

## EDEN NORTH CAROLINA COAL ASH SPILL SEDIMENT-WATER INTERFACE RESULTS

NOTE: The data below represents sediment-water interface samples that were collected on April 4, 2014 by EPA START (Team 1) sampling teams. Water sample measurements are in milligrams per liter (mg/L) and/or micrograms per liter (µg/L) for these samples. The data is being compared to EPA ecological risk screening levels (ERSLs) to protect aquatic life in the surface water of the Dan River. Specific qualifiers and footnotes are listed below the summary table. These samples were collected at various locations along the river (refer to map for generalized locations). The detected concentrations in sediment-water interface are all below the EPA ERSLs.

Analyte	Ecological Screening Standard for Surface Water Samples <sup>1</sup>		Transect EPA 15 Left Descending	
<b>Sample Information</b>				
Sample ID	-		EDEN-EPA15-L-BW-20140404	
Date	-		04/04/2014	
Time	-		1140	
Status	-		Validation Complete	
Type	-		Sediment-Water Interface	
<b>Water Quality Monitoring</b>				
Temperature	-		14.47	°C
Dissolved Oxygen	<6	mg/L	11.22	mg/L
Specific Conductance	-		0.241	mS/cm
pH	6.5 - 9.0	std	8.62	std
Turbidity	50	NTU	-	-
<b>Dissolved metals</b>				
Aluminum	87	µg/L	87U	µg/L
Antimony	5.6	µg/L	5U	µg/L
Arsenic	10	µg/L	0.155J	µg/L
Barium	220	µg/L	22	µg/L
Beryllium	0.66	µg/L	0.65U	µg/L
Boron	0.36	mg/L	0.0585U	mg/L
Cadmium	0.1	µg/L	0.1U	µg/L
Calcium	-	-	10,500	µg/L
Chromium	25	µg/L	0.247J	µg/L
Cobalt	3	µg/L	5U	µg/L
Copper	3	µg/L	2U	µg/L
Iron	1,000	µg/L	63.9J	µg/L
Lead	0.59	µg/L	0.5U	µg/L
Magnesium	-	-	4,270J	µg/L
Manganese	200	µg/L	5U	µg/L
Mercury	0.000012	mg/L	0.0002U	mg/L
Molybdenum	800	µg/L	5U	µg/L
Nickel	17	µg/L	0.291J	µg/L
Potassium	53,000	µg/L	5,000U	µg/L
Selenium	5	µg/L	4.5U	µg/L
Silver	0.06	µg/L	0.057U	µg/L
Sodium	680,000	µg/L	6,470	µg/L
Thallium	0.24	µg/L	0.2U	µg/L
Vanadium	27	µg/L	0.419J	µg/L
Zinc	39	µg/L	10U	µg/L

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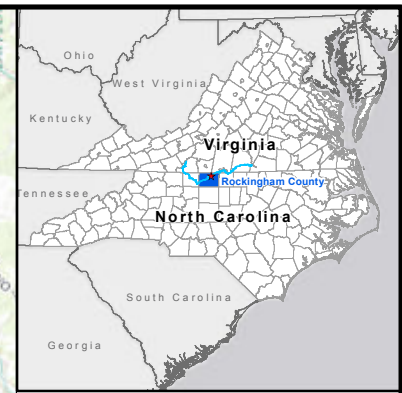
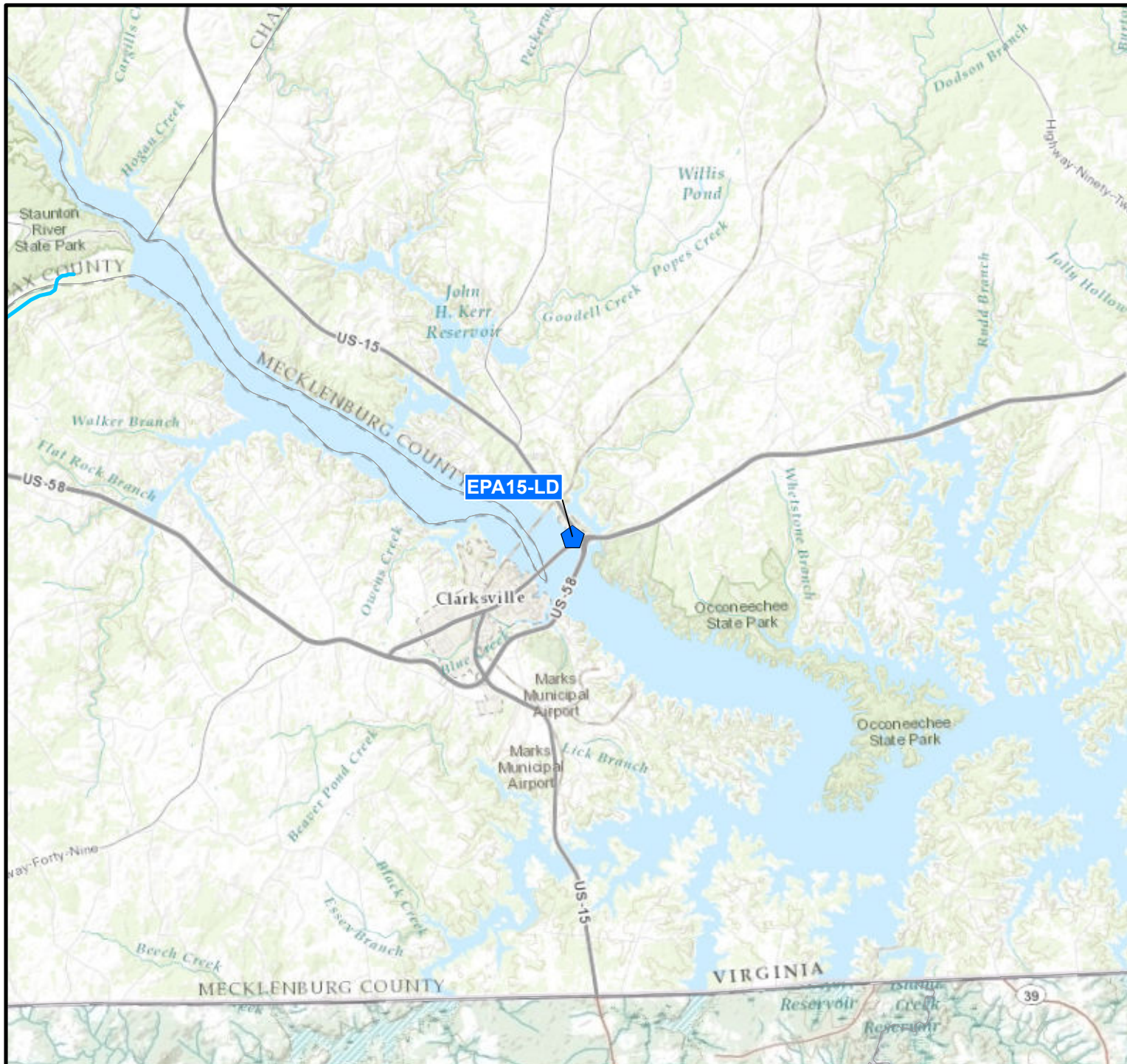
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<b>Total Dissolved Solids</b>				
Total Dissolved Solids	-	-	72	mg/L
<b>Total Suspended Solids</b>				
Total Suspended Solids	-	-	13	mg/L
<b>Total Metals</b>				
Aluminum	2,000	µg/L	262	µg/L
Antimony	5.6	µg/L	5U	µg/L
Arsenic	10	µg/L	4.5U	µg/L
Barium	220	µg/L	28.5	µg/L
Beryllium	0.66	µg/L	0.65U	µg/L
Boron	0.36	mg/L	0.0608U	mg/L
Cadmium	2	µg/L	0.1U	µg/L
Calcium	-	-	10,600	µg/L
Chromium	29	µg/L	2.5U	µg/L
Cobalt	24	µg/L	5U	µg/L
Copper	3	µg/L	0.495J	µg/L
Iron	2,300	µg/L	749	µg/L
Lead	0.6	µg/L	0.5U	µg/L
Magnesium	-	-	4,270J	µg/L
Manganese	200	µg/L	60.4	µg/L
Mercury	0.000012	mg/L	0.0002U	mg/L
Molybdenum	-	-	5U	µg/L
Nickel	17	µg/L	5U	µg/L
Potassium	53,000	µg/L	5,000U	µg/L
Selenium	5	µg/L	4.5U	µg/L
Silver	0.06	µg/L	0.057U	µg/L
Sodium	680,000	µg/L	6,330	µg/L
Thallium	0.24	µg/L	0.2U	µg/L
Vanadium	27	µg/L	1.6J	µg/L
Zinc	39	µg/L	10U	µg/L
<b>Anions</b>				
Bromide	-	-	1U	mg/L
Chloride	230	mg/L	10	mg/L
Sulfate	-	-	7.33	mg/L

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Type	-		Sediment-Water Interface	
<b>Wet Chemistry</b>				
Alkalinity, Total (As CaCO <sub>3</sub> )	-	-	34.3	mg/L
Hardness, Calcium/Magnesium (As CaCO <sub>3</sub> )	-	-	44	mg/L
Organic Carbon, Dissolved	-	-	3.48	mg/L
pH	6.5 - 9.0	std	7.39J	std

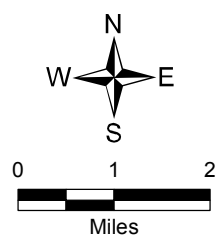
Notes

- <sup>1</sup> Value obtained from the GL Tier 2 Values; National Recommended Water Quality Criteria; Suter and Tsao (1996); Reference condition for EcoRegion XI (25 percentile); NCDENR State Standards for surface water
- °C degrees Celsius
- EPA U.S. Environmental Protection Agency
- J Value is estimated
- J+ Value is estimated with a possible high bias
- J- Value is estimated with a possible low bias
- µg/L micrograms per liter
- mg/L milligrams per liter
- mS/cm milliSiemens per centimeter
- NTU Nephelometric turbidity units
- std standard
- U Analyte was not detected at the listed reporting limit.



**Legend**

-  Approximate Spill Location
-  Sediment-Water Interface Sample Location
-  Dan River



Map Source: ArcGIS Online World Map Topo, 2014

**Sediment-Water Interface  
Sample Locations**  
April 4, 2014

