	0	86.2	50	150	0	0		

Sample ID MBLK	SampType: MBLK	TestCode: NWTPHGX_S	Units: mg/Kg	Prep Date: 10/2/2003	Run ID: GC-I_031003B
Client ID: ZZZZZ	Batch ID: 9673	TestNo: NWTPH-Gx		Analysis Date: 10/3/2003	SeqNo: 216914

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	2.50									
Surr: 4-Bromofluorobenzene	85.9	1.00	100	0	85.9	50	150	0	0		

Sample ID MBLK	SampType: MBLK	TestCode: NWTPHGX_S	Units: mg/Kg	Prep Date: 10/2/2003	Run ID: GC-I_031006A
Client ID: ZZZZZ	Batch ID: 9673	TestNo: NWTPH-Gx		Analysis Date: 10/6/2003	SeqNo: 217185

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	2.50									
Surr: 4-Bromofluorobenzene	86.3	1.00	100	0	86.3	50	150	0	0		

Sample ID LCS	SampType: LCS	TestCode: NWTPHGX_S	Units: mg/Kg	Prep Date: 10/20/2003	Run ID: GC-I_031002D
Client ID: ZZZZZ	Batch ID: 9673	TestNo: NWTPH-Gx		Analysis Date: 10/2/2003	SeqNo: 216632

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	20.6	2.50	30	0	68.7	53.5	101	0	0		

Sample ID 0309152-30ADUP	SampType: DUP	TestCode: NWTPHGX_S	Units: mg/Kg-dry	Prep Date: 10/2/2003	Run ID: GC-I_031002D
Client ID: ZZZZZ	Batch ID: 9673	TestNo: NWTPH-Gx		Analysis Date: 10/2/2003	SeqNo: 216643

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	3.28	0	0	0	0	0	0	0	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019927

CLIENT: Time Oil Co.
Work Order: 0309195
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHGX_S

Sample ID CCV	SampType: CCV	TestCode: NWTPHGX_S	Units: mg/Kg	Prep Date: 10/20/2003	Run ID: GC-I_031002D
Client ID: ZZZZZ	Batch ID: 9673	TestNo: NWTPH-Gx		Analysis Date: 10/2/2003	SeqNo: 216533

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	1681	2.50	2000	0	84	80	120	0	0		

Sample ID CCV	SampType: CCV	TestCode: NWTPHGX_S	Units: mg/Kg	Prep Date: 10/2/2003	Run ID: GC-I_031003B
Client ID: ZZZZZ	Batch ID: 9673	TestNo: NWTPH-Gx		Analysis Date: 10/3/2003	SeqNo: 216915

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	1223	2.50	1500	0	81.5	80	120	0	0		

Sample ID CCV	SampType: CCV	TestCode: NWTPHGX_S	Units: mg/Kg	Prep Date: 10/2/2003	Run ID: GC-I_031006A
Client ID: ZZZZZ	Batch ID: 9673	TestNo: NWTPH-Gx		Analysis Date: 10/6/2003	SeqNo: 217186

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	1443	2.50	1500	0	96.2	80	120	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019928

CLIENT: Time Oil Co.
Work Order: 0309195
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: PAHLL_S

Sample ID MB-9650	SampType: MBLK	TestCode: PAHLL_S	Units: µg/Kg	Prep Date: 9/30/2003	Run ID: 5973G_031001B
Client ID: ZZZZZ	Batch ID: 9650	TestNo: 8270SIM		Analysis Date: 10/1/2003	SeqNo: 216079

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	ND	6.67									
Acenaphthylene	ND	6.67									
Anthracene	0.6667	6.67									J
Benz(a)anthracene	1.333	6.67									J
Benzo(a)pyrene	2	6.67									J
Benzo(b)fluoranthene	1.333	6.67									J
Benzo(g,h,i)perylene	2	6.67									J
Benzo(k)fluoranthene	0.6667	6.67									J
Chrysene	ND	6.67									
Dibenz(a,h)anthracene	ND	6.67									
Fluoranthene	2	6.67									J
Fluorene	ND	6.67									
Indeno(1,2,3-cd)pyrene	1.333	6.67									J
Naphthalene	6	6.67									J
Phenanthrene	3.333	6.67									J
Pyrene	2.667	6.67									J
Surr: 2-Fluorobiphenyl	5047	0	6667	0	75.7	42.6	128	0	0		
Surr: Nitrobenzene-d5	4156	0	6667	0	62.3	21.7	155	0	0		
Surr: p-Terphenyl-d14	5385	0	6667	0	80.8	44.9	155	0	0		

Sample ID LCS-9650	SampType: LCS	TestCode: PAHLL_S	Units: µg/Kg	Prep Date: 9/30/2003	Run ID: 5973G_031001B
Client ID: ZZZZZ	Batch ID: 9650	TestNo: 8270SIM		Analysis Date: 10/1/2003	SeqNo: 216078

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	103.3	6.67	166.7	0	62	40.4	107	0	0		
Benzo(g,h,i)perylene	147.3	6.67	166.7	2	87.2	44.6	125	0	0		
Chrysene	134.7	6.67	166.7	0	80.8	59.9	121	0	0		
Naphthalene	88.67	6.67	166.7	6	49.6	33.5	96.1	0	0		
Phenanthrene	114	6.67	166.7	3.333	66.4	52.2	108	0	0		
Pyrene	132.7	6.67	166.7	2.667	78	53.8	120	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

BZTO104(e)019929

CLIENT: Time Oil Co.
Work Order: 0309195
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: PAHLL_S

Sample ID 0309132-04BMS	SampType: MS	TestCode: PAHLL_S	Units: µg/Kg	Prep Date: 9/30/2003	Run ID: 5973G_031001B
Client ID: ZZZZZ	Batch ID: 9650	TestNo: 8270SIM		Analysis Date: 10/1/2003	SeqNo: 216080

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	97.33	6.67	166.7	0	58.4	33.7	107	0	0		
Benzo(g,h,i)perylene	126	6.67	166.7	3.333	73.6	15	128	0	0		
Chrysene	120	6.67	166.7	2	70.8	37.5	125	0	0		
Naphthalene	84.67	6.67	166.7	0	50.8	27.7	108	0	0		
Phenanthrene	110.7	6.67	166.7	2.667	64.8	20.2	139	0	0		
Pyrene	124	6.67	166.7	4	72	26.8	134	0	0		

Sample ID 0309132-04BMSD	SampType: MSD	TestCode: PAHLL_S	Units: µg/Kg	Prep Date: 9/30/2003	Run ID: 5973G_031001B
Client ID: ZZZZZ	Batch ID: 9650	TestNo: 8270SIM		Analysis Date: 10/1/2003	SeqNo: 216081

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	94.67	6.67	166.7	0	56.8	33.7	107	97.33	2.78	20	
Benzo(g,h,i)perylene	116.7	6.67	166.7	3.333	68	15	128	126	7.69	20	
Chrysene	113.3	6.67	166.7	2	66.8	37.5	125	120	5.71	20	
Naphthalene	82.67	6.67	166.7	0	49.6	27.7	108	84.67	2.39	20	
Phenanthrene	105.3	6.67	166.7	2.667	61.6	20.2	139	110.7	4.94	20	
Pyrene	117.3	6.67	166.7	4	68	26.8	134	124	5.52	20	

Sample ID CCV-9650	SampType: CCV	TestCode: PAHLL_S	Units: µg/Kg	Prep Date:	Run ID: 5973G_031001B
Client ID: ZZZZZ	Batch ID: 9650	TestNo: 8270SIM		Analysis Date: 10/1/2003	SeqNo: 216077

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	128.7	6.67	133.3	0	96.5	70	130	0	0		
Acenaphthylene	146.7	6.67	133.3	0	110	70	130	0	0		
Anthracene	144.7	6.67	133.3	0	108	70	130	0	0		
Benz(a)anthracene	138.7	6.67	133.3	0	104	70	130	0	0		
Benzo(a)pyrene	149.3	6.67	133.3	0	112	70	130	0	0		
Benzo(b)fluoranthene	144	6.67	133.3	0	108	70	130	0	0		
Benzo(g,h,i)perylene	155.3	6.67	133.3	0	116	70	130	0	0		
Benzo(k)fluoranthene	138	6.67	133.3	0	104	70	130	0	0		
Chrysene	134	6.67	133.3	0	101	70	130	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

BZTO104(e)019930

CLIENT: Time Oil Co.
Work Order: 0309195
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: PAHLL_S

Sample ID: CCV-9650	SampType: CCV	TestCode: PAHLL_S	Units: µg/Kg	Prep Date:	Run ID: 5973G_031001B
Client ID: ZZZZZ	Batch ID: 9650	TestNo: 8270SIM		Analysis Date: 10/1/2003	SeqNo: 215077

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dibenz(a,h)anthracene	154	6.67	133.3	0	116	70	130	0	0		
Fluoranthene	136	6.67	133.3	0	102	70	130	0	0		
Fluorene	146.7	6.67	133.3	0	110	70	130	0	0		
Indeno(1,2,3-cd)pyrene	157.3	6.67	133.3	0	118	70	130	0	0		
Naphthalene	126.7	6.67	133.3	0	95	70	130	0	0		
Phenanthrene	129.3	6.67	133.3	0	97	70	130	0	0		
Pyrene	145.3	6.67	133.3	0	109	70	130	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank
J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

BZTO104(e)019931

Specialty Analytical

19761 S.W. 95th Place
Tualatin, OR 97062
(503) 612-9007
Fax (503) 612-8572
1 (877) 612-9007

LANDAU Received OCT 23 2003 ASSOCIATES

October 15, 2003

Kevin Murphy
Time Oil Co.
2737 West Commodore Way
Seattle, WA 981991233

TEL: 206-286-6443
FAX (206) 285-7833

RE: PHIII / 231009.31

Dear Kevin Murphy:

Order No.: 0309196

Specialty Analytical received 45 samples on 9/29/2003 for the analyses presented in the following report.

There were no problems with the analysis and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative, or as qualified with flags. Results apply only to the samples analyzed. Without approval of the laboratory, the reproduction of this report is only permitted in its entirety.

If you have any questions regarding these tests, please feel free to call.

Sincerely,

Cindy Hollyard for Dan Marrin
Project Manager

Technical Review

CC:
Rebekah Brooks @ Landau Associates

15

☒ Seattle (Edmonds) (425) 778-0907
☐ Tacoma (253) 926-2493
☐ Spokane (509) 327-9737
☐ Portland (Lake Oswego) (503) 443-6010
☐

Landau Associates

0309196

Date 9/29/03
Page 1 of 3

Chain-of-Custody Record

Project Name TimeOil PH III Project No. 231009.31
Project Location/Event NW TERMINAL
Sampler's Name ERIK GERKING
Project Contact STACY PISCHER
Send Results To REBEKAH BROOKS & KEVIN MURPHY

Testing Parameters

Turnaround Time
☒ Standard
☐ Accelerated
☐

Sample I.D.	Date	Time	Matrix	No. of Containers	PAH	Pb/Zn	Observations/Comments
G17-5(0-0.5)/092903	9-29-03	0805	Soil	1	X	X	A = Archive
G17-5(0.5-1.0)/092903	9-29-03	0810		1	A	A	
G17-5(1.0-1.5)/092903		0815			A	A	
G17-6(0.0-0.5)/ " "		0820			X	X	
" "(0.5-1.0)/ " "		0825			A	A	
" "(1.0-1.5)/ " "		0830			A	A	
G17-4(0-0.5)/ " "		0835			X	X	
" "(0.5-1.0)/ " "		0840			A	A	
" "(1.0-1.5)/ " "		0845			A	A	
G15-5(0-0.5)/ " "		0910			X	X	
" "(0.5-1.0)/ " "		0915			A	A	
" "(1.0-1.5)/ " "		0920			A	A	
G19-3(0-0.5)/ " "		0940			X	X	
" "(0.5-1.0)/ " "		0945			A	A	
" "(1.0-1.5)/ " "		0950			A	A	

Special Shipment/Handling or Storage Requirements STORED ON ICE

Method of Shipment HAND DELIVERED

Relinquished by	Received by	Relinquished by	Received by
Signature: [signature]	Signature: Cindy Hillyard	Signature	Signature
Printed Name: CHRISTY JOHNSON	Printed Name: Cindy Hillyard	Printed Name	Printed Name
Company: LANDAU ASSOC	Company: Specialty	Company	Company
Date 9/29/03 Time 1655	Date 9/29/03 Time 1655	Date Time	Date Time

WHITE COPY - Project File YELLOW COPY - Laboratory PINK COPY - Client Representative

Rev 4/01

BZTO104(e)019933

Seattle (Edmonds) (425) 778-0907
Tacoma (253) 926-2493
Spokane (509) 327-9737
Portland (Lake Oswego) (503) 443-6010

Landau Associates

0309196

Date 9/29/03

Page 2 of 3

Chain-of-Custody Record

Project Name Time Oil Spill Project No. 23009.31

Project Location/Event Duluth Terminal

Sampler's Name Eric Gerking

Project Contact Stacy Fisher

Send Results To Rebekah Dixon Olson/Murray

Turnaround Time: ☒ Standard ☐ Accelerated ☐ _____

Testing Parameters: 8260B (Full List) 8260B (BTEX + 20)

Sample I.D.	Date	Time	Matrix	No. of Containers	8260B (Full List)	8260B (BTEX + 20)	Observations/Comments
G27-4(0-0.5)092903	9/29/03	1500	Soil	1	X		A = Archive
G27-5(0-0.5)092903		1510			X		
G7-3(0-0.5)092903		1430			X	X	
G7-3(0.5-1.0)092903		1435			A	A	
G7-3(1.0-1.5)092903		1440			A	A	
G7-4(0-0.5)092903		1410			X	X	
G7-4(0.5-1.0)092903		1415			A	A	
G7-4(1.0-1.5)092903		1420			A	A	
G7-5(0-0.5)092903		1335			X	X	
G7-5(0.5-1.0)092903		1340			A	A	
G7-5(1.0-1.5)092903		1345			A	A	
G10-4(0-0.5)092903		1320			X	X	
G10-4(1.0-1.5)092903		1325			X	A	
G11-3(0-0.5)092903		1300			X	X	
G11-3(0.5-1.0)092903		1305			A	A	
G11-3(1.0-1.5)092903	↓	1310	↓	↓	X	X	

Special Shipment/Handling or Storage Requirements: STORED ON ICE

Method of Shipment: HAND DELIVERED

Relinquished by	Received by	Relinquished by	Received by
Signature	Signature Cindy Hillyard	Signature	Signature
Printed Name	Printed Name Cindy Hillyard	Printed Name	Printed Name
Company	Company Landau	Company	Company
Date 9/29/03 Time 1655	Date 9/29/03 Time 1655	Date Time	Date Time

WHITE COPY - Project File YELLOW COPY - Laboratory PINK COPY - Client Representative

Rev 4/01

BZTO104(e)019934

☐ Seattle (Edmonds) (425) 778-0907
☐ Tacoma (253) 926-2493
☐ Spokane (509) 327-9737
☐ Portland (Lake Oswego) (503) 443-6010
☐ _____

Landau Associates

0309196

Date 9/29/03

Page 3 of 3

Chain-of-Custody Record

Project Name Time Oil, Ph. III Project No. 231009.31

Project Location/Event NW Terminal

Sampler's Name Eric Gerkins

Project Contact Stacy Fischer

Send Results To Rebekah Brook & Kevin Morphy

Turnaround Time
☐ Standard
☐ Accelerated
☐ _____

Testing Parameters

Sample I.D.	Date	Time	Matrix	No. of Containers	PAH	Pb/Zn	Observations/Comments
G19-4(0-0.5)/092903	9-29-03	1005	Soil	1	X	X	A=ARCHIVE
" " (0.5-1.0) " "		1010			A	A	
" " (1.0-1.5) " "		1015			A	A	
G15-6(0-0.5) " "		1030			X	X	
" " (0.5-1.0) " "		1035			A	A	
" " (1.0-1.5) " "		1040			A	A	
G15-4(0-0.5) " "		1050			X	X	
" " (0.5-1.0) " "		1055			A	A	
" " (1.0-1.5) " "		1100			A	A	
G19-5(0-0.5) " "		1115			X	X	
" " (0.5-1.0) " "		1120			A	A	
" " (1.0-1.5) " "		1125			A	A	
G10-5(0.0-0.5) " "		1140			X	X	
" " (1.0-1.5) " "		1145			X	A	

Special Shipment/Handling or Storage Requirements: Stored on ice

Method of Shipment: hand delivered

Relinquished by	Received by	Relinquished by	Received by
Signature [signature]	Signature [signature]	Signature	Signature
Printed Name [signature]	Printed Name Cindy Hillyard	Printed Name	Printed Name
Company LAI	Company Specialty	Company	Company
Date 9/29/03 Time 1655	Date 9/29/03 Time 1655	Date Time	Date Time

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Rev 4/01

BZT0104(e)019935

Specialty Analytical

Date: *15-Oct-03*

CLIENT: Time Oil Co.
Project: PHIII / 231009.31
Lab Order: 0309196

Lab ID: 0309196-01 **Collection Date:** 9/29/2003 8:05:00 AM
Client Sample ID: G17-5(0-0.5)/092903 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
TOTAL METALS BY ICP		**E6010**				Analyst: **tlf**
Lead	11.9	1.79		mg/Kg	1	10/2/2003 7:17:54 PM
Zinc	80.8	0.893		mg/Kg	1	10/2/2003 7:17:54 PM
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	ND	6.67		µg/Kg	1	10/3/2003 12:50:00 PM
Acenaphthylene	11.3	6.67		µg/Kg	1	10/3/2003 12:50:00 PM
Anthracene	14.7	6.67		µg/Kg	1	10/3/2003 12:50:00 PM
Benz(a)anthracene	73.3	6.67		µg/Kg	1	10/3/2003 12:50:00 PM
Benzo(a)pyrene	163	6.67		µg/Kg	1	10/3/2003 12:50:00 PM
Benzo(b)fluoranthene	215	6.67		µg/Kg	1	10/3/2003 12:50:00 PM
Benzo(g,h,i)perylene	184	6.67		µg/Kg	1	10/3/2003 12:50:00 PM
Benzo(k)fluoranthene	70.7	6.67		µg/Kg	1	10/3/2003 12:50:00 PM
Chrysene	109	6.67		µg/Kg	1	10/3/2003 12:50:00 PM
Dibenz(a,h)anthracene	38.0	6.67		µg/Kg	1	10/3/2003 12:50:00 PM
Fluoranthene	161	6.67		µg/Kg	1	10/3/2003 12:50:00 PM
Fluorene	ND	6.67		µg/Kg	1	10/3/2003 12:50:00 PM
Indeno(1,2,3-cd)pyrene	136	6.67		µg/Kg	1	10/3/2003 12:50:00 PM
Naphthalene	ND	6.67		µg/Kg	1	10/3/2003 12:50:00 PM
Phenanthrene	39.3	6.67		µg/Kg	1	10/3/2003 12:50:00 PM
Pyrene	210	6.67		µg/Kg	1	10/3/2003 12:50:00 PM
Surr: 2-Fluorobiphenyl	91.4	42.6-128		%REC	1	10/3/2003 12:50:00 PM
Surr: Nitrobenzene-d5	78.0	21.7-155		%REC	1	10/3/2003 12:50:00 PM
Surr: p-Terphenyl-d14	81.9	44.9-155		%REC	1	10/3/2003 12:50:00 PM

Lab ID: 0309196-02 **Collection Date:** 9/29/2003 8:10:00 AM
Client Sample ID: G17-5(0.5-1.0)/092903 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
HOLD PER CLIENT REQUEST		**PER CLIENT**				Analyst: **ADM**
Hold	HOLD				1	10/13/2003

BZTO104(e)019936

Specialty Analytical

Date: *15-Oct-03*

CLIENT: Time Oil Co.
Project: PHIII / 231009.31
Lab Order: 0309196

Lab ID: 0309196-03 **Collection Date:** 9/29/2003 8:15:00 AM
Client Sample ID: G17-5(1.0-1.5)/092903 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
HOLD PER CLIENT REQUEST		**PER CLIENT**				Analyst: **ADM**
Hold	HOLD				1	10/13/2003

Lab ID: 0309196-04 **Collection Date:** 9/29/2003 8:20:00 AM
Client Sample ID: G17-6(0.0-0.5)/092903 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
TOTAL METALS BY ICP		**E6010**				Analyst: **tlf**
Lead	28.0	1.85		mg/Kg	1	10/1/2003 4:17:29 PM
Zinc	410	9.26		mg/Kg	10	10/3/2003 7:59:17 PM
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	ND	6.67		µg/Kg	1	10/3/2003 1:23:00 PM
Acenaphthylene	16.7	6.67		µg/Kg	1	10/3/2003 1:23:00 PM
Anthracene	38.7	6.67		µg/Kg	1	10/3/2003 1:23:00 PM
Benz(a)anthracene	78.0	6.67		µg/Kg	1	10/3/2003 1:23:00 PM
Benzo(a)pyrene	128	6.67		µg/Kg	1	10/3/2003 1:23:00 PM
Benzo(b)fluoranthene	194	6.67		µg/Kg	1	10/3/2003 1:23:00 PM
Benzo(g,h,i)perylene	187	6.67		µg/Kg	1	10/3/2003 1:23:00 PM
Benzo(k)fluoranthene	52.7	6.67		µg/Kg	1	10/3/2003 1:23:00 PM
Chrysene	90.7	6.67		µg/Kg	1	10/3/2003 1:23:00 PM
Dibenz(a,h)anthracene	44.0	6.67		µg/Kg	1	10/3/2003 1:23:00 PM
Fluoranthene	142	6.67		µg/Kg	1	10/3/2003 1:23:00 PM
Fluorene	ND	6.67		µg/Kg	1	10/3/2003 1:23:00 PM
Indeno(1,2,3-cd)pyrene	144	6.67		µg/Kg	1	10/3/2003 1:23:00 PM
Naphthalene	38.0	6.67		µg/Kg	1	10/3/2003 1:23:00 PM
Phenanthrene	70.7	6.67		µg/Kg	1	10/3/2003 1:23:00 PM
Pyrene	160	6.67		µg/Kg	1	10/3/2003 1:23:00 PM
Surr: 2-Fluorobiphenyl	89.5	42.6-128		%REC	1	10/3/2003 1:23:00 PM
Surr: Nitrobenzene-d5	76.3	21.7-155		%REC	1	10/3/2003 1:23:00 PM
Surr: p-Terphenyl-d14	78.7	44.9-155		%REC	1	10/3/2003 1:23:00 PM

Lab ID: 0309196-05 **Collection Date:** 9/29/2003 8:25:00 AM
Client Sample ID: G17-6(0.5-1.0)/092903 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
HOLD PER CLIENT REQUEST		**PER CLIENT**				Analyst: **ADM**
Hold	HOLD				1	10/13/2003

BZTO104(e)019937

CLIENT: Time Oil Co. **Lab Order:** 0309196
Project: PHIII / 231009.31

Lab ID: 0309196-06 **Collection Date:** 9/29/2003 8:30:00 AM
Client Sample ID: G17-6(1.0-1.5)/092903 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
HOLD PER CLIENT REQUEST		**PER CLIENT**				Analyst: **ADM**
Hold	HOLD				1	10/13/2003

Lab ID: 0309196-07 **Collection Date:** 9/29/2003 8:35:00 AM
Client Sample ID: G17-4(0-0.5)/092903 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
TOTAL METALS BY ICP		**E6010**				Analyst: **tlf**
Lead	43.0	1.67		mg/Kg	1	10/1/2003 4:22:57 PM
Zinc	148	4.17		mg/Kg	5	10/3/2003 8:04:48 PM
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	64.7	6.67		µg/Kg	1	10/3/2003 1:56:00 PM
Acenaphthylene	398	6.67		µg/Kg	1	10/3/2003 1:56:00 PM
Anthracene	671	6.67		µg/Kg	1	10/3/2003 1:56:00 PM
Benz(a)anthracene	4110	133		µg/Kg	20	10/4/2003 2:37:00 PM
Benzo(a)pyrene	6910	66.7		µg/Kg	10	10/4/2003 12:23:00 AM
Benzo(b)fluoranthene	7300	66.7		µg/Kg	10	10/4/2003 12:23:00 AM
Benzo(g,h,i)perylene	6520	66.7		µg/Kg	10	10/4/2003 12:23:00 AM
Benzo(k)fluoranthene	2120	66.7		µg/Kg	10	10/4/2003 12:23:00 AM
Chrysene	5390	66.7		µg/Kg	10	10/4/2003 12:23:00 AM
Dibenz(a,h)anthracene	881	6.67		µg/Kg	1	10/3/2003 1:56:00 PM
Fluoranthene	13900	133		µg/Kg	20	10/4/2003 2:37:00 PM
Fluorene	173	6.67		µg/Kg	1	10/3/2003 1:56:00 PM
Indeno(1,2,3-cd)pyrene	4810	66.7		µg/Kg	10	10/4/2003 12:23:00 AM
Naphthalene	58.7	6.67		µg/Kg	1	10/3/2003 1:56:00 PM
Phenanthrene	7560	66.7		µg/Kg	10	10/4/2003 12:23:00 AM
Pyrene	17200	133		µg/Kg	20	10/4/2003 2:37:00 PM
Surr: 2-Fluorobiphenyl	89.2	42.6-128		%REC	1	10/3/2003 1:56:00 PM
Surr: Nitrobenzene-d5	77.3	21.7-155		%REC	1	10/3/2003 1:56:00 PM
Surr: p-Terphenyl-d14	70.9	44.9-155		%REC	1	10/3/2003 1:56:00 PM

BZTO104(e)019938

Specialty Analytical

Date: *15-Oct-03*

CLIENT: Time Oil Co.
Project: PHIII / 231009.31
Lab Order: 0309196

Lab ID: 0309196-08 **Collection Date:** 9/29/2003 8:40:00 AM
Client Sample ID: G17-4(0.5-1.0)/092903 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
HOLD PER CLIENT REQUEST		**PER CLIENT**				Analyst: **ADM**
Hold	HOLD				1	10/13/2003

Lab ID: 0309196-09 **Collection Date:** 9/29/2003 8:45:00 AM
Client Sample ID: G17-4(1.0-1.5)/092903 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
HOLD PER CLIENT REQUEST		**PER CLIENT**				Analyst: **ADM**
Hold	HOLD				1	10/13/2003

Lab ID: 0309196-10 **Collection Date:** 9/29/2003 9:10:00 AM
Client Sample ID: G15-5(0-0.5)/092903 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
TOTAL METALS BY ICP		**E6010**				Analyst: **tlf**
Lead	76.5	1.92		mg/Kg	1	10/1/2003 4:28:23 PM
Zinc	73.0	0.962		mg/Kg	1	10/3/2003 8:26:54 PM
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	ND	6.67		µg/Kg	1	10/3/2003 2:28:00 PM
Acenaphthylene	64.0	6.67		µg/Kg	1	10/3/2003 2:28:00 PM
Anthracene	55.3	6.67		µg/Kg	1	10/3/2003 2:28:00 PM
Benz(a)anthracene	456	6.67		µg/Kg	1	10/3/2003 2:28:00 PM
Benzo(a)pyrene	893	6.67		µg/Kg	1	10/3/2003 2:28:00 PM
Benzo(b)fluoranthene	977	6.67		µg/Kg	1	10/3/2003 2:28:00 PM
Benzo(g,h,i)perylene	794	6.67		µg/Kg	1	10/3/2003 2:28:00 PM
Benzo(k)fluoranthene	272	6.67		µg/Kg	1	10/3/2003 2:28:00 PM
Chrysene	597	6.67		µg/Kg	1	10/3/2003 2:28:00 PM
Dibenz(a,h)anthracene	133	6.67		µg/Kg	1	10/3/2003 2:28:00 PM
Fluoranthene	1520	33.3		µg/Kg	5	10/4/2003 12:55:00 AM
Fluorene	10.7	6.67		µg/Kg	1	10/3/2003 2:28:00 PM
Indeno(1,2,3-cd)pyrene	583	6.67		µg/Kg	1	10/3/2003 2:28:00 PM
Naphthalene	16.0	6.67		µg/Kg	1	10/3/2003 2:28:00 PM
Phenanthrene	437	6.67		µg/Kg	1	10/3/2003 2:28:00 PM
Pyrene	2100	33.3		µg/Kg	5	10/4/2003 12:55:00 AM
Surr: 2-Fluorobiphenyl	96.4	42.6-128		%REC	1	10/3/2003 2:28:00 PM
Surr: Nitrobenzene-d5	85.4	21.7-155		%REC	1	10/3/2003 2:28:00 PM
Surr: p-Terphenyl-d14	85.6	44.9-155		%REC	1	10/3/2003 2:28:00 PM

BZTO104(e)019939

Specialty Analytical

Date: *15-Oct-03*

CLIENT: Time Oil Co.
Project: PHIII / 231009.31
Lab Order: 0309196

Lab ID: 0309196-11 **Collection Date:** 9/29/2003 9:15:00 AM
Client Sample ID: G15-5(0.5-1.0)/092903 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
HOLD PER CLIENT REQUEST		**PER CLIENT**				Analyst: **ADM**
Hold	HOLD				1	10/13/2003

Lab ID: 0309196-12 **Collection Date:** 9/29/2003 9:20:00 AM
Client Sample ID: G15-5(1.0-1.5)/092903 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
HOLD PER CLIENT REQUEST		**PER CLIENT**				Analyst: **ADM**
Hold	HOLD				1	10/13/2003

BZTO104(e)019940

CLIENT: Time Oil Co. **Lab Order:** 0309196
Project: PHIII / 231009.31

Lab ID: 0309196-13 **Collection Date:** 9/29/2003 9:40:00 AM
Client Sample ID: G19-3(0-0.5)/092903 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
TOTAL METALS BY ICP		**E6010**				Analyst: **tlf**
Lead	158	1.79		mg/Kg	1	10/1/2003 4:33:50 PM
Zinc	87.1	0.893		mg/Kg	1	10/3/2003 8:32:21 PM
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	18.0	6.67		µg/Kg	1	10/3/2003 3:01:00 PM
Acenaphthylene	96.0	6.67		µg/Kg	1	10/3/2003 3:01:00 PM
Anthracene	131	6.67		µg/Kg	1	10/3/2003 3:01:00 PM
Benz(a)anthracene	962	6.67		µg/Kg	1	10/3/2003 3:01:00 PM
Benzo(a)pyrene	1430	33.3		µg/Kg	5	10/4/2003 1:28:00 AM
Benzo(b)fluoranthene	1480	33.3		µg/Kg	5	10/4/2003 1:28:00 AM
Benzo(g,h,i)perylene	1330	6.67		µg/Kg	1	10/3/2003 3:01:00 PM
Benzo(k)fluoranthene	511	6.67		µg/Kg	1	10/3/2003 3:01:00 PM
Chrysene	1170	6.67		µg/Kg	1	10/3/2003 3:01:00 PM
Dibenz(a,h)anthracene	227	6.67		µg/Kg	1	10/3/2003 3:01:00 PM
Fluoranthene	2770	33.3		µg/Kg	5	10/4/2003 1:28:00 AM
Fluorene	40.0	6.67		µg/Kg	1	10/3/2003 3:01:00 PM
Indeno(1,2,3-cd)pyrene	983	6.67		µg/Kg	1	10/3/2003 3:01:00 PM
Naphthalene	49.3	6.67		µg/Kg	1	10/3/2003 3:01:00 PM
Phenanthrene	1460	33.3		µg/Kg	5	10/4/2003 1:28:00 AM
Pyrene	3750	33.3		µg/Kg	5	10/4/2003 1:28:00 AM
Surr: 2-Fluorobiphenyl	92.7	42.6-128		%REC	1	10/3/2003 3:01:00 PM
Surr: Nitrobenzene-d5	79.6	21.7-155		%REC	1	10/3/2003 3:01:00 PM
Surr: p-Terphenyl-d14	87.2	44.9-155		%REC	1	10/3/2003 3:01:00 PM

Lab ID: 0309196-14 **Collection Date:** 9/29/2003 9:45:00 AM
Client Sample ID: G19-3(0.5-1.0)/092903 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
HOLD PER CLIENT REQUEST		**PER CLIENT**				Analyst: **ADM**
Hold	HOLD				1	10/13/2003

Lab ID: 0309196-15 **Collection Date:** 9/29/2003 9:50:00 AM
Client Sample ID: G19-3(1.0-1.5)/092903 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
HOLD PER CLIENT REQUEST		**PER CLIENT**				Analyst: **ADM**
Hold	HOLD				1	10/13/2003

BZTO104(e)019941

CLIENT: Time Oil Co. **Lab Order:** 0309196
Project: PHIII / 231009.31

Lab ID: 0309196-16 **Collection Date:** 9/29/2003 3:00:00 PM
Client Sample ID: G27-4(0-0.5)/092903 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	93.3	6.67		µg/Kg	1	10/6/2003 5:33:00 PM
Acenaphthylene	1060	6.67		µg/Kg	1	10/6/2003 5:33:00 PM
Anthracene	1160	6.67		µg/Kg	1	10/6/2003 5:33:00 PM
Benz(a)anthracene	11100	133		µg/Kg	20	10/6/2003 9:21:00 PM
Benzo(a)pyrene	16800	133		µg/Kg	20	10/6/2003 9:21:00 PM
Benzo(b)fluoranthene	19800	133		µg/Kg	20	10/6/2003 9:21:00 PM
Benzo(g,h,i)perylene	6000	133		µg/Kg	20	10/6/2003 9:21:00 PM
Benzo(k)fluoranthene	5950	133		µg/Kg	20	10/6/2003 9:21:00 PM
Chrysene	12300	133		µg/Kg	20	10/6/2003 9:21:00 PM
Dibenz(a,h)anthracene	1230	6.67		µg/Kg	1	10/6/2003 5:33:00 PM
Fluoranthene	23500	133		µg/Kg	20	10/6/2003 9:21:00 PM
Fluorene	178	6.67		µg/Kg	1	10/6/2003 5:33:00 PM
Indeno(1,2,3-cd)pyrene	5280	133		µg/Kg	20	10/6/2003 9:21:00 PM
Naphthalene	127	6.67		µg/Kg	1	10/6/2003 5:33:00 PM
Phenanthrene	6230	133		µg/Kg	20	10/6/2003 9:21:00 PM
Pyrene	34100	667		µg/Kg	100	10/7/2003 7:15:00 PM
Surr: 2-Fluorobiphenyl	104	42.6-128		%REC	1	10/6/2003 5:33:00 PM
Surr: Nitrobenzene-d5	97.2	21.7-155		%REC	1	10/6/2003 5:33:00 PM
Surr: p-Terphenyl-d14	89.4	44.9-155		%REC	1	10/6/2003 5:33:00 PM

BZTO104(e)019942

Specialty Analytical

Date: *15-Oct-03*

CLIENT: Time Oil Co.
Project: PHIII / 231009.31
Lab Order: 0309196

Lab ID: 0309196-17
Collection Date: 9/29/2003 3:10:00 PM
Client Sample ID: G27-5(0-0.5)/092903
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	8.00	6.67		µg/Kg	1	10/6/2003 6:06:00 PM
Acenaphthylene	194	6.67		µg/Kg	1	10/6/2003 6:06:00 PM
Anthracene	120	6.67		µg/Kg	1	10/6/2003 6:06:00 PM
Benz(a)anthracene	507	6.67		µg/Kg	1	10/6/2003 6:06:00 PM
Benzo(a)pyrene	1060	33.3		µg/Kg	5	10/6/2003 9:54:00 PM
Benzo(b)fluoranthene	2070	33.3		µg/Kg	5	10/6/2003 9:54:00 PM
Benzo(g,h,i)perylene	837	6.67		µg/Kg	1	10/6/2003 6:06:00 PM
Benzo(k)fluoranthene	688	6.67		µg/Kg	1	10/6/2003 6:06:00 PM
Chrysene	787	6.67		µg/Kg	1	10/6/2003 6:06:00 PM
Dibenz(a,h)anthracene	187	6.67		µg/Kg	1	10/6/2003 6:06:00 PM
Fluoranthene	1280	6.67		µg/Kg	1	10/6/2003 6:06:00 PM
Fluorene	10.0	6.67		µg/Kg	1	10/6/2003 6:06:00 PM
Indeno(1,2,3-cd)pyrene	762	6.67		µg/Kg	1	10/6/2003 6:06:00 PM
Naphthalene	68.0	6.67		µg/Kg	1	10/6/2003 6:06:00 PM
Phenanthrene	285	6.67		µg/Kg	1	10/6/2003 6:06:00 PM
Pyrene	2270	33.3		µg/Kg	5	10/6/2003 9:54:00 PM
Surr: 2-Fluorobiphenyl	102	42.6-128		%REC	1	10/6/2003 6:06:00 PM
Surr: Nitrobenzene-d5	90.3	21.7-155		%REC	1	10/6/2003 6:06:00 PM
Surr: p-Terphenyl-d14	92.4	44.9-155		%REC	1	10/6/2003 6:06:00 PM

BZTO104(e)019943

Specialty Analytical

Date: *15-Oct-03*

CLIENT: Time Oil Co. **Lab Order:** 0309196
Project: PHIII / 231009.31

Lab ID: 0309196-18 **Collection Date:** 9/29/2003 2:30:00 PM
Client Sample ID: G7-3(0-0.5)/092903 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
TOTAL METALS BY ICP		**E6010**				Analyst: **tlf**
Lead	18.8	1.72		mg/Kg	1	10/1/2003 4:39:17 PM
Zinc	97.9	1.72		mg/Kg	2	10/3/2003 8:37:48 PM
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	118	6.67		µg/Kg	1	10/6/2003 6:38:00 PM
Acenaphthylene	744	6.67		µg/Kg	1	10/6/2003 6:38:00 PM
Anthracene	1090	6.67		µg/Kg	1	10/6/2003 6:38:00 PM
Benz(a)anthracene	8270	133		µg/Kg	20	10/6/2003 10:26:00 PM
Benzo(a)pyrene	9240	133		µg/Kg	20	10/6/2003 10:26:00 PM
Benzo(b)fluoranthene	12400	133		µg/Kg	20	10/6/2003 10:26:00 PM
Benzo(g,h,i)perylene	2880	133		µg/Kg	20	10/6/2003 10:26:00 PM
Benzo(k)fluoranthene	3800	133		µg/Kg	20	10/6/2003 10:26:00 PM
Chrysene	10000	133		µg/Kg	20	10/6/2003 10:26:00 PM
Dibenz(a,h)anthracene	660	6.67		µg/Kg	1	10/6/2003 6:38:00 PM
Fluoranthene	24500	133		µg/Kg	20	10/6/2003 10:26:00 PM
Fluorene	247	6.67		µg/Kg	1	10/6/2003 6:38:00 PM
Indeno(1,2,3-cd)pyrene	2600	133		µg/Kg	20	10/6/2003 10:26:00 PM
Naphthalene	96.7	6.67		µg/Kg	1	10/6/2003 6:38:00 PM
Phenanthrene	10900	133		µg/Kg	20	10/6/2003 10:26:00 PM
Pyrene	28900	667		µg/Kg	100	10/7/2003 7:48:00 PM
Surr: 2-Fluorobiphenyl	99.7	42.6-128		%REC	1	10/6/2003 6:38:00 PM
Surr: Nitrobenzene-d5	88.2	21.7-155		%REC	1	10/6/2003 6:38:00 PM
Surr: p-Terphenyl-d14	89.7	44.9-155		%REC	1	10/6/2003 6:38:00 PM

Lab ID: 0309196-19 **Collection Date:** 9/29/2003 2:35:00 PM
Client Sample ID: G7-3(0.5-1.0)/092903 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
HOLD PER CLIENT REQUEST		**PER CLIENT**				Analyst: **ADM**
Hold	HOLD				1	10/13/2003

Lab ID: 0309196-20 **Collection Date:** 9/29/2003 2:40:00 PM
Client Sample ID: G7-3(1.0-1.5)/092903 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
HOLD PER CLIENT REQUEST		**PER CLIENT**				Analyst: **ADM**
Hold	HOLD				1	10/13/2003

BZTO104(e)019944

CLIENT: Time Oil Co. **Lab Order:** 0309196
Project: PHIII / 231009.31

Lab ID: 0309196-21 **Collection Date:** 9/29/2003 2:10:00 PM
Client Sample ID: G7-4(0-0.5)/092903 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
TOTAL METALS BY ICP		**E6010**				Analyst: **tlf**
Lead	5.07	1.79		mg/Kg	1	10/1/2003 4:44:45 PM
Zinc	70.3	0.893		mg/Kg	1	10/3/2003 8:43:16 PM
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	38.7	6.67		µg/Kg	1	10/6/2003 7:11:00 PM
Acenaphthylene	253	6.67		µg/Kg	1	10/6/2003 7:11:00 PM
Anthracene	404	6.67		µg/Kg	1	10/6/2003 7:11:00 PM
Benz(a)anthracene	3050	133		µg/Kg	20	10/6/2003 10:59:00 PM
Benzo(a)pyrene	2790	133		µg/Kg	20	10/6/2003 10:59:00 PM
Benzo(b)fluoranthene	3650	133		µg/Kg	20	10/6/2003 10:59:00 PM
Benzo(g,h,i)perylene	920	133		µg/Kg	20	10/6/2003 10:59:00 PM
Benzo(k)fluoranthene	1160	133		µg/Kg	20	10/6/2003 10:59:00 PM
Chrysene	3560	133		µg/Kg	20	10/6/2003 10:59:00 PM
Dibenz(a,h)anthracene	303	6.67		µg/Kg	1	10/6/2003 7:11:00 PM
Fluoranthene	9200	133		µg/Kg	20	10/6/2003 10:59:00 PM
Fluorene	90.0	6.67		µg/Kg	1	10/6/2003 7:11:00 PM
Indeno(1,2,3-cd)pyrene	1270	6.67		µg/Kg	1	10/6/2003 7:11:00 PM
Naphthalene	41.3	6.67		µg/Kg	1	10/6/2003 7:11:00 PM
Phenanthrene	4440	133		µg/Kg	20	10/6/2003 10:59:00 PM
Pyrene	13600	133		µg/Kg	20	10/6/2003 10:59:00 PM
Surr: 2-Fluorobiphenyl	96.0	42.6-128		%REC	1	10/6/2003 7:11:00 PM
Surr: Nitrobenzene-d5	86.2	21.7-155		%REC	1	10/6/2003 7:11:00 PM
Surr: p-Terphenyl-d14	86.7	44.9-155		%REC	1	10/6/2003 7:11:00 PM

Lab ID: 0309196-22 **Collection Date:** 9/29/2003 2:15:00 PM
Client Sample ID: G7-4(0.5-1.0)/092903 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
HOLD PER CLIENT REQUEST		**PER CLIENT**				Analyst: **ADM**
Hold	HOLD				1	10/13/2003

BZTO104(e)019945

CLIENT: Time Oil Co. **Lab Order:** 0309196
Project: PHIII / 231009.31

Lab ID: 0309196-23 **Collection Date:** 9/29/2003 2:20:00 PM
Client Sample ID: G7-4(1.0-1.5)/092903 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
HOLD PER CLIENT REQUEST		**PER CLIENT**				Analyst: **ADM**
Hold	HOLD				1	10/13/2003

Lab ID: 0309196-24 **Collection Date:** 9/29/2003 1:35:00 PM
Client Sample ID: G7-5(0-0.5)/092903 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
TOTAL METALS BY ICP		**E6010**				Analyst: **tlf**
Lead	5.87	1.92		mg/Kg	1	10/1/2003 5:06:50 PM
Zinc	102	1.92		mg/Kg	2	10/3/2003 8:48:43 PM
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	ND	6.67		µg/Kg	1	10/6/2003 7:44:00 PM
Acenaphthylene	20.0	6.67		µg/Kg	1	10/6/2003 7:44:00 PM
Anthracene	14.0	6.67		µg/Kg	1	10/6/2003 7:44:00 PM
Benz(a)anthracene	132	6.67		µg/Kg	1	10/6/2003 7:44:00 PM
Benzo(a)pyrene	297	6.67		µg/Kg	1	10/6/2003 7:44:00 PM
Benzo(b)fluoranthene	366	6.67		µg/Kg	1	10/6/2003 7:44:00 PM
Benzo(g,h,i)perylene	134	6.67		µg/Kg	1	10/6/2003 7:44:00 PM
Benzo(k)fluoranthene	107	6.67		µg/Kg	1	10/6/2003 7:44:00 PM
Chrysene	176	6.67		µg/Kg	1	10/6/2003 7:44:00 PM
Dibenz(a,h)anthracene	28.0	6.67		µg/Kg	1	10/6/2003 7:44:00 PM
Fluoranthene	305	6.67		µg/Kg	1	10/6/2003 7:44:00 PM
Fluorene	ND	6.67		µg/Kg	1	10/6/2003 7:44:00 PM
Indeno(1,2,3-cd)pyrene	115	6.67		µg/Kg	1	10/6/2003 7:44:00 PM
Naphthalene	14.0	6.67		µg/Kg	1	10/6/2003 7:44:00 PM
Phenanthrene	84.7	6.67		µg/Kg	1	10/6/2003 7:44:00 PM
Pyrene	483	6.67		µg/Kg	1	10/6/2003 7:44:00 PM
Surr: 2-Fluorobiphenyl	91.6	42.6-128		%REC	1	10/6/2003 7:44:00 PM
Surr: Nitrobenzene-d5	79.5	21.7-155		%REC	1	10/6/2003 7:44:00 PM
Surr: p-Terphenyl-d14	102	44.9-155		%REC	1	10/6/2003 7:44:00 PM

Lab ID: 0309196-25 **Collection Date:** 9/29/2003 1:40:00 PM
Client Sample ID: G7-5(0.5-1.0)/092903 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
HOLD PER CLIENT REQUEST		**PER CLIENT**				Analyst: **ADM**
Hold	HOLD				1	10/13/2003

BZTO104(e)019946

Specialty Analytical

Date: *15-Oct-03*

CLIENT: Time Oil Co.
Project: PHIII / 231009.31
Lab Order: 0309196

Lab ID: 0309196-26 **Collection Date:** 9/29/2003 1:45:00 PM
Client Sample ID: G7-5(1.0-1.5)/092903 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
HOLD PER CLIENT REQUEST		**PER CLIENT**				Analyst: **ADM**
Hold	HOLD				1	10/13/2003

Lab ID: 0309196-27 **Collection Date:** 9/29/2003 1:20:00 PM
Client Sample ID: G10-4(0-0.5)/092903 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
TOTAL METALS BY ICP		**E6010**				Analyst: **tlf**
Lead	19.7	1.92		mg/Kg	1	10/1/2003 5:12:17 PM
Zinc	68.9	0.962		mg/Kg	1	10/3/2003 8:54:11 PM
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	ND	6.67		µg/Kg	1	10/6/2003 8:16:00 PM
Acenaphthylene	12.0	6.67		µg/Kg	1	10/6/2003 8:16:00 PM
Anthracene	9.33	6.67		µg/Kg	1	10/6/2003 8:16:00 PM
Benz(a)anthracene	40.7	6.67		µg/Kg	1	10/6/2003 8:16:00 PM
Benzo(a)pyrene	68.0	6.67		µg/Kg	1	10/6/2003 8:16:00 PM
Benzo(b)fluoranthene	101	6.67		µg/Kg	1	10/6/2003 8:16:00 PM
Benzo(g,h,i)perylene	22.0	6.67		µg/Kg	1	10/6/2003 8:16:00 PM
Benzo(k)fluoranthene	28.7	6.67		µg/Kg	1	10/6/2003 8:16:00 PM
Chrysene	44.0	6.67		µg/Kg	1	10/6/2003 8:16:00 PM
Dibenz(a,h)anthracene	ND	6.67		µg/Kg	1	10/6/2003 8:16:00 PM
Fluoranthene	80.7	6.67		µg/Kg	1	10/6/2003 8:16:00 PM
Fluorene	ND	6.67		µg/Kg	1	10/6/2003 8:16:00 PM
Indeno(1,2,3-cd)pyrene	20.0	6.67		µg/Kg	1	10/6/2003 8:16:00 PM
Naphthalene	ND	6.67		µg/Kg	1	10/6/2003 8:16:00 PM
Phenanthrene	30.7	6.67		µg/Kg	1	10/6/2003 8:16:00 PM
Pyrene	123	6.67		µg/Kg	1	10/6/2003 8:16:00 PM
Surr: 2-Fluorobiphenyl	92.5	42.6-128		%REC	1	10/6/2003 8:16:00 PM
Surr: Nitrobenzene-d5	82.2	21.7-155		%REC	1	10/6/2003 8:16:00 PM
Surr: p-Terphenyl-d14	98.3	44.9-155		%REC	1	10/6/2003 8:16:00 PM

BZTO104(e)019947

Specialty Analytical

Date: *15-Oct-03*

CLIENT: Time Oil Co.
Project: PHIII / 231009.31
Lab Order: 0309196

Lab ID: 0309196-28
Client Sample ID: G10-4(1.0-1.5)/092903
Collection Date: 9/29/2003 1:25:00 PM
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	10.0	6.67		µg/Kg	1	10/6/2003 8:49:00 PM
Acenaphthylene	67.3	6.67		µg/Kg	1	10/6/2003 8:49:00 PM
Anthracene	78.0	6.67		µg/Kg	1	10/6/2003 8:49:00 PM
Benz(a)anthracene	481	6.67		µg/Kg	1	10/6/2003 8:49:00 PM
Benzo(a)pyrene	936	6.67		µg/Kg	1	10/6/2003 8:49:00 PM
Benzo(b)fluoranthene	1200	6.67		µg/Kg	1	10/6/2003 8:49:00 PM
Benzo(g,h,i)perylene	386	6.67		µg/Kg	1	10/6/2003 8:49:00 PM
Benzo(k)fluoranthene	379	6.67		µg/Kg	1	10/6/2003 8:49:00 PM
Chrysene	561	6.67		µg/Kg	1	10/6/2003 8:49:00 PM
Dibenz(a,h)anthracene	77.3	6.67		µg/Kg	1	10/6/2003 8:49:00 PM
Fluoranthene	1360	33.3		µg/Kg	5	10/6/2003 11:31:00 PM
Fluorene	19.3	6.67		µg/Kg	1	10/6/2003 8:49:00 PM
Indeno(1,2,3-cd)pyrene	337	6.67		µg/Kg	1	10/6/2003 8:49:00 PM
Naphthalene	16.0	6.67		µg/Kg	1	10/6/2003 8:49:00 PM
Phenanthrene	547	6.67		µg/Kg	1	10/6/2003 8:49:00 PM
Pyrene	2080	33.3		µg/Kg	5	10/6/2003 11:31:00 PM
Surr: 2-Fluorobiphenyl	90.2	42.6-128		%REC	1	10/6/2003 8:49:00 PM
Surr: Nitrobenzene-d5	77.4	21.7-155		%REC	1	10/6/2003 8:49:00 PM
Surr: p-Terphenyl-d14	89.9	44.9-155		%REC	1	10/6/2003 8:49:00 PM

BZTO104(e)019948

CLIENT: Time Oil Co. **Lab Order:** 0309196
Project: PHIII / 231009.31

Lab ID: 0309196-29 **Collection Date:** 9/29/2003 1:00:00 PM
Client Sample ID: G11-3(0-0.5)/092903 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
TOTAL METALS BY ICP		**E6010**				Analyst: **tlf**
Lead	ND	1.85		mg/Kg	1	10/1/2003 5:17:45 PM
Zinc	86.6	0.926		mg/Kg	1	10/3/2003 8:59:38 PM
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	ND	6.67		µg/Kg	1	10/3/2003 5:20:00 PM
Acenaphthylene	20.7	6.67		µg/Kg	1	10/3/2003 5:20:00 PM
Anthracene	14.0	6.67		µg/Kg	1	10/3/2003 5:20:00 PM
Benz(a)anthracene	148	6.67		µg/Kg	1	10/3/2003 5:20:00 PM
Benzo(a)pyrene	285	6.67		µg/Kg	1	10/3/2003 5:20:00 PM
Benzo(b)fluoranthene	315	6.67		µg/Kg	1	10/3/2003 5:20:00 PM
Benzo(g,h,i)perylene	315	6.67		µg/Kg	1	10/3/2003 5:20:00 PM
Benzo(k)fluoranthene	78.0	6.67		µg/Kg	1	10/3/2003 5:20:00 PM
Chrysene	204	6.67		µg/Kg	1	10/3/2003 5:20:00 PM
Dibenz(a,h)anthracene	54.0	6.67		µg/Kg	1	10/3/2003 5:20:00 PM
Fluoranthene	466	6.67		µg/Kg	1	10/3/2003 5:20:00 PM
Fluorene	ND	6.67		µg/Kg	1	10/3/2003 5:20:00 PM
Indeno(1,2,3-cd)pyrene	223	6.67		µg/Kg	1	10/3/2003 5:20:00 PM
Naphthalene	ND	6.67		µg/Kg	1	10/3/2003 5:20:00 PM
Phenanthrene	130	6.67		µg/Kg	1	10/3/2003 5:20:00 PM
Pyrene	605	6.67		µg/Kg	1	10/3/2003 5:20:00 PM
Surr: 2-Fluorobiphenyl	77.0	42.6-128		%REC	1	10/3/2003 5:20:00 PM
Surr: Nitrobenzene-d5	68.2	21.7-155		%REC	1	10/3/2003 5:20:00 PM
Surr: p-Terphenyl-d14	79.0	44.9-155		%REC	1	10/3/2003 5:20:00 PM

Lab ID: 0309196-30 **Collection Date:** 9/29/2003 1:05:00 PM
Client Sample ID: G11-3(0.5-1.0)/092903 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
HOLD PER CLIENT REQUEST		**PER CLIENT**				Analyst: **ADM**
Hold	HOLD				1	10/13/2003

BZTO104(e)019949

Specialty Analytical

Date: *15-Oct-03*

CLIENT: Time Oil Co.
Project: PHIII / 231009.31
Lab Order: 0309196

Lab ID: 0309196-31
Collection Date: 9/29/2003 1:10:00 PM
Client Sample ID: G11-3(1.0-1.5)/092903
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
TOTAL METALS BY ICP		**E6010**				Analyst: **tlf**
Lead	ND	1.67		mg/Kg	1	10/1/2003 5:23:12 PM
Zinc	52.1	0.833		mg/Kg	1	10/3/2003 9:05:06 PM
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	ND	6.67		µg/Kg	1	10/3/2003 5:53:00 PM
Acenaphthylene	ND	6.67		µg/Kg	1	10/3/2003 5:53:00 PM
Anthracene	ND	6.67		µg/Kg	1	10/3/2003 5:53:00 PM
Benz(a)anthracene	ND	6.67		µg/Kg	1	10/3/2003 5:53:00 PM
Benzo(a)pyrene	10.0	6.67		µg/Kg	1	10/3/2003 5:53:00 PM
Benzo(b)fluoranthene	12.0	6.67		µg/Kg	1	10/3/2003 5:53:00 PM
Benzo(g,h,i)perylene	11.3	6.67		µg/Kg	1	10/3/2003 5:53:00 PM
Benzo(k)fluoranthene	ND	6.67		µg/Kg	1	10/3/2003 5:53:00 PM
Chrysene	ND	6.67		µg/Kg	1	10/3/2003 5:53:00 PM
Dibenz(a,h)anthracene	ND	6.67		µg/Kg	1	10/3/2003 5:53:00 PM
Fluoranthene	11.3	6.67		µg/Kg	1	10/3/2003 5:53:00 PM
Fluorene	ND	6.67		µg/Kg	1	10/3/2003 5:53:00 PM
Indeno(1,2,3-cd)pyrene	8.00	6.67		µg/Kg	1	10/3/2003 5:53:00 PM
Naphthalene	ND	6.67		µg/Kg	1	10/3/2003 5:53:00 PM
Phenanthrene	ND	6.67		µg/Kg	1	10/3/2003 5:53:00 PM
Pyrene	15.3	6.67		µg/Kg	1	10/3/2003 5:53:00 PM
Surr: 2-Fluorobiphenyl	83.0	42.6-128		%REC	1	10/3/2003 5:53:00 PM
Surr: Nitrobenzene-d5	78.5	21.7-155		%REC	1	10/3/2003 5:53:00 PM
Surr: p-Terphenyl-d14	83.0	44.9-155		%REC	1	10/3/2003 5:53:00 PM

BZTO104(e)019950

Specialty Analytical

Date: *15-Oct-03*

CLIENT: Time Oil Co. **Lab Order:** 0309196
Project: PHIII / 231009.31

Lab ID: 0309196-32 **Collection Date:** 9/29/2003 10:05:00 AM
Client Sample ID: G19-4(0-0.5)/092903 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
TOTAL METALS BY ICP		**E6010**				Analyst: **tlf**
Lead	236	17.2		mg/Kg	10	10/2/2003 9:07:33 PM
Zinc	197	8.62		mg/Kg	10	10/2/2003 9:07:33 PM
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	15.3	6.67		µg/Kg	1	10/3/2003 6:25:00 PM
Acenaphthylene	174	6.67		µg/Kg	1	10/3/2003 6:25:00 PM
Anthracene	133	6.67		µg/Kg	1	10/3/2003 6:25:00 PM
Benz(a)anthracene	1150	6.67		µg/Kg	1	10/3/2003 6:25:00 PM
Benzo(a)pyrene	2320	33.3		µg/Kg	5	10/4/2003 2:04:00 PM
Benzo(b)fluoranthene	2590	33.3		µg/Kg	5	10/4/2003 2:04:00 PM
Benzo(g,h,i)perylene	2730	33.3		µg/Kg	5	10/4/2003 2:04:00 PM
Benzo(k)fluoranthene	770	6.67		µg/Kg	1	10/3/2003 6:25:00 PM
Chrysene	1570	33.3		µg/Kg	5	10/4/2003 2:04:00 PM
Dibenz(a,h)anthracene	373	6.67		µg/Kg	1	10/3/2003 6:25:00 PM
Fluoranthene	3710	33.3		µg/Kg	5	10/4/2003 2:04:00 PM
Fluorene	28.0	6.67		µg/Kg	1	10/3/2003 6:25:00 PM
Indeno(1,2,3-cd)pyrene	1890	33.3		µg/Kg	5	10/4/2003 2:04:00 PM
Naphthalene	50.7	6.67		µg/Kg	1	10/3/2003 6:25:00 PM
Phenanthrene	1180	6.67		µg/Kg	1	10/3/2003 6:25:00 PM
Pyrene	4890	33.3		µg/Kg	5	10/4/2003 2:04:00 PM
Surr: 2-Fluorobiphenyl	90.9	42.6-128		%REC	1	10/3/2003 6:25:00 PM
Surr: Nitrobenzene-d5	82.6	21.7-155		%REC	1	10/3/2003 6:25:00 PM
Surr: p-Terphenyl-d14	78.4	44.9-155		%REC	1	10/3/2003 6:25:00 PM

Lab ID: 0309196-33 **Collection Date:** 9/29/2003 10:10:00 AM
Client Sample ID: G19-4(0.5-1.0)/092903 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
HOLD PER CLIENT REQUEST		**PER CLIENT**				Analyst: **ADM**
Hold	HOLD				1	10/13/2003

Lab ID: 0309196-34 **Collection Date:** 9/29/2003 10:15:00 AM
Client Sample ID: G19-4(1.0-1.5)/092903 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
HOLD PER CLIENT REQUEST		**PER CLIENT**				Analyst: **ADM**
Hold	HOLD				1	10/13/2003

BZTO104(e)019951

CLIENT: Time Oil Co. **Lab Order:** 0309196
Project: PHIII / 231009.31

Lab ID: 0309196-35 **Collection Date:** 9/29/2003 10:30:00 AM
Client Sample ID: G15-6(0-0.5)/092903 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
TOTAL METALS BY ICP		**E6010**				Analyst: **tlf**
Lead	12.7	1.92		mg/Kg	1	10/1/2003 5:34:06 PM
Zinc	63.9	0.962		mg/Kg	1	10/2/2003 9:18:32 PM
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	ND	6.67		µg/Kg	1	10/3/2003 6:58:00 PM
Acenaphthylene	18.0	6.67		µg/Kg	1	10/3/2003 6:58:00 PM
Anthracene	18.0	6.67		µg/Kg	1	10/3/2003 6:58:00 PM
Benz(a)anthracene	118	6.67		µg/Kg	1	10/3/2003 6:58:00 PM
Benzo(a)pyrene	237	6.67		µg/Kg	1	10/3/2003 6:58:00 PM
Benzo(b)fluoranthene	277	6.67		µg/Kg	1	10/3/2003 6:58:00 PM
Benzo(g,h,i)perylene	240	6.67		µg/Kg	1	10/3/2003 6:58:00 PM
Benzo(k)fluoranthene	79.3	6.67		µg/Kg	1	10/3/2003 6:58:00 PM
Chrysene	151	6.67		µg/Kg	1	10/3/2003 6:58:00 PM
Dibenz(a,h)anthracene	42.0	6.67		µg/Kg	1	10/3/2003 6:58:00 PM
Fluoranthene	277	6.67		µg/Kg	1	10/3/2003 6:58:00 PM
Fluorene	ND	6.67		µg/Kg	1	10/3/2003 6:58:00 PM
Indeno(1,2,3-cd)pyrene	173	6.67		µg/Kg	1	10/3/2003 6:58:00 PM
Naphthalene	12.0	6.67		µg/Kg	1	10/3/2003 6:58:00 PM
Phenanthrene	82.0	6.67		µg/Kg	1	10/3/2003 6:58:00 PM
Pyrene	387	6.67		µg/Kg	1	10/3/2003 6:58:00 PM
Surr: 2-Fluorobiphenyl	82.1	42.6-128		%REC	1	10/3/2003 6:58:00 PM
Surr: Nitrobenzene-d5	66.9	21.7-155		%REC	1	10/3/2003 6:58:00 PM
Surr: p-Terphenyl-d14	78.2	44.9-155		%REC	1	10/3/2003 6:58:00 PM

Lab ID: 0309196-36 **Collection Date:** 9/29/2003 10:35:00 AM
Client Sample ID: G15-6(0.5-1.0)/092903 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
HOLD PER CLIENT REQUEST		**PER CLIENT**				Analyst: **ADM**
Hold	HOLD				1	10/13/2003

BZTO104(e)019952

CLIENT: Time Oil Co. **Lab Order:** 0309196
Project: PHIII / 231009.31

Lab ID: 0309196-37 **Collection Date:** 9/29/2003 10:40:00 AM
Client Sample ID: G15-6(1.0-1.5)/092903 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
HOLD PER CLIENT REQUEST		**PER CLIENT**				Analyst: **ADM**
Hold	HOLD				1	10/13/2003

Lab ID: 0309196-38 **Collection Date:** 9/29/2003 10:50:00 AM
Client Sample ID: G15-4(0-0.5)/092903 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
TOTAL METALS BY ICP		**E6010**				Analyst: **tlf**
Lead	16.3	1.85		mg/Kg	1	10/1/2003 5:39:33 PM
Zinc	77.7	0.926		mg/Kg	1	10/2/2003 9:13:04 PM
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	ND	6.67		µg/Kg	1	10/3/2003 7:30:00 PM
Acenaphthylene	18.0	6.67		µg/Kg	1	10/3/2003 7:30:00 PM
Anthracene	18.0	6.67		µg/Kg	1	10/3/2003 7:30:00 PM
Benz(a)anthracene	100	6.67		µg/Kg	1	10/3/2003 7:30:00 PM
Benzo(a)pyrene	230	6.67		µg/Kg	1	10/3/2003 7:30:00 PM
Benzo(b)fluoranthene	311	6.67		µg/Kg	1	10/3/2003 7:30:00 PM
Benzo(g,h,i)perylene	254	6.67		µg/Kg	1	10/3/2003 7:30:00 PM
Benzo(k)fluoranthene	82.7	6.67		µg/Kg	1	10/3/2003 7:30:00 PM
Chrysene	145	6.67		µg/Kg	1	10/3/2003 7:30:00 PM
Dibenz(a,h)anthracene	47.3	6.67		µg/Kg	1	10/3/2003 7:30:00 PM
Fluoranthene	263	6.67		µg/Kg	1	10/3/2003 7:30:00 PM
Fluorene	ND	6.67		µg/Kg	1	10/3/2003 7:30:00 PM
Indeno(1,2,3-cd)pyrene	185	6.67		µg/Kg	1	10/3/2003 7:30:00 PM
Naphthalene	14.7	6.67		µg/Kg	1	10/3/2003 7:30:00 PM
Phenanthrene	60.0	6.67		µg/Kg	1	10/3/2003 7:30:00 PM
Pyrene	367	6.67		µg/Kg	1	10/3/2003 7:30:00 PM
Surr: 2-Fluorobiphenyl	95.2	42.6-128		%REC	1	10/3/2003 7:30:00 PM
Surr: Nitrobenzene-d5	84.7	21.7-155		%REC	1	10/3/2003 7:30:00 PM
Surr: p-Terphenyl-d14	89.4	44.9-155		%REC	1	10/3/2003 7:30:00 PM

Lab ID: 0309196-39 **Collection Date:** 9/29/2003 10:55:00 AM
Client Sample ID: G15-4(0.5-1.0)/092903 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
HOLD PER CLIENT REQUEST		**PER CLIENT**				Analyst: **ADM**
Hold	HOLD				1	10/13/2003

BZTO104(e)019953

CLIENT: Time Oil Co. **Lab Order:** 0309196
Project: PHIII / 231009.31

Lab ID: 0309196-40 **Collection Date:** 9/29/2003 11:00:00 AM
Client Sample ID: G15-4(1.0-1.5)/092903 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
HOLD PER CLIENT REQUEST		**PER CLIENT**				Analyst: **ADM**
Hold	HOLD				1	10/13/2003

Lab ID: 0309196-41 **Collection Date:** 9/29/2003 11:15:00 AM
Client Sample ID: G19-5(0-0.5)/092903 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
TOTAL METALS BY ICP		**E6010**				Analyst: **tlf**
Lead	6.96	1.72		mg/Kg	1	10/1/2003 5:45:00 PM
Zinc	228	4.31		mg/Kg	5	10/2/2003 9:23:59 PM
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	ND	6.67		µg/Kg	1	10/3/2003 8:03:00 PM
Acenaphthylene	8.00	6.67		µg/Kg	1	10/3/2003 8:03:00 PM
Anthracene	ND	6.67		µg/Kg	1	10/3/2003 8:03:00 PM
Benz(a)anthracene	54.7	6.67		µg/Kg	1	10/3/2003 8:03:00 PM
Benzo(a)pyrene	113	6.67		µg/Kg	1	10/3/2003 8:03:00 PM
Benzo(b)fluoranthene	128	6.67		µg/Kg	1	10/3/2003 8:03:00 PM
Benzo(g,h,i)perylene	115	6.67		µg/Kg	1	10/3/2003 8:03:00 PM
Benzo(k)fluoranthene	42.0	6.67		µg/Kg	1	10/3/2003 8:03:00 PM
Chrysene	68.0	6.67		µg/Kg	1	10/3/2003 8:03:00 PM
Dibenz(a,h)anthracene	21.3	6.67		µg/Kg	1	10/3/2003 8:03:00 PM
Fluoranthene	103	6.67		µg/Kg	1	10/3/2003 8:03:00 PM
Fluorene	ND	6.67		µg/Kg	1	10/3/2003 8:03:00 PM
Indeno(1,2,3-cd)pyrene	82.7	6.67		µg/Kg	1	10/3/2003 8:03:00 PM
Naphthalene	16.0	6.67		µg/Kg	1	10/3/2003 8:03:00 PM
Phenanthrene	32.7	6.67		µg/Kg	1	10/3/2003 8:03:00 PM
Pyrene	143	6.67		µg/Kg	1	10/3/2003 8:03:00 PM
Surr: 2-Fluorobiphenyl	83.9	42.6-128		%REC	1	10/3/2003 8:03:00 PM
Surr: Nitrobenzene-d5	70.6	21.7-155		%REC	1	10/3/2003 8:03:00 PM
Surr: p-Terphenyl-d14	81.3	44.9-155		%REC	1	10/3/2003 8:03:00 PM

BZTO104(e)019954

Specialty Analytical

Date: *15-Oct-03*

CLIENT: Time Oil Co. **Lab Order:** 0309196
Project: PHIII / 231009.31

Lab ID: 0309196-42 **Collection Date:** 9/29/2003 11:20:00 AM
Client Sample ID: G19-5(0.5-1.0)/092903 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
HOLD PER CLIENT REQUEST		**PER CLIENT**				Analyst: **ADM**
Hold	HOLD				1	10/13/2003

Lab ID: 0309196-43 **Collection Date:** 9/29/2003 11:25:00 AM
Client Sample ID: G19-5(1.0-1.5)/092903 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
HOLD PER CLIENT REQUEST		**PER CLIENT**				Analyst: **ADM**
Hold	HOLD				1	10/13/2003

Lab ID: 0309196-44 **Collection Date:** 9/29/2003 11:40:00 AM
Client Sample ID: G10-5(0.0-0.5)/092903 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
TOTAL METALS BY ICP		**E6010**				Analyst: **tlf**
Lead	ND	1.85		mg/Kg	1	10/1/2003 5:50:28 PM
Zinc	57.7	0.926		mg/Kg	1	10/2/2003 9:29:29 PM
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	ND	6.67		µg/Kg	1	10/3/2003 8:35:00 PM
Acenaphthylene	ND	6.67		µg/Kg	1	10/3/2003 8:35:00 PM
Anthracene	ND	6.67		µg/Kg	1	10/3/2003 8:35:00 PM
Benz(a)anthracene	24.0	6.67		µg/Kg	1	10/3/2003 8:35:00 PM
Benzo(a)pyrene	44.7	6.67		µg/Kg	1	10/3/2003 8:35:00 PM
Benzo(b)fluoranthene	50.7	6.67		µg/Kg	1	10/3/2003 8:35:00 PM
Benzo(g,h,i)perylene	46.0	6.67		µg/Kg	1	10/3/2003 8:35:00 PM
Benzo(k)fluoranthene	16.0	6.67		µg/Kg	1	10/3/2003 8:35:00 PM
Chrysene	27.3	6.67		µg/Kg	1	10/3/2003 8:35:00 PM
Dibenz(a,h)anthracene	8.67	6.67		µg/Kg	1	10/3/2003 8:35:00 PM
Fluoranthene	48.0	6.67		µg/Kg	1	10/3/2003 8:35:00 PM
Fluorene	ND	6.67		µg/Kg	1	10/3/2003 8:35:00 PM
Indeno(1,2,3-cd)pyrene	33.3	6.67		µg/Kg	1	10/3/2003 8:35:00 PM
Naphthalene	ND	6.67		µg/Kg	1	10/3/2003 8:35:00 PM
Phenanthrene	12.7	6.67		µg/Kg	1	10/3/2003 8:35:00 PM
Pyrene	67.3	6.67		µg/Kg	1	10/3/2003 8:35:00 PM
Surr: 2-Fluorobiphenyl	74.7	42.6-128		%REC	1	10/3/2003 8:35:00 PM
Surr: Nitrobenzene-d5	68.5	21.7-155		%REC	1	10/3/2003 8:35:00 PM
Surr: p-Terphenyl-d14	74.0	44.9-155		%REC	1	10/3/2003 8:35:00 PM

BZTO104(e)019955

Specialty Analytical

Date: *15-Oct-03*

CLIENT: Time Oil Co.
Project: PHIII / 231009.31
Lab Order: 0309196

Lab ID: 0309196-45
Collection Date: 9/29/2003 11:45:00 AM
Client Sample ID: G10-5(1.0-1.5)/092903
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	ND	6.67		µg/Kg	1	10/3/2003 9:08:00 PM
Acenaphthylene	9.33	6.67		µg/Kg	1	10/3/2003 9:08:00 PM
Anthracene	ND	6.67		µg/Kg	1	10/3/2003 9:08:00 PM
Benz(a)anthracene	28.0	6.67		µg/Kg	1	10/3/2003 9:08:00 PM
Benzo(a)pyrene	66.0	6.67		µg/Kg	1	10/3/2003 9:08:00 PM
Benzo(b)fluoranthene	62.0	6.67		µg/Kg	1	10/3/2003 9:08:00 PM
Benzo(g,h,i)perylene	75.3	6.67		µg/Kg	1	10/3/2003 9:08:00 PM
Benzo(k)fluoranthene	21.3	6.67		µg/Kg	1	10/3/2003 9:08:00 PM
Chrysene	32.0	6.67		µg/Kg	1	10/3/2003 9:08:00 PM
Dibenz(a,h)anthracene	12.0	6.67		µg/Kg	1	10/3/2003 9:08:00 PM
Fluoranthene	52.7	6.67		µg/Kg	1	10/3/2003 9:08:00 PM
Fluorene	ND	6.67		µg/Kg	1	10/3/2003 9:08:00 PM
Indeno(1,2,3-cd)pyrene	50.7	6.67		µg/Kg	1	10/3/2003 9:08:00 PM
Naphthalene	ND	6.67		µg/Kg	1	10/3/2003 9:08:00 PM
Phenanthrene	13.3	6.67		µg/Kg	1	10/3/2003 9:08:00 PM
Pyrene	75.3	6.67		µg/Kg	1	10/3/2003 9:08:00 PM
Surr: 2-Fluorobiphenyl	77.2	42.6-128		%REC	1	10/3/2003 9:08:00 PM
Surr: Nitrobenzene-d5	75.1	21.7-155		%REC	1	10/3/2003 9:08:00 PM
Surr: p-Terphenyl-d14	90.5	44.9-155		%REC	1	10/3/2003 9:08:00 PM

BZTO104(e)019956

Specialty Analytical

Date: *15-Oct-03*

CLIENT: Time Oil Co.
Work Order: 0309196
Project: PHIII / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID	MBLK-9651	SampType:	MBLK	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	9/30/2003	Run ID:	TJA IRIS_031001D
Client ID:	ZZZZZ	Batch ID:	9651	TestNo:	E6010			Analysis Date:	10/1/2003	SeqNo:	215920

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	2.00									

Sample ID	MBLK-9651	SampType:	MBLK	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	9/30/2003	Run ID:	TJA IRIS_031002C
Client ID:	ZZZZZ	Batch ID:	9651	TestNo:	E6010			Analysis Date:	10/2/2003	SeqNo:	216320

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	2.00									

Sample ID	MBLK-9651	SampType:	MBLK	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	9/30/2003	Run ID:	TJA IRIS_031003C
Client ID:	ZZZZZ	Batch ID:	9651	TestNo:	E6010			Analysis Date:	10/3/2003	SeqNo:	216946

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Zinc	ND	1.00									

Sample ID	LCS-9651	SampType:	LCS	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	9/30/2003	Run ID:	TJA IRIS_031001D
Client ID:	ZZZZZ	Batch ID:	9651	TestNo:	E6010			Analysis Date:	10/1/2003	SeqNo:	215921

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	95.91	2.00	100	0	95.9	92.9	109	0	0		

Sample ID	LCS-9651	SampType:	LCS	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	9/30/2003	Run ID:	TJA IRIS_031002C
Client ID:	ZZZZZ	Batch ID:	9651	TestNo:	E6010			Analysis Date:	10/2/2003	SeqNo:	216321

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	98.67	2.00	100	0	98.7	92.9	109	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019957

CLIENT: Time Oil Co.
Work Order: 0309196
Project: PHIII / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID	LCS-9651	SampType:	LCS	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	9/30/2003	Run ID:	TJA IRIS_031003C
Client ID:	ZZZZZ	Batch ID:	9651	TestNo:	E6010			Analysis Date:	10/3/2003	SeqNo:	216947

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Zinc	49.35	1.00	50	0	98.7	88.1	111	0	0		

Sample ID	0309196-01AMS	SampType:	MS	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	9/30/2003	Run ID:	TJA IRIS_031001D
Client ID:	G17-5(0-0.5)/092903	Batch ID:	9651	TestNo:	E6010			Analysis Date:	10/1/2003	SeqNo:	215925

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	116.2	1.85	92.59	10.07	115	92.1	104	0	0		S

Sample ID	0309196-01AMS	SampType:	MS	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	9/30/2003	Run ID:	TJA IRIS_031002C
Client ID:	G17-5(0-0.5)/092903	Batch ID:	9651	TestNo:	E6010			Analysis Date:	10/2/2003	SeqNo:	216324

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	112.5	1.85	92.59	11.86	109	92.1	104	0	0		S
Zinc	114.9	0.926	46.3	80.75	73.8	86.2	113	0	0		SE

Sample ID	0309196-01AMS	SampType:	MS	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	9/30/2003	Run ID:	TJA IRIS_031003C
Client ID:	G17-5(0-0.5)/092903	Batch ID:	9651	TestNo:	E6010			Analysis Date:	10/3/2003	SeqNo:	216950

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Zinc	120.6	0.926	46.3	84.44	78.2	86.2	113	0	0		SE

Sample ID	0309196-01AMSD	SampType:	MSD	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	9/30/2003	Run ID:	TJA IRIS_031001D
Client ID:	G17-5(0-0.5)/092903	Batch ID:	9651	TestNo:	E6010			Analysis Date:	10/1/2003	SeqNo:	215926

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	103.7	1.79	89.29	10.07	105	92.1	104	116.2	11.4	20	S

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019958

CLIENT: Time Oil Co.
Work Order: 0309196
Project: PHII / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID: 0309196-01AMSD	SampType: MSD	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/30/2003	Run ID: TJA IRIS_031002C
Client ID: G17-5(0-0.5)/092903	Batch ID: 9651	TestNo: E6010		Analysis Date: 10/2/2003	SeqNo: 216325

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	100.6	1.79	89.29	11.86	99.4	92.1	104	112.5	11.1	20	
Zinc	113	0.893	44.64	80.75	72.3	86.2	113	114.9	1.64	20	SE

Sample ID: 0309196-01AMSD	SampType: MSD	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/30/2003	Run ID: TJA IRIS_031003C
Client ID: G17-5(0-0.5)/092903	Batch ID: 9651	TestNo: E6010		Analysis Date: 10/3/2003	SeqNo: 216951

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Zinc	121.3	0.893	44.64	84.44	82.7	86.2	113	120.6	0.571	20	SE

Sample ID: 0309196-01ADUP	SampType: DUP	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/30/2003	Run ID: TJA IRIS_031001D
Client ID: G17-5(0-0.5)/092903	Batch ID: 9651	TestNo: E6010		Analysis Date: 10/1/2003	SeqNo: 215923

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	14.41	1.72	0	0	0	0	0	10.07	35.5	20	RF

Sample ID: 0309196-01ADUP	SampType: DUP	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/30/2003	Run ID: TJA IRIS_031002C
Client ID: G17-5(0-0.5)/092903	Batch ID: 9651	TestNo: E6010		Analysis Date: 10/2/2003	SeqNo: 216323

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	15.77	1.72	0	0	0	0	0	11.86	28.3	20	R
Zinc	73.43	0.862	0	0	0	0	0	80.75	9.49	20	

Sample ID: 0309196-01ADUP	SampType: DUP	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/30/2003	Run ID: TJA IRIS_031003C
Client ID: G17-5(0-0.5)/092903	Batch ID: 9651	TestNo: E6010		Analysis Date: 10/3/2003	SeqNo: 216949

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Zinc	78.56	0.862	0	0	0	0	0	84.44	7.21	20	

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

BZTO104(e)019959

CLIENT: Time Oil Co.
Work Order: 0309196
Project: PHII / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/30/2003	Run ID: TJA IRIS_031001D
Client ID: ZZZZZ	Batch ID: 9651	TestNo: E6010		Analysis Date: 10/1/2003	SeqNo: 215919

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	94.68	2.00	100	0	94.7	90	110	0	0		

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/30/2003	Run ID: TJA IRIS_031001D
Client ID: ZZZZZ	Batch ID: 9651	TestNo: E6010		Analysis Date: 10/1/2003	SeqNo: 215924

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	96.8	2.00	100	0	96.8	90	110	0	0		

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/30/2003	Run ID: TJA IRIS_031001D
Client ID: ZZZZZ	Batch ID: 9651	TestNo: E6010		Analysis Date: 10/1/2003	SeqNo: 215935

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	96.01	2.00	100	0	96	90	110	0	0		

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/30/2003	Run ID: TJA IRIS_031001D
Client ID: ZZZZZ	Batch ID: 9651	TestNo: E6010		Analysis Date: 10/1/2003	SeqNo: 215946

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	92.45	2.00	100	0	92.4	90	110	0	0		

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/30/2003	Run ID: TJA IRIS_031001D
Client ID: ZZZZZ	Batch ID: 9651	TestNo: E6010		Analysis Date: 10/1/2003	SeqNo: 215948

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	98.27	2.00	100	0	98.3	90	110	0	0		

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/30/2003	Run ID: TJA IRIS_031002C
Client ID: ZZZZZ	Batch ID: 9651	TestNo: E6010		Analysis Date: 10/2/2003	SeqNo: 216319

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

BZTO104(e)019960

CLIENT: Time Oil Co.
Work Order: 0309196
Project: PHIII / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/30/2003	Run ID: TJA IRIS_031002C
Client ID: ZZZZZ	Batch ID: 9651	TestNo: E6010		Analysis Date: 10/2/2003	SeqNo: 216319

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	94.64	2.00	100	0	94.6	90	110	0	0		
Zinc	45.66	1.00	50	0	91.3	90	110	0	0		

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/30/2003	Run ID: TJA IRIS_031002C
Client ID: ZZZZZ	Batch ID: 9651	TestNo: E6010		Analysis Date: 10/2/2003	SeqNo: 216326

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	98.22	2.00	100	0	98.2	90	110	0	0		

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/30/2003	Run ID: TJA IRIS_031002C
Client ID: ZZZZZ	Batch ID: 9651	TestNo: E6010		Analysis Date: 10/2/2003	SeqNo: 216337

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	93.86	2.00	100	0	93.9	90	110	0	0		
Zinc	45.21	1.00	50	0	90.4	90	110	0	0		

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/30/2003	Run ID: TJA IRIS_031002C
Client ID: ZZZZZ	Batch ID: 9651	TestNo: E6010		Analysis Date: 10/2/2003	SeqNo: 216343

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	98.52	2.00	100	0	98.5	90	110	0	0		
Zinc	51.6	1.00	50	0	103	90	110	0	0		

Sample ID ICV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/30/2003	Run ID: TJA IRIS_031003C
Client ID: ZZZZZ	Batch ID: 9651	TestNo: E6010		Analysis Date: 10/3/2003	SeqNo: 216945

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Zinc	47.33	1.00	50	0	94.7	90	110	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019961

CLIENT: Time Oil Co.
Work Order: 0309196
Project: PHIII / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/30/2003	Run ID: TJA IRIS_031003C
Client ID: ZZZZZ	Batch ID: 9651	TestNo: E6010		Analysis Date: 10/3/2003	SeqNo: 216954

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Zinc	47.56	1.00	50	0	95.1	90	110	0	0		

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/30/2003	Run ID: TJA IRIS_031003C
Client ID: ZZZZZ	Batch ID: 9651	TestNo: E6010		Analysis Date: 10/3/2003	SeqNo: 216963

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Zinc	47.15	1.00	50	0	94.3	90	110	0	0		

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/30/2003	Run ID: TJA IRIS_031003C
Client ID ZZZZZ	Batch ID: 9651	TestNo: E6010		Analysis Date: 10/3/2003	SeqNo: 216964

Ana yte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Zinc	47.33	1.00	50	0	94.7	90	110	0	0		

Sample ID ICV	SampType: ICV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/30/2003	Run ID: TJA IRIS_031001D
Client ID: ZZZZZ	Batch ID: 9651	TestNo: E6010		Analysis Date: 10/1/2003	SeqNo: 215918

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	95.78	2.00	100	0	95.8	90	110	0	0		

Sample ID ICV	SampType ICV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/30/2003	Run ID: TJA IRIS_031002C
Client ID: ZZZZZ	Batch ID: 9651	TestNo: E6010		Analysis Date: 10/2/2003	SeqNo: 216318

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	93.8	2.00	100	0	93.8	90	110	0	0		
Zinc	49.58	1.00	50	0	99.2	90	110	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019962

CLIENT: Time Oil Co.
Work Order: 0309196
Project: PHIII / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: PAHLL_S

Sample ID: MB-9650	SampType: MBLK	TestCode: PAHLL_S	Units: µg/Kg	Prep Date: 9/30/2003	Run ID: 5973G_031001B
Client ID: ZZZZZ	Batch ID: 9650	TestNo: 8270SIM		Analysis Date: 10/1/2003	SeqNo: 216079

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	ND	6.67									
Acenaphthylene	ND	6.67									
Anthracene	0.6667	6.67									J
Benz(a)anthracene	1.333	6.67									J
Benzo(a)pyrene	2	6.67									J
Benzo(b)fluoranthene	1.333	6.67									J
Benzo(g,h,i)perylene	2	6.67									J
Benzo(k)fluoranthene	0.6667	6.67									J
Chrysene	ND	6.67									
Dibenz(a,h)anthracene	ND	6.67									
Fluoranthene	2	6.67									J
Fluorene	ND	6.67									
Indeno(1,2,3-cd)pyrene	1.333	6.67									J
Naphthalene	5	6.67									J
Phenanthrene	3.333	6.67									J
Pyrene	2.667	6.67									J
Surr: 2-Fluorobiphenyl	5047	0	6667	0	75.7	42.6	128	0	0		
Surr: Nitrobenzene-d5	4156	0	6667	0	62.3	21.7	155	0	0		
Surr: p-Terphenyl-d14	5385	0	6667	0	80.8	44.9	155	0	0		

Sample ID: MB-9681	SampType: MBLK	TestCode: PAHLL_S	Units: µg/Kg	Prep Date: 10/2/2003	Run ID: 5973G_031006B
Client ID: ZZZZZ	Batch ID: 9681	TestNo: 8270SIM		Analysis Date: 10/6/2003	SeqNo: 217127

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	ND	6.67									
Acenaphthylene	ND	6.67									
Anthracene	ND	6.67									
Benz(a)anthracene	ND	6.67									
Benzo(a)pyrene	ND	6.67									
Benzo(b)fluoranthene	ND	6.67									
Benzo(g,h,i)perylene	ND	6.67									

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

BZTO104(e)019963

CLIENT: Time Oil Co.
Work Order: 0309196
Project: PHHH / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: PAHLL_S

Sample ID MB-9681	SampType: MBLK	TestCode: PAHLL_S	Units: µg/Kg	Prep Date: 10/2/2003	Run ID: 5973G_031006B
Client ID: ZZZZZ	Batch ID: 9681	TestNo: 8270SIM		Analysis Date: 10/6/2003	SeqNo: 217127

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzo(k)fluoranthene	ND	6.67									
Chrysene	ND	6.67									
Dibenz(a,h)anthracene	ND	6.67									
Fluoranthene	ND	6.67									
Fluorene	ND	6.67									
Indeno(1,2,3-cd)pyrene	ND	6.67									
Naphthalene	ND	6.67									
Phenanthrene	ND	6.67									
Pyrene	ND	6.67									
Surr: 2-Fluorobiphenyl	5077	0	6667	0	76.1	42.6	128	0	0		
Surr: Nitrobenzene-d5	4989	0	6667	0	74.8	21.7	155	0	0		
Surr: p-Terphenyl-d14	6025	0	6667	0	90.4	44.9	155	0	0		

Sample ID LCS-9650	SampType: LCS	TestCode: PAHLL_S	Units: µg/Kg	Prep Date: 9/30/2003	Run ID: 5973G_031001B
Client ID: ZZZZZ	Batch ID: 9650	TestNo: 8270SIM		Analysis Date: 10/1/2003	SeqNo: 216078

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	103.3	6.67	166.7	0	62	40.4	107	0	0		
Benzo(g,h,i)perylene	147.3	6.67	166.7	2	87.2	44.6	125	0	0		
Chrysene	134.7	6.67	166.7	0	80.8	59.9	121	0	0		
Naphthalene	88.67	6.67	166.7	6	49.6	33.5	96.1	0	0		
Phenanthrene	114	6.67	166.7	3.333	66.4	52.2	108	0	0		
Pyrene	132.7	6.67	166.7	2.667	78	53.8	120	0	0		

Sample ID LCS-9681	SampType: LCS	TestCode: PAHLL_S	Units: µg/Kg	Prep Date: 10/2/2003	Run ID: 5973G_031006B
Client ID: ZZZZZ	Batch ID: 9681	TestNo: 8270SIM		Analysis Date: 10/6/2003	SeqNo: 217124

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	98	6.67	166.7	0	58.8	40.4	107	0	0		
Benzo(g,h,i)perylene	132	6.67	166.7	0	79.2	44.6	125	0	0		
Chrysene	130.7	6.67	166.7	0	78.4	59.9	121	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019964

CLIENT: Time Oil Co.
Work Order: 0309196
Project: PHIII / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: PAHLL_S

Sample ID LCS-9681	SampType: LCS	TestCode: PAHLL_S	Units: µg/Kg	Prep Date: 10/2/2003	Run ID: 5973G_031006B
Client ID: ZZZZZ	Batch ID: 9681	TestNo: 8270SIM		Analysis Date: 10/6/2003	SeqNo: 217124

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	91.33	6.67	166.7	0	54.8	33.5	96.1	0	0		
Phenanthrene	110.7	6.67	166.7	0	66.4	52.2	108	0	0		
Pyrene	124.7	6.67	166.7	0	74.8	53.8	120	0	0		

Sample ID 0309132-04BMS	SampType: MS	TestCode: PAHLL_S	Units: µg/Kg	Prep Date: 9/30/2003	Run ID: 5973G_031001B
Client ID: ZZZZZ	Batch ID: 9650	TestNo: 8270SIM		Analysis Date: 10/1/2003	SeqNo: 216080

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	97.33	6.67	166.7	0	58.4	33.7	107	0	0		
Benzo(g,h,i)perylene	126	6.67	166.7	3.333	73.6	15	128	0	0		
Chrysene	120	6.67	166.7	2	70.8	37.5	125	0	0		
Naphthalene	84.67	6.67	166.7	0	50.8	27.7	108	0	0		
Phenanthrene	110.7	6.67	166.7	2.667	64.8	20.2	139	0	0		
Pyrene	124	6.67	166.7	4	72	26.8	134	0	0		

Sample ID 0310006-01AMS	SampType: MS	TestCode: PAHLL_S	Units: µg/Kg	Prep Date: 10/2/2003	Run ID: 5973G_031006B
Client ID: ZZZZZ	Batch ID: 9681	TestNo: 8270SIM		Analysis Date: 10/6/2003	SeqNo: 217137

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	97.33	6.67	166.7	0	58.4	33.7	107	0	0		
Benzo(g,h,i)perylene	152	6.67	166.7	22.67	77.6	15	128	0	0		
Chrysene	139.3	6.67	166.7	6	80	37.5	125	0	0		
Naphthalene	86	6.67	166.7	10	45.6	27.7	108	0	0		
Phenanthrene	120	6.67	166.7	2	70.8	20.2	139	0	0		
Pyrene	137.3	6.67	166.7	6.667	78.4	26.8	134	0	0		

Sample ID 0309132-04BMSD	SampType: MSD	TestCode: PAHLL_S	Units: µg/Kg	Prep Date: 9/30/2003	Run ID: 5973G_031001B
Client ID: ZZZZZ	Batch ID: 9650	TestNo: 8270SIM		Analysis Date: 10/1/2003	SeqNo: 216081

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	94.67	6.67	166.7	0	56.8	33.7	107	97.33	2.78	20	

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

BZTO104(e)019965

CLIENT: Time Oil Co.
Work Order: 0309196
Project: PHIII / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: PAHLL_S

Sample ID 0309132-04BMSD	SampType: MSD	TestCode: PAHLL_S	Units: µg/Kg	Prep Date: 9/30/2003	Run ID: 5973G_031001B
Client ID: ZZZZZ	Batch ID: 9650	TestNo: 8270SIM		Analysis Date: 10/1/2003	SeqNo: 216081

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzo(g,h,i)perylene	116.7	6.67	166.7	3.333	68	15	128	126	7.69	20	
Chrysene	113.3	6.67	166.7	2	66.8	37.5	125	120	5.71	20	
Naphthalene	82.67	6.67	166.7	0	49.6	27.7	108	84.67	2.39	20	
Phenanthrene	105.3	6.67	166.7	2.667	61.6	20.2	139	110.7	4.94	20	
Pyrene	117.3	6.67	166.7	4	68	26.8	134	124	5.52	20	

Sample ID 0310006-01AMSD	SampType MSD	TestCode: PAHLL_S	Units: µg/Kg	Prep Date: 10/2/2003	Run ID: 5973G_031006B
Client ID: ZZZZZ	Batch ID: 9681	TestNo: 8270SIM		Analysis Date: 10/6/2003	SeqNo: 217142

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	96.67	6.67	166.7	0	58	33.7	107	97.33	0.687	20	
Benzo(g,h,i)perylene	144.7	6.67	166.7	22.67	73.2	15	128	152	4.94	20	
Chrysene	130	6.67	166.7	6	74.4	37.5	125	139.3	6.93	20	
Naphthalene	82	6.67	166.7	10	43.2	27.7	108	86	4.76	20	
Phenanthrene	118.7	6.67	166.7	2	70	20.2	139	120	1.12	20	
Pyrene	130.7	6.67	166.7	6.667	74.4	26.8	134	137.3	4.98	20	

Sample ID CCV-9650	SampType: CCV	TestCode: PAHLL_S	Units: µg/Kg	Prep Date:	Run ID: 5973G_031001B
Client ID: ZZZZZ	Batch ID: 9650	TestNo: 8270SIM		Analysis Date: 10/1/2003	SeqNo: 216077

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	128.7	6.67	133.3	0	96.5	70	130	0	0		
Acenaphthylene	146.7	6.67	133.3	0	110	70	130	0	0		
Anthracene	144.7	6.67	133.3	0	108	70	130	0	0		
Benz(a)anthracene	138.7	6.67	133.3	0	104	70	130	0	0		
Benzo(a)pyrene	149.3	6.67	133.3	0	112	70	130	0	0		
Benzo(b)fluoranthene	144	6.67	133.3	0	108	70	130	0	0		
Benzo(g,h,i)perylene	155.3	6.67	133.3	0	116	70	130	0	0		
Benzo(k)fluoranthene	138	6.67	133.3	0	104	70	130	0	0		
Chrysene	134	6.67	133.3	0	101	70	130	0	0		
Dibenz(a,h)anthracene	154	6.67	133.3	0	116	70	130	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

BZTO104(e)019966

CLIENT: Time Oil Co.
Work Order: 0309196
Project: PHIII / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: PAHLL_S

Sample ID CCV-9650	SampType: CCV	TestCode: PAHLL_S	Units: µg/Kg	Prep Date:	Run ID: 5973G_031001B
Client ID: ZZZZZ	Batch ID: 9650	TestNo: 8270SIM		Analysis Date: 10/1/2003	SeqNo: 216077

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoranthene	136	6.67	133.3	0	102	70	130	0	0		
Fluorene	146.7	6.67	133.3	0	110	70	130	0	0		
Indeno(1,2,3-cd)pyrene	157.3	6.67	133.3	0	118	70	130	0	0		
Naphthalene	126.7	6.67	133.3	0	95	70	130	0	0		
Phenanthrene	129.3	6.67	133.3	0	97	70	130	0	0		
Pyrene	145.3	6.67	133.3	0	109	70	130	0	0		

Sample ID CCV-9681	SampType: CCV	TestCode: PAHLL_S	Units: µg/Kg	Prep Date:	Run ID: 5973G_031006B
Client ID: ZZZZZ	Batch ID: 9681	TestNo: 8270SIM		Analysis Date: 10/6/2003	SeqNo: 217123

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	142	6.67	133.3	0	106	70	130	0	0		
Acenaphthylene	157.3	6.67	133.3	0	118	70	130	0	0		
Anthracene	162	6.67	133.3	0	122	70	130	0	0		
Benz(a)anthracene	147.3	6.67	133.3	0	110	70	130	0	0		
Benzo(a)pyrene	160	6.67	133.3	0	120	70	130	0	0		
Benzo(b)fluoranthene	148	6.67	133.3	0	111	70	130	0	0		
Benzo(g,h,i)perylene	160	6.67	133.3	0	120	70	130	0	0		
Benzo(k)fluoranthene	151.3	6.67	133.3	0	114	70	130	0	0		
Chrysene	149.3	6.67	133.3	0	112	70	130	0	0		
Dibenz(a,h)anthracene	160.7	6.67	133.3	0	120	70	130	0	0		
Fluoranthene	156	6.67	133.3	0	117	70	130	0	0		
Fluorene	164.7	6.67	133.3	0	124	70	130	0	0		
Indeno(1,2,3-cd)pyrene	164	6.67	133.3	0	123	70	130	0	0		
Naphthalene	135.3	6.67	133.3	0	102	70	130	0	0		
Phenanthrene	144.7	6.67	133.3	0	108	70	130	0	0		
Pyrene	152.7	6.67	133.3	0	114	70	130	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

BZTO104(e)019967

Specialty Analytical

19761 S.W. 95th Place
Tualatin, OR 97062
(503) 612-9007
Fax (503) 612-8572
1 (877) 612-9007

LANDAU Received NOV 17 2003 ASSOCIATES

October 22, 2003

Kevin Murphy
Time Oil Co.
2737 West Commodore Way
Seattle, WA 981991233

TEL: 206-286-6443
FAX (206) 285-7833

RE: PHIII Well Install / 231009.31

Order No.: 0310011

Dear Kevin Murphy:

Specialty Analytical received 6 samples on 10/1/2003 for the analyses presented in the following report.

There were no problems with the analysis and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative, or as qualified with flags. Results apply only to the samples analyzed. Without approval of the laboratory, the reproduction of this report is only permitted in its entirety.

If you have any questions regarding these tests, please feel free to call.

Sincerely,

For Dan Marrin
Project Manager

Technical Review

CC:
Rebekah Brooks @ Landau Associates

☐ Seattle (Edmonds) (425) 778-0907
☐ Tacoma (253) 926-2493
☐ Spokane (509) 327-9737
☐ Portland (Lake Oswego) (503) 443-6010
☐ _____

Landau Associates

0310011

Date 9/30/03
Page 1 of 1

Chain-of-Custody Record

Project Name: PETTI WELL INSTALLS Project No: 031009.31
Project Location/Event: NW TERMINAL TIME OIL
Sampler's Name: CHRISTY JOHNSON
Project Contact: STACY FISCHER
Send Results To: REBEKAH BROOKS & KEOM MORRAY (TIME OIL)

Turnaround Time: ☑ Standard ☐ Accelerated ☐ _____

Testing Parameters

Sample I.D.	Date	Time	Matrix	No. of Containers	NWTPH-DX	NWTPH-G	BETX	PAH	MTBE	LEAD	EDB	EDC	Observations/Comments
LW020d (12-13)	9/30/03	1000	SOIL	2	/	/	/	/	/	/	/	/	
LW035 (27-28)	10/1/03	1015	↓	↓	/	/	/	/	/	/	/	/	
LW035 (29-29.5)	↓	1045	↓	↓	/	/	/	/	/	/	/	/	
LW035 (30-31)	↓	1050	↓	↓	/	/	/	/	/	/	/	/	
LW028S (12-13)	↓	1335	↓	↓	/	/	/	/	/	/	/	/	
LW031S (15-16)	↓	1510	↓	↓	/	/	/	/	/	/	/	/	

Special Shipment/Handling or Storage Requirements: STORED ON ICE

Method of Shipment: HAND DELIVERED

Relinquished by	Received by	Relinquished by	Received by
Signature: [signature]	Signature: Cindy Hillyard	Signature:	Signature:
Printed Name: CHRISTY JOHNSON	Printed Name: Cindy Hillyard	Printed Name:	Printed Name:
Company: LANDAU ASSOC	Company: Specialty	Company:	Company:
Date: 10/1/03 Time: 1655	Date: 10/1/03 Time: 16:59	Date: Time:	Date: Time:

WHITE COPY - Project File YELLOW COPY - Laboratory PINK COPY - Client Representative

BZTO104(e)019969

Specialty Analytical

Date: *22-Oct-03*

CLIENT:	Time Oil Co.	**Client Sample ID:**	LW020d (12-13)
Lab Order:	0310011	**Collection Date:**	9/30/2003 10:00:00 AM
Project:	PHIII Well Install / 231009.31		
Lab ID:	0310011-01	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **btf**
Diesel	13700	183		mg/Kg-dry	10	10/7/2003
Lube Oil	ND	611	A3	mg/Kg-dry	10	10/7/2003
Surr: o-Terphenyl	724	50-150	S,D	%REC	10	10/7/2003
NWTPH-GX		**NWTPH-GX**				Analyst: **btf**
Gasoline	2310	76.4		mg/Kg-dry	25	10/6/2003
Surr: 4-Bromofluorobenzene	23.3	50-150	S,D	%REC	25	10/6/2003
TOTAL METALS BY ICP		**E6010**				Analyst: **tlf**
Lead	ND	2.44		mg/Kg-dry	1	10/2/2003 10:58:56 PM
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	1140	33.3		µg/Kg	5	10/8/2003 9:12:00 AM
Acenaphthylene	533	33.3		µg/Kg	5	10/8/2003 9:12:00 AM
Anthracene	800	33.3		µg/Kg	5	10/8/2003 9:12:00 AM
Benz(a)anthracene	78.0	6.67		µg/Kg	1	10/7/2003 8:20:00 PM
Benzo(a)pyrene	49.3	6.67		µg/Kg	1	10/7/2003 8:20:00 PM
Benzo(b)fluoranthene	54.0	6.67		µg/Kg	1	10/7/2003 8:20:00 PM
Benzo(g,h,i)perylene	24.0	6.67		µg/Kg	1	10/7/2003 8:20:00 PM
Benzo(k)fluoranthene	17.3	6.67		µg/Kg	1	10/7/2003 8:20:00 PM
Chrysene	81.3	6.67		µg/Kg	1	10/7/2003 8:20:00 PM
Dibenz(a,h)anthracene	ND	6.67		µg/Kg	1	10/7/2003 8:20:00 PM
Fluoranthene	170	33.3		µg/Kg	5	10/8/2003 9:12:00 AM
Fluorene	4060	33.3		µg/Kg	5	10/8/2003 9:12:00 AM
Indeno(1,2,3-cd)pyrene	20.7	6.67		µg/Kg	1	10/7/2003 8:20:00 PM
Naphthalene	627	33.3		µg/Kg	5	10/8/2003 9:12:00 AM
Phenanthrene	5170	33.3		µg/Kg	5	10/8/2003 9:12:00 AM
Pyrene	443	33.3		µg/Kg	5	10/8/2003 9:12:00 AM
Surr: 2-Fluorobiphenyl	64.9	42.6-128	MI	%REC	1	10/7/2003 8:20:00 PM
Surr: Nitrobenzene-d5	169	21.7-155	S,E,MI	%REC	1	10/7/2003 8:20:00 PM
Surr: p-Terphenyl-d14	103	44.9-155		%REC	1	10/7/2003 8:20:00 PM
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
1,2,4-Trimethylbenzene	ND	10.0		µg/Kg	1	10/11/2003 6:23:00 AM
1,2-Dibromoethane	ND	10.0		µg/Kg	1	10/11/2003 6:23:00 AM
1,2-Dichloroethane	ND	10.0		µg/Kg	1	10/11/2003 6:23:00 AM
1,3,5-Trimethylbenzene	1110	100		µg/Kg	10	10/11/2003 2:59:00 AM
Benzene	ND	10.0		µg/Kg	1	10/11/2003 6:23:00 AM
Ethylbenzene	ND	10.0		µg/Kg	1	10/11/2003 6:23:00 AM
Isopropylbenzene	1160	100		µg/Kg	10	10/11/2003 2:59:00 AM
m,p-Xylene	ND	20.0		µg/Kg	1	10/11/2003 6:23:00 AM
Methyl tert-butyl ether	ND	10.0		µg/Kg	1	10/11/2003 6:23:00 AM
n-Propylbenzene	2520	100	E	µg/Kg	10	10/11/2003 2:59:00 AM

BZTO104(e)019970

Specialty Analytical

Date: *22-Oct-03*

CLIENT: Time Oil Co.
Lab Order: 0310011
Project: PHIII Well Install / 231009.31
Lab ID: 0310011-01

Client Sample ID: LW020d (12-13)
Collection Date: 9/30/2003 10:00:00 AM
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
o-Xylene	42.0	10.0		µg/Kg	1	10/11/2003 6:23:00 AM
Toluene	ND	10.0		µg/Kg	1	10/11/2003 6:23:00 AM
Surr: 1,2-Dichloroethane-d4	67.5	71.5-112	S,MI	%REC	1	10/11/2003 6:23:00 AM
Surr: 4-Bromofluorobenzene	383	75.7-122	S,E,MI	%REC	1	10/11/2003 6:23:00 AM
Surr: Dibromofluoromethane	67.4	64.3-124		%REC	1	10/11/2003 6:23:00 AM
Surr: Toluene-d8	127	74.9-120	S,MI	%REC	1	10/11/2003 6:23:00 AM

BZTO104(e)019971

Specialty Analytical

Date: *22-Oct-03*

CLIENT: Time Oil Co.
Client Sample ID: LW035 (27-28)
Lab Order: 0310011
Collection Date: 10/1/2003 10:15:00 AM
Project: PHIII Well Install / 231009.31
Lab ID: 0310011-02
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **btf**
Diesel	ND	16.5		mg/Kg-dry	1	10/6/2003
Lube Oil	ND	54.9		mg/Kg-dry	1	10/6/2003
Surr: o-Terphenyl	87.3	50-150		%REC	1	10/6/2003
NWTPH-GX		**NWTPH-GX**				Analyst: **btf**
Gasoline	12.7	2.75		mg/Kg-dry	1	10/6/2003
Surr: 4-Bromofluorobenzene	96.8	50-150		%REC	1	10/6/2003
TOTAL METALS BY ICP		**E6010**				Analyst: **tlf**
Lead	ND	2.20		mg/Kg-dry	1	10/2/2003 11:48:40 PM
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	ND	6.67		µg/Kg	1	10/7/2003 8:53:00 PM
Acenaphthylene	ND	6.67		µg/Kg	1	10/7/2003 8:53:00 PM
Anthracene	ND	6.67		µg/Kg	1	10/7/2003 8:53:00 PM
Benz(a)anthracene	14.7	6.67		µg/Kg	1	10/7/2003 8:53:00 PM
Benzo(a)pyrene	12.7	6.67		µg/Kg	1	10/7/2003 8:53:00 PM
Benzo(b)fluoranthene	14.7	6.67		µg/Kg	1	10/7/2003 8:53:00 PM
Benzo(g,h,i)perylene	7.33	6.67		µg/Kg	1	10/7/2003 8:53:00 PM
Benzo(k)fluoranthene	ND	6.67		µg/Kg	1	10/7/2003 8:53:00 PM
Chrysene	14.0	6.67		µg/Kg	1	10/7/2003 8:53:00 PM
Dibenz(a,h)anthracene	ND	6.67		µg/Kg	1	10/7/2003 8:53:00 PM
Fluoranthene	22.7	6.67		µg/Kg	1	10/7/2003 8:53:00 PM
Fluorene	ND	6.67		µg/Kg	1	10/7/2003 8:53:00 PM
Indeno(1,2,3-cd)pyrene	ND	6.67		µg/Kg	1	10/7/2003 8:53:00 PM
Naphthalene	ND	6.67		µg/Kg	1	10/7/2003 8:53:00 PM
Phenanthrene	14.7	6.67		µg/Kg	1	10/7/2003 8:53:00 PM
Pyrene	28.7	6.67		µg/Kg	1	10/7/2003 8:53:00 PM
Surr: 2-Fluorobiphenyl	99.5	42.6-128		%REC	1	10/7/2003 8:53:00 PM
Surr: Nitrobenzene-d5	92.1	21.7-155		%REC	1	10/7/2003 8:53:00 PM
Surr: p-Terphenyl-d14	93.3	44.9-155		%REC	1	10/7/2003 8:53:00 PM
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
1,2,4-Trimethylbenzene	ND	10.0		µg/Kg	1	10/10/2003 7:04:00 PM
1,2-Dibromoethane	ND	10.0		µg/Kg	1	10/10/2003 7:04:00 PM
1,2-Dichloroethane	ND	10.0		µg/Kg	1	10/10/2003 7:04:00 PM
1,3,5-Trimethylbenzene	ND	10.0		µg/Kg	1	10/10/2003 7:04:00 PM
Benzene	ND	10.0		µg/Kg	1	10/10/2003 7:04:00 PM
Ethylbenzene	ND	10.0		µg/Kg	1	10/10/2003 7:04:00 PM
Isopropylbenzene	ND	10.0		µg/Kg	1	10/10/2003 7:04:00 PM
m,p-Xylene	ND	20.0		µg/Kg	1	10/10/2003 7:04:00 PM
Methyl tert-butyl ether	ND	10.0		µg/Kg	1	10/10/2003 7:04:00 PM
n-Propylbenzene	ND	10.0		µg/Kg	1	10/10/2003 7:04:00 PM

BZTO104(e)019972

Specialty Analytical

Date: *22-Oct-03*

CLIENT: Time Oil Co.
Lab Order: 0310011
Project: PHIII Well Install / 231009.31
Lab ID: 0310011-02

Client Sample ID: LW035 (27-28)
Collection Date: 10/1/2003 10:15:00 AM
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
o-Xylene	ND	10.0		µg/Kg	1	10/10/2003 7:04:00 PM
Toluene	ND	10.0		µg/Kg	1	10/10/2003 7:04:00 PM
Surr: 1,2-Dichloroethane-d4	77.6	71.5-112		%REC	1	10/10/2003 7:04:00 PM
Surr: 4-Bromofluorobenzene	104	75.7-122		%REC	1	10/10/2003 7:04:00 PM
Surr: Dibromofluoromethane	91.8	64.3-124		%REC	1	10/10/2003 7:04:00 PM
Surr: Toluene-d8	109	74.9-120		%REC	1	10/10/2003 7:04:00 PM

BZTO104(e)019973

Specialty Analytical

Date: *22-Oct-03*

CLIENT: Time Oil Co.
Client Sample ID: LW035 (29-29.5)
Lab Order: 0310011
Collection Date: 10/1/2003 10:45:00 AM
Project: PHIII Well Install / 231009.31
Lab ID: 0310011-03
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **btf**
Diesel	ND	19.7		mg/Kg-dry	1	10/6/2003
Lube Oil	ND	65.8		mg/Kg-dry	1	10/6/2003
Surr: o-Terphenyl	62.4	50-150		%REC	1	10/6/2003
NWTPH-GX		**NWTPH-GX**				Analyst: **btf**
Gasoline	7.28	3.29		mg/Kg-dry	1	10/6/2003
Surr: 4-Bromofluorobenzene	89.6	50-150		%REC	1	10/6/2003
TOTAL METALS BY ICP		**E6010**				Analyst: **tlf**
Lead	ND	2.63		mg/Kg-dry	1	10/2/2003 11:54:10 PM
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	ND	6.67		µg/Kg	1	10/7/2003 9:26:00 PM
Acenaphthylene	10.0	6.67		µg/Kg	1	10/7/2003 9:26:00 PM
Anthracene	36.0	6.67		µg/Kg	1	10/7/2003 9:26:00 PM
Benz(a)anthracene	48.7	6.67		µg/Kg	1	10/7/2003 9:26:00 PM
Benzo(a)pyrene	49.3	6.67		µg/Kg	1	10/7/2003 9:26:00 PM
Benzo(b)fluoranthene	40.0	6.67		µg/Kg	1	10/7/2003 9:26:00 PM
Benzo(g,h,i)perylene	23.3	6.67		µg/Kg	1	10/7/2003 9:26:00 PM
Benzo(k)fluoranthene	14.7	6.67		µg/Kg	1	10/7/2003 9:26:00 PM
Chrysene	43.3	6.67		µg/Kg	1	10/7/2003 9:26:00 PM
Dibenz(a,h)anthracene	ND	6.67		µg/Kg	1	10/7/2003 9:26:00 PM
Fluoranthene	78.0	6.67		µg/Kg	1	10/7/2003 9:26:00 PM
Fluorene	ND	6.67		µg/Kg	1	10/7/2003 9:26:00 PM
Indeno(1,2,3-cd)pyrene	19.3	6.67		µg/Kg	1	10/7/2003 9:26:00 PM
Naphthalene	ND	6.67		µg/Kg	1	10/7/2003 9:26:00 PM
Phenanthrene	44.7	6.67		µg/Kg	1	10/7/2003 9:26:00 PM
Pyrene	107	6.67		µg/Kg	1	10/7/2003 9:26:00 PM
Surr: 2-Fluorobiphenyl	76.6	42.6-128		%REC	1	10/7/2003 9:26:00 PM
Surr: Nitrobenzene-d5	80.3	21.7-155		%REC	1	10/7/2003 9:26:00 PM
Surr: p-Terphenyl-d14	91.5	44.9-155		%REC	1	10/7/2003 9:26:00 PM
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
1,2,4-Trimethylbenzene	ND	10.0		µg/Kg	1	10/10/2003 6:30:00 PM
1,2-Dibromoethane	ND	10.0		µg/Kg	1	10/10/2003 6:30:00 PM
1,2-Dichloroethane	ND	10.0		µg/Kg	1	10/10/2003 6:30:00 PM
1,3,5-Trimethylbenzene	ND	10.0		µg/Kg	1	10/10/2003 6:30:00 PM
Benzene	ND	10.0		µg/Kg	1	10/10/2003 6:30:00 PM
Ethylbenzene	ND	10.0		µg/Kg	1	10/10/2003 6:30:00 PM
Isopropylbenzene	ND	10.0		µg/Kg	1	10/10/2003 6:30:00 PM
m,p-Xylene	ND	20.0		µg/Kg	1	10/10/2003 6:30:00 PM
Methyl tert-butyl ether	ND	10.0		µg/Kg	1	10/10/2003 6:30:00 PM
n-Propylbenzene	ND	10.0		µg/Kg	1	10/10/2003 6:30:00 PM

BZTO104(e)019974

Specialty Analytical

Date: *22-Oct-03*

CLIENT:	Time Oil Co.	**Client Sample ID:**	LW035 (29-29.5)
Lab Order:	0310011	**Collection Date:**	10/1/2003 10:45:00 AM
Project:	PHIII Well Install / 231009.31		
Lab ID:	0310011-03	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
o-Xylene	ND	10.0		µg/Kg	1	10/10/2003 6:30:00 PM
Toluene	ND	10.0		µg/Kg	1	10/10/2003 6:30:00 PM
Surr: 1,2-Dichloroethane-d4	80.2	71.5-112		%REC	1	10/10/2003 6:30:00 PM
Surr: 4-Bromofluorobenzene	103	75.7-122		%REC	1	10/10/2003 6:30:00 PM
Surr: Dibromofluoromethane	95.0	64.3-124		%REC	1	10/10/2003 6:30:00 PM
Surr: Toluene-d8	106	74.9-120		%REC	1	10/10/2003 6:30:00 PM

BZTO104(e)019975

Specialty Analytical

Date: *22-Oct-03*

CLIENT: Time Oil Co.
Client Sample ID: LW035 (30-31)
Lab Order: 0310011
Collection Date: 10/1/2003 10:50:00 AM
Project: PHIII Well Install / 231009.31
Lab ID: 0310011-04
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **btf**
Diesel	44.3	21.0		mg/Kg-dry	1	10/6/2003
Lube Oil	92.3	70.0		mg/Kg-dry	1	10/6/2003
Surr: o-Terphenyl	78.0	50-150		%REC	1	10/6/2003
NWTPH-GX		**NWTPH-GX**				Analyst: **btf**
Gasoline	5.07	3.50		mg/Kg-dry	1	10/6/2003
Surr: 4-Bromofluorobenzene	84.9	50-150		%REC	1	10/6/2003
TOTAL METALS BY ICP		**E6010**				Analyst: **tlf**
Lead	4.38	2.80		mg/Kg-dry	1	10/2/2003 11:59:39 PM
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	10.7	6.67		µg/Kg	1	10/7/2003 9:58:00 PM
Acenaphthylene	43.3	6.67		µg/Kg	1	10/7/2003 9:58:00 PM
Anthracene	78.0	6.67		µg/Kg	1	10/7/2003 9:58:00 PM
Benz(a)anthracene	104	6.67		µg/Kg	1	10/7/2003 9:58:00 PM
Benzo(a)pyrene	115	6.67		µg/Kg	1	10/7/2003 9:58:00 PM
Benzo(b)fluoranthene	94.0	6.67		µg/Kg	1	10/7/2003 9:58:00 PM
Benzo(g,h,i)perylene	66.7	6.67		µg/Kg	1	10/7/2003 9:58:00 PM
Benzo(k)fluoranthene	30.0	6.67		µg/Kg	1	10/7/2003 9:58:00 PM
Chrysene	91.3	6.67		µg/Kg	1	10/7/2003 9:58:00 PM
Dibenz(a,h)anthracene	11.3	6.67		µg/Kg	1	10/7/2003 9:58:00 PM
Fluoranthene	205	6.67		µg/Kg	1	10/7/2003 9:58:00 PM
Fluorene	20.7	6.67		µg/Kg	1	10/7/2003 9:58:00 PM
Indeno(1,2,3-cd)pyrene	49.3	6.67		µg/Kg	1	10/7/2003 9:58:00 PM
Naphthalene	49.3	6.67		µg/Kg	1	10/7/2003 9:58:00 PM
Phenanthrene	161	6.67		µg/Kg	1	10/7/2003 9:58:00 PM
Pyrene	270	6.67		µg/Kg	1	10/7/2003 9:58:00 PM
Surr: 2-Fluorobiphenyl	72.6	42.6-128		%REC	1	10/7/2003 9:58:00 PM
Surr: Nitrobenzene-d5	63.6	21.7-155		%REC	1	10/7/2003 9:58:00 PM
Surr: p-Terphenyl-d14	75.8	44.9-155		%REC	1	10/7/2003 9:58:00 PM
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
1,2,4-Trimethylbenzene	ND	10.0		µg/Kg	1	10/10/2003 5:56:00 PM
1,2-Dibromoethane	ND	10.0		µg/Kg	1	10/10/2003 5:56:00 PM
1,2-Dichloroethane	ND	10.0		µg/Kg	1	10/10/2003 5:56:00 PM
1,3,5-Trimethylbenzene	ND	10.0		µg/Kg	1	10/10/2003 5:56:00 PM
Benzene	ND	10.0		µg/Kg	1	10/10/2003 5:56:00 PM
Ethylbenzene	ND	10.0		µg/Kg	1	10/10/2003 5:56:00 PM
Isopropylbenzene	ND	10.0		µg/Kg	1	10/10/2003 5:56:00 PM
m,p-Xylene	ND	20.0		µg/Kg	1	10/10/2003 5:56:00 PM
Methyl tert-butyl ether	ND	10.0		µg/Kg	1	10/10/2003 5:56:00 PM
n-Propylbenzene	ND	10.0		µg/Kg	1	10/10/2003 5:56:00 PM

BZTO104(e)019976

Specialty Analytical

Date: *22-Oct-03*

CLIENT:	Time Oil Co.	**Client Sample ID:**	LW035 (30-31)
Lab Order:	0310011	**Collection Date:**	10/1/2003 10:50:00 AM
Project:	PHIII Well Install / 231009.31		
Lab ID:	0310011-04	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
o-Xylene	ND	10.0		µg/Kg	1	10/10/2003 5:56:00 PM
Toluene	ND	10.0		µg/Kg	1	10/10/2003 5:56:00 PM
Surr: 1,2-Dichloroethane-d4	75.2	71.5-112		%REC	1	10/10/2003 5:56:00 PM
Surr: 4-Bromofluorobenzene	99.6	75.7-122		%REC	1	10/10/2003 5:56:00 PM
Surr: Dibromofluoromethane	93.0	64.3-124		%REC	1	10/10/2003 5:56:00 PM
Surr: Toluene-d8	109	74.9-120		%REC	1	10/10/2003 5:56:00 PM

BZTO104(e)019977

Specialty Analytical

Date: *22-Oct-03*

CLIENT: Time Oil Co.
Client Sample ID: LW028s (12-13)
Lab Order: 0310011
Collection Date: 10/1/2003 1:35:00 PM
Project: PHIII Well Install / 231009.31
Lab ID: 0310011-05
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **btf**
Diesel	ND	18.1		mg/Kg-dry	1	10/6/2003
Lube Oil	ND	60.5		mg/Kg-dry	1	10/6/2003
Surr: o-Terphenyl	73.7	50-150		%REC	1	10/6/2003
NWTPH-GX		**NWTPH-GX**				Analyst: **btf**
Gasoline	3.66	3.02		mg/Kg-dry	1	10/6/2003
Surr: 4-Bromofluorobenzene	93.3	50-150		%REC	1	10/6/2003
TOTAL METALS BY ICP		**E6010**				Analyst: **tlf**
Lead	ND	2.42		mg/Kg-dry	1	10/3/2003 12:05:09 AM
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	ND	6.67		µg/Kg	1	10/7/2003 10:31:00 PM
Acenaphthylene	ND	6.67		µg/Kg	1	10/7/2003 10:31:00 PM
Anthracene	ND	6.67		µg/Kg	1	10/7/2003 10:31:00 PM
Benz(a)anthracene	ND	6.67		µg/Kg	1	10/7/2003 10:31:00 PM
Benzo(a)pyrene	ND	6.67		µg/Kg	1	10/7/2003 10:31:00 PM
Benzo(b)fluoranthene	ND	6.67		µg/Kg	1	10/7/2003 10:31:00 PM
Benzo(g,h,i)perylene	ND	6.67		µg/Kg	1	10/7/2003 10:31:00 PM
Benzo(k)fluoranthene	ND	6.67		µg/Kg	1	10/7/2003 10:31:00 PM
Chrysene	ND	6.67		µg/Kg	1	10/7/2003 10:31:00 PM
Dibenz(a,h)anthracene	ND	6.67		µg/Kg	1	10/7/2003 10:31:00 PM
Fluoranthene	ND	6.67		µg/Kg	1	10/7/2003 10:31:00 PM
Fluorene	ND	6.67		µg/Kg	1	10/7/2003 10:31:00 PM
Indeno(1,2,3-cd)pyrene	ND	6.67		µg/Kg	1	10/7/2003 10:31:00 PM
Naphthalene	ND	6.67		µg/Kg	1	10/7/2003 10:31:00 PM
Phenanthrene	ND	6.67		µg/Kg	1	10/7/2003 10:31:00 PM
Pyrene	ND	6.67		µg/Kg	1	10/7/2003 10:31:00 PM
Surr: 2-Fluorobiphenyl	82.6	42.6-128		%REC	1	10/7/2003 10:31:00 PM
Surr: Nitrobenzene-d5	79.9	21.7-155		%REC	1	10/7/2003 10:31:00 PM
Surr: p-Terphenyl-d14	90.0	44.9-155		%REC	1	10/7/2003 10:31:00 PM
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
1,2,4-Trimethylbenzene	ND	10.0		µg/Kg	1	10/10/2003 5:22:00 PM
1,2-Dibromoethane	ND	10.0		µg/Kg	1	10/10/2003 5:22:00 PM
1,2-Dichloroethane	ND	10.0		µg/Kg	1	10/10/2003 5:22:00 PM
1,3,5-Trimethylbenzene	ND	10.0		µg/Kg	1	10/10/2003 5:22:00 PM
Benzene	ND	10.0		µg/Kg	1	10/10/2003 5:22:00 PM
Ethylbenzene	ND	10.0		µg/Kg	1	10/10/2003 5:22:00 PM
Isopropylbenzene	ND	10.0		µg/Kg	1	10/10/2003 5:22:00 PM
m,p-Xylene	ND	20.0		µg/Kg	1	10/10/2003 5:22:00 PM
Methyl tert-butyl ether	ND	10.0		µg/Kg	1	10/10/2003 5:22:00 PM
n-Propylbenzene	ND	10.0		µg/Kg	1	10/10/2003 5:22:00 PM

BZTO104(e)019978

Specialty Analytical

Date: *22-Oct-03*

CLIENT: Time Oil Co.
Lab Order: 0310011
Project: PHIII Well Install / 231009.31
Lab ID: 0310011-05

Client Sample ID: LW028s (12-13)
Collection Date: 10/1/2003 1:35:00 PM
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
o-Xylene	ND	10.0		µg/Kg	1	10/10/2003 5:22:00 PM
Toluene	ND	10.0		µg/Kg	1	10/10/2003 5:22:00 PM
Surr: 1,2-Dichloroethane-d4	79.6	71.5-112		%REC	1	10/10/2003 5:22:00 PM
Surr: 4-Bromofluorobenzene	103	75.7-122		%REC	1	10/10/2003 5:22:00 PM
Surr: Dibromofluoromethane	94.5	64.3-124		%REC	1	10/10/2003 5:22:00 PM
Surr: Toluene-d8	109	74.9-120		%REC	1	10/10/2003 5:22:00 PM

BZTO104(e)019979

Specialty Analytical

Date: *22-Oct-03*

CLIENT: Time Oil Co.
Client Sample ID: LW031s (15-16)
Lab Order: 0310011
Collection Date: 10/1/2003 3:10:00 PM
Project: PHIII Well Install / 231009.31
Lab ID: 0310011-06
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **btf**
Diesel	ND	18.4		mg/Kg-dry	1	10/6/2003
Lube Oil	ND	61.3		mg/Kg-dry	1	10/6/2003
Surr: o-Terphenyl	68.7	50-150		%REC	1	10/6/2003
NWTPH-GX		**NWTPH-GX**				Analyst: **btf**
Gasoline	ND	3.07		mg/Kg-dry	1	10/6/2003
Surr: 4-Bromofluorobenzene	88.3	50-150		%REC	1	10/6/2003
TOTAL METALS BY ICP		**E6010**				Analyst: **tlf**
Lead	ND	2.45		mg/Kg-dry	1	10/3/2003 12:10:39 AM
PAH'S BY GC/MS-OARSIM		**8270SIM**				Analyst: **bda**
Acenaphthene	ND	6.67		µg/Kg	1	10/7/2003 11:03:00 PM
Acenaphthylene	ND	6.67		µg/Kg	1	10/7/2003 11:03:00 PM
Anthracene	ND	6.67		µg/Kg	1	10/7/2003 11:03:00 PM
Benz(a)anthracene	ND	6.67		µg/Kg	1	10/7/2003 11:03:00 PM
Benzo(a)pyrene	ND	6.67		µg/Kg	1	10/7/2003 11:03:00 PM
Benzo(b)fluoranthene	ND	6.67		µg/Kg	1	10/7/2003 11:03:00 PM
Benzo(g,h,i)perylene	ND	6.67		µg/Kg	1	10/7/2003 11:03:00 PM
Benzo(k)fluoranthene	ND	6.67		µg/Kg	1	10/7/2003 11:03:00 PM
Chrysene	ND	6.67		µg/Kg	1	10/7/2003 11:03:00 PM
Dibenz(a,h)anthracene	ND	6.67		µg/Kg	1	10/7/2003 11:03:00 PM
Fluoranthene	ND	6.67		µg/Kg	1	10/7/2003 11:03:00 PM
Fluorene	ND	6.67		µg/Kg	1	10/7/2003 11:03:00 PM
Indeno(1,2,3-cd)pyrene	ND	6.67		µg/Kg	1	10/7/2003 11:03:00 PM
Naphthalene	ND	6.67		µg/Kg	1	10/7/2003 11:03:00 PM
Phenanthrene	ND	6.67		µg/Kg	1	10/7/2003 11:03:00 PM
Pyrene	ND	6.67		µg/Kg	1	10/7/2003 11:03:00 PM
Surr: 2-Fluorobiphenyl	77.6	42.6-128		%REC	1	10/7/2003 11:03:00 PM
Surr: Nitrobenzene-d5	83.9	21.7-155		%REC	1	10/7/2003 11:03:00 PM
Surr: p-Terphenyl-d14	98.9	44.9-155		%REC	1	10/7/2003 11:03:00 PM
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
1,2,4-Trimethylbenzene	ND	10.0		µg/Kg	1	10/10/2003 4:48:00 PM
1,2-Dibromoethane	ND	10.0		µg/Kg	1	10/10/2003 4:48:00 PM
1,2-Dichloroethane	ND	10.0		µg/Kg	1	10/10/2003 4:48:00 PM
1,3,5-Trimethylbenzene	ND	10.0		µg/Kg	1	10/10/2003 4:48:00 PM
Benzene	ND	10.0		µg/Kg	1	10/10/2003 4:48:00 PM
Ethylbenzene	ND	10.0		µg/Kg	1	10/10/2003 4:48:00 PM
Isopropylbenzene	ND	10.0		µg/Kg	1	10/10/2003 4:48:00 PM
m,p-Xylene	ND	20.0		µg/Kg	1	10/10/2003 4:48:00 PM
Methyl tert-butyl ether	ND	10.0		µg/Kg	1	10/10/2003 4:48:00 PM
n-Propylbenzene	ND	10.0		µg/Kg	1	10/10/2003 4:48:00 PM

BZTO104(e)019980

Specialty Analytical

Date: *22-Oct-03*

CLIENT:	Time Oil Co.	**Client Sample ID:**	LW031s (15-16)
Lab Order:	0310011	**Collection Date:**	10/1/2003 3:10:00 PM
Project:	PHIII Well Install / 231009.31		
Lab ID:	0310011-06	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILES BY GC/MS		**SW8260B**				Analyst: **skc**
o-Xylene	ND	10.0		µg/Kg	1	10/10/2003 4:48:00 PM
Toluene	ND	10.0		µg/Kg	1	10/10/2003 4:48:00 PM
Surr: 1,2-Dichloroethane-d4	72.6	71.5-112		%REC	1	10/10/2003 4:48:00 PM
Surr: 4-Bromofluorobenzene	101	75.7-122		%REC	1	10/10/2003 4:48:00 PM
Surr: Dibromofluoromethane	88.6	64.3-124		%REC	1	10/10/2003 4:48:00 PM
Surr: Toluene-d8	106	74.9-120		%REC	1	10/10/2003 4:48:00 PM

BZTO104(e)019981

KEY TO FLAGS

A. This sample contains a Gasoline Range Organic not identified as a specific hydrocarbon product. The result was quantified against gasoline calibration standards.

A1. This sample contains a Diesel Range Organic not identified as a specific hydrocarbon product. The result was quantified against diesel calibration standards.

A2. This sample contains a Lube Oil Range Organic not identified as a specific hydrocarbon product. The result was quantified against lube oil calibration standards.

A3. Results determined to be non detect based on hydrocarbon pattern recognition. The product was carry-over from another hydrocarbon type.

B. The blank exhibited a positive result greater than the reporting limit for this compound.

C. The result confirmed by secondary column or GC/MS analysis.

CN. See case narrative.

CR. Result for this analyte maybe biased due to interferences. Confirmation by GC/MS or other technique is recommended.

D. Surrogate was diluted outside reporting range.

E. Result exceeds the calibration range for the compound. The result should be considered an estimate.

F. The positive result for this hydrocarbon is due to single component contamination. The product does not match any hydrocarbon in the fuels library.

G. Result may be biased high due to biogenic interferences. Silica gel clean-up recommended.

H. Sample was analyzed outside recommended holding times.

HT. At clients request, sample was analyzed outside method recommended holding time.

J. The result for this analyte is between the MDL and the PQL, and should be considered an estimated concentration.

K. Diesel result is biased high due to amount of oil contained in the sample.

L. Diesel result is biased high due to amount of gasoline contained in the sample.

M. Oil result is biased high due to amount of diesel contained in the sample.

MC. Sample concentration is greater than 4x the spiked value; the spiked value is considered insignificant.

MI. Outside control limits due to Matrix Interference.

MSA. Value determined by Method of Standard Addition.

N. Sample appears to contain biogenic material biasing quantification.

O. Laboratory Control Standard (LCS) exceeded laboratory control limits, meets CCV criteria. Data meets EPA requirements.

P. Detected levels of Methylene Chloride may be due to laboratory contamination, due to previous analysis or background levels.

Q. Detection limits elevated due to sample matrix.

R. RPD control limits were exceeded.

RF. Duplicate failed, due to result being at or near method reporting limit.

RP. Matrix spike values exceed established QC limits, post digestion spike is in control.

S. Recovery outside control limits.

*. The result for this parameter was greater than the maximum contaminant level or the TCLP regulatory limit.

rev. October 23, 2001

Specialty Analytical

Date: *22-Oct-03*

CLIENT: Time Oil Co.
Work Order: 0310011
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID	MBLK-9671	SampType:	MBLK	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	10/2/2003	Run ID:	TJA IRIS_031002D
Client ID:	ZZZZZ	Batch ID:	9671	TestNo:	E6010			Analysis Date:	10/2/2003	SeqNo:	216476

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	ND	0.100									
Chromium	ND	0.500									
Lead	ND	2.00									

Sample ID	MBLK-9671	SampType:	MBLK	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	10/2/2003	Run ID:	TJA IRIS_031003A
Client ID:	ZZZZZ	Batch ID:	9671	TestNo:	E6010			Analysis Date:	10/3/2003	SeqNo:	216646

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	2.00									
Barium	0.59	1.00									J
Selenium	ND	2.00									
Silver	ND	2.00									

Sample ID	ICB	SampType:	MBLK	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	10/2/2003	Run ID:	TJA IRIS_031003E
Client ID:	ZZZZZ	Batch ID:	9671	TestNo:	E6010			Analysis Date:	10/3/2003	SeqNo:	216992

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	2.00									
Barium	ND	1.00									
Chromium	ND	0.500									
Selenium	ND	2.00									
Silver	ND	2.00									

Sample ID	LCS-9671	SampType:	LCS	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	10/2/2003	Run ID:	TJA IRIS_031002D
Client ID:	ZZZZZ	Batch ID:	9671	TestNo:	E6010			Analysis Date:	10/2/2003	SeqNo:	216477

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	4.72	0.100	5	0	94.4	90.8	109	0	0		
Chromium	24.56	0.500	25	0	98.2	91.7	114	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019983

CLIENT: Time Oil Co.
Work Order: 0310011
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID	LCS-9671	SampType:	LCS	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	10/2/2003	Run ID:	TJA IRIS_031002D
Client ID:	ZZZZZ	Batch ID:	9671	TestNo:	E6010			Analysis Date:	10/2/2003	SeqNo:	216477

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	98.83	2.00	100	0	98.8	92.9	109	0	0		

Sample ID	LCS-9671	SampType:	LCS	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	10/2/2003	Run ID:	TJA IRIS_031003A
Client ID:	ZZZZZ	Batch ID:	9671	TestNo:	E6010			Analysis Date:	10/3/2003	SeqNo:	216647

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	88.6	2.00	100	0	88.6	87.6	110	0	0		
Barium	53.1	1.00	50	0.59	105	92.7	109	0	0		
Selenium	90.09	2.00	100	0	90.1	90.2	112	0	0		S
Silver	45	2.00	50	0	90	85.1	108	0	0		

Sample ID	0310011-01CMS	SampType:	MS	TestCode:	6010_S	Units:	mg/Kg-dry	Prep Date:	10/2/2003	Run ID:	TJA IRIS_031002D
Client ID:	LW020d (12-13)	Batch ID:	9671	TestNo:	E6010			Analysis Date:	10/2/2003	SeqNo:	216480

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	2.44	122.2	0	0	92.1	104	0	0		S

Sample ID	A0310011-01CMS	SampType:	MS	TestCode:	6010_S	Units:	mg/Kg-dry	Prep Date:	10/2/2003	Run ID:	TJA IRIS_031003A
Client ID:	ZZZZZ	Batch ID:	9671	TestNo:	E6010			Analysis Date:	10/3/2003	SeqNo:	216650

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	235.2	1.97	49.29	133.8	206	75	125	0	0		SE

Sample ID	A0310011-01CMS	SampType:	MS	TestCode:	6010_S	Units:	mg/Kg-dry	Prep Date:	10/2/2003	Run ID:	TJA IRIS_031003A
Client ID:	ZZZZZ	Batch ID:	9671	TestNo:	E6010			Analysis Date:	10/3/2003	SeqNo:	216654

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	90.94	1.97	98.59	1.861	90.4	86.1	109	0	0		
Selenium	90.22	1.97	98.59	0	91.5	77.7	116	0	0		
Silver	43.07	1.97	49.29	0	87.4	75	123	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

BZTO104(e)019984

CLIENT: Time Oil Co.
Work Order: 0310011
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID	0310011-01CMSD	SampType:	MSD	TestCode:	6010_S	Units:	mg/Kg-dry	Prep Date:	10/2/2003	Run ID:	TJA IRIS_031002D	
Client ID:	LW020d (12-13)	Batch ID:	9671	TestNo:	E6010			Analysis Date:	10/2/2003	SeqNo:	216482	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Lead	115	2.44	122.2	0	94	92.1	104	0	200	20	R	

Sample ID	A0310011-01CMSD	SampType:	MSD	TestCode:	6010_S	Units:	mg/Kg-dry	Prep Date:	10/2/2003	Run ID:	TJA IRIS_031003A	
Client ID:	ZZZZZ	Batch ID:	9671	TestNo:	E6010			Analysis Date:	10/3/2003	SeqNo:	216651	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Barium	239.8	2.04	50.94	133.8	208	75	125	235.2	1.93	20	SE	

Sample ID	A0310011-01CMSD	SampType:	MSD	TestCode:	6010_S	Units:	mg/Kg-dry	Prep Date:	10/2/2003	Run ID:	TJA IRIS_031003A	
Client ID:	ZZZZZ	Batch ID:	9671	TestNo:	E6010			Analysis Date:	10/3/2003	SeqNo:	216655	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Arsenic	98.39	2.04	101.9	1.861	94.8	86.1	109	90.94	7.87	20		
Selenium	96.95	2.04	101.9	0	95.2	77.7	116	90.22	7.20	20		
Silver	47.16	2.04	50.94	0	92.6	75	123	43.07	9.05	20		

Sample ID	0310011-01CDUP	SampType:	DUP	TestCode:	6010_S	Units:	mg/Kg	Prep Date:	10/2/2003	Run ID:	TJA IRIS_031002D	
Client ID:	LW020d (12-13)	Batch ID:	9671	TestNo:	E6010			Analysis Date:	10/2/2003	SeqNo:	216479	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Lead	ND	1.85	0	0	0	0	0	0	0	20		

Sample ID	A0310011-01CDUP	SampType:	DUP	TestCode:	6010_S	Units:	mg/Kg-dry	Prep Date:	10/2/2003	Run ID:	TJA IRIS_031003A	
Client ID:	ZZZZZ	Batch ID:	9671	TestNo:	E6010			Analysis Date:	10/3/2003	SeqNo:	216649	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Barium	170.4	2.26	0	0	0	0	0	133.8	24.1	20	R	

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

BZTO104(e)019985

CLIENT: Time Oil Co.
Work Order: 0310011
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID A0310011-01CDUP	SampType: DUP	TestCode: 6010_S	Units: mg/Kg-dry	Prep Date: 10/2/2003	Run ID: TJA IRIS_031003A
Client ID: ZZZZZ	Batch ID: 9671	TestNo: E6010		Analysis Date: 10/3/2003	SeqNo: 216653

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	2.241	2.26	0	0	0	0	0	1.861	0	20	J
Selenium	ND	2.26	0	0	0	0	0	0	0	20	
Silver	ND	2.26	0	0	0	0	0	0	0	20	

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/2/2003	Run ID: TJA IRIS_031002D
Client ID: ZZZZZ	Batch ID: 9671	TestNo: E6010		Analysis Date: 10/2/2003	SeqNo: 216475

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	4.85	0.100	5	0	97	90	110	0	0		
Chromium	23.99	0.500	25	0	96	90	110	0	0		
Lead	98.52	2.00	100	0	98.5	90	110	0	0		

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/2/2003	Run ID: TJA IRIS_031002D
Client ID: ZZZZZ	Batch ID: 9671	TestNo: E6010		Analysis Date: 10/2/2003	SeqNo: 216481

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	4.66	0.100	5	0	93.2	90	110	0	0		
Lead	94.13	2.00	100	0	94.1	90	110	0	0		

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/2/2003	Run ID: TJA IRIS_031002D
Client ID: ZZZZZ	Batch ID: 9671	TestNo: E6010		Analysis Date: 10/3/2003	SeqNo: 216492

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	4.63	0.100	5	0	92.6	90	110	0	0		
Chromium	25.52	0.500	25	0	102	90	110	0	0		
Lead	96.73	2.00	100	0	96.7	90	110	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

BZTO104(e)019986

CLIENT: Time Oil Co.
Work Order: 0310011
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/2/2003	Run ID: TJA IRIS_031002D
Client ID: ZZZZZ	Batch ID: 9671	TestNo: E6010		Analysis Date: 10/3/2003	SeqNo: 216499

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	4.62	0.100	5	0	92.4	90	110	0	0		
Chromium	24.33	0.500	25	0	97.3	90	110	0	0		
Lead	98.49	2.00	100	0	98.5	90	110	0	0		

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/2/2003	Run ID: TJA IRIS_031003A
Client ID: ZZZZZ	Batch ID: 9671	TestNo: E6010		Analysis Date: 10/3/2003	SeqNo: 216656

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	93.64	2.00	100	0	93.6	90	110	0	0		
Barium	53.68	1.00	50	0	107	90	110	0	0		
Cadmium	5.05	0.100	5	0	101	90	110	0	0		
Chromium	27.21	0.500	25	0	109	90	110	0	0		
Lead	103.3	2.00	100	0	103	90	110	0	0		
Selenium	93.55	2.00	100	0	93.6	90	110	0	0		
Silver	49.33	2.00	50	0	98.7	90	110	0	0		

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/2/2003	Run ID: TJA IRIS_031003A
Client ID: ZZZZZ	Batch ID: 9671	TestNo: E6010		Analysis Date: 10/3/2003	SeqNo: 216667

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	92.61	2.00	100	0	92.6	90	110	0	0		
Barium	51.7	1.00	50	0	103	90	110	0	0		
Selenium	94.6	2.00	100	0	94.6	90	110	0	0		
Silver	49.87	2.00	50	0	99.7	90	110	0	0		

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/2/2003	Run ID: TJA IRIS_031003E
Client ID: ZZZZZ	Batch ID: 9671	TestNo: E6010		Analysis Date: 10/3/2003	SeqNo: 216993

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	90.36	2.00	100	0	90.4	90	110	0	0		
Barium	50.31	1.00	50	0	101	90	110	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank
J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

BZTO104(e)019987

CLIENT: Time Oil Co.
Work Order: 0310011
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/2/2003	Run ID: TJA IRIS_031003E
Client ID: ZZZZZ	Batch ID: 9671	TestNo: E6010		Analysis Date: 10/3/2003	SeqNo: 216993

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	23.9	0.500	25	0	95.6	90	110	0	0		
Selenium	95.2	2.00	100	0	95.2	90	110	0	0		
Silver	48.83	2.00	50	0	97.7	90	110	0	0		

Sample ID CCV	SampType: CCV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/2/2003	Run ID: TJA IRIS_031003E
Client ID: ZZZZZ	Batch ID: 9671	TestNo: E6010		Analysis Date: 10/3/2003	SeqNo: 216996

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	93.83	2.00	100	0	93.8	90	110	0	0		
Barium	49.85	1.00	50	0	99.7	90	110	0	0		
Chromium	24.22	0.500	25	0	96.9	90	110	0	0		
Selenium	96.62	2.00	100	0	96.6	90	110	0	0		
Silver	50.27	2.00	50	0	101	90	110	0	0		

Sample ID ICV	SampType: ICV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/2/2003	Run ID: TJA IRIS_031002D
Client ID: ZZZZZ	Batch ID: 9671	TestNo: E6010		Analysis Date: 10/2/2003	SeqNo: 216474

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	4.77	0.100	5	0	95.4	90	110	0	0		
Chromium	25.01	0.500	25	0	100	90	110	0	0		
Lead	93.8	2.00	100	0	93.8	90	110	0	0		

Sample ID ICV	SampType: ICV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/2/2003	Run ID: TJA IRIS_031003A
Client ID: ZZZZZ	Batch ID: 9671	TestNo: E6010		Analysis Date: 10/3/2003	SeqNo: 216645

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	92.81	2.00	100	0	92.8	90	110	0	0		
Barium	50.13	1.00	50	0	100	90	110	0	0		
Cadmium	4.89	0.100	5	0	97.8	90	110	0	0		
Chromium	25.77	0.500	25	0	103	90	110	0	0		
Lead	100.1	2.00	100	0	100	90	110	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

BZTO104(e)019988

CLIENT: Time Oil Co.
Work Order: 0310011
Project: PHII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID: ICV	SampType: ICV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/2/2003	Run ID: TJA IRIS_031003A
Client ID: ZZZZZ	Batch ID: 9671	TestNo: E6010		Analysis Date: 10/3/2003	SeqNo: 216645

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	94.54	2.00	100	0	94.5	90	110	0	0		
Silver	49.25	2.00	50	0	98.5	90	110	0	0		

Sample ID: ICV	SampType: ICV	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/2/2003	Run ID: TJA IRIS_031003E
Client ID: ZZZZZ	Batch ID: 9671	TestNo: E6010		Analysis Date: 10/3/2003	SeqNo: 216991

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	96.56	2.00	100	0	96.6	90	110	0	0		
Barium	47.14	1.00	50	0	94.3	90	110	0	0		
Chromium	23.29	0.500	25	0	93.2	90	110	0	0		
Selenium	99.42	2.00	100	0	99.4	90	110	0	0		
Silver	49.3	2.00	50	0	98.5	90	110	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019989

CLIENT: Time Oil Co.
Work Order: 0310011
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S

Sample ID: MB	SampType: MBLK	TestCode: 8260_S	Units: µg/Kg	Prep Date: 10/10/2003	Run ID: 5973J_031010C
Client ID: ZZZZZ	Batch ID: 9743	TestNo: SW8260B		Analysis Date: 10/10/2003	SeqNo: 218571

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	10.0									
1,1,1-Trichloroethane	ND	10.0									
1,1,2,2-Tetrachloroethane	ND	10.0									
1,1,2-Trichloroethane	ND	10.0									
1,1-Dichloroethane	ND	10.0									
1,1-Dichloroethene	ND	10.0									
1,1-Dichloropropene	ND	10.0									
1,2,3-Trichlorobenzene	ND	10.0									
1,2,3-Trichloropropane	ND	10.0									
1,2,4-Trichlorobenzene	ND	10.0									
1,2,4-Trimethylbenzene	ND	10.0									
1,2-Dibromo-3-chloropropane	ND	10.0									
1,2-Dibromoethane	ND	10.0									
1,2-Dichlorobenzene	ND	10.0									
1,2-Dichloroethane	ND	10.0									
1,2-Dichloropropane	ND	10.0									
1,3,5-Trimethylbenzene	ND	10.0									
1,3-Dichlorobenzene	ND	10.0									
1,3-Dichloropropane	ND	10.0									
1,4-Dichlorobenzene	ND	10.0									
2,2-Dichloropropane	ND	10.0									
2-Butanone	ND	40.0									
2-Chlorotoluene	ND	10.0									
2-Hexanone	ND	20.0									
4-Chlorotoluene	ND	10.0									
4-Isopropyltoluene	ND	10.0									
4-Methyl-2-pentanone	ND	40.0									
Acetone	ND	100									
Benzene	ND	10.0									
Bromobenzene	ND	10.0									
Bromochloromethane	ND	10.0									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019990

CLIENT: Time Oil Co.
Work Order: 0310011
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S

Sample ID: MB	SampType: MBLK	TestCode: 8260_S	Units: µg/Kg	Prep Date: 10/10/2003	Run ID: 5973J_031010C
Client ID: ZZZZZ	Batch ID: 9743	TestNo: SW8260B		Analysis Date: 10/10/2003	SeqNo: 218571

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromodichloromethane	ND	10.0									
Bromoform	ND	10.0									
Bromomethane	ND	10.0									
Carbon disulfide	ND	10.0									
Carbon tetrachloride	ND	10.0									
Chlorobenzene	ND	10.0									
Chloroethane	ND	10.0									
Chloroform	ND	10.0									
Chloromethane	1.09	10.0									J
cis-1,2-Dichloroethene	ND	10.0									
cis-1,3-Dichloropropene	ND	10.0									
Dibromochloromethane	ND	10.0									
Dibromomethane	ND	10.0									
Dichlorodifluoromethane	ND	10.0									
Ethylbenzene	ND	10.0									
Hexachlorobutadiene	ND	10.0									
Isopropylbenzene	ND	10.0									
m,p-Xylene	ND	20.0									
Methyl tert-butyl ether	ND	10.0									
Methylene chloride	13.75	50.0									J
n-Butylbenzene	ND	10.0									
n-Propylbenzene	ND	10.0									
Naphthalene	ND	10.0									
o-Xylene	ND	10.0									
sec-Butylbenzene	ND	10.0									
Styrene	ND	10.0									
tert-Butylbenzene	ND	10.0									
Tetrachloroethene	ND	10.0									
Toluene	ND	10.0									
trans-1,2-Dichloroethene	ND	10.0									
trans-1,3-Dichloropropene	ND	10.0									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019991

CLIENT: Time Oil Co.
Work Order: 0310011
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S

Sample ID MB	SampType: MBLK	TestCode: 8260_S	Units: µg/Kg	Prep Date: 10/10/2003	Run ID: 5973J_031010C
Client ID: ZZZZZ	Batch ID: 9743	TestNo: SW8260B		Analysis Date: 10/10/2003	SeqNo: 218571

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichloroethene	ND	10.0									
Trichlorofluoromethane	ND	10.0									
Vinyl chloride	ND	10.0									
Surr: 1,2-Dichloroethane-d4	70.14	1.00	100	0	70.1	71.5	112	0	0		S
Surr: 4-Bromofluorobenzene	99.73	1.00	100	0	99.7	75.7	122	0	0		
Surr: Dibromofluoromethane	84.18	1.00	100	0	84.2	64.3	124	0	0		
Surr: Toluene-d8	107.6	1.00	100	0	108	74.9	120	0	0		

Sample ID LCS	SampType: LCS	TestCode: 8260_S	Units: µg/Kg	Prep Date: 10/10/2003	Run ID: 5973J_031010C
Client ID: ZZZZZ	Batch ID: 9743	TestNo: SW8260B		Analysis Date: 10/10/2003	SeqNo: 218570

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	96.32	10.0	80	0	120	65.4	133	0	0		
Benzene	79.21	10.0	80	0	99	78	123	0	0		
Chlorobenzene	97.26	10.0	80	0	122	79.5	125	0	0		
Toluene	81.77	10.0	80	0	102	77.5	132	0	0		
Trichloroethene	94.65	10.0	80	0	118	72.4	124	0	0		

Sample ID 0310041-01BMS	SampType: MS	TestCode: 8260_S	Units: µg/Kg	Prep Date: 10/10/2003	Run ID: 5973J_031010C
Client ID: ZZZZZ	Batch ID: 9743	TestNo: SW8260B		Analysis Date: 10/10/2003	SeqNo: 218578

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	36.95	10.0	40	0	92.4	69.2	158	0	0		
Benzene	29.46	10.0	40	0	73.6	71.7	147	0	0		
Chlorobenzene	47.58	10.0	40	0	119	85.6	148	0	0		
Toluene	34.46	10.0	40	0	86.2	75.8	153	0	0		
Trichloroethene	34.18	10.0	40	1.53	81.6	77.1	138	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

BZTO104(e)019992

CLIENT: Time Oil Co.
Work Order: 0310011
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S

Sample ID 0310041-01BMSD	SampType: MSD	TestCode: 8260_S	Units: µg/Kg	Prep Date: 10/10/2003	Run ID: 5973J_031010C
Client ID: ZZZZZ	Batch ID: 9743	TestNo: SW8260B		Analysis Date: 10/10/2003	SeqNo: 218579

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	39.11	10.0	40	0	97.8	69.2	158	36.95	5.68	20	
Benzene	34.02	10.0	40	0	85	71.7	147	29.46	14.4	20	
Chlorobenzene	45.79	10.0	40	0	114	85.6	148	47.58	3.83	20	
Toluene	36.29	10.0	40	0	90.7	75.8	153	34.46	5.17	20	
Trichloroethene	39.79	10.0	40	1.53	95.7	77.1	138	34.18	15.2	20	

Sample ID CCV	SampType: CCV	TestCode: 8260_S	Units: µg/Kg	Prep Date: 10/10/2003	Run ID: 5973J_031010C
Client ID: ZZZZZ	Batch ID: 9743	TestNo: SW8260B		Analysis Date: 10/10/2003	SeqNo: 218589

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	49.34	10.0	60	0	82.2	80	120	0	0		
1,2-Dichloropropane	54.98	10.0	60	0	91.6	80	120	0	0		
Chloroform	50.62	10.0	60	0	84.4	80	120	0	0		
Ethylbenzene	53.86	10.0	60	0	89.8	80	120	0	0		
Toluene	49.79	10.0	60	0	83	80	120	0	0		
Vinyl chloride	62.66	10.0	60	0	104	80	120	0	0		

Sample ID CCV	SampType: CCV	TestCode: 8260_S	Units: µg/Kg	Prep Date: 10/10/2003	Run ID: 5973J_031010C
Client ID: ZZZZZ	Batch ID: 9743	TestNo: SW8260B		Analysis Date: 10/11/2003	SeqNo: 218584

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	30.92	10.0	30	0	103	80	120	0	0		
1,2-Dichloropropane	35.43	10.0	30	0	118	80	120	0	0		
Chloroform	31.91	10.0	30	0	106	80	120	0	0		
Ethylbenzene	27.41	10.0	30	0	91.4	80	120	0	0		
Toluene	27.76	10.0	30	0	92.5	80	120	0	0		
Vinyl chloride	34.19	10.0	30	0	114	80	120	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

BZTO104(e)019993

CLIENT: Time Oil Co.
Work Order: 0310011
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHDX_S

Sample ID MBLK	SampType: MBLK	TestCode: NWTPHDX_S	Units: mg/Kg	Prep Date: 10/6/2003	Run ID: GC-M_031006A
Client ID: ZZZZZ	Batch ID: 9697	TestNo: NWTPH-Dx		Analysis Date: 10/6/2003	SeqNo: 217160

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	ND	15.0									
Lube Oil	ND	50.0									
Surr: o-Terphenyl	27.63	1.00	33.33	0	82.9	50	150	0	0		

Sample ID MBLK	SampType: MBLK	TestCode: NWTPHDX_S	Units: mg/Kg	Prep Date: 10/6/2003	Run ID: GC-M_031007A
Client ID: ZZZZZ	Batch ID: 9697	TestNo: NWTPH-Dx		Analysis Date: 10/7/2003	SeqNo: 217218

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	ND	15.0									
Lube Oil	ND	50.0									
Surr: o-Terphenyl	27.8	1.00	33.33	0	83.4	50	150	0	0		

Sample ID MBLK	SampType: MBLK	TestCode: NWTPHDX_S	Units: mg/Kg	Prep Date: 10/6/2003	Run ID: GC-M_031007B
Client ID: ZZZZZ	Batch ID: 9697	TestNo: NWTPH-Dx		Analysis Date: 10/7/2003	SeqNo: 217381

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	ND	15.0									
Lube Oil	ND	50.0									
Surr: o-Terphenyl	27.97	1.00	33.33	0	83.9	50	150	0	0		

Sample ID LCS	SampType: LCS	TestCode: NWTPHDX_S	Units: mg/Kg	Prep Date: 10/6/2003	Run ID: GC-M_031006A
Client ID ZZZZZ	Batch ID: 9697	TestNo: NWTPH-Dx		Analysis Date: 10/6/2003	SeqNo: 217161

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	150.3	15.0	167.6	0	89.6	76.3	122	0	0		
Lube Oil	172.6	50.0	167.6	0	103	69.9	127	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

BZTO104(e)019994

CLIENT: Time Oil Co.
Work Order: 0310011
Project: PHill Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHDX_S

Sample ID 0310004-01ADUP	SampType: DUP	TestCode: NWTPHDX_S	Units: mg/Kg-dry	Prep Date: 10/6/2003	Run ID: GC-M_031006A
Client ID: ZZZZZ	Batch ID: 9697	TestNo: NWTPH-Dx		Analysis Date: 10/6/2003	SeqNo: 217170

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	ND	20.1	0	0	0	0	0	0	0	20	
Lube Oil	ND	67.0	0	0	0	0	0	0	0	20	

Sample ID 0310011-01ADUP	SampType: DUP	TestCode: NWTPHDX_S	Units: mg/Kg-dry	Prep Date: 10/6/2003	Run ID: GC-M_031007A
Client ID: LW020d (12-13)	Batch ID: 9697	TestNo: NWTPH-Dx		Analysis Date: 10/7/2003	SeqNo: 217223

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	17770	183	0	0	0	0	0	13720	25.7	20	R,D
Lube Oil	ND	611	0	0	0	0	0	0	0	20	A3

Sample ID CCV	SampType: CCV	TestCode: NWTPHDX_S	Units: mg/Kg	Prep Date: 10/6/2003	Run ID: GC-M_031006A
Client ID: ZZZZZ	Batch ID: 9697	TestNo: NWTPH-Dx		Analysis Date: 10/6/2003	SeqNo: 217162

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	310.4	15.0	333.6	0	93	85	115	0	0		
Lube Oil	347	50.0	339	0	102	85	115	0	0		

Sample ID CCV	SampType: CCV	TestCode: NWTPHDX_S	Units: mg/Kg	Prep Date: 10/6/2003	Run ID: GC-M_031007A
Client ID: ZZZZZ	Batch ID: 9697	TestNo: NWTPH-Dx		Analysis Date: 10/7/2003	SeqNo: 217219

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	148.9	15.0	166.8	0	89.3	85	115	0	0		
Lube Oil	176.8	50.0	169.5	0	104	85	115	0	0		

Sample ID CCV	SampType: CCV	TestCode: NWTPHDX_S	Units: mg/Kg	Prep Date: 10/6/2003	Run ID: GC-M_031007B
Client ID: ZZZZZ	Batch ID: 9697	TestNo: NWTPH-Dx		Analysis Date: 10/7/2003	SeqNo: 217382

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	151.3	15.0	166.8	0	90.7	85	115	0	0		
Lube Oil	175.5	50.0	169.5	0	104	85	115	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019995

CLIENT: Time Oil Co.
Work Order: 0310011
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHGX_S

Sample ID MBLK	SampType: MBLK	TestCode: NWTPHGX_S	Units: mg/Kg	Prep Date: 10/20/2003	Run ID: GC-I_031002D
Client ID: ZZZZZ	Batch ID: 9673	TestNo: NWTPH-Gx		Analysis Date: 10/2/2003	SeqNo: 216631

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	2.50									
Surr: 4-Bromofluorobenzene	86.2	1.00	100	0	86.2	50	150	0	0		

Sample ID MBLK	SampType: MBLK	TestCode: NWTPHGX_S	Units: mg/Kg	Prep Date: 10/2/2003	Run ID: GC-I_031003B
Client ID: ZZZZZ	Batch ID: 9673	TestNo: NWTPH-Gx		Analysis Date: 10/3/2003	SeqNo: 216914

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	2.50									
Surr: 4-Bromofluorobenzene	85.9	1.00	100	0	85.9	50	150	0	0		

Sample ID MBLK	SampType: MBLK	TestCode: NWTPHGX_S	Units: mg/Kg	Prep Date: 10/2/2003	Run ID: GC-I_031006A
Client ID: ZZZZZ	Batch ID: 9673	TestNo: NWTPH-Gx		Analysis Date: 10/6/2003	SeqNo: 217185

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	2.50									
Surr: 4-Bromofluorobenzene	86.3	1.00	100	0	86.3	50	150	0	0		

Sample ID LCS	SampType: LCS	TestCode: NWTPHGX_S	Units: mg/Kg	Prep Date: 10/20/2003	Run ID: GC-I_031002D
Client ID: ZZZZZ	Batch ID: 9673	TestNo: NWTPH-Gx		Analysis Date: 10/2/2003	SeqNo: 216632

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	20.6	2.50	30	0	68.7	53.5	101	0	0		

Sample ID 0309162-30ADUP	SampType: DUP	TestCode: NWTPHGX_S	Units: mg/Kg-dry	Prep Date: 10/2/2003	Run ID: GC-I_031002D
Client ID: ZZZZZ	Batch ID: 9673	TestNo: NWTPH-Gx		Analysis Date: 10/2/2003	SeqNo: 216643

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	3.28	0	0	0	0	0	0	0	20	

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

BZTO104(e)019996

CLIENT: Time Oil Co.
Work Order: 0310011
Project: PHII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHGX_S

Sample ID: CCV	SampType: CCV	TestCode: NWTPHGX_S	Units: mg/Kg	Prep Date: 10/20/2003	Run ID: GC-I_031002D
Client ID: ZZZZZ	Batch ID: 9673	TestNo: NWTPH-Gx		Analysis Date: 10/2/2003	SeqNo: 216633

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	1681	2.50	2000	0	84	80	120	0	0		

Sample ID: CCV	SampType: CCV	TestCode: NWTPHGX_S	Units: mg/Kg	Prep Date: 10/2/2003	Run ID: GC-I_031003B
Client ID: ZZZZZ	Batch ID: 9673	TestNo: NWTPH-Gx		Analysis Date: 10/3/2003	SeqNo: 216915

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	1223	2.50	1500	0	81.5	80	120	0	0		

Sample ID: CCV	SampType: CCV	TestCode: NWTPHGX_S	Units: mg/Kg	Prep Date: 10/2/2003	Run ID: GC-I_031006A
Client ID: ZZZZZ	Batch ID: 9673	TestNo: NWTPH-Gx		Analysis Date: 10/6/2003	SeqNo: 217186

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	1443	2.50	1500	0	96.2	80	120	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)019997

CLIENT: Time Oil Co.
Work Order: 0310011
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: PAHLL_S

Sample ID: MB-9681	SampType: MBLK	TestCode: PAHLL_S	Units: µg/Kg	Prep Date: 10/2/2003	Run ID: 5973G_031006B
Client ID: ZZZZZ	Batch ID: 9681	TestNo: 8270SIM		Analysis Date: 10/6/2003	SeqNo: 217127

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	ND	6.67									
Acenaphthylene	ND	6.67									
Anthracene	ND	6.67									
Benz(a)anthracene	ND	6.67									
Benzo(a)pyrene	ND	6.67									
Benzo(b)fluoranthene	ND	6.67									
Benzo(g,h,i)perylene	ND	6.67									
Benzo(k)fluoranthene	ND	6.67									
Chrysene	ND	6.67									
Dibenz(a,h)anthracene	ND	6.67									
Fluoranthene	ND	6.67									
Fluorene	ND	6.67									
Indeno(1,2,3-cd)pyrene	ND	6.67									
Naphthalene	ND	6.67									
Phenanthrene	ND	6.67									
Pyrene	ND	6.67									
Surr: 2-Fluorobiphenyl	5077	0	6667	0	76.1	42.6	128	0	0		
Surr: Nitrobenzene-d5	4989	0	6667	0	74.8	21.7	155	0	0		
Surr: p-Terphenyl-d14	6025	0	6667	0	90.4	44.9	155	0	0		

Sample ID: LCS-9681	SampType: LCS	TestCode: PAHLL_S	Units: µg/Kg	Prep Date: 10/2/2003	Run ID: 5973G_031006B
Client ID: ZZZZZ	Batch ID: 9681	TestNo: 8270SIM		Analysis Date: 10/6/2003	SeqNo: 217124

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	98	6.67	166.7	0	58.8	40.4	107	0	0		
Benzo(g,h,i)perylene	132	6.67	166.7	0	79.2	44.6	125	0	0		
Chrysene	130.7	6.67	166.7	0	78.4	59.9	121	0	0		
Naphthalene	91.33	6.67	166.7	0	54.8	33.5	96.1	0	0		
Phenanthrene	110.7	6.67	166.7	0	66.4	52.2	108	0	0		
Pyrene	124.7	6.67	166.7	0	74.8	53.8	120	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

BZTO104(e)019998

CLIENT: Time Oil Co.
Work Order: 0310011
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: PAHLL_S

Sample ID 0310006-01AMS	SampType: MS	TestCode: PAHLL_S	Units: µg/Kg	Prep Date: 10/2/2003	Run ID: 5973G_031006B
Client ID: ZZZZZ	Batch ID: 9681	TestNo: 8270SIM		Analysis Date: 10/6/2003	SeqNo: 217137

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	97.33	6.67	166.7	0	58.4	33.7	107	0	0		
Benzo(g,h,i)perylene	152	6.67	166.7	22.67	77.6	15	128	0	0		
Chrysene	139.3	6.67	166.7	6	80	37.5	125	0	0		
Naphthalene	86	6.67	166.7	10	45.6	27.7	108	0	0		
Phenanthrene	120	6.67	166.7	2	70.8	20.2	139	0	0		
Pyrene	137.3	6.67	166.7	6.667	78.4	26.8	134	0	0		

Sample ID 0310006-01AMSD	SampType: MSD	TestCode: PAHLL_S	Units: µg/Kg	Prep Date: 10/2/2003	Run ID: 5973G_031006B
Client ID: ZZZZZ	Batch ID: 9681	TestNo: 8270SIM		Analysis Date: 10/6/2003	SeqNo: 217142

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	96.67	6.67	166.7	0	58	33.7	107	97.33	0.687	20	
Benzo(g,h,i)perylene	144.7	6.67	166.7	22.67	73.2	15	128	152	4.94	20	
Chrysene	130	6.67	166.7	6	74.4	37.5	125	139.3	6.93	20	
Naphthalene	82	6.67	166.7	10	43.2	27.7	108	86	4.76	20	
Phenanthrene	118.7	6.67	166.7	2	70	20.2	139	120	1.12	20	
Pyrene	130.7	6.67	166.7	6.667	74.4	26.8	134	137.3	4.98	20	

Sample ID CCV-9681	SampType: CCV	TestCode: PAHLL_S	Units: µg/Kg	Prep Date:	Run ID: 5973G_031006B
Client ID: ZZZZZ	Batch ID: 9681	TestNo: 8270SIM		Analysis Date: 10/6/2003	SeqNo: 217123

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	142	6.67	133.3	0	106	70	130	0	0		
Acenaphthylene	157.3	6.67	133.3	0	118	70	130	0	0		
Anthracene	162	6.67	133.3	0	122	70	130	0	0		
Benz(a)anthracene	147.3	6.67	133.3	0	110	70	130	0	0		
Benzo(a)pyrene	160	6.67	133.3	0	120	70	130	0	0		
Benzo(b)fluoranthene	148	6.67	133.3	0	111	70	130	0	0		
Benzo(g,h,i)perylene	160	6.67	133.3	0	120	70	130	0	0		
Benzo(k)fluoranthene	151.3	6.67	133.3	0	114	70	130	0	0		
Chrysene	149.3	6.67	133.3	0	112	70	130	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

BZTO104(e)019999

CLIENT: Time Oil Co.
Work Order: 0310011
Project: PHIII Well Install / 231009.31

ANALYTICAL QC SUMMARY REPORT

TestCode: PAHLL_S

Sample ID: CCV-9681	SampType: CCV	TestCode: PAHLL_S	Units: µg/Kg	Prep Date:	Run ID: 5973G_031006B
Client ID: ZZZZZ	Batch ID: 9681	TestNo: 8270SIM		Analysis Date: 10/6/2003	SeqNo: 217123

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dibenz(a,h)anthracene	160.7	6.67	133.3	0	120	70	130	0	0		
Fluoranthene	156	6.67	133.3	0	117	70	130	0	0		
Fluorene	164.7	6.67	133.3	0	124	70	130	0	0		
Indeno(1,2,3-cd)pyrene	164	6.67	133.3	0	123	70	130	0	0		
Naphthalene	135.3	6.67	133.3	0	102	70	130	0	0		
Phenanthrene	144.7	6.67	133.3	0	108	70	130	0	0		
Pyrene	152.7	6.67	133.3	0	114	70	130	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

BZTO104(e)020000