



# Kosmos Mill Oil Cleanup a.k.a Riffe Lake

## SHARP Report — Part 1 of 2

<b>• SHARP first assessment</b>			<b>This section is blank if this is a SHARP first assessment</b>		
<ul style="list-style-type: none"> <li>• SHARP Tool Version v2024.02.20</li> <li>• SHARP rating Medium</li> <li>• SHARP date 8/22/2024</li> <li>• EJFlagged? ✓</li> <li>• LD data confidence level low</li> <li>• Cleanup milestone remedial investigation</li> <li>• Assessor Cam Penner-Ash</li> </ul>					
<b>Assessment Media</b>	<b>Scores</b>	<b>Conf</b>	<b>Additional Factors</b>		<b>Ecology Info</b>
Indoor air	D4	high	multiple chemical types	✓	ERTS n/a
Groundwater	C2	medium	risk to off-site people	⊗	CSID 9890
Surface water	D4	high	climate change impacts	✓	FSID 61559576
Sediment	B2	medium	plant/animal tissue data	⊗	VCP n/a
Soil	<b>A1</b>	high			UST ID 200555
					LUST ID 2289
<b>Location and Land Use Info</b>					
No Address on File , , Lewis County,			Responsible unit – SWRO		
Parcel SHARPen it			Land use – Recreational		
<b>Source/source area description</b>					
<p>The town of Kosmos was flooded with water in 1968 to create Riffe Lake. Currently, the surrounding land and water are used for recreational activities such as boating, camping and a hang-gliding landing area. In April 2019, the Department of Ecology (Ecology) was notified about seeps of Bunker C oil found on the eastern bank of Rainey Creek near Champion Haul Road southeast of Morton, Washington. The seeps are located at the site of a former Kosmos lumber mill near Riffe Lake within the boundaries of Tacoma Power’s Cowlitz River Project. Possible sources for the seeps are from</p>					
<b>Local demographics comments</b>					
<p>The Supplemental Demographic Index triggers an EJ flag with a 91 percentile in the state. The Environmental health index does not trigger with a rank of 2.</p> <p>The hazardous substances from this site remained on the census tract where the release occurred.</p>					
<b>Soil comments</b>					
<p>Soil contaminants of concern are TPH-G, TPH-D, TPH-O, TPH-D, TPH-O, benzo(k)fluoranthene, Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, Chrysene, Benzo(a)pyrene, cPAHs TEQ, fluoranthene, fluorene, pyrene, 1 Methylanththalene, Benzene, ethylbenzene, total xylenes, 1,2,4-Trimethylbenzene, 1,3,5 Trimethylbenzene, Lead, Mercury, Zinc. A majority of soil concentrations exceeding screening levels are located above 15 foot below ground surface.</p>					
<b>Groundwater comments</b>					
<p>Groundwater contaminants of concern are TPH-G, TPH-D, TPH-O, TPH-D, TPH-O, benzo(k)fluoranthene, Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, Chrysene, Benzo(a)pyrene, cPAHs TEQ, fluoranthene, fluorene, pyrene, 1 Methylanththalene, Benzene, ethylbenzene, total xylenes, 1,2,4-Trimethylbenzene, 1,3,5 Trimethylbenzene, Lead, Mercury, Zinc. Recent groundwater sampling results (mid-2024) illustrate that many soil</p>					

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<b>Surface water comments</b>
Surface water contaminants of concern include copper, zinc, TPH-D, TPH-O. No contaminated surface water has been observed at the site since the emergency remedial action. Future surface water samples will likely be screened against the larger GW and Soil CPOC list.
<b>Sediment comments</b>
No sediment contamination has been observed since the emergency remedial action. Most of the previous sediment exceedences were removed during said remedial action.
<b>Indoor air comments</b>
No buildings are on site so vapor intrusion is not a concern.
<b>Additional factors comments</b>
no comments

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### Site narrative summary

The first seep was discovered in April 2019 of "black oily liquid" coming out of the hill slope and in Rainey Creek. Sampling of seep material indicated presence of Bunker C petroleum hydrocarbons. A later inspection and Rainey Creek water sample showed no evidence of Bunk C oil near the seep.

During remedial investigation additional sheen and seeps were discovered. A cap was designed and installed in December of 2019 to reduce petroleum discharge potential into Rainey Creek. The work outlined in the Remedial Investigation Work Plan was complete mid-2024. A draft Remedial Investigation report was submitted to Ecology in August of 2024. The current list of CPOCs in groundwater and soil are: TPH-G, TPH-D, TPH-O, TPH-D, TPH-O, benzo(k)fluoranthene, Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, Chrysene, Benzo(a)pyrene, cPAHs TEQ, fluoranthene, fluorene, pyrene, 1 Methylanthalene, Benzene, ethylbenzene, total xylenes, 1,2,4-Trimethylbenzene, 1,3,5 Trimethylbenzene, Lead, Mercury, Zinc. These CPOCs have not been finalized as of August 2024.

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08/22/2024

SHARP First Assessment

Medium SHARP Rating

## SHARP Report — Part 2 of 2

Conceptual site model



### Assessment scores by environmental medium

