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TECHNICAL MEMORANDUM

To:	Jim Orr Oregon Department of Environmental Quality	**Date:**	May 31, 2012
From:	Todd M. Thornburg, Ph.D., R.G., John Renda, R.G., and John Edwards, C.E.G. Anchor QEA, LLC	**Project:**	030162-01.01
Cc:	Ted McCall McCall Oil and Chemical Company		
Re:	Addendum to the Source Control Evaluation Report, Portland, Oregon McCall Oil and Chemical Company		

This memorandum serves as an addendum to the Source Control Evaluation Report for McCall Oil and Chemical Company (MOCC). The most recent version of the Source Control Evaluation Report was submitted to the Oregon Department of Environmental Quality (DEQ) in May 2011. This addendum provides the additional information and data analysis requested by DEQ in its comment letter from Jim Orr with DEQ, to Ted McCall with MOCC, dated December 20, 2011. This additional information is being provided to support a source control decision or the MOCC site.

DEQ's comments are reproduced in italicized font. They are followed by Anchor QEA's clarifying responses in indented, normal font. The requested information is provided as part of the response or in attachments to this memorandum. DEQ's comments are numbered as they were originally provided to MOCC. Revised tables for the Source Control Evaluation Report are provided in Attachment A, and other requested information is provided in subsequent attachments.

Anchor QEA has made the changes to the screening tables requested by DEQ unless otherwise noted in the comment responses. These changes do not alter the conclusions of the Source Control Evaluation Report, which are the following:

- There is no evidence of impacts to Willamette River sediments or tissue residues from site discharges
- Site stormwater quality is better than average for heavy industrial land use in the Portland Harbor
- Site source control measures have been effective at reducing contaminant loads to the river
- MOCC's National Pollutant Discharge Elimination System (NPDES) stormwater permit will ensure that source controls remain functional and effective into the foreseeable future

The weight of evidence indicates source control is in place at this facility. This is consistent with the results of the Portland Harbor Feasibility Study (LWG 2012), which indicates active sediment remediation is not warranted adjacent to the MOCC site.

1. *Pages 2 and 3, Sections 1.1.3 1.1.2, and 1.1.5*

   The comparison of chemical concentrations with those of comparable site is a line of evidence but may only indicate that all sites are contaminated. Although a line of evidence, the NPDES data evaluation does not monitor for a complete list of Portland Harbor constituents and the limits are not typically protective of all receptors.

   Comparison of MOCC stormwater concentrations with those of comparable sites provides a line of evidence consistent with DEQ's *Guidance for Evaluating the Stormwater Pathway at Upland Sites* (DEQ, 2010, Figure 2 and Section 5.2). The stormwater quality of other industrial sites in Portland Harbor, as summarized in the Portland Harbor Remedial Investigation (RI) Report (LWG 2011), was selected, as it is considered representative of the general drainage areas to the Portland Harbor. Sites that contained unusually high concentrations were determined to be non-representative and were excluded from the summary statistics. Therefore, MOCC stormwater quality is being compared to "typical" industrial stormwater, not unusually contaminated stormwater.

2. *Page 28, Section 6.2*
Chironomous tentans is now named Chironomous dilutes

This comment is noted.

3. *Page 33, Section 7.1*
The cited DEQ guidance does not suggest using a comparison to Willamette River Background levels as the initial screening step.

While not expressly referenced in the DEQ stormwater guidance, natural background conditions are always a consideration in water quality evaluations, as specified in Oregon Administrative Rules (OAR) 340-041-0007(2): "Where a less stringent natural condition of a water of the State exceeds the numeric criteria set out in this Division, the natural condition supersedes the numeric criteria and becomes the standard for that water body." This is particularly an issue with arsenic. The natural background concentrations used in the MOCC screening evaluation are those recommended by DEQ (2002).

4. *Page 40, Section 7.3.2*
Carbon disulfide concentrations are greater than the SLV and it is not appropriate to drop this chemical. Vinyl chloride concentrations exceed PRGs and is it is not appropriate to drop this chemical.

Although there are infrequent exceedances of screening levels for carbon disulfide and vinyl chloride in MOCC groundwater, upon further analysis, the weight of evidence indicates the risk posed by these volatile organic compounds (VOCs) is negligible.

Carbon disulfide was above the Tier 2 secondary chronic value in only one out of 26 samples (4-percent frequency) at a low magnitude of exceedance (1.5 times the screening level). Given the additional attenuation processes that will occur between the monitoring well and the river (e.g., soil adsorption, tidal intrusion and dispersion in the river bank, and immediate and large-scale dilution of groundwater in the

river), it can be expected that the one isolated groundwater concentration will be reduced to well below the Tier 2 screening level before any aquatic exposure occurs. Moreover, benthic toxicity tests adjacent to the MOCC site provide direct empirical evidence that there are no adverse effects to aquatic life (see Table 4a).

Vinyl chloride was above the tap water preliminary remediation goal (PRG) in only two out of 26 samples (8-percent frequency); however, it is below the drinking water maximum contaminant level (MCL) in all cases. There are no known or anticipated future uses of surface water within the Portland Harbor as a potable water supply. Nevertheless, at the direction of the U.S. Environmental Protection Agency (USEPA), the Lower Willamette Group (LWG) evaluated an untreated drinking water pathway in the Baseline Human Health Risk Assessment (BHHRA) for the Portland Harbor (LWG 2011, Appendix F). The BHHRA showed there are no significant human health risks in the Portland Harbor from any VOCs, either via a hypothetical drinking water pathway, or any other human health exposure pathway, including fish consumption and direct contact with groundwater seeps or beach sediment. Because there are no demonstrated risks at the point of exposure, there is not a complete risk pathway for VOCs.

5. *Page 46, Section 7.7.2*
Total Suspended Solid (TSS) was evaluated from NPDES data for Stations S-1 and S-3 but no TSS data was provided for NPDES sampling of Drainage Area 1. This information should be submitted to support the Report.

Total suspended solid (TSS) data for Drainage Area 1 are provided in Attachment B, as requested.

6. *Table 3*
The reference for Table 3 is incorrect for lack of impacts and the table only addresses arsenic.

It is assumed this comment refers to the table references in the column headers in Table 13. The reference to Table 3 in Step 4 of the screening evaluation has been

changed to Tables 4a and 4b, which shows that sediment and tissue concentrations adjacent to the MOCC site are similar to or lower than concentrations observed in upstream samples and in other areas of the Portland Harbor.

7. *Table 3B*

The appropriate fish consumption rate for Portland Harbor Sites is 175 g/day to protect subsistence and tribal fishers. The source of the background concentrations is not provided.

Table 3b has been revised in Attachment A. The new Oregon fish consumption criterion for arsenic (2.1 micrograms per liter [µg/L]) has been added. Because the new Oregon fish consumption criterion appears to be consistent with natural background, a background reference is no longer needed for Table 3b.

8. *Table 4A*

The SQS/CLS values from Washington State (Avocet 2010) do not have regulatory standing in Oregon and are not accepted screening values by DEQ toxicologists.

The Avocet sediment quality values represent the best available science for assessing benthic toxicity. They are more relevant than other literature values because the database used to support their development included Portland Harbor benthic toxicity data. Moreover, DEQ co-funded Avocet's effort to develop these values, along with the Washington State Department of Ecology, which is considering promulgating them as part of the Washington State Sediment Management Standards. They are already being utilized by the Regional Sediment Evaluation Team (RSET) to guide dredging projects in the Columbia River and other freshwater environments, as summarized at the 2011 RSET meeting by co-presenters Laura Inouye (with Ecology) and Jim Anderson (with DEQ). Therefore, they have regulatory standing in the Pacific Northwest, as well as DEQ participation in their development.

9. *Section 7.2, Tables 6 and 7*
See comments #4. DEQ does not screen based on a site-wide mean. The arsenic in drinking water screening level is 0.045 ppb.

Revised Tables 6 and 7 are provided in Attachment A. The following changes were made to these tables:

- The drinking water screening level for arsenic was changed from the MCL to the tap water PRG, which is well below natural background concentrations (see further discussion below).
- The fish consumption criteria were revised to be consistent with OAR Table 40, based on a consumption rate of 175 grams per day (g/day).
- Upriver background concentrations of organic contaminants (semi-volatile, polychlorinated biphenyl [PCBs], and pesticides) in the Willamette River were added, in accordance with OAR 340-041-0033(6); these concentrations were derived from the Portland Harbor RI Table 7.4-3a.

Spatial averaging is appropriate for evaluating fish consumption risk because this risk is integrated over the home range of the fish and the harvesting area of the fisherman and temporally averaged over the lifetime of the fisherman (USEPA 1991, 2006). In the Portland Harbor Risk Assessment (LWG 2011, Appendix F), spatial averaging scales ranging from the length of a site to one or more river miles and up to the scale of the entire Portland Harbor, are being used to evaluate fish consumption risk. Using a site-wide mean groundwater concentration to evaluate fish consumption risk at the MOCC site is, therefore, consistent with the approach being used in the Portland Harbor (see Table 7). Anchor QEA has similarly used site-wide mean stormwater concentrations to compare with fish consumption criteria (see Table 6). This comparison was made at DEQ's request (in both the 2011 Source Control Evaluation Report and in this addendum), although Anchor QEA believes it is inappropriate to compare stormwater concentrations, which have discharge durations of hours up to a few days, with carcinogenic screening levels based on a 70-year human lifetime.

The arsenic tap water PRG is 0.045 parts per billion (ppb). However, this is irrelevant because it is far below naturally occurring background concentrations in Oregon, as per OAR 340-041-0007(2). The natural background concentration for arsenic in surface water is 2 ppb (DEQ 2002). In groundwater, it is not unusual to see natural background concentrations of arsenic of 10 ppb or higher in the Willamette Valley (USGS 1999). For comparison, the arsenic drinking water MCL is 10 ppb.

10. Table 8

The reference for Table 8 is incorrect for the effectiveness of source control measures.

It is assumed this comment refers to the table references in the column headers in Table 13. The reference to Table 8 has been corrected to Table 10. The revised Table 13 is provided in Attachment A.

11. Table 9

The DEQ sediment bioaccumulation screening values used are based on the general fish consumption rate of 17.5 g/day. The table should use a fish consumption rate of 142 g/day for subsistence and tribal consumption. The yellow highlighting appears to indicate human health levels are exceeded and not ecological screening levels, as stated in the table.

Table 9 has been updated with the DEQ sediment bioaccumulation screening values for subsistence consumption. The highlighted screening comparisons have also been updated. However, please note that metals screening values are based on natural background, and polycyclic aromatic hydrocarbon (PAH) screening values are based on protection of fish, which are more stringent than screening values for protection of subsistence consumption for humans; therefore, the controlling screening values for these particular bioaccumulative COCs have not changed. As explained in the response to Comment 9, the site-wide mean concentration is compared to the bioaccumulation screening values, consistent with the approach used in the Portland Harbor and as appropriate for the scale of the exposure. Individual sample results are compared to ecological screening levels.

The fundamental conclusions of the screening analysis are not substantively affected by these changes.

12. *Table 11*
No reference is provided for typical industrial stormwater.

Typical industrial stormwater statistics were derived from the Portland Harbor RI (LWG 2009, 2011). This reference has been added to Table 11, which is attached to this memorandum. Table 11 was also updated with the stormwater statistics presented in the Draft Final RI (LWG 2011). While some of the statistics were revised slightly, the overall conclusions remain unchanged. MOCC stormwater quality is as good, and in most cases significantly better than, typical industrial stormwater in the Portland Harbor. See also the response to Comment 1.

13. *Table 12*
No reference is provided for typical industrial stormwater.

See the response to Comment 12. Table 12 has been revised and updated and is provided in Attachment A. While some of the statistics were revised slightly, the overall conclusions remain unchanged.

14. *Table 13*
See comment #4.

See response to Comment 4. The weight of evidence indicates carbon disulfide and vinyl chloride do not represent complete risk pathways and are not site COCs.

15. *DEQ had requested a discussion of current/historical operations of each drainage area and an evaluation if sampling locations are sufficient for the SCE. This discussion should also provide stormwater data, as detailed in DEQ guidance, to document sampling conditions. This may be represented by a stormwater sampling event hydrograph with the sampling event identified for all stormwater samples.*

Four drainage areas are identified on Figure 3 in Attachment D.

Drainage Area 1 drains the MOCC Oil Terminal and asphalt facility. Stormwater from Drainage Area 1 is directed to the oil-water separator.

Drainage Area 2 drains the paved areas on the north side of the Brenntag and High Purity Products facilities. Stormwater in Drainage Area 2 is directed to the reconstructed and pre-filtered S-3 sump.

Drainage Area 3 drains the paved parking areas on the south side of the Brenntag and High Purity Products facilities. Stormwater in Drainage Area 3 is directed to catch basins with pre-filters that are connected to the City of Portland storm sewer on Southwest Front Avenue.

Drainage Area 4 encompasses the paved access road and unpaved areas outside the MOCC Oil Terminal tank farm berm. Stormwater infiltrates into the soil in this area with infrequent overland flow to the riprap slope.

Stormwater samples were collected from Drainage Areas 1 (S-4), 2 (S-3), and 3 (S-1 and S-2). No stormwater samples were collected from Drainage Area S-4, as there are no potential point source discharge locations in this area. Stormwater sampling locations cover the process areas of the site and are representative of stormwater discharges from the site.

Stormwater hydrographs have been prepared for the 2010 stormwater sampling events and are provided in Attachment C. Hydrographs show precipitation records from two local rain gages (3395 Northwest Yeon Avenue and the Swan Island pump station), with the times of observed surface water flow and sample collection times noted for each catch basin sample.

16. *Figure 3*
Drainage Area 3 has three catch basins that do not have discharge connections. The evaluation of the nature of these catch basins is required.

All catch basins in Drainage Area 3 drain to the Front Avenue Storm Sewer. Figure 3 has been revised to show the missing stormwater connections. These connections were field checked with a sewer line survey on May 11, 2012. The updated Figure 3 is provided in Attachment D.

17. *High Flow bypass Outfall to River*
Please describe the operation of the High Flow Bypass Outfall to river. What is the typical discharge frequency and duration during a typical water year?

Discharge to the High Flow Bypass to the river is typically less than once per year and according to Ron Brown, McCall Terminal Manager, there has been no discharge for several years. The catch basins in the central portion of the site (the unpaved area between the MOCC asphalt terminal tank farm and Brenntag) are equipped with valves that are typically closed. This area is used for stormwater retention and encourages local infiltration, reduces the stormwater discharge quantity, and reduces peak flows. During rare periods of extended heavy downpours that exceeds the storage capacity of this area, the catch basin valves are opened and if the oil-water separator is unable to keep up, the valve of the High Flow Bypass is opened.

18. *Site Cleanout Data*
Records of the dates of implementation of site source control measures and volume of site cleanout materials would be useful in evaluation of effectiveness of controls. Please provide a discussion of these issues.

As part of the facility stormwater best management practices (BMPs), the site catch basins have filter inserts, bio-bags, and/or hay bales that trap particulates and remove them from the storm drain system. Attachment E contains records of catch basin insert purchases, monthly inspection records of oil-water separator sediment accumulation, monthly inspection records of catch basins, and records of annual catch basin maintenance and cleaning, including manifests for waste disposal. While

Attachment E includes records from 2006 through present, BMPs have been in place several years prior to this time. The filter inserts are replaced, as needed, as part of the site stormwater BMPs, typically on an annual schedule. With the BMPs in place, minimal sediment has been observed in the catch basins and oil-water separator chambers. Annual maintenance includes cleaning of the oil-water separator, catch basins, vaults, sumps, slop tanks, and oil skimmers.

Attachments:

Attachment A	Revised Source Control Evaluation Tables (Tables 3b, 6, 7, 9, 11, 12, 13)
Attachment B	TSS Data for Drainage Area 1
Attachment C	Storm Sampling Event Hydrographs
Attachment D	Figure 3 – Revised Storm Sewer System Figure
Attachment E	BMP Records 2006 – Present

JE:TT:JR:rrw

ATTACHMENT A
REVISED SOURCE CONTROL EVALUATION TABLES (TABLES 3B, 6, 7, 9, 11, 12, 13)

Table 3b

Arsenic Pathway Screening

	JSCS (2007) Screening Levels and Other Criteria		Transition Zone Water																			
	Aquatic Life Criterion	Reference	TZW-A-1					TZW-A-2				TZW-A-3				TZW-B-1				TZW-B-3			
			shallow			deep		shallow		deep		shallow		deep		shallow		deep		shallow		deep	
Tide (High or Low)			high	high (dup)	low	high	low	high	low	high	low	high	low	high	low	high	low	high	low	high	low	high	low
Date Sampled			11/12/10	11/12/10	11/15/10	11/15/10	11/15/10	11/15/10	11/17/10	11/15/10	11/17/10	11/16/10	11/18/10	11/22/10	11/18/10	11/12/10	11/16/10	11/12/10	11/16/10	11/18/10	11/17/10	11/22/10	11/19/10
Metals (ug/L)																							
Arsenic - Total	150	a	3.73	2.16	0.722 J	15.7	11.3	0.5 J	0.349 LL	3.19	1.49 J	7.68	13.8	18.1	18.9	68.9	73.6	93.6	96.4	20.5	19.2	7.94	7.78
Arsenic - Dissolved	150	a	0.12 LL	0.155 LL	0.306 LL	15.9	16.2	0.194 LL	0.326 LL	1.820 J	1.9 J	7.49	12.7	19.0	18.100	71.9	71.9	98.1	93.4	19.8	19.7	7.3	8.11

Total		Dissolved	
Average Shallow	19.2	Average Shallow	18.6
Average Deep	27.4	Average Deep	28.0

Table 3b

Arsenic Pathway Screening

	JSCS (2007) Screening Levels and Other Criteria				RIVER																											
					A-1		A-1		A-3		A-3		B-1		B-1		B-3		B-3		Upgradient Background											
					Bottom		Bottom		Bottom		Bottom		Bottom		Bottom		Top		Bottom		Top		Top		Top		Bottom		Top		Bottom		Top	
Tide (High or Low)					high		low		high		low		low		high		low		high		high		low		high		high		low		low		high	
Date Sampled	Drinking Water Criterion	Reference	Fish Consumption (175 g/day)	Reference	11/15/10		11/15/10		11/22/10		11/18/10		11/16/10		11/12/10		11/17/10		11/282010		11/16/10		11/17/10		11/18/10		11/18/10		11/19/10		11/19/10		11/22/10	
Metals (ug/L)																																		
Arsenic - Total	10	b	2.1	c	**0.361**	LL	**0.448**	LL	**0.393**	LL	**0.381**	LL	**0.421**	LL	**0.414**	LL	**0.363**	LL	**0.364**	LL	**0.297**	LL	**0.310**	LL	**0.744**	J	**0.878**	J	**0.389**	LL	**0.386**	LL	**0.432**	LL
Arsenic - Dissolved	10	b	2.1	c	**0.320**	LL	**0.390**	LL	**0.271**	LL	**0.336**	LL	**0.356**	LL	**0.339**	LL	**0.323**	LL	**0.310**	LL	**0.290**	LL	**0.257**	LL	**0.589**	J	**0.287**	LL	**0.27**	LL	**0.266**	LL	**0.241**	LL

Screening Notes:

(a) DEQ's 2004 AWQC (chronic)

(b) MCL

(c) DEQ 2011

U = Not detected at indicated quantitation limit; J = Estimated concentration; **Bold value** = detected concentration

LL - By ICPMS with Hydride Preparation

Table 6
Risk Screening Evaluation of Site Stormwater

	JSCS (2007) Screening Levels and Other Criteria									Site Stormwater Concentrations																										
	Aquatic Life Criterion	Reference	Drinking Water Criterion	Reference	Fish Consump. (175 g/day)	Reference	Willamette R. Background	Reference	NPDES 1200-Z Permit Limit (h)	Mean Site-Wide	S-1 12/20/00		S-1 03/06/02		S-1 04/07/05		S-1 11/12/07		S-1 05/25/10		S-1 06/03/10		S-2 12/20/00		S-2 03/06/02		S-2 04/07/05		S-2 05/02/07		S-2 11/12/07		S-2 05/25/10		S-2 06/03/10	
Metals (ug/L)																																				
Arsenic - Total	150	e	0.045	c	2.1	i	2	g		0.56	0.5	U	0.5	U	0.5	U	**0.7**		2.0	U	2.0	U	1	U	0.5	U	0.5	U	0.5	U	**0.8**		2.0	U	2.0	U
Arsenic - Dissolved	150	e	0.045	c	2.1	i	2	g		0.62	--		--		0.5	U	0.5	U	2.0	U	2.0	U	--		--		--		0.5	U	**0.6**		2.0	U	2.0	U
Cadmium - Total	0.094	b	5	a	--		1	g		0.25	0.05	U	0.20	U	**0.16**		**0.21**		**0.11**		1.0	U	**0.22**		0.20	U	**0.07**		**0.12**		**0.30**		1.0	U	1.0	U
Cadmium - Dissolved	0.094	b	5	a	--		1	g		0.30	--		--		**0.07**		**0.07**		**0.11**		1.0	U	--		--		**0.05**		**0.05**		**0.10**		1.0	U	1.0	U
Chromium - Total	74	b	100	a	--		5.8	g		1.8	**0.4**		**0.4**		**7.0**		**2.3**		**0.9**		**0.9**		**2.0**		**0.6**		**1.1**		**1.1**		**5.5**		**1.3**		**0.9**	
Chromium - Dissolved	74	b	100	a	--		5.8	g		1.02	--		--		**1.3**		**0.5**		**0.7**		2.0	U	--		--		**0.7**		**0.7**		**0.8**		**0.8**		2.0	U
Copper - Total	2.7	b	1,000	a	--		9	g	100	14	**3.8**		**3.7**		**14**		**20**		**9.3**		**6.4**		**9.9**		**10**		**9.4**		**11**		**26**		**8.8**		**4.6**	
Copper - Dissolved	2.7	b	1,000	a	--		9	g		11	--		--		**7.9**		**9.6**		**7.0**		**4.8**		--		--		**6.0**		**8.8**		**8.3**		**6.5**		**3.2**	
Lead - Total	0.54	b	15	a	--		13.3	g	400	5.8	**0.43**		**0.31**		**27**		**10**		**1.8**		**1.34**		**5.9**		**1.1**		**2.3**		**3.2**		**24**		**2.9**		**0.9**	
Lead - Dissolved	0.54	b	15	a	--		13.3	g		0.74	--		--		**0.61**		**0.32**		**0.24**		1.0	U	--		--		**0.7**		**0.86**		**1.1**		**0.21**		1.0	U
Manganese - Total	120	d	320	c	100	i	150	g		31	--		--		--		**25**		--		--		--		--		--		**8.4**		**72**		--		--	
Manganese - Dissolved	120	d	320	c	100	i	150	g		12	--		--		--		**0.7**		--		--		--		--		--		**3.3**		**21**		--		--	
Mercury - Total	0.77	b	2	a	--		--			ND	--		--		--		0.2	U	--		--		--		--		--		0.2	U	0.2	U	--		--	
Mercury - Dissolved	0.77	b	2	a	--		--			ND	--		--		--		0.2	U	--		--		--		--		--		0.2	U	0.2	U	--		--	
Nickel - Total	16	b	300	c	170	i	5.5	g		2.5	--		--		--		**2.3**		--		--		--		--		--		**1.2**		**3.8**		--		--	
Nickel - Dissolved	16	b	300	c	170	i	5.5	g		1.5	--		--		--		**0.9**		--		--		--		--		--		**1.2**		**1.2**		--		--	
Silver - Total	0.12	e	100	a	--		0.3	g		0.03	--		--		--		**0.02**		--		--		--		--		--		**0.02**		0.02	U	--		--	
Silver - Dissolved	0.12	e	100	a	--		0.3	g		0.01	--		--		--		0.02	U	--		--		--		--		--		0.02	U	0.02	U	--		--	
Zinc - Total	36	b	5,000	a	2,600	i	38	g	600	173	**200**		**195**		**87**		**154**		**329**		**229**		**113**		**73**		**51**		**149**		**353**		**85**		**52**	
Zinc - Dissolved	36	b	5,000	a	2,600	i	38	g		177	--		--		**48**		**92**		**293**		**206**		--		--		**43**		**101**		**184**		**73**		**49**	
Low Molecular Weight PAHs (ug/L)																																				
Naphthalene	194	f			--		0.024	k		0.03	**0.03**	J	**0.03**	J	**0.03**	J	**0.03**	J	0.08	U	**0.04**		**0.07**	J	**0.03**	J	0.01	U	**0.02**		**0.02**		0.08	U	0.08	U
Acenaphthylene	307	f			--		--			0.02	**0.01**	J	0.01	U	**0.04**	J	0.02	U	0.04	U	0.38	U	**0.02**	J	0.01	U	**0.03**	J	**0.02**	D	0.02	U	0.04	U	0.04	U
Acenaphthene	56	f			99	i	--			0.02	**0.02**	J	0.01	U	0.01	U	0.02	UJ	0.04	U	0.38	U	**0.02**	J	0.01	U	0.01	U	0.02	U	0.02	U	0.04	U	0.04	U
Fluorene	39	f			530	i	--			0.02	**0.02**	J	0.01	U	**0.03**	J	0.02	UJ	0.04	U	0.38	U	**0.04**	J	0.01	U	0.01	U	0.02	U	0.02	U	0.04	U	0.04	U
Phenanthrene	19	f			--		--			0.07	**0.07**	J	**0.03**	J	**0.19**	J	**0.07**	J	0.08	U	0.08	U	**0.25**		**0.04**	J	**0.05**	J	**0.03**		**0.04**		0.08	U	**0.06**	
Anthracene	21	f			4,000	i	--			0.02	0.01	U	0.02	U	**0.04**	J	0.02	UJ	0.04	U	0.38	U	**0.02**	J	0.02	U	0.02	U	0.01	U	0.02	U	0.04	U	0.04	U
2-Methylnaphthalene	72	f			--		--			0.02	**0.03**	J	**0.02**	J	0.01	U	0.02	UJ	0.08	U	0.08	U	**0.05**	J	**0.01**	J	0.01	U	0.01	U	0.02	U	0.08	U	0.08	U
High Molecular Weight PAHs (ug/L)																																				
Fluoranthene	7.1	f			14	i	--			0.06	**0.02**	J	0.01	U	**0.23**		**0.09**	J	0.04	U	0.38	U	**0.10**		**0.02**	J	**0.06**	J	**0.02**		**0.03**		**0.04**		**0.07**	
Pyrene	10	f			400	i	--			0.06	**0.02**	J	0.02	U	**0.28**		**0.08**	J	**0.02**		0.38	U	**0.12**		**0.03**	J	**0.06**	J	**0.02**		**0.03**		**0.04**		**0.08**	
Benzo(a)anthracene	2.2	f	0.2	a	0.0018	i	0.0006	k		0.026	0.005	U	0.012	U	**0.081**	J	**0.031**	J	0.038	U	0.377	U	**0.030**	J	0.013	U	0.012	U	0.008	U	0.019	U	0.038	U	**0.038**	
Chrysene	2.0	f	0.2	a	0.0018	i	0.0012	k		0.035	**0.008**	J	0.014	U	**0.140**	J	**0.066**	J	0.038	U	0.377	U	**0.060**	J	0.015	U	0.014	U	0.008	U	0.019	U	**0.023**		**0.051**	
Benzo(b)fluoranthene	0.68	f	0.2	a	0.0018	i	0.0009	k		0.035	**0.006**	J	0.020	U	**0.150**	J	**0.065**	J	0.038	U	0.377	U	**0.040**	J	0.021	U	**0.021**	J	0.008	U	0.019	U	**0.024**		**0.054**	
Benzo(k)fluoranthene	0.64	f	0.2	a	0.0018	i	0.0007	k		0.024	**0.004**	J	0.020	U	**0.049**	J	**0.021**	J	0.038	U	0.377	U	**0.030**	J	0.021	U	0.020	U	0.008	U	0.019	U	0.038	U	**0.025**	
Benzo(a)pyrene	0.96	f	0.2	a	0.0018	i	0.0007	k		0.030	0.006	U	0.016	U	**0.100**	J	**0.031**	J	0.038	U	0.377	U	**0.030**	J	0.017	U	0.020	U	0.008	U	0.019	U	0.038	U	**0.057**	
Indeno(1,2,3-cd)pyrene	0.28	f	0.2	a	0.0018	i	0.0003	k		0.056	**0.006**	J	0.024	U	**0.089**	J	**0.035**	J	0.189	U	0.377	U	**0.040**	J	0.026	U	0.020	U	0.008	U	0.019	U	0.189	U	0.381	U
Dibenz(a,h)anthracene	0.28	f	0.2	a	0.0018	i	0.0001	k		0.054	0.004	U	0.031	U	0.031	U	0.020	UJ	0.189	U	0.377	U	**0.009**	J	0.032	U	0.020	U	0.008	U	0.019	U	0.189	U	0.381	U
Benzo(g,h,i)perylene	0.44	f	--		--		--			0.059	**0.007**	J	0.017	U	**0.140**	J	**0.041**	J	0.189	U	0.377	U	**0.060**	J	0.018	U	0.020	U	0.009		0.019	U	0.189	U	0.381	U
Miscellaneous Semivolatiles (ug/L)																																				
3- and 4-Methylphenol	--		180	c	--		--			0.29	**0.30**	J	**0.23**	J	0.05	U	0.50	U	0.94	U	0.94	U	**0.49**		**0.09**	J	0.05	U	0.48	U	0.50	U	0.94	U	0.95	U
Dibenzofuran	3.7	d	12	c	--		--			0.01	**0.01**	J	0.014	U	0.014	U	0.02	U	0.04	U	0.04	U	**0.02**	J	0.01	U	0.01	U	0.02	U	0.02	U	0.04	U	0.04	U
Dimethyl Phthalate	3.0	e	370,000	c	110,000	i	--			0.40	--		--		--		**0.36**		*1.89*	*U*	*1.89*	*U*	--		--		--		**0.22**		**0.66**		*1.89*	*U*	*1.9*	*U*
Diethyl Phthalate	210	d	29,000	c	4,400	i	--			0.23	--		--		--		0.20	U	*1.89*	*U*	*1.89*	*U*	--		--		--		**0.47**		**0.24**		*1.89*	*U*	*1.9*	*U*
Di-n-butyl Phthalate	3.0	e	3,700	c	450	i	--			0.17	--		--		--		0.20	U	*1.89*	*U*	*1.89*	*U*	--		--		--		**0.47**		**0.24**		*1.89*	*U*	*1.9*	*U*
Butyl Benzyl Phthalate	19	e	7,300	c	190	i	--			0.11	**0.10**	J	**0.19**	J	0.20		0.20	U	*1.89*	*U*	*1.89*	*U*	--		--		--		**0.47**		**0.24**		*1.89*	*U*	*1.9*	*U*
Bis(2-ethylhexyl) Phth.	3.0	e	4.8	c	0.22	i	1.5	k		1.85	--		--		--		0.99	U	1.89	U	**1.02**		--		--		--		**1.4**		**6.7**		**1.6**		**2.2**	
Di-n-octyl Phthalate	3.0	e	1,500	c	--		--			0.08	0.003	U	0.03	U	0.03	U	0.20	U	*1.89*	*U*	*1.89*	*U*	--		--		--		**0.47**		**0.24**		*1.89*	*U*	*1.9*	*U*
Polychlorinated Biphenyls (ug/L)																																				
Arochor 1016	--		0.96	c						ND	--		--		--		0.20	U	0.022	U	0.038	U	--		--		--		0.20	U	0.20	U	0.022	U	0.038	U
Arochor 1221	0.28	d	0.0043	c						ND	--		--		--		0.39	U	0.022	U	0.038	U	--		--		--		0.39	U	0.40	U	0.022	U	0.038	U
Arochor 1232	0.58	d	0.0043	c						ND	--		--		--		0.20	U	0.022	U	0.038	U	--		--		--		0.20	U	0.20	U	0.022	U	0.038	U

Table 6
Risk Screening Evaluation of Site Stormwater

	JSCS (2007) Screening Levels and Other Criteria									Site Stormwater Concentrations																											
	Aquatic Life Criterion	Reference	Drinking Water Criterion	Reference	Fish Consump. (175 g/day)	Reference	Willamette R. Background	Reference	NPDES 1200-Z Permit Limit (h)	S-3 12/15/00		S-3 03/06/02		S-3 04/07/05		S-3 05/02/07		S-3 11/12/07		S-3 05/25/10		S-3 06/03/10		S-4 12/15/00		S-4 Dupe 12/15/00		S-4 04/09/02		S-4 04/07/05		S-4 05/02/07		S-4 11/12/07		S-4 05/25/10		S-4 06/03/10	
Metals (ug/L)																																							
Arsenic - Total	150	e	0.045	c	2.1	i	2	g		1	U	0.5	U	0.5	U	0.5	U	**0.7**		**0.99**		**0.81**		--		--		**0.6**		**0.5**		**1.5**		**1.1**		**1.1**		**0.7**	
Arsenic - Dissolved	150	e	0.045	c	2.1	i	2	g		--		--		0.5	U	0.5	U	**0.5**		**0.66**		2.00	U	0.5	U	0.5	U	--		0.5	U	0.5	U	**0.8**		**0.9**		2.0	U
Cadmium - Total	0.094	b	5	a	--		1	g		--		0.2	U	**1.1**		**0.17**		**0.17**		**0.13**		**0.12**		--		--		**0.20**		**0.19**		**0.51**		**0.21**		**0.23**		**0.12**	
Cadmium - Dissolved	0.094	b	5	a	--		1	g		**0.63**		--		**0.96**		**0.15**		**0.15**		**0.12**		1.00	U	**0.22**		**0.21**		--		**0.09**		**0.16**		**0.01**		**0.19**		1.00	U
Chromium - Total	74	b	100	a	--		5.8	g		--		**1.2**		**1.9**		**2.3**		**1.6**		**1.5**		**2.0**		--		--		**0.9**		**1.1**		**5.2**		**1.5**		**1.2**		**1.0**	
Chromium - Dissolved	74	b	100	a	--		5.8	g		**2.9**		--		**1.3**		**0.9**		**0.9**		**0.9**		2.00	U	**0.8**		**0.6**		--		**0.2**		**0.5**		**0.5**		**0.8**		2.0	U
Copper - Total	2.7	b	1,000	a	--		9	g	100	--		**13.1**		**8.6**		**19**		**24**		**35**		**34**		--		--		--		**8.3**		**28**		**15**		**15**		**12**	
Copper - Dissolved	2.7	b	1,000	a	--		9	g		**30**		--		**7.1**		**13**		**18**		**23**		**17**		**4.9**		**4.7**		**9.0**		**4.4**		**14**		**11**		**10**		**8.4**	
Lead - Total	0.54	b	15	a	--		13.3	g	400	--		**2.3**		**4.1**		**4.9**		**4.0**		**7.03**		**7.79**		--		--		**3.3**		**6.2**		**36**		**9.9**		**2.5**		**2.1**	
Lead - Dissolved	0.54	b	15	a	--		13.3	g		**1.6**		--		**1.1**		**0.75**		**0.90**		**0.82**		**0.83**		**0.05**		**0.04**		--		**0.09**		**0.54**		**0.39**		**0.32**		**0.22**	
Manganese - Total	120	d	320	c	100	i	150	g		--		--		--		**24**		**23**		--		--		--		--		--		--		**169**		**55**		--		--	
Manganese - Dissolved	120	d	320	c	100	i	150	g		--		--		--		**14**		**19**		--		--		--		--		--		--		**46**		**27**		--		--	
Mercury - Total	0.77	b	2	a	--		--			--		--		--		0.2	U	0.2	U	--		--		--		--		--		--		0.2	U	0.2	U	--		--	
Mercury - Dissolved	0.77	b	2	a	--		--			--		--		--		0.2	U	0.2	U	--		--		--		--		--		--		0.2	U	0.2	U	--		--	
Nickel - Total	16	b	300	c	170	i	5.5	g		--		--		--		**2.7**		**2.7**		--		--		--		--		--		--		**6.9**		**3.8**		--		--	
Nickel - Dissolved	16	b	300	c	170	i	5.5	g		--		--		--		**1.9**		**2.5**		--		--		--		--		--		--		**2.8**		**3.0**		--		--	
Silver - Total	0.12	e	100	a	--		0.3	g		--		--		--		**0.07**		**0.02**		--		--		--		--		--		--		**0.12**		0.02	U	--		--	
Silver - Dissolved	0.12	e	100	a	--		0.3	g		--		--		--		**0.03**		0.02	U	--		--		--		--		--		--		0.02	U	0.02	U	--		--	
Zinc - Total	36	b	5,000	a	2,600	i	38	g	600	--		**84**		**189**		**375**		**334**		**109**		**124**		--		--		**87**		**90**		**252**		**103**		**81.3**		**59.9**	
Zinc - Dissolved	36	b	5,000	a	2,600	i	38	g		**596**		--		**182**		**301**		**312**		**99**		**81**		**47**		**45**		--		**47**		**201**		**59**		**63.9**		**40.4**	
Low Molecular Weight PAHs (ug/L)																																							
Naphthalene	194	f			--		0.024	k		**0.07**	J	**0.03**	J	0.01	U	**0.01**		0.02	U	0.08	U	**0.04**		**0.04**	J	**0.04**	J	0.01	U	0.01	U	0.02	Ui	0.02	U	0.11	U	0.15	U
Acenaphthylene	307	f			--		--			0.10	U	0.01	U	0.01	U	0.01	Ui	0.02	U	0.04	U	0.04	U	0.10	U	0.10	U	0.01	U	0.01	U	0.01	U	0.02	U	0.06	U	0.08	U
Acenaphthene	56	f			99	i	--			0.10	U	0.01	U	0.01	U	0.01	U	0.02	U	0.04	U	0.04	U	**0.14**		**0.12**		**0.09**	J	0.01	U	0.01	U	0.02	U	0.06	U	0.08	U
Fluorene	39	f			530	i	--			**0.02**	J	0.01	U	0.01	U	**0.01**		0.02	U	0.04	U	0.04	U	**0.36**		**0.34**		**0.17**	J	0.01	U	0.01	U	0.02	U	0.06	U	0.08	U
Phenanthrene	19	f			--		--			**0.20**		**0.05**	J	**0.06**	J	**0.02**		**0.03**		0.08	U	0.08	U	**0.46**		**0.35**		**0.07**	J	**0.03**	J	0.03	Ui	0.02	U	0.11	U	0.15	U
Anthracene	21	f			4,000	i	--			0.10	U	0.02	U	0.02	U	0.01	U	0.02	U	0.04	U	0.04	U	**0.02**	J	**0.01**	J	0.02	U	0.02	U	0.01	U	0.02	U	0.06	U	0.08	U
2-Methylnaphthalene	72	f			--		--			**0.10**		0.01	U	0.01	U	0.01	U	0.02	U	0.08	U	**0.04**		**0.09**	J	**0.10**		0.01	U	0.01	U	**0.01**		0.02	U	0.11	U	0.15	U
High Molecular Weight PAHs (ug/L)																																							
Fluoranthene	7.1	f			14	i	--			**0.06**	J	**0.02**	J	**0.04**	J	**0.02**		0.02		**0.03**		0.04	U	**0.06**	J	**0.05**	J	0.01	U	0.01	U	**0.05**		0.02	U	0.06	U	0.08	U
Pyrene	10	f			400	i	--			**0.03**	J	**0.02**	J	**0.04**	J	**0.02**		0.02	U	**0.03**		0.04	U	**0.19**		**0.16**		**0.10**	J	**0.10**	J	**0.08**		**0.03**		**0.05**		**0.04**	
Benzo(a)anthracene	2.2	f	0.2	a	0.0018	i	0.0006	k		**0.007**	J	0.012	U	0.012	U	0.008	U	0.019	U	0.038	U	0.038	U	**0.030**	J	**0.020**	J	0.012	U	0.012	U	**0.012**		0.020	U	0.056	U	0.076	U
Chrysene	2.0	f	0.2	a	0.0018	i	0.0012	k		**0.030**	J	0.015	U	0.014	U	**0.009**		0.019	U	**0.029**		0.038	U	**0.120**		**0.090**	J	0.014	U	0.014	U	**0.030**		0.020	U	0.056	U	0.076	U
Benzo(b)fluoranthene	0.68	f	0.2	a	0.0018	i	0.0009	k		**0.010**	J	0.020	U	0.020	U	0.008	U	0.019	U	**0.027**		0.038	U	**0.030**	J	**0.030**	J	0.020	U	0.020	U	**0.034**		0.020	U	0.056	U	0.076	U
Benzo(k)fluoranthene	0.64	f	0.2	a	0.0018	i	0.0007	k		**0.008**	J	0.020	U	0.020	U	0.008	U	0.019	U	0.038	U	0.038	U	**0.020**	J	**0.010**	J	0.020	U	0.020	U	0.008	U	0.020	U	0.056	U	0.076	U
Benzo(a)pyrene	0.96	f	0.2	a	0.0018	i	0.0007	k		0.095	U	0.017	U	0.016	U	0.008	U	0.019	U	0.038	U	0.038	U	**0.030**	J	**0.020**	J	0.016	U	0.016	U	**0.017**		0.020	U	0.056	U	0.076	U
Indeno(1,2,3-cd)pyrene	0.28	f	0.2	a	0.0018	i	0.0003	k		**0.010**	J	0.025	U	0.024	U	0.008	U	0.019	U	0.189	U	0.381	U	**0.020**	J	**0.020**	J	0.024	U	0.024	U	**0.020**		0.020	U	0.187	U	0.076	U
Dibenz(a,h)anthracene	0.28	f	0.2	a	0.0018	i	0.0001	k		0.190	U	0.031	U	0.031	U	0.008	U	0.019	U	0.189	U	0.381	U	**0.009**	J	**0.008**	J	0.031	U	0.031	U	0.008	U	0.020	U	0.187	U	0.076	U
Benzo(g,h,i)perylene	0.44	f	--		--		--			**0.010**	J	0.017	U	0.017	U	0.008	U	0.019	U	0.189	U	0.381	U	**0.040**	J	**0.030**	J	0.017	U	0.017	U	**0.027**		0.020	U	0.187	U	0.076	U
Miscellaneous Semivolatiles (ug/L)																																							
3- and 4-Methylphenol	--		180	c	--		--			0.48	U	**0.22**	J	**0.12**	J	0.48	U	0.49	U	0.94	U	0.95	U	**0.20**	J	**0.20**	J	0.05	U	0.05	U	0.48	U	0.47	U	1.4	U	1.9	U
Dibenzofuran	3.7	d	12	c	--		--			0.01	U	**0.02**	J	0.01	U	**0.01**		0.02	U	0.04	U	0.04	U	**0.13**		**0.11**		**0.11**	J	0.01	U	0.013	Ui	0.02	U	0.06	U	0.08	U
Dimethyl Phthalate	3.0	e	370,000	c	110,000	i	--			--		--		--		**0.32**		**0.46**		*1.89*	*U*	*1.9*	*U*	--		--		--		--		**0.29**		**0.25**		2.8	U	3.8	U
Diethyl Phthalate	210	d	29,000	c	4,400	i	--			--		--		--		0.20	U	**0.22**		*1.89*	*U*	*1.9*	*U*	--		--		--		--		0.20	U	**0.26**		2.8	U	3.8	U
Di-n-butyl Phthalate	3.0	e	3,700	c	450	i	--			--		--		--		0.20	U	**0.22**		*1.89*	*U*	*1.9*	*U*	--		--		--		--		0.20	U	**0.26**		2.8	U	3.8	U
Butyl Benzyl Phthalate	19	e	7,300	c	190	i	--			--		--		--		0.20	U	**0.22**		*1.89*	*U*	*1.9*	*U*	--		--		--		--		0.20	U	**0.26**		2.8	U	3.8	U
Bis(2-ethylhexyl) Phth.	3.0	e	4.8	c	0.22	i	1.5	k		--		--		--		0.96	U	**2.4**		**0.979**		**2.17**		--		--		--		--		0.96	U	0.94	U	**1.5**		3.8	U
Di-n-octyl Phthalate	3.0	e	1,500	c	--		--			--		--		--		0.20	U	**0.22**		*1.89*	*U*	*1.9*	*U*	--		--		--		--		0.20	U	**0.26**		2.8	U	3.8	U
Polychlorinated Biphenyls (ug/L)																																							
Arochor 1016	--		0.96	c						--		--		--		0.20	U	0.20	U	0.024	U	0.038	U	--		--		--		--		0.20	U	0.20	U	0.022	U	0.038	U
Arochor 1221	0.28	d	0.0043	c						--		--		--		0.39	U	0.39	U	0.024	U	0.038	U	--		--		--		--		0.39	U	0.39	U	0.022	U	0.038	U
Arochor 1232	0.58	d	0.0043	c						--		--		--		0.20	U	0.20	U	0.024	U	0.038	U	--		--		--		--		0.20	U	0.20	U	0.022	U	0.038	U

Table 6
Risk Screening Evaluation of Site Stormwater

	JSCS (2007) Screening Levels and Other Criteria									Site Stormwater Concentrations																												
	Aquatic Life Criterion	Reference	Drinking Water Criterion	Reference	Fish Consump. (175 g/day)	Reference	Willamette R. Background	Reference	NPDES 1200-Z Permit Limit (h)	Mean Site-Wide	S-1 12/20/00		S-1 03/06/02		S-1 04/07/05		S-1 11/12/07		S-1 05/25/10		S-1 06/03/10		S-2 12/20/00		S-2 03/06/02		S-2 04/07/05		S-2 05/02/07		S-2 11/12/07		S-2 05/25/10		S-2 06/03/10	
Arochor 1242	0.053	d	0.034	c						ND	--		--		--		0.20	U	0.022	U	0.038	U	--		--		--		0.20	U	0.20	U	0.022	U	0.038	U
Arochor 1248	0.081	d	0.034	c						ND	--		--		--		0.20	U	0.022	U	0.038	U	--		--		--		0.20	U	0.20	U	0.022	U	0.038	U
Arochor 1254	0.033	d	0.034	c						ND	--		--		--		0.20	U	0.022	U	0.038	U	--		--		--		0.20	U	0.20	U	0.022	U	0.038	U
Arochor 1260	94	d	0.034	c						ND	--		--		--		0.20	U	0.022	U	0.038	U	--		--		--		0.20	U	0.20	U	0.022	U	0.038	U
Total PCBs	94	d	0.034	c	0.0000064	i	0.00062	k		ND	--		--		--		0.20	U	0.022	U	0.038	U	--		--		--		0.20	U	0.20	U	0.022	U	0.038	U
Organochlorine Pesticides (ug/L)																																						
Aldrin	--		0.00021	c	0.000005	i	--			NC	--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		0.028	U	0.028	U
α - BHC	2.2	d	--		0.00049	i	--			NC	--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		0.028	U	0.028	U
β - BHC	--		--		0.0017	i	--			NC	--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		0.028	U	0.028	U
δ - BHC	--		--		--		--			NC	--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		**0.047**		0.028	U
γ - BHC (Lindane)	0.08	e	--		0.18	i	--			NC	--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		0.028	U	0.028	U
alpha - Chlordane	0.0043	e	2	a	0.000081	i	--			NC	--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		0.028	U	0.028	U
gamma - Chlordane	0.0043	e	2	a	0.000081	i	--			NC	--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		0.028	U	0.028	U
2,4'-DDD	--		--		--		--			NC	--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		0.028	U	0.028	U
2,4'-DDE	--		--		--		--			NC	--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		0.028	U	0.028	U
2,4'-DDT	--		--		--		--			NC	--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		0.028	U	0.028	U
4,4'-DDD	--		0.28	c	0.000031	i	0.00008	k		NC	--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		0.028	U	0.028	U
4,4'-DDE	--		0.20	c	0.000022	i	0.00019	k		NC	--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		0.028	U	0.028	U
4,4'-DDT	--		0.20	c	0.000022	i	0.00027	k		NC	--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		0.038	U	0.028	U
DDT - Total	0.001	e	--		--		--			NC	--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		0.038	U	0.028	U
Dieldrin	0.056	b	0.0015	c	0.0000054	i	0.00025	k		NC	--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		0.028	U	0.028	U
Endosulfan I	0.056	b	78	c	8.9	i	--			NC	--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		0.028	U	0.028	U
Endosulfan II	0.056	b	78	c	8.9	i	--			NC	--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		0.028	U	0.028	U
Endosulfan sulfate	--		--		8.9	i	--			NC	--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		0.028	U	0.028	U
Endrin	0.036	b	2	a	0.024	i	--			NC	--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		0.028	U	0.028	U
Endrin Aldehyde	--		--		0.03	i	--			NC	--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		0.028	U	0.028	U
Endrin ketone	--		--		--		--			NC	--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		0.028	U	0.028	U
Heptachlor	0.0038	b	0.4	a	0.0000079	i	--			NC	--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		0.028	U	0.028	U
Heptachlor epoxide	0.0038	b	0.2	a	0.0000039	i	0.000023	k		NC	--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		0.028	U	0.028	U
Methoxychlor	0.03	b	40	a	--		--			NC	--		--		--		--		0.076	U	0.076	U	--		--		--		--		--		0.076	U	0.076	U
Chlordane (Technical)	0.0043	b	2	a	0.000081	i	--			NC	--		--		--		--		0.355	U	0.355	U	--		--		--		--		--		0.355	U	0.354	U
Toxaphene (Total)	0.0002	b	3	a	0.000028	i	--			NC	--		--		--		--		0.948	U	0.948	U	--		--		--		--		--		0.948	U	0.943	U
cis - nonachlor	--		--		--		--			NC	--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		0.028	U	0.028	U
Hexachlorobenzene	--		0.042	c	0.000029	i	0.000064	k		NC	--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		0.028	U	0.028	U
Hexachlorobutadiene	--		0.26	c	1.8	i	--			NC	--		--		--		--		0.028	UJ	0.028	U	--		--		--		--		--		0.028	UJ	0.028	U
Mirex	--		0.0037	c	--		--			NC	--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		0.028	U	0.028	U
Oxychlordane	--		--		--		--			NC	--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		0.028	U	0.028	U
trans - nonachlor	--		--		--		--			NC	--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		0.028	U	0.028	U
Total Petroleum Hydrocarbons (mg/L)																																						
Gasoline Range	--		--		--		--			0.19	**1.10**	Z	0.11	U	0.10	U	0.25	U	0.10	U	0.10	U	0.10	U	**0.13**	Z	0.10	U	0.25	U	0.25	U	0.10	U	0.10	U
Diesel Range	--		--		--		--			0.23	0.10	U	0.11	U	**0.34**	H	**0.33**	H	**0.22**		**0.09**		0.10	U	0.11	U	**0.31**	Y	0.25	U	**0.50**	H	**0.24**		**0.08**	
Residual Oil Range	--		--		--		--			0.48	0.25	U	0.27	U	**0.88**	O	**0.61**	O	**0.58**		**0.62**		0.25	U	0.26	U	**0.43**	O	0.50	U	**1.60**	O	**0.80**		**0.69**	
Total Petroleum	--		--		--		--		10	0.74	**1.10**		0.27	U	**1.22**		**0.94**		**0.79**		**0.71**		0.25	U	**0.13**		**0.74**		0.50	U	**2.10**		**1.04**		**0.77**	

Table 6
Risk Screening Evaluation of Site Stormwater

	JSCS (2007) Screening Levels and Other Criteria									Site Stormwater Concentrations																													
	Aquatic Life Criterion	Reference	Drinking Water Criterion	Reference	Fish Consump. (175 g/day)	Reference	Willamette R. Background	Reference	NPDES 1200-Z Permit Limit (h)	S-3 12/15/00		S-3 03/06/02		S-3 04/07/05		S-3 05/02/07		S-3 11/12/07		S-3 05/25/10		S-3 06/03/10		S-4 12/15/00		S-4 Dupe 12/15/00		S-4 04/09/02		S-4 04/07/05		S-4 05/02/07		S-4 11/12/07		S-4 05/25/10		S-4 06/03/10	
Arochor 1242	0.053	d	0.034	c						--		--		--		0.20	U	0.20	U	0.024	U	0.038	U	--		--		--		--		0.20	U	0.20	U	0.022	U	0.038	U
Arochor 1248	0.081	d	0.034	c						--		--		--		0.20	U	0.20	U	0.024	U	0.038	U	--		--		--		--		0.20	U	0.20	U	0.022	U	0.038	U
Arochor 1254	0.033	d	0.034	c						--		--		--		0.20	U	0.20	U	0.024	U	0.038	U	--		--		--		--		0.20	U	0.20	U	0.022	U	0.038	U
Arochor 1260	94	d	0.034	c						--		--		--		0.20	U	0.20	U	0.024	U	0.038	U	--		--		--		--		0.20	U	0.20	U	0.022	U	0.038	U
Total PCBs	94	d	0.034	c	0.0000064	i	0.00062	k		--		--		--		0.20	U	0.20	U	0.024	U	0.038	U	--		--		--		--		0.20	U	0.20	U	0.022	U	0.038	U
Organochlorine Pesticides (ug/L)																																							
Aldrin	--		0.00021	c	0.000005	i	--			--		--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		--		0.028	U	0.028	U
α - BHC	2.2	d	--		0.00049	i	--			--		--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		--		0.028	U	0.028	U
β - BHC	--		--		0.0017	i	--			--		--		--		--		--		0.028	U	0.047	U	--		--		--		--		--		--		**0.038**		0.028	U
δ - BHC	--		--		--		--			--		--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		--		**0.052**		0.047	U
γ - BHC (Lindane)	0.08	e	--		0.18	i	--			--		--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		--		0.028	U	0.028	U
alpha - Chlordane	0.0043	e	2	a	0.000081	i	--			--		--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		--		0.028	U	0.028	U
gamma - Chlordane	0.0043	e	2	a	0.000081	i	--			--		--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		--		0.028	U	0.028	U
2,4'-DDD	--		--		--		--			--		--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		--		0.028	U	0.028	U
2,4'-DDE	--		--		--		--			--		--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		--		0.028	U	0.028	U
2,4'-DDT	--		--		--		--			--		--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		--		0.028	U	0.028	U
4,4'-DDD	--		0.28	c	0.000031	i	0.00008	k		--		--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		--		0.028	U	0.028	U
4,4'-DDE	--		0.20	c	0.000022	i	0.00019	k		--		--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		--		0.028	U	0.028	U
4,4'-DDT	--		0.20	c	0.000022	i	0.00027	k		--		--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		--		0.028	U	0.028	U
DDT - Total	0.001	e	--		--		--			--		--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		--		0.028	U	0.028	U
Dieldrin	0.056	b	0.0015	c	0.0000054	i	0.00025	k		--		--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		--		0.028	U	0.028	U
Endosulfan I	0.056	b	78	c	8.9	i	--			--		--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		--		0.028	U	0.028	U
Endosulfan II	0.056	b	78	c	8.9	i	--			--		--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		--		0.028	U	0.028	U
Endosulfan sulfate	--		--		8.9	i	--			--		--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		--		0.028	U	0.028	U
Endrin	0.036	b	2	a	0.024	i	--			--		--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		--		0.028	U	0.028	U
Endrin Aldehyde	--		--		0.03	i	--			--		--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		--		0.028	U	0.028	U
Endrin ketone	--		--		--		--			--		--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		--		0.028	U	0.028	U
Heptachlor	0.0038	b	0.4	a	0.0000079	i	--			--		--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		--		0.028	U	0.028	U
Heptachlor epoxide	0.0038	b	0.2	a	0.0000039	i	0.000023	k		--		--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		--		0.028	U	0.028	U
Methoxychlor	0.03	b	40	a	--		--			--		--		--		--		--		0.076	U	0.076	U	--		--		--		--		--		--		0.076	U	**0.020**	
Chlordane (Technical)	0.0043	b	2	a	0.000081	i	--			--		--		--		--		--		0.355	U	0.354	U	--		--		--		--		--		--		0.354	U	0.355	U
Toxaphene (Total)	0.0002	b	3	a	0.000028	i	--			--		--		--		--		--		0.948	U	0.943	U	--		--		--		--		--		--		0.943	U	0.948	U
cis - nonachlor	--		--		--		--			--		--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		--		0.028	U	0.028	U
Hexachlorobenzene	--		0.042	c	0.000029	i	0.000064	k		--		--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		--		0.028	U	0.028	U
Hexachlorobutadiene	--		0.26	c	1.8	i	--			--		--		--		--		--		0.028	UJ	0.028	U	--		--		--		--		--		--		0.028	UJ	0.028	U
Mirex	--		0.0037	c	--		--			--		--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		--		0.028	U	0.028	U
Oxychlordane	--		--		--		--			--		--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		--		0.028	U	0.028	U
trans - nonachlor	--		--		--		--			--		--		--		--		--		0.028	U	0.028	U	--		--		--		--		--		--		0.028	U	0.028	U
Total Petroleum Hydrocarbons (mg/L)																																							
Gasoline Range	--		--		--		--			**1.30**	Z	0.11	U	**0.12**	Z	0.25	U	0.25	U	0.10	U	0.10	U	**0.27**	Z	**0.26**	Z	**0.22**	H	0.10	U	0.25	U	0.25	U	0.10	U	0.10	U
Diesel Range	--		--		--		--			**0.51**	Z	**0.11**	Z	**0.55**	Y	**0.29**	Z	**0.29**	Y	**0.29**		**0.10**		**0.28**	Z	**0.30**	Z	**1.30**	F	**0.44**	Y	**1.00**	Z	**0.74**	Y	**0.40**		**0.25**	
Residual Oil Range	--		--		--		--			0.25	U	0.26	U	**1.00**	O	0.50	U	0.50	U	**0.58**		**0.19**		0.25	U	0.25	U	**0.55**	O	**0.34**	L	**0.94**	Z	0.50	U	**0.61**		**0.46**	
Total Petroleum	--		--		--		--		10	**1.81**		**0.11**		**1.67**		**0.29**		**0.29**		**0.87**		**0.29**		**0.55**		**0.56**		**2.07**		**0.78**		**1.94**		**0.74**		**1.01**		**0.71**	

Notes and Legend:

Concentration above ecological screening level and Willamette River (WR) background

Site-wide mean concentration above human health screening level and WR background; individual sample results evaluated for pesticides due to insufficient detections

italics = not used in statistics due to elevated MRL

Bold value = detected concentration

U = Not detected at indicated quantitation limit

J = Estimated concentration

ND = Not detected; NC = Not calculated due to insufficient detections

(a) Drinking water MCL
(b) EPA 2004 NRWQC
(c) Tap water PRGs
(d) Oak Ridge National Laboratory's (Tier II SCV)
(e) DEQ's 2004 AWQC (chronic)
(f) EPA (2003) Final Chronic Values
(g) DEQ, 2002, 90th percentile value for Lower Columbia Basin
(h) NPDES Oil and Grease Limit used to evaluate TPH
(i) Oregon human health water quality criteria, Table 40, organism only
(k) Upriver background concentration, from Portland Harbor RI Table 7.4-3a

Table 7
Risk Screening Evaluation of Shoreline Groundwater

	JSCS (2007) Screening Levels and Other Criteria									Shoreline Groundwater Monitoring Wells																			
	Aquatic Life Criterion	Reference	Drinking Water Criterion	Reference	Fish Consump. (175 g/day)	Reference	Willamette R. Background	Reference	NPDES 1200-Z Permit Limits (h)	Mean Site-Wide	EX-2	EX-2	EX-2	EX-2	EX-2	EX-2	EX-3	EX-3	EX-3	EX-3	EX-3	EX-3	EX-5	EX-5	EX-5	MW-5	MW-5
											12/20/00	03/07/02	10/04/02	02/12/04	10/21/04	11/10/10	12/20/00	03/07/02	10/04/02	02/12/04	10/21/04	11/10/10	12/20/00	03/07/02	10/04/02	12/20/00	03/07/02
Metals (ug/L)																													
Arsenic - Total	150	e	0.045	c	2.1	i	2	g		26.2	--	--	--	**57**	**65**	**35**	--	--	--	**87**	**90**	**74**	--	--	--	--	--
Arsenic - Dissolved	150	e	0.045	c	2.1	i	2	g		22.1	--	--	--	**66**	**72**	**37**	--	--	--	**86**	**90**	**75**	--	--	--	--	--
Chromium - Total	74	b	100	a	--		5.8	g		35.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium - Dissolved	74	b	100	a	--		5.8	g		1.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper - Total	2.7	b	1,000	a	--		9	g	100	57	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper - Dissolved	2.7	b	1,000	a	--		9	g		0.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Low Molecular Weight PAHs (µg/L)																													
Naphthalene	194	f			--		--			0.03	**0.01** J	0.01 U	**0.02** J	**0.02** J	0.01 U	--	**0.02** J	0.01 U	**0.04** J	0.01 U	0.01 U	--	**0.01** J	**0.03** J	**0.02** J	0.01 U	**0.03** J
Acenaphthylene	307	f			--		--			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	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Acenaphthene	56	f			99	i	--			0.08	**0.02** J	**0.04** J	**0.11** J	**0.03** J	**0.04** J	--	**0.01** J	0.01 U	**0.02** J	0.01 U	0.01 U	--	**0.01** J	**0.02** J	**0.02** J	0.01 U	0.01 U
Fluorene	39	f			530	i	--			0.07	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 U	0.01 U
Phenanthrene	19	f			--		--			0.14	**0.04** J	**0.05** J	**0.06** J	**0.04** J	**0.02** J	--	**0.04** J	**0.06** J	**0.06** J	**0.03** J	**0.02** J	--	**0.02** J	**0.03** J	**0.04** J	0.01 U	0.01 U
Anthracene	21	f			4,000	i	--			0.03	0.01 U	0.02 U	0.02 U	0.02 U	0.02 U	--	0.01 U	**0.02** J	**0.02** J	0.02 U	0.02 U	--	0.01 U	0.02 U	**0.02** J	0.01 U	0.02 U
2-Methylnaphthalene	72	f			--		--			0.02	**0.01** J	**0.01** J	**0.02** J	**0.01** J	0.01 U	--	0.01 U	0.01 U	**0.02** J	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
High Molecular Weight PAHs (µg/L)																													
Fluoranthene	7.1	f			14	i	--			0.046	**0.01** J	**0.02** J	0.01 U	0.01 U	0.01 U	--	**0.01** J	**0.04** J	**0.03** J	0.01 U	0.01 U	--	**0.01** J	0.01 U	0.01 U	0.01 U	0.01 U
Pyrene	10	f			400	i	--			0.081	**0.03** J	**0.04** J	**0.07** J	**0.04** J	**0.03** J	--	**0.03** J	**0.06** J	**0.06** J	**0.03** J	**0.03** J	--	**0.04** J	**0.05** J	**0.07** J	0.01 U	**0.02** J
Benz(a)anthracene	2.2	f	0.2	a	0.0018	i	--			0.023	**0.007** J	0.013 U	0.012 U	0.012 U	0.012 U	--	**0.008** J	0.013 U	0.012 U	0.012 U	0.012 U	--	**0.006** J	0.013 U	0.012 U	0.005 U	0.013 U
Chrysene	2.0	f	0.2	a	0.0018	i	--			0.032	**0.007** J	0.015 U	0.014 U	0.014 U	0.014 U	--	**0.010** J	0.015 U	0.014 U	0.014 U	0.014 U	--	**0.008** J	0.015 U	0.014 U	0.006 U	0.015 U
Benzo(b)fluoranthene	0.68	f	0.2	a	0.0018	i	--			0.022	**0.006** J	0.021 U	0.020 U	0.020 U	0.020 U	--	**0.006** J	0.021 U	0.020 U	0.020 U	0.020 U	--	0.005 U	0.021 U	0.020 U	0.005 U	0.021 U
Benzo(k)fluoranthene	0.64	f	0.2	a	0.0018	i	--			0.013	**0.006** J	0.021 U	0.020 U	0.020 U	0.020 U	--	**0.006** J	0.021 U	0.020 U	0.020 U	0.020 U	--	**0.003** J	0.021 U	0.020 U	0.003 U	0.021 U
Benzo(a)pyrene	0.96	f	0.2	a	0.0018	i	--			0.022	**0.007** J	0.017 U	0.016 U	0.016 U	0.016 U	--	**0.007** J	0.017 U	0.016 U	0.016 U	0.016 U	--	0.006 U	0.017 U	0.016 U	0.006 U	0.018 U
Indeno(1,2,3-cd)pyrene	0.28	f	0.2	a	0.0018	i	--			0.020	**0.009** J	0.026 U	0.024 U	0.024 U	0.024 U	--	**0.009** J	0.026 U	0.024 U	0.024 U	0.024 U	--	**0.007** J	0.026 U	0.024 U	0.004 U	0.026 U
Dibenz(a,h)anthracene	0.28	f	0.2	a	0.0018	i	--			0.014	**0.005** J	0.033 U	0.031 U	0.031 U	0.031 U	--	0.004 U	0.033 U	0.031 U	0.031 U	0.031 U	--	0.004 U	0.033 U	0.031 U	0.004 U	0.033 U
Benzo(g,h,i)perylene	0.44	f	--		--		--			0.028	**0.010** J	0.018 U	0.017 U	0.017 U	0.017 U	--	**0.020** J	**0.034** J	**0.025** J	0.017 U	0.017 U	--	**0.030** J	**0.054** J	**0.031** J	0.005 U	0.018 U
Miscellaneous Semivolatiles (µg/L)																													
3- and 4-Methylphenol	--		180	c	--		--			0.12	**0.02** J	0.06 U	0.05 U	0.05 U	0.05 U	--	**0.05** J	**0.09** J	**0.09** J	0.05 U	0.05 U	--	**0.01** J	0.06 U	0.05 U	0.00 U	0.06 U
Dibenzofuran	3.7	d	12	c	--		--			0.02	0.007 U	0.014 U	0.014 U	0.014 U	0.014 U	--	0.007 U	0.014 U	0.014 U	0.014 U	0.014 U	--	0.007 U	0.014 U	0.014 U	0.007 U	0.015 U
Butyl Benzyl Phthalate	19	d	7,300	c	190	i	--			0.02	0.02 U	0.03 U	0.03 U	0.03 U	0.03 U	--	0.02 U	0.03 U	0.03 U	0.03 U	0.03 U	--	0.02 U	0.03 U	0.03 U	0.02 U	0.03 U
Di-n-octyl Phthalate	3.0	e	1,500	c	--		--			0.01	0.00 U	0.04 U	0.03 U	0.03 U	0.03 U	--	0.00 U	0.04 U	0.03 U	0.03 U	0.03 U	--	0.00 U	0.04 U	0.03 U	0.00 U	0.04 U
Total Petroleum Hydrocarbons (mg/L)																													
Gasoline Range	--		--		--		--			ND						0.05 U						0.05 U					
Diesel Range	--		--		--		--			ND						0.12 U						0.12 U					
Residual Oil Range	--		--		--		--			NC						0.27 J						0.24 U					
Total Petroleum	--		--		--		--		10	NC						0.27 J						0.27 U					
Volatile Organic Compounds (µg/L)																													
Carbon Disulfide	0.92	d	720	c	--		--			NC	0.5 U	0.5 U	0.5 U	--	--	--	0.5 U	0.5 U	0.5 U			--	0.5 U	0.5 U	**1.4**	0.5 U	0.5 U
cis-1,2-Dichloroethylene	590	d	28	c	--		--			NC	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	0.5 U	0.5 U
Toluene	9.8	d	1,000	a	1,500	i	--			NC	0.5 U	0.5 U	0.5 U	--	--	--	0.5 U	0.5 U	**1.3**			--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl Chloride	--		2	a	0.24	i	--			NC	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	0.5 U	0.5 U

Legend:

Concentration above ecological screening level and Willamette River (WR) background

Site-wide mean concentration above human health screening level and WR background; if mean cannot be calculated, individual results are screened

Bold value = detected concentration

U = Not detected at indicated quantitation limit

J = Estimated concentration

NC = Not calculated due to insufficient detections

Notes:

(a) Drinking water MCL
(b) EPA 2004 NRWQC
(c) Tap water PRGs
(d) Oak Ridge National Laboratory's (Tier II SCV)
(e) DEQ's 2004 AWQC (chronic)
(f) EPA (2003) Final Chronic Values
(g) DEQ, 2002; 90th percentile value for Lower Columbia Basin
(h) NPDES Oil and Grease Limit used to evaluate TPH
(i) Oregon human health water quality criteria, Table 40, organism only

Table 7
Risk Screening Evaluation of Shoreline Groundwater

	JSCS (2007) Screening Levels and Other Criteria									Shoreline Groundwater Monitoring Wells																			
	Aquatic Life Criterion	Reference	Drinking Water Criterion	Reference	Fish Consump. (175 g/day)	Reference	Willamette R. Background	Reference	NPDES 1200-Z Permit Limits (h)	MW-5	MW-5 Dup	MW-5	MW-5	MW-7	MW-7	MW-7	MW-7	MW-7 Dup	MW-7	MW-8	MW-8	MW-8	MW-8	MW-8	MW-14	MW-14
										10/03/02	10/03/02	02/11/04	10/22/04	10/25/01	03/08/02	10/04/02	02/12/04	02/12/04	10/21/04	10/25/01	03/07/02	10/04/02	02/12/04	10/21/04	02/11/04	10/21/04
Metals (ug/L)																													
Arsenic - Total	150	e	0.045	c	2.1	i	2	g		--	--	**16**	**25**	**18**	**4.4**	--	**5.0**	**5.0**	**5.1**	**44**	**4.3**	--	**5.4**	**10.1**	**1.5**	**2.7**
Arsenic - Dissolved	150	e	0.045	c	2.1	i	2	g		--	--	**15**	**20**	**3.0**	**3.5**	**9.1**	**5.1**	**5.1**	**6.3**	**2.3**	**8.6**	**9.6**	**5.6**	**10.3**	**1.5**	**1.5**
Chromium - Total	74	b	100	a	--		5.8	g		--	--	--	--	**127**	**9.1**	--	**0.7**	**0.8**	**1.1**	**225**	**15**	--	**1.7**	**3.1**	**1.3**	**0.6**
Chromium - Dissolved	74	b	100	a	--		5.8	g		--	--	--	--	1.0 U	**2.3**	**2.1**	**2.0**	**0.7**	**1.1**	1.0 U	**2.9**	**1.4**	**0.8**	**1.0**	**2.6**	**0.5**
Copper - Total	2.7	b	1,000	a	--		9	g	100	--	--	--	--	**164**	**19**	--	**0.5**	**0.4**	0.1 U	**394**	**36**	--	**2.0**	**3.8**	**1.7**	**2.4**
Copper - Dissolved	2.7	b	1,000	a	--		9	g		--	--	--	--	2.0 U	**1.3**	**0.7**	**0.7**	**0.3**	0.1 U	2.0 U	**1.3**	**0.3**	**0.2**	0.1 U	**1.3**	**2.1**
Low Molecular Weight PAHs (µg/L)																													
Naphthalene	194	f			--		--			0.01 U	**0.02**	**0.03** J	0.01 U	5.00 U	**0.09** J	**0.02** J	0.01 U	0.01 U	0.01 U	5.00 U	**0.16** J	**0.38**	**0.03** J	0.01 U	**0.02** J	0.01 U
Acenaphthylene	307	f			--		--			0.01 U	0.01 U	0.01 U	0.01 U	5.00 U	**0.03** J	0.01 U	0.01 U	0.01 U	0.01 U	5.00 U	0.01 U	**0.21**	0.01 U	0.01 U	0.01 U	0.01 U
Acenaphthene	56	f			99	i	--			0.01 U	0.01 U	0.01 U	0.01 U	5.00 U	0.01 U	0.01 U	0.01 U	**0.05** J	**0.03** J	5.00 U	**0.58**	**0.78**	**0.34**	**0.21**	**0.03** J	0.01 U
Fluorene	39	f			530	i	--			0.01 U	0.01 U	0.01 U	0.01 U	5.00 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	5.00 U	**0.56**	**0.91**	**0.36**	**0.22**	0.01 U	0.01 U
Phenanthrene	19	f			--		--			**0.02** J	**0.02** J	0.01 U	0.01 U	5.00 U	**0.08** J	**0.03** J	**0.02** J	**0.04** J	0.01 U	5.00 U	**1.20**	**1.70**	**0.22**	**0.22**	0.01 U	0.01 U
Anthracene	21	f			4,000	i	--			**0.03** J	**0.02** J	0.02 U	0.02 U	5.00 U	**0.04** J	**0.03** J	**0.02** J	**0.03** J	0.02 U	5.00 U	**0.10** J	**0.38**	**0.03** J	0.02 U	0.02 U	0.02 U
2-Methylnaphthalene	72	f			--		--			0.01 U	0.01 U	0.01 U	0.01 U	5.00 U	**0.03** J	0.01 U	0.01 U	0.01 U	0.01 U	5.00 U	**0.08** J	**0.16** J	0.01 U	**0.00** J	0.01 U	0.01 U
High Molecular Weight PAHs (µg/L)																													
Fluoranthene	7.1	f			14	i	--			**0.03** J	**0.03** J	0.01 U	0.01 U	5.0 U	**0.06** J	0.01 U	0.01 U	0.01 U	0.01 U	5.0 U	**0.22**	**0.73**	**0.04** J	**0.05** J	0.01 U	0.01 U
Pyrene	10	f			400	i	--			**0.04** J	**0.03** J	0.02 U	0.02 U	5.0 U	**0.09** J	**0.03** J	0.02 U	0.02 U	0.02 U	5.0 U	**0.34**	**1.10**	**0.07** J	**0.08** J	0.02 U	0.02 U
Benz(a)anthracene	2.2	f	0.2	a	0.0018	i	--			**0.030** J	0.012 U	0.012 U	0.012 U	5.0 U	**0.044** J	0.012 U	0.012 U	0.012 U	0.012 U	5.0 U	**0.071** J	**0.390**	0.012 U	0.012 U	0.012 U	0.012 U
Chrysene	2.0	f	0.2	a	0.0018	i	--			**0.022** J	0.014 U	0.014 U	0.014 U	5.0 U	**0.045** J	0.014 U	0.014 U	0.014 U	0.014 U	5.0 U	**0.160** J	**0.560**	0.014 U	0.014 U	0.014 U	0.014 U
Benzo(b)fluoranthene	0.68	f	0.2	a	0.0018	i	--			0.020 U	0.020 U	0.020 U	0.020 U	5.0 U	0.021 U	0.020 U	0.020 U	0.020 U	0.020 U	5.0 U	**0.064** J	**0.350**	0.020 U	0.020 U	0.020 U	0.020 U
Benzo(k)fluoranthene	0.64	f	0.2	a	0.0018	i	--			0.020 U	0.020 U	0.020 U	0.020 U	5.0 U	0.021 U	0.020 U	0.020 U	0.020 U	0.020 U	5.0 U	0.020 U	**0.130** J	0.020 U	0.020 U	0.020 U	0.020 U
Benzo(a)pyrene	0.96	f	0.2	a	0.0018	i	--			0.016 U	0.016 U	0.016 U	0.016 U	5.0 U	0.017 U	0.016 U	0.016 U	0.016 U	0.016 U	5.0 U	**0.089** J	**0.360**	0.016 U	0.016 U	0.016 U	0.016 U
Indeno(1,2,3-cd)pyrene	0.28	f	0.2	a	0.0018	i	--			0.024 U	0.024 U	0.024 U	0.024 U	5.0 U	0.026 U	0.024 U	0.024 U	0.024 U	0.024 U	5.0 U	**0.040** J	**0.250**	0.024 U	0.024 U	0.024 U	0.024 U
Dibenz(a,h)anthracene	0.28	f	0.2	a	0.0018	i	--			0.031 U	0.031 U	0.031 U	0.031 U	5.0 U	0.032 U	0.031 U	0.031 U	0.031 U	0.031 U	5.0 U	0.031 U	0.031 U	0.031 U	0.031 U	0.031 U	0.031 U
Benzo(g,h,i)perylene	0.44	f	--		--		--			0.017 U	0.017 U	0.017 U	0.017 U	5.0 U	**0.099** J	0.017 U	0.017 U	0.017 U	0.017 U	5.0 U	**0.057** J	**0.310**	0.017 U	0.017 U	0.017 U	0.017 U
Miscellaneous Semivolatiles (µg/L)																													
3- and 4-Methylphenol	--		180	c	--		--			0.05 U	0.05 U	0.05 U	0.05 U	5.00 U	**1.1**	0.05 U	0.05 U	0.05 U	0.05 U	5.00 U	**0.22** J	**1.6**	0.05 U	0.05 U	0.05 U	0.05 U
Dibenzofuran	3.7	d	12	c	--		--			0.200 U	0.014 U	0.014 U	0.014 U	5.00 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U	5.00 U	**0.18** J	0.014 U	**0.092** J	0.014 U	0.014 U	0.014 U
Butyl Benzyl Phthalate	19	d	7,300	c	190	i	--			**0.05** J	0.03 U	0.03 U	0.03 U	5.00 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	5.00 U	**0.13** J	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Di-n-octyl Phthalate	3.0	e	1,500	c	--		--			0.01 U	0.01 U	0.03 U	0.03 U	5.00 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	5.00 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Total Petroleum Hydrocarbons (mg/L)																													
Gasoline Range	--		--		--		--																			
Diesel Range	--		--		--		--																			
Residual Oil Range	--		--		--		--																			
Total Petroleum	--		--		--		--		10																	
Volatile Organic Compounds (µg/L)																													
Carbon Disulfide	0.92	d	720	c	--		--			0.5 U	0.5 U	0.5 U	0.5 U	10.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethylene	590	d	28	c	--		--			0.5 U	0.5 U	0.5 U	0.5 U	**2.9**	**2.1**	**2.5**	**5.2**	**5.3**	**3.2**	**1.2**	0.5 U	**1.1**	0.5 U	**1.2**	0.5 U	**1.0**
Toluene	9.8	d	1,000	a	1,500	i	--			0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	**3.4**	**2.4**	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl Chloride	--		2	a	0.24	i	--			0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	**1.4**	**1.4**	**0.8**	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Legend:

Concentration above ecological screening level and Willamette River (WR) background

Site-wide mean concentration above human health screening level and WR background; if mean cannot be calculated, individual results are screened

Bold value = detected concentration

U = Not detected at indicated quantitation limit

J = Estimated concentration

NC = Not calculated due to insufficient detections

Notes:

(a) Drinking water MCL
(b) EPA 2004 NRWQC
(c) Tap water PRGs
(d) Oak Ridge National Laboratory's (Tier II SCV)
(e) DEQ's 2004 AWQC (chronic)
(f) EPA (2003) Final Chronic Values
(g) DEQ, 2002; 90th percentile value for Lower Columbia Basin
(h) NPDES Oil and Grease Limit used to evaluate TPH
(i) Oregon human health water quality criteria, Table 40, organism only

Table 9
Risk Screening Evaluation of Bank Soil and Catch Basin Sediment

	MacDonald PECs and other SQVs	ODEQ 2007 Bioaccumulation SLVs	Bank Surface Soils (2000 Geoprobe)						Stormwater Catch Basin Sediment											Outfall	Riverbank Soils (2010 Grab Samples)		
			GP-14 0-2	GP-15 0-2	GP-16 0-2	GP-17 0-2	GP-18 0-2	GP-19 0-2	Site-wide Mean*	S-1	S-1	S-1	S-2	S-2	S-2	S-3	S-3	S-3	S-3	S-4C	S3-01C	RBC-1	RBC-2	RBC-3
			Soil	Soil	Soil	Soil	Soil	Soil		Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Soil	Soil	Soil
			12/13/00	12/13/00	12/13/00	12/13/00	12/14/00	12/14/00		12/15/00	11/12/07	05/21/10	12/15/00	11/12/07	05/21/10	12/15/00	11/04/04	05/02/07	05/21/10	05/21/10	12/15/00	11/10/10	11/10/10	11/10/10
Metals (mg/kg)																								
Arsenic	33	7	2.2	1.7	1.6	1.5	1.3	1.6	10	5.2	4.4	3.58	7.5	4.6	3.49	38	25.6	10	45.4	3.03	4.4	1.74	2.85	1.56
Cadmium	4.98	1							1.6	2.0	1.8	1.05	1.42	1.11	0.976	2.86	1.9	1.6	1.67	0.987	0.12	0.206	0.629	0.276
Chromium	111	--	13	11	11	10	9	10	86	48.9	122	65.6	63.7	95	59.9	144	189	79	154	25.1	12	11.1	17.5	11.9
Copper	149	--	17	18	15	13	14	12	288	137	214	90.5	316	115	96.1	1,050	1,360	321	1280	79.9	27	21.5	36.9	17
Lead	128	17							234	145	312	124	211	256	138	454	600	206	438	28.1	8.6	7.49	16.7	5.15
Manganese	1,100	--							678		845			511				462						
Mercury	1.06	0.07							0.14		0.08			0.20				0.24						
Nickel	48.6	--							45		52			38.5				44.4						
Silver	5	--							0.44		0.55			0.33				0.92						
Zinc	459	--							794	638	1,550	664	584	630	509	985	752	938	817	314	83	61.7	190	68.1
Low Molecular Weight PAHs (ug/kg)																								
Naphthalene	561	--	7.5 U	1 J	1 J	7.4 U	7.6 U	7.3 U	254	200 JD	270	295	50 JD	290	545 U	400 JD	64 JD	130	328 U	283 U	12 U	127 U	325 U	303 U
Acenaphthylene	200	--	0.7 J	0.5 J	7.6 U	7.4 U	7.6 U	7.3 U	93	40 JD	42	377 U	20 JD	28	545 U	60 JD	37 JU	31	328 U	283 U	12 U	63.5 U	162 U	152 U
Acenaphthene	300	--	7.5 U	7.6 U	7.6 U	7.4 U	7.6 U	7.3 U	228	200 JD	230	481	30 JD	21	545 U	720 U	26 JU	24	328 U	283 U	12 U	63.5 U	162 U	152 U
Fluorene	536	--	7.5 U	0.8 J	7.6 U	7.4 U	7.6 U	7.3 U	641	100 JD	130	337	20 JD	26	545 U	3,600 D	72 JD	47	328 U	283 U	12 U	63.5 U	162 U	152 U
Phenanthrene	1,170	--	7.5 U	13	3 J	7.4 U	7.6 U	7.3 U	1,731	1,500 D	950	3,840	320 D	320	1,590	3,600 D	660 JD	670	344	283 U	12 U	63.5 U	162 U	152 U
Anthracene	845	--	0.9 J	2 J	7.6 U	7.4 U	7.6 U	7.3 U	637	400 JD	230	809	50 JD	56	314	2,600 D	140 JD	58	328 U	283 U	12 U	63.5 U	162 U	152 U
2-Methylnaphthalene	200	--	0.6 J	1 J	1 J	7.4 U	0.5 J	7.3 U	175	100 JD	180	377 U	50 JD	33	545 U	400 JD	31 JU	80	328 U	283 U	1 J	127.0 U	325 U	303 U
High Molecular Weight PAHs (ug/kg)																								
Fluoranthene	2,230	37,000	6 J	34	8 J	5 J	6 J	2 J	2,673	2,600 D	1,400	5,380	690 D	660	2,180	5,800 D	1,400 JD	780	754	177	3 J	57.8 J	89 J	152 U
Pyrene	1,520	1,900	7 J	29	7 J	4 J	6 J	2 J	2,473	2,600 D	1,300	4,520 J	770 D	640	1,980 J	5,500 D	1,200 JD	1,000	634 J	189 J	3 J	53.8 J	162 U	152 U
Benz(a)anthracene	1,050	--	4 J	17	5 J	3 J	3 J	2 J	1,094	1,300 D	470	1,780	440 D	220	950	2,500 D	400 JD	230	248	283 U	2 J	47.6 J	162 U	152 U
Chrysene	1,290	--	7 J	28	7 J	5 J	6 J	2 J	1,809	2,000 D	880	2,100	740 D	520	1,120	5,300 D	1,100 JD	390	646	283 U	3 J	73.6	162 U	152 U
Benzo(b)fluoranthene	--	--	5 J	25	6 J	4 J	5 J	2 J	1,860	2,000 D	930	3,080	780 D	750 X	1,380	4,100 D	1,100 JD	570	786	260 J	3 J	108	131 J	152 J
Benzo(k)fluoranthene	13,000	--	5 J	22	6 J	3 J	4 J	2 J	1,045	1,500 D	300	1,050	540 D	6 U	522	3,400 D	270 JD	180	245	283 U	2 J	63.5 U	162 U	152 U
Benzo(a)pyrene	1,450	--	6 J	24	5 J	4 J	4 J	2 J	1,430	1,900 D	540	2,600 J	670 D	330	545 U	3,700 D	490 JD	320	514 J	170	2 J	55.5 J	243 U	227 U
Indeno(1,2,3-cd)pyrene	100	--	6 J	24	7 J	5 J	5 J	2 J	1,476	1,500 D	570	1,450	490 D	400	5,450 U	3,200 D	530 JD	500	342	283 U	2 J	69.2	84.1	758 U
Dibenz(a,h)anthracene	1,300	--	1 J	5 J	1 J	1 J	1 J	1 J	623	300 JD	88	270	100 JD	78	5,450 U	800 JD	150 JD	100	328 U	283 U	24 U	63.5 U	162 U	758 U
Benzo(g,h,i)perylene	300	--	8 J	23	8 J	6 J	5 J	2 J	1,636	1,600 D	810	1,530	500 D	690	5,450 U	3,600 D	790 JD	1,100	354	248	3 J	64.3	111 J	758 U
Miscellaneous Semivolatiles (ug/kg)																								
3- and 4-Methylphenol	--	--	150 U	150 U	150 U	150 U	150 U	150 U	3,094	*13,000 U*	650 UJ	*9,410 U*	1,900 U	7,100 J	*13,600 U*	4,000 JD	3,000 JD	680 U	*8,190 U*	7,070 U	240 U	159.0 U	406 U	379 U
Dibenzofuran	--	--	0.6 J	0.8 J	7.6 U	7.4 U	7.6 U	7.3 U	141	100 JD	100 JD	275	20 JD	20 JD	545 U	200 JD	69 JD	67	328 U	283 U	12 U	635 U	162 U	152 U
Dimethyl Phthalate	--	--	15 U	4 J	0.7 J	1 J	1 J	1 J	NC		650 UJ	3,770 U		640 UJ	5,450 U			680 U	1,740	2,830 U		635 U	1620 U	1520 U
Diethyl Phthalate	600	--							ND		650 UJ	3,770 U		640 UJ	5,450 U			680 U	3,280 U	2,830 U		635 U	1620 U	1520 U
Di-n-butyl Phthalate	100	--							663		1,300 UJ	542 J		1,300 UJ	808 J			840 D	484 J	707 U		635 U	1620 U	1520 U
Butyl Benzyl Phthalate	--	--							4,257	1,500 D	1,200 J	2,210 J	2,500 D	7,600 J	9,790 J	5,000 D	930 JD	680 U	1,770 J	2,830 U	1 J	635 U	1620 U	1520 U
Bis(2-ethylhexyl) Phthalate	800	--							8,675		8,700 J	5,100 J		9,000 J	11,900 J			12,000 D	18,700 J	2,990 J		635 U	1620 U	1520 U
Di-n-octyl Phthalate	--	--	150 U	150 U	150 U	150 U	150 U	0.8 J	1,796	*13,000 U*	*13,000 UJ*	2,860 J	1,900 U	1,300 UJ	5,450 U	*14,000 U*	11,000 JD	680 U	3,090 J	1,970	2 J	1270 U	3250 U	3030 U
Polychlorinated Biphenyls (ug/kg)																								
Arochor 1016	530	--							ND		13 U	14 U		13 U	25.2 U			11 U	13.6 U	10.2 U		8.02 U	7.77 U	7.71 U
Arochor 1221	--	--							ND		26 U	14 U		26 U	25.2 U			22 U	13.6 U	10.2 U		8.02 U	7.77 U	7.71 U
Arochor 1232	--	--							ND		13 U	14 U		13 U	25.2 U			11 U	13.6 U	10.2 U		8.02 U	7.77 U	7.71 U
Arochor 1242	--	--							ND		23 P	14 U		13 U	25.2 U			11 U	13.6 U	10.2 U		8.02 U	7.77 U	7.71 U
Arochor 1248	1500	--							ND		13 U	14 U		13 U	25.2 U			11 U	13.6 U	10.2 U		8.02 U	7.77 U	7.71 U
Arochor 1254	300	--							41		57	20.0		28 Ui	74.2			69	41.5	8.64		6.48	7.44	7.71 U
Arochor 1260	200	--							24		46	14 U		30	25.2 U			75	27.3 U	10.2 U		8.02 U	7.77 U	7.71 U
Total PCBs	676	0.048							63		126	20.0		30	74.2			144	41.5	8.64		6.48	7.44	7.71 U

Table 9
Risk Screening Evaluation of Bank Soil and Catch Basin Sediment

	MacDonald PECs and other SQVs	ODEQ 2007 Bioaccumulation SLVs	Bank Surface Soils (2000 Geoprobe)						Stormwater Catch Basin Sediment											Outfall	Riverbank Soils (2010 Grab Samples)		
			GP-14 0-2	GP-15 0-2	GP-16 0-2	GP-17 0-2	GP-18 0-2	GP-19 0-2	Site-wide Mean*	S-1	S-1	S-1	S-2	S-2	S-2	S-3	S-3	S-3	S-3	S-4C	S3-01C	RBC-1	RBC-2	RBC-3
			Soil	Soil	Soil	Soil	Soil	Soil		Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Soil	Soil	Soil
			12/13/00	12/13/00	12/13/00	12/13/00	12/14/00	12/14/00		12/15/00	11/12/07	05/21/10	12/15/00	11/12/07	05/21/10	12/15/00	11/04/04	05/02/07	05/21/10	05/21/10	12/15/00	11/10/10	11/10/10	11/10/10
Organochlorine Pesticides (ug/kg)																								
Aldrin	40	--							ND			18.3 U			34.6 U				17.5 U	34.3 U		8.86 U	17.5 U	9.22 U
α - BHC	--	--							ND			18.3 U			34.6 U				17.5 U	34.3 U		8.86 U	17.5 U	9.22 U
β - BHC	--	--							ND			18.3 U			34.6 U				17.5 U	34.3 U		8.86 U	17.5 U	9.22 U
δ - BHC	--	--							ND			18.3 U			34.6 U				17.5 U	34.3 U		8.86 U	17.5 U	9.22 U
γ - BHC (Lindane)	4.99	--							ND			18.3 U			34.6 U				17.5 U	34.3 U		8.86 U	17.5 U	9.22 U
alpha - Chlordane	17.6	0.046							ND			18.3 U			34.6 U				17.5 U	34.3 U		8.86 U	17.5 U	9.22 U
gamma - Chlordane	17.6	0.046							ND			18.3 U			34.6 U				17.5 U	34.3 U		8.86 U	17.5 U	9.22 U
4,4'-DDD	28.0	0.04							ND			18.3 U			34.6 U				17.5 U	34.3 U		8.86 U	17.5 U	9.22 U
4,4'-DDE	31.3	0.04							ND			18.3 U			34.6 U				17.5 U	34.3 U		8.86 U	17.5 U	9.22 U
4,4'-DDT	62.9	0.04							ND			18.3 U			34.6 U				17.5 U	34.3 U		8.86 U	17.5 U	9.22 U
Dieldrin	61.8	0.001							ND			18.3 U			34.6 U				17.5 U	34.3 U		8.86 U	17.5 U	9.22 U
Endosulfan I	--	--							ND			18.3 U			34.6 U				17.5 U	34.3 U		8.86 U	17.5 U	9.22 U
Endosulfan II	--	--							ND			18.3 U			34.6 U				17.5 U	34.3 U		8.86 U	17.5 U	9.22 U
Endosulfan sulfate	--	--							ND			18.3 U			34.6 U				17.5 U	34.3 U		8.86 U	17.5 U	9.22 U
Endrin	207	--							ND			18.3 U			34.6 U				17.5 U	34.3 U				
Endrin Aldehyde	--	--							ND			18.3 U			34.6 U				17.5 U	34.3 U				
Endrin ketone	--	--							ND			18.3 U			34.6 U				17.5 U	34.3 U				
Heptachlor	10	--							ND			18.3 U			34.6 U				17.5 U	34.3 U		8.86 U	17.5 U	9.22 U
Heptachlor epoxide	16	--							ND			18.3 U			34.6 U				17.5 U	34.3 U		8.86 U	17.5 U	9.22 U
Methoxychlor	--	--							ND			53.9 U			102 U				51.4 U	101 U		26 U	51.4 U	27.1 U
Chlordane (Technical)	--	--							ND			216 U			407 U				205 U	403 U				
Toxaphene (Total)	--	--							ND			216 U			407 U				205 U	403 U		104 U	205 U	108 U
cis - Nonachlor	--	--							ND			18.3 U			34.6 U				17.5 U	34.3 U				
2,4'-DDD	--	--							ND			18.3 U			34.6 U				17.5 U	34.3 U		8.86 U	17.5 U	9.22 U
2,4'-DDE	--	--							ND			18.3 U			34.6 U				17.5 U	34.3 U		8.86 U	17.5 U	9.22 U
2,4'-DDT	--	--							ND			18.3 U			34.6 U				17.5 U	34.3 U		8.86 U	17.5 U	9.22 U
Hexachlorobenzene	--	--							ND			18.3 U			34.6 U				17.5 U	34.3 U				
Hexachlorobutadiene	--	--							ND			18.3 U			34.6 U				17.5 U	34.3 U				
Mirex	--	--							ND			18.3 U			34.6 U				17.5 U	34.3 U				
Oxychlordane	--	--							ND			18.3 U			34.6 U				17.5 U	34.3 U				
trans - Nonachlor	--	--							ND			18.3 U			34.6 U				17.5 U	34.3 U				
Total Petroleum Hydrocarbons (mg/kg)																								
Gasoline	--	--	10 U	10 U	10 U	10 U	10 U	10 U	93	**26** Y	13 U	9.51 U	**9.51** U	9.51 U	16.1 U	**580** Y	210 U	14 U	8.15 U	6.29 U	10 U	5.59 U	5.33 U	5.02 U
Diesel	--	--	**14** F	10 U	10 U	**13** H	**21** H	10 U	822	**400** H	**590** DH	**410**	**410**	**410**	**356**	**2,400** H	**1,600** JH	**1,400** DH	**508**	**149**	10 U	**9.33** F-0	**39.6** F-0	41.7 U
Residual Oil	--	--	**55** F	**30** Z	**49** F	**84** F	**210** F	25 U	5037	**1,900** O	**4,600** DO	**3,230**	**3,230**	**3,230**	**4,730**	**7,600** DO	**8,500** JO	**9,300** DO	**5,320**	**2,070**	**30** Y	**195**	**653**	**549**
Total Petroleum	--	--	**69**	**30**	**49**	**97**	**231**		5949	**2,326**	**5,190**	**3,640**	**3,650**	**3,640**	**5,086**	**10,580**	**10,100**	**10,700**	**5,828**	**2,219**	**30**	**204**	**693**	**549**

Legend:

Individual sample concentration above ecological screening level

Site-wide mean concentration above human health screening level

ND Not detected

NC Not calculated due to insufficient detections

Notes:

Bold value = detected concentration; U = Not detected at indicated quantitation limit; J = Estimated concentration; D = The reported result is from a dilution

F = Fingerprint of the sample matches elution pattern of calibration standard; L = Elution pattern indicates the presence of lighter weight constituents

H = Elution pattern indicates the presence of heavier weight constituents; O = Fingerprint resembles oil, but does not match the calibration standard

Y = Fingerprint resembles a petroleum product, but elution pattern does not match calibration standard; Z = Fingerprint does not resemble a petroleum product

Table 11
Comparison of Site Stormwater with Portland Harbor Industrial Stormwater

	Portland Harbor Stormwater				Site Stormwater Concentrations														
	Median Heavy Industrial	Mean Heavy Industrial	95th %-ile Heavy Industrial	Mean Site-Wide	S-1 12/20/00	S-1 03/06/02	S-1 04/07/05	S-1 11/12/07	S-1 05/25/10	S-1 06/03/10	S-2 12/20/00	S-2 03/06/02	S-2 04/07/05	S-2 05/02/07	S-2 11/12/07	S-2 05/25/10	S-2 06/03/10	S-3 12/15/00	S-3 03/06/02
Metals (ug/L)																			
Arsenic - Total	1.0	3.1	17	0.56	0.5 U	0.5 U	0.5 U	**0.7**	2.0 U	2.0 U	1.0 U	0.5 U	0.5 U	0.5 U	**0.8**	2.0 U	2.0 U	1 U	0.5 U
Arsenic - Dissolved	0.58	2.1	12	0.62	--	--	0.5 U	0.5 U	2.0 U	2.0 U	--	--	--	0.5 U	**0.6**	2.0 U	2.0 U	--	--
Cadmium - Total	0.42	1.3	3.6	0.25	0.05 U	0.20 U	**0.16**	**0.21**	**0.11**	1.0 U	**0.22**	0.20 U	**0.07**	**0.12**	**0.30**	1.0 U	1.0 U	--	0.2 U
Cadmium - Dissolved	0.19	0.31	0.98	0.30	--	--	**0.07**	**0.07**	**0.11**	1.0 U	--	--	**0.05**	**0.05**	**0.10**	1.0 U	1.0 U	**0.63**	--
Chromium - Total	3.4	19	110	1.8	**0.4**	**0.4**	**7.0**	**2.3**	**0.88**	**0.89**	**2.0**	**0.6**	**1.1**	**1.1**	**5.5**	**1.3**	**0.86**	--	**1.2**
Chromium - Dissolved	0.8	1.6	6.9	1.02	--	--	**1.3**	**0.5**	**0.66**	2.0 U	--	--	**0.7**	**0.7**	**0.8**	**0.77**	2.0 U	**2.9**	--
Copper - Total	23	67	296	14	**3.8**	**3.7**	**14**	**20**	**9.3**	**6.4**	**9.9**	**10**	**9.4**	**11**	**26**	**8.8**	**4.6**	--	**13.1**
Copper - Dissolved	7.9	17	61	11	--	--	**7.9**	**9.6**	**7.0**	**4.8**	--	--	**6.0**	**8.8**	**8.3**	**6.5**	**3.2**	**30**	--
Lead - Total	14	75	213	5.8	**0.43**	**0.31**	**27**	**10**	**1.8**	**1.3**	**5.9**	**1.1**	**2.3**	**3.2**	**24**	**2.9**	**0.9**	--	**2.3**
Lead - Dissolved	0.54	1.7	6.8	0.74	--	--	**0.61**	**0.32**	**0.24**	1.0 U	--	--	**0.7**	**0.86**	**1.1**	**0.21**	1.0 U	**1.6**	--
Zinc - Total	233	547	2,360	173	**200**	**195**	**87**	**154**	**329**	**229**	**113**	**73**	**51**	**149**	**353**	**85**	**52**	--	**84**
Zinc - Dissolved	94	226	745	177	--	--	**48**	**92**	**293**	**206**	--	--	**43**	**101**	**184**	**73**	**49**	**596**	--
Low Molecular Weight PAHs (ug/L)																			
Naphthalene	0.03	0.14	0.27	0.03	**0.030** J	**0.03** J	**0.03** J	**0.03** J	0.08 U	**0.04**	**0.07** J	**0.03** J	0.01 U	**0.02**	**0.02**	0.08 U	0.08 U	**0.07** J	**0.03** J
Acenaphthylene	0.01	0.03	0.14	0.02	**0.006** J	0.01 U	**0.04** J	0.02 U	0.04 U	0.38 U	**0.02** J	0.01 U	**0.03** J	**0.02** D	0.02 U	0.04 U	0.04 U	0.10 U	0.01 U
Acenaphthene	0.02	0.05	0.10	0.02	**0.020** J	0.01 U	0.01 U	0.02 UJ	0.04 U	0.38 U	**0.02** J	0.01 U	0.01 U	0.02 U	0.02 U	0.04 U	0.04 U	0.10 U	0.01 U
Fluorene	0.02	0.05	0.14	0.02	**0.020** J	0.01 U	**0.03** J	0.02 UJ	0.04 U	0.38 U	**0.04** J	0.01 U	0.01 U	0.02 U	0.02 U	0.04 U	0.04 U	**0.02** J	0.01 U
Phenanthrene	0.10	0.21	0.88	0.07	**0.070** J	**0.03** J	**0.19** J	**0.07** J	0.08 U	0.08 U	**0.25**	**0.04** J	**0.05** J	**0.03**	**0.04**	0.08 U	**0.06**	**0.20**	**0.05** J
Anthracene	0.03	0.05	0.20	0.02	0.006 U	0.02 U	**0.04** J	0.02 UJ	0.04 U	0.38 U	**0.02** J	0.02 U	0.02 U	0.01 U	0.02 U	0.04 U	0.04 U	0.10 U	0.02 U
2-Methylnaphthalene	0.01	0.04	0.14	0.02	**0.030** J	**0.02** J	0.01 U	0.02 UJ	0.08 U	0.08 U	**0.05** J	**0.01** J	0.01 U	0.01 U	0.02 U	0.08 U	0.08 U	**0.10**	0.01 U
High Molecular Weight PAHs (ug/L)																			
Fluoranthene	0.12	0.44	2.4	0.06	**0.020** J	0.01 U	**0.23**	**0.09** J	0.04 U	0.38 U	**0.10**	**0.02** J	**0.06** J	**0.02**	**0.03**	**0.04**	**0.07**	**0.06** J	**0.02** J
Pyrene	0.12	0.42	2.3	0.06	**0.020** J	0.02 U	**0.28**	**0.08** J	**0.02**	0.38 U	**0.12**	**0.03** J	**0.06** J	**0.02**	**0.03**	**0.04**	**0.08**	**0.03** J	**0.02** J
Benz(a)anthracene	0.05	0.18	0.73	0.026	0.005 U	0.01 U	**0.08** J	**0.03** J	0.04 U	0.38 U	**0.03** J	0.01 U	0.01 U	0.01 U	0.02 U	0.04 U	**0.04**	**0.01** J	0.01 U
Chrysene	0.07	0.31	1.5	0.035	**0.008** J	0.01 U	**0.14** J	**0.07** J	0.04 U	0.38 U	**0.06** J	0.02 U	0.01 U	0.01 U	0.02 U	**0.02**	**0.05**	**0.03** J	0.02 U
Benzo(b)fluoranthene	0.07	0.36	1.5	0.035	**0.006** J	0.02 U	**0.15** J	**0.07** J	0.04 U	0.38 U	**0.04** J	0.02 U	**0.02** J	0.01 U	0.02 U	**0.02**	**0.05**	**0.01** J	0.02 U
Benzo(k)fluoranthene	0.03	0.12	0.46	0.024	**0.004** J	0.02 U	**0.05** J	**0.02** J	0.04 U	0.38 U	**0.03** J	0.02 U	0.02 U	0.01 U	0.02 U	0.04 U	**0.03**	**0.01** J	0.02 U
Benzo(a)pyrene	0.04	0.21	0.92	0.030	0.006 U	0.02 U	**0.10** J	**0.03** J	0.04 U	0.38 U	**0.03** J	0.02 U	0.02 U	0.01 U	0.02 U	0.04 U	**0.06**	0.10 U	0.02 U
Indeno(1,2,3-cd)pyrene	0.05	0.25	0.95	0.056	**0.006** J	0.02 U	**0.09** J	**0.04** J	0.19 U	0.38 U	**0.04** J	0.03 U	0.02 U	0.01 U	0.02 U	0.19 U	0.38 U	**0.01** J	0.03 U
Dibenz(a,h)anthracene	0.01	0.06	0.20	0.054	0.004 U	0.03 U	0.03 U	0.02 UJ	0.19 U	0.38 U	**0.01** J	0.03 U	0.02 U	0.01 U	0.02 U	0.19 U	0.38 U	0.19 U	0.03 U
Benzo(g,h,i)perylene	0.05	0.24	0.86	0.059	**0.007** J	0.02 U	**0.14** J	**0.04** J	0.19 U	0.38 U	**0.06** J	0.02 U	0.02 U	0.01	0.02 U	0.19 U	0.38 U	**0.01** J	0.02 U
Miscellaneous Semivolatiles																			
3- and 4-Methylphenol	--	--	--	NC	**0.30** J	**0.23** J	0.05 U	0.50 U	0.94 U	0.94 U	**0.49**	**0.09** J	0.05 U	0.48 U	0.50 U	0.94 U	0.95 U	0.48 U	**0.22** J
Di-n-butyl Phthalate	0.21	0.47	1.6	NC	--	--	--	0.20 U	1.89 U	1.89 U	--	--	--	**0.21**	**0.35**	1.89 U	1.9 U	--	--
Butyl Benzyl Phthalate	0.24	0.30	0.95	NC	**0.10** J	**0.19** J	0.20	0.20 U	1.89 U	1.89 U	**0.10** J	**0.05** J	**0.08** J	0.20 U	0.20 U	1.89 U	1.9 U	**0.08** J	**0.09** J
Bis(2-ethylhexyl) Phth.	1.0	2.1	8.0	1.9	--	--	--	0.99 U	1.89 U	**1.02**	--	--	--	**1.4**	**6.7**	**1.6**	**2.2**	--	--
Di-n-octyl Phthalate	0.01	0.28	1.5	NC	0.003 U	0.03 U	0.03 U	0.20 U	1.89 U	1.89 U	0.003 U	0.03 U	**0.11** J	0.20 U	0.20 U	1.89 U	1.9 U	0.95 U	0.03 U
Total Petroleum Hydrocarbons (mg/L)																			
Gasoline Range	--	--	--	0.19	**1.1** Z	0.11 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U	**0.13** Z	0.1 U	0.25 U	0.25 U	0.1 U	0.1 U	**1.3** Z	0.11 U
Diesel Range	--	--	--	0.23	0.1 U	0.11 U	**0.34** H	**0.33** H	**0.22**	**0.09**	0.1 U	0.11 U	**0.31** Y	0.25 U	**0.5** H	**0.24**	**0.08**	**0.51** Z	**0.11** Z
Residual Oil Range	--	--	--	0.48	0.25 U	0.27 U	**0.88** O	**0.61** O	**0.58**	**0.62**	0.25 U	0.26 U	**0.43** O	0.50 U	**1.6** O	**0.80**	**0.69**	0.25 U	0.26 U
Total Petroleum	2.5	4.0	12.9	0.74	**1.1**	ND	**1.22**	**0.94**	**0.79**	**0.71**	ND	**0.13**	**0.74**	ND	**2.1**	**1.04**	**0.77**	**1.81**	**0.11**

Table 11
Comparison of Site Stormwater with Portland Harbor Industrial Stormwater

	Portland Harbor Stormwater			Mean Site-Wide	Site Stormwater Concentrations												
	Median Heavy Industrial	Mean Heavy Industrial	95th %-ile Heavy Industrial		S-3 04/07/05	S-3 05/02/07	S-3 11/12/07	S-3 05/25/10	S-3 06/03/10	S-4 12/15/00	S-4 Dupe 12/15/00	S-4 04/09/02	S-4 04/07/05	S-4 05/02/07	S-4 11/12/07	S-4 05/25/10	S-4 06/03/10
Metals (ug/L)																	
Arsenic - Total	1.0	3.1	17	0.56	0.5 U	0.5 U	**0.7**	**1.0**	**0.8**	--	--	**0.6**	**0.5**	**1.5**	**1.1**	**1.1**	**0.7**
Arsenic - Dissolved	0.58	2.1	12	0.62	0.5 U	0.5 U	**0.5**	**0.7**	2.0 U	0.5 U	0.5 U	--	0.5 U	0.5 U	**0.8**	**0.9**	2.0 U
Cadmium - Total	0.42	1.3	3.6	0.25	**1.1**	**0.17**	**0.17**	**0.13**	**0.12**	--	--	**0.20**	**0.19**	**0.51**	**0.21**	**0.23**	**0.12**
Cadmium - Dissolved	0.19	0.31	0.98	0.30	**0.96**	**0.15**	**0.15**	**0.12**	1.0 U	**0.22**	**0.21**	--	**0.09**	**0.16**	**0.01**	**0.19**	1.0 U
Chromium - Total	3.4	19	110	1.8	**1.9**	**2.3**	**1.6**	**1.5**	**2.0**	--	--	**0.9**	**1.1**	**5.2**	**1.5**	**1.2**	**1.0**
Chromium - Dissolved	0.8	1.6	6.9	1.02	**1.3**	**0.9**	**0.9**	**0.9**	2.0 U	**0.8**	**0.6**	--	**0.2**	**0.50**	**0.50**	**0.79**	2.00 U
Copper - Total	23	67	296	14	**8.6**	**19**	**24**	**35**	**34**	--	--	--	**8.3**	**28**	**15**	**15**	**12**
Copper - Dissolved	7.9	17	61	11	**7.1**	**13**	**18**	**23**	**17**	**4.9**	**4.7**	**9.0**	**4.4**	**14**	**11**	**10**	**8.4**
Lead - Total	14	75	213	5.8	**4.1**	**4.9**	**4.0**	**7.0**	**7.8**	--	--	**3.3**	**6.2**	**36**	**9.9**	**2.5**	**2.1**
Lead - Dissolved	0.54	1.7	6.8	0.74	**1.1**	**0.75**	**0.90**	**0.82**	**0.83**	**0.05**	**0.04**	--	**0.09**	**0.54**	**0.39**	**0.32**	**0.22**
Zinc - Total	233	547	2,360	173	**189**	**375**	**334**	**109**	**124**	--	--	**87**	**90**	**252**	**103**	**81**	**60**
Zinc - Dissolved	94	226	745	177	**182**	**301**	**312**	**99**	**81**	**47**	**45**	--	**47**	**201**	**59**	**64**	**40**
Low Molecular Weight PAHs (ug/L)																	
Naphthalene	0.03	0.14	0.27	0.03	0.01 U	**0.01**	0.02 U	0.08 U	**0.04**	**0.04** J	**0.04** J	0.01 U	0.01 U	0.02 Ui	0.02 U	0.11 U	0.15 U
Acenaphthylene	0.01	0.03	0.14	0.02	0.01 U	0.01 Ui	0.02 U	0.04 U	0.04 U	0.10 U	0.10 U	0.01 U	0.01 U	0.01 U	0.02 U	0.06 U	0.08 U
Acenaphthene	0.02	0.05	0.10	0.02	0.01 U	0.01 U	0.02 U	0.04 U	0.04 U	**0.14**	**0.12**	**0.09** J	0.01 U	0.01 U	0.02 U	0.06 U	0.08 U
Fluorene	0.02	0.05	0.14	0.02	0.01 U	**0.01**	0.02 U	0.04 U	0.04 U	**0.36**	**0.34**	**0.17** J	0.01 U	0.01 U	0.02 U	0.06 U	0.08 U
Phenanthrene	0.10	0.21	0.88	0.07	**0.06** J	**0.02**	**0.03**	0.08 U	0.08 U	**0.46**	**0.35**	**0.07** J	**0.03** J	0.03 Ui	0.02 U	0.11 U	0.15 U
Anthracene	0.03	0.05	0.20	0.02	0.02 U	0.01 U	0.02 U	0.04 U	0.04 U	**0.02** J	**0.01** J	0.02 U	0.02 U	0.01 U	0.02 U	0.06 U	0.08 U
2-Methylnaphthalene	0.01	0.04	0.14	0.02	0.01 U	0.01 U	0.02 U	0.08 U	**0.04**	**0.09** J	**0.10**	0.01 U	0.01 U	**0.01**	0.02 U	0.11 U	0.15 U
High Molecular Weight PAHs (ug/L)																	
Fluoranthene	0.12	0.44	2.4	0.06	**0.04** J	**0.02**	0.02	**0.03**	0.04 U	**0.06** J	**0.05** J	0.01 U	0.01 U	**0.05**	0.02 U	0.06 U	0.08 U
Pyrene	0.12	0.42	2.3	0.06	**0.04** J	**0.02**	0.02 U	**0.03**	0.04 U	**0.19**	**0.16**	**0.10** J	**0.10** J	**0.08**	**0.03**	**0.05**	**0.04**
Benz(a)anthracene	0.05	0.18	0.73	0.026	0.012 U	0.01 U	0.02 U	0.04 U	0.04 U	**0.03** J	**0.02** J	0.01 U	0.01 U	**0.01**	0.02 U	0.06 U	0.08 U
Chrysene	0.07	0.31	1.5	0.035	0.014 U	**0.01**	0.02 U	**0.03**	0.04 U	**0.12**	**0.09** J	0.01 U	0.01 U	**0.03**	0.02 U	0.06 U	0.08 U
Benzo(b)fluoranthene	0.07	0.36	1.5	0.035	0.020 U	0.01 U	0.02 U	**0.03**	0.04 U	**0.03** J	**0.03** J	0.02 U	0.02 U	**0.03**	0.02 U	0.06 U	0.08 U
Benzo(k)fluoranthene	0.03	0.12	0.46	0.024	0.020 U	0.01 U	0.02 U	0.04 U	0.04 U	**0.02** J	**0.01** J	0.02 U	0.02 U	0.01 U	0.02 U	0.06 U	0.08 U
Benzo(a)pyrene	0.04	0.21	0.92	0.030	0.016 U	0.01 U	0.02 U	0.04 U	0.04 U	**0.03** J	**0.02** J	0.02 U	0.02 U	**0.02**	0.02 U	0.06 U	0.08 U
Indeno(1,2,3-cd)pyrene	0.05	0.25	0.95	0.056	0.024 U	0.01 U	0.02 U	0.19 U	0.38 U	**0.02** J	**0.02** J	0.02 U	0.02 U	**0.02**	0.02 U	0.19 U	0.08 U
Dibenz(a,h)anthracene	0.01	0.06	0.20	0.054	0.031 U	0.01 U	0.02 U	0.19 U	0.38 U	**0.01** J	**0.01** J	0.03 U	0.03 U	0.01 U	0.02 U	0.19 U	0.08 U
Benzo(g,h,i)perylene	0.05	0.24	0.86	0.059	0.017 U	0.01 U	0.02 U	0.19 U	0.38 U	**0.04** J	**0.03** J	0.02 U	0.02 U	**0.03**	0.02 U	0.19 U	0.08 U
Miscellaneous Semivolatiles																	
3- and 4-Methylphenol	--	--	--	NC	**0.12** J	0.48 U	0.49 U	0.943 U	0.952 U	**0.20** J	**0.20** J	0.05 U	0.05 U	0.48 U	0.47 U	1.4 U	1.89 U
Di-n-butyl Phthalate	0.21	0.47	1.6	NC	--	0.20 U	0.20 U	1.89 U	1.9 U	--	--	--	--	0.20 U	0.19 U	2.8 U	3.77 U
Butyl Benzyl Phthalate	0.24	0.30	0.95	NC	**0.09** J	0.20 U	0.20 U	1.89 U	1.9 U	**0.05** J	**0.04** J	**0.14** J	**0.10** J	0.20 U	0.19 U	2.8 U	3.77 U
Bis(2-ethylhexyl) Phth.	1.0	2.1	8.0	1.9	--	0.96 U	**2.4**	**0.98**	**2.2**	--	--	--	--	0.96 U	0.94 U	**1.5**	3.77 U
Di-n-octyl Phthalate	0.01	0.28	1.5	NC	0.03 U	0.20 U	0.20 U	1.89 U	1.9 U	0.95 U	0.96 U	0.032 U	0.032 U	0.20 U	0.19 U	2.8 U	3.77 U
Total Petroleum Hydrocarbons (mg/L)																	
Gasoline Range	--	--	--	0.19	**0.12** Z	0.25 U	0.25 U	0.1 U	0.1 U	**0.27** Z	**0.26** Z	**0.22** H	0.1 U	0.25 U	0.25 U	0.1 U	0.1 U
Diesel Range	--	--	--	0.23	**0.55** Y	**0.29** Z	**0.29** Y	**0.29**	**0.10**	**0.28** Z	**0.3** Z	**1.3** F	**0.44** Y	**1.0** Z	**0.74** Y	**0.40**	**0.25**
Residual Oil Range	--	--	--	0.48	**1.0** O	0.5 U	0.5 U	**0.58**	**0.19**	0.25 U	0.25 U	**0.55** O	**0.34** L	**0.94** Z	0.5 U	**0.61**	**0.46**
Total Petroleum	2.5	4.0	12.9	0.74	**1.67**	**0.29**	**0.29**	**0.87**	**0.29**	**0.55**	**0.56**	**2.07**	**0.78**	**1.94**	**0.74**	**1.01**	**0.71**

Legend:

Concentration greater than average (mean) of heavy industrial stormwater in Portland Harbor (LWG, 2011, Table C1-1)

Concentration greater than 95th percentile of heavy industrial stormwater in Portland Harbor (LWG, 2011, Table C1-1)

ND = Not detected; NC = Not calculated due to too few detections and variable detection limits

Bold value = detected concentration; U = Not detected at indicated quantitation limit; J = Estimated concentration; D = The reported result is from a dilution

F = Fingerprint of the sample matches elution pattern of calibration standard; L = Elution pattern indicates the presence of lighter weight constituents

H = Elution pattern indicates the presence of heavier weight constituents; O = Fingerprint resembles oil, but does not match the calibration standard

Y = Fingerprint resembles a petroleum product, but elution pattern does not match calibration standard; Z = Fingerprint does not resemble a petroleum product

Table 12
Comparison of Site Catch Basin Sediment with Portland Harbor Industrial Site

	Portland Harbor Storm Sediment			Stormwater Catch Basin Sediment																								Outfall	
	Median Heavy Industrial	Mean Heavy Industrial	95th %-ile Heavy Industrial	Mean Site-Wide	S-1 Sediment 12/15/00		S-1 Sediment 11/12/07		S-1 Sediment 05/21/10		S-2 Sediment 12/15/00		S-2 Sediment 11/12/07		S-2 Sediment 05/21/10		S-3 Sediment 12/15/00		S-3 Sediment 11/04/04		S-3 Sediment 05/02/07		S-3 Sediment 05/21/10		S-4C Sediment 05/21/10		S3-01C Sediment 12/15/00	
Metals (mg/kg)																													
Arsenic	23	23	53	10	**5.2**		**4.4**		**3.58**		**7.5**		**4.6**		**3.49**		**38**		**26**		**10**		**45.4**		**3.03**		**4.4**	
Cadmium	3.0	5.0	15	1.6	**2.0**		**1.8**		**1.05**		**1.4**		**1.1**		**0.976**		**2.9**		**1.9**		**1.6**		**1.67**		**0.987**		**0.12**	
Chromium	107	165	540	86	**49**		**122**		**65.6**		**64**		**95**		**59.9**		**144**		**189**		**79**		**154**		**25.1**		**12**	
Copper	165	4,810	24,300	288	**137**		**214**		**90.5**		**316**		**115**		**96.1**		**1,050**		**1,360**		**321**		**1280**		**79.9**		**27**	
Lead	193	414	1,370	234	**145**		**312**		**124**		**211**		**256**		**138**		**454**		**600**		**206**		**438**		**28.1**		**8.6**	
Mercury	0.24	0.96	4.4	0.14	--		**0.08**				--		**0.20**				--		--		**0.24**						--	
Nickel	48	61	137	45	--		**52**				--		**39**				--		--		**44**						--	
Zinc	1,280	3,150	12,100	794	**638**		**1,550**		**664**		**584**		**630**		**509**		**985**		**752**		**938**		**817**		**314**		**83**	
Low Molecular Weight PAHs (ug/kg)																													
Naphthalene	185	906	3,720	254	**200**	JD	**270**		**295**		**50**	JD	**290**		545	U	**400**	JD	**64**	JD	**130**		328	U	283	U	12	U
Acenaphthylene	80	689	3,380	93	**40**	JD	**42**		377	U	**20**	JD	**28**		545	U	**60**	JD	37	JU	**31**		328	U	283	U	12	U
Acenaphthene	275	891	3,430	228	**200**	JD	**230**		**481**		**30**	JD	**21**		545	U	720	U	26	JU	**24**		328	U	283	U	12	U
Fluorene	130	947	4,020	641	**100**	JD	**130**		**337**		**20**	JD	**26**		545	U	**3,600**	D	**72**	JD	**47**		328	U	283	U	12	U
Phenanthrene	3,300	11,700	46,300	1,731	**1,500**	D	**950**		**3840**		**320**	D	**320**		**1590**		**3,600**	D	**660**	JD	**670**		**344**		283	U	12	U
Anthracene	685	2,750	10,900	637	**400**	JD	**230**		**809**		**50**	JD	**56**		**314**		**2,600**	D	**140**	JD	**58**		328	U	283	U	12	U
2-Methylnaphthalene	113	675	3,130	175	**100**	JD	**180**		377	U	**50**	JD	**33**		545	U	**400**	JD	31	JU	**80**		328	U	283	U	**1**	J
High Molecular Weight PAHs (ug/kg)																													
Fluoranthene	7,500	15,400	53,000	2,673	**2,600**	D	**1,400**		**5380**		**690**	D	**660**		**2180**		**5,800**	D	**1,400**	JD	**780**		**754**		**177**		**3**	J
Pyrene	6,500	19,100	67,000	2,473	**2,600**	D	**1,300**		**4520**	J	**770**	D	**640**		**1980**	J	**5,500**	D	**1,200**	JD	**1,000**		**634**	J	**189**	J	**3**	J
Benz(a)anthracene	2,850	7,180	27,600	1,094	**1,300**	D	**470**		**1780**		**440**	D	**220**		**950**		**2,500**	D	**400**	JD	**230**		**248**		283	U	**2**	J
Chrysene	3,900	10,800	36,100	1,809	**2,000**	D	**880**		**2100**		**740**	D	**520**		**1120**		**5,300**	D	**1,100**	JD	**390**		**646**		283	U	**3**	J
Benzo(b)fluoranthene	5,250	12,900	48,300	1,860	**2,000**	D	**930**		**3080**		**780**	D	**750**		**1380**		**4,100**	D	**1,100**	JD	**570**		**786**		**260**	J	**3**	J
Benzo(k)fluoranthene	1,320	3,930	15,100	1,045	**1,500**	D	**300**		**1050**		**540**	D	6	U	**522**		**3,400**	D	**270**	JD	**180**		**245**		283	U	**2**	J
Benzo(a)pyrene	3,450	9,360	38,400	1,430	**1,900**	D	**540**		**2600**	J	**670**	D	**330**		545	U	**3,700**	D	**490**	JD	**320**		**514**	J	**170**		**2**	J
Indeno(1,2,3-cd)pyrene	2,750	9,090	34,700	1,476	**1,500**	D	**570**		**1450**		**490**	D	**400**		5450	U	**3,200**	D	**530**	JD	**500**		**342**		283	U	**2**	J
Dibenz(a,h)anthracene	615	1,640	5,790	623	**300**	JD	**88**		**270**		**100**	JD	**78**		5450	U	**800**	JD	**150**	JD	**100**		328	U	283	U	24	U
Benzo(g,h,i)perylene	2,800	8,630	33,100	1,636	**1,600**	D	**810**		**1530**		**500**	D	**690**		5450	U	**3,600**	D	**790**	JD	**1,100**		**354**		**248**		**3**	J
Miscellaneous Semivolatiles (ug/kg)																													
3- and 4-Methylphenol	--	--	--	3,094	*13,000*	*U*	650	UJ	9,410	U	1,900	U	**7,100**	J	*13,600*	*U*	**4,000**	JD	**3,000**	JD	680	U	*8,190*	*U*	7,070	U	240	U
Dibenzofuran	138	373	1,380	141	**100**	JD	**100**	JD	**275**		**20**	JD	**20**	JD	545	U	**200**	JD	**69**	JD	**67**		328	U	283	U	12	U
Di-n-butyl Phthalate	348	616	2,010	663	--		1,300	UJ	**542**	J	--		1,300	UJ	**808**	J	--		--		**840**	D	**484**	J	707	U	--	
Butyl Benzyl Phthalate	455	1,530	5,060	4,257	**1,500**	D	**1,200**	J	**2,210**	J	**2,500**	D	**7,600**	J	**9,790**	J	**5,000**	D	**930**	JD	680	U	**1,770**	J	2,830	U	**1**	J
Bis(2-ethylhexyl) Phth.	13,300	27,200	101,000	8,675	--		**8,700**	J	**5,100**	J	--		**9,000**	J	**11,900**	J	--		--		**12,000**	D	**18,700**	J	**2,990**	J	--	
Di-n-octyl Phthalate	58	149	557	1,796	*13,000*	*U*	*13,000*	*UJ*	**2,860**	J	1,900	U	1,300	UJ	5450	U	*14,000*	*U*	**11,000**	JD	680	U	**3,090**	J	**1,970**		**2**	J
Polychlorinated Biphenyls (ug/kg)																													
Total PCBs	680	680	941	63	--		**126**		**20**		--		**30**		**74**		--		--		**144**		**42**		**8.6**		--	
Total Petroleum Hydrocarbons (mg/kg)																													
Gasoline	--	--	--	93	**26**	Y	13	U	9.51	U	**21**	Y	13	U	16.1	U	**580**	Y	210	U	14	U	8.15	U	6.29	U	10	U
Diesel	--	--	--	822	**400**	H	**590**	DH	**410**		**300**	H	**1,300**	DH	**356**		**2,400**	H	**1,600**	JH	**1,400**	DH	**508**		**149**		10	U
Residual Oil	--	--	--	5037	**1,900**	O	**4,600**	DO	**3230**		**2,200**	DO	**11,000**	DO	**4730**		**7,600**	DO	**8,500**	JO	**9,300**	DO	**9,300**	DO	**2070**		**30**	Y

Legend:

Concentration greater than average (mean) of heavy industrial stormwater

Concentration greater than 90th percentile of heavy industrial stormwater

italics = not used in statistics due to elevated MRL

Notes:

NC = Not calculated due to insufficient detections

Bold value = detected concentration; U = Not detected at indicated limit

J = Estimated concentration; D = Dilution of sample required

Table 13
Source Control Screening Evaluation Summary

	Concentrations less than Background Levels?	Concentrations less than Ecological SLVs? (See Tables 6, 7, 9)	Site Average Concentrations below Human Health SLVs? (see Tables 6, 7, 9)	SCMs Implemented and Effective? (see Table 10)	Concentrations Similar/ Lower than Comparable Sites? (see Tables 11, 12)	Lack of Evidence of Impacts to Willamette River? (see Tables 4a, 4b)
	1A	1B	1C	2	3	4
STORMWATER						
Metals						
Arsenic	YES					
Cadmium	YES					
Chromium	YES					
Copper	NO	NO	YES	YES	YES	
Lead	NO	NO	YES	YES	YES	
Manganese	YES (a)					
Mercury	N/D					
Nickel	YES (b)					
Silver	YES					
Zinc	NO	NO	YES	YES	YES	YES
Organics						
LPAHs	n/a	YES	YES			
HPAHs	n/a	YES	NO	YES (d)	YES	YES
Dibenzofuran	n/a	YES	YES			
DEHP	n/a	YES (c)	YES	YES (d)	YES	YES
Other Phthalates	n/a	YES	YES			
PCBs	n/a	N/D	N/D			
TPH	n/a	YES (e)	YES (e)			
Diesel Range	n/a	N/D	N/D			
GROUNDWATER						
Metals						
Arsenic	NO	YES	NO	n/a	YES (m)	YES
Chromium	NO	YES (f)	YES			
Copper	NO	YES (f)	YES			
Organics						
LPAHs	n/a	YES	YES			
HPAHs	n/a	YES	YES (e)	n/a	n/a	YES
Dibenzofuran	n/a	YES	YES			
Phthalates	n/a	YES	YES			
VOCs	n/a	n/a	YES (g)			
Transition Zone Water						
Metals						
Arsenic	NO	YES	NO	n/a	YES (m)	YES
CATCH BASIN SEDIMENT						
Metals						
Arsenic	NO	NO	NO	YES (d)	YES	YES
Cadmium	NO	YES	NO	YES (d)	YES	
Chromium	NO	NO	n/a	YES (d)	YES	YES
Copper	NO	NO	n/a	YES	YES	YES
Lead	NO	NO	NO	YES	YES	
Manganese	YES					
Mercury	NO	YES	NO	YES (d)	YES	
Nickel	NO	NO	n/a	YES (d)	YES	
Silver	YES					
Zinc	NO	NO	n/a	YES	YES	YES
Organics						
LPAHs	n/a	NO	n/a	YES (d)	YES (h)	YES
HPAHs	n/a	NO	YES	YES (d)	YES	YES
Dibenzofuran	n/a	n/a	n/a	YES (d)	YES	YES
Phthalates	n/a	NO	NO	YES (d)	YES (i)	YES
PCBs	n/a	YES	NO	YES (d)	YES	YES
TPH	n/a	n/a	n/a	YES (k)		
Diesel Range	n/a	N/D	N/D			

Notes:

(a) Only 1 in 14 samples (at 169 ug/L) was slightly above background (150 ug/L), and dissolved conc. (46 ug/L) was well below.

(b) Only 1 in 14 samples (at 6.9 ug/L) was slightly above background (5.5 ug/L), and dissolved conc. (2.8 ug/L) was well below.

(c) NRWQC Footnote X: "There is a full set of aquatic life toxicity data that show DEHP is not toxic to aquatic organisms at or below its solubility limit."

(d) Statistically significant reductions in TSS concentrations in site stormwater are expected to reduce the particulate fraction of other contaminants in site runoff, including suspended metals and hydrophobic organics.

(e) Compliance with NPDES permit limit for oil and grease is assumed to be protective of water quality for petroleum.

(f) Well installation was suspected cause of anomalously high concentrations of total metals during first two monitoring events (Oct-01 and Mar-02) at MW-7 and MW-8. Concentrations have since dropped by approximately two orders of magnitude.

(g) Vinyl chloride was detected in only 3 out of 28 samples, at concentrations (0.8 to 1.4 ug/L) that are above the tap water PRG (0.015 ug/L) but below the MCL (2 ug/L) and fish consumption criterion (2.4 ug/L).

(h) Includes one anomalously high fluorene concentration, but site-wide fluorene concentration is still below average.

(i) DEHP and Total Phthalate concentrations are below average, although other phthalates are above average.

(k) Oil-water separator installed in tank area, and site stormwater in compliance with NPDES oil and grease limit.

(m) Based on mass loading comparison to Willamette River background load.

(n) Carcinogenic HPAHs have not been detected in shoreline groundwater wells since 2002.

N/D = Not Detected; n/a = Not Applicable

ATTACHMENT B
TSS DATA FOR DRAINAGE AREA 1

McCall - Portland, OR
Stormwater Monitoring Results Summary

Sampling Point	Sampler	Date	pH s.u.	TSS mg/L		Oil and Grease, Total mg/L	Copper Total mg/L	Lead, Total mg/L	Zinc Total mg/L	COD
Boiler Blowdown	self	6/16/2008	7.45	6.0	U					
Boiler Blowdown	self	5/22/2008	6.15	6.0	U					
Boiler Blowdown	self	2/4/2008	7.09	5.0	U					
Boiler Blowdown	self	1/3/2008	7.30	5.0	U					
Boiler Blowdown	self	11/7/2007	7.62	5.0	U					
Boiler Blowdown	self	10/12/2007	7.63	9.0						
Boiler Blowdown	self	6/5/2007	7.35	5.0	U					
Boiler Blowdown	self	5/9/2007	6.89	6.0						
Boiler Blowdown	self	4/3/2007	7.04	5.0	U					
Boiler Blowdown	self	3/6/2007		5.0	U					
Boiler Blowdown	self	2/6/2007	7.36	6.0						
Boiler Blowdown	self	1/10/2007	7.33	6.0						
Boiler Blowdown	self	12/6/2006	8.13	5.0						
Boiler Blowdown	self	11/2/2006	7.67	7.0						
Boiler Blowdown	self	5/1/2005	6.81	14.0						
Boiler Blowdown	self	4/5/2005	6.94	1.0	U					
Boiler Blowdown	self	3/7/2005	7.97	15.0						
Boiler Blowdown	self	1/31/2005	6.95	9.0						
Boiler Blowdown	self	1/9/2005	7.10	1.0	U					
Boiler Blowdown	self	8/19/2001	7.52	36.0						
Boiler Blowdown	self	7/21/2001	7.03	40.0						
Boiler Blowdown	self	4/3/2001	7.10	16.0						
Boiler Blowdown	self	3/16/2001	8.40	5.5						
Boiler Blowdown	self	2/16/2001	8.00	10.0						
Boiler Blowdown	self	1/30/2001	8.20	15.0						
Boiler Blowdown	self	1/8/2001	7.00	10.0						
Boiler Blowdown	self	11/13/2000	7.80	5.3						
Boiler Blowdown	self	10/28/2000	7.30	4.0						
Boiler Blowdown	self	10/12/2000	6.20	4.0						
Boiler Blowdown	self	9/21/2000	7.30	26.0						
Boiler Blowdown	self	8/14/2000	7.90	2.3						
Boiler Blowdown	self	7/7/2000	7.50	3.5						
Boiler Blowdown	self	6/8/2000	6.10	9.0						
Boiler Blowdown	self	5/15/2000	6.30	2.0						
Boiler Blowdown	self	4/13/2000	7.20	3.3						
Boiler Blowdown	self	3/14/2000	6.90	1.0	U					
Boiler Blowdown	self	11/10/1999	7.40	6.8						
Boiler Blowdown	self	3/29/1999	6.50	10.0						
OWS Discharge	self	4/9/2008	7.05	27.0		2.4	0.011	E 0.004	E	0.094
OWS Discharge	self	2/5/2008	7.00	23.1		5.3	0.02	U 0.039		0.13
OWS Discharge	self	12/31/2007	6.71	5.0	U	3.6	0.016	0.004	U	0.064
OWS Discharge	self	12/7/2007	7.13	21.6		12.3	0.13	0.054		0.18
Automatic Sampler - Discharge from comingled separators	self	12/3/2007				2.6				
Automatic Sampler - Discharge from comingled separators	self	11/26/2007				2.0 U				
Automatic Sampler - Discharge from comingled separators	self	11/19/2007				2.8				
Automatic Sampler - Discharge from comingled separators	self	11/12/2007				3.5				
Automatic Sampler - Discharge from comingled separators	self	11/6/2007				2.0 U				
Automatic Sampler - Discharge from comingled separators	self	10/29/2007				2.0 U				
Automatic Sampler - Discharge from comingled separators	self	10/22/2007				5.5				
Automatic Sampler - Discharge from comingled separators	self	10/17/2007				2.0 U				
Automatic Sampler - Discharge from comingled separators	self	10/10/2007				2.0 U				
Automatic Sampler - Discharge from comingled separators	self	10/2/2007				2.0 U				
Automatic Sampler - Discharge from comingled separators	self	7/17/2007				4.1				
Automatic Sampler - Discharge from comingled separators	self	6/29/2007				3.3				
Automatic Sampler - Discharge from comingled separators	self	6/12/2007				5.9				
Automatic Sampler - Discharge from comingled separators	self	6/5/2007				6.8				
Automatic Sampler - Discharge from comingled separators	self	5/21/2007				3.6				
Automatic Sampler - Discharge from comingled separators	self	4/30/2007				4.3				
Automatic Sampler - Discharge from comingled separators	self	4/23/2007				2.0 U				
Automatic Sampler - Discharge from comingled separators	self	4/16/2007				2.9				
Automatic Sampler - Discharge from comingled separators	self	4/9/2007				3.0				
Automatic Sampler - Discharge from comingled separators	self	4/4/2007				2.0 U				
Automatic Sampler - Discharge from comingled separators	self	3/27/2007				2.0 U				
Automatic Sampler - Discharge from comingled separators	self	3/20/2007				5.0				
Automatic Sampler - Discharge from comingled separators	self	3/12/2007				3.6				
Automatic Sampler - Discharge from comingled separators	self	3/6/2007				2.0 U				
Automatic Sampler - Discharge from comingled separators	self	2/26/2007				2.0 U				
Automatic Sampler - Discharge from comingled separators	self	2/20/2007				2.0 U				
Automatic Sampler - Discharge from comingled separators	self	2/13/2007				2.0 U				
Automatic Sampler - Discharge from comingled separators	self	2/5/2007				4.0				
Automatic Sampler - Discharge from comingled separators	self	1/29/2007				2.4				
Automatic Sampler - Discharge from comingled separators	self	1/23/2007				2.5				
Automatic Sampler - Discharge from comingled separators	self	1/16/2007				2.0 U				
Automatic Sampler - Discharge from comingled separators	self	1/9/2007				2.9				
Automatic Sampler - Discharge from comingled separators	self	1/1/2007				2.0 U				
Automatic Sampler - Discharge from comingled separators	self	12/25/2006				2.0				
Automatic Sampler - Discharge from comingled separators	self	12/20/2006				2.0 U				
Automatic Sampler - Discharge from comingled separators	self	12/11/2006				2.6				
Automatic Sampler - Discharge from comingled separators	self	12/5/2006				4.7				
Automatic Sampler - Discharge from comingled separators	self	11/21/2006				2.0				
Automatic Sampler - Discharge from comingled separators	self	11/13/2006				2.0 U				
Automatic Sampler - Discharge from comingled separators	self	11/6/2006				2.4				
Automatic Sampler - Discharge from comingled separators	self	11/2/2006				2.0 U				
Automatic Sampler - Discharge from comingled separators	self	8/22/2006				2.0 U				
Automatic Sampler - Discharge from comingled separators	self	7/13/2006				2.0 U				
Automatic Sampler - Discharge from comingled separators	self	6/19/2006				2.0 U				
Automatic Sampler - Discharge from comingled separators	self	6/16/2006				2.0 U				
Automatic Sampler - Discharge from comingled separators	self	6/1/2006				2.0 U				
Automatic Sampler - Discharge from comingled separators	self	5/22/2006				4.4				
Automatic Sampler - Discharge from comingled separators	self	5/16/2006				3.8				
Automatic Sampler - Discharge from comingled separators	self	5/7/2006				2.0 U				
Automatic Sampler - Discharge from comingled separators	self	4/29/2006				9.4				
Automatic Sampler - Discharge from comingled separators	self	4/10/2006				2.4				
Automatic Sampler - Discharge from comingled separators	self	4/8/2006				2.0 U				
Automatic Sampler - Discharge from comingled separators	self	4/3/2006				2.0 U				
Automatic Sampler - Discharge from comingled separators	self	3/30/2006				2.0 U				
Automatic Sampler - Discharge from comingled separators	self	3/22/2006				4.0				
Automatic Sampler - Discharge from comingled separators	self	3/14/2006				5.2				
Automatic Sampler - Discharge from comingled separators	self	3/6/2006				2.5				
Automatic Sampler - Discharge from comingled separators	self	2/27/2006				2.0 U				
Automatic Sampler - Discharge from comingled separators	self	2/21/2006				3.8				
Automatic Sampler - Discharge from comingled separators	self	1/30/2006				2.0 U				
Automatic Sampler - Discharge from comingled separators	self	1/27/2006				2.0 U				
Automatic Sampler - Discharge from comingled separators	self	1/16/2006				2.1				

McCall - Portland, OR
Stormwater Monitoring Results Summary

Sampling Point	Sampler	Date	pH s.u.	TSS mg/L	Oil and Grease, Total mg/L		Copper Total mg/L	Lead, Total mg/L	Zinc Total mg/L	COD
Automatic Sampler - Discharge from comingled separators	self	1/9/2006			5.6					
Automatic Sampler - Discharge from comingled separators	self	1/3/2006			2.0					
Automatic Sampler - Discharge from comingled separators	self	12/26/2005			4.3					
Automatic Sampler - Discharge from comingled separators	self	12/19/2005			2.7					
Automatic Sampler - Discharge from comingled separators	self	11/28/2005			2.0	U				
Automatic Sampler - Discharge from comingled separators	self	11/25/2005			2.0	U				
Automatic Sampler - Discharge from comingled separators	self	11/7/2005			2.0	U				
Automatic Sampler - Discharge from comingled separators	self	10/31/2005			11.2					
Automatic Sampler - Discharge from comingled separators	self	10/25/2005			2.0	U				
Automatic Sampler - Discharge from comingled separators	self	10/19/2005			2.0	U				
Automatic Sampler - Discharge from comingled separators	self	10/14/2005			2.0	U				
Automatic Sampler - Discharge from comingled separators	self	10/3/2005			2.6					
Automatic Sampler - Discharge from comingled separators	self	9/30/2005			2.6					
Automatic Sampler - Discharge from comingled separators	self	9/6/2005			2.0	U				
Automatic Sampler - Discharge from comingled separators	self	8/29/2005			2.0	U				
Automatic Sampler - Discharge from comingled separators	self	7/6/2005			2.6					
Automatic Sampler - Discharge from comingled separators	self	6/27/2005			2.0	U				
Automatic Sampler - Discharge from comingled separators	self	6/22/2005			3.0					
Automatic Sampler - Discharge from comingled separators	self	6/18/2005			3.0					
Automatic Sampler - Discharge from comingled separators	self	6/6/2005			2.0	U				
Automatic Sampler - Discharge from comingled separators	self	5/31/2005			2.0	U				
Automatic Sampler - Discharge from comingled separators	self	5/16/2005			3.0					
Automatic Sampler - Discharge from comingled separators	self	5/9/2005			3.1					
Automatic Sampler - Discharge from comingled separators	self	5/2/2005			2.0	U				
Automatic Sampler - Discharge from comingled separators	self	4/25/2005			3.6					
Investigative - O/W SEP Discharge	self	4/25/2005			3.6					
Automatic Sampler - Discharge from comingled separators	self	4/18/2005			5.7					
Investigative - O/W SEP Discharge	self	4/18/2005			2.4					
Automatic Sampler - Discharge from comingled separators	self	4/12/2005			2.0	U				
Investigative - O/W SEP Discharge	self	4/12/2005			2.0	U				
Automatic Sampler - Discharge from comingled separators	self	4/7/2005			2.0	U				
Investigative - O/W SEP Discharge	self	4/7/2005			3.2					
Investigative - O/W SEP Discharge	self	3/28/2005			13.3					
Investigative - O/W SEP Discharge	self	3/25/2005			2.1					
Investigative - O/W SEP Discharge	self	3/20/2005			2.0	U				
Investigative - O/W SEP Discharge	self	2/28/2005			2.5					
Investigative - O/W SEP Discharge	self	2/8/2005			12.2					
Investigative - O/W SEP Discharge	self	1/31/2005			4.0					
Automatic Sampler - Discharge from comingled separators	self	1/28/2005			10.3					
Investigative - O/W SEP Discharge	self	1/28/2005			2.0					
Investigative - O/W SEP Discharge	self	1/17/2005			3.6					
Investigative - O/W SEP Discharge	self	1/16/2005			2.8					
Investigative - O/W SEP Discharge	self	1/6/2005			3.5					
Automatic Sampler - Discharge from comingled separators	self	12/29/2004			2.0	U				
Automatic Sampler - Discharge from comingled separators	self	12/25/2004			2.3					
Automatic Sampler - Discharge from comingled separators	self	12/18/2004			7.1					
Automatic Sampler - Discharge from comingled separators	self	12/6/2004			2.7					
Automatic Sampler - Discharge from comingled separators	self	11/29/2004			2.0	U				
Automatic Sampler - Discharge from comingled separators	self	11/23/2004			5.8					
Automatic Sampler - Discharge from comingled separators	self	11/15/2004			2.0					
Automatic Sampler - Discharge from comingled separators	self	11/1/2004			2.0	U				
Automatic Sampler - Discharge from comingled separators	self	9/22/2004			5.1					
Automatic Sampler - Discharge from comingled separators	self	9/13/2004			2.0	U				
Automatic Sampler - Discharge from comingled separators	self	9/12/2004			2.0	U				
Automatic Sampler - Discharge from comingled separators	self	8/24/2004			5.0					
Automatic Sampler - Discharge from comingled separators	self	8/22/2004			2.6					
Automatic Sampler - Discharge from comingled separators	self	8/3/2004			2.0	U				
Automatic Sampler - Discharge from comingled separators	self	8/1/2004			2.9					
Automatic Sampler - Discharge from comingled separators	self	6/23/2004			3.4					
Automatic Sampler - Discharge from comingled separators	self	6/14/2004			2.0	U				
Automatic Sampler - Discharge from comingled separators	self	6/8/2004			2.0	U				
Automatic Sampler - Discharge from comingled separators	self	6/6/2004			2.4					
Automatic Sampler - Discharge from comingled separators	self	5/27/2004			2.0	U				
Automatic Sampler - Discharge from comingled separators	self	5/23/2004			2.0	U				
Automatic Sampler - Discharge from comingled separators	self	5/10/2004			2.0	U				
Automatic Sampler - Discharge from comingled separators	self	5/6/2004			3.8					
Spigot Pump in Chamber on O/W Separator	self	4/25/2004			2.1					
Spigot Pump in Chamber on O/W Separator	self	4/8/2004			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	4/4/2004			3.2					
Spigot Pump in Chamber on O/W Separator	self	3/28/2004			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	3/21/2004			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	3/14/2004			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	3/7/2004			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	2/29/2004			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	2/23/2004			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	2/14/2004			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	2/8/2004			6.0					
Spigot Pump in Chamber on O/W Separator	self	2/1/2004			3.5					
Spigot Pump in Chamber on O/W Separator	self	1/25/2004			3.4					
Spigot Pump in Chamber on O/W Separator	self	1/18/2004			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	1/11/2004			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	1/5/2004			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	12/28/2003			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	12/14/2003			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	12/7/2003			3.8					
Spigot Pump in Chamber on O/W Separator	self	11/29/2003			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	11/21/2003			3.3					
Spigot Pump in Chamber on O/W Separator	self	11/17/2003			3.5					
Spigot Pump in Chamber on O/W Separator	self	11/10/2003			4.3					
Spigot Pump in Chamber on O/W Separator	self	10/29/2003			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	10/20/2003			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	10/16/2003			3.2					
Spigot Pump in Chamber on O/W Separator	self	10/11/2003			3.1					
Spigot Pump in Chamber on O/W Separator	self	9/18/2003			6.0					
Spigot Pump in Chamber on O/W Separator	self	9/13/2003			31.9					
Spigot Pump in Chamber on O/W Separator	self	9/6/2003			7.0					
Spigot Pump in Chamber on O/W Separator	self	8/30/2003			11.2					
Spigot Pump in Chamber on O/W Separator	self	8/23/2003			3.2					
Spigot Pump in Chamber on O/W Separator	self	8/17/2003			2.0					
Spigot Pump in Chamber on O/W Separator	self	8/9/2003			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	8/3/2003			6.0					
Spigot Pump in Chamber on O/W Separator	self	7/26/2003			3.0					
Spigot Pump in Chamber on O/W Separator	self	7/19/2003			4.0					
Spigot Pump in Chamber on O/W Separator	self	7/12/2003			5.0					
Spigot Pump in Chamber on O/W Separator	self	7/5/2003			5.0					
Spigot Pump in Chamber on O/W Separator	self	6/29/2003			2.0	U				

McCall - Portland, OR
Stormwater Monitoring Results Summary

Sampling Point	Sampler	Date	pH s.u.	TSS mg/L	Oil and Grease, Total mg/L		Copper Total mg/L	Lead, Total mg/L	Zinc Total mg/L	COD
Spigot Pump in Chamber on O/W Separator	self	6/21/2003			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	6/14/2003			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	6/7/2003			4.0					
Spigot Pump in Chamber on O/W Separator	self	5/31/2003			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	5/24/2003			2.0					
Spigot Pump in Chamber on O/W Separator	self	5/19/2003			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	5/10/2003			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	5/3/2003			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	4/26/2003			3.0					
Spigot Pump in Chamber on O/W Separator	self	4/19/2003			2.0					
Spigot Pump in Chamber on O/W Separator	self	4/12/2003			4.0					
Spigot Pump in Chamber on O/W Separator	self	4/5/2003			2.0	U				
Investigative - O/W SEP Discharge	self	3/27/2003			4.0					
Spigot Pump in Chamber on O/W Separator	self	3/27/2003			5.0					
Spigot Pump in Chamber on O/W Separator	self	3/22/2003			29.0					
Spigot Pump in Chamber on O/W Separator	self	3/15/2003			21.0					
Spigot Pump in Chamber on O/W Separator	self	3/8/2003			3.0					
Spigot Pump in Chamber on O/W Separator	self	3/1/2003			2.0					
Spigot Pump in Chamber on O/W Separator	self	2/22/2003			2.0					
Spigot Pump in Chamber on O/W Separator	self	2/15/2003			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	2/8/2003			2.0					
Spigot Pump in Chamber on O/W Separator	self	2/1/2003			3.0					
Spigot Pump in Chamber on O/W Separator	self	1/25/2003			2.0					
Spigot Pump in Chamber on O/W Separator	self	1/18/2003			4.0					
Spigot Pump in Chamber on O/W Separator	self	1/11/2003			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	1/4/2003			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	12/28/2002			7.0					
Spigot Pump in Chamber on O/W Separator	self	12/21/2002			2.0					
Spigot Pump in Chamber on O/W Separator	self	12/14/2002			3.0					
Spigot Pump in Chamber on O/W Separator	self	12/9/2002			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	12/2/2002			2.0					
Spigot Pump in Chamber on O/W Separator	self	10/26/2002			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	10/12/2002			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	10/5/2002			3.0					
Spigot Pump in Chamber on O/W Separator	self	9/30/2002			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	9/21/2002			2.0					
Spigot Pump in Chamber on O/W Separator	self	9/14/2002			3.0					
Spigot Pump in Chamber on O/W Separator	self	9/7/2002			3.0					
Spigot Pump in Chamber on O/W Separator	self	8/31/2002			2.0					
Spigot Pump in Chamber on O/W Separator	self	8/24/2002			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	8/17/2002			7.0					
Spigot Pump in Chamber on O/W Separator	self	8/10/2002			2.0					
Spigot Pump in Chamber on O/W Separator	self	8/3/2002			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	7/27/2002			6.35					
Spigot Pump in Chamber on O/W Separator	self	7/15/2002			2.04					
Spigot Pump in Chamber on O/W Separator	self	7/6/2002			2.71					
Spigot Pump in Chamber on O/W Separator	self	6/29/2002			4.73					
Spigot Pump in Chamber on O/W Separator	self	6/22/2002			3.07					
Spigot Pump in Chamber on O/W Separator	self	6/15/2002			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	6/8/2002			3.3					
Spigot Pump in Chamber on O/W Separator	self	6/3/2002			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	5/25/2002			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	5/18/2002			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	5/13/2002			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	5/4/2002			2.3					
Spigot Pump in Chamber on O/W Separator	self	4/29/2002			4.2					
Spigot Pump in Chamber on O/W Separator	self	4/27/2002			5.0					
Spigot Pump in Chamber on O/W Separator	self	4/20/2002			2.8					
Spigot Pump in Chamber on O/W Separator	self	4/15/2002			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	4/6/2002			3.5					
Spigot Pump in Chamber on O/W Separator	self	4/1/2002			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	3/23/2002			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	3/16/2002			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	3/11/2002			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	3/2/2002			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	2/25/2002			3.2					
Spigot Pump in Chamber on O/W Separator	self	2/16/2002			2.5					
Spigot Pump in Chamber on O/W Separator	self	2/10/2002			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	2/5/2002	6.00	6.5	5.0	U	0.00535	0.00232	0.0493	
Spigot Pump in Chamber on O/W Separator	self	2/2/2002			29.0					
Spigot Pump in Chamber on O/W Separator	self	1/26/2002			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	1/19/2002			3.3					
Spigot Pump in Chamber on O/W Separator	self	1/12/2002			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	1/5/2002			5.5					
Spigot Pump in Chamber on O/W Separator	self	12/29/2001			2.0					
Spigot Pump in Chamber on O/W Separator	self	12/21/2001			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	12/8/2001			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	12/1/2001			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	11/24/2001			2.0	U				
Spigot Pump in Chamber on O/W Separator	self	11/10/2001			2.0	U				
Oil Water Separator	self	9/29/2001			6.0					
Oil Water Separator	self	9/22/2001			2.0	U				
Oil Water Separator	self	9/15/2001			6.7					
Oil Water Separator	self	9/8/2001			4.0					
Oil Water Separator	self	9/1/2001			19.9					
Oil Water Separator	self	8/25/2001			2.0	U				
Oil Water Separator	self	8/18/2001			6.8					
Oil Water Separator	self	8/11/2001			3.7					
Oil Water Separator	self	8/4/2001			2.4					
Oil Water Separator	self	7/21/2001			2.0	U				
Oil Water Separator	self	7/14/2001			7.9					
Oil Water Separator	self	6/23/2001			9.5					
Oil Water Separator	self	6/16/2001			9.4					
Oil Water Separator	self	6/9/2001			6.9					
Oil Water Separator	self	6/2/2001			8.1					
Oil Water Separator	self	4/21/2001			2.5					
Oil Water Separator	self	4/14/2001			6.2					
Oil Water Separator	self	4/7/2001			6.8					
Oil Water Separator	self	3/31/2001			4.7					
Oil Water Separator	self	3/24/2001			2.8					
Oil Water Separator	self	3/17/2001			3.6					
Oil Water Separator	city	3/15/2001	6.50	295.0	8.4		0.053	0.2	U	0.3
Oil Water Separator	self	3/10/2001			4.4					
Oil Water Separator	self	3/3/2001			4.6					
Oil Water Separator	self	2/24/2001			7.4					
Oil Water Separator	self	2/17/2001			6.9					

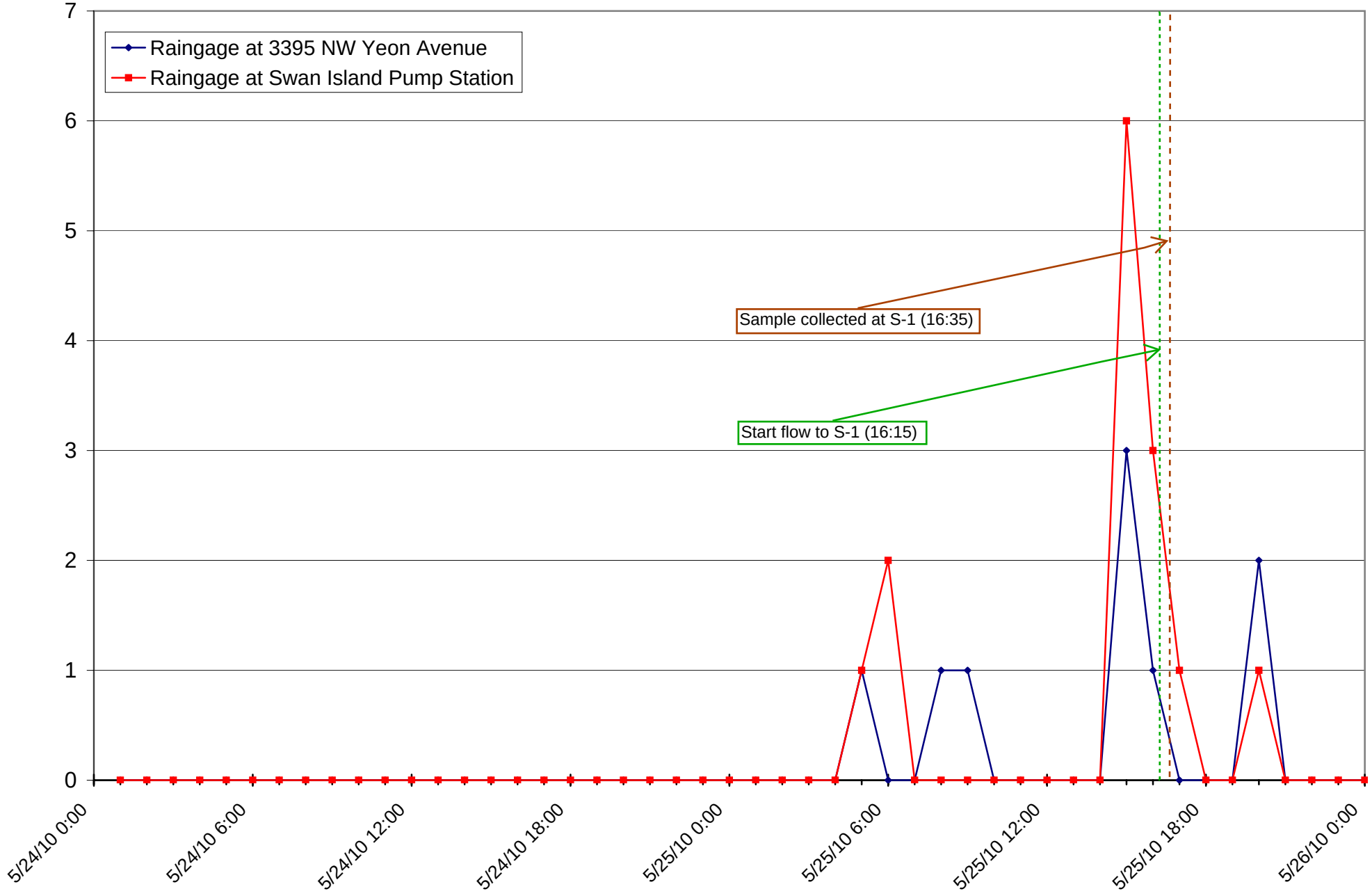
McCall - Portland, OR
Stormwater Monitoring Results Summary

Sampling Point	Sampler	Date	pH s.u.	TSS mg/L	Oil and Grease, Total mg/L		Copper Total mg/L	Lead, Total mg/L	Zinc Total mg/L	COD
Oil Water Separator	self	2/10/2001			2.3					
Oil Water Separator	self	2/8/2001			19.0					
Oil Water Separator	self	2/3/2001			6.3					
Oil Water Separator	self	1/27/2001			4.0					
Oil Water Separator	self	1/20/2001			11.0					
Oil Water Separator	self	1/13/2001			2.3					
Oil Water Separator	self	1/6/2001			2.0	U				
Oil Water Separator	self	12/30/2000			2.0	U				
Oil Water Separator	self	12/23/2000			7.2					
Oil Water Separator	self	11/25/2000			2.0	U				
Oil Water Separator	self	11/18/2000			2.0	U				
Oil Water Separator	self	11/11/2000			2.9					
Oil Water Separator	self	11/5/2000			3.1					
Oil Water Separator	self	10/28/2000			2.0					
Oil Water Separator	self	10/21/2000			2.8					
Oil Water Separator	self	10/14/2000			6.3					
Oil Water Separator	self	10/7/2000			2.0	U				
Oil Water Separator	self	9/30/2000			2.7					
Oil Water Separator	self	9/23/2000			3.4					
Oil Water Separator	self	9/16/2000			2.0	U				
Oil Water Separator	self	9/9/2000			2.0					
Oil Water Separator	self	9/2/2000			3.6					
Oil Water Separator	self	8/26/2000			2.2					
Oil Water Separator	self	8/19/2000			2.7					
Oil Water Separator	self	8/12/2000			2.0	U				
Oil Water Separator	self	8/5/2000			6.7					
Oil Water Separator	self	7/22/2000			2.0	U				
Oil Water Separator	self	7/15/2000			3.1					
Oil Water Separator	self	7/8/2000			2.0	U				
Oil Water Separator	self	7/1/2000			3.1					
Oil Water Separator	self	6/30/2000			4.8					
Oil Water Separator	self	6/24/2000			2.0	U				
Oil Water Separator	self	6/17/2000			2.0	U				
Oil Water Separator	self	6/10/2000			3.0					
Oil Water Separator	self	6/3/2000			5.6					
Oil Water Separator	self	5/27/2000			4.5					
Oil Water Separator	self	5/20/2000			2.0	U				
Oil Water Separator	self	5/11/2000			2.0	U				
Oil Water Separator	self	5/6/2000			5.8					
Oil Water Separator	self	4/29/2000			4.9					
Oil Water Separator	self	4/22/2000			4.6					
Oil Water Separator	self	4/16/2000			3.5					
Oil Water Separator	self	4/8/2000			3.5					
Oil Water Separator	self	4/1/2000			2.0					
Oil Water Separator	self	3/25/2000			6.1					
Oil Water Separator	self	3/19/2000			6.6					
Oil Water Separator	self	3/11/2000			6.0					
Oil Water Separator	self	3/4/2000			5.3					
Oil Water Separator	self	2/26/2000			15.0					
Oil Water Separator	self	2/21/2000			8.8					
Oil Water Separator	self	2/12/2000								
Oil Water Separator	self	2/5/2000			7.7					
Oil Water Separator	self	1/29/2000			7.3					
Oil Water Separator	self	1/22/2000			6.3					
Oil Water Separator	self	1/15/2000			6.8					
Oil Water Separator	self	12/25/1999			3.7					
Oil Water Separator	self	12/18/1999			7.6					
Oil Water Separator	self	12/14/1999			8.7					
Oil Water Separator	self	12/4/1999			7.8					
Oil Water Separator	self	11/27/1999			7.6					
Oil Water Separator	self	11/22/1999			12.0					
Oil Water Separator	self	11/13/1999			3.0					
Oil Water Separator	self	11/6/1999			4.3					
Oil Water Separator	self	10/30/1999			4.6					
Oil Water Separator	self	10/23/1999			4.2					
Oil Water Separator	self	10/16/1999			2.6					
Oil Water Separator	self	10/9/1999			2.8					
Oil Water Separator	self	10/2/1999			2.0	U				
Oil Water Separator	self	9/25/1999			2.7					
Oil Water Separator	self	9/18/1999			2.5					
Oil Water Separator	self	9/11/1999			2.8					
Oil Water Separator	self	9/4/1999			1.9					
Oil Water Separator	self	8/28/1999			1.5					
Oil Water Separator	self	8/21/1999			1.8					
Oil Water Separator	self	8/14/1999			8.5					
Oil Water Separator	self	8/7/1999			3.0					
Oil Water Separator	self	7/31/1999			0.5	U				
Oil Water Separator	self	7/24/1999			0.5					
Oil Water Separator	self	7/17/1999			0.5	U				
Oil Water Separator	self	7/10/1999			0.5	U				
Oil Water Separator	self	7/3/1999			0.5	U				
Oil Water Separator	self	6/26/1999			0.5	U				
Oil Water Separator	self	6/19/1999			0.5	U				
Oil Water Separator	self	6/12/1999			0.5	U				
Oil Water Separator	self	6/5/1999			0.5	U				
Oil Water Separator	self	5/22/1999			0.5	U				
Oil Water Separator	self	5/15/1999			0.5	U				
Oil Water Separator	self	5/8/1999			0.5	U				
Oil Water Separator	self	5/3/1999			0.5	U				
Oil Water Separator	self	4/24/1999			0.5	U				
Oil Water Separator	self	4/17/1999			3.6					
Oil Water Separator	self	4/10/1999			1.3					
Oil Water Separator	self	4/3/1999			1.7					
Oil Water Separator	self	3/20/1999			2.0					
Oil Water Separator	self	3/13/1999			0.5	U				
Oil Water Separator	self	3/6/1999			0.5	U				
Oil Water Separator	self	2/27/1999			0.5	U				
Oil Water Separator	self	2/20/1999			0.5	U				
Oil Water Separator	self	2/13/1999			0.5	U				
Oil Water Separator	self	2/6/1999			1.0					
Oil Water Separator	self	1/2/1999			2.9					

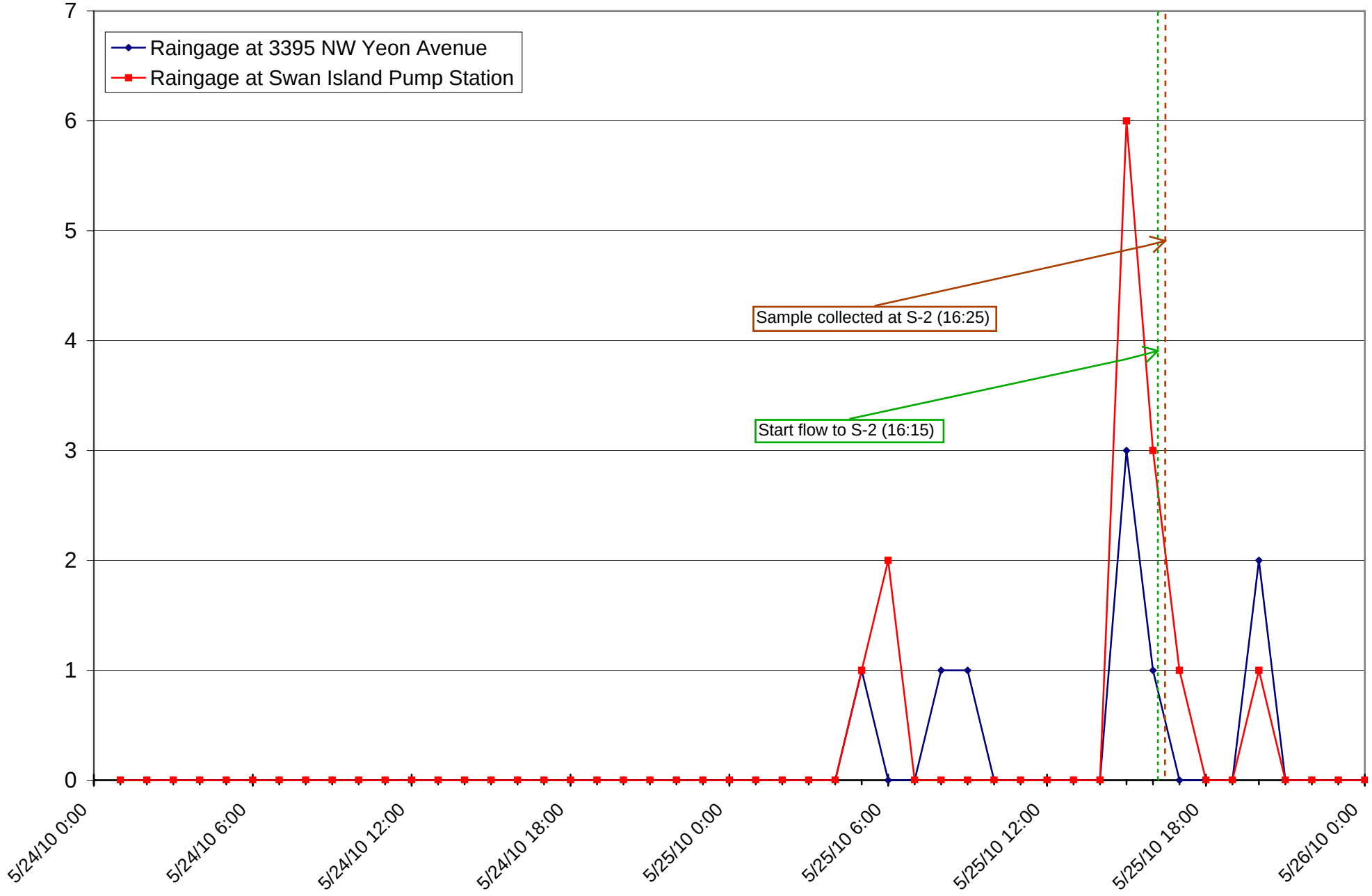
ATTACHMENT C

STORM SAMPLING EVENT HYDROGRAPHS

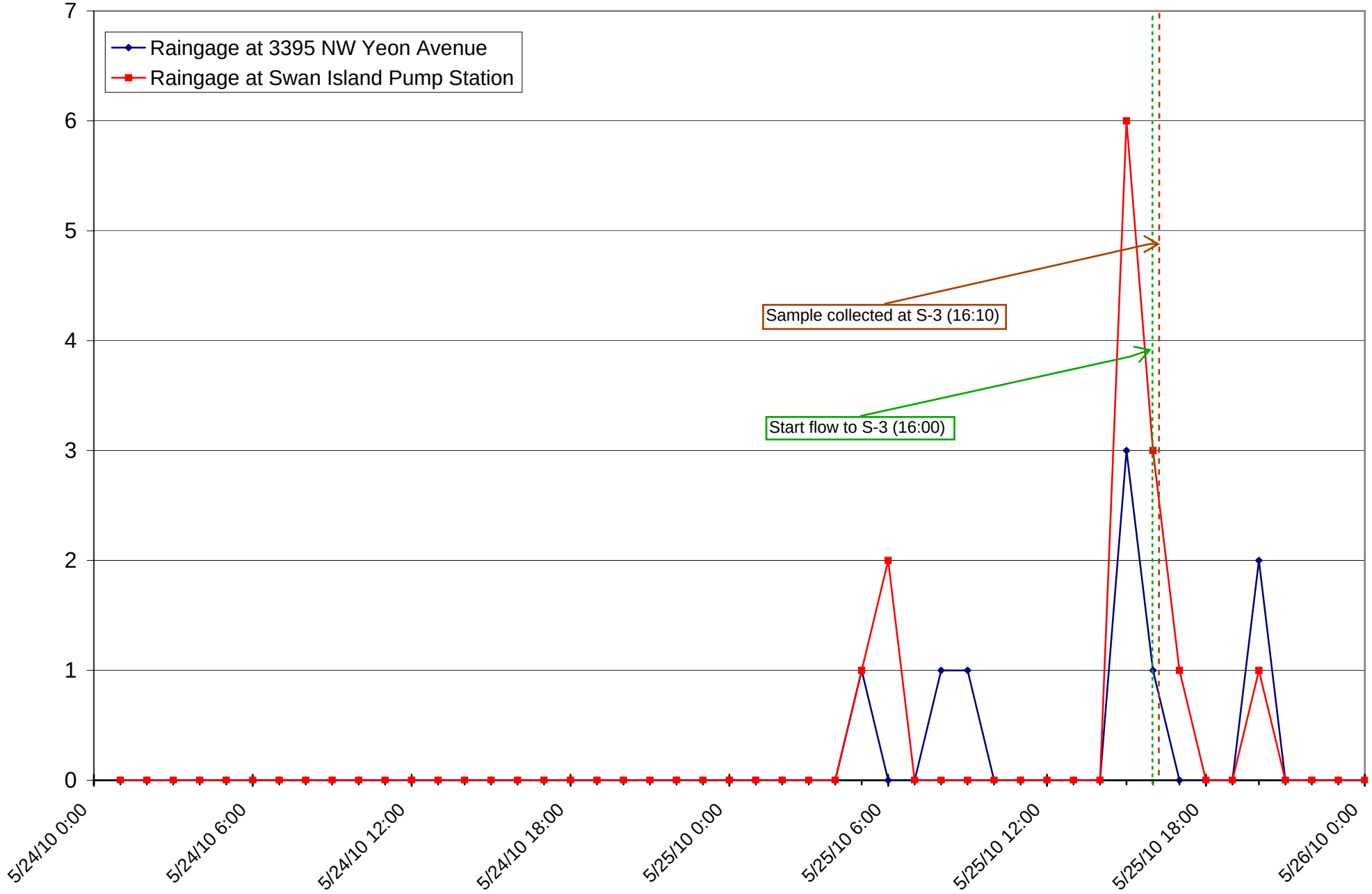
S-1
Stormwater Sample Collection Hydrograph
May 24-25, 2010
McCall Oil Front Avenue
Portland, Oregon



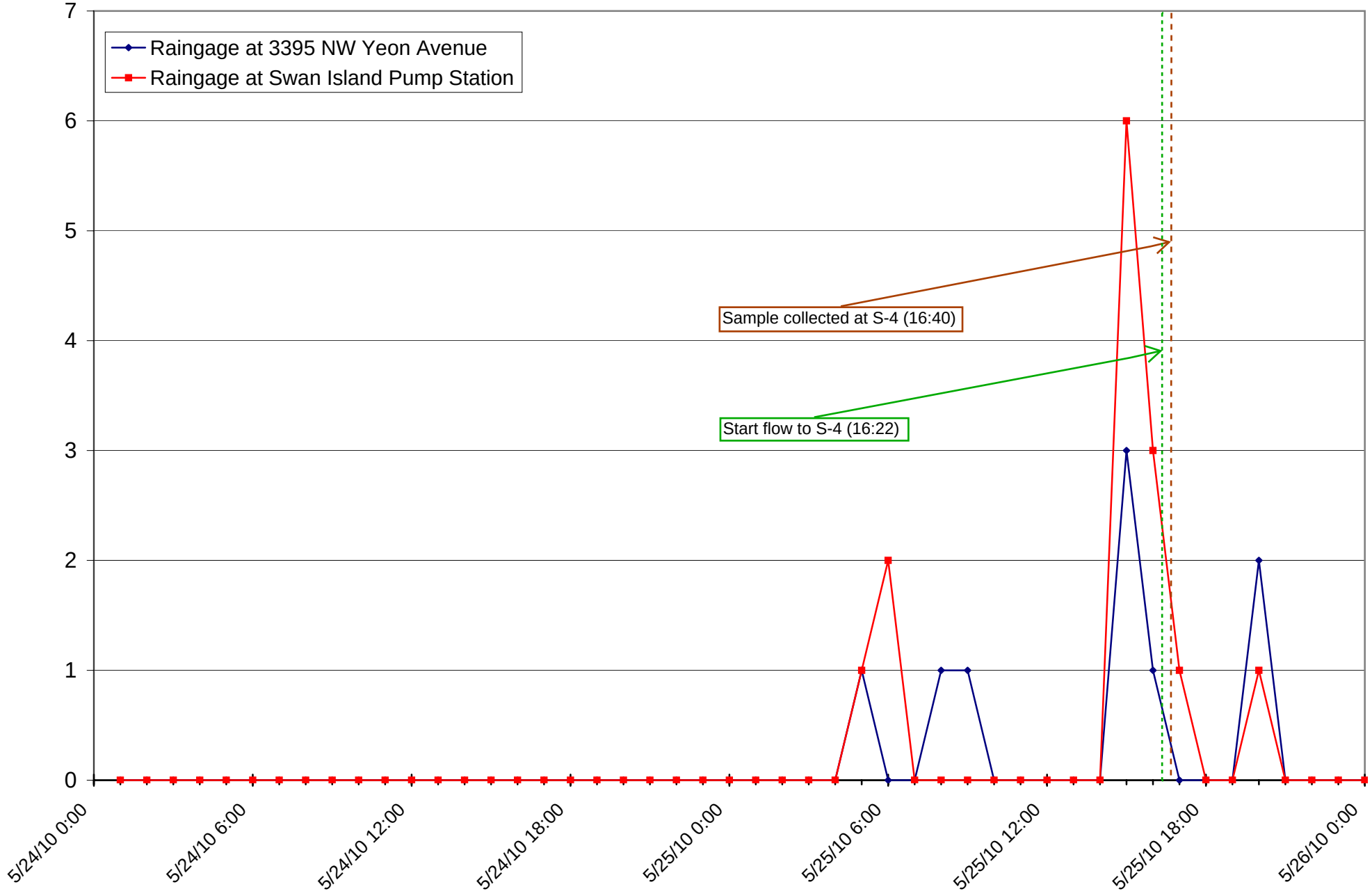
S-2
Stormwater Sample Collection Hydrograph
May 24-25, 2010
McCall Oil Front Avenue
Portland, Oregon



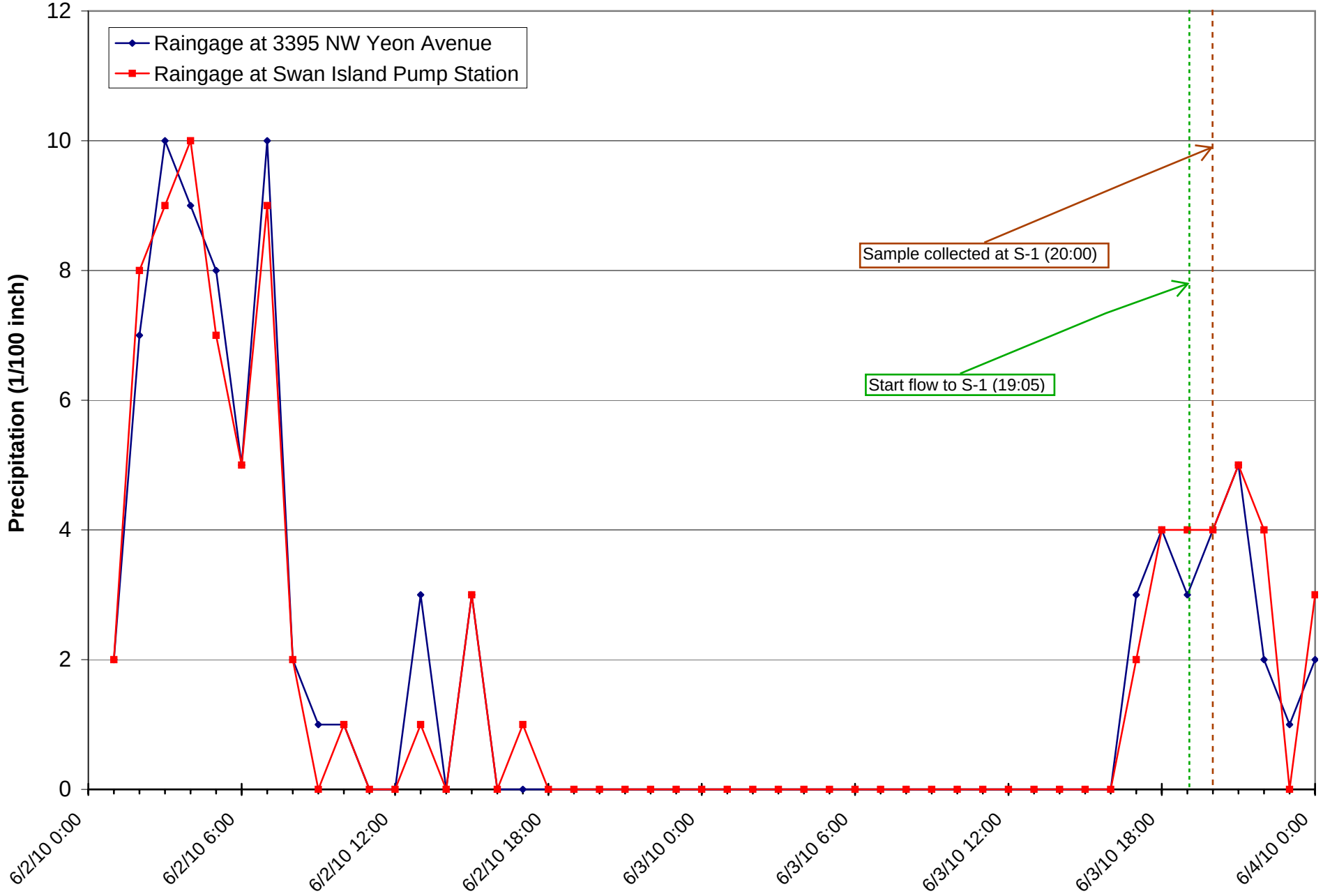
S-3
Stormwater Sample Collection Hydrograph
May 24-25, 2010
McCall Oil Front Avenue
Portland, Oregon



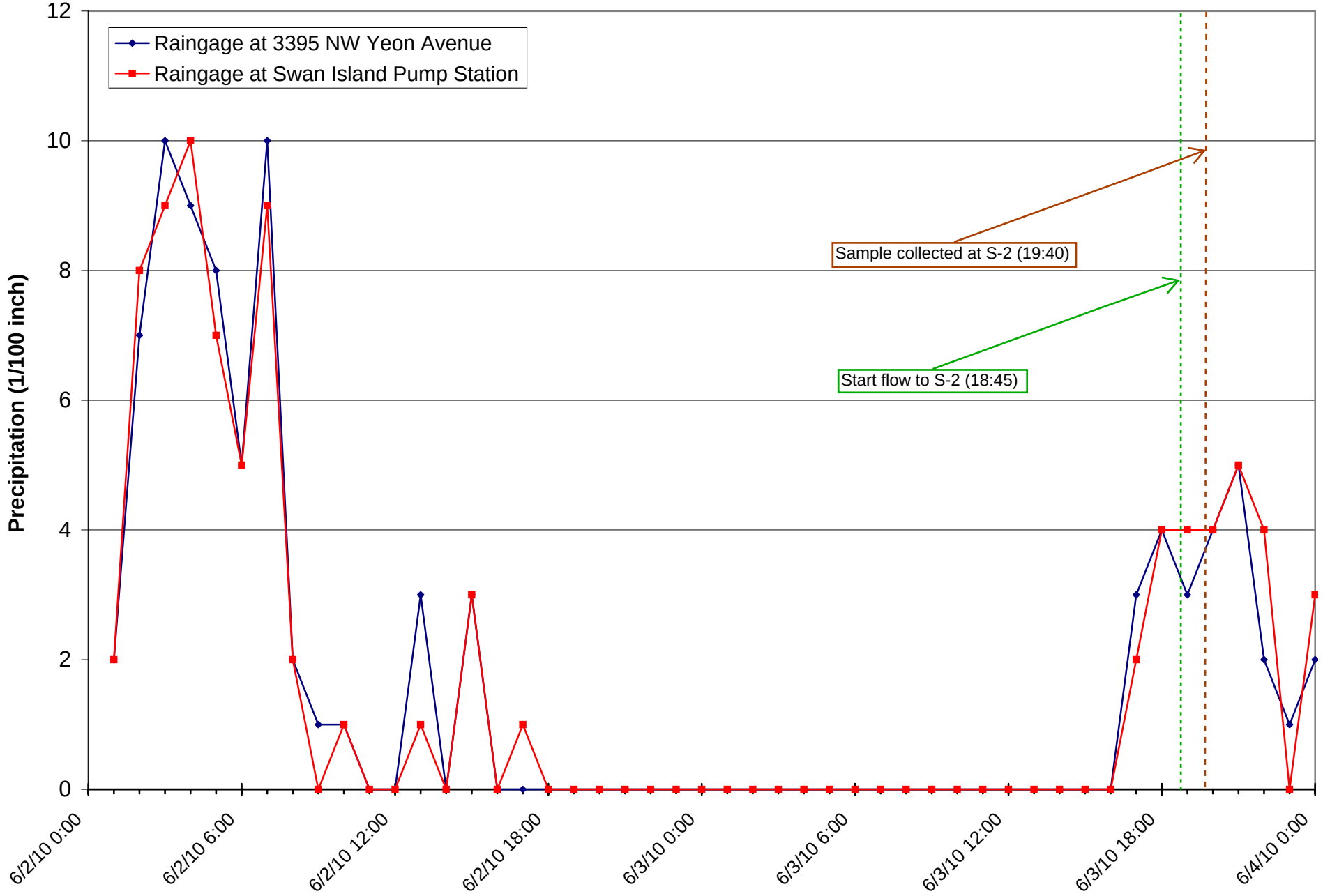
S-4
Stormwater Sample Collection Hydrograph
May 24-25, 2010
McCall Oil Front Avenue
Portland, Oregon



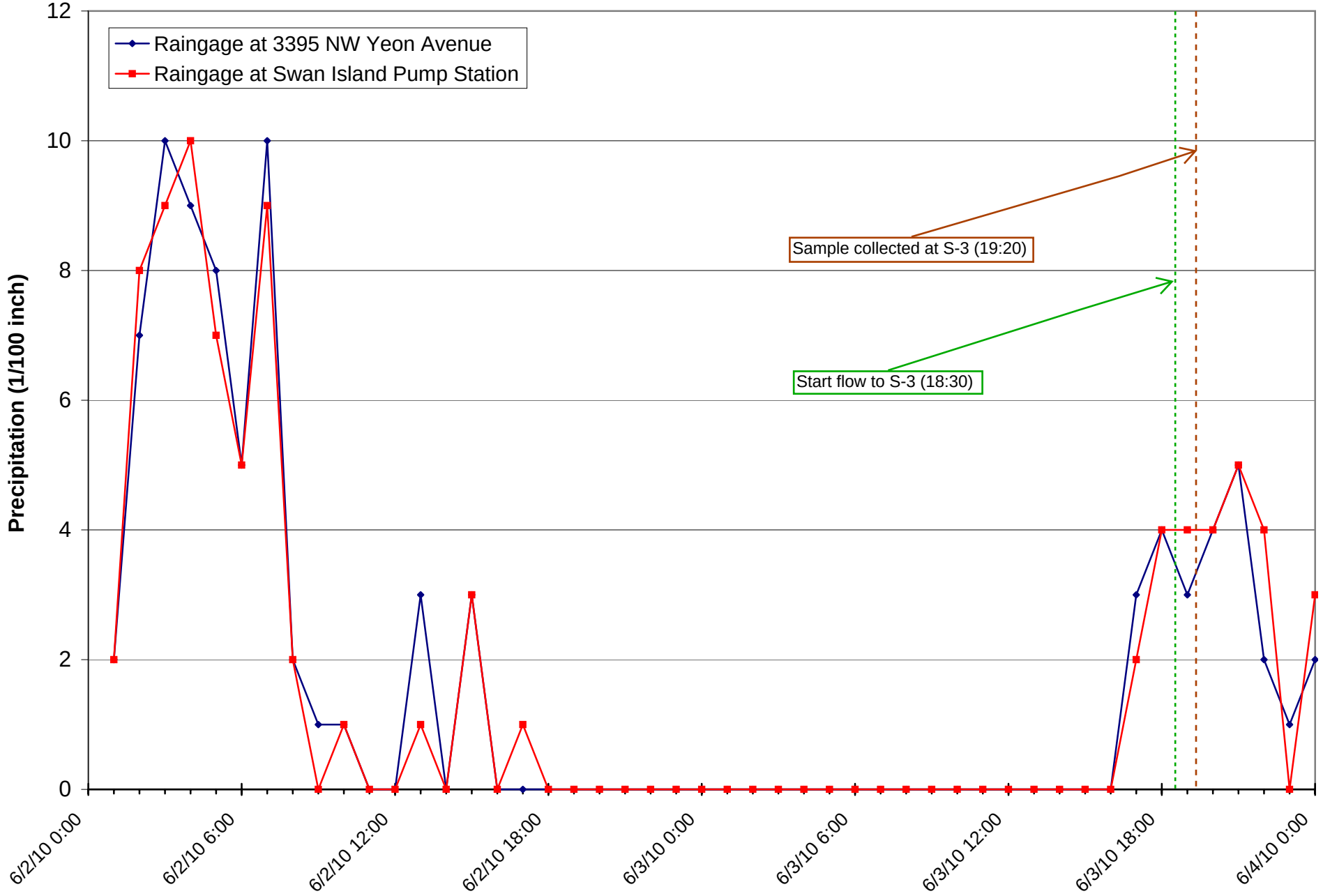
S-1
Stormwater Sample Collection Hydrograph
June 2-3, 2010
McCall Oil Front Avenue
Portland, Oregon



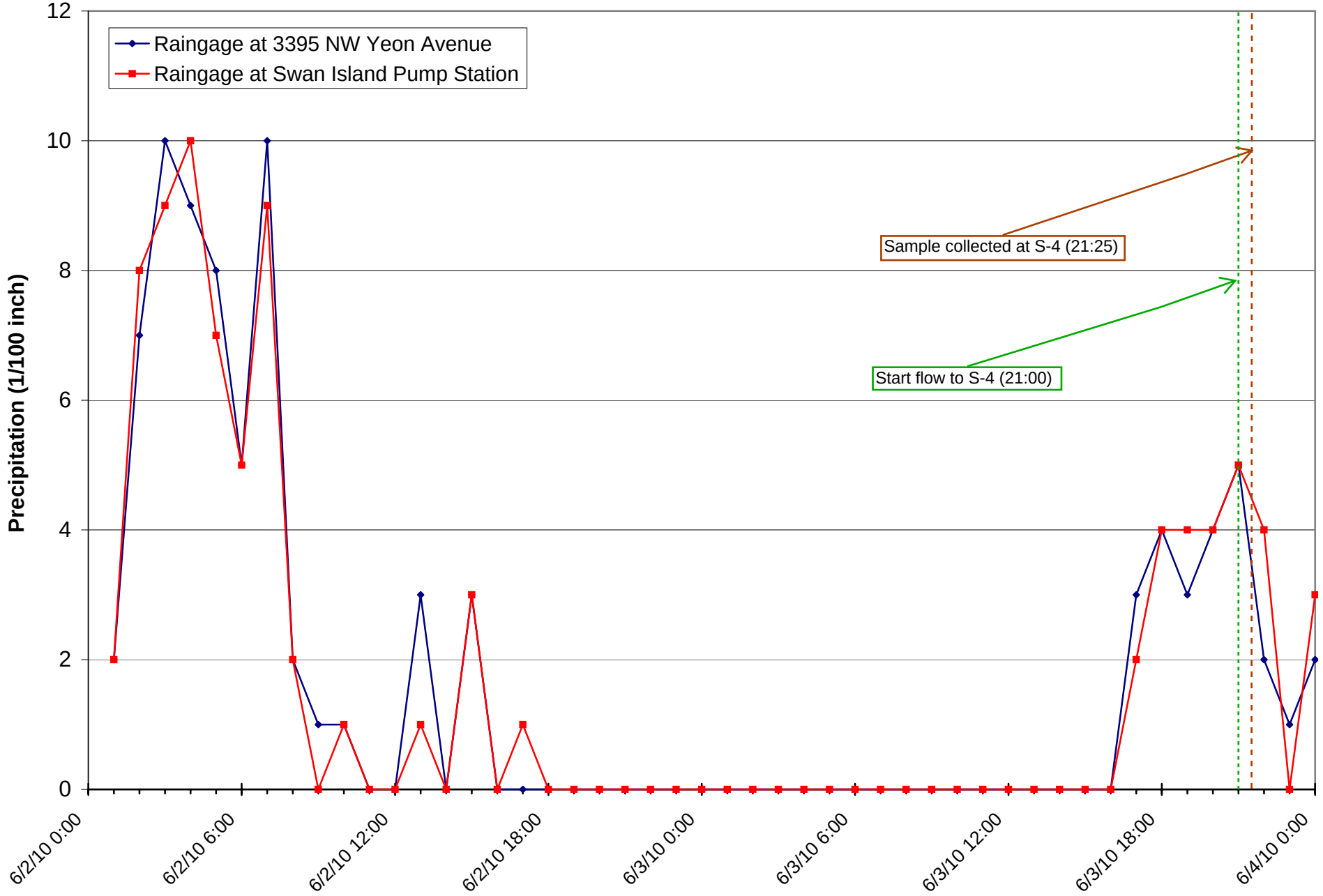
S-2
Stormwater Sample Collection Hydrograph
June 2-3, 2010
McCall Oil Front Avenue
Portland, Oregon



S-3
Stormwater Sample Collection Hydrograph
June 2-3, 2010
McCall Oil Front Avenue
Portland, Oregon

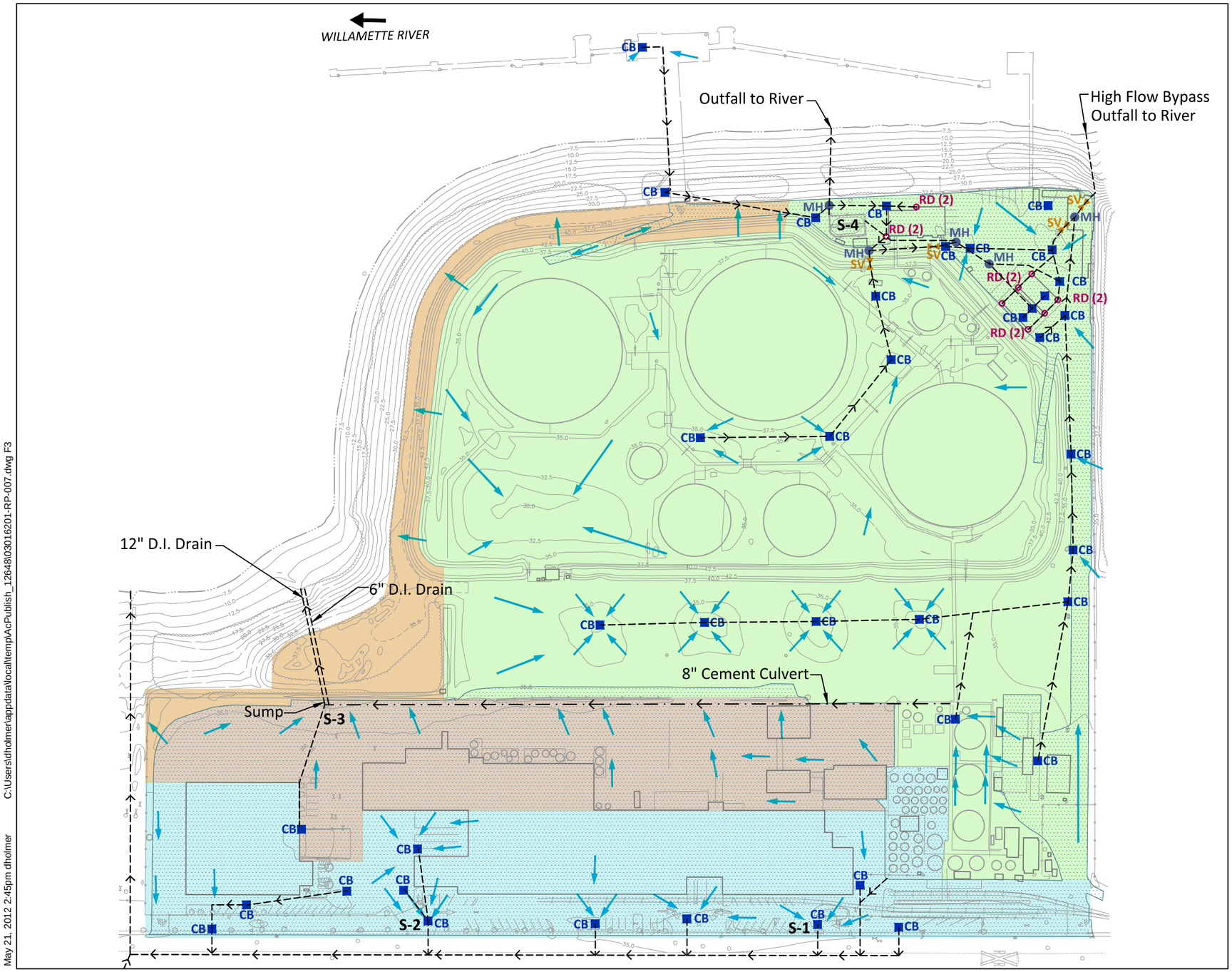


S-4
Stormwater Sample Collection Hydrograph
June 2-3, 2010
McCall Oil Front Avenue
Portland, Oregon



ATTACHMENT D

FIGURE 3 – REVISED STORM SEWER SYSTEM FIGURE



LEGEND:

- MH — Storm Manhole
- CB — Storm Catch Basin
- RD — Roof Storm Drain
- SV — Storm Shut-off Valve
- S-1 — Catch Basin Sediment Sub-Sample
- Drainage Pattern
- Storm Drain
- Cement Culvert
- Paved Surface
- Drainage Area 1: Drains to the S-4 Oil/Water Separator
- Drainage Area 2: Drains to Sump S-3
- Drainage Area 3: Drains to Front Avenue Storm Sewer
- Drainage Area 4: Drains to Willamette River by Diffuse Overland Flow

0 150
Scale in Feet

SOURCE: IT Corporation and TRT Engineering, Inc.

HORIZONTAL DATUM:
Coordinates are on a local plane and are assumed.

ELEVATION DATUM:
Elevations are based on City of Portland Benchmark #2528.
Elevation = 34.64 Feet

May 21, 2012 2:45pm dholmer C:\Users\dholmer\appdata\local\temp\AcPublish_12648\30016201-RP-007.dwg F3

ANCHOR QEA

Figure 3
Storm Sewer System
McCall Oil and Chemical Corporation
Portland, Oregon

ATTACHMENT E

BMP RECORDS 2006 - PRESENT

Past Record

Statement

Statement Date: 5-21-12

NORTHWEST ENVIRONMENTAL SUPPLY
P.O. BOX 321
OREGON CITY, OR 97045

503-314-0233

Purchased Catch Basin Inserts 2006 → 2012

Account Of:

McCall Oil
5480 N. Front
Portland, Ore 97210

~~Inv.~~ Year Date	Date Due	Inv. #	Paid	Description	Amount	Balance
2006 -	August			8 - C.B.I.		
	September			8 - C.B.I.		
2007 -	May			12 - C.B.I.		
	August			10 - C.B.I.		
2008 -	April			4 - C.B.I.		
				12 - C.B.I.		
2009 -	August			10 - C.B.I.		
	September					
2010 -	January			8 - C.B.I.		
	September			15 - C.B.I.		
2011 -	August			22 - C.B.I.		
	October			6 - C.B.I.		
2012 -	~~June~~ May			18 - C.B.I.		
				133 - C.B.I.	TOTAL	

DC.

C.B.I. = Catch Basin Insert

Monthly Separator Silt monthly Report

	Separator #1		Separator #2		Separator #3		Separator #4		
	Spot #1	Spot #2	Spot #1	Spot #2	Spot #1	Spot #2	Spot #1	Spot #2	
	77"	78"	85 3/4"	85 ¾	85"	85"	85"	85"	
Year 2011	Separator #1		Separator #2		Separator #3		Separator #4		
Month									
Jan	O	O	O	O	O	O	O	O	BS
Feb	O	O	O	O	O	O	O	O	CD
Mar	O	O	O	O	O	O	O	O	CD
Apr	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	ET
May	O	O	O	O	O	O	O	O	TA
June	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	TM
July	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	ET
Aug	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	
Sept	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	TM
Oct	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	ET
Nov	O	O	O	O	O	O	O	O	BD
Dec	Ø	Ø	Ø	Ø	Ø	O	Ø	Ø	BD

Spot # 1 on ALL separators will be measured just left of the spillway pipe on each bay.

Spot #2 will be measured at the 2nd handrail post from the corner of each bay

Monthly Separator Silt monthly Report

	Separator #1		Separator #2		Separator #3		Separator #4	
	Spot #	Spot #2	Spot #1	Spot #2	Spot #1	Spot #2	Spot #1	Spot #2
	77"	78"	85 3/4"	85 ¾"	85"	85"	85"	85"
Year 2010	Separator #1		Separator #2		Separator #3		Separator #4	
Month								
Jan								
Feb								
Mar								
Apr								
May								
June								
July								
Aug								
Sept								
Oct								
Nov								
Dec								

TA
TA
CB
CD

Spot # 1 on ALL separators will be measured just left of the spillway pipe on each bay.

Spot #2 will be measured at the 2nd handrail post from the corner of each bay

Monthly Separator Silt monthly Report

	Separator #1		Separator #2		Separator #3		Separator #4	
	Spot #	Spot #2	Spot #1	Spot #2	Spot #1	Spot #2	Spot #1	Spot #2
	77"	78"	85 3/4"	85 ¾"	85"	85"	85"	85"
Year 2009	Separator #1		Separator #2		Separator #3		Separator #4	
	Month							
CD	Jan	0"	0"	0"	0"	0"	0"	0"	0"
CD	Feb	0"	0"	0"	0"	0"	0"	0"	0"
CD	Mar	0"	0"	0"	0"	0"	0"	0"	0"
TA	Apr	0"	0"	0"	0"	0"	0"	0"	0"
TA	May	0"	0"	0"	0"	0"	0"	0"	0"
TA +CD	June	0"	0"	0"	0"	0"	0"	0"	0"
TA	July	0"	0"	0"	0"	0"	0"	0"	0"
TA	Aug	0"	0"	0"	0"	0"	0"	0"	0"
TA	Sept	0"	0"	0"	0"	0"	0"	0"	0"
TA	Oct	0"	0"	0"	0"	0"	0"	0"	0"
CD	Nov	0"	0"	0"	0"	0"	0"	0"	0"
TA	Dec	0"	0"	0"	0"	0"	0"	0"	0"

Spot # 1 on ALL separators will be measured just left of the spillway pipe on each bay.

Spot #2 will be measured at the 2nd handrail post from the corner of each bay

Monthly Separator Silt monthly Report

	Separator #1		Separator #2		Separator #3		Separator #4	
	Spot #	Spot #2	Spot #1	Spot #2	Spot #1	Spot #2	Spot #1	Spot #2
	77"	78"	85 3/4"	85 ¾"	85"	85"	85"	85"
Year 2008	Separator #1		Separator #2		Separator #3		Separator #4	
VW Month	0	0	0	0	0	0	0	0
VW Jan	0	0	0	0	0	0	0	0
CD Feb	0	0	0	0	0	0	0	0
CD Mar	0	0	0	0	0	0	0	0
CD Apr	0	0	0	0	0	0	0	0
CD May	0	0	0	0	0	0	0	0
CD June	0	0	0	0	0	0	0	0
CD July	0	0	0	0	0	0	0	0
CD Aug	0	0	0	0	0	0	0	0
CD Sept	0	0	Separator was closed. 0	0	0	0	0	0
CD Oct	0	0	0	0	0	0	0	0
CD Nov	0	0	0	0	0	0	0	0
CD Dec	0	0	0	0	0	0	0	0

Spot # 1 on ALL separators will be measured just left of the spillway pipe on each bay.

Spot #2 will be measured at the 2nd handrail post from the corner of each bay

Monthly Separator Silt monthly Report

	Separator #1		Separator #2		Separator #3		Separator #4	
	Spot #	Spot #2	Spot #1	Spot #2	Spot #1	Spot #2	Spot #1	Spot #2
	77"	78"	85 3/4"	85 ¾"	85"	85"	85"	85"
Year 2007	Separator #1		Separator #2		Separator #3		Separator #4	
	Month							
CD	Jan	0"	0"	0"	0"	0"	0"	0"	0"
RB	Feb	0"	0"	0"	0"	0"	0"	0"	0"
RB	Mar	0	0	0	0	0	0	0	0
RB	Apr	0	0	0	0	0	0	0	0
RB	May	0	0	0	0	0	0	0	0
RB	June	0	0	0	0	0	0	0	0
RB	July	0	0	0	0	0	0	0	0
RD	Aug	0	0	0	0	0	0	0	0
CD	Sept	0 *	0 separator		0 cleaned	0	0	0	0
VW	Oct	0	0	0	0	0	0	0	0
VW	Nov	0	0	0	0	0	0	0	0
VW	Dec	0	0	0	0	0	0	0	0

Spot # 1 on ALL separators will be measured just left of the spillway pipe on each bay.

Spot #2 will be measured at the 2nd handrail post from the corner of each bay

11-12-07 Separator cleaned found very little if my silt.

Monthly Separator Silt Monitor Report

	Separator#1		Separator#2		Separator#3		Separator#4	
	Spot #1	Spot #2	Spot # 1	Spot #2	Spot #1	Spot #2	Spot #1	Spot #2
	77″	78″	85¾″	85 ¾″	85″	85″	85″	85″

	month	Separator#1		Separator#2		Separator#3		Separator#4	
	2006	Spot #1	Spot #2	Spot # 1	Spot #2	Spot #1	Spot #2	Spot #1	Spot #2
CD	Jan.	77″	78″	85 3/4″	85 3/4″	85″	85″	85″	85″
CD	Feb.	77″	78″	85 3/4	85 3/4	85″	85″	85″	85″
CD	Mar.	77″	78″	85 3/4	85 3/4	85″	85″	85″	85″
RB	April	77″	78	85 3/4	85 3/4	58	85	85	85
RB	May	77″	78	85 3/4	85 3/4	58	85	85	85
RB	June	77″	78	85 3/4	85 3/4	58	85	85	85
RB	July	77″	78	85 3/4	85 3/4	58	85	85	85
	Aug.		clammed	—	—	—	—	—	
TA	Sept.	—	—	—	—	—	—	—	—
RB	Oct.	—	—	—	—	—	—	—	—
TA	Nov.	—	—	—	—	—	—	—	—
RB	Dec.	—	—	—	—	—	—	—	—

Spot # 1 on all Separators will be measured just to left of the spill way pipe on each bay.

Spot #2 will be measured at the 2nd hand rail post from the corner of each bay.

S. RM-Drain Log

Date 5-1-12

Gravel Parking lot	Clear	Silt Filters	Hay Bales
Dike drain south corner	OK	OK	OK
Roadway	OK	OK	OK
Drain #1	OK	OK	OK
Drain #2	OK	OK	OK
Drain #3	OK	OK	OK
Drain #4	OK	OK	OK

Tank Farm	Clear	Silt Filters	Hay Bales
Condensate Tk	OK	OK	OK
Tk 9	OK	OK	OK
Tk 4	OK	OK	OK
Tk 7	OK	OK	OK

M/T Parking Lot	Clear	Silt Filters	Hay Bales
By Boiler room Door	OK	OK	OK
North Corner By Office	OK	OK	OK
North Of Rack	OK	OK	OK
Center Of Lot	OK	OK	OK
Shop	OK	OK	OK
South East Of Rack	OK	OK	OK
Dike Approach	OK	OK	OK
Road Way Along Dike	OK	OK	OK

Josh Lumpkin
5-1-12 AH

S. ORM-Drain Log

Date 4-2-12

Gravel Parking lot	Clear	Silt Filters	Hay Bales
Dike drain south corner	OK	OK	OK
Roadway	OK	OK	OK
Drain #1	OK	OK	OK
Drain #2	OK	OK	OK
Drain #3	OK	OK	OK
Drain #4	OK	OK	OK

Tank Farm	Clear	Silt Filters	Hay Bales
Condensate Tk	OK	OK	OK
Tk 9	OK	OK	OK
Tk 4	OK	OK	OK
Tk 7	OK	OK	OK

M/T Parking Lot	Clear	Silt Filters	Hay Bales
By Boiler room Door	OK	OK	OK
North Corner By Office	OK	OK	OK
North Of Rack	OK	OK	OK
Center Of Lot	OK	OK	OK
Shop	OK	OK	OK
South East Of Rack	OK	OK	OK
Dike Approach	OK	OK	OK
Road Way Along Dike	OK	OK	OK

J. [illegible]
4-2-12

Storm Drain Log

Date 3/7/12

Gravel Parking lot	Clear	Silt Filters	Hay Bales
Dike drain south corner	Yes	OK	OK
Roadway	Yes	OK	OK
Drain #1	Yes	OK	OK
Drain #2	Yes	OK	OK
Drain #3	Yes	OK	OK
Drain #4	Yes	OK	OK

Tank Farm	Clear	Silt Filters	Hay Bales
Condensate Tk	Yes	OK	OK
Tk 9	Yes	OK	OK
Tk 4	Yes	OK	OK
Tk 7	Yes	OK	OK

M/T Parking Lot	Clear	Silt Filters	Hay Bales
By Boiler room Door	Yes	OK	OK
North Corner By Office	Yes	OK	OK
North Of Rack	Yes	OK	OK
Center Of Lot	Yes	OK	OK
Shop	Yes	OK	OK
South East Of Rack	Yes	OK	OK
Dike Approach	Yes	OK	OK
Road Way Along Dike	Yes	OK	OK

Storm Drain Log

Date 02-01-12

Gravel Parking lot	Clear	Silt Filters	Hay Bales
Dike drain south corner	Yes	OK	OK
Roadway	Yes	OK	OK
Drain #1	Yes	OK	OK
Drain #2	Yes	OK	OK
Drain #3	Yes	OK	OK
Drain #4	Yes	OK	OK

Tank Farm	Clear	Silt Filters	Hay Bales
Condensate Tk	Yes	OK	OK
Tk 9	Yes	OK	OK
Tk 4	Yes	OK	OK
Tk 7	Yes	OK	OK

M/T Parking Lot	Clear	Silt Filters	Hay Bales
By Boiler room Door	Yes	OK	OK
North Corner By Office	Yes	OK	OK
North Of Rack	Yes	OK	OK
Center Of Lot	Yes	OK	OK
Shop	Yes	OK	OK
South East Of Rack	Yes	OK	OK
Dike Approach	Yes	OK	OK
Road Way Along Dike	Yes	OK	OK

ı Drain Log

Date 1-9-12

Gravel Parking lot	Clear	Silt Filters	Hay Bales
Dike drain south corner	yes	OK	OK
Roadway	yes	OK	OK
Drain #1	yes	OK	OK
Drain #2	yes	OK	OK
Drain #3	yes	OK	OK
Drain #4	yes	OK	OK

Tank Farm	Clear	Silt Filters	Hay Bales
Condensate Tk	yes	OK	OK
Tk 9	yes	OK	OK
Tk 4	yes	OK	OK
Tk 7	yes	OK	OK

M/T Parking Lot	Clear	Silt Filters	Hay Bales
By Boiler room Door	yes	OK	OK
North Corner By Office	yes	OK	OK
North Of Rack	yes	OK	OK
Center Of Lot	yes	OK	OK
Shop	yes	OK	OK
South East Of Rack	yes	OK	OK
Dike Approach	yes	OK	OK
Road Way Along Dike	yes	OK	OK

Storm Drain Log

Date 12-6-11

Gravel Parking lot	Clear	Silt Filters	Hay Bales
Dike drain south corner	yes	OK	OK
Roadway	yes	OK	OK
Drain #1	yes	OK	OK
Drain #2	yes	OK	OK
Drain #3	yes	OK	OK
Drain #4	yes	OK	OK

Tank Farm	Clear	Silt Filters	Hay Bales
Condensate Tk	yes	OK	OK
Tk 9	yes	OK	OK
Tk 4	yes	OK	OK
Tk 7	yes	OK	OK

M/T Parking Lot	Clear	Silt Filters	Hay Bales
By Boiler room Door	yes	OK	OK
North Corner By Office	yes	OK	OK
North Of Rack	yes	OK	OK
Center Of Lot	yes	OK	OK
Shop	yes	OK	OK
South East Of Rack	yes	OK	OK
Dike Approach	yes	OK	OK
Road Way Along Dike	yes	OK	OK

Drain Log

Date 11-14-11

Gravel Parking lot	Clear	Silt Filters	Hay Bales
Dike drain south corner	yes	OK	OK
Roadway	yes	OK	OK
Drain #1	yes	OK	OK
Drain #2	yes	OK	OK
Drain #3	yes	OK	OK
Drain #4	yes	OK	OK

Tank Farm	Clear	Silt Filters	Hay Bales
Condensate Tk	yes	OK	OK
Tk 9	yes	OK	OK
Tk 4	yes	OK	OK
Tk 7	yes	OK	OK

M/T Parking Lot	Clear	Silt Filters	Hay Bales
By Boiler room Door	yes	OK	OK
North Corner By Office	yes	OK	OK
North Of Rack	yes	OK	OK
Center Of Lot	yes	OK	OK
Shop	yes	OK	OK
South East Of Rack	yes	OK	OK
Dike Approach	yes	OK	OK
Road Way Along Dike	yes	OK	OK

ı Drain Log

Date 10-1-11

Gravel Parking lot	Clear	Silt Filters	Hay Bales
Dike drain south corner	yes	New	New
Roadway	yes	New	New
Drain #1	yes	New	New
Drain #2	yes	New	New
Drain #3	yes	New	New
Drain #4	yes	New	New

Tank Farm	Clear	Silt Filters	Hay Bales
Condensate Tk	yes	New	New
Tk 9	yes	New	New
Tk 4	yes	New	New
Tk 7	yes	New	New

M/T Parking Lot	Clear	Silt Filters	Hay Bales
By Boiler room Door	yes	New	New
North Corner By Office	yes	New	New
North Of Rack	yes	New	New
Center Of Lot	yes	New	New
Shop	yes	New	New
South East Of Rack	yes	New	New
Dike Approach	yes	New	New
Road Way Along Dike	yes	New	New

Storm Drain Log

Date 09-01-11

Gravel Parking lot	Clear	Silt Filters	Hay Bales
Dike drain south corner	Yes	New	New
Roadway	Yes	New	New
Drain #1	Yes	New	New
Drain #2	Yes	New	New
Drain #3	Yes	New	New
Drain #4	Yes	New	New

Tank Farm	Clear	Silt Filters	Hay Bales
Condensate Tk	Yes	New	New
Tk 9	Yes	New	New
Tk 4	Yes	New	New
Tk 7	Yes	New	New

M/T Parking Lot	Clear	Silt Filters	Hay Bales
By Boiler room Door	Yes	New	New
North Corner By Office	Yes	New	New
North Of Rack	Yes	New	New
Center Of Lot	Yes	New	New
Shop	Yes	New	New
South East Of Rack	Yes	New	New
Dike Approach	Yes	New	New
Road Way Along Dike	Yes	New	New

1 Drain Log

Date 7-10-11

Gravel Parking lot	Clear	Silt Filters	Hay Bales
Dike drain south corner	yes	OK	OK
Roadway	yes	OK	OK
Drain #1	yes	OK	OK
Drain #2	yes	OK	OK
Drain #3	yes	OK	OK
Drain #4	yes	OK	OK

Tank Farm	Clear	Silt Filters	Hay Bales
Condensate Tk	yes	OK	OK
Tk 9	yes	OK	OK
Tk 4	yes	OK	OK
Tk 7	yes	OK	OK

M/T Parking Lot	Clear	Silt Filters	Hay Bales
By Boiler room Door	yes	OK	OK
North Corner By Office	yes	OK	OK
North Of Rack	yes	OK	OK
Center Of Lot	yes	OK	OK
Shop	yes	OK	OK
South East Of Rack	yes	OK	OK
Dike Approach	yes	OK	OK
Road Way Along Dike	yes	OK	OK

S' rm Drain Log

Date 06/01/11

Gravel Parking lot	Clear	Silt Filters	Hay Bales
Dike drain south corner	Yes	OK	OK
Roadway	Yes	OK	OK
Drain #1	Yes	OK	OK
Drain #2	Yes	OK	OK
Drain #3	Yes	OK	OK
Drain #4	Yes	OK	OK

Tank Farm	Clear	Silt Filters	Hay Bales
Condensate Tk	Yes	OK	OK
Tk 9	Yes	OK	OK
Tk 4	Yes	OK	OK
Tk 7	Yes	OK	OK

M/T Parking Lot	Clear	Silt Filters	Hay Bales
By Boiler room Door	Yes	OK	OK
North Corner By Office	Yes	OK	OK
North Of Rack	Yes	OK	OK
Center Of Lot	Yes	OK	OK
Shop	Yes	OK	OK
South East Of Rack	Yes	OK	OK
Dike Approach	Yes	OK	OK
Road Way Along Dike	Yes	OK	OK

Storm Drain Log

Date 5-7-11

Gravel Parking lot	Clear	Silt Filters	Hay Bales
Dike drain south corner	YES	OK	OK
Roadway	YES	OK	OK
Drain #1	YES	OK	OK
Drain #2	YES	OK	OK
Drain #3	YES	OK	OK
Drain #4	YES	OK	OK

Tank Farm	Clear	Silt Filters	Hay Bales
Condensate Tk	NO	OK	OK
Tk 9	YES	OK	OK
Tk 4	YES	OK	OK
Tk 7	YES	OK	OK

M/T Parking Lot	Clear	Silt Filters	Hay Bales
By Boiler room Door	YES	OK	OK
North Corner By Office	YES	OK	OK
North Of Rack	YES	OK	OK
Center Of Lot	YES	OK	OK
Shop	YES	OK	OK
South East Of Rack	YES	OK	OK
Dike Approach	YES	OK	OK
Road Way Along Dike	YES	OK	OK

Storm Drain Log

Date 4-5-11

Gravel Parking lot	Clear	Silt Filters	Hay Bales
Dike drain south corner	yes	ok	ok
Roadway	yes	ok	ok
Drain #1	yes	ok	ok
Drain #2	yes	ok	ok
Drain #3	yes	ok	ok
Drain #4	yes	ok	ok

Tank Farm	Clear	Silt Filters	Hay Bales
Condensate Tk	NO	replace	ok
Tk 9	yes	ok	ok
Tk 4	yes	ok	ok
Tk 7	yes	ok	ok

M/T Parking Lot	Clear	Silt Filters	Hay Bales
By Boiler room Door	yes	ok	ok
North Corner By Office	yes	ok	ok
North Of Rack	yes	ok	ok
Center Of Lot	yes	ok	ok
Shop	yes	ok	ok
South East Of Rack	yes	ok	ok
Dike Approach	yes	ok	ok
Road Way Along Dike	yes	ok	ok

Drain Log

Date 3-10-11

Gravel Parking lot	Clear	Silt Filters	Hay Bales
Dike drain south corner			
Roadway			
Drain #1	YES	OK	OK
Drain #2	YES	OK	OK
Drain #3	YES	OK	OK
Drain #4	YES	OK	OK

Tank Farm	Clear	Silt Filters	Hay Bales
* Condensate Tk	NO	NOT GOOD	OK
Tk 9	YES	OK	OK
Tk 4	YES	OK	OK
Tk 7	YES	OK	OK

M/T Parking Lot	Clear	Silt Filters	Hay Bales
By Boiler room Door	YES	OK	OK
North Corner By Office	YES	OK	OK
North Of Rack	YES	OK	OK
Center Of Lot	YES	OK	OK
Shop	YES	OK	OK
South East Of Rack	YES	OK	OK
Dike Approach	YES	OK	OK
Road Way Along Dike	YES	OK	OK

* DIRT IS IN THE CATCH BASIN & ON TOP OF SILT FILTER & GRATE

S rm Drain Log

Date 2-15-11

Gravel Parking lot	Clear	Silt Filters	Hay Bales
Dike drain south corner			
Roadway			
Drain #1	yes	OK	OK
Drain #2	yes	OK	OK
Drain #3	yes	OK	OK
Drain #4	yes	OK	OK

Tank Farm	Clear	Silt Filters	Hay Bales
Condensate Tk	1/2 Full Dirt	Not Good	OK
Tk 9	yes	OK	OK
Tk 4	yes	OK	OK
Tk 7	yes	OK	OK

M/T Parking Lot	Clear	Silt Filters	Hay Bales
By Boiler room Door	yes	OK	OK
North Corner By Office	yes	OK	OK
North Of Rack	yes	OK	OK
Center Of Lot	yes	OK	OK
Shop	yes	OK	OK
South East Of Rack	yes	OK	OK
Dike Approach	yes	OK	OK
Road Way Along Dike	yes	OK	OK

ı Drain Log

Date 1-19-11

Gravel Parking lot	Clear	Silt Filters	Hay Bales
Dike drain south corner	YES	OK	OK
Roadway	YES	OK	OK
Drain #1	YES	OK	OK
Drain #2	YES	OK	OK
Drain #3	YES	OK	OK
Drain #4	YES	OK	OK

Tank Farm	Clear	Silt Filters	Hay Bales
Condensate Tk	YES	OK	OK
Tk 9	YES	OK	OK
Tk 4	YES	OK	OK
Tk 7	YES	OK	OK

M/T Parking Lot	Clear	Silt Filters	Hay Bales
By Boiler room Door	YES	OK	OK
North Corner By Office	YES	OK	OK
North Of Rack	YES	OK	OK
Center Of Lot	YES	OK	OK
Shop	YES	OK	OK
South East Of Rack	YES	OK	OK
Dike Approach	YES	OK	OK
Road Way Along Dike	YES	OK	OK

1 Drain Log

Date 12/19/10

Gravel Parking lot	Clear	Silt Filters	Hay Bales
Dike drain south corner	Yes	Good	Good
Roadway	Yes	Good	Good
Drain #1	Yes	Good	Good
Drain #2	Yes	Good	Good
Drain #3	Yes	Good	Good
Drain #4	Yes	Good	Good

Tank Farm	Clear	Silt Filters	Hay Bales
Condensate Tk	Yes	Good	Good
Tk 9	Yes	Good	Good
Tk 4	Yes	Good	Good
Tk 7			Good

M/T Parking Lot	Clear	Silt Filters	Hay Bales
By Boiler room Door	Yes	Yes	N/a
North Corner By Office	Yes	Yes	N/a
North Of Rack	Yes	Yes	N/a
Center Of Lot	Yes	Yes	N/a
Shop	Yes	Yes	N/a
South East Of Rack	Yes	Yes	N/a
Dike Approach	Yes	Yes	N/a
Road Way Along Dike	Yes	Yes	N/a

Drain Log

Date 11-15-19

Gravel Parking lot	Clear	Silt Filters	Hay Bales
Dike drain south corner	yes	yes	new / good
Roadway	yes	yes	good
Drain #1	yes	yes all	good
Drain #2	yes	yes good	good
Drain #3	yes	yes	good
Drain #4	yes	yes	good

Tank Farm	Clear	Silt Filters	Hay Bales
Condensate Tk	yes	yes	good
Tk 9	yes	yes good	good
Tk 4	yes	yes	good
Tk 7	yes	yes	good

M/T Parking Lot	Clear	Silt Filters	Hay Bales
By Boiler room Door	yes	yes	No
North Corner By Office	yes	yes	No
North Of Rack	yes	yes	No
Center Of Lot	yes	yes all good	No
Shop	yes	yes	No
South East Of Rack	yes	yes	No
Dike Approach	yes	yes	No
Road Way Along Dike	yes	yes	No

St n Drain Log

Date 10/6/10

Gravel Parking lot	Clear	Silt Filters	Hay Bales
Dike drain south corner	Yes	Yes / Good	New
Roadway	Yes	Yes / good	New
Drain #1	Yes	Yes / good	New
Drain #2	Yes	Yes / good	New
Drain #3	Yes	Yes / Good	New
Drain #4	Yes	Yes / good	New

Tank Farm	Clear	Silt Filters	Hay Bales
Condensate Tk	Yes	Yes	Good/New
Tk 9	Yes	Yes	Good / New
Tk 4	Yes	Yes	Good / New
Tk 7	Yes	Yes	Good / New

M/T Parking Lot	Clear	Silt Filters	Hay Bales
By Boiler room Door	Yes	Yes	NO
North Corner By Office	Yes	Yes	NO
North Of Rack	Yes	Yes	NO
Center Of Lot	Yes	Yes	NO
Shop	Yes	No	NO
South East Of Rack	Yes	Good	NO
Dike Approach	Yes	Good	NO
Road Way Along Dike	Yes	Good	No

1 Drain Log

Date 9/15/16/10

Gravel Parking lot	Clear	Silt Filters	Hay Bales
Dike drain south corner			
Roadway			
Drain #1		All Silt Filters Change	All Hay Bales Changed
Drain #2			
Drain #3			
Drain #4			

Tank Farm	Clear	Silt Filters	Hay Bales
Condensate Tk			
Tk 9		All Silt Filters changed	All Hay Bales Change
Tk 4			
Tk 7			

M/T Parking Lot	Clear	Silt Filters	Hay Bales
By Boiler room Door			
North Corner By Office		All Silt Filters Changed	
North Of Rack			
Center Of Lot			
Shop			
South East Of Rack			
Dike Approach			
Road Way Along Dike			

Drains Cleaned By NRC 9-10-10

Storm Drain Log

Date 9/4/10

Gravel Parking lot	Clear	Silt Filters	Hay Bales
Dike drain south corner	Yes	ok	could be changed
Roadway	yes	ok	N/A
Drain #1	yes	ok	ok
Drain #2	yes	ok	ok
Drain #3	yes	ok	ok
Drain #4	yes	ok	ok

Tank Farm	Clear	Silt Filters	Hay Bales
Condensate Tk	yes	ok	ok
Tk 9	yes	ok	could be changed
Tk 4	yes	ok	could be changed
Tk 7	yes	ok	ok

M/T Parking Lot	Clear	Silt Filters	Hay Bales
By Boiler room Door	yes	ok	N/A
North Corner By Office	yes	ok	
North Of Rack	yes	ok	
Center Of Lot	yes	ok	
Shop	yes	ok	
South East Of Rack	yes	ok	
Dike Approach	yes	ok	
Road Way Along Dike	yes	ok	

ı Drain Log

Date 8-7-10

Gravel Parking lot	Clear	Silt Filters	Hay Bales
Dike drain south corner	yes	ok	All could be changed
Roadway	yes	ok	
Drain #1	yes	ok	
Drain #2	yes	ok	
Drain #3	yes	ok	
Drain #4	yes	ok	

Tank Farm	Clear	Silt Filters	Hay Bales
Condensate Tk	yes	ok	could be changed
Tk 9	yes	ok	
Tk 4	yes	ok	
Tk 7	yes	ok	

M/T Parking Lot	Clear	Silt Filters	Hay Bales
By Boiler room Door	yes	ok	
North Corner By Office	yes	ok	
North Of Rack	yes	ok	
Center Of Lot	yes	ok	
Shop	yes	ok	
South East Of Rack	yes	ok	
Dike Approach	yes	ok	
Road Way Along Dike	yes	ok	

Drain Log

Date 7-31-10

Gravel Parking lot	Clear	Silt Filters	Hay Bales
Dike drain south corner	yes	ok	ok
Roadway	↓	↓	↓
Drain #1	↓	↓	↓
Drain #2	↓	↓	↓
Drain #3	↓	↓	↓
Drain #4	↓	↓	↓

Tank Farm	Clear	Silt Filters	Hay Bales
Condensate Tk	yes	ok	ok
Tk 9	↓	↓	↓
Tk 4	↓	↓	↓
Tk 7	↓	↓	↓

M/T Parking Lot	Clear	Silt Filters	Hay Bales
By Boiler room Door	yes	ok	NA
North Corner By Office	↓	↓	↓
North Of Rack	↓	↓	↓
Center Of Lot	↓	↓	↓
Shop	↓	↓	↓
South East Of Rack	↓	↓	↓
Dike Approach	↓	↓	↓
Road Way Along Dike	↓	↓	↓

Storm Drain Log

Date 6-4-10

Gravel Parking lot	Clear	Silt Filters	Hay Bales
~~Dike drain south corner~~	~~yes~~	~~OK~~	~~OK~~
Roadway	yes	OK	OK
Drain #1	yes	OK	OK
Drain #2	yes	OK	OK
Drain #3	yes	OK	OK
Drain #4	yes	OK	OK

Tank Farm	Clear	Silt Filters	Hay Bales
Condensate Tk	yes	OK	OK
Tk 9	yes	OK	OK
Tk 4	yes	OK	OK
Tk 7	yes	OK	OK

M/T Parking Lot	Clear	Silt Filters	Hay Bales
By Boiler room Door	yes	OK	N/A
North Corner By Office	yes	OK	N/A
North Of Rack	yes	OK	N/A
Center Of Lot	yes	OK	N/A
Shop	yes	OK	N/A
South East Of Rack	yes	OK	N/A
Dike Approach	yes	OK	N/A
Road Way Along Dike	yes	OK	N/A

Drain Log

Date 5-5-10

Gravel Parking lot	Clear	Silt Filters	Hay Bales
Dike drain south corner			
Roadway	yes	ok	ok
Drain #1	yes	ok	ok
Drain #2	yes	ok	ok
Drain #3	yes	ok	ok
Drain #4	yes	ok	ok

Tank Farm	Clear	Silt Filters	Hay Bales
Condensate Tk	yes	ok	ok
Tk 9	yes	ok	ok
Tk 4	yes	ok	ok
Tk 7	yes	ok	ok

M/T Parking Lot	Clear	Silt Filters	Hay Bales
By Boiler room Door	yes	ok	N/A
North Corner By Office	yes	ok	N/A
North Of Rack	yes	ok	N/A
Center Of Lot	yes	ok	N/A
Shop	yes	ok	N/A
South East Of Rack	yes	ok	N/A
Dike Approach	yes	ok	N/A
Road Way Along Dike	yes	ok	N/A

Storm Drain Log

Date 4-4-10

Gravel Parking lot	Clear	Silt Filters	Hay Bales
~~Dike drain south corner~~			
Roadway	Yes	OK	ok
Drain #1	Yes	OK	
Drain #2	Yes	OK	
Drain #3	Yes	OK	
Drain #4	Yes	OK	

Tank Farm	Clear	Silt Filters	Hay Bales
Condensate Tk	Yes	Ok	ok
Tk 9	Yes	OK	OK
Tk 4	Yes	OK	OK
Tk 7	Yes	Ok	OK

M/T Parking Lot	Clear	Silt Filters	Hay Bales
By Boiler room Door	Yes	OK	N/A
North Corner By Office	Yes	OK	N/A
North Of Rack			N/A
Center Of Lot	Yes	OK	N/A
Shop	Yes	OK	N/A
South East Of Rack			N/A
Dike Approach	Yes	OK	N/A
Road Way Along Dike	Yes	OK	N/A

Storm Drain Log

Date 3-5-10

Gravel Parking lot	Clear	Silt Filters	Hay Bales
Dike drain south corner	yes	ok	ok
Roadway	↓	↓	↓
Drain #1			
Drain #2			
Drain #3			
Drain #4			

Tank Farm	Clear	Silt Filters	Hay Bales
Condensate Tk	yes	ok	ok
Tk 9	↓	↓	↓
Tk 4			
Tk 7			

M/T Parking Lot	Clear	Silt Filters	Hay Bales
By Boiler room Door	yes	ok	NA
North Corner By Office	↓	↓	↓
North Of Rack			
Center Of Lot			
Shop			
South East Of Rack			
Dike Approach			
Road Way Along Dike			

ı Drain Log

Date 2-11-10

Gravel Parking lot	Clear	Silt Filters	Hay Bales
Dike drain south corner	yes	ok	ok
Roadway	↓	↓	↓
Drain #1			
Drain #2			
Drain #3			
Drain #4			

Tank Farm	Clear	Silt Filters	Hay Bales
Condensate Tk	yes	ok	ok
Tk 9	↓	↓	↓
Tk 4			
Tk 7			

M/T Parking Lot	Clear	Silt Filters	Hay Bales
By Boiler room Door	yes	ok	NA
North Corner By Office	↓	↓	↓
North Of Rack			
Center Of Lot			
Shop			
South East Of Rack			
Dike Approach			
Road Way Along Dike			

Storm Drain Log

Date 1-8-10

Gravel Parking lot	Clear	Silt Filters	Hay Bales
Dike drain south corner	ok	ok	ok
Roadway	ok	↓	↓
Drain #1	ok		
Drain #2	ok		
Drain #3	ok		
Drain #4	ok		re-positioned / ok

Tank Farm	Clear	Silt Filters	Hay Bales
Condensate Tk	ok	ok	ok
Tk 9	ok	↓	↓
Tk 4	ok		
Tk 7	ok		

M/T Parking Lot	Clear	Silt Filters	Hay Bales
By Boiler room Door	ok	ok	NA
North Corner By Office	ok	↓	↓
North Of Rack	ok		
Center Of Lot	ok		
Shop	ok		
South East Of Rack	ok		
Dike Approach	ok		
Road Way Along Dike	ok		

ı Drain Log

Date 11-12-09

Gravel Parking lot	Clear	Silt Filters	Hay Bales
Dike drain south corner	OK	Replaced with new	Replaced with new
Roadway	ok	↓	↓
Drain #1	ok		
Drain #2	ok		
Drain #3	OK		
Drain #4	ok		

Tank Farm	Clear	Silt Filters	Hay Bales
Condensate Tk	OK	Replaced with new	Replaced with new
Tk 9	OK	↓	↓
Tk 4	ok		
Tk 7	OK		

M/T Parking Lot	Clear	Silt Filters	Hay Bales
By Boiler room Door	ok	OK	NA
North Corner By Office	OK	NA	↓
North Of Rack	ok	↓	
Center Of Lot	ok		
Shop	OK		
South East Of Rack	ok		
Dike Approach	OK		
Road Way Along Dike	ok		

1 Drain Log

Date 7-14-09

Gravel Parking lot	Clear	Silt Filters	Hay Bales
Dike drain south corner	ok	ok	ok
Roadway	ok	ok	replaced 2 bales
Drain #1	ok	ok	ok
Drain #2	ok	ok	ok
Drain #3	ok	ok	ok
Drain #4	ok	ok	ok

Tank Farm	Clear	Silt Filters	Hay Bales
Condensate Tk	ok	ok	ok
Tk 9	ok	ok	↓
Tk 4	ok	ok	↓
Tk 7	ok	ok	↓

M/T Parking Lot	Clear	Silt Filters	Hay Bales
By Boiler room Door	ok	ok	None needed
North Corner By Office	ok	NA	↓
North Of Rack	ok	↓	↓
Center Of Lot	ok	↓	↓
Shop	ok	↓	↓
South East Of Rack	ok	↓	↓
Dike Approach	ok	↓	↓
Road Way Along Dike	ok	↓	↓

ı Drain Log

Date 5-19-09

Gravel Parking lot	Clear	Silt Filters	Hay Bales
Dike drain south corner	ok	Checked and ok	ok
Roadway	↓	↓	↓
Drain #1			
Drain #2			
Drain #3			
Drain #4			

Tank Farm	Clear	Silt Filters	Hay Bales
Condensate Tk	ok	checked and ok	ok
Tk 9	↓	↓	↓
Tk 4			
Tk 7			

M/T Parking Lot	Clear	Silt Filters	Hay Bales
By Boiler room Door	ok	Checked and ok	NA
North Corner By Office	↓	NA	↓
North Of Rack			
Center Of Lot			
Shop			
South East Of Rack			
Dike Approach			
Road Way Along Dike			

Drain Log

Date 2/9/09

Gravel Parking lot	Clear	Silt Filters	Hay Bales
Dike drain south corner	OK	OK	Good
Roadway	OK	OK	Fair / 1 missing
Drain #1	OK	OK	Good
Drain #2	OK	OK	Good
Drain #3	Some Debris / cleaned	OK	Good
Drain #4	Some Debris/cleaned	OK	Good

Tank Farm	Clear	Silt Filters	Hay Bales
Condensate Tk	OK	OK	Good
Tk 9	OK	OK	Good
Tk 4	OK	OK	Good
Tk 7	OK	OK	Good

M/T Parking Lot	Clear	Silt Filters	Hay Bales
By Boiler room Door	OK	OK	None
North Corner By Office	OK	OK	None
North Of Rack	OK	OK	None
Center Of Lot	OK	OK	None
Shop	OK	OK	None
South East Of Rack	OK	OK	None
Dike Approach	OK	OK	None
Road Way Along Dike	OK	OK	None

[illegible] Drain Log

Date 11-04-08

Gravel Parking lot	Clear	Silt Filters	Hay Bales
Dike drain south corner	ok	replaced	replaced
Roadway	ok		replaced
Drain #1	ok		" "
Drain #2	ok		" "
Drain #3	ok		" "
Drain #4	ok		" "

Tank Farm	Clear	Silt Filters	Hay Bales
Condensate Tk	ok	replaced	replaced
Tk 9	ok		" "
Tk 4	ok		" "
Tk 7	ok		" "

M/T Parking Lot	Clear	Silt Filters	Hay Bales
By Boiler room Door	ok	replaced	none needed
North Corner By Office	ok	none needed	" "
North Of Rack	ok	" "	" "
Center Of Lot	ok	" "	" "
Shop	ok	" "	" "
South East Of Rack	ok	" "	" "
Dike Approach	ok	" "	" "
Road Way Along Dike	ok	" "	" "

1 Drain Log

Date 7-9-08

Gravel Parking lot	Clear	Silt Filters	Hay Bales
Dike drain south corner	ok	ok	ok
Roadway	ok	↓	↓
Drain #1	ok		
Drain #2	ok		
Drain #3	ok		
Drain #4	ok		

Tank Farm	Clear	Silt Filters	Hay Bales
Condensate Tk	ok	ok	ok
Tk 9	ok	ok	↓
Tk 4	ok	replaced	
Tk 7	ok	ok	

M/T Parking Lot	Clear	Silt Filters	Hay Bales
By Boiler room Door	ok	ok	none needed
North Corner By Office	ok	none needed	↓
North Of Rack	ok	↓	
Center Of Lot	ok		
Shop	ok		
South East Of Rack	ok		
Dike Approach	ok		
Road Way Along Dike	ok		

ı Drain Log

Date 3/22/08

Gravel Parking lot	Clear	Silt Filters	Hay Bales
Dike drain south corner	OK	Replaced	OK
Roadway	OK	Replaced	OK
Drain #1	OK	OK	OK
Drain #2	OK	OK	OK
Drain #3	OK	OK	OK
Drain #4	OK	OK	OK

Tank Farm	Clear	Silt Filters	Hay Bales
Condensate Tk	OK	Replaced	OK
Tk 9	OK	Replaced	OK
Tk 4	OK	Replaced	OK
Tk 7	OK	Replaced	OK

M/T Parking Lot	Clear	Silt Filters	Hay Bales
By Boiler room Door	OK	Replaced	Not needed
North Corner By Office	OK	N/A	" "
North Of Rack	OK	N/A	" "
Center Of Lot	OK	N/A	" "
Shop	OK	N/A	" "
South East Of Rack	OK	N/A	" "
Dike Approach	OK	N/A	" "
Road Way Along Dike	OK	N/A	" "

Drain Log

Date 01-04-08

Gravel Parking lot	Clear	Silt Filters	Hay Bales
Dike drain south corner	ok	ok	ok
Roadway	ok	replaced	↓
Drain #1	ok	ok	↓
Drain #2	ok	ok	↓
Drain #3	ok	ok	↓
Drain #4	ok	ok	↓

Tank Farm	Clear	Silt Filters	Hay Bales
Condensate Tk	ok	ok	ok
Tk 9	ok	↓	↓
Tk 4	ok	↓	↓
Tk 7	ok	↓	↓

M/T Parking Lot	Clear	Silt Filters	Hay Bales
By Boiler room Door	ok	ok	none needed
North Corner By Office	ok	none needed	↓
North Of Rack	ok	↓	↓
Center Of Lot	ok	↓	↓
Shop	ok	↓	↓
South East Of Rack	ok	↓	↓
Dike Approach	ok	↓	↓
Road Way Along Dike	ok	↓	↓

[illegible] Drain Log

Date 11/11/07

Gravel Parking lot	Clear	Silt Filters	Hay Bales
Dike drain south corner	Cleaned	Replaced	Replaced
Roadway	Cleaned	Replaced	Replaced
Drain #1	Cleaned	Replaced	Replaced
Drain #2	Cleaned	Replaced	Replaced
Drain #3	Cleaned	Replaced	Replaced
Drain #4	Cleaned	Replaced	Replaced

Tank Farm	Clear	Silt Filters	Hay Bales
Condensate Tk	Cleaned	Replaced	
Tk 9	Cleaned	Replaced	Replaced
Tk 4	Cleaned	Replaced	Replaced
Tk 7	Cleaned	Replaced	

M/T Parking Lot	Clear	Silt Filters	Hay Bales
By Boiler room Door	Cleaned	Replaced	
North Corner By Office	Cleaned		
North Of Rack	Cleaned		
Center Of Lot	Cleaned		
Shop	Cleaned		
South East Of Rack	Cleaned		
Dike Approach	Cleaned		
Road Way Along Dike	Cleaned.		

[illegible] Drain Log

Date 7/20/07

RS.

Gravel Parking lot	Clear	Silt Filters	Hay Bales
Dike drain south corner	clean	OK	OK
Roadway	clean	OK	OK
Drain #1	clean	OK	OK
Drain #2	clean	OK	OK
Drain #3	clean	OK	OK
Drain #4	clean	Replaced	Replaced

Tank Farm	Clear	Silt Filters	Hay Bales
Condensate Tk	OK	OK	
Tk 9	OK	OK	OK
Tk 4	OK	OK	OK
Tk 7	OK	OK	

M/T Parking Lot	Clear	Silt Filters	Hay Bales
By Boiler room Door	OK	OC	
North Corner By Office	OK		
North Of Rack	OK		
Center Of Lot	OK		
Shop	OK		
South East Of Rack	OK		
Dike Approach	OK		
Road Way Along Dike	OK		

S— ı Drain Log

Date 5-21-07

Gravel Parking lot	Clear	Silt Filters	Hay Bales
Dike drain south corner	Clean	ok	ok
Roadway	Clean	ok	ok
Drain #1	Clean	ok	ok
Drain #2	Clean	ok	ok
Drain #3	Clean	ok	ok
Drain #4	Clean	needs replaced	needs replaced

Tank Farm	Clear	Silt Filters	Hay Bales
Condensate Tk	ok	ok	
Tk 9	ok	ok	needs replaced
Tk 4	ok	ok	needs replaced
Tk 7	ok	ok	

M/T Parking Lot	Clear	Silt Filters	Hay Bales
By Boiler room Door	ok	ok	
North Corner By Office	ok		
North Of Rack	ok		
Center Of Lot	ok		
Shop	? water back up		
South East Of Rack	ok		
Dike Approach	ok.		
Road Way Along Dike	ok		

3 ... 1 Drain Log

Date 3/11/07

Gravel Parking lot	Clear	Silt Filters	Hay Bales
Dike drain south corner	Clear	OK	OK
Roadway	Clear	OK	3/28/07 Replaced Hay Bales
Drain #1	Clear	OK	OK
Drain #2	Clear	OK	OK
Drain #3	Clear	OK	3/28/07 Replaced Hay Bale
Drain #4	Clear	OK	OK

Tank Farm	Clear	Silt Filters	Hay Bales
Condensate Tk	OK	OK	OK
Tk 9	OK	OK	OK
Tk 4	OK	OK	OK
Tk 7	OK	OK	OK

M/T Parking Lot	Clear	Silt Filters	Hay Bales
By Boiler room Door	Clear		
North Corner By Office	Clear		
North Of Rack	Clear		
Center Of Lot	Clear		
Shop	Clear		
South East Of Rack	Clear		
Dike Approach	Clear		
Road Way Along Dike	Clear		

S— ı Drain Log

Date 5/18/00

Gravel Parking lot	Clear	Silt Filters	Hay Bales
Dike drain south corner	YES	OK	OK
Roadway	YES	OK	OK
Drain #1	YES	OK	OK
Drain #2	YES	OK	OK
Drain #3	YES	OK	OK
Drain #4	YES	OK	OK

Tank Farm	Clear	Silt Filters	Hay Bales
Condensate Tk	YES	OK	OK
Tk 9	YES	OK	OK
Tk 4	YES	OK	OK
Tk 7	YES	OK	OK

M/T Parking Lot	Clear	Silt Filters	Hay Bales
By Boiler room Door	YES	OK	
North Corner By Office	YES	OK	
North Of Rack	YES	OK	
Center Of Lot	YES	OK	
Shop	YES	OK	
South East Of Rack	YES	OK	
Dike Approach	YES	OK	
Road Way Along Dike	YES	OK	

S— ı Drain Log

Date 3-18-06

Gravel Parking lot	Clear	Silt Filters	Hay Bales
Dike drain south corner	yes	OK	OK
Roadway	yes	OK	OK
Drain #1	yes	OK	OK
Drain #2	yes	OK	OK
Drain #3	yes	OK	OK
Drain #4	yes	OK	OK

Tank Farm	Clear	Silt Filters	Hay Bales
Condensate Tk	yes	OK	OK
Tk 9	yes	OK	OK
Tk 4	yes	OK	OK
Tk 7	yes	OK	OK

M/T Parking Lot	Clear	Silt Filters	Hay Bales
By Boiler room Door	yes	OK	
North Corner By Office	yes	OK	
North Of Rack	yes	OK	
Center Of Lot	yes	OK	
Shop	yes	OK	
South East Of Rack	yes	OK	
Dike Approach	yes	OK	
Road Way Along Dike	yes	OK	

[illegible] Drain Log

Date 12/10/06

Gravel Parking lot	Clear	Silt Filters	Hay Bales
Dike drain south corner	Clear	OK	OK
Roadway	clear	OK	OK
Drain #1	Clear	OK	OK
Drain #2	Clear	OK	OK
Drain #3	Clear	OK	OK
Drain #4	clear	OK	OK

Tank Farm	Clear	Silt Filters	Hay Bales
Condensate Tk	OK	OK	OK
Tk 9	OK	OK	OK
Tk 4	OK	OK	OK
Tk 7	OK	OK	OK

M/T Parking Lot	Clear	Silt Filters	Hay Bales
By Boiler room Door	Clear		
North Corner By Office	Clear		
North Of Rack	Clear		
Center Of Lot	Clear		
Shop	Clear		
South East Of Rack	Clear		
Dike Approach	Clear		
Road Way Along Dike	clear		

ı Drain Log

Date 8/18/06

Gravel Parking lot	Clear	Silt Filters	Hay Bales
Dike drain south corner	Cleaned	Replaced	Replaced
Roadway	Cleaned	Replaced	Replaced
Drain #1	Cleaned	Replaced	Replaced
Drain #2	Cleaned	Replaced	Replaced
Drain #3	Cleaned	Replaced	Replaced
Drain #4	Cleaned	Replaced	Replaced

Tank Farm	Clear	Silt Filters	Hay Bales
Condensate Tk	Cleaned	Replaced	Replaced
Tk 9	Cleaned	Replaced	Replaced
Tk 4	Cleaned	Replaced	Replaced
Tk 7	Cleaned	Replaced	Replaced

M/T Parking Lot	Clear	Silt Filters	Hay Bales
By Boiler room Door	Cleaned		
North Corner By Office	Cleaned		
North Of Rack	Cleaned		
Center Of Lot	Cleaned		
Shop	Cleaned		
South East Of Rack	Cleaned		
Dike Approach	Cleaned		
Road Way Along Dike	Cleaned		

1 Drain Log

Date 7/04/06

Gravel Parking lot	Clear	Silt Filters	Hay Bales
Dike drain south corner	yes	OK	OK
Roadway	yes	OK	OK
Drain #1	yes	OK	OK
Drain #2	yes	OK	OK
Drain #3	yes	OK	OK
Drain #4	yes	OK	OK

Tank Farm	Clear	Silt Filters	Hay Bales
Condensate Tk	yes	OK	OK
Tk 9	yes	OK	OK
Tk 4	yes	OK	OK
Tk 7	yes	OK	OK

M/T Parking Lot	Clear	Silt Filters	Hay Bales
By Boiler room Door	yes	OK	
North Corner By Office	yes	OK	
North Of Rack	yes	OK	
Center Of Lot	yes	OK	
Shop	yes	OK	
South East Of Rack	yes	OK	
Dike Approach	yes	OK	
Road Way Along Dike	yes	OK	

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE

GENERATOR

NON-HAZARDOUS WASTE MANIFEST	1. Generator's US EPA ID No.	Manifest Document No. 006 1	2. Page 1 of

3. Generator's Name and Mailing Address
Acme
MR Rail Sid
5460 Riverport Ave.
Portland OR

4. Generator's Phone ( ) 207 [illegible]

5. Transporter 1 Company Name	6. US EPA ID Number	A. State Transporter's ID
ARC E3	ORS000020644	B. Transporter 1 Phone 503 283 1150
7. Transporter 2 Company Name	8. US EPA ID Number	C. State Transporter's ID
		D. Transporter 2 Phone
9. Designated Facility Name and Site Address	10. US EPA ID Number	E. State Facility's ID
OREC 4153 N Cutter RD Portland OR		F. Facility's Phone 503 2[illegible]

11. WASTE DESCRIPTION	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. [illegible]	1	[illegible]	3000	GAL
b. Separator Slop Tank				
c. Vaults And ALL Drains				
d.				

G. Additional Descriptions for Materials Listed Above
Annual Maint + Cleaning

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
PO # 170272
JOB # 24096

TRANSPORTER

16. **GENERATOR'S CERTIFICATION:** I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name	Signature	Date Month	Day	Year
[illegible]	[illegible]			

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date Month	Day	Year
Brannan Barker	[illegible]	8	16	06

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.

Printed/Typed Name	Signature	Date Month	Day	Year

PRINTED ON RECYCLED PAPER USING SOYBEAN INK. PRINTED WITH SOY INK

INVOICE

NRC ENVIRONMENTAL SERVICES, INC.

6211 N Ensign St.
Portland, OR 97217
503-283-1150
Fax: 503-289-6568

NRC ENVIRONMENTAL SERVICES

REMIT TO:
NRC Environmental Services
Box # 2886 PO Box 8500
Philadelphia, PA 19178-2886

Invoice Date: September 7, 2006

Clean separator drain & sump

Invoice No.: 513030
NRC Job No.: 24096
Purchase Order No.:

Customer: McCall Oil
5480 NW Front Ave.
Portland, OR 97210

Contact: Ron Brown
Phone: 503-702-9044

Terms: Net 30 Days

Job Description: Clean oil water separators and catch basins. Transport waste for disposal.

Job Location: 5480 NW Front Ave. Portland, OR

Job Date (s): 8/16/06-8/31/06

Progress Billing:
Final Billing: X

QUANTITY	DESCRIPTION	UOM	UNIT PRICE	EXTENDED PRICE
1	Labor	Lot	$1,125.00	$1,125.00
1	Equipment	Lot	$3,497.50	$3,497.50
1	Materials	Lot	$140.00	$140.00
1	Outside Services	Lot	$4,445.33	$4,445.33
			INVOICE SUBTOTAL	$9,207.83
			SALES TAX	$0.00
			INVOICE TOTAL	$9,207.83

Currency: USD

THANK YOU FOR YOUR BUSINESS

Bob Hyke, Project Supervisor
503-283-1150

OK per

William Annen, Operations Manager

OR CCB #89527
WA CCB #NRCENS963CR
FED ID #: 91-1572532

A 1.5% PER MONTH FINANCE CHARGE WILL BE ASSESSED FOR ALL PAST DUE INVOICES.

ENVIRONMENTAL INC.					CUSTOMER NAME:	McCall Oil		PHONE:	503-702-9044	PROGRESS:	
JOB NUMBER:			24096		ADDRESS:	5480 NW Front Ave.		CONTACT:	Ron Brown	FINAL:	X
INVOICE NUMBER:			513030	DATE:	9/7/06	Portland, OR 97210		PO No.:			
JOB DESCRIPTION:			Clean oil water separators and catch basins. Transport waste for disposal.								
JOB LOCATION:			5480 NW Front Ave. Portland, OR								

LABOR CHARGES				DATE	DATE	DATE	DATE	DATE	DATE	DATE		
Name	Position	Rate	Charge	8/16/06	8/23/06	8/31/06					TOTAL	CHARGE
Brandan Baker	EO			*See 120 BBL Vacuum Truck*							0.0	$0.00
Jeff Walters	EO			*See 120 BBL Vacuum Truck*							0.0	$0.00
Romeo Quiray	TE	ST	$45.00	8.00							8.0	$360.00
Romeo Quiray	TE	OT	$67.50	1.00							1.0	$67.50
John Neukirch	TE	ST	$45.00		8.00						8.0	$360.00
John Neukirch	TE	OT	$67.50		5.00						5.0	$337.50
											0.0	$0.00
											0.0	$0.00
											0.0	$0.00
											0.0	$0.00
											0.0	$0.00
											0.0	$0.00
								LABOR TOTAL				$1,125.00

EQUIPMENT CHARGES	RATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE		
		8/16/06	8/23/06	08/31/06					TOTAL	CHARGE
120 BBL Vacuum Truck, Operated/Hour	$90.00	8.00	8.00	4.00					20.0	$1,800.00
120 BBL Vacuum Truck, Operated, Overtime/Hour	$105.00	3.00	6.50						9.5	$997.50
Truck, Gear 1-3 Ton/Day	$125.00	1.00	1.00						2.0	$250.00
Pressure Washer, 3000psi, hot/Hour	$45.00		10.00						10.0	$450.00
									0.0	$0.00
									0.0	$0.00
									0.0	$0.00
									0.0	$0.00
									0.0	$0.00
									0.0	$0.00
									0.0	$0.00
						EQUIP TOTAL				$3,497.50

MATERIALS CHARGES	RATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE		
		8/16/06	8/23/06	8/31/06					TOTAL	CHARGE
Level D PPE/Each	$35.00	2.00	2.00						4.0	$140.00
									0.0	$0.00
									0.0	$0.00
									0.0	$0.00
									0.0	$0.00
									0.0	$0.00
									0.0	$0.00
									0.0	$0.00
									0.0	$0.00
						MATL TOTAL				$140.00

MISC. CHARGES	RATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE		
		08/16/06	08/23/06	08/31/06					TOTAL	CHARGE
Disposal: Oil Re-Refining	15%	$ 2,069.25	$ 1,191.25	$ 605.00					$ 3,865.50	$4,445.33
									$ -	$0.00
									$ -	$0.00
						MISC TOTAL				$4,445.33
						TOTAL CHARGES				$9,207.83

** RECEIVING RECORD ** No. 6004049

RECEIVED BY: Oil Re-Refining Company EPA# WAD980986012 PLANT:PORTLAND
4150 N. Suttle Road Phone (503) 286-8352 EMPLOYEE:RL
Portland, OR 97217 Fax (503) 286-5027 PAGE: 1

RECEIVED FROM: NRC Environmental Customer ID# 3716
6211 N Ensign St Phone:
DATE:08/16/2006 Portland,OR 97217 Driver: BRANDON

QTY.	UNIT	ITEM	MNF	%H20	%SOLID	B/L#
1.	EACH	Truck Wash Out GEN: MCCALL OIL	N	0.%	%	
1.	EACH	Hydro Clor-D-Tect Kit GEN: MCCALL OIL	N	0.%	0.%	0

TOTAL EAC 2.

3347.	GAL.	Emulsified Oil & Water GEN: MCCALL OIL HCDT 0 PPM. PH 7. PROFILE ON FILE. JOB# 24096. PO# 170272.	N	95.%	%	
650.	GAL.	Oily Solids GEN: MCCALL OIL HCDT 0 PPM. PROFILE ON FILE. JOB# 24096. PO# 170272.	N	0.%	%	

TOTAL GAL 3997.

Customer warrents that the waste petroleum products being received do not contain any contaminants including, without limitation, pesticides, chlorinated solvents at total concentrations greater than 1000 PPM, PCB's geater than 2 PPM, or any other material classified as hazardous waste by 40 CFR part 261, subparts C and D (implementing the Federal Resource Conservation and Recovery Act) or by any State or local hazardous waste classification program. Should laboratory tests find this waste product not in compliance with 40 CFR part 261 customer agrees to pay for all disposal costs incurred.

Signed X Brandon T. Acker DATE:08/16/2006

Invoice

ORRCO
Oil Re-Refining Company

Date	Invoice #
8/31/2006	194804

4150 N Suttle Road, Portland, OR. 97217-7717

Bill To	Ship To
NRC Environmental Services 6211 N Ensign Street Portland, OR. 97217	Mc CAll Oil

P.O. No.	Terms	Due Date	Account #	Ship Date	Ship Via	BL #
170272	Net 10 Days	9/10/2006	3716	8/23/2006	Self	6004135

Description	Qty	Rate	Amount
Emulsified Oil	4,765	0.25	1,191.25

Subtotal	$1,191.25
Sales Tax (0.0%)	$0.00
Total	$1,191.25
Payments/Credits	$0.00
Balance Due	$1,191.25

We accept all major credit cards.

A 1.5% Service charge or a $5.00 minimum is charged for invoices not paid within our terms.

Phone #	Fax #	E-mail	Web Site
503-286-8352	503-286-5027	Suee@ORRCO.biz	www.ORRCO.biz

** RECEIVING RECORD ** No. 6004135

RECEIVED BY: Oil Re-Refining Company EPA# WAD980986012 PLANT:PORTLAND
4150 N. Suttle Road Phone (503) 286-8352 EMPLOYEE:JEJ
Portland, OR 97217 Fax (503) 286-5027 PAGE: 1

RECEIVED FROM: NRC Environmental Customer ID# 3716
6211 N Ensign St Phone:
DATE:08/23/2006 Portland,OR 97217 Driver: BRANDON

QTY.	UNIT	ITEM	MNF	%H20	%SOLID	B/L#
1.	EACH	Truck Wash Out	N	0.%	0.%	0
	GEN:	MCCALL OIL				

TOTAL EAC 1.

4765.	GAL.	Emulsified Oil & Water	N	99.%	%	
	GEN:	MCCALL OIL				
		PASSED SNIFFER. PH-7. PROFILE ON FILE.				

TOTAL GAL 4765.

Customer warrents that the waste petroleum products being received do not contain any contaminants including, without limitation, pesticides, chlorinated solvents at total concentrations greater than 1000 PPM, PCB's geater than 2 PPM, or any other material classified as hazardous waste by 40 CFR part 261, Subparts C and D (implementing the Federal Resource Conservation and Recovery Act) or by any State or local hazardous waste classification program. Should laboratory tests find this waste product not in compliance with 40 CFR part 261 customer agrees to pay for all disposal costs incurred.

Signed X _____ DATE:08/23/2006

Invoice

ORRCO
Oil Re-Refining Company

4150 N Suttle Road, Portland, OR. 97217-7717

Date	Invoice #
9/7/2006	194930

Bill To	Ship To
NRC Environmental Services 6211 N Ensign Street Portland, OR. 97217	Mc Call Oil

P.O. No.	Terms	Due Date	Account #	Ship Date	Ship Via	BL #
170272	Net 10 Days	9/17/2006	3716	8/31/2006	Self	6004385

Description	Qty	Rate	Amount
Emulsified Oil	2,200	0.25	550.00
Truck Wash	1	55.00	55.00

Subtotal	$605.00
Sales Tax	$0.00
Total	$605.00
Payments/Credits	$0.00
Balance Due	$605.00

We accept all major credit cards.

A 1.5% Service charge or a $5.00 minimum is charged for invoices not paid within our terms.

Phone #	Fax #	E-mail	Web Site
503-286-8352	503-286-5027	Suee@ORRCO.biz	www.ORRCO.biz

** RECEIVING RECORD ** No. 6004385

RECEIVED BY: Oil Re-Refining Company EPA# WAD980986012 PLANT:PORTLAND
4150 N. Suttle Road Phone (503) 286-8352 EMPLOYEE:RL
Portland, OR 97217 Fax (503) 286-5027 PAGE: 1

RECEIVED FROM: NRC Environmental Customer ID# 3716
6211 N Ensign St Phone:
DATE:08/31/2006 Portland,OR 97217 Driver: JEFF

QTY.	UNIT	ITEM	MNF	%H20	%SOLID	B/L#
1.	EACH	Truck Wash Out	N	0.%	0.%	0
	GEN:	MCCALL OIL				

TOTAL EAC 1.

2200.	GAL.	Emulsified Oil & Water	N	40.%	%	
	GEN:	MCCALL OIL				
		PASSED SNIFFER. TOO EMULSIFIED TO PH. PROFILE ON FILE.				
		PO# 170272.				

TOTAL GAL 2200.

2200 gal @ .25 = $550.00

1 wash @ 55.00

$605.00

194930

Customer warrents that the waste petroleum products being received do not contain any contaminants including, without limitation, pesticides, chlorinated solvents at total concentrations greater than 1000 PPM, PCB's geater than 2 PPM, or any other material classified as hazardous waste by 40 CFR part 261, Subparts C and D (implementing the Federal Resource Conservation and Recovery Act) or by any State or local hazardous waste classification program. Should laboratory tests find this waste product not in compliance with 40 CFR part 261 customer agrees to pay for all disposal costs incurred.

Signed X _____ DATE:08/31/2006

Invoice

ORRCO
Oil Re-Refining Company

4150 N Suttle Road, Portland, OR. 97217-7717

Date	Invoice #
8/23/2006	194552

Bill To

NRC Environmental Services
6211 N Ensign Street
Portland, OR. 97217

Ship To PO

Mc Call Oil 170272

P.O. No.	Terms	Due Date	Account #	Ship Date	Ship Via	BL #
	Net 10 Days	9/2/2006	3716	8/16/2006	Self	6004049

Description	Qty	Rate	Amount
Emulsified Oil	3,347	0.25	836.75
Oily Solids	650	1.85	1,202.50
Hydrochloride Test	1	30.00	30.00

RECEIVED
AUG 24 2006
By

We accept all major credit cards.

A 1.5% Service charge or a $5.00 minimum is charged for invoices not paid within our terms.

Subtotal	$2,069.25
Sales Tax (0.0%)	$0.00
Total	$2,069.25
Payments/Credits	$0.00
Balance Due	$2,069.25

Phone #	Fax #	E-mail	Web Site
503-286-8352	503-286-5027	Suec@ORRCO.biz	www.ORRCO.biz

ORRCO
Oil Re-Refining Company

Head Office
4150 N. Suttle Rd.
Portland, OR 97217
1-800-367-8894

RECEIVING RECORD

R 01-07-0911-007

Received From:
NRC Environmental
6211 N Ensign St
Portland OR 97217
EPA# -0-
Phone: -0-
Customer ID# 3716
Driver: jeff

Receiving Location: Plant #
FPI
4150 N. Suttle Road
Portland, OR 97217

Phone 503-286-8352
EPA# ORD980975692

Date	Terms	Written By	Sales Rep.	Page
09/11/07	-0-	Jim	Rick	1 of 1

Line	Qty.	Unit	Item	%H20	Manifest #	B/L#	Net Qty
1	1	Each	*Truck Wash Out* Generator ID# 3716 McCall Oil *Total Each 1.*				
2	2600	Gal.	*Emulsified Oil & Water* Generator ID# 3716 McCall Oil profile onfile. job#30626. po#239600. *Total Gal. 2600.*	70 %			

Customer warrents that the waste petroleum products being received do not contain any contaminants including, without limitation, pesticides, chlorinated solvents at total concentrations greater than 1000 PPM, PCB's greater than 2 PPM, or any other material classified as hazardous waste by 40 CFR part 261, Subparts C and D (implementing the Federal Resource Conservation and Recovery Act) or by any other state or local hazardous waste classification program. Should Laboratory tests find this product not in compliance with 40 CFR part 261 customer agrees to pay all disposal costs incurred.

Signed X _____ DATE: 09/11/07

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of 1	3. Emergency Response Phone 1 800 33 SPILL	4. Waste Tracking Number

5. Generator's Name and Mailing Address MCCALL OIL
5480 NW FRONT
PORTLAND OR 97210

Generator's Site Address (if different than mailing address)

Generator's Phone:

6. Transporter 1 Company Name NRC FS 6211 N KENSIGN PORTLAND OR — U.S. EPA ID Number ORQ000020644

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address ORRCO
9150 N SUTTLE RD
PORTLAND OR — U.S. EPA ID Number

Facility's Phone:

9a. HM	9b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
	1. OIL + WATER	1	TT	4162	G	
	2.					
	3.					
	4.					

13. Special Handling Instructions and Additional Information
~~DIRECT BILL WITH ORRCO~~
(MCCALL OIL HAS) JOB # 30626
PO # 239600

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name Ronald W. [illegible] — Signature — Month 9 Day 11 Year 07

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name BRANDAN BAKER — Signature [illegible] — Month 9 Day 11 Year 07

Transporter 2 Printed/Typed Name — Signature — Month Day Year

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 17a

Printed/Typed Name James Jones — Signature [illegible] — Month 09 Day 11 Year 07

GENERATOR — INT'L — TRANSPORTER — FACILITY

169-BLC-O 6 10498

TRANSPORTER #1

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number
2. Page 1 of
3. Emergency Response Phone
4. Waste Tracking Number

5. Generator's Name and Mailing Address: McCall Oil, 5480 NW Front Ave, Portland OR 97210

Generator's Site Address (if different than mailing address)

Generator's Phone:

6. Transporter 1 Company Name: NRCES — U.S. EPA ID Number: ORQ000060244

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: ORRCO, Sutter Rd, Portland OR — U.S. EPA ID Number:

Facility's Phone:

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
	1. Oily Water (Material Not Regulated By DOT	1	TT	2600	gal	
	2.					
	3.					
	4.					

13. Special Handling Instructions and Additional Information
Job # 3062C
PO # 239600

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Ronald D. Brown — Signature: Ronald D. Brown — Month 09 Day 11 Year 07

15. International Shipments: ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Jeff Walters — Signature: [signature] — Month 09 Day 11 Year 07

Transporter 2 Printed/Typed Name — Signature — Month Day Year

17. Discrepancy

17a. Discrepancy Indication Space: ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number:

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: James Jones — Signature: [signature] — Month 09 Day 11 Year 07

GENERATOR — INT'L — TRANSPORTER — FACILITY

169-BLC-O 6 10498

TRANSPORTER #1

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of 1	3. Emergency Response Phone 1 800 33 SPILL	4. Waste Tracking Number

GENERATOR

5. Generator's Name and Mailing Address: McCall Oil, 5180 NW Front, Portland OR 97210

Generator's Site Address (if different than mailing address)

Generator's Phone:

6. Transporter 1 Company Name: NRC 6211 N Ensign Portland OR 97217 — U.S. EPA ID Number: ORQ000020644

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: ORRCO, 4150 N Suttle Rd, Portland OR — U.S. EPA ID Number

Facility's Phone:

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
	1. Oil + WATER WATER 94% NOT REGULATED	1	TT	1793	G	
	2.					
	3.					
	4.					

13. Special Handling Instructions and Additional Information

PO # 239600
JOB # 30626
CONTACT MIKE BRADY 503 283 1150

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Brian Dodge — Signature — Month / Day / Year

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. — Port of entry/exit: — Transporter Signature (for exports only): — Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: BRANDAN BAKER — Signature: B L BL — Month 9 Day 12 Year 07

Transporter 2 Printed/Typed Name — Signature — Month / Day / Year

FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month / Day / Year

18. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: James Jones — Signature — Month 09 Day 12 Year 07

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of 1	3. Emergency Response Phone 1 800 33 SPILL	4. Waste Tracking Number

GENERATOR

5. Generator's Name and Mailing Address: McCall oil, 5480 NW Front, Portland OR 97210

Generator's Site Address (if different than mailing address)

Generator's Phone:

6. Transporter 1 Company Name: NRC RS 6211 N Ensign Portland OR — U.S. EPA ID Number: ORQ0000206 44

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: ORRCO, 4150 N Suttle Rd, Portland OR — U.S. EPA ID Number:

Facility's Phone:

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
	1. Oil & WATER 99% WATER NOT REGULATED	1	TT	4667	G	
	2.					
	3.					
	4.					

13. Special Handling Instructions and Additional Information

PO # 239600
JOB # 30626

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name — Signature — Month Day Year

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Brandan Baker — Signature: [signature] — Month 09 Day 17 Year 07

Transporter 2 Printed/Typed Name — Signature — Month Day Year

FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: James Jones — Signature: [signature] — Month 09 Day 17 Year 07

ORRCO
Oil Re-Refining Company

Head Office
4150 N. Suttle Rd.
Portland, OR 97217
1-800-367-8894

RECEIVING RECORD

R 01-07-0912-007

Received From:
NRC Environmental
6211 N Ensign St
Portland OR 97217
EPA# -0-
Phone: -0-
Customer ID# *3716*
Driver: brandon

Receiving Location: Plant #
FPI
4150 N. Suttle Road
Portland, OR 97217
Phone 503-286-8352
EPA# ORD980975692

Date	Terms	Written By	Sales Rep.	Page
09/12/07	-0-	Jim	Rick	*1* of *1*

Line	Qty.	Unit	Item	%H20	Manifest #	B/L#	Net Qty
1	*1*	*Each*	*Truck Wash Out* Generator ID# 3716 McCall Oil *Total Each 1.*				
2	*1793*	*Gal.*	*Emulsified Oil & Water* Generator ID# 3716 McCall Oil profile onfile. job#30626. po#239600. *Total Gal. 1793.*	*94 %*			

Customer warrents that the waste petroleum products being received do not contain any contaminants including, without limitation, pesticides, chlorinated solvents at total concentrations greater than 1000 PPM, PCB's greater than 2 PPM, or any other material classified as hazardous waste by 40 CFR part 261, Subparts C and D (implementing the Federal Resource Conservation and Recovery Act) or by any other state or local hazardous waste classification program. Should Laboratory tests find this product not in compliance with 40 CFR part 261 customer agrees to pay all disposal costs incurred.

Signed X _____ DATE: 09/12/07

RECEIVING RECORD

ORRCO
Oil Re-Refining Company

Head Office
4150 N. Suttle Rd.
Portland, OR 97217
1-800-367-8894

R 01-07-0912-004

Received From:
NRC Environmental
6211 N Ensign St
Portland OR 97217
EPA# -0-
Phone: -0-
Customer ID# 3716
Driver: brandon

Receiving Location: Plant #
FPI
4150 N. Suttle Road
Portland, OR 97217

Phone 503-286-8352
EPA# ORD980975692

Date	Terms	Written By	Sales Rep.	Page
09/12/07	-0-	Jim	Rick	1 of 1

Line	Qty.	Unit	Item	%H20	Manifest #	B/L#	Net Qty
1	1	Each	Hydro Clor-D-Tect Kit Generator ID# 3716 McCall Oil				
			Total Each 1.				
2	4597	Gal.	Emulsified Oil & Water Generator ID# 3716 McCall Oil profile onfile. job#30626. po#239600.	98 %			
3	70	Gal.	Oily Solids Generator ID# 3716 McCall Oil profile onfile. job#30626. po#239600.				
			Total Gal. 4667.				

Customer warrents that the waste petroleum products being received do not contain any contaminants including, without limitation, pesticides, chlorinated solvents at total concentrations greater than 1000 PPM, PCB's greater than 2 PPM, or any other material classified as hazardous waste by 40 CFR part 261, Subparts C and D (implementing the Federal Resource Conservation and Recovery Act) or by any other state or local hazardous waste classification program. Should Laboratory tests find this product not in compliance with 40 CFR part 261 customer agrees to pay all disposal costs incurred.

Signed X _____ DATE: 09/12/07

ORRCO
Oil Re-Refining Company

Head Office
4150 N. Suttle Rd.
Portland, OR 97217
1-800-367-8894

RECEIVING RECORD

R 01-07-0911-006

Received From:
NRC Environmental
6211 N Ensign St
Portland OR 97217
EPA# -0-
Phone: -0-
Customer ID# 3716
Driver: Brandon

Receiving Location: Plant #
FPI
4150 N. Suttle Road
Portland, OR 97217

Phone 503-286-8352
EPA# ORD980975692

Date	Terms	Written By	Sales Rep.	Page
09/11/07	-0-	Jim	Rick	1 of 1

Line	Qty.	Unit	Item	%H20	Manifest #	B/L#	Net Qty
1	4162	Gal.	Emulsified Oil & Water Generator ID# 3716 McCall Oil profile onfile. Total Gal. 4162.	96 %			

Customer warrents that the waste petroleum products being received do not contain any contaminants including, without limitation, pesticides, chlorinated solvents at total concentrations greater than 1000 PPM, PCB's greater than 2 PPM, or any other material classified as hazardous waste by 40 CFR part 261, Subparts C and D (Implementing the Federal Resource Conservation and Recovery Act) or by any other state or local hazardous waste classification program. Should Laboratory tests find this product not in compliance with 40 CFR part 261 customer agrees to pay all disposal costs incurred.

Signed X _____ DATE: 09/11/07

ENVIRONMENTAL PAPER & PRINT (503) 257-4771

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of 1	3. Emergency Response Phone 1 800 33 SPILL	4. Waste Tracking Number

Generator's Name and Mailing Address: MCCALL OIL, 5480 NW FRONT, PORTLAND OR

Generator's Site Address (if different than mailing address):

Generator's Phone: 503 221 6400 TOM

6. Transporter 1 Company Name: NRC GRH NENSIGN PORTLAND OR 503 283 1150 — U.S. EPA ID Number: ORQ000020644

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: ORECO, 4150 N SATTLER, PORTLAND OR — U.S. EPA ID Number:

Facility's Phone:

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
	1. OIL + WATER NOT REGULATED BY DOT	1	TT	209	GAL	
	2.					
	3.					
	4.					

13. Special Handling Instructions and Additional Information

JOB # 30626

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Ronald M. Dean — Signature: — Month 10 Day 11 Year 07

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: BRANDAN BAKER — Signature: — Month 10 Day 11 Year 07

Transporter 2 Printed/Typed Name — Signature — Month Day Year

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: John C. Hanks — Signature: — Month 10 Day 11 Year 07

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

DESIGNATED FACILITY TO GENERATOR

INVOICE

NRC ENVIRONMENTAL SERVICES, INC.

6211 N Ensign St.

Portland, OR 97217
503-283-1150
Fax: 503-289-6568

NRC ENVIRONMENTAL SERVICES

REMIT TO:
NRC Environmental Services
Box # 2886 PO Box 8500
Philadelphia, PA 19178-2886
ACH Payment Instructions
NRC Environmental Services, Inc.
Bank of New York
ABA 021000018
Acct#56100110015608001

1836900

Invoice Date: September 18, 2007

Invoice No.: 520908
NRC Job No.: 30626
Purchase Order No.:

Customer: McCall Oil
5480 NW Front Ave.
Portland, OR 97210

Contact: Ron Brown
Phone: 503-702-9044

Terms: Net 30 Days

Job Description: Clean catch basins and separators. Transport waste for disposal.

Job Location: 5480 NW Front Ave. Portland, OR

Job Date (s): 9/11/07-9/12/07

Progress Billing:
Final Billing: X

QUANTITY	DESCRIPTION	UOM	UNIT PRICE	EXTENDED PRICE
1	Labor	Lot	$518.00	$518.00
1	Equipment	Lot	$2,707.50	$2,707.50
1	Materials	Lot	$110.00	$110.00
1	Outside Services	Lot	$4,027.88	$4,027.88

INVOICE SUBTOTAL	$7,363.38
SALES TAX	$0.00
INVOICE TOTAL	$7,363.38

Currency: USD

THANK YOU FOR YOUR BUSINESS

Mike Bradley, Project Supervisor
503-283-1150

William Annen, Operations Manager

OR CCB #89527
WA CCB #NRCENS963CR
FED ID #: 91-1572532

A 1.5% PER MONTH FINANCE CHARGE WILL BE ASSESSED FOR ALL PAST DUE INVOICES.

On 9/03/08 McCall Oil and Chemical hired NRC to clean all the Storm water catch basins, vaults, dock sump and the 4 API Oil Water Separators. Both slop tanks were also emptied along with the oil side of the API separator. All slops and sludge were hauled to ORRCo for disposal.

34 hay bales were put around storm water catch basins located in unpaved areas. Silt filters were put into ALL the catch basins through out the facility.

Include are the invoices for work performed and disposal amounts.

If you have any questions please call 503-219-9044 or my email is ron@mccalloil.com. Thanks Ron Brown

McCall Oil

INVOICE

NRC ENVIRONMENTAL SERVICES, INC.

6211 N Ensign St.

Portland, OR 97217
503-283-1150
Fax: 503-289-6568

NRC ENVIRONMENTAL SERVICES

REMIT TO:
NRC Environmental Services
Box # 2886 PO Box 8500
Philadelphia, PA 19178-2886
ACH Payment Instructions
NRC Environmental Services, Inc.
Bank of New York
ABA 021000018
Acct#56100110015608001

COPY

Invoice Date: September 16, 2008

Invoice No.: 531003
NRC Job No.: 37516
Purchase Order No.:

Customer: McCall Oil
5480 NW Front Ave
Portland, OR 97210

Contact: Ron Brown
Phone: 503-702-9044

Terms: Net 30 Days

Job Description: Clean catch basins and separators

Job Location: 5480 NW Front Ave. Portland, OR

Job Date (s): 9/3/08-9/4/08

Progress Billing:
Final Billing: x

QUANTITY	DESCRIPTION	UOM	UNIT PRICE	EXTENDED PRICE
1	Labor	Lot	$2,042.00	$2,042.00
1	Equipment	Lot	$2,144.83	$2,144.83
1	Materials	Lot	$175.00	$175.00
			INVOICE SUBTOTAL	$4,361.83
			SALES TAX	$0.00
			INVOICE TOTAL	$4,361.83

Currency: USD

THANK YOU FOR YOUR BUSINESS

Mike Bradley, Project Manager
503-283-1150

OR CCB #89527
WA CCB #NRCENS963CR
FED ID #: 91-1572532

A 1.5% PER MONTH FINANCE CHARGE WILL BE ASSESSED FOR ALL PAST DUE INVOICES.

ORRCO
Oil Re-Refining Company

Head Office
4150 N. Suttle Rd.
Portland, OR 97217
1-800-367-8894

RECEIVING RECORD

R 01-08-0904-007

Received From:
McCALL OIL
5480 NW FRONT
PORTLAND OR 97210
EPA#: -0-
Phone: 503-221-6400
Customer ID#: 2873
Driver: NRC

Receiving Location: Plant #
FPI
4150 N. Suttle Road
Portland, OR 97217
Phone: 503-286-8352
EPA#: ORD980975692

Date	Terms	Written By	Sales Rep.	Page
09/04/08	-0-	Laureano	Steve	1 of 1

Line	Qty.	Unit	Item	%H20	Manifest #	B/L#	Net Qty
1	4897	Gal.	*Emulsified Oil & Water* Generator ID# 2873 McCALL OIL profile on file. *Total Gal. 4897.*	98 %			

Customer warrants that the waste petroleum products being received do not contain any contaminants including, without limitation, pesticides, chlorinated solvents at total concentrations greater than 1000 PPM, PCB's greater than 2 PPM, or any other material classified as hazardous waste by 40 CFR part 261, Subparts C and D (implementing the Federal Resource Conservation and Recovery Act) or by any other state or local hazardous waste classification program. Should Laboratory tests find this product not in compliance with 40 CFR part 261 customer agrees to pay all disposal costs incurred.

Signed X _____ DATE: 09/04/08

ENVIRONMENTAL PAPER & PRINT (503) 257-9771

IS MEMORANDUM is an acknowledgment that a Bill of Lading has been issued and is not the original bill of lading nor a copy or duplicate, covering the property named herein, and is issued solely for filing or record.

DESIGNATE WITH AN (X) BY - TRUCK ☐ FREIGHT ☐

EIVED, subject to individually determined rates or contracts that have been agreed to in writing between the carrier and shipper, applicable, otherwise to the rates, classifications and rules that have been established, in effect on the date hereof, copies of which are available, on request, perly described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated below, to the said carrier (the word carrier being understood throughout this contract as meaning d properly over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the terms and conditions of the Uniform Domestic Straight n or perpendition in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all set forth (1) in Official, Southern, Western and Illinois Freight Classifications in effect on the date hereof, if this is a rail or a rail-water shipment, or (2) in the applicable motor carrier classification or tariff if this is a motor carrier shipment. hereby certifies that he is familiar with all the terms and conditions of the said bill of lading, including those on the back thereof, set forth in the classification or tariff which governs the transportation of this shipment, and the said terms and nditions are hereby agreed to by the shipper and accepted for himself and his assigns.

DATE 9 4 08

SHIPPER'S NO.

FROM MCCALL OIL 5480 NW FRONT AVE PORTLAND OR

CARRIER

CARRIER'S NO. 37516

(SCAC)

COLLECT ON DELIVERY SHIPMENTS, THE LETTERS "C.O.D." MUST APPEAR BEFORE NSIGNEE'S NAME – OR AS OTHERWISE PROVIDED IN ITEM 430, SEC. 1.

BY NRC 03

CONSIGNEE AND DESTINATION: ORCO 4150 N SUTTLE RD PORTLAND OR

ROUTE 120 03

DELIVERING CARRIER NRC

CAR OR VEHICLE INITIALS & NO. 2057 3135

(Mail or street address of consignee – For purposes of notification only.)

Units	HM	KIND OF PACKAGE, DESCRIPTION OF MATERIALS, SPECIAL MARKS, AND EXCEPTIONS	* WEIGHT (Sub. to Cor.)	Class or Rate	Ck. Col.
		SEPERATOR OIL + WATER + SLUDGE	4897	6A11	
		NOT REGULATED BY DOT			
		TO McCALL			

Subject to Section 7 of Conditions of applicable bill of lading, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:

The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of Consignor)

If charges are to be prepaid write or stamp here, "To be Prepaid."

Received $ _____ to apply in prepayment of the charges on the property described hereon.

(Agent or Cashier)

Per _____ (The signature here acknowledges only the amount prepaid)

Charges advanced: $ _____

When transporting hazardous materials include the technical or chemical name for n.o.s. (not otherwise specified) or generic description of material with appropriate UN or NA number as defined in US DOT Emergency Response Communication Standard (HM 126C). Provide emergency response phone number in case of incident or accident (in box at right).

EMERGENCY RESPONSE PHONE NO.

C.O.D. AMT. $

C.O.D. CHARGE TO BE PAID BY

SHIPPER ☐
CONSIGNEE ☐

NOTES

If the shipment moves between two ports by a carrier by water, the law requires that the bill of lading shall state whether it is carrier's or shipper's weight.

Avail the Boxes used for this shipment conform to the specifications set forth in the box maker's certificate thereon, and all other requirements of Consolidated Freight Classification.

Shipper's enquiry in lieu of stamp, not a part of bill of lading approved by the Interstate Commerce Commission.

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property.

The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding $ _____ per _____

This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

Signature

B.L. NRC DRIVER Shipper, Per _____ Agent _____ Per _____

(Permanent post office address of shipper)

MARK WITH "X" TO DESIGNATE HAZARDOUS MATERIAL AS DEFINED IN TITLE 49 OF FEDERAL REGULATIONS.

3

Customer warrents that the waste petroleum products being received do not contain any contaminants including, without limitation, pesticides, chlorinated solvents at total concentrations greater than 1000 PPM, PCB's greater than 2 PPM, or any other material classified as hazardous waste by 40 CFR part 261, Subparts C and D (implementing the Federal Resource Conservation and Recovery Act) or by any other state or local hazardous waste classification program. Should Laboratory tests find this product not in compliance with 40 CFR part 261 customer agrees to pay all disposal costs incurred.

Signed X _____ DATE: 09/04/08

THIS SHIPPING ORDER Must be legibly filled in in Ink, in Indelible Pencil, or in Carbon, and returned by the A... upon in writing between the carrier and shipper.

DESIGNATE WITH AN (X)
BY - TRUCK ☐ FREIGHT ☐

RECEIVED, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, applicable, otherwise to the rates, classifications and rules that have been established by the carrier and are available, on request, ...ty described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated below, which said carrier (the word carrier being understood throughout this contract as meaning ...or corporation in possession of the property under the contract) agrees to carry to the usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all ...of property over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the terms and conditions of the Uniform Domestic Straight ...g set forth (1) in Official, Southern, Western and Illinois Freight Classifications in effect on the date hereof, if this is a rail or a rail-water shipment, or (2) in the applicable motor carrier classification or tariff if this is a motor carrier shipment. Shipper hereby certifies that he is familiar with all the terms and conditions of the said bill of lading, including those on the back thereof, set forth in the classification or tariff which governs the transportation of this shipment, and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

FROM McCall Oil
5460 NW Front Ave
Portland OR

DATE 9 3 08

SHIPPER'S NO.

CARRIER'S NO.

CARRIER

BY NRC ES

(SCAC)

COLLECT ON DELIVERY SHIPMENTS, THE LETTERS "C.O.D." MUST APPEAR BEFORE CONSIGNEE'S NAME – OR AS OTHERWISE PROVIDED IN ITEM 430, SEC. 1.

CONSIGNEE AND DESTINATION
ORCO
1150 N SUTTLE
PORTLAND OR
(Mail or street address of consignee – For purposes of notification only.)

ROUTE 120 BBL

DELIVERING CARRIER

CAR OR VEHICLE INITIALS & NO. 2059 / 3135

No. Units	* H/M	KIND OF PACKAGE, DESCRIPTION OF MATERIALS, SPECIAL MARKS, AND EXCEPTIONS	* WEIGHT (Subj. to Cor.)	Class or Rate	Ck. Col.
1		CATCH BASINS + HOT DRAINS + OPERATORS + SHOPS OIL + WATER MIX	~~4400~~	~~Gal~~	
			4162	GAL	
		NRC JOB # 37516			
		Lonecline			

Subject to Section 7 of Conditions of applicable bill of lading, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of Consignor)

If charges are to be prepaid write or stamp here, "To be Prepaid."

Received $ _____ to apply in prepayment of the charges on the property described hereon.

(Agent or Cashier)

Per _____
(The signature here acknowledges only the amount prepaid)

Charges advanced: $ _____

*When transporting hazardous materials include the technical or chemical name for n.o.s. (not otherwise specified) generic description of material with prefixes UN or NA number as defined in US DOT Emergency Response Communication Standard (49 CFR 172.602). Provide emergency response phone number in case of incident or accident on box at right.

EMERGENCY RESPONSE PHONE NO.

C.O.D. AMT. $

C.O.D. CHARGE TO BE PAID BY
SHIPPER ☐
CONSIGNEE ☐

If the shipment moves between two ports by a carrier by water, the law requires that the bill of lading shall state whether it is carrier's or shipper's weight.
No fibre boxes used for this shipment conform to the specifications set forth in the box maker's certificate thereon, and all other requirements of Consolidated Freight Classification.
Shipper's imprint in lieu of stamp, not a part of bill of lading approved by the Interstate Commerce Commission.

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property.
The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding $ _____ per _____

This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

Signature

Brandon L Bobu NRC Shipper
(Signature and title of shipper)

Agent must detach and retain this Shipping Order and must sign the Original Bill of Lading.

2

MARK WITH "X" TO DESIGNATE HAZARDOUS MATERIAL AS DEFINED IN TITLE 49 OF FEDERAL REGULATIONS.

Customer warrants that the waste petroleum products being received do not contain any contaminants including, without limitation, pesticides, chlorinated solvents at total concentrations greater than 1000 PPM, PCB's greater than 2 PPM, or any other material classified as hazardous waste by 40 CFR part 261, Subparts C and D (implementing the Federal Resource Conservation and Recovery Act) or by any other state or local hazardous waste classification program. Should Laboratory tests find this product not in compliance with 40 CFR part 261 customer agrees to pay all disposal costs incurred.

Signed X _____ DATE: 09/03/08

ORRCO
Oil Re-Refining Company

Head Office
4150 N. Suttle Rd.
Portland, OR 97217
1-800-367-8894

RECEIVING RECORD

R 01-08-0904-011

Received From:
McCALL OIL
5480 NW FRONT
PORTLAND OR 97210
EPA# -0-
Phone: 503-221-6400
Customer ID# 2873
Driver: nrc

Receiving Location: Plant #
FPI
4150 N. Suttle Road
Portland, OR 97217

Phone: 503-286-8352
EPA# ORD980975692

Date	Terms	Written By	Sales Rep.	Page
09/04/08	-0-	Laureano	Steve	1 of 1

Line	Qty.	Unit	Item	%H20	Manifest #	B/L#	Net Qty
1	1	Each	Hydro Clor-D-Tect Kit Generator ID# 2873 McCALL OIL				
2	1	Each	Truck Wash Out Generator ID# 2873 McCALL OIL				
			Total Each 2.				
3	107	Gal.	Emulsified Oil & Water Generator ID# 2873 McCALL OIL profile on file, job#37516	60 %			
4	107	Gal.	Oily Solids Generator ID# 2873 McCALL OIL profile on file.	0 %			
			Total Gal. 214.				

Customer warrents that the waste petroleum products being received do not contain any contaminants including, without limitation, pesticides, chlorinated solvents at total concentrations greater than 1000 PPM, PCB's greater than 2 PPM, or any other material classified as hazardous waste by 40 CFR part 261, Subparts C and D (Implementing the Federal Resource Conservation and Recovery Act) or by any other state or local hazardous waste classification program. Should Laboratory tests find this product not in compliance with 40 CFR part 261 customer agrees to pay all disposal costs incurred.

Signed X _____ DATE: 09/04/08

...D MEMORANDUM (A copy in duplicate, covering the property herein, and is intended solely for filing or record.)

DESIGNATE WITH AN (X)
BY - TRUCK ☐ FREIGHT ☐

...EIVED, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, ...to the rates, classifications and rules that have been established by the carrier and are available, on request, ...property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated below, which said carrier (the word carrier being understood throughout this contract as meaning ...son or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all said property over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the terms and conditions of the Uniform Domestic Straight ...g set forth (1) in Official, Southern, Western and Illinois Freight Classifications in effect on the date hereof, if this is a rail or a rail-water shipment, or (2) in the applicable motor carrier classification or tariff if this is a motor carrier shipment. ...r hereby certifies that he is familiar with all the terms and conditions of the said bill of lading, including those on the back thereof, set forth in the classification or tariff which governs the transportation of this shipment, and the said terms and ...ns are hereby agreed to by the shipper and accepted for himself and his assigns.

...OM: McCall Oil
5980 NW Front Portland OR

DATE: 9 4 08

SHIPPER'S NO.

CARRIER

CARRIER'S NO. 37516

...COLLECT ON DELIVERY SHIPMENTS, THE LETTERS "C.O.D." MUST APPEAR BEFORE ...NSIGNEE'S NAME – OR AS OTHERWISE PROVIDED IN ITEM 430, SEC. 1

...NSIGNEE ...ND ...INATION:
ORRCO
4150 N Suttle
Portland OR

(Mail or street address of consignee – For purposes of notification only.)

BY: 120 35L (SCAC)

ROUTE: 2059 3135

DELIVERING CARRIER: WRC

CAR OR VEHICLE INITIALS & NO.

...Units	HM	KIND OF PACKAGE, DESCRIPTION OF MATERIALS, SPECIAL MARKS, AND EXCEPTIONS	* WEIGHT (Sub. to Cor.)	Class or Rate	Ck. Col.
1		SEPERATOR OIL + WATER SLUDGE			
		SOLIDS 1/2 SLUDGE + SOLIDS	214	GAL	
		# PLUS WASHOUT			
				GAL	
		TO McCALL			

Subject to Section 7 of Conditions of applicable bill of lading, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of Consignor)

If charges are to be prepaid write or stamp here, "To be Prepaid."

Received $ _____ to apply in prepayment of the charges on the property described hereon.

(Agent or Cashier)

Per _____

...n transporting hazardous materials include the technical or chemical name for n.o.s. (not otherwise specified) or generic description of material with ... EMERGENCY RESPONSE PHONE NO. ...

ORRCO
Oil Re-Refining Company

Head Office
4150 N. Suttle Rd.
Portland, OR 97217
1-800-367-8894

RECEIVING RECORD

R 01-08-0903-008

Received From:
McCALL OIL
5480 NW FRONT
PORTLAND OR 97210
EPA# -0-
Phone: 503-221-6400
Customer ID# 2873
Driver: NRO

Receiving Location: Plant #
FPI
4150 N. Suttle Road
Portland, OR 97217
Phone: 503-286-8352
EPA# ORD980975692

Date	Terms	Written By	Sales Rep.	Page
09/03/08	-0-	Laureano	Steve	1 of 1

Line	Qty.	Unit	Item	%H20	Manifest #	B/L#	Net Qty
1	1	Each	Hydro Clor-D-Tect Kit Generator ID# 2873 McCALL OIL				
			Total Each 1.				
2	4162	Gal.	Emulsified Oil & Water Generator ID# 2873 McCALL OIL profile attached.	99 %			
			Total Gal. 4162.				

Customer warrants that the waste petroleum products being received do not contain any contaminants including, without limitation, pesticides, chlorinated solvents at total concentrations greater than 1000 PPM, PCB's greater than 2 PPM, or any other material classified as hazardous waste by 40 CFR part 261, Subparts C and D (implementing the Federal Resource Conservation and Recovery Act) or by any other state or local hazardous waste classification program. Should Laboratory tests find this product not in compliance with 40 CFR part 261 customer agrees to pay all disposal costs incurred.

Signed X _____ DATE: 09/03/08

ENVIRONMENTAL PAPER & PRINT (503) 257-9771

Yearly Storm water Drains and oil water separator cleaning

Dear sirs,

On September 9th and 10th 2009 NRC was hired to clean out all the stor water drains, vaults and 4 bay separator. Also all the silt filters and hay bales were also replaced at this time. Enclosed are invoices for services and supplies.If you have any questions please call 503-702-9044

Thank You, Ron Brown

McCall Oil

NORTHWEST ENVIRONMENTAL
SUPPLY
P.O. BOX 321
OREGON CITY, OR 97045

204066

INVOICE

NAME: McCall Oil	SHIP TO:
ADDRESS: 5480 N. FRONT	ADDRESS: SAME
CITY, STATE, ZIP PORTLAND, OREGON 97210	CITY, STATE, ZIP

CUSTOMER'S ORDER:	~~SOLD BY:~~	TERMS:	~~SHIPPED VIA:~~	F.O.B.:	DATE:
RON BROWN		N-30		Delivered	9-2-09

12	Catch Basin Inserts - sediment	36	95	443	40
	615190				
	OK				
		Total Due		443	40
	Thank you				

INVOICE
©2001 REDIFORM® 7L737

NORTHWEST ENVIRONMENTAL SUPPLY
P.O. BOX 321
OREGON CITY, OR 97045

204068

INVOICE

NAME: McCall Oil	SHIP TO: SAME
ADDRESS: 5450 N. FRONT	ADDRESS:
CITY, STATE, ZIP: PORTLAND OR 97210	CITY, STATE, ZIP

CUSTOMER'S ORDER:	SOLD BY:	TERMS:	SHIPPED VIA:	F.O.B.:	DATE:
RON BROWN	—	N-30	DELIVERED	—	9-11-09

10	CATCH BASIN INSERTS - SEDIMENT	36	95	369	50
	TOTAL			369	50

THANK YOU

INVOICE
©2001 REDIFORM® 7L736

THIS SHIPPING ORDER Must be legibly filled in, in Ink, in Indelible Pencil, or in Carbon, and retained by the Agent.

DESIGNATE WITH AN (X)
BY - TRUCK ☐ FREIGHT ☐

RECEIVED, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications and rules that have been established by the carrier and are available, on request, the property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated below, which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all or any of said property over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the terms and conditions of the Uniform Domestic Straight Bill of Lading set forth (1) in Official, Southern, Western and Illinois Freight Classifications in effect on the date hereof, if this is a rail or a rail-water shipment, or (2) in the applicable motor carrier classification or tariff if this is a motor carrier shipment.

Shipper hereby certifies that he is familiar with all the terms and conditions of the said bill of lading, including those on the back thereof, set forth in the classification or tariff which governs the transportation of this shipment, and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

FROM VVIcCall Oil 5480 NW Front
AT Av. portland OR 97217

DATE 9-9-09

SHIPPER'S NO.

CARRIER'S NO.

ON COLLECT ON DELIVERY SHIPMENTS, THE LETTERS "C.O.D." MUST APPEAR BEFORE CONSIGNEE'S NAME – OR AS OTHERWISE PROVIDED IN ITEM 430, SEC. 1.

CONSIGNEE AND DESTINATION
ORRCO 4150 N Suttle Rd
Portland OR 97217

(Mail or street address of consignee – For purposes of notification only.)

CARRIER

BY NRC (SCAC)

ROUTE Local

DELIVERING CARRIER Wayne

CAR OR VEHICLE INITIALS & NO. 2059

No. Units	* H/M	KIND OF PACKAGE, DESCRIPTION OF MATERIALS, SPECIAL MARKS, AND EXCEPTIONS	* WEIGHT (Sub. to Cor.)	Class or Rate	Ck. Col.
1		Material Not regulated by DOT			
		Catch Basin Wash Water	3288	9	

Subject to Section 7 of Conditions of applicable bill of lading, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of Consignor)

If charges are to be prepaid write or stamp here, "To be Prepaid."

Received $ _____ to apply in prepayment of the charges on the property described hereon.

(Agent or Cashier)

Per _____
(The signature here acknowledges only the amount prepaid)

Charges advanced: $ _____

* When transporting hazardous materials include the technical or chemical name for n.o.s. (not otherwise specified) or generic description of material with appropriate UN or NA number as defined in US DOT Emergency Response Communication Standard (HM 126C). Provide emergency response phone number in case of incident or accident (in box at right).

EMERGENCY RESPONSE PHONE NO.

REMIT C.O.D. TO:

ADDRESS

C.O.D. AMT. $ N/A

C.O.D. CHARGE TO BE PAID BY
SHIPPER ☐
CONSIGNEE ☐

* If the shipment moves between two ports by a carrier by water, the law requires that the bill of lading shall state whether it is carrier's or shipper's weight.
The fibre boxes used for this shipment conform to the specifications set forth in the box maker's certificate thereon, and all other requirements of Consolidated Freight Classification.
Carrier's imprint in lieu of stamp, not a part of bill of lading approved by the Interstate Commerce Commission.

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property.
The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding $ _____ per _____

This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

Wayne Shurtl
Signature

Shipper

Permanent post office address of shipper

Agent must detach and retain this Shipping Order and must sign the Original Bill of Lading.

*MARK WITH "X" TO DESIGNATE HAZARDOUS MATERIAL AS DEFINED IN TITLE 49 OF FEDERAL REGULATIONS.

2

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No.

2. Page 1 of 1

GENERATOR

3. Generator's Name and Mailing Address
Precoll ...
Portland, OR

4. Generator's Phone ( )

5. Transporter 1 Company Name
NRCES

6. US EPA ID Number
ORQ000020644

A. State Transporter's ID

B. Transporter 1 Phone 503 253 1150

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address
ORRCO
4150 N. Smith Rd
Portland, OR 97217

10. US EPA ID Number

E. State Facility's ID

F. Facility's Phone 503 367 8377

11. WASTE DESCRIPTION

	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. Oily Water (material not regulated by DOT)	1	TT	4750	G
b.				
c.				
d.				

G. Additional Descriptions for Materials Listed Above

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name: Tom ...
Signature
Date: Month 09 Day 11 Year 09

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: MARK TAYLOR
Signature
Date: Month 09 Day 10 Year 09

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name
Signature
Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator; Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.

Printed/Typed Name
Signature
Date: Month Day Year

LINNTON FEED AND SEED
10920 NW Saint Helens Hwy
Portland, OR 97231
5032861291
5032869592

Sales Receipt

Transaction #: 78340
Account #: 1123
Date: 9/14/2009 Time: 3:41:36 PM
Cashier: DC Register #: 2

Item	Description	Amount
3017	STRAW 26 @ $7.95	$206.70
86103	STRIKER- THREE FLINT	$6.75
86102	LIGHTER SINGLE FLINT OX	$3.95

Sub Total	$217.40
Total	$217.40
Account	$217.40
Previous Balance	$87.25
New Balance	$304.65
Change Due	$0.00

78340
Thank you for shopping
LINNTON FEED AND SEED
Hope to see you again soon

LINNTON FEED AND SEED
10920 NW Saint Helens Hwy
Portland, OR 97231
5032861291
5032869592

Sales Receipt

Transaction #: 77731
Account #: 1123
Date: 9/8/2009 Time: 10:46:33 AM
Cashier: DC Register #: 2

Item	Description	Amount
6021904	VOLKMAN SUPER FINCH 4#	$7.75
3017	STRAW 10 @ $7.95	$79.50

Sub Total	$87.25
Total	$87.25
Account	$87.25
Previous Balance	$0.00
New Balance	$87.25
Change Due	$0.00

77731
Thank you for shopping
LINNTON FEED AND SEED
Hope to see you again soon

Storm water yearly maintenance year 2010

On 9/10/10 NRC was contracted to clean ALL the storm water catch basins at the McCall Oil facility located at 5480 N.W. Front Ave. They also vacuum the large culvert pipe near the Marine Terminal office, the vault between the marine terminal boiler room and separator, the oil side of the separator and they removed the liquid from the slop tank.

All silt filters in catch basins were replaced. New hay bales were put around catch basins that are located in gravel / dirt areas to help filter out silt also.

The separator was not emptied this year as all bays appear clean and very little if any silt was measured on the bottom of each bay.

RECEIVED, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications and rules that have been established by the carrier and are available, on request, the property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated below, which said carrier (the word carrier being understood throughout this contract as meanin any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of a or any of said property over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the terms and conditions of the Uniform Domestic Straig Bill of Lading set forth (1) in Official, Southern, Western and Illinois Freight Classifications in effect on the date hereof, if this is a rail or a rail-water shipment, or (2) in the applicable motor carrier classification or tariff if this is a motor carrier shipment.

Shipper hereby certifies that he is familiar with all the terms and conditions of the said bill of lading, including those on the back thereof, set forth in the classification or tariff which governs the transportation of this shipment, and the said terms an conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

BY - TRUCK ☐ FREIGHT L

FROM

AT Portland, OR

ON COLLECT ON DELIVERY SHIPMENTS, THE LETTERS "C.O.D." MUST APPEAR BEFORE CONSIGNEE'S NAME – OR AS OTHERWISE PROVIDED IN ITEM 430, SEC. 1.

CONSIGNEE AND DESTINATION: Pacific Power Vac.

(Mail or street address of consignee – For purposes of notification only.)

DATE: 9-10-10

CARRIER

BY: NRL

ROUTE

CAR OR VEHICLE INITIALS & NO.: 85854 / 3135

SHIPPER'S NO.

CARRIER'S NO.

DELIVERING CARRIER

No. Units	*H/M	KIND OF PACKAGE, DESCRIPTION OF MATERIALS, SPECIAL MARKS, AND EXCEPTIONS	* WEIGHT (Sub. to Cor.)	Class or Rate	CK Col.
1TT		Cadek Basin Water/only water	4200	Bal	
		Job# 53656.			

When transporting hazardous materials include the technical or chemical name for n.o.s. (not otherwise specified) or generic description of material with appropriate UN or HA number as defined in US DOT Emergency Response Communication Standard (HM 126C). Provide emergency response phone number in case of incident or accident (in box at right).

EMERGENCY RESPONSE PHONE NO.:

Subject to Section 7 of Conditions of applicable bill of lading, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:

The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of Consignor)

If charges are to be prepaid write or stamp here, "To be Prepaid."

Received $ _____ to apply in prepayment of the charges on the property described hereon.

(Agent or Cashier)

Per _____ (This signature here acknowledges only the amount prepaid)

Charges advanced: $ _____

REMIT C.O.D. TO:

ADDRESS

C.O.D. AMT. $

C.O.D. CHARGE TO BE PAID BY

SHIPPER ☐

CONSIGNEE ☐

* If the shipment moves between two ports by a carrier by water, the law requires that the bill of lading shall state whether it is carrier's or shipper's weight.
† The fibre boxes used for this shipment conform to the specifications set forth in the box maker's certificate thereon, and all other requirements of Consolidated Freight Classification.
‡ Shipper's imprint in lieu of stamp, not a part of bill of lading approved by the Interstate Commerce Commission.

Note–Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property.
The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding $ _____ per _____

This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

Signature

Tom

Shipper, Per _____ Agent _____ Per _____

Permanent post office address of shipper

*MARK WITH "X" TO DESIGNATE HAZARDOUS MATERIAL AS DEFINED IN TITLE 49 OF FEDERAL REGULATIONS.

6A-73N

3

NRC ENVIRONMENTAL SERVICES

Alameda	1605 Ferry Point, Alameda, CA 94501	510-749-1390
Kent	P.O. Box 39, Kent, WA 98035	253-872-8988
Long Beach	3777 Long Beach Blvd. First Floor, Long Beach, CA 90807	562-432-1304
Portland	6211 N. Ensign St., Portland, OR 97217	503-283-1150
San Diego	2950 Kutz Street, San Diego, CA 92110	619-235-3320
Seattle	9520 10th Ave. S., Suite 150, Seattle, WA 98108	206-607-3000
Spokane	4031 E. Trent Ave., Spokane, WA 99202	509-536-5960

Daily Work Report

Page 1 of 1

Customer: Mccall oil

Location: Portland terminal

Work Description: Clean catch basin and oil seperator

PW

Date: 8/29/11

Project Number: 58205

Customer PO/Proj #:

Task Code:

Business Line:

Position	L&I Codes	Er Call Out	Labor Personnel	Prevailing Wage Job Status EE Init	In	Out	In (Yes In Process)	Out	No Complete Total Hours
OR		No	Bryan Brown		0700	14:30			7.5

Item#	UOM	QTY	Equipment / Materials	Home Office	Units/ PO #	Item#	UOM	QTY	Equipment / Materials	Home Office	Units/ PO #
8006	Hour	7.5	Vacuum Truck 10BY	PDX	2074						
11852	mi	78	Mileage	PDX	25						

Vendor	PO #	Outside Services - (Manifest #'s, Disposal, Subcontractor Info. etc.)	UOM	QTY

Notes/Other Info:

ACKNOWLEDGEMENT

NRC REP. SIGNATURE

CUSTOMER REPRESENTATIVE SIGNATURE

PRINTED NAME/TITLE

PRINTED NAME/TITLE

ORRCO
Oil Re-Refining Company

Head Office
4150 N. Suttle Rd.
Portland, OR 97217
1-800-367-8894

RECEIVING RECORD

R 01-11-0829-005

Received From:
NRC Environmental-Portland
6211 N Ensign St
Portland OR 97217
EPA#
Phone: 503-283-1150
Customer ID# *3716*
Driver: Bryan

Receiving Location: Plant #
FPI
4150 N. Suttle Road
Portland, OR 97217

Phone 503-286-8352
EPA# ORD980975692

Date	Terms	Written By	Sales Rep.	Page
08/29/11	-0-	Ryan	0	1 of 1

Line	Qty.	Unit	Item	%H20	Manifest #	B/L#	Net Qty
1	1	Each	*Hydro Clor-D-Tect Kit* Generator ID# 0 See Comments Profile attached.McCall Oil.PO#447635.JO#58205				
2	1	Each	*Truck Wash Out* Generator ID# 0 See Comments Profile attached.McCall Oil.PO#447635.JO#58205 *Total Each 2.*				
3	2236	Gal.	*Emulsified Oil & Water* Generator ID# 0 See Comments Profile attached.McCall Oil.PO#447635.JO#58205 *Total Gal. 2236.*	40 %			

Customer warrents that the waste petroleum products being received do not contain any contaminants including, without limitation, pesticides, chlorinated solvents at total concentrations greater than 1000 PPM, PCB's greater than 2 PPM, or any other material classified as hazardous waste by 40 CFR part 261. Subparts C and D (implementing the Federal Resource Conservation and Recovery Act) or by any other state or local hazardous waste classification program. Should Laboratory tests find this product not in compliance with 40 CFR part 261 customer agrees to pay all disposal costs incurred.

Signed X _____ DATE: 08/29/11

ENVIRONMENTAL PAPER & PRINT (503) 257-9771

ORRCO
Oil Re-Refining Company

Invoice

8/31/2011	322902

4150 N Suttle Road
Portland, OR 97217-7717

Bill To
NRC Environmental 6211 EN Ensign ST Portland, OR 97217

Ship To
Mc All Oil 447635

Resale #	

Option	PO #	Terms	Due Date	Ship Date	BL#	Account #
Email & M...		10 Days Net	9/10/2011	8/29/2011	01110829005	3716

Description	Quantity	Price Each	Amount
Hydro Clor D Tech Kit	1	30.00	30.00
Truck Wash Out	1	55.00	55.00
Emulsified Oil & Water	2,236	0.25	559.00
Pay your bills online at: https://www.intuitbillpay.com/oilre-refiningcompanyinc.			

Subtotal	$644.00
Sales Tax (0.0%)	$0.00
Total	$644.00
Credits	$0.00
Balance	$644.00

We accept all major credit cards

A 1.5% per month service charge or a minimum of $5.00 will be charged for invoices not paid within our terms.

Phone #	Fax #	E-mail	ORRCO.BIZ
503-546-3540	503-546-3588	SUEE@ORRCO.BIZ	Web Site

NRC ENVIRONMENTAL SERVICES
a SEACOR company

Alameda	1605 Ferry Point, Alameda, CA 94501	510-749-1390
Kent	P.O. Box 39, Kent, WA 98035	253-872-8988
Long Beach	3777 Long Beach Blvd. First Floor, Long Beach, CA 90807	562-432-1304
Portland	6211 N. Ensign St., Portland, OR 97217	503-283-1150
San Diego	2950 Kutz Street, San Diego, CA 92110	619-235-3320
Seattle	9520 10th Ave. S., Suite 150, Seattle, WA 98108	206-607-3000
Spokane	4031 E. Trent Ave., Spokane, WA 99202	509-536-5960

Daily Work Report

Page 1 of 1

Customer: McCall oil

Date: 8/3/11

Location: Front St. Hwy 30 Bridge

Project Number: 58205

Customer PO/Proj #:

Task Code:

Business Line:

Work Description: Clean last two oil water Seperators. Suck out 2 Catch basins Suck out oil pit on loading dock.

✓ VW

Position	L&I Codes	Er Call Out	Labor Personnel	Prevailing Wage Job Status EE Init	In	Out	In (In Process)	Out (Complete)	Total Hours
Tech			Collin Potts Rate C		0800	1430			6.5
Tech			John Kiggins		0800	1430			6.5

Item#	UOM	QTY	Equipment / Materials	Home Office	Units/ PO #	Item#	UOM	QTY	Equipment / Materials	Home Office	Units/ PO #
✓7012	DAY	1	Stake Bed	pdx	1119						
✓1707	DAY	1	pressure washer	pdx	5072						
✓M430	each	4	fuel D ppe								

Vendor	PO #	Outside Services - (Manifest #'s, Disposal, Subcontractor Info. etc.)	UOM	QTY
Bravo			gal	1500

Notes/Other Info:

ACKNOWLEDGEMENT

NRC REP. SIGNATURE ✓ CUSTOMER REPRESENTATIVE SIGNATURE

PRINTED NAME/TITLE PRINTED NAME/TITLE

BRAVO environmental

WOR ORDER No. 017526 P

Order Date: 8/30/2011
Required Date:
Work Date: 8/31/2011

Ordered by: Tim Chalupa
Company: NRC / McCall Oil

Location: NW Front Ave
Portland, Or

Phone:
Job #: PO #:

Site Phone: 503-849-1845
Site Contact: Dean Groesbeck

SERVICE DESCRIPTION:
Run Vacuum Truck while crew pressure washes.

Prevailing Wage: ☐ YES ☑ NO

NOTES:

SUPPLIES USED:

Time Used To Gather Equipmnet: _____ Minutes

	QTY		QTY	Additonal Items:	QTY
PPE:		LEL/Air Monitor:			
Gloves:		Respirator:			
Duct Tape:		Resp Cartridges:			
Rain Gear/Tyvek:		Fall Protection:			
Flex Hose:		Tri-Pod:			

Operator: Scot m

Pre-trip: / am/pm Start Time: 8:45 am/pm Arrive@Job: 9:00 am/pm Start Job: 9:15 am/pm Finish Job: 2:00 am/pm
Leave Job: 2:00 am/pm Arrive@Yard: am/pm Off Load: am/pm Done w/Job: am/pm Stop Travel: am/pm

Laborer:

Pre-trip: am/pm Start Time: am/pm Arrive@Job: am/pm Start Job: am/pm Finish Job: am/pm
Leave Job: am/pm Arrive@Yard: am/pm Off Load: am/pm Done w/Job: am/pm Stop Travel: am/pm

Laborer:

Pre-trip: am/pm Start Time: am/pm Arrive@Job: am/pm Start Job: am/pm Finish Job: am/pm
Leave Job: am/pm Arrive@Yard: am/pm Off Load: am/pm Done w/Job: am/pm Stop Travel: am/pm

Disposal Site: Truck / Equip #: P-45 Manifest # for Disposal:

USDOT Waste Description (proper shipping name, hazard class, and ID	No.	Type	Quantity	~~Gallons~~/ Tons
(Not USDOT regulated)				1500

Signature: **Signed by:**

Signature above acknowledges approval of all work completed as stated on this work order. If you would like a copy emailed or faxed to you, please provide contact information. **Contact Info:**

4927 NW Front Ave., Portland, OR 97210 * phone: 503.261.9800 * fax: 503.261.9900 * toll free: 888.272.8644
www.BravoEnvironmental.com

NRC ENVIRONMENTAL SERVICES
a SEACOR company

Alameda	1605 Ferry Point, Alameda, CA 94501	510-749-1390
Kent	P.O. Box 39, Kent, WA 98035	253-872-8988
Long Beach	3777 Long Beach Blvd. First Floor, Long Beach, CA 90807	562-432-1304
Portland	6211 N. Ensign St., Portland, OR 97217	503-283-1150
San Diego	2950 Kutz Street, San Diego, CA 92110	619-235-3320
Seattle	9520 10th Ave. S., Suite 150, Seattle, WA 98108	206-607-3000
Spokane	4031 E. Trent Ave., Spokane, WA 99202	509-536-5960

Daily Work Report

Page 1 of 1

Customer: McCall Oil

Date: 8/30/14

Project Number: 55205

Location: Front Ave Hwy 30.

Customer PO/Proj #:

Task Code:

Business Line:

Work Description: Clean out 4 Bays of waste/oil Separators. pressure wash and Remove Solids.

LW

Prevailing Wage	Yes	No
Job Status	In Process	Complete

Position	L&I Codes	Er Call Out	Labor Personnel	EE Init	In	Out	In	Out	Total Hours
Tech			Collin Potts Rate C		0700	1630			8.5

Item#	UOM	QTY	Equipment / Materials	Home Office	Units/ PO #	Item#	UOM	QTY	Equipment / Materials	Home Office	Units/ PO #
102	1	DAY	F-350 gear truck	pdx	1105						
1853	Miles	18									
1207	1	DAY	pressure washer 3K psi	pdx	5072						
1430	each	1	level "D" ppe								
1779	each	1	4 gas /pid	pdx							

Vendor	PO #	Outside Services - (Manifest #'s, Disposal, Subcontractor Info. etc.)	UOM	QTY
~~PPV-Inc.~~ Bravo		120 Bbl Vacuum truck		
PPV-Inc.		disposal of liquids		

Notes/Other Info:

ACKNOWLEDGEMENT

NRC REP SIGNATURE JRG

CUSTOMER REPRESENTATIVE SIGNATURE

PRINTED NAME/TITLE

PRINTED NAME/TITLE

BRAVO environmental

Invoice

DATE	INVOICE #
8/30/2011	532640

BILL TO	JOB SITE
NRC Environmental Services 6211 N Ensign Street Portland, OR 97217	Front Ave Portland, OR

Site Contact	Rep	TERMS	PO #	Profile #	Project	Manifest #
	RLB	Net 30	4481160			29079P

Service D...	Ref#	Description	Quantity	Rate	Amount
8/30/2011	15993P	P45 & Operator	6.75	95.00	641.25
8/30/2011	15993P	10% Fuel Surcharge	641.25	0.10	64.13
8/30/2011	29079P	13,840 LBS 80% Industrial Water Disposal	1,661.46	0.20	332.29
8/30/2011	29079P	3,460 LBS 20% Industrial Sludge Disposal	1.73	100.00	173.00

RECEIVED SEP 08 2011 NRC ES PORTLAND

Remit to: Bravo Environmental NW, Inc.
6437 South 144th Street
Tukwila, WA 98168

To Pay by Phone
Please Call
Brittney at 425-424-9000

Subtotal	$1,210.67
Sales Tax (0.0%)	$0.00
Total	$1,210.67

4927 NW Front Ave. Portland, OR 97210 (503)261-9800 (503)261-9900 fax
www.BravoEnvironmental.com

BRAVO environmental

Invoice

DATE	INVOICE #
8/31/2011	532559

BILL TO	JOB SITE
NRC Environmental Services 6211 N Ensign Street Portland, OR 97217	Front Ave Portland, OR

Site Contact	Rep	TERMS	PO #	Profile #	Project	Manifest #
Dean Groesbeck	RLB	Net 30	448116			29101P

Service D...	Ref#	Description	Quantity	Rate	Amount
8/31/2011	17526P	P45 & Operator	5.25	95.00	498.75
8/31/2011	17526P	10% Fuel Surcharge	498.75	0.10	49.88
8/31/2011	29101P	12,272 LBS 80% Industrial Water Disposal	1,473.23	0.20	294.65
8/31/2011	29101P	3,068 LBS 20% Industrial Sludge Disposal	1.53	100.00	153.00

RECEIVED SEP 08 2011 BY

NRC PORTLAND

Remit to: Bravo Environmental NW, Inc.
6437 South 144th Street
Tukwila, WA 98168

To Pay by Phone
Please Call
Brittney at 425-424-9000

Subtotal	$996.28
Sales Tax (0.0%)	$0.00
Total	**$996.28**

4927 NW Front Ave. Portland, OR 97210 (503)261-9800 (503)261-9900 fax
www.BravoEnvironmental.com