

NOTE: The data below represents surface water samples that were collected on Feb 8, 2014 by EPA SEDS (Team 2) sampling teams. Water sample measurements are in micrograms per liter (ug/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 surface water are all below the EPA ERSLs with the exception of lead. Aquatic toxicity of surface water is to dissolved metals not total metals, therefore additional data will be collected to confirm the dissolved lead concentrations in the surface water.

		Approximately 0.5 mile downstream of Hwy 700 Bridge	Approximately 0.5 mile downstream of Hwy 700 Bridge	Approximately 4.5 mile downstream of outfall pipe	Approximately 4.5 mile downstream of outfall pipe
Location	Ecological Screening Standard for Surface Water Samples ²	DR3	DR3	DR4	DR4
Sample ID		DR3A-0214SW	DR3B-0214SW	DR4A-0214SW	DR4B-0214SW
Date Collected		2/8/2014	2/8/2014	2/8/2014	2/8/2014
Time Collected		1030	1045	1230	1245
Status		Validation Complete	Validation Complete	Validation Complete	Validation Complete
Type		Surface Water	Surface Water	Surface Water	Surface Water
Units		µg/L	µg/L	µg/L	µg/L
Total Metals					
Aluminum	-	600	560	570	550
Antimony	5.6 µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Arsenic	10 µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Barium	220 µg/L	24	24	25	24
Beryllium	0.66 µg/L	3.0 U	3.0 U	3.0 U	3.0 U
Boron		200	170	180	160
Cadmium	2 µg/L	0.50 U	0.50 U	0.50 U	0.50 U
Calcium	-	7300	7400	7400	6900
Chromium	29 µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Cobalt	24 µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Copper	3 µg/L	10 U	10 U	10 U	10 U
Iron	-	820	810	810	770
Lead	0.6 µg/L	0.40 U	0.40	0.44	0.44
Magnesium	-	2800	2800	2900	2500
Manganese	200 µg/L	24	25	24	22
Mercury	0.012 µg/L	0.10 U	0.10 U	0.10 U	0.10 U
Molybdenum	-	10 U	10 U	10 U	10 U
Nickel	17 µg/L	10 U	10 U	10 U	10 U
Potassium	53000 µg/L	1200	1300	1300	1300
Selenium	-	2.0 U	2.0 U	2.0 U	2.0 U
Silver	0.06 µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Sodium	680000 µg/L	4600	4600	4600	4500
Strontium	NA	45	46	46	45
Thallium	0.24 µg/L	0.50 U	0.50 U	0.50 U	0.50 U
Tin	-	15 U	15 U	15 U	15 U
Titanium	NA	25	24	26	26
Vanadium	27 µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Yttrium	-	3.0 U	3.0 U	3.0 U	3.0 U
Zinc	39 µg/L	10 U	10 U	10 U	10 U

		Approximately 6.0 mile downstream of US Hwy 58 Bridge	Approximately 6.0 mile downstream of US Hwy 58 Bridge	Approximately 6.0 mile downstream of US Hwy 58 Bridge	Approximately 2.5 mile downstream of Hwy 700 Bridge
Location	Ecological Screening Standard for Surface Water Samples ²	DR25	DR25	DR25	DR5
Sample ID		DR25A-0214SW	DR25B-0214SW	DR25C-0214SW	DR5A-0214SW
Date Collected		2/8/2014	2/8/2014	2/8/2014	2/8/2014
Time Collected		1311	1322	1331	1400
Status		Validation Complete	Validation Complete	Validation Complete	Validation Complete
Type		Surface Water	Surface Water	Surface Water	Surface Water
Units		µg/L	µg/L	µg/L	µg/L
Total Metals					
Aluminum	-	1100	1000	1000	530
Antimony	5.6 µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Arsenic	10 µg/L	1.2	1.0	1.2	1.0 U
Barium	220 µg/L	35	35	35	27
Beryllium	0.66 µg/L	3.0 U	3.0 U	3.0 U	3.0 U
Boron		160	160	160	160
Cadmium	2 µg/L	0.50 U	0.50 U	0.50 U	0.50 U
Calcium	-	7400	7400	7400	6900
Chromium	29 µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Cobalt	24 µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Copper	3 µg/L	10 U	10 U	10 U	10 U
Iron	-	1100	1100	1100	790
Lead	0.6 µg/L	0.99	0.98	1.0	0.49
Magnesium	-	2900	2900	2900	2600
Manganese	200 µg/L	25	25	24	22
Mercury	0.012 µg/L	0.10 U	0.10 U	0.10 U	0.10 U
Molybdenum	-	10 U	10 U	10 U	10 U
Nickel	17 µg/L	10 U	10 U	10 U	10 U
Potassium	53000 µg/L	1400	1400	1400	1300
Selenium	-	2.0 U	2.0 U	2.0 U	2.0 U
Silver	0.06 µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Sodium	680000 µg/L	4800	4800	4800	4600
Strontium	NA	51	51	51	46
Thallium	0.24 µg/L	0.50 U	0.50 U	0.50 U	0.50 U
Tin	-	15 U	15 U	15 U	15 U
Titanium	NA	61	53	48	26
Vanadium	27 µg/L	5.1	5.0 U	5.0 U	5.0 U
Yttrium	-	3.0 U	3.0 U	3.0 U	3.0 U
Zinc	39 µg/L	10 U	10 U	10 U	10 U

		Approximately 2.5 mile downstream of Hwy 700 Bridge	Approximately 5.0 mile downstream of US Hwy 58 Bridge	Approximately 5.0 mile downstream of US Hwy 58 Bridge	Approximately 3.5 mile downstream of Hwy 700 Bridge
Location	Ecological Screening Standard for Surface Water Samples ²	DR5	DR24	DR24	DR6
Sample ID		DR5B-0214SW	DR24B-0214SW	DR24A-0214SW	DR6A-0214SW
Date Collected		2/8/2014	2/8/2014	2/8/2014	2/8/2014
Time Collected		1400	1420	1430	1445
Status		Validation Complete	Validation Complete	Validation Complete	Validation Complete
Type		Surface Water	Surface Water	Surface Water	Surface Water
Units		µg/L	µg/L	µg/L	µg/L
Total Metals					
Aluminum	-	550	1100	1100	560
Antimony	5.6 µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Arsenic	10 µg/L	1.0 U	1.6	1.4	1.0 U
Barium	220 µg/L	26	37	36	24
Beryllium	0.66 µg/L	3.0 U	3.0 U	3.0 U	3.0 U
Boron		170	160	160	160
Cadmium	2 µg/L	0.50 U	0.50 U	0.50 U	0.50 U
Calcium	-	7100	7400	7400	6900
Chromium	29 µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Cobalt	24 µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Copper	3 µg/L	10 U	10 U	10 U	10 U
Iron	-	810	1100	1100	780
Lead	0.6 µg/L	0.46	1.1	1.1	0.40
Magnesium	-	2600	2900	2900	2500
Manganese	200 µg/L	23	26	25	20
Mercury	0.012 µg/L	0.10 U	0.10 U	0.10 U	0.10 U
Molybdenum	-	10 U	10 U	10 U	10 U
Nickel	17 µg/L	10 U	10 U	10 U	10 U
Potassium	53000 µg/L	1400	1400	1400	1400
Selenium	-	2.0 U	2.0 U	2.0 U	2.0 U
Silver	0.06 µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Sodium	680000 µg/L	4500	4700	4600	4500
Strontium	NA	46	52	51	45
Thallium	0.24 µg/L	0.50 U	0.50 U	0.50 U	0.50 U
Tin	-	15 U	15 U	15 U	15 U
Titanium	NA	28	67	53	31
Vanadium	27 µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Yttrium	-	3.0 U	3.0 U	3.0 U	3.0 U
Zinc	39 µg/L	10 U	10 U	10 U	10 U

		Approximately 3.5 mile downstream of Hwy 700 Bridge	Approximately 4.0 mile downstream of US Hwy 58 Bridge	Approximately 3.0 mile downstream of US Hwy 58 Bridge	Approximately 4.5 mile downstream of Hwy 700 Bridge
Location	Ecological Screening Standard for Surface Water Samples ²	DR6	DR23	DR22	DR7
Sample ID		DR6B-0214SW	DR23A-0214SW	DR22A-0214SW	DR7A-0214SW
Date Collected		2/8/2014	2/8/2014	2/8/2014	2/8/2014
Time Collected		1445	1515	1545	1550
Status		Validation Complete	Validation Complete	Validation Complete	Validation Complete
Type		Surface Water	Surface Water	Surface Water	Surface Water
Units		µg/L	µg/L	µg/L	µg/L
Total Metals					
Aluminum	-	490	1000	980	550
Antimony	5.6 µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Arsenic	10 µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Barium	220 µg/L	24	33	32	25
Beryllium	0.66 µg/L	3.0 U	3.0 U	3.0 U	3.0 U
Boron		160	140	140	160
Cadmium	2 µg/L	0.50 U	0.50 U	0.50 U	0.50 U
Calcium	-	6800	7200	7200	7000
Chromium	29 µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Cobalt	24 µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Copper	3 µg/L	10 U	10 U	10 U	10 U
Iron	-	740	1100	1200	800
Lead	0.6 µg/L	0.41	0.98	0.83	0.47
Magnesium	-	2500	2900	2900	2600
Manganese	200 µg/L	20	28	29	22
Mercury	0.012 µg/L	0.10 U	0.10 U	0.10 U	0.10 U
Molybdenum	-	10 U	10 U	10 U	10 U
Nickel	17 µg/L	10 U	10 U	10 U	10 U
Potassium	53000 µg/L	1300	1400	1400	1400
Selenium	-	2.0 U	2.0 U	2.0 U	2.0 U
Silver	0.06 µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Sodium	680000 µg/L	4400	4600	4700	4600
Strontium	NA	45	49	48	47
Thallium	0.24 µg/L	0.50 U	0.50 U	0.50 U	0.50 U
Tin	-	15 U	15 U	15 U	15 U
Titanium	NA	25	54	52	28
Vanadium	27 µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Yttrium	-	3.0 U	3.0 U	3.0 U	3.0 U
Zinc	39 µg/L	10 U	10 U	10 U	10 U

		Approximately 4.5 mile downstream of Hwy 700 Bridge
Location	Ecological Screening Standard for Surface Water Samples ²	DR7
Sample ID		DR7B-0214SW
Date Collected		2/8/2014
Time Collected		1550
Status		Validation Complete
Type		Surface Water
Units		µg/L
Total Metals		
Aluminum	-	580
Antimony	5.6 µg/L	1.0 U
Arsenic	10 µg/L	1.0 U
Barium	220 µg/L	25
Beryllium	0.66 µg/L	3.0 U
Boron		160
Cadmium	2 µg/L	0.50 U
Calcium	-	6900
Chromium	29 µg/L	5.0 U
Cobalt	24 µg/L	5.0 U
Copper	3 µg/L	10 U
Iron	-	800
Lead	0.6 µg/L	0.51
Magnesium	-	2600
Manganese	200 µg/L	23
Mercury	0.012 µg/L	0.10 U
Molybdenum	-	10 U
Nickel	17 µg/L	10 U
Potassium	53000 µg/L	1400
Selenium	-	2.0 U
Silver	0.06 µg/L	5.0 U
Sodium	680000 µg/L	4500
Strontium	NA	47
Thallium	0.24 µg/L	0.50 U
Tin	-	15 U
Titanium	NA	30
Vanadium	27 µg/L	5.0 U
Yttrium	-	3.0 U
Zinc	39 µg/L	10 U

LEGEND	
²	Value obtained from the GL Tier 2 Values; National Recommended Water Quality Criteria; Suter and Tsao (1996); Reference condition for EcoRegion XI (25 percentile); NCDNER State Standards for surface water. If the compound was not detected, a screening value may not be indicated.
mg/L	milligram per liter
µg/L	microgram per liter
NA	Not available
U	The analyte was not detected at or above the reporting limit.