

DATE: September 25, 2001

**TOSCO MARKETING COMPANY  
GROUNDWATER MONITORING REPORT**

Site No.: 5353 Address: 600 Westlake Avenue North, 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) [Second - 2001]:**

- Monitored 11 and sampled 8 groundwater monitoring wells without purging

**WORK PROPOSED FOR NEXT QUARTER [Third - 2001]:**

- Monitor 9 wells and sample 7 wells without purging

**SUMMARY:**

Frequency of Sampling Events:	<u>Quarterly</u>	(Quarterly, etc.)
Approximate Depth to Groundwater:	<u>7 to 13 ft</u>	(Measured Feet)
Groundwater Gradient:	<u>Northerly and Easterly</u>	(Direction)
	<u>0.007 ft/ft</u>	(Magnitude)
Maximum TPH-G/Benzene Concentrations:	<u>25,800/5,300</u>	(ppb)
Measurable Free Product Detected:	<u>Yes; MW33 and MW37</u>	(Yes - ID wells(s)/No)
Free Product Recovered This Quarter:	<u>None</u>	(gallons)
Cumulative Free Product Recovered to Date:	<u>46,632</u>	(gallons)
Bulk Soil Removed This Quarter:	<u>None</u>	(cubic yards)
Water Wells or Surface Waters w/in a 2000'	<u>Lake Union</u>	(Distance &
Radius and Respective Direction:	<u>400 feet north</u>	Direction)
Current Remedial Action:	<u>VES</u>	(SVE/AS/P&T etc.)
Permits for Discharge:	<u>PSAPCA No. 4397</u>	(NPDES, POTW, etc.)

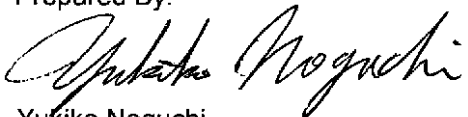
**DISCUSSION:**

- 3 of 8 wells sampled contained hydrocarbon concentrations exceeding MTCA Method A Cleanup Levels.
- MW32A and MW35 were additionally sampled on 6/26/01.

**ATTACHMENTS:**

- Plate P1 - Groundwater Sample Analysis Map, 6/15/01
- Table 1 - Groundwater Analytical Results
- Laboratory Reports and Chain of Custody Records
- Field Data Records

Prepared By:



Yukiko Noguchi  
Environmental Technician

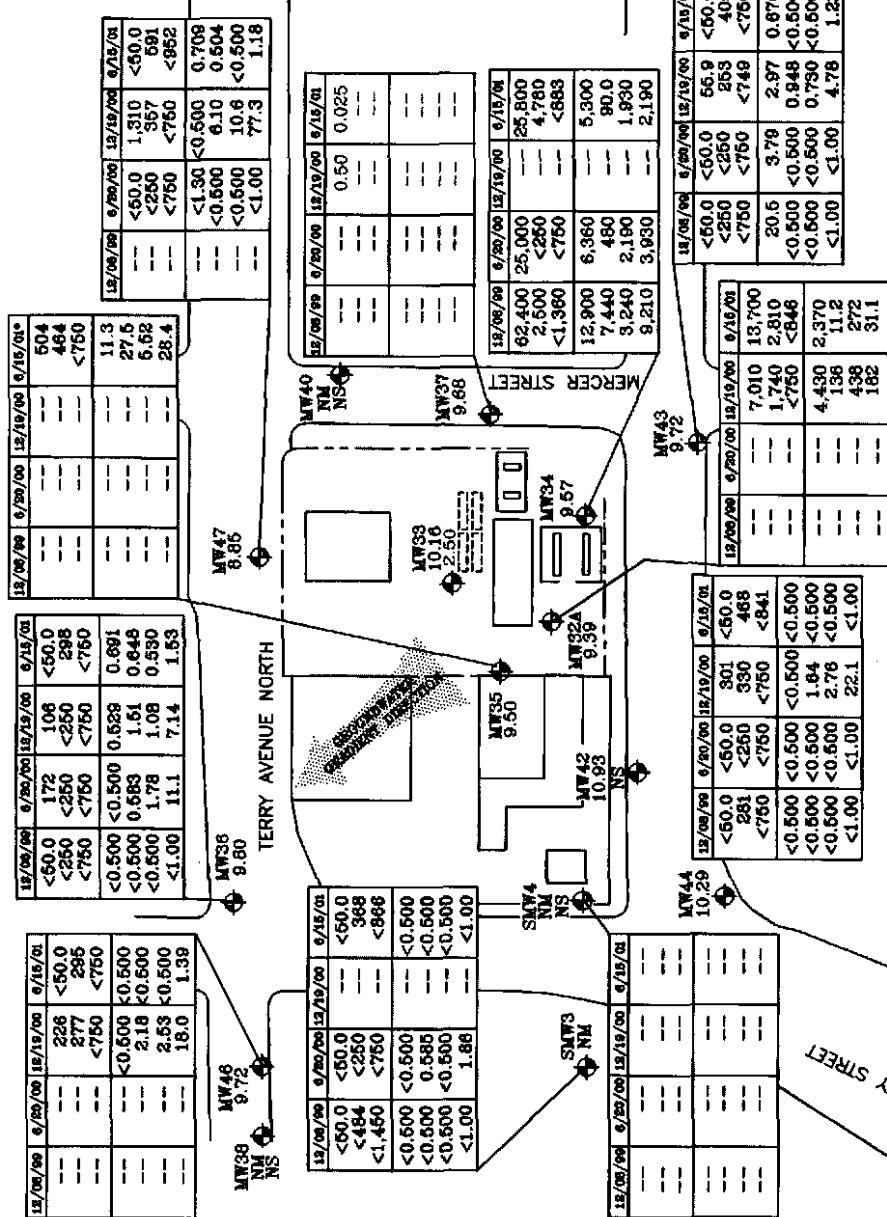
Reviewed By:



John K. Meyer, R.G.  
Branch Manager

cc: Ecology NW Region  
GeoEngineers, Dave Cook

APPROXIMATE SCALE



Laboratory Results in ug/L (ppb)

Sample Date	Total Petroleum Hydrocarbons as Gasoline	Total Petroleum Hydrocarbons as Diesel	Total Petroleum Hydrocarbons as Oil	Benzene	Toluene	Ethylbenzene	Total Xylenes
9/29/00	<50.0	346	<750	69.6	<0.500	<0.500	<1.00
9/15/01	<50.0	<750	<750	69.6	<0.500	<0.500	<1.00

Numbers in Red Exceed MPCA Method A Cleanup Levels  
 -- = Not Analyzed  
 <1.00 = Less Than Minimum Laboratory Test Limits

**PROJECT NO.**  
31020

**PLATE**  
1

YN: 09/21/01

**EXPLANATION**

Groundwater Monitoring Well	MW37	9.70	Groundwater Elevation	0.01	Free Product Thickness in Feet	NM	Not Measured
						NS	Not Sampled
						.	Samples collected on 6/28/01

**GROUNDWATER SAMPLE ANALYSIS MAP - 6/15/01**

TOSCO FACILITY 5353  
 600 Westlake Avenue North  
 Seattle, Washington

source: Modified by  
 from monitoring by  
 Tosco Marketing Company

FN 31120GWS

TABLE 1  
GROUNDWATER ANALYTICAL RESULTS  
Tosco Facility 5353  
600 Westlake Avenue North  
Seattle, Washington  
Page 1 of 6

Well Name	Sample Date	DTW	LPH	GW Elev.	TPH-G	TPH-D	TPH-O	B	T	E	X
SMW3 NE	03/08/95	10.25	0.00	--	<50	400	2,500	<0.5	<0.5	<0.5	<1.0
	06/06/95	10.23	0.00	--	<50	<250	<750	<0.5	<0.5	<0.5	<1.0
	09/07/95	10.89	0.00	--	<50	300	<750	<0.5	<0.5	<0.5	<1.0
	12/08/95	10.36	0.00	--	<50	300	<750	<0.5	<0.5	<0.5	<1.0
	04/01/96	10.07	0.00	--	34,000	4,000	2,300	6,400	42	2,100	3,000
	06/25/96	10.19	0.00	--	<50.0	320	<750	<0.500	<0.500	<0.500	<1.00
	09/27/96	11.12	0.00	--	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00
	03/28/97	10.19	0.00	--	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00
	06/30/97 <sup>NP</sup>	10.14	0.00	--	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00
	09/08/97 <sup>NP</sup>	10.85	0.00	--	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00
	12/19/97 <sup>NP</sup>	9.67	0.00	--	<50.0	521	<750	<0.500	<0.500	<0.500	<1.00
	3/16/98 <sup>NP</sup>	9.28	0.00	--	50.1	<250	<750	<0.500	<0.500	<0.500	<1.00
	6/26/98 <sup>NP</sup>	8.87	0.00	--	<50.0	500	<750	<0.500	<0.500	<0.500	<1.00
	9/23/98 <sup>NP</sup>	9.88	0.00	--	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00
	12/17/98 <sup>NP</sup>	9.22	0.00	--	<50.0	293	<750	<0.500	<0.500	<0.500	<1.00
	3/31/99 <sup>NP</sup>	9.01	0.00	--	<50.0	360	<750	<0.500	<0.500	0.526	4.97
	6/30/99 <sup>NP</sup>	9.55	0.00	--	<50.0	639	<750	<0.500	0.609	<0.500	1.32
	12/08/99 <sup>NP</sup>	8.75	0.00	--	<50.0	<484	<1,450	<0.500	<0.500	<0.500	<1.00
	06/20/00 <sup>NP</sup>	8.89	0.00	--	<50.0	<250	<750	<0.500	0.585	<0.500	1.86
	12/19/00	NM	--	--	--	--	--	--	--	--	--
6/15/01 <sup>NP</sup>	7.23	0.00	--	<50.0	368	<866	<0.500	<0.500	<0.500	<1.00	
06/26/01	NM	--	--	--	--	--	--	--	--	--	
SMW4 NE	03/08/95	8.14	0.00	--	38,000	4,100	5,100	13,000	<250	2,400	8,200
	06/06/95	8.90	0.00	--	41,000	5,500	<750	9,400	44	2,700	4,900
	09/07/95	8.99	0.00	--	--	--	--	--	--	--	--
	12/08/95	7.56	0.00	--	40,000	1,500	920	8,700	57	2,600	3,600
	04/01/96	8.13	0.00	--	<50	<250	<750	<0.5	<0.5	<0.5	<1.0
	06/25/96	8.20	0.00	--	28,100	2,680	830	3,900	81.4	1,710	1,710
	09/27/96	8.62	0.00	--	28,600	2,460	<750	6,080	<0.500	2,060	1,730
	03/28/97	8.20	0.00	--	--	--	--	--	--	--	--
	06/30/97	8.06	0.00	--	--	--	--	--	--	--	--
	09/08/97	9.00	0.00	--	--	--	--	--	--	--	--
	12/19/97	9.41	0.04	--	--	--	--	--	--	--	--
	03/16/98	9.09	0.00	--	--	--	--	--	--	--	--
	06/26/98	8.76	Trace	--	--	--	--	--	--	--	--
	09/23/98	9.96	0.05	--	--	--	--	--	--	--	--
	12/17/98	10.22	Trace	--	--	--	--	--	--	--	--
	03/31/99	8.70	Trace	--	--	--	--	--	--	--	--
	06/30/99	8.20	Trace	--	--	--	--	--	--	--	--
	12/08/99	Not Accessible	--	--	--	--	--	--	--	--	--
	06/20/00	Not Accessible	--	--	--	--	--	--	--	--	--
	12/19/00	Not Accessible	--	--	--	--	--	--	--	--	--
06/15/01	Not Accessible	--	--	--	--	--	--	--	--	--	
06/26/01	NM	--	--	--	--	--	--	--	--	--	
MW32A 20.70	03/08/95	11.29	0.00	9.69	21,080	2,300	2,300	5,690	1,700	990	2,900
	06/06/95	--	--	--	--	--	--	--	--	--	--
	09/07/95	11.27	--	9.43	20,000	2,500	1,600	4,200	470	730	2,000
	12/08/95	10.61	--	10.06	11,000	1,200	<750	1,600	86	420	910
	04/01/96	10.90	--	9.80	7,900	1,400	1,000	2,200	58	300	490
	06/25/96	10.98	--	9.72	7,500	<250	<750	1,200	80.4	217	435
	09/27/96	11.37	--	9.61	7,050	1,640	<750	1,570	37.4	263	418
	03/28/97	11.26	--	9.72	--	--	--	--	--	--	--
	06/30/97	10.89	--	--	--	--	--	--	--	--	--
	09/08/97	11.67	0.00	9.31	--	--	--	--	--	--	--
	12/19/97	11.42	0.00	9.28	--	--	--	--	--	--	--
	03/16/98	11.30	0.00	9.40	--	--	--	--	--	--	--
	06/26/98	11.29	0.00	9.41	--	--	--	--	--	--	--
	09/23/98	11.97	0.00	8.73	--	--	--	--	--	--	--
	12/17/98	11.09	0.00	9.61	--	--	--	--	--	--	--
	03/31/99	10.47	0.00	10.23	--	--	--	--	--	--	--
	06/30/99	9.60	0.00	11.10	--	--	--	--	--	--	--
	12/08/99	11.07	0.00	9.63	--	--	--	--	--	--	--
	06/20/00	11.40	0.00	9.30	--	--	--	--	--	--	--
	12/19/00 <sup>NP</sup>	10.90	0.00	9.80	7,010	1,740	<750	4,430	136	438	192
6/15/01 <sup>NP</sup>	11.31	0.00	9.39	13,700	2,810	<846	2,370	11.2	272	311	
6/26/01 <sup>NP</sup>	11.85	0.00	8.85	15,500	1,620	<750	6,780	1,110	1,230	1,020	
MTCA Method A Cleanup Level					1,000*	5	40	30	20		

Continued on Page 2.

TABLE 1  
GROUNDWATER ANALYTICAL RESULTS  
Tosco Facility 5353  
600 Westlake Avenue North  
Seattle, Washington  
Page 2 of 6

Well Name	Sample Date	DTW	LPH	GW Elev.	TPH-G	TPH-D	TPH-O	B	T	E	X
MW33 20.75	03/08/95	11.16	0.00	9.73	4,900	1,400	2,000	650	<25	320	420
	06/06/95	--	--	--	--	--	--	--	--	--	--
	09/07/95	11.20	0.00	9.55	9,700	1,400	820	550	140	230	620
	12/08/95	--	--	--	13,000	1,900	1,600	800	240	280	760
	04/01/96	11.00	0.00	9.75	5,200	960	<750	630	33	150	270
	06/25/96	11.05	0.00	9.70	2,700	1,030	<750	230	24.6	46.5	61.1
	09/27/96	11.13	0.00	9.76	5,450	1,190	<750	1,190	237	86.3	272
	03/28/97	11.19	0.00	9.70	--	--	--	--	--	--	--
	06/30/97	10.66	0.00	10.23	--	--	--	--	--	--	--
	09/08/97	10.48	0.00	10.41	--	--	--	--	--	--	--
	12/19/97	--	--	--	--	--	--	--	--	--	--
	03/16/98	--	--	--	--	--	--	--	--	--	--
	06/26/98	11.18	0.00	9.57	--	--	--	--	--	--	--
	09/23/98	11.90	0.00	8.85	--	--	--	--	--	--	--
	12/17/98	11.03	0.00	9.72	--	--	--	--	--	--	--
	03/31/99	10.38	0.00	10.37	--	--	--	--	--	--	--
	06/30/99	9.52	0.00	11.23	--	--	--	--	--	--	--
	12/08/99	10.97	0.00	9.78	--	--	--	--	--	--	--
	06/20/00	11.33	0.00	9.42	--	--	--	--	--	--	--
	12/19/00	Not Accessible	--	--	--	--	--	--	--	--	--
06/15/01	12.72	2.50	10.16	--	--	--	--	--	--	--	
06/26/01	NM	--	--	--	--	--	--	--	--	--	
MW34 21.42	03/08/95	11.62	0.00	10.08	8,200	1,100	480	2,400	1,500	250	1,300
	06/06/95	11.73	0.00	9.97	9,100	2,300	<750	4,200	1,000	330	1,200
	09/07/95	11.57	0.00	9.85	18,000	1,800	930	4,800	2,300	560	2,000
	12/08/95	10.92	0.00	10.50	68,000	2,900	1,600	12,000	9,200	1,200	5,500
	04/01/96	11.21	0.00	10.21	18,000	1,900	<750	5,500	590	520	1,200
	06/25/96	11.19	0.00	10.23	13,700	1,160	<750	4,180	1,110	383	1,740
	09/27/96	11.58	0.00	10.12	16,300	1,030	<750	5,610	2,520	841	1,310
	03/28/97	11.47	0.00	10.23	--	--	--	--	--	--	--
	6/30/97 <sup>NP</sup>	11.19	0.00	10.51	2,970	331	<750	1,930	15.7	271	531
	9/08/97 <sup>NP</sup>	11.74	0.00	9.96	8,380	455	<750	3,620	645	867	1,270
	12/19/97	NM	--	--	--	--	--	--	--	--	--
	03/16/98	NM	--	--	--	--	--	--	--	--	--
	6/26/98 <sup>NP</sup>	11.42	0.00	10.00	78,900	3,090	<750	13,400	11,100	2,310	9,080
	9/23/98 <sup>NP</sup>	12.23	0.00	9.19	5,640	3,000	788	3,540	243	638	1,650
	12/17/98 <sup>NP</sup>	11.35	0.00	10.07	80,900	5,470	1,380	14,200	10,800	3,110	11,800
	3/31/99 <sup>NP</sup>	10.85	0.00	10.57	33,400	1,910	<750	5,970	1,740	1,400	3,320
	6/30/99 <sup>NP</sup>	10.18	0.00	11.24	28,500	4,840	984	4,340	1,320	1,490	3,610
	12/08/99 <sup>NP</sup>	11.33	0.00	10.09	62,400	2,500	<1,360	12,900	7,440	3,240	9,210
	6/20/00 <sup>NP</sup>	11.68	0.00	9.74	25,000	<250	<750	6,360	480	2,190	3,930
	12/19/00	NM	--	--	--	--	--	--	--	--	--
6/15/01 <sup>NP</sup>	11.85	0.00	9.57	25,800	4,780	<883	5,300	98.0	1,930	2,190	
06/26/01	NM	--	--	--	--	--	--	--	--	--	
MW35 20.10	03/08/95	10.67	0.00	9.60	2,600	1,200	1,300	400	<25	120	63
	06/06/95	10.67	0.00	9.60	810	1,000	930	62	1.4	27	36
	09/07/95	10.67	0.00	9.43	--	--	--	--	--	--	--
	12/08/95	0.00	--	--	--	--	--	--	--	--	--
	04/01/96	--	--	--	--	--	--	--	--	--	--
	06/25/96	11.11	0.00	8.99	1,620	850	<750	68.2	1.11	26.7	17.6
	09/27/96	10.64	0.00	9.63	999	524	<750	38.8	0.990	10.4	6.18
	03/28/97 <sup>NP</sup>	11.28	0.00	8.99	370	333	<750	181	2.36	31.3	10.7
	03/28/97	11.28	0.00	8.99	1,900	<250	<750	250	2.62	49.1	8.04
	06/30/97 <sup>NP</sup>	10.19	0.00	10.08	1,900	<250	<750	348	<2.50	85.0	7.31
	09/08/97 <sup>NP</sup>	10.86	0.00	9.41	4,200	<250	<750	1,460	16.2	231	69.2
	12/19/97	NM	--	--	--	--	--	--	--	--	--
	3/16/98 <sup>NP</sup>	10.64	0.00	9.46	905	361	<750	410	4.24	<2.50	<5.00
	6/26/98 <sup>NP</sup>	10.65	0.00	9.45	1,300	682	<750	600	<10.0	45.1	<20.0
	9/23/98 <sup>NP</sup>	11.38	0.00	8.72	685	659	<750	243	<2.50	<2.50	<5.00
	12/17/98 <sup>NP</sup>	10.49	0.00	9.61	699	572	<750	402	<2.50	10.8	9.99
	03/31/99	Obstructed by vehicle	--	--	--	--	--	--	--	--	--
	06/30/99	Obstructed by vehicle	--	--	--	--	--	--	--	--	--
	12/08/99	Obstructed by vehicle	--	--	--	--	--	--	--	--	--
06/20/00	Obstructed by vehicle	--	--	--	--	--	--	--	--	--	
12/19/00	Obstructed by vehicle	--	--	--	--	--	--	--	--	--	
06/15/01	NM	--	--	--	--	--	--	--	--	--	
6/26/01 <sup>NP</sup>	10.60	0.00	9.50	504	464	<750	11.3	27.5	5.52	28.4	

MTCA Method A Cleanup Level

1,000<sup>a</sup>

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Continued on Page 3.

TABLE 1  
GROUNDWATER ANALYTICAL RESULTS  
Tosco Facility 5353  
600 Westlake Avenue North  
Seattle, Washington  
Page 3 of 6

Well Name	Sample Date	DTW	LPH	GW Elev.	TPH-G	TPH-D	TPH-O	B	T	E	X
MW36 17.80	03/08/95	9.07	0.00	8.97	<50	580	1,200	2.6	<0.5	<0.5	<1.0
	06/06/95	7.92	0.00	10.12	<50	<250	<750	1.0	<0.5	<0.5	<1.0
	09/07/95	8.11	0.00	9.69	<50	<250	<750	<0.5	<0.5	<0.5	<1.0
	12/08/95	9.00	0.00	8.80	<50	510	1,200	1.1	<0.5	<0.5	<1.0
	04/01/96	9.00	0.00	8.80	<50	<250	<750	<0.5	<0.5	<0.5	<1.0
	06/25/96	8.97	0.00	--	<50.0	<250	<750	0.580	0.500	<0.500	<1.00
	09/27/96	7.53	0.00	10.51	<50.0	<250	<750	1.18	<0.500	<0.500	<1.00
	03/28/97	9.21	0.00	8.83	<50.0	<250	<750	0.810	<0.500	<0.500	<1.00
	06/30/97 <sup>NP</sup>	6.88	0.00	11.16	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00
	09/08/97 <sup>NP</sup>	9.21	0.00	8.83	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00
	12/19/97 <sup>NP</sup>	10.09	0.00	7.71	<50.0	<250	<750	0.606	<0.500	<0.500	<1.00
	3/16/98 <sup>NP</sup>	9.29	0.00	8.51	56.6	287	<750	<0.500	<0.500	<0.500	<1.00
	6/26/98 <sup>NP</sup>	8.47	0.00	9.33	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00
	9/23/98 <sup>NP</sup>	9.89	0.00	7.91	<50.0	<250	<750	0.737	<0.500	<0.500	1.13
	12/17/98 <sup>NP</sup>	10.00	0.00	7.80	<50.0	288	<750	0.533	<0.500	<0.500	<1.00
	3/31/99 <sup>NP</sup>	8.96	0.00	8.84	<50.0	321	<750	0.759	<0.500	<0.500	<1.00
	6/30/99 <sup>NP</sup>	8.44	0.00	9.36	<50.0	<250	<750	1.29	<0.500	<0.500	<1.00
	12/08/99 <sup>NP</sup>	10.05	0.00	7.75	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00
	06/20/00 <sup>NP</sup>	8.47	0.00	9.33	172	<250	<750	<0.500	0.583	1.78	11.1
	12/19/00 <sup>NP</sup>	9.50	0.00	8.30	106	<250	<750	0.529	1.51	1.08	7.14
6/15/01 <sup>NP</sup>	8.00	0.00	9.80	<50.0	298	<750	0.691	0.648	0.530	1.53	
06/26/01	NM	--	--	--	--	--	--	--	--	--	
MW37 21.01	03/08/95	11.94	0.00	9.24	94	3,200	1,480	3,100	2,400	1,200	6,700
	06/06/95	11.76	0.01	9.43	45	4,600	2,500	3,700	2,400	1,300	7,800
	06/06/95	11.76	0.01	9.43	90	--	--	5,100	6,000	2,400	14,000
	09/07/95	11.17	0.00	9.84	--	--	--	--	--	--	--
	12/08/95	10.22	0.00	10.79	--	--	--	--	--	--	--
	04/01/96	10.79	0.02	10.22	--	--	--	--	--	--	--
	06/25/96	10.82	0.20	10.19	--	--	--	--	--	--	--
	09/27/96	11.47	0.05	9.75	--	--	--	--	--	--	--
	03/28/97 <sup>NP</sup>	11.14	0.25	10.40	60,100	37,570	789	1,530	2,180	1,650	7,440
	03/28/97	11.14	0.25	10.40	297,000	45,100	<8,250	6,570	13,200	4,930	22,900
	06/30/97	10.80	0.02	10.23	--	--	--	--	--	--	--
	09/08/97	11.41	0.23	9.77	--	--	--	--	--	--	--
	12/19/97	11.28	0.02	9.75	--	--	--	--	--	--	--
	03/16/98	11.11	0.01	9.91	--	--	--	--	--	--	--
	06/26/98	11.32	0.01	9.70	--	--	--	--	--	--	--
	09/23/98	12.01	0.03	9.03	--	--	--	--	--	--	--
	12/17/98	11.00	Trace	10.01	--	--	--	--	--	--	--
	03/31/99	--	Trace	--	--	--	--	--	--	--	--
	06/30/99	Dry	0.3	--	--	--	--	--	--	--	--
	12/08/99	11.11	--	9.90	--	--	--	--	--	--	--
06/20/00	11.50	--	9.51	--	--	--	--	--	--	--	
12/19/00	11.50	0.50	9.94	--	--	--	--	--	--	--	
6/15/01 <sup>NP</sup>	11.35	0.025	9.68	--	--	--	--	--	--	--	
06/26/01	NM	--	--	--	--	--	--	--	--	--	
MW38 16.52	03/08/95	--	--	--	--	--	--	--	--	--	--
	06/06/95	--	--	--	--	--	--	--	--	--	--
	09/07/95	--	--	--	--	--	--	--	--	--	--
	12/08/95	--	--	--	--	--	--	--	--	--	--
	04/01/96	--	--	--	--	--	--	--	--	--	--
	06/25/96	--	--	--	--	--	--	--	--	--	--
	09/27/96	--	--	--	--	--	--	--	--	--	--
	03/28/97	9.23	0.00	7.60	<50	<250	<750	<0.500	<0.500	<0.500	<1.00
	06/30/97	--	--	--	--	--	--	--	--	--	--
	09/08/97	--	--	--	--	--	--	--	--	--	--
	12/19/97	NM	--	--	--	--	--	--	--	--	--
	03/16/98	NM	--	--	--	--	--	--	--	--	--
	06/26/98	NM	--	--	--	--	--	--	--	--	--
	09/23/98	NM	--	--	--	--	--	--	--	--	--
	12/17/98	NM	--	--	--	--	--	--	--	--	--
	03/31/99	NM	--	--	--	--	--	--	--	--	--
06/30/99	NM	--	--	--	--	--	--	--	--	--	
12/08/99	NM	--	--	--	--	--	--	--	--	--	
06/20/00	NM	--	--	--	--	--	--	--	--	--	
12/19/00	NM	--	--	--	--	--	--	--	--	--	
06/15/01	NM	--	--	--	--	--	--	--	--	--	
06/26/01	NM	--	--	--	--	--	--	--	--	--	

MTCA Method A Cleanup Level

1,000<sup>a</sup> 5 40 30 20

Continued on page 4.

TABLE 1  
GROUNDWATER ANALYTICAL RESULTS  
Tosco Facility 5353  
600 Westlake Avenue North  
Seattle, Washington  
Page 4 of 6

Well Name	Sample Date	DTW	LPH	GW Elev.	TPH-G	TPH-D	TPH-O	B	T	E	X
MW40 20.89	03/08/95	10.98	0.00	10.14	960	2,400	2,600	11	<0.5	11	<1.0
	06/06/95	11.18	0.00	9.94	1,500	2,300	1,600	8.8	4.3	4.1	21
	09/07/95	11.08	0.00	9.81	650	13,000	66,000	11	0.91	0.57	<1.0
	12/08/95	10.30	0.00	10.59	500	1,400	4,800	2.7	3	<0.5	<1.0
	04/01/96	10.56	0.00	10.33	520	3,200	13,000	1.2	<0.5	0.55	<1.0
	06/25/96	10.69	0.00	10.20	500	2,700	8,460	<0.500	9.82	<0.500	<1.00
	09/27/96	10.95	0.00	10.17	602	3,550	9,660	0.604	41.1	0.525	<1.0
	03/28/97	10.92	0.00	10.20	--	--	--	--	--	--	--
	06/30/97	--	--	--	--	--	--	--	--	--	--
	09/08/97	--	--	--	--	--	--	--	--	--	--
	12/19/97 <sup>TM</sup>	11.11	0.00	9.78	325	3,260	12,500	<0.500	0.504	0.663	2.44
	03/16/98	NM	--	--	--	--	--	--	--	--	--
	06/26/98	NM	--	--	--	--	--	--	--	--	--
	09/23/98	NM	--	--	--	--	--	--	--	--	--
	12/17/98 <sup>TM</sup>	10.86	0.00	10.03	384	2,940	8,620	<0.500	<0.500	<0.500	<1.00
	03/31/99	NM	--	--	--	--	--	--	--	--	--
	06/30/99	NM	--	--	--	--	--	--	--	--	--
12/08/99	NM	--	--	--	--	--	--	--	--	--	
06/20/00	NM	--	--	--	--	--	--	--	--	--	
12/09/00	NM	--	--	--	--	--	--	--	--	--	
12/19/00	NM	--	--	--	--	--	--	--	--	--	
06/15/01	NM	--	--	--	--	--	--	--	--	--	
06/26/01	NM	--	--	--	--	--	--	--	--	--	
MW41 27.00	03/08/95	14.72	--	12.48	<50	<250	<750	1.6	<0.5	<0.5	<1.0
	06/06/95	15.02	--	12.18	<50	<250	<750	<0.5	<0.5	<0.5	<1.0
	09/07/95	15.00	--	12.00	<50	<250	<750	<0.5	<0.5	<0.5	<1.0
	12/08/95	16.30	--	10.70	<50	<250	<750	<0.5	<0.5	<0.5	<1.0
	04/01/96	15.02	--	11.98	<50	<250	<750	<0.5	<0.5	<0.5	<1.0
	06/25/96	15.07	--	11.93	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00
	09/27/96	15.42	0.00	11.78	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00
	03/28/97	15.27	0.00	11.93	--	--	--	--	--	--	--
	06/30/97	--	--	--	--	--	--	--	--	--	--
	09/08/97	--	--	--	--	--	--	--	--	--	--
	12/19/97	NM	--	--	--	--	--	--	--	--	--
	03/16/98	NM	--	--	--	--	--	--	--	--	--
	06/26/98	NM	--	--	--	--	--	--	--	--	--
	09/23/98	NM	--	--	--	--	--	--	--	--	--
	12/17/98	NM	--	--	--	--	--	--	--	--	--
	03/31/99	NM	--	--	--	--	--	--	--	--	--
	06/30/99	NM	--	--	--	--	--	--	--	--	--
12/08/99	NM	--	--	--	--	--	--	--	--	--	
06/20/00	NM	--	--	--	--	--	--	--	--	--	
12/19/00	NM	--	--	--	--	--	--	--	--	--	
06/15/01	NM	--	--	--	--	--	--	--	--	--	
06/26/01	NM	--	--	--	--	--	--	--	--	--	
MW42 20.34	03/08/95	9.45	0.00	10.91	130	670	1,200	790	<25	<25	<50
	06/06/95	9.37	0.00	10.89	120	920	1,500	590	<0.56	<0.5	<1.0
	09/07/95	9.50	0.00	10.84	3,000	780	1,200	210	4.1	42	230
	12/08/95	8.95	0.00	11.39	260	1,300	1,900	380	<2.0	<2.0	<4.0
	04/01/96	9.03	0.00	11.31	180	650	<750	280	0.52	<0.5	<1.0
	06/25/96	9.07	0.00	11.27	150	720	<750	150	<0.500	<0.500	<1.00
	09/27/96	9.12	0.00	11.24	<250	534	<750	228	<2.50	<2.50	<5.00
	03/28/97	9.09	0.00	11.27	--	--	--	--	--	--	--
	06/30/97	8.92	0.00	11.44	--	--	--	--	--	--	--
	09/08/97	9.57	0.00	10.79	--	--	--	--	--	--	--
	12/19/97	NM	--	--	--	--	--	--	--	--	--
	03/16/98	9.53	0.00	10.81	--	--	--	--	--	--	--
	06/26/98	9.51	0.00	10.83	--	--	--	--	--	--	--
	09/23/98	9.96	0.00	10.38	--	--	--	--	--	--	--
	12/17/98	9.10	0.00	11.24	--	--	--	--	--	--	--
	03/31/99	9.00	0.00	11.34	--	--	--	--	--	--	--
	06/30/99	8.60	0.00	11.74	--	--	--	--	--	--	--
12/08/99	8.00	0.00	12.34	--	--	--	--	--	--	--	
06/20/00	NM	--	--	--	--	--	--	--	--	--	
12/19/00	NM	--	--	--	--	--	--	--	--	--	
06/15/01	9.41	0.00	10.93	--	--	--	--	--	--	--	
06/26/01	NM	--	--	--	--	--	--	--	--	--	
MTCA Method A Cleanup Level					1,000 <sup>a</sup>			5	40	30	20

Continued on page 5.

TABLE 1  
GROUNDWATER ANALYTICAL RESULTS  
Tosco Facility 5353  
600 Westlake Avenue North  
Seattle, Washington  
Page 5 of 6

Well Name	Sample Date	DTW	LPH	GW Elev.	TPH-G	TPH-D	TPH-O	B	T	E	X
MW43 21.04	03/08/95	11.35	0.00	9.94	<50	650	2,400	25	<0.5	<0.5	<1.0
	06/06/95	11.45	0.00	9.84	<50	650	1,500	6.2	<0.5	<0.5	<1.0
	09/07/95	11.14	0.00	9.90	<50	<250	850	10	<0.5	<0.5	<1.0
	12/08/95	10.85	0.00	10.19	<50	980	3,100	37	<0.5	<0.5	<1.0
	04/01/96	10.98	0.00	10.06	<50	300	<750	4.5	<0.5	<0.5	<1.0
	06/25/96	11.06	0.00	9.98	<50.0	370	<750	2.57	<0.500	<0.500	<1.00
	09/27/96	11.33	0.00	9.96	<50.0	339	<750	4.40	<0.5	<0.500	<1.00
	03/28/97	11.13	0.00	9.98	<50.0	<250	<750	5.88	0.884	<0.500	2.47
	06/30/97 <sup>NP</sup>	7.08	0.00	14.21	<50.0	<250	<750	59.2	<0.500	<0.500	<1.00
	09/08/97 <sup>NP</sup>	11.46	0.00	9.83	83	<250	<750	35.5	<0.500	2.10	3.08
	12/19/97	NM	--	--	--	--	--	--	--	--	--
	3/16/98 <sup>NP</sup>	11.09	0.00	9.95	76.3	408	<750	28.5	<0.500	<0.500	<1.00
	6/26/98 <sup>NP</sup>	11.26	0.00	9.78	<50.0	346	<750	69.8	<0.500	<0.500	<1.00
	9/23/98 <sup>NP</sup>	11.75	0.00	9.29	<50.0	267	<750	9.05	<0.500	<0.500	<1.00
	12/17/98 <sup>NP</sup>	11.07	0.00	9.97	<50.0	<250	<750	33.0	<0.500	<0.500	<1.00
	3/31/99 <sup>NP</sup>	10.97	0.00	10.07	<50.0	267	<750	9.84	<0.500	0.782	2.47
	6/30/99 <sup>NP</sup>	9.97	0.00	11.07	146	253	<750	28.2	7.47	2.95	17.5
	12/08/99 <sup>NP</sup>	11.06	0.00	9.98	<50.0	<250	<750	20.5	<0.500	<0.500	<1.00
	06/20/00 <sup>NP</sup>	11.40	0.00	9.64	<50.0	<250	<750	3.79	<0.500	<0.500	<1.00
	12/19/00 <sup>NP</sup>	11.40	0.00	9.64	55.9	253	<749	2.97	0.948	0.730	4.78
6/15/01 <sup>NP</sup>	11.32	0.00	9.72	<50.0	405	<750	0.670	<0.500	<0.500	1.22	
06/26/01	NM	--	--	--	--	--	--	--	--	--	
MW44 18.73	03/08/95	9.44	0.00	10.46	<50	250	940	<0.5	<0.5	<0.5	<1.0
	06/06/95	8.28	0.00	10.62	<50	<250	820	<0.5	<0.5	<0.5	1.6
	09/07/95	7.94	0.00	10.79	<50	<250	<750	<0.5	<0.5	<0.5	<1.0
	12/08/95	8.09	0.00	10.64	<50	520	2,500	<0.5	<0.5	<0.5	<1.0
	04/01/96	7.98	0.00	10.75	<50	<250	<750	<0.5	<0.5	<0.5	<1.0
	06/25/96	7.90	0.00	10.83	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00
	09/27/96	8.28	0.00	10.59	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00
	03/28/97	8.07	0.00	10.83	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00
	06/30/97 <sup>NP</sup>	7.84	0.00	11.06	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00
	09/08/97 <sup>NP</sup>	8.65	0.00	10.25	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00
	12/19/97 <sup>NP</sup>	8.51	0.00	10.22	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00
	3/16/98 <sup>NP</sup>	8.43	0.00	10.30	60.0	310	<750	<0.500	<0.500	<0.500	<1.00
	6/26/98 <sup>NP</sup>	8.37	0.00	10.36	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00
	9/23/98 <sup>NP</sup>	9.30	0.00	9.43	<50.0	343	<750	<0.500	<0.500	<0.500	<1.00
	12/17/98 <sup>NP</sup>	8.10	0.00	10.63	<50.0	271	<750	<0.500	<0.500	<0.500	<1.00
	3/31/99 <sup>NP</sup>	8.18	0.00	10.55	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00
	6/30/99 <sup>NP</sup>	8.03	0.00	10.70	<50.0	393	<750	<0.500	0.619	<0.500	1.21
	12/08/99 <sup>NP</sup>	8.52	0.00	10.21	<50.0	281	<750	<0.500	<0.500	<0.500	<1.00
	06/20/00 <sup>NP</sup>	9.53	0.00	9.20	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00
	12/19/00 <sup>NP</sup>	9.20	0.00	9.53	301	330	<750	<0.500	1.64	2.76	22.1
6/15/01 <sup>NP</sup>	8.44	0.00	10.29	<50.0	468	<841	<0.500	<0.500	<0.500	<1.00	
06/26/01	NM	--	--	--	--	--	--	--	--	--	
MW46 16.91	03/08/95	8.00	0.00	8.91	<50	720	3,600	<0.5	<0.5	<0.5	<1.0
	06/06/95	7.30	0.00	10.01	<50	<250	1,400	<0.5	<0.5	<0.5	<1.0
	09/07/95	7.80	0.00	8.93	<50	710	5,600	<0.5	<0.5	<0.5	<1.0
	12/08/95	8.32	0.00	8.59	<50	1,400	14,000	<0.5	<0.5	<0.5	<1.0
	04/01/96	7.04	0.00	9.87	<50	<400	2,800	<0.5	<0.5	<0.5	<1.0
	06/25/96	7.85	0.00	9.06	<50.0	440	2,090	<0.500	<0.500	<0.500	<1.00
	09/27/96	7.57	0.00	9.74	<50.0	267	<750	0.518	<0.500	<0.500	<1.00
	03/28/97	7.25	0.00	10.06	<50.0	<250	<750	<0.500	1.25	<0.500	2.06
	06/30/97	7.12	0.00	10.19	--	--	--	--	--	--	--
	09/08/97	8.82	0.00	8.49	--	--	--	--	--	--	--
	12/19/97 <sup>NP</sup>	9.40	0.00	7.51	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00
	03/16/98	NM	--	--	--	--	--	--	--	--	--
	06/26/98	NM	--	--	--	--	--	--	--	--	--
	09/23/98	NM	--	--	--	--	--	--	--	--	--
	12/17/98 <sup>NP</sup>	9.20	0.00	7.71	<50.0	354	<750	<0.500	<0.500	<0.500	<1.00
	03/31/99	NM	--	--	--	--	--	--	--	--	--
	06/30/99	NM	--	--	--	--	--	--	--	--	--
	12/08/99	NM	--	--	--	--	--	--	--	--	--
	06/20/00	NM	--	--	--	--	--	--	--	--	--
	12/19/00*	12.70	0.00	4.21	226	277	<750	<0.500	2.18	2.53	18.0
6/15/01 <sup>NP</sup>	7.19	0.00	9.72	<50.0	295	<750	<0.500	<0.500	<0.500	1.39	
06/26/01	NM	--	--	--	--	--	--	--	--	--	
MTCA Method A Cleanup Level					1,000*	5	40	30	20		

Continued on page 6.

TABLE 1  
GROUNDWATER ANALYTICAL RESULTS  
Tosco Facility 5353  
600 Westlake Avenue North  
Seattle, Washington  
Page 6 of 6

Well Name	Sample Date	DTW	LPH	GW Elev.	TPH-G	TPH-D	TPH-O	B	T	E	X
MW47	03/08/95	10.88	0.00	9.16	<50	330	4,600	3.3	<0.5	<0.5	<1.0
19.83	06/06/95	10.91	0.00	9.13	70	380	780	15	0.59	<0.5	2.3
	09/07/95	10.76	0.00	9.07	<50	260	<750	1.7	<0.5	<0.5	<1.0
	12/08/95	10.40	0.00	9.43	740	580	2,000	<0.5	<0.5	<0.5	<1.0
	04/01/96	10.67	0.00	9.16	<50	<250	<750	4.4	<0.5	<0.5	<1.0
	06/25/96	10.71	0.00	9.12	110	400	<750	14.4	<0.500	<0.500	<1.00
	09/27/96	10.85	0.00	9.19	<50.0	<250	<750	4.34	<0.500	<0.500	<1.00
	03/28/97 <sup>NP</sup>	10.92	0.00	9.12	64.5	<250	<750	7.61	<0.500	<0.500	1.57
	03/28/97	10.92	0.00	9.12	177	<250	<750	52.6	<0.500	<0.500	<1.00
	06/30/97	--	--	--	--	--	--	--	--	--	--
	09/08/97	--	--	--	--	--	--	--	--	--	--
	12/19/97	--	--	--	--	--	--	--	--	--	--
	03/16/98	--	--	--	--	--	--	--	--	--	--
	6/26/98 <sup>NP</sup>	10.78	0.00	9.05	<50.0	356	<750	27.5	<0.500	<0.500	<1.00
	09/23/98	--	--	--	--	--	--	--	--	--	--
	12/17/98 <sup>NP</sup>	10.61	0.00	9.22	<50.0	<250	<750	3.34	<0.500	<0.500	1.12
	03/31/99	9.65	0.00	10.18	--	--	--	--	--	--	--
	06/30/99	--	0.00	--	--	--	--	--	--	--	--
	12/08/99	--	--	--	--	--	--	--	--	--	--
	06/20/00 <sup>NP</sup>	10.94	0.00	8.89	<50.0	<250	<750	<1.30	<0.500	<0.500	<1.00
	12/19/00 <sup>NP</sup>	11.20	0.00	8.63	310	357	<750	<0.500	6.10	10.6	17.5
	06/15/01	10.98	0.00	8.85	<50.0	591	<952	0.709	0.504	<0.500	1.18
	06/26/01	NM	--	--	--	--	--	--	--	--	--

MTCA Method A Cleanup Level 1,000\* 5 40 30 20

EXPLANATION:

Concentrations in ug/L (ppb).

Wellhead elevations taken from prior consultant's reports.

DTW = Depth to water in feet below top of casing except where noted in prior reports.

LPH = Liquid-phase petroleum hydrocarbon thickness in feet.

GW Elev. = Groundwater elevation relative to DTW data; corrected for LPH where applicable using a specific gravity of 0.85.

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

TPH-D and TPH-O = Total petroleum hydrocarbons as diesel and as oil (respectively) by Ecology Method WTPH-D (Extended).

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

BTEX = Aromatic compounds by EPA Method 8020.

< = Less than the stated laboratory reporting limit.

NE = Not established; NM = Not measured; -- = Not analyzed.

<sup>NP</sup> = Not purged.

\* Total Petroleum Hydrocarbons

Shaded values equal or exceed MTCA Method A Cleanup Levels.

Data collected before 12/19/97 are taken from prior consultants.

\*MW-46 is identified as MW-9 on the chain of custody and official laboratory report





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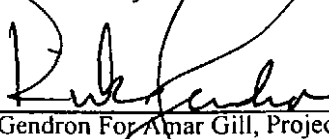
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**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-32A	B1F0365-01	Water	06/15/01 12:00	06/15/01 19:50
MW-34	B1F0365-02	Water	06/15/01 12:00	06/15/01 19:50
MW-36	B1F0365-03	Water	06/15/01 12:00	06/15/01 19:50
MW-43	B1F0365-04	Water	06/15/01 12:00	06/15/01 19:50
MW-44	B1F0365-05	Water	06/15/01 12:00	06/15/01 19:50
MW-46	B1F0365-06	Water	06/15/01 12:00	06/15/01 19:50
MW-47	B1F0365-07	Water	06/15/01 12:00	06/15/01 19:50
SMW-3	B1F0365-08	Water	06/15/01 12:00	06/15/01 19:50

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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
<b>MW-32A (B1F0365-01) Water</b> Sampled: 06/15/01 12:00 Received: 06/15/01 19:50									
Diesel Range Hydrocarbons	2.81	0.282	mg/l	1	1F21011	06/21/01	06/25/01	WTPH-D	
Heavy Oil Range Hydrocarbons	ND	0.846	"	"	"	"	"	"	
Surrogate: 2-FBP	98.6 %	50-150			"	"	"	"	
Surrogate: Octacosane	81.7 %	50-150			"	"	"	"	
<b>MW-34 (B1F0365-02) Water</b> Sampled: 06/15/01 12:00 Received: 06/15/01 19:50									
Diesel Range Hydrocarbons	4.78	0.294	mg/l	1	1F21011	06/21/01	06/25/01	WTPH-D	
Heavy Oil Range Hydrocarbons	ND	0.883	"	"	"	"	"	"	
Surrogate: 2-FBP	99.7 %	50-150			"	"	"	"	
Surrogate: Octacosane	89.1 %	50-150			"	"	"	"	
<b>MW-36 (B1F0365-03) Water</b> Sampled: 06/15/01 12:00 Received: 06/15/01 19:50									
Diesel Range Hydrocarbons	0.298	0.250	mg/l	1	1F21011	06/21/01	06/25/01	WTPH-D	
Heavy Oil Range Hydrocarbons	ND	0.750	"	"	"	"	"	"	
Surrogate: 2-FBP	98.6 %	50-150			"	"	"	"	
Surrogate: Octacosane	88.4 %	50-150			"	"	"	"	
<b>MW-43 (B1F0365-04) Water</b> Sampled: 06/15/01 12:00 Received: 06/15/01 19:50									
Diesel Range Hydrocarbons	0.405	0.250	mg/l	1	1F21011	06/21/01	06/25/01	WTPH-D	
Heavy Oil Range Hydrocarbons	ND	0.750	"	"	"	"	"	"	
Surrogate: 2-FBP	93.7 %	50-150			"	"	"	"	
Surrogate: Octacosane	96.3 %	50-150			"	"	"	"	
<b>MW-44 (B1F0365-05) Water</b> Sampled: 06/15/01 12:00 Received: 06/15/01 19:50									
Diesel Range Hydrocarbons	0.468	0.280	mg/l	1	1F21011	06/21/01	06/25/01	WTPH-D	
Heavy Oil Range Hydrocarbons	ND	0.841	"	"	"	"	"	"	
Surrogate: 2-FBP	96.4 %	50-150			"	"	"	"	
Surrogate: Octacosane	86.6 %	50-150			"	"	"	"	

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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
<b>MW-46 (B1F0365-06) Water</b> <b>Sampled: 06/15/01 12:00</b> <b>Received: 06/15/01 19:50</b>									
Diesel Range Hydrocarbons	0.295	0.250	mg/l	1	1F21011	06/21/01	06/25/01	WTPH-D	
Heavy Oil Range Hydrocarbons	ND	0.750	"	"	"	"	"	"	
Surrogate: 2-FBP	90.4 %	50-150			"	"	"	"	
Surrogate: Octacosane	98.3 %	50-150			"	"	"	"	
<b>MW-47 (B1F0365-07) Water</b> <b>Sampled: 06/15/01 12:00</b> <b>Received: 06/15/01 19:50</b>									
Diesel Range Hydrocarbons	0.591	0.317	mg/l	1	1F21011	06/21/01	06/25/01	WTPH-D	
Heavy Oil Range Hydrocarbons	ND	0.952	"	"	"	"	"	"	
Surrogate: 2-FBP	93.8 %	50-150			"	"	"	"	
Surrogate: Octacosane	85.7 %	50-150			"	"	"	"	
<b>SMW-3 (B1F0365-08) Water</b> <b>Sampled: 06/15/01 12:00</b> <b>Received: 06/15/01 19:50</b>									
Diesel Range Hydrocarbons	0.368	0.289	mg/l	1	1F21011	06/21/01	06/25/01	WTPH-D	
Heavy Oil Range Hydrocarbons	ND	0.866	"	"	"	"	"	"	
Surrogate: 2-FBP	93.0 %	50-150			"	"	"	"	
Surrogate: Octacosane	101 %	50-150			"	"	"	"	

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ERI 905 Industry Dr Tukwila WA, 98188	Project: TOSCO #5353 Project Number: 1020 Project Manager: John Meyer	Reported: 07/03/01 14:32
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**Gasoline Hydrocarbons by NWTPH-Gx and BTEX by EPA Method 8021B  
 North Creek Analytical - Spokane**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-32A (B1F0365-01) Water</b> Sampled: 06/15/01 12:00 Received: 06/15/01 19:50									
Benzene	2370	5.00	ug/l	10	1060199	06/22/01	06/22/01	NWTPH-G/8021B	
Toluene	11.2	5.00	"	"	"	"	"	"	
Ethylbenzene	272	5.00	"	"	"	"	"	"	
Xylenes (total)	31.1	10.0	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	13700	500	"	"	"	"	"	"	
Surrogate: 4-BFB (FID)	154 %	50-150			"	"	"	"	S-02
Surrogate: 4-BFB (PID)	77.2 %	53-142			"	"	"	"	
<b>MW-34 (B1F0365-02) Water</b> Sampled: 06/15/01 12:00 Received: 06/15/01 19:50									
Benzene	5300	25.0	ug/l	50	1060199	06/22/01	06/22/01	NWTPH-G/8021B	
Toluene	90.0	25.0	"	"	"	"	"	"	
Ethylbenzene	1930	25.0	"	"	"	"	"	"	
Xylenes (total)	2190	50.0	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	25800	2500	"	"	"	"	"	"	
Surrogate: 4-BFB (FID)	91.6 %	50-150			"	"	"	"	
Surrogate: 4-BFB (PID)	118 %	53-142			"	"	"	"	
<b>MW-36 (B1F0365-03) Water</b> Sampled: 06/15/01 12:00 Received: 06/15/01 19:50									
Benzene	0.691	0.500	ug/l	1	1060199	06/22/01	06/22/01	NWTPH-G/8021B	
Toluene	0.648	0.500	"	"	"	"	"	"	
Ethylbenzene	0.530	0.500	"	"	"	"	"	"	
Xylenes (total)	1.53	1.00	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Surrogate: 4-BFB (FID)	77.2 %	50-150			"	"	"	"	
Surrogate: 4-BFB (PID)	115 %	53-142			"	"	"	"	

North Creek Analytical - Bothell

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ERI 905 Industry Dr Tukwila WA, 98188	Project: TOSCO #5353 Project Number: 1020 Project Manager: John Meyer	Reported: 07/03/01 14:32
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**Gasoline Hydrocarbons by NWTPH-Gx and BTEX by EPA Method 8021B  
 North Creek Analytical - Spokane**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-43 (B1F0365-04) Water</b> <b>Sampled: 06/15/01 12:00</b> <b>Received: 06/15/01 19:50</b>									
Benzene	0.670	0.500	ug/l	1	1060199	06/22/01	06/22/01	NWTPH-G/8021B	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	1.22	1.00	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Surrogate: 4-BFB (FID)	79.2 %	50-150			"	"	"	"	
Surrogate: 4-BFB (PID)	123 %	53-142			"	"	"	"	
<b>MW-44 (B1F0365-05) Water</b> <b>Sampled: 06/15/01 12:00</b> <b>Received: 06/15/01 19:50</b>									
Benzene	ND	0.500	ug/l	1	1060199	06/22/01	06/22/01	NWTPH-G/8021B	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	1.00	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Surrogate: 4-BFB (FID)	77.2 %	50-150			"	"	"	"	
Surrogate: 4-BFB (PID)	129 %	53-142			"	"	"	"	
<b>MW-46 (B1F0365-06) Water</b> <b>Sampled: 06/15/01 12:00</b> <b>Received: 06/15/01 19:50</b>									
Benzene	ND	0.500	ug/l	1	1060199	06/22/01	06/22/01	NWTPH-G/8021B	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	1.39	1.00	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Surrogate: 4-BFB (FID)	77.6 %	50-150			"	"	"	"	
Surrogate: 4-BFB (PID)	130 %	53-142			"	"	"	"	

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**Gasoline Hydrocarbons by NWTPH-Gx and BTEX by EPA Method 8021B**  
**North Creek Analytical - Spokane**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-47 (B1F0365-07) Water</b> <b>Sampled: 06/15/01 12:00</b> <b>Received: 06/15/01 19:50</b>									
Benzene	0.709	0.500	ug/l	1	1060199	06/22/01	06/22/01	NWTPH-G/8021B	
Toluene	0.504	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	1.18	1.00	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Surrogate: 4-BFB (FID)	67.6 %	50-150			"	"	"	"	
Surrogate: 4-BFB (PID)	110 %	53-142			"	"	"	"	
<b>SMW-3 (B1F0365-08) Water</b> <b>Sampled: 06/15/01 12:00</b> <b>Received: 06/15/01 19:50</b>									
Benzene	ND	0.500	ug/l	1	1060199	06/22/01	06/22/01	NWTPH-G/8021B	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	1.00	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Surrogate: 4-BFB (FID)	87.6 %	50-150			"	"	"	"	
Surrogate: 4-BFB (PID)	120 %	53-142			"	"	"	"	

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ERI 905 Industry Dr Tukwila WA, 98188	Project: TOSCO #5353 Project Number: 1020 Project Manager: John Meyer	Reported: 07/03/01 14:32
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**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 Limits	RPD	RPD Limit	Notes
<b>Batch 1F21011: Prepared 06/21/01 Using EPA 3520C/600 Series</b>									
<b>Blank (1F21011-BLK1)</b>									
Diesel Range Hydrocarbons	ND	0.250	mg/l						
Heavy Oil Range Hydrocarbons	ND	0.750	"						
Surrogate: 2-FBP	0.347		"	0.320		108 50-150			
Surrogate: Octacosane	0.310		"	0.320		96.9 50-150			
<b>LCS (1F21011-BS1)</b>									
Diesel Range Hydrocarbons	2.08	0.250	mg/l	2.00		104 60-140			
Surrogate: 2-FBP	0.345		"	0.320		108 50-150			
<b>LCS Dup (1F21011-BSD1)</b>									
Diesel Range Hydrocarbons	1.94	0.250	mg/l	2.00		97.0 60-140	6.97	20	
Surrogate: 2-FBP	0.349		"	0.320		109 50-150			
<b>Matrix Spike (1F21011-MS1) Source: B1F0354-01</b>									
Diesel Range Hydrocarbons	2.98	0.250	mg/l	2.01	1.23	87.1 50-150			
Surrogate: 2-FBP	0.303		"	0.322		94.1 50-150			
<b>Matrix Spike Dup (1F21011-MSD1) Source: B1F0354-01</b>									
Diesel Range Hydrocarbons	3.03	0.250	mg/l	2.01	1.23	89.6 50-150	1.66	200	
Surrogate: 2-FBP	0.326		"	0.322		101 50-150			

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ERI 905 Industry Dr Tukwila WA, 98188	Project: TOSCO #5353 Project Number: 1020 Project Manager: John Meyer	<b>Reported:</b> 07/03/01 14:32
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**Gasoline Hydrocarbons by NWTPH-Gx and BTEX by EPA Method 8021B - Quality Control**  
**North Creek Analytical - Spokane**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1060199: Prepared 06/22/01 Using EPA 5030B**

**Blank (1060199-BLK1)**

Benzene	ND	0.500	ug/l							
Toluene	ND	0.500	"							
Ethylbenzene	ND	0.500	"							
Xylenes (total)	ND	1.00	"							
Gasoline Range Hydrocarbons	ND	50.0	"							
<i>Surrogate: 4-BFB (FID)</i>	20.6		"	25.0		82.4	50-150			
<i>Surrogate: 4-BFB (PID)</i>	28.9		"	25.0		116	53-142			

**LCS (1060199-BS1)**

Gasoline Range Hydrocarbons	1020	50.0	ug/l	1000		102	85-115			
<i>Surrogate: 4-BFB (FID)</i>	29.5		"	25.0		118	50-150			

**LCS (1060199-BS2)**

Benzene	8.73	0.500	ug/l	10.0		87.3	85-115			
Toluene	10.2	0.500	"	10.0		102	85-115			
Ethylbenzene	10.4	0.500	"	10.0		104	85-115			
Xylenes (total)	32.3	1.00	"	30.0		108	85-115			
<i>Surrogate: 4-BFB (PID)</i>	31.7		"	25.0		127	53-142			

**Duplicate (1060199-DUP1)**

**Source: S106088-03**

Benzene	0.901	0.500	ug/l		0.709			23.9	50	
Toluene	1.37	0.500	"		1.15			17.5	50	
Ethylbenzene	0.570	0.500	"		ND				50	
Xylenes (total)	2.07	1.00	"		1.88			9.62	50	
Gasoline Range Hydrocarbons	64.8	50.0	"		55.0			16.4	50	
<i>Surrogate: 4-BFB (FID)</i>	21.9		"	25.0		87.6	50-150			
<i>Surrogate: 4-BFB (PID)</i>	32.2		"	25.0		129	53-142			

North Creek Analytical - Bothell

Kirk Gendron For Amar Gill, Project Manager

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**Environmental Laboratory Network**





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ERI 905 Industry Dr Tukwila WA, 98188	Project: TOSCO #5353 Project Number: 1020 Project Manager: John Meyer	Reported: 07/03/01 14:32
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**Gasoline Hydrocarbons by NWTPH-Gx and BTEX by EPA Method 8021B - Quality Control  
 North Creek Analytical - Spokane**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1060199: Prepared 06/22/01 Using EPA 5030B**

**Duplicate (1060199-DUP2)**

**Source: B1F0365-04**

Benzene	0.604	0.500	ug/l		0.670			10.4	50	
Toluene	ND	0.500	"		ND				50	
Ethylbenzene	ND	0.500	"		ND				50	
Xylenes (total)	ND	1.00	"		1.22				50	
Gasoline Range Hydrocarbons	ND	50.0	"		ND				50	
Surrogate: 4-BFB (FID)	19.3		"	25.0		77.2	50-150			
Surrogate: 4-BFB (PID)	28.0		"	25.0		112	53-142			

**Matrix Spike (1060199-MS1)**

**Source: S106088-03**

Gasoline Range Hydrocarbons	942	50.0	ug/l	1000	55.0	88.7	70-130			
Surrogate: 4-BFB (FID)	28.5		"	25.0		114	50-150			

**Matrix Spike (1060199-MS2)**

**Source: S106088-03**

Benzene	9.10	0.500	ug/l	10.0	0.709	83.9	54-143			
Toluene	9.23	0.500	"	10.0	1.15	80.8	48-145			
Ethylbenzene	9.30	0.500	"	10.0	ND	93.0	49-142			
Xylenes (total)	27.8	1.00	"	30.0	1.88	86.4	55-140			
Surrogate: 4-BFB (PID)	28.6		"	25.0		114	53-142			

North Creek Analytical - Bothell

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Page 9 of 10



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ERI 905 Industry Dr Tukwila WA, 98188	Project: TOSCO #5353 Project Number: 1020 Project Manager: John Meycr	<b>Reported:</b> 07/03/01 14:32
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### Notes and Definitions

- S-02 The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample.
- 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

Kirk Gendron (For Amar Gill, Project Manager)

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# TOSCO CHAIN OF CUSTODY REPORT

BIFO 365

**TOSCO INFORMATION**

Facility Number: TOSCO 5353

Site Address: 600 WESTLAKE AVE

City, State, ZIP: SEATTLE, WA

Project/AWO Code

Tosco Manager: Tim Johnson

FACILITY TYPE: (check one)  BP/TS  Terminal/Bulk Plant

Brown Bear  Former 76 Site  Other 76 Station

**CONSULTANT INFORMATION**

Firm: EKI Project# 1020

Address: 905 INDUSTRY DR

Phone: (206) 575-6226 Fax: X 6923

Project Manager: John Meyer E-mail:

Sample Collection by: Roy Moise

Quality Assurance Data Level:

A: Standard Summary

B: Standard + Chromatograms

Laboratory Turnaround Days:

5  3  2  1

10 Day - Standard

SAMPLE IDENTIFICATION	SAMPLING DATE / TIME	MATRIX (W/SO)	# OF CON-TAINERS
1. MW-32A		W	3
2. MW-37		W	3
3. MW-36		W	3
4. MW-43		W	3
5. MW-44		W	3
6. MW-46		W	3
7. MW-47		W	3
8. SMW-3		W	3
9.			
10.			

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

NCA SAMPLE NUMBER
-01
-02
-03
-04
-05
-06
-07
-08

Relinquished by: Roy Moise Date & Time: 6/15/01 19:50

Received by: NCA Date & Time: 6/15/01 17:30

Comments: Roy Moise NCA 6/15/01 19:50



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12 July, 2001

John Meyer  
ERI  
905 Industry Dr  
Tukwila, WA 98188

RE: TOSCO #5353

Enclosed are the results of analyses for samples received by the laboratory on 06/26/01 11:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Amar Gill  
Project Manager



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ERI 905 Industry Dr Tukwila WA, 98188	Project: TOSCO #5353 Project Number: 1020 Project Manager: John Meyer	Reported: 07/12/01 13:20
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**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-35	B1F0644-01	Water	06/26/01 09:35	06/26/01 11:00
MW-32A	B1F0644-02	Water	06/26/01 09:35	06/26/01 11:00

North Creek Analytical - Bothell

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Amar Gill, Project Manager

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<b>ERI</b> 905 Industry Dr Tukwila WA, 98188	Project: TOSCO #5353 Project Number: 1020 Project Manager: John Meyer	<b>Reported:</b> 07/12/01 13:20
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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
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**MW-35 (B1F0644-01) Water** Sampled: 06/26/01 09:35 Received: 06/26/01 11:00

Gasoline Range Hydrocarbons	504	50.0	ug/l	1	1G09022	07/09/01	07/09/01	WTPH-G/8021B	
Benzene	11.3	0.500	"	"	"	"	"	"	
Toluene	27.5	0.500	"	"	"	"	"	"	
Ethylbenzene	5.52	0.500	"	"	"	"	"	"	
Xylenes (total)	28.4	1.00	"	"	"	"	"	"	
Surrogate: 4-BFB (FID)	179 %	62-123			"	"	"	"	S-04
Surrogate: 4-BFB (PID)	131 %	62-125			"	"	"	"	S-04

**MW-32A (B1F0644-02) Water** Sampled: 06/26/01 09:35 Received: 06/26/01 11:00

Gasoline Range Hydrocarbons	15500	10000	ug/l	200	1G09022	07/09/01	07/10/01	WTPH-G/8021B	
Benzene	8780	100	"	"	"	"	"	"	
Toluene	1110	100	"	"	"	"	"	"	
Ethylbenzene	1230	100	"	"	"	"	"	"	
Xylenes (total)	1020	200	"	"	"	"	"	"	
Surrogate: 4-BFB (FID)	98.5 %	62-123			"	"	"	"	
Surrogate: 4-BFB (PID)	99.6 %	62-125			"	"	"	"	

North Creek Analytical - Bothell

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 Amanda Gill, Project Manager

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ERI 905 Industry Dr Tukwila WA, 98188	Project: TOSCO #5353 Project Number: 1020 Project Manager: John Meyer	Reported: 07/12/01 13:20
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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
<b>MW-35 (B1F0644-01) Water</b> Sampled: 06/26/01 09:35    Received: 06/26/01 11:00									
Diesel Range Hydrocarbons	0.464	0.250	mg/l	1	1G02019	07/02/01	07/04/01	WTPH-D	
Heavy Oil Range Hydrocarbons	ND	0.750	"	"	"	"	"	"	
Surrogate: 2-FBP	92.3 %	50-150			"	"	"	"	
Surrogate: Octacosane	85.3 %	50-150			"	"	"	"	
<b>MW-32A (B1F0644-02) Water</b> Sampled: 06/26/01 09:35    Received: 06/26/01 11:00									
Diesel Range Hydrocarbons	1.62	0.250	mg/l	1	1G02019	07/02/01	07/04/01	WTPH-D	
Heavy Oil Range Hydrocarbons	ND	0.750	"	"	"	"	"	"	
Surrogate: 2-FBP	93.4 %	50-150			"	"	"	"	
Surrogate: Octacosane	88.0 %	50-150			"	"	"	"	

North Creek Analytical - Bothell

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ERI 905 Industry Dr Tukwila WA, 98188	Project: TOSCO #5353 Project Number: 1020 Project Manager: John Meyer	Reported: 07/12/01 13:20
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**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
<b>Batch 1G09022: Prepared 07/09/01 Using EPA 5030B (P/T)</b>										
<b>Blank (1G09022-BLK1)</b>										
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)	42.3		"	48.0		88.1	62-123			
Surrogate: 4-BFB (PID)	43.7		"	48.0		91.0	62-125			
<b>LCS (1G09022-BS1)</b>										
Gasoline Range Hydrocarbons	495	50.0	ug/l	500		99.0	80-120			
Surrogate: 4-BFB (FID)	54.5		"	48.0		114	62-123			
<b>LCS (1G09022-BS2)</b>										
Benzene	9.62	0.500	ug/l	10.0		96.2	80-120			
Toluene	10.1	0.500	"	10.0		101	80-120			
Ethylbenzene	10.4	0.500	"	10.0		104	80-120			
Xylenes (total)	31.5	1.00	"	30.0		105	80-120			
Surrogate: 4-BFB (PID)	48.3		"	48.0		101	62-125			
<b>LCS Dup (1G09022-BSD1)</b>										
Gasoline Range Hydrocarbons	512	50.0	ug/l	500		102	80-120	3.38	25	
Surrogate: 4-BFB (FID)	60.3		"	48.0		126	62-123			Q-16
<b>LCS Dup (1G09022-BSD2)</b>										
Benzene	10.2	0.500	ug/l	10.0		102	80-120	5.85	40	
Toluene	10.4	0.500	"	10.0		104	80-120	2.93	40	
Ethylbenzene	10.9	0.500	"	10.0		109	80-120	4.69	40	
Xylenes (total)	33.3	1.00	"	30.0		111	80-120	5.56	40	
Surrogate: 4-BFB (PID)	49.1		"	48.0		102	62-125			

North Creek Analytical - Bothell

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Amar Gill, Project Manager

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ERI 905 Industry Dr Tukwila WA, 98188	Project: TOSCO #5353 Project Number: 1020 Project Manager: John Meyer	Reported: 07/12/01 13:20
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**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
<b>Batch 1G09022: Prepared 07/09/01 Using EPA 5030B (P/T)</b>										
<b>Matrix Spike (1G09022-MS1)</b>					<b>Source: B1F0706-08</b>					
Gasoline Range Hydrocarbons	548	50.0	ug/l	500	ND	106	70-130			
Surrogate: 4-BFB (FID)	59.7		"	48.0		124	62-123			Q-16
<b>Matrix Spike (1G09022-MS2)</b>					<b>Source: B1F0706-02</b>					
Benzene	10.2	0.500	ug/l	10.0	ND	99.6	80-120			
Toluene	10.4	0.500	"	10.0	ND	104	75-117			
Ethylbenzene	10.9	0.500	"	10.0	ND	109	80-120			
Xylenes (total)	33.2	1.00	"	30.0	ND	111	80-120			
Surrogate: 4-BFB (PID)	51.6		"	48.0		108	62-125			
<b>Matrix Spike Dup (1G09022-MSD1)</b>					<b>Source: B1F0706-08</b>					
Gasoline Range Hydrocarbons	496	50.0	ug/l	500	ND	95.1	70-130	9.96	25	
Surrogate: 4-BFB (FID)	57.9		"	48.0		121	62-123			
<b>Matrix Spike Dup (1G09022-MSD2)</b>					<b>Source: B1F0706-02</b>					
Benzene	10.5	0.500	ug/l	10.0	ND	103	80-120	2.90	40	
Toluene	10.9	0.500	"	10.0	ND	109	75-117	4.69	40	
Ethylbenzene	11.4	0.500	"	10.0	ND	114	80-120	4.48	40	
Xylenes (total)	34.7	1.00	"	30.0	ND	116	80-120	4.42	40	
Surrogate: 4-BFB (PID)	51.6		"	48.0		108	62-125			



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ERI 905 Industry Dr Tukwila WA, 98188	Project: TOSCO #5353 Project Number: 1020 Project Manager: John Meyer	Reported: 07/12/01 13:20
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**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 1G02019: Prepared 07/02/01 Using EPA 3520C/600 Series**

**Blank (1G02019-BLK1)**

Diesel Range Hydrocarbons	ND	0.250	mg/l							
Heavy Oil Range Hydrocarbons	ND	0.750	"							
Surrogate: 2-FBP	0.282		"	0.320		88.1	50-150			
Surrogate: Octacosane	0.267		"	0.320		83.4	50-150			

**LCS (1G02019-BS1)**

Diesel Range Hydrocarbons	1.73	0.250	mg/l	2.00		86.5	53-121			
Surrogate: 2-FBP	0.282		"	0.320		88.1	50-150			

**LCS Dup (1G02019-BSD1)**

Diesel Range Hydrocarbons	1.83	0.250	mg/l	2.00		91.5	53-121	5.62	20	
Surrogate: 2-FBP	0.306		"	0.320		95.6	50-150			

North Creek Analytical - Bothell

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 Anna Gill, Project Manager

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ERI 905 Industry Dr Tukwila WA, 98188	Project: TOSCO #5353 Project Number: 1020 Project Manager: John Meyer	Reported: 07/12/01 13:20
---	---	-----------------------------

**Notes and Definitions**

- Q-16 The RPD and/or percent recovery for this QC spike sample cannot be accurately calculated due to interference from coeluting organic compounds present in the sample.
- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- 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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Amar Gill, Project Manager



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FAX 709-9214

FAX 924-9290  
FAX 906-9210  
FAX 382-7588

BI F0644

# TOSCO CHAIN OF CUSTODY REPORT

**TOSCO INFORMATION**

Facility Number: TOSW 5355

Site Address: 600 WENDEME AVE N.

City, State, ZIP: SEASPIQUE, WA

Project/AWO Code: TIM JUMBAUN

Tosco Manager: TIM JUMBAUN

FACILITY TYPE: (check one)  BP  Terminal/Bulk Plant

Brown Bear  Former 76 Site  Other

**CONSULTANT INFORMATION**

Firm: RESI Project# 1020

Address: 905 BROWNLEY DR.

MEWENA, WA 98767

Phone: (206) 571 0720 Fax: (206) 575 6423

Project Manager: Tom Meyer E-mail: SAS

Sample Collection by: SAS

Quality Assurance Data Level:  
 A  B

A: Standard Summary  
B: Standard + Chromatograms

Laboratory Turnaround Days:  
 5  3  2  1

10 Day - Standard

SAMPLE IDENTIFICATION	SAMPLING DATE / TIME	MATRIX (W.S.O)	# OF CON-TAINERS
1. <u>MW-35</u>	<u>06/06/01 9:35AM</u>	<u>W</u>	<u>4</u>
2. <u>MW-32A</u>	<u>h</u>	<u>h</u>	<u>h</u>
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

TPH-HCID	TPH-Gas	BTEX	EPA 8021 Mod.	TPH-Gas + BTEX	TPH-Diesel	TPH-Diesel Extended	TPH-Diesel-Ext.	w/SG Cleanup	Halogen Volatiles	EPA 8021	Pesticides/PCBs or PCBs Only	EPA 8260	GC/MS Semivol.	EPA 8270	PAH's	Lead: 8270 SIM or 8310	Total or Dissolved TCLP or RCRA	Metals (8)
				<u>x</u>	<u>h</u>	<u>x</u>	<u>h</u>											

Relinquished by: RES Date & Time: 06/06/01 11:00 am Firm: Melanie Chulinden

Received by: RES Date & Time: 11:00 am Firm: RES

Comments: 14.2  
9/0

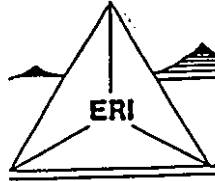
GROUNDWATER SAMPLING - FIELD LOG

Client Name: IOSCO 5353  
 Location: WESTLAKE AVE  
 Field Crew: BOY MOESE

ERI Job No. 1020  
 Field Cleaning Performed:  
 Analysis:

Date: 6/15/01

Page 1 of 1



ENVIRONMENTAL RESOLUTIONS, INC.

\* Case Volume =  $(d_{\text{casing}} - d_{\text{well}}) \times L \times F$  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

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
MW-42		9.41										Monitor Only
MW-43		11.32										<del>Monitor Only</del>
MW-37		11.35										0.025 CPH
MW-47		10.98										
MW-36		8.00										
MW-45		7.19										
MW-3		7.23										
MW-44		8.94										
MW-32A		11.31										
MW-34		11.85										
MW-33		12.70										2.5 ft of CPH
MW-35												WELL CAP COULD NOT COME OFF
MW-34												BEHIND GATE / NOT SAMPLER

