

Unocal Station # 5472

LUST 1975

LUST 8459

DATE: January 3, 2000

**TOSCO MARKETING COMPANY
GROUNDWATER MONITORING REPORT**

Site No.: 5472 Address: 3460 1st Avenue South, Seattle, WA
Tosco Project Manager: Timothy D. Johnson
Consultant /Contact Person: Environmental Resolutions, Inc./John Meyer
Primary Agency/Regulatory ID No.: Washington State Department of Ecology

WORK PERFORMED THIS QUARTER(S) [Third - 2000]:

- Monitored, purged, and sampled 10 groundwater monitoring wells

WORK PROPOSED FOR NEXT QUARTER [Fourth - 2000]:

- Monitor, purge, and sample 11 groundwater monitoring wells

SUMMARY:

Frequency of Sampling Events:	<u>Quarterly</u>	(Quarterly, etc.)
Approximate Depth to Groundwater:	<u>6 to 8 ft</u>	(Measured Feet)
Groundwater Gradient:	<u>Northerly and Westerly</u>	(Direction)
	<u>0.003 ft/ft</u>	(Magnitude)
Maximum TPH-G/Benzene Concentrations:	<u>1,410/13.2</u>	(ppb)
Measurable Free Product Detected:	<u>No</u>	(Yes - ID wells(s)/No)
Free Product Recovered This Quarter:	<u>Unknown</u>	(gallons)
Cumulative Free Product Recovered to Date:	<u>Unknown</u>	(gallons)
Bulk Soil Removed This Quarter:	<u>None</u>	(cubic yards)
Water Wells or Surface Waters w/in a 2000'	<u>Unknown</u>	(Distance and)
Radius and Respective Direction:	<u>Unknown</u>	Direction)
Current Remedial Action:	<u>SVE/AS</u>	(SVE/AS/P&T etc.)
Permits for Discharge:	<u>PSCAA #8121</u>	(NPDES, POTW, etc.)

DISCUSSION:

- 4 of 10 wells sampled contained analyte concentrations exceeding MTCA Method A Cleanup Levels

ATTACHMENTS:

Plate P-1 - Groundwater Sample Analyses Map, 9/13/00
Table 1 - Groundwater Analytical Results
Laboratory Reports and Chain of Custody Records
Field Data Records

Prepared By:

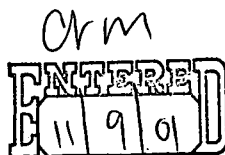

James S. Matthiessen
Environmental Resolutions, Inc.

cc: Washington State Department of Ecology, NW Region
GeoEngineers, Lisa Bona
Vasco Properties
D. Buck
S. Shanks

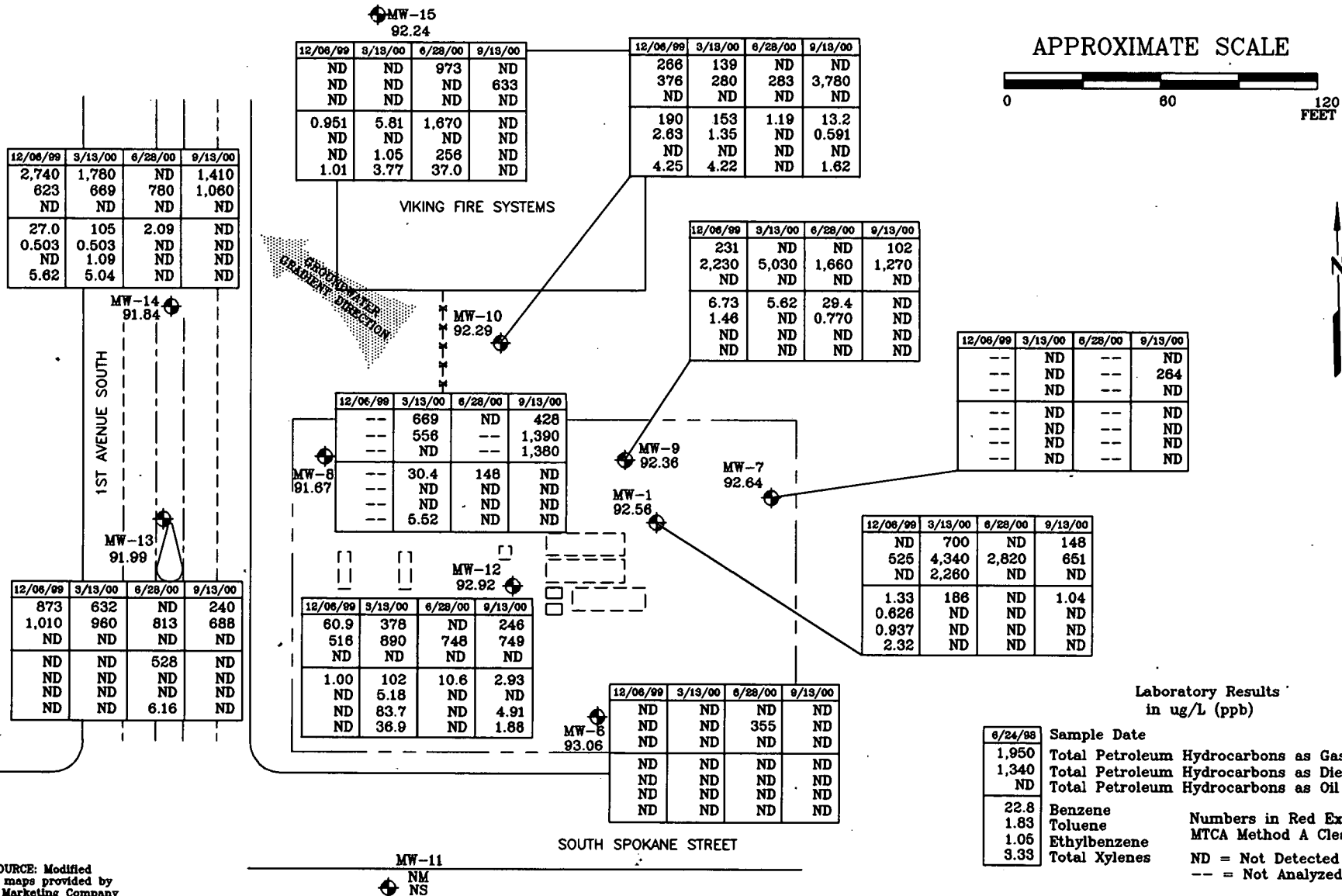
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5472003



SOURCE: Modified from maps provided by Tosco Marketing Company

FN 5472003



GROUNDWATER SAMPLE ANALYSES MAP - 9/13/00

TOSCO FACILITY 5472

3460 1st Avenue South

Seattle, Washington

EXPLANATION

⊕ MW-1 Groundwater Monitoring Well

93.27 Groundwater Elevation

NM Not Measured

PROJECT NO.

31023

PLATE

P-1

JM2: 09/13/00

TABLE 1
GROUNDWATER ANALYTICAL RESULTS

Tosco Facility 5472
3460 1st Avenue South
Seattle, Washington
Page 1 of 4

Well Name	Sample Date	DTW	GW Elev.	TPH-G	TPH-D	TPH-O	B	T	E	X	Diss. Pb
MW-1 99.52	02/25/91	5.43	92.59	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	10/19/92	7.20	92.60	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	08/26/93	7.36	92.27	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	10/13/94	8.23	91.55	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	04/25/95	5.62	93.90	30,000	18,000	9,600	890	<4.0	340	290	--
	07/12/95	--	--	13,000	4,900	<8,000	1,000	<8.0	380	210	<2.0
	10/12/95	6.15	93.41	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	01/22/96	5.10	94.35	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	04/10/96	5.86	93.76	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	07/29/96	5.83	93.69	6,700	6,210	2,950	763	5.50	180	22.5	--
	10/25/96	6.32	93.37	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	03/05/97	4.96	94.56	4,240	3,660	2,100	114	<2.50	18.7	<5.00	--
	03/05/97 ^{sp}	4.96	94.56	8,150	634	<750	40.7	<2.50	69.9	15.3	--
	06/19/97	5.66	93.87	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	09/16/97	6.56	92.96	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	12/18/97	5.54	93.98	3,060	1,850	1,860	143	1.31	2.65	3.54	--
	3/11/98	5.14	94.38	2,720	8,930	3,690	120	2.77	4.23	5.20	--
	6/24/98	6.25	93.27	1,950	1,340	<750	228	1.83	1.05	3.33	--
	9/18/98	6.86	92.66	1,690	<250	<750	12.7	<2.50	<2.50	<5.00	--
	12/14/98	3.70	95.82	2,840	2,880	3,880	327	<5.00	11.7	<10.0	--
	3/26/99	4.50	95.02	2,490	4,130	2,280	180	1.87	20.6	6.13	--
	6/23/99	5.99	93.53	982	1,410	844	87.6	<2.50	<2.50	<5.00	--
	9/23/99	6.85	92.67	1,540	1,380	<750	7.29	0.731	2.13	2.07	--
	12/06/99	9.15	90.37	<50.0	525	<750	1.33	0.626	0.937	2.32	--
	3/13/00	5.24	94.28	700	4,340	2,260	188	<5.00	<5.00	<10.0	--
	6/28/00	5.45	94.07	<50.0	2,820	<1,290	<0.500	<0.500	<0.500	<1.00	--
	9/13/00	6.96	92.56	148	651	<750	1.04	<0.500	<0.500	<1.00	--
MW-6 99.67	02/25/91	5.69	92.50	--	--	--	<1.0	<1.0	<1.0	<1.0	--
	10/19/92	7.64	92.03	<1,000	<250	--	<1.0	<1.0	<1.0	<1.0	--
	08/26/93	6.33	93.34	<100	<250	<750	<0.50	<0.50	<0.50	<0.50	<3
	10/13/94	7.90	91.77	<50	450	<750	<0.50	<0.50	<0.50	<1.0	<40
	04/25/95	5.63	94.04	<50	330	1,300	<0.50	<0.50	<0.50	<1.0	<2.0
	07/12/95	--	--	<50	550	1,200	<0.50	<0.50	<0.50	<1.0	<2.0
	10/12/95	6.50	93.17	<50	530	970	<0.50	<0.50	<0.50	<1.0	--
	01/22/96	5.08	94.59	<50	610	<750	<0.50	<0.50	<0.50	<1.0	--
	04/10/96	5.73	93.94	<50	<250	<750	<0.50	<0.50	<0.50	<1.0	--
	07/29/96	5.55	94.12	<5	<250	<750	<0.50	<0.50	<0.50	<1.0	--
	10/25/96	6.25	93.42	<50	<250	<750	<0.50	<0.50	<0.50	<1.0	--
	03/05/97	5.09	94.58	<50	<250	<750	<0.5	<0.5	<0.5	<1.0	--
	03/05/97 ^{sp}	5.52	94.15	<50	<250	<750	<0.5	<0.5	<0.5	<1.0	--
	06/19/97	5.52	94.15	<50	<250	<750	<0.5	<0.5	<0.5	<1.0	--
	09/16/97 ^{sp}	6.35	93.32	<50	<250	<750	<0.5	<0.5	<0.5	<1.0	--
	12/18/1997	5.72	93.95	<50.0	269	<750	<0.500	<0.500	<0.500	<1.00	--
	3/11/98	5.25	94.42	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00	--
	6/24/98	6.23	93.44	<50.0	257	<750	<0.500	<0.500	0.580	1.86	--
	9/18/98	6.44	93.23	<50.0	2,320	1,300	<0.500	<0.500	<0.500	<1.00	--
	12/14/98	4.62	95.05	<50.0	<250	<750	<0.500	<0.500	<0.500	1.06	--
	3/26/99	4.59	95.08	<50.0	<250	775	<0.500	<0.500	<0.500	<1.00	--
	6/23/99	5.88	93.79	<50.0	363	<750	<0.500	<0.500	<0.500	<1.00	--
	9/23/99	6.59	93.08	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00	--
	12/06/99	5.39	94.28	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00	--
	3/13/00	5.37	94.30	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00	--
	6/28/00	6.04	93.63	<50.0	355	<974	<0.500	<0.500	<0.500	<1.00	--
	9/13/00	6.61	93.06	<50.0	<250	<550	<0.500	<0.500	<0.500	<1.00	--
MW-7 98.50	02/25/91	4.33	92.68	--	--	--	<1.0	<1.0	<1.0	<1.0	--
	10/19/92	5.98	92.52	<1,000	<620	--	<1.0	<1.0	<1.0	<1.0	<5
	08/26/93	6.16	92.34	<100	<250	<750	<0.50	<0.50	<0.50	<1.0	<3
	10/13/94	6.56	91.94	<50	540	<750	3.3	<0.50	<0.50	<1.0	<110
	04/25/95	4.45	93.05	<50	<250	<750	<0.50	<0.50	<0.50	<1.0	<2.0
	07/12/95	--	--	<50	2,000	2,100	<0.50	<0.50	<0.50	<1.0	<2.0
	10/12/95	4.90	93.60	<50	<250	950	<0.50	<0.50	<0.50	<1.0	--
	01/22/96	3.89	94.61	<50	520	<750	1.5	<0.50	<0.50	<1.0	--
	04/10/96	4.63	93.87	<50	<250	<750	<0.50	<0.50	<0.50	<1.0	--
	07/29/96	4.55	93.95	<50	<250	<750	<0.50	<0.05	<0.05	<0.10	--
	10/25/96	4.98	93.52	<50	<250	<750	<0.50	<0.50	<0.50	<1.0	--
	03/05/97	3.94	94.56	<50	<250	<750	<0.50	<0.50	<0.50	<1.0	--
	03/05/97 ^{sp}	3.94	94.56	<50	<250	<750	<0.50	<0.50	<0.50	<1.0	--
	06/19/97	4.57	93.93	<50	<250	<750	<0.50	<0.50	<0.50	<1.0	--
	09/16/97 ^{sp}	5.29	93.21	<50	<250	<750	<0.50	<0.50	<0.50	<1.0	--
	12/18/1997	4.43	94.07	<50.0	357	<750	<0.500	<0.500	<0.500	<1.00	--
	3/11/98	4.05	94.45	<50.0	<250	<750	0.875	<0.500	<0.500	<1.00	--
	6/24/98	4.91	93.59	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00	--
	9/18/98	5.67	92.83	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00	--
	12/14/98	3.57	94.93	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00	--
	3/26/99	3.44	95.06	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00	--
	6/23/99	4.91	93.59	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00	--
	9/23/99	5.76	92.74	<50.0	<250	<750	2.62	<0.500	<0.500	<1.00	--
	12/06/99	--	--	--	--	--	--	--	--	--	--
	3/13/00	4.27	94.23	<50.0	<455	<1,370	<0.500	<0.500	<0.500	<1.00	--
	6/28/00	--	--	--	--	--	--	--	--	--	--
	9/13/00	5.86	92.64	<50.0	264	<750	<0.500	<0.500	<0.500	<1.00	--

MTCA Method A Cleanup Level
Continued on Page 2.

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TABLE 1
GROUNDWATER ANALYTICAL RESULTS
Tosco Facility 5472
3460 1st Avenue South
Seattle, Washington
Page 2 of 4

Well Name	Sample Date	DTW	GW Elev.	TPH-G	TPH-D	TPH-O	B	T	E	X	Diss. Pb
MW-8 98.96	02/25/91	5.44	92.06				7.7	16	29		
	10/19/92	7.17	91.79	4,900	330		7,200	32	810	1,500	<5
	08/26/93	6.91	92.05	7,500	660		16,000	410	800	670	<3
	10/13/94	7.40	91.56	2,200	740	1,200	19,000	<40	<40	83	4.6
	04/25/95	5.41	93.55	6,700	1,500	1,200	10,000	200	340	1,000	<2.0
	07/12/95			4,800	1,500	1,000	8,700	<8.0	130	690	<2.0
	10/12/95	6.48	92.48	3,500	1,500	1,100	11,000	16	18	59	
	01/22/96	5.10	94.35	2,500	2,500	1,000	8,500	<20	<20	23	
	04/10/96	5.63	93.33	2,300	2,000	750	3,400	<20	<20		
	07/29/96	4.22	94.74	3,000	1,000	<750	8,550	<25.0	<25.0	<50.0	
	10/25/96	6.03	92.93	3,500	<250	<750	3,500	<25.0	<25.0	50.3	
	03/05/97	4.91	94.05	3,490	388	<750	3,970	<10.0	<10.0	<20.0	
	03/05/97	4.91	94.05	7,730	378	<750	8,330	<5.0	11.5	<10.0	
	06/19/97	5.46	93.50	6,220	521	<750	11,870	<12.5	13.1	<25.0	
	09/16/97	6.28	92.21	3,310	292	<750	4,380	<10	11.5	<20	
	12/18/1997	5.53	93.43	2,890	1,650	<750	4,890	<25.0	<25.0	<50.0	
	3/11/98	5.14	93.82	<2,500	1,370	<750	2,640	<25.0	<25.0	<50.0	
	6/24/98	6.15	92.81	2,850	1,700	<750	2,230	<25.0	<25.0	<50.0	
	9/18/98	6.56	92.40	1,940	<250	<750	770	<12.5	<12.5	<25.0	
	12/14/98			Obstructed by surface water							
	3/26/99			1,340	1,300	<750	27.7	<2.50	<4.50	<8.50	
	6/23/99	5.73	93.23	<2,500	1,110	<750	<25.0	<25.0	<25.0	<50.0	
	9/23/99	6.52	92.44	1,420	1,020	<750	9.67	<2.00	<2.00	<7.00	
	12/06/99			Obstructed by surface water							
	3/13/00	5.89	93.07	669	556	<750	30.4	<2.50	<2.50	5.52	
	6/28/00	5.18	93.78	<250			148	<2.50	<2.50	<5.00	
	9/13/00	7.29	91.67	428	1,390	1,380	<1.42	<0.770	<1.35	<2.84	
MW-9 98.66	02/25/91	4.55	92.62				14,100	19,400	1,300	10,320	
	10/19/92	6.47	92.19	5,800	35,000		6,000	150	350	1,500	<5
	08/26/93	6.48	92.05	6,800	4,400	<750	7,100	100	630	1,300	<3
	10/13/94	7.00	91.66	2,700	4,100	<750	3,000	11	190	140	7.9
	04/25/95	4.70	93.96	6,300	2,500	1,000	350	3.7	210	310	<2.0
	07/12/95			1,600	2,600	1,300	568	<2.0	62	72	<2.0
	10/12/95	5.15	93.51	4,600	8,800	6,000	930	17	240	310	
	01/22/96	4.06	94.60	4,000	9,200	1,900	110	<2.0	100	100	
	04/10/96	4.86	93.80	3,800	3,000	1,000	170	<2.0	170	49	
	07/29/96	4.71	93.95	1,600	2,990	2,890	1,060	<12.5	17.0	<25.0	
	10/25/96	5.22	93.44	2,100	1,910	<750	687	9.31	9.91	<10.0	
	03/05/97	4.11	94.55	2,030	22,400	2,240	48.4	<0.50	15.6	<1.0	
	03/05/97	4.11	94.55	2,120	8,150	1,080	48.4	<1.0	17.9	2.11	
	06/19/97	4.78	93.88	710	1,450	<750	104	<2.5	13.6	5.14	
	09/16/97	5.59	93.07	778	459	<750	664	6.27	2.27	4.61	
	12/18/97	4.61	94.05	1,850	26,000	4,010	59.7	2.82	<2.50	<5.00	
	3/11/98	4.19	94.47	215	2,180	<750	12.5	<0.500	0.761	<1.00	
	6/24/98	5.04	93.62	383	603	<750	155	3.68	<2.50	<5.00	
	9/18/98	6.02	92.64	443	1,090	<750	188	<2.50	<2.50	6.45	
	12/14/98	3.94	94.72	377	2,670	<750	3.27	0.650	0.812	1.05	
	3/26/99	3.61	95.05	257	4,150	820	1.66	1.04	<0.600	2.31	
	6/23/99	5.11	93.55	123	4,040	<750	75.5	0.693	<0.500	<1.00	
	9/23/99	6.08	92.58	279	765	<750	31.4	1.35	0.549	3.77	
	12/06/99	3.97	94.69	231	2,230	<750	6.73	1.46	<0.500	<1.00	
	3/13/00	4.67	93.99	<250	5,030	<750	5.62	<2.50	<2.50	<5.00	
	6/28/00	5.26	93.40	<50	1,660	<750	29.4	0.770	<0.500	<1.00	
	9/13/00	6.30	92.36	102	1,270	<750	<1.40	<0.500	<0.500	<1.00	
MW-10 99.62	02/25/91			4,200	<250		2,000	9.0	200	1,300	72
	10/19/92	7.52	92.10								
	08/26/93	7.44	92.18	1,700	<250	<750	88	3.7	50	97	<3
	10/13/94	7.96	91.66	720	280	<750	1730	6.1	1.1	150	25
	04/25/95	5.79	93.83	3,000	45	990	2,100	21	47	270	<2.0
	07/12/95			1,800	55	<750	2,500	27	<20	290	<2.0
	10/12/95	6.85	92.77	2,200	420	<750	2,100	19	7.8	99	
	01/22/96	5.82	93.80	1,900	440	<750	1,200	12	23	39	
	04/10/96	6.08	93.54	1,500	300	<750	920	19	15	50	
	07/29/96	5.24	94.38	<2,500	260	<750	3,660	27.6	<25.0	<50.0	
	10/25/96										
	03/05/97										
	06/19/97	5.95	93.67	53	<250	<750	691	7.48	<5.0	20.3	
	09/16/97	6.80	92.82	736	<250	<750	1,170	9.747	3.11	18.2	
	12/18/1997										
	3/11/98										
	6/24/98	6.64	92.98	301	376	<750	453	3.33	<2.50	6.74	
	9/18/98	7.19	92.43	<1,000	292	<750	1,000	<10.0	<10.0	<20.0	
	12/14/98	5.41	94.21	<1,000	363	<750	477	12.0	<10.0	29.2	
	3/26/99	5.06	94.56	331	300	<750	261	3.32	<2.50	8.30	
	6/23/99	6.23	93.39	89.0	289	<750	212	1.28	<0.500	2.26	
	9/23/99	7.12	92.50	289	386	<750	459	2.68	0.877	7.58	
	12/06/99	5.62	94.00	266	376	<750	190	2.63	<0.500	4.25	
	3/13/00	5.73	93.89	139	280	<750	163	1.35	<0.500	4.22	
	6/28/00	8.20	91.42	<50.0	283	<750	1.19	<0.500	<0.500	<1.00	
	9/13/00	7.33	92.29	<50.0	3,780	<1040	13.2	0.591	<0.500	1.62	

MTCA Method A Cleanup Level
Continued on Page 3.

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GROUNDWATER ANALYTICAL RESULTS
Tosco Facility 5472
3460 1st Avenue South
Seattle, Washington
Page 3 of 4

Well Name	Sample Date	DTW	GW Elev.	TPH-G	TPH-D	TPH-O	B	T	E	X	Diss. Pb
MW-11 99.70	02/25/91	--	--	--	--	--	--	--	--	--	--
	10/19/92	7.97	91.73	<1,000	<250	--	<0.1	<1.0	<1.0	<1.0	<5
	08/26/93	7.59	92.11	<100	<250	<750	<0.50	<0.50	<0.50	<0.50	<3
	10/13/94	8.20	91.50	<50	<300	<1,100	<0.50	<0.50	<0.50	<1.0	<2.0
	04/25/95	6.00	93.70	<50	<250	<750	<0.50	<0.50	<0.50	<1.0	<2.0
	07/12/95	--	--	<50	<250	<750	<0.50	<0.50	<0.50	<1.0	<2.0
	10/12/95	7.0	92.70	<50	<250	<750	<0.50	<0.50	<0.50	<1.0	--
	01/22/96	--	--	--	--	--	--	--	--	--	--
	04/10/96	5.97	93.73	<50	<250	<750	<0.50	<0.50	<0.50	<1.0	--
	07/29/96	5.84	93.86	<50	<250	<750	<0.50	<0.50	<0.50	<0.10	--
	10/25/96	6.55	93.15	<50	<250	<750	<0.50	<0.50	<0.50	<1.0	--
	03/05/97	5.41	94.29	<50	<250	<750	<0.50	<0.50	<0.50	<1.0	--
	03/05/97 nd	5.41	94.29	<50	<250	<750	<0.50	<0.50	<0.50	<1.0	--
	06/19/97 nd	5.81	93.89	<50	<250	<750	<0.50	<0.50	<0.50	<1.0	--
	09/16/97 nd	6.31	93.39	<50	<250	<750	<0.50	<0.50	<0.50	<1.0	--
	12/18/1997	6.21	93.49	<50.0	285	<750	<0.500	<0.500	<0.500	<1.00	--
	3/11/98	5.55	94.15	<50.0	297	<750	<0.500	<0.500	<0.500	<1.00	--
	6/24/98	6.32	93.38	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00	--
	9/18/98	6.35	93.35	<50.0	<1,380	<750	<0.500	<0.500	<0.500	<1.00	--
	12/14/98	4.90	94.80	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00	--
	3/26/99	Obstructed by construction									
	6/23/99	Obstructed by construction									
	12/06/99	--	--	--	--	--	--	--	--	--	--
	3/13/00	--	--	--	--	--	--	--	--	--	--
	6/28/00	--	--	--	--	--	--	--	--	--	--
	9/13/00	--	--	--	--	--	--	--	--	--	--
MW-12 100.32	02/25/91	--	--	--	--	--	--	--	--	--	--
	10/19/92	8.37	91.95	8,500	7,630	--	7,500	1,800	1,180	1,810	<5
	08/26/93	8.11	92.21	--	--	--	--	--	--	--	--
	10/13/94	8.66	91.66	18,000	3,000	<750	3,300	91	1,100	380	<2.0
	04/25/95	6.40	93.92	32,000	2,600	2,000	1,700	41	470	1,100	<2.0
	07/12/95	--	--	14,000	8,500	<8,000	3,500	100	1,000	12,100	<2.0
	10/12/95	7.45	92.87	7,400	2,800	1,300	1,940	7.5	310	740	--
	01/22/96	7.70	92.62	33,000	1,700	1,100	1,400	250	1,200	73,300	--
	04/10/96	6.53	93.79	20,000	1,300	<750	390	7.7	590	940	--
	07/29/96	6.24	94.08	15,100	1,400	<750	3,300	<25.0	635	1,320	--
	10/25/96	7.08	93.24	9,900	290	<750	2,660	<25.0	492	1,040	--
	03/05/97	5.78	94.54	17,900	372	<750	652	727	15	1,610	--
	03/05/97 nd	5.78	94.54	14,500	431	<750	637	<10.0	646	998	--
	06/19/97 nd	6.45	93.87	14,900	556	<750	335	<10.0	825	1,557	--
	09/16/97 nd	7.30	93.02	8,450	856	<750	585	<10.0	344	3,248	--
	12/18/1997	6.48	93.84	9,390	1,490	916	490	10.8	362	2,565	--
	3/11/98	5.98	94.34	7,540	1,380	806	625	10.7	322	362	--
	6/24/98	7.15	93.17	2,490	1,260	<750	203	3.49	35.1	11.4	--
	9/18/98	7.49	92.83	848	<250	<750	88.8	0.583	22.0	16.5	--
	12/14/98	5.21	95.11	4,730	744	<750	229	5.81	245	196	--
	3/26/99	5.31	95.01	1,980	700	<750	73.7	2.66	<87.0	35.8	--
	6/23/99	6.71	93.61	<2,500	956	<750	77.8	<25.0	78.2	<50.0	--
	9/23/99	7.53	92.79	1,160	982	<750	13.2	0.940	1.07	2.54	--
	12/06/99	10.96	89.36	60.9	516	<750	1.00	<0.500	<0.500	<1.00	--
	3/13/00	5.80	94.52	378	690	<750	102	5.18	83.7	36.9	--
	6/28/00	6.40	93.92	<50.0	748	<750	10.6	<0.500	<0.500	<1.00	--
	9/13/00	7.40	92.92	246	749	<921	2.93	<0.500	4.91	1.88	--
MW-13 100.24	6/24/98	7.80	92.44	815	802	<750	<2.50	<2.50	<2.50	<5.00	--
	9/18/98	8.16	92.08	889	1,130	<750	<2.25	<1.25	<1.25	3.51	--
	12/14/98	6.75	93.49	853	508	<750	1.68	0.640	<0.500	3.43	--
	3/26/99	6.30	93.94	685	839	<750	<2.50	1.25	<1.75	4.38	--
	6/23/99	7.36	92.88	365	827	<750	0.810	<0.500	0.717	1.98	--
	9/23/99	--	--	859	1,360	<750	<2.00	<1.00	<0.500	<4.00	--
	12/06/99	7.15	93.09	873	1,010	<750	<0.500	<2.20	<0.900	<2.80	--
	3/13/00	6.95	93.29	632	960	<750	<5.00	<5.00	<5.00	<10.00	--
	6/28/00	7.66	92.58	<250	813	<750	528	<2.50	<2.50	6.16	--
	9/13/00	8.25	91.99	240	688	<750	<0.730	<0.500	<0.500	<1.43	--

MTCA Method A Cleanup Level

1,000^g

5

40

30

20

5

Continued on Page 4

TABLE 1
GROUNDWATER ANALYTICAL RESULTS
Tosco Facility 5472
3460 1st Avenue South
Seattle, Washington
Page 4 of 4

Well Name	Sample Date	DTW	GW Elev.	TPH-G	TPH-D	TPH-O	B	T	E	X	Diss. Pb
MW-14 99.94	6/24/98	7.60	92.34	2,230	605	<750	422	<10.0	<10.0	<20.0	-
	9/18/98	8.03	91.91	1,500	748	<750	75.4	<2.50	<2.50	13.3	-
	12/14/98	6.68	93.26	1,590	697	<750	182	<2.50	<2.50	9.39	-
	3/26/99	6.20	93.74	1,190	782	<750	5.53	<0.500	<0.900	4.84	-
	6/23/99	7.15	92.79	1,180	464	<750	21.1	<2.50	<2.50	<5.00	-
	9/23/99	7.91	92.03	2,950	612	<750	20.2	<1.00	<2.00	<8.00	-
	12/06/99	6.90	93.04	2,740	623	<750	27.0	0.503	<1.00	5.62	-
	3/13/00	6.74	93.20	1,780	669	<750	108	0.503	1.09	5.04	-
	6/28/00	7.47	92.47	<50.0	780	<750	2.09	<0.500	<0.500	<1.00	-
	9/13/00	8.10	91.84	1,410	1,060	<872	<0.570	<0.500	<0.600	<3.50	-
MW-15 99.29	6/24/98	6.52	92.77	74.0	477	<750	14.1	1.03	0.566	1.72	-
	9/18/98	7.06	92.23	<50.0	646	<750	10.5	0.676	<0.500	2.32	-
	12/14/98	5.78	93.51	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00	-
	3/26/99	5.42	93.87	59.8	344	<750	2.86	1.90	1.93	3.28	-
	6/23/99	6.15	93.14	<50.0	<250	<750	0.672	<0.500	<0.500	<1.00	-
	9/23/99	6.90	92.39	<50.0	1,240	<750	1.44	<0.500	<0.500	1.57	-
	12/06/99	5.95	93.34	<50.0	<250	<750	0.951	<0.500	<0.500	1.01	-
	3/13/00	5.74	93.55	<50.0	<455	<1,330	5.81	<0.500	1.05	3.77	-
	6/28/00	6.41	92.88	973	<250	<750	1,670	<5.00	<5.00	37.0	-
	9/13/00	7.05	92.24	<50.0	633	<750	<0.500	<0.500	<0.500	<1.00	-
MTCA Method A Cleanup Level				1,000 ^a	5	40	30	20	5		

EXPLANATION:

All concentrations in ug/L (ppb).

Wellhead elevations taken from prior consultant's reports.

DTW = Depth to water in feet below top of casing.

GW Elev. = Groundwater elevation relative to top of casing elevations; Corrected for free product where applicable using a specific gravity of 0.75.

TPH-G = Total Petroleum Hydrocarbons as Gasoline by Ecology Method WTPH-G.

TPH-D and TPH-O = Total Petroleum Hydrocarbons as Diesel and Oil, respectively, by Ecology Method WTPH-D (extended).

B = Benzene; T = Toluene; E = Ethylbenzene; X = Total Xylenes.

BTEX = Aromatic compounds by EPA Method 8020.

Diss. Pb = Dissolved Lead by EPA Method 7421.

LPH = Liquid-phase petroleum hydrocarbons present; no sample collected.

- = Not sampled.

< = Less than the stated laboratory reporting limit.

^a = Sample collected without purging.

^b Total Petroleum Hydrocarbons.

Samples collected from MW-13, MW-14, and MW-15 on 6/24/98 identified as MW-B, MW-A, and MW-C, respectively, on laboratory report.

October 1994 results are for total lead.

Shaded values equal or exceed MTCA Method A Cleanup Levels.

Data collected before 12/18/97 are taken from prior consultants.

ERI
1921 Edmonds Drive SE
Renton WA, 98055

Project: TOSCO #5472
Project Number: 1023
Project Manager: John Meyer

Reported:
09/28/00 12:36

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	B010389-01	Water	09/13/00 12:00	09/15/00 14:35
MW-6	B010389-02	Water	09/13/00 12:00	09/15/00 14:35
MW-7	B010389-03	Water	09/13/00 12:00	09/15/00 14:35
MW-8	B010389-04	Water	09/13/00 12:00	09/15/00 14:35
MW-9	B010389-05	Water	09/13/00 12:00	09/15/00 14:35
MW-10	B010389-06	Water	09/13/00 12:00	09/15/00 14:35
MW-12	B010389-07	Water	09/13/00 12:00	09/15/00 14:35
MW-13	B010389-08	Water	09/13/00 12:00	09/15/00 14:35
MW-14	B010389-09	Water	09/13/00 12:00	09/15/00 14:35
MW-15	B010389-10	Water	09/13/00 12:00	09/15/00 14:35

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ERI
 1921 Edmonds Drive SE
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Project: TOSCO #5472
 Project Number: 1023
 Project Manager: John Meyer

Reported:
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Gasoline Range Hydrocarbons (Toluene to Dodecane) and BTEX by WTPH-G and EPA 8021B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (B010389-01) Water Sampled: 09/13/00 12:00 Received: 09/15/00 14:35									
Gasoline Range Hydrocarbons	148	50.0	ug/l	1	0118004	09/18/00	09/18/00	WTPH-G/8021B	
Benzene	1.04	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	1.00	"	"	"	"	"	"	
Surrogate: 4-BFB (FID)	85.6 %	50-150			"	"	"	"	
Surrogate: 4-BFB (PID)	90.8 %	50-150			"	"	"	"	
MW-6 (B010389-02) Water Sampled: 09/13/00 12:00 Received: 09/15/00 14:35									
Gasoline Range Hydrocarbons	ND	50.0	ug/l	1	0118004	09/18/00	09/18/00	WTPH-G/8021B	
Benzene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	1.00	"	"	"	"	"	"	
Surrogate: 4-BFB (FID)	79.0 %	50-150			"	"	"	"	
Surrogate: 4-BFB (PID)	87.3 %	50-150			"	"	"	"	
MW-7 (B010389-03) Water Sampled: 09/13/00 12:00 Received: 09/15/00 14:35									
Gasoline Range Hydrocarbons	ND	50.0	ug/l	1	0118004	09/18/00	09/18/00	WTPH-G/8021B	
Benzene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	1.00	"	"	"	"	"	"	
Surrogate: 4-BFB (FID)	80.6 %	50-150			"	"	"	"	
Surrogate: 4-BFB (PID)	89.6 %	50-150			"	"	"	"	

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Page 2 of 10

ERI
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Project: TOSCO #5472
 Project Number: 1023
 Project Manager: John Meyer

Reported:
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Gasoline Range Hydrocarbons (Toluene to Dodecane) and BTEX by WTPH-G and EPA 8021B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-8 (B0I0389-04) Water Sampled: 09/13/00 12:00 Received: 09/15/00 14:35									
Gasoline Range Hydrocarbons	428	50.0	ug/l	1	0118004	09/18/00	09/18/00	WTPH-G/8021B	
Benzene	ND	1.42	"	"	"	"	"	"	R-03
Toluene	ND	0.770	"	"	"	"	"	"	R-03
Ethylbenzene	ND	1.35	"	"	"	"	"	"	R-03
Xylenes (total)	ND	2.84	"	"	"	"	"	"	R-03
Surrogate: 4-BFB (FID)	92.1 %	50-150			"	"	"	"	
Surrogate: 4-BFB (PID)	89.2 %	50-150			"	"	"	"	
MW-9 (B0I0389-05) Water Sampled: 09/13/00 12:00 Received: 09/15/00 14:35									
Gasoline Range Hydrocarbons	102	50.0	ug/l	1	0118004	09/18/00	09/18/00	WTPH-G/8021B	
Benzene	ND	1.40	"	"	"	"	"	"	R-03
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	1.00	"	"	"	"	"	"	
Surrogate: 4-BFB (FID)	83.5 %	50-150			"	"	"	"	
Surrogate: 4-BFB (PID)	89.4 %	50-150			"	"	"	"	
MW-10 (B0I0389-06) Water Sampled: 09/13/00 12:00 Received: 09/15/00 14:35									
Gasoline Range Hydrocarbons	ND	50.0	ug/l	1	0118004	09/18/00	09/18/00	WTPH-G/8021B	
Benzene	13.2	0.500	"	"	"	"	"	"	
Toluene	0.591	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	1.62	1.00	"	"	"	"	"	"	
Surrogate: 4-BFB (FID)	92.9 %	50-150			"	"	"	"	
Surrogate: 4-BFB (PID)	88.1 %	50-150			"	"	"	"	

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Page 3 of 10

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Gasoline Range Hydrocarbons (Toluene to Dodecane) and BTEX by WTPH-G and EPA 8021B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-12 (B010389-07) Water Sampled: 09/13/00 12:00 Received: 09/15/00 14:35									
Gasoline Range Hydrocarbons	246	50.0	ug/l	1	0118004	09/18/00	09/18/00	WTPH-G/8021B	
Benzene	2.93	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	4.91	0.500	"	"	"	"	"	"	
Xylenes (total)	1.88	1.00	"	"	"	"	"	"	
Surrogate: 4-BFB (FID)	105 %	50-150			"	"	"	"	
Surrogate: 4-BFB (PID)	93.5 %	50-150			"	"	"	"	
MW-13 (B010389-08) Water Sampled: 09/13/00 12:00 Received: 09/15/00 14:35									
Gasoline Range Hydrocarbons	240	50.0	ug/l	1	0118004	09/18/00	09/18/00	WTPH-G/8021B	
Benzene	ND	0.730	"	"	"	"	"	"	R-03
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.550	"	"	"	"	"	"	R-03
Xylenes (total)	ND	1.43	"	"	"	"	"	"	R-03
Surrogate: 4-BFB (FID)	92.3 %	50-150			"	"	"	"	
Surrogate: 4-BFB (PID)	84.4 %	50-150			"	"	"	"	
MW-14 (B010389-09) Water Sampled: 09/13/00 12:00 Received: 09/15/00 14:35									
Gasoline Range Hydrocarbons	1410	50.0	ug/l	1	0118004	09/18/00	09/18/00	WTPH-G/8021B	
Benzene	ND	0.570	"	"	"	"	"	"	R-03
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.600	"	"	"	"	"	"	R-03
Xylenes (total)	ND	3.50	"	"	"	"	"	"	R-03
Surrogate: 4-BFB (FID)	157 %	50-150			"	"	"	"	S-02
Surrogate: 4-BFB (PID)	122 %	50-150			"	"	"	"	

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ERI
1921 Edmonds Drive SE
Renton WA, 98055

Project: TOSCO #5472
Project Number: 1023
Project Manager: John Meyer

Reported:
09/28/00 12:36

Gasoline Range Hydrocarbons (Toluene to Dodecane) and BTEX by WTPH-G and EPA 8021B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-15 (B010389-10) Water Sampled: 09/13/00 12:00 Received: 09/15/00 14:35									
Gasoline Range Hydrocarbons	ND	50.0	ug/l	1	0118004	09/18/00	09/18/00	WTPH-G/8021B	
Benzene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	1.00	"	"	"	"	"	"	
Surrogate: 4-BFB (FID)	78.7 %	50-150			"	"	"	"	
Surrogate: 4-BFB (PID)	88.1 %	50-150			"	"	"	"	

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Page 5 of 10

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 Renton WA, 98055

Project: TOSCO #5472
 Project Number: 1023
 Project Manager: John Meyer

Reported:
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Diesel Hydrocarbons (C12-C24) and Heavy Oil (C24-C36 by WTPH-D (extended)
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (B010389-01) Water Sampled: 09/13/00 12:00 Received: 09/15/00 14:35									
Diesel Range Hydrocarbons	0.651	0.250	mg/l	1	0119024	09/19/00	09/23/00	WTPH-D	
Heavy Oil Range Hydrocarbons	ND	0.750	"	"	"	"	"	"	
Surrogate: 2-FBP	71.8 %	50-150			"	"	"	"	
MW-6 (B010389-02) Water Sampled: 09/13/00 12:00 Received: 09/15/00 14:35									
Diesel Range Hydrocarbons	ND	0.250	mg/l	1	0119024	09/19/00	09/23/00	WTPH-D	
Heavy Oil Range Hydrocarbons	ND	0.550	"	"	"	"	"	"	
Surrogate: 2-FBP	83.9 %	50-150			"	"	"	"	
MW-7 (B010389-03) Water Sampled: 09/13/00 12:00 Received: 09/15/00 14:35									
Diesel Range Hydrocarbons	0.264	0.250	mg/l	1	0119024	09/19/00	09/23/00	WTPH-D	
Heavy Oil Range Hydrocarbons	ND	0.750	"	"	"	"	"	"	
Surrogate: 2-FBP	71.1 %	50-150			"	"	"	"	
MW-8 (B010389-04) Water Sampled: 09/13/00 12:00 Received: 09/15/00 14:35									
Diesel Range Hydrocarbons	1.39	0.250	mg/l	1	0119024	09/19/00	09/23/00	WTPH-D	
Heavy Oil Range Hydrocarbons	1.38	0.750	"	"	"	"	"	"	
Surrogate: 2-FBP	16.0 %	50-150			"	"	"	"	A-01
MW-9 (B010389-05) Water Sampled: 09/13/00 12:00 Received: 09/15/00 14:35									
Diesel Range Hydrocarbons	1.27	0.250	mg/l	1	0119024	09/19/00	09/23/00	WTPH-D	
Heavy Oil Range Hydrocarbons	ND	0.750	"	"	"	"	"	"	
Surrogate: 2-FBP	80.2 %	50-150			"	"	"	"	
MW-10 (B010389-06) Water Sampled: 09/13/00 12:00 Received: 09/15/00 14:35									
Diesel Range Hydrocarbons	3.78	0.348	mg/l	1	0119024	09/19/00	09/23/00	WTPH-D	
Heavy Oil Range Hydrocarbons	ND	1.04	"	"	"	"	"	"	
Surrogate: 2-FBP	87.0 %	50-150			"	"	"	"	

North Creek Analytical - Bothell

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Steve Davis, Project Manager

North Creek Analytical, Inc.
 Environmental Laboratory Network

Page 6 of 10

ERI
 1921 Edmonds Drive SE
 Renton WA, 98055

Project: TOSCO #5472
 Project Number: 1023
 Project Manager: John Meyer

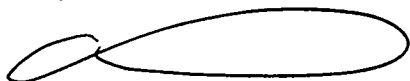
Reported:
 09/28/00 12:36

Diesel Hydrocarbons (C12-C24) and Heavy Oil (C24-C36 by WTPH-D (extended)
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-12 (B0I0389-07) Water Sampled: 09/13/00 12:00 Received: 09/15/00 14:35									
Diesel Range Hydrocarbons	0.749	0.307	mg/l	1	0119024	09/19/00	09/23/00	WTPH-D	
Heavy Oil Range Hydrocarbons	ND	0.921	"	"	"	"	"	"	
Surrogate: 2-FBP	79.1 %	50-150			"	"	"	"	
MW-13 (B0I0389-08) Water Sampled: 09/13/00 12:00 Received: 09/15/00 14:35									
Diesel Range Hydrocarbons	0.688	0.250	mg/l	1	0119024	09/19/00	09/23/00	WTPH-D	
Heavy Oil Range Hydrocarbons	ND	0.750	"	"	"	"	"	"	
Surrogate: 2-FBP	74.2 %	50-150			"	"	"	"	
MW-14 (B0I0389-09) Water Sampled: 09/13/00 12:00 Received: 09/15/00 14:35									
Diesel Range Hydrocarbons	1.06	0.291	mg/l	1	0119024	09/19/00	09/23/00	WTPH-D	
Heavy Oil Range Hydrocarbons	ND	0.872	"	"	"	"	"	"	
Surrogate: 2-FBP	84.1 %	50-150			"	"	"	"	
MW-15 (B0I0389-10) Water Sampled: 09/13/00 12:00 Received: 09/15/00 14:35									
Diesel Range Hydrocarbons	0.633	0.250	mg/l	1	0119024	09/19/00	09/23/00	WTPH-D	
Heavy Oil Range Hydrocarbons	ND	0.750	"	"	"	"	"	"	
Surrogate: 2-FBP	7.11 %	50-150			"	"	"	"	S-07
Surrogate: Octacosane	86.6 %	50-150			"	"	"	"	

North Creek Analytical - Bothell

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 Environmental Laboratory Network

Page 7 of 10

ERI
 1921 Edmonds Drive SE
 Renton WA, 98055

Project: TOSCO #5472
 Project Number: 1023
 Project Manager: John Meyer

Reported:
 09/28/00 12:36

Gasoline Range Hydrocarbons (Toluene to Dodecane) and BTEX by WTPH-G and EPA 8021B - Quality Control

North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0I18004: Prepared 09/18/00 Using EPA 5030B (P/T)										
Blank (0I18004-BLK1)										
Gasoline Range Hydrocarbons	ND	50.0	ug/l							
Benzene	ND	0.500	"							
Toluene	ND	0.500	"							
Ethylbenzene	ND	0.500	"							
Xylenes (total)	ND	1.00	"							
Surrogate: 4-BFB (FID)	38.5		"	48.0		80.2	50-150			
Surrogate: 4-BFB (PID)	42.2		"	48.0		87.9	50-150			
LCS (0I18004-BS1)										
Gasoline Range Hydrocarbons	513	50.0	ug/l	500		103	70-130			
Surrogate: 4-BFB (FID)	41.1		"	48.0		85.6	50-150			
Duplicate (0I18004-DUP1) Source: B0I0371-03										
Gasoline Range Hydrocarbons	4860	2500	ug/l		4430			9.26	25	
Surrogate: 4-BFB (FID)	38.8		"	48.0		80.8	50-150			
Duplicate (0I18004-DUP2) Source: B0I0371-04										
Gasoline Range Hydrocarbons	ND	50.0	ug/l		ND			4.41	25	
Surrogate: 4-BFB (FID)	37.0		"	48.0		77.1	50-150			
Matrix Spike (0I18004-MS1) Source: B0I0371-06										
Benzene	9.60	0.500	ug/l	10.0	ND	95.1	70-130			
Toluene	9.61	0.500	"	10.0	ND	94.9	70-130			
Ethylbenzene	9.33	0.500	"	10.0	ND	93.3	70-130			
Xylenes (total)	26.9	1.00	"	30.0	ND	88.7	70-130			
Surrogate: 4-BFB (PID)	43.9		"	48.0		91.5	50-150			
Matrix Spike Dup (0I18004-MSD1) Source: B0I0371-06										
Benzene	9.64	0.500	ug/l	10.0	ND	95.5	70-130	0.416	15	
Toluene	9.74	0.500	"	10.0	ND	96.2	70-130	1.34	15	
Ethylbenzene	9.37	0.500	"	10.0	ND	93.7	70-130	0.428	15	
Xylenes (total)	27.2	1.00	"	30.0	ND	89.7	70-130	1.11	15	
Surrogate: 4-BFB (PID)	43.8		"	48.0		91.2	50-150			

North Creek Analytical - Bothell

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 Environmental Laboratory Network

Page 8 of 10



Seattle 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8223
425.420.9200 fax 425.420.9210
Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
509.924.9200 fax 509.924.9290
Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132
503.906.9200 fax 503.906.9210
Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711
541.383.9310 fax 541.382.7588

ERI
1921 Edmonds Drive SE
Renton WA, 98055

Project: TOSCO #5472
Project Number: 1023
Project Manager: John Meyer

Reported:
09/28/00 12:36

Diesel Hydrocarbons (C12-C24) and Heavy Oil (C24-C36 by WTPH-D (extended) - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 0119024: Prepared 09/19/00 Using EPA 3520C/600 Series

Blank (0119024-BLK1)

Diesel Range Hydrocarbons	ND	0.250	mg/l							
Heavy Oil Range Hydrocarbons	ND	0.750	"							
Surrogate: 2-FBP	0.239		"	0.320		74.7	50-150			

LCS (0119024-BS1)

Diesel Range Hydrocarbons	1.41	0.250	mg/l	2.00		70.5	60-140			
Surrogate: 2-FBP	0.192		"	0.320		60.0	50-150			

Duplicate (0119024-DUP1)

Source: B010389-01

Diesel Range Hydrocarbons	0.699	0.250	mg/l		0.651			7.11	44	
Heavy Oil Range Hydrocarbons	ND	0.750	"		ND				44	
Surrogate: 2-FBP	0.434		"	0.564		77.0	50-150			

Duplicate (0119024-DUP2)

Source: B010389-02

Diesel Range Hydrocarbons	ND	0.250	mg/l		ND			37.7	44	
Heavy Oil Range Hydrocarbons	ND	0.750	"		ND				44	
Surrogate: 2-FBP	0.567		"	0.681		83.3	50-150			

North Creek Analytical - Bothell

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Steve Davis, Project Manager

North Creek Analytical, Inc.
Environmental Laboratory Network

Page 9 of 10

ERI
1921 Edmonds Drive SE
Renton WA, 98055

Project: TOSCO #5472
Project Number: 1023
Project Manager: John Meyer

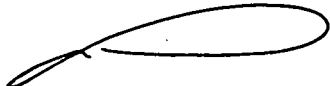
Reported:
09/28/00 12:36

Notes and Definitions

- A-01 Due to an extraction anomaly and/or matrix interference the surrogate result is outside of established control limits. Results should be considered a low estimated value.
- R-03 The reporting limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.
- S-02 The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample.
- S-07 Due to an extraction anomaly, results of the secondary surrogate have been used to control the analysis.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

North Creek Analytical - Bothell

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North Creek Analytical, Inc.
Environmental Laboratory Network

Page 10 of 10

TOSCO CHAIN OF CUSTODY REPORT

BOTO 389

TOSCO INFORMATION

Facility Number: Tosco 5472

Site Address: 3460 1st Ave S

City, State, ZIP: Seattle

Project/AWO Code: 775472 2511-280. 1/84 . 0300.00000.
295472

Tosco Manager: Tim Johnson

FACILITY TYPE: (check one) ☐ BP(®) ☐ Terminal/Bulk Plant
☐ Brown Bear ☒ Former 76 Site ☐ Other _____

CONSULTANT INFORMATION

Firm: ERI Project# 1023

Address: 1921 Edmonds Dr. S.E.
Renton 98055

Phone: 425-227-0280 Fax: X0225

Project Manager: John Meyer E-mail:

Sample Collection by: James Matthiessen

Quality Assurance Data Level:

☒ A ☐ B

A: Standard Summary

B: Standard + Chromatograms

*Laboratory Turnaround Days:

☒ 1 ☐ 5 ☐ 3 ☐ 2 ☐ 1

10 Day - Standard

SAMPLE IDENTIFICATION	SAMPLING DATE / TIME	MATRIX (W.S.O)	# OF CON- TAINERS
1. MW-1	9-13-00	W	3
2. MW-6			
3. MW-7			
4. MW-8			
5. MW-9			
6. MW-10			
7. MW-12			
8. MW-13			
9. MW-14			
10. MW-15			

	OR	WA	AK	NW Series	ID
TPH-HCID					
TPH-Gas					
BTEX					
EPA 8021 Mod.	X	X	X	X	X
TPH-Gas + BTEX	X	X	X	X	X
TPH-Diesel	X	X	X	X	X
TPH-Diesel Extended	X	X	X	X	X
TPH-Diesel-Ext. w/SG Cleanup	X	X	X	X	X
Halogen Volatiles	X	X	X	X	X
EPA 8021	X	X	X	X	X
Pesticides/PCBs or PCBs Only	X	X	X	X	X
GC/MS Volatiles	X	X	X	X	X
EPA 8260	X	X	X	X	X
GC/MS Semi Vols.	X	X	X	X	X
EPA 8270	X	X	X	X	X
PAH's	X	X	X	X	X
8270 SIM or 8310	X	X	X	X	X
Lead:	X	X	X	X	X
Total or Dissolved	X	X	X	X	X
TCLP or RCRA	X	X	X	X	X
Metals (8)	X	X	X	X	X

SAMPLES WERE NOT @
2-6C UPON RECEIPT

NCA SAMPLE NUMBER

- 01

- 02

- 03

- 04

- 05

- 06

- 07

- 08

- 09

- 10

	Relinquished by:	Firm:	Date & Time	Received by:	Firm:	Date & Time
1.	James [Signature]	ERM	9-13-00	Bill [Signature]	NCA	9/14/00 12:
2.	Bill [Signature]	NCA	9-15-00 14:35	Granny [Signature]	NCA	9/15/00 1:
3.						

Comments:

13.6° W/O

SAMPLES WERE NOT @
2-6C UPON RECEIPT

GROUNDWATER SAMPLING - FIELD LOG

Client Name: Tosco 5472
 Location: 1st Ave & Spokane
 Field Crew: Mathiesen

ERI Job No. 1023
 Field Cleaning Performed: _____
 Analysis: _____

Date: 9/13/00

Page 1 of 1

* - Case Volume = $(d_{\text{well}} - d_{\text{casing}}) \times L \times F$ where F =
 0.163 for a 2" inside diameter well casing
 0.652 for a 4" inside diameter well casing
 1.467 for a 6" inside diameter well casing

ERI

ENVIRONMENTAL RESOLUTIONS, INC.

Well No.	Time	Depth Water (ft.)	Depth Well (ft.)	Case Dia. (in)	Case Vol* gal	Purge Vol. (gal)	Conduct. $\mu\text{S}/\text{CM}$ (X1000)	Temp. Deg F	pH	TURB. NTU	PID PPH	Comments
14		8.10	25	2	3	9						
13		8.25	25	2	3	9						
10		7.33	20	2	2	6						
15		7.05	25	2	3	2						
8		7.25	25	2	3	9						Dry @ 2 gal
9		6.30	25	2	3	9						
1		6.96	25	2	3	9						
7		5.84	25	2	3	1						Dry @ 1 gal
6		6.61	25	2	3	3						Dry @ 3 gal
12		7.40	25	4	12	36						
						48						
						20						
						68						
						gal treated						
		2	2	2	4	4	4					
		1	8									