

Location: Sutton Plant on Cape Fear River

Date: 10/9/2018, DWR Total Metals Samples

Sample Fraction	Parameter	Units	Freshwater WQS	B9020000	SUTTON_LK_BREACH_3	Saltwater WQS	B9050000
Total	Hardness (calculated)	mg/L	NA	30	15		33
Total	Silver (Ag)	µg/L	NA	1.0 U	1.0 U	NA	1.0 U
Total	Aluminum (Al)	µg/L	NA	300	230	NA	280
Total	Antimony (Sb)	µg/L	NA	10 U	10 U	NA	10 U
Total	Arsenic (As)	µg/L	10	2.0 U	7.1	10	2.0 U
Total	Boron (B)	µg/L	NA	50 U	50 U	NA	50 U
Total	Barium (Ba)	µg/L	NA	36	21	NA	39
Total	Beryllium (Be)	µg/L	NA	5.0 U	5.0 U	NA	5.0 U
Total	Cadmium (Cd)	µg/L	NA	0.50 U	0.50 U	NA	0.50 U
Total	Cobalt (Co)	µg/L	NA	50 U	50 U	NA	50 U
Total	Chromium (Cr)	µg/L	NA	5.0 U,J	5.0 U,J	NA	5.0 U,J
Total	Copper (Cu)	µg/L	NA	2.0 U,J	3.9 J	NA	2.0 U,J
Total	Iron (Fe)	µg/L	NA	1500	790	NA	1500
Total	Potassium (K)	mg/L	NA	5.0	4.2	NA	5.3
Total	Manganese (Mn)	µg/L	NA	84	130	NA	110
Total	Molybdenum (Mo)	µg/L	NA	10 U	10 U	NA	10 U
Total	Sodium (Na)	mg/L	NA	12	2.9	NA	12
Total	Nickel (Ni)	µg/L	NA	2.0 U,J	2.0 U,J	NA	2.0 U,J
Total	Lead (Pb)	µg/L	NA	2.0 U	2.0 U	NA	2.0 U
Total	Selenium (Se)	µg/L	5	1.0 U	1.0 U	71	1.0 U
Total	Strontium (Sr)	µg/L	NA	35	33	NA	37
Total	Thallium (Tl)	µg/L	NA	2.0 U	2.0 U	NA	2.0 U
Total	Titanium (Ti)	µg/L	NA	10 U	10 U	NA	10 U
Total	Vanadium (V)	µg/L	NA	10 U	10 U	NA	10 U
Total	Zinc (Zn)	µg/L	NA	10 U,J	10 U,J	NA	10 U,J

- Results below DWR laboratory detection limits (non-detects) are shown with the analytical practical quantitation limit (PQL) and a U qualifier.
- Results with estimated values are shown with a J qualifier.
- Water Quality Standards (WQS) provided for screening purposes, as some WQS require multiple metals sampling events to fully evaluate compliance.
- B9050000 is classified as salt water (SC). Other sampling locations are classified as fresh water.

Location: Sutton Plant on Cape Fear River

Date: 10/9/2018, DWR Dissolved Metals Samples

Sample Fraction	Parameter	Units	Fresh Acute WQS (hardness=15)	Fresh Acute WQS (hardness=30)	Fresh Chronic WQS (hardness=15)	Fresh Chronic WQS (hardness=30)	B9020000 Rep-1	B9020000 Rep-2	SUTTON_LK_BREA CH_3 Rep-1	SUTTON_LK_BREA CH_3 Rep-2	Salt Acute WQS	Salt Chronic WQS	B9050000 Rep-1	B9050000 Rep-2
Total	Hardness	mg/L	15	30	15	30								
Dissolved	Silver (Ag)	µg/L	0.12	0.41	0.06	0.06	1.0 U	1.0 U	1.0 U	1.0 U	1.9	0.1	1.0 U	1.0 U
Dissolved	Aluminum (Al)	µg/L	NA	NA	NA	NA	170	160	180	180	NA	NA	140	150
Dissolved	Antimony (Sb)	µg/L	NA	NA	NA	NA	10 U	10 U	10 U	10 U	NA	NA	10 U	10 U
Dissolved	Arsenic (As)	µg/L	340	340	150	150	2.0 U	2.0 U	5.9	6.1	69	36	2.0 U	2.0 U
Dissolved	Boron (B)	µg/L	NA	NA	NA	NA	50 U	50 U	50 U	50 U	NA	NA	50 U	50 U
Dissolved	Barium (Ba)	µg/L	NA	NA	NA	NA	29	29	20	20	NA	NA	30	30
Dissolved	Beryllium (Be)	µg/L	65	65	6.5	6.5	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U	5.0 U
Dissolved	Cadmium (Cd)	µg/L	0.52	0.96	0.10	0.17	0.50 U	0.50 U	0.50 U	0.50 U	40	8.8	0.50 U	0.50 U
Dissolved	Cobalt (Co)	µg/L	NA	NA	NA	NA	50 U	50 U	50 U	50 U	NA	NA	50 U	50 U
Dissolved	Chromium (Cr)	µg/L	16	16	11	11	5.0 U	5.0 U	5.0 U	5.0 U	1100	50	5.0 U	5.0 U
Dissolved	Copper (Cu)	µg/L	2.2	4.3	1.8	3.2	2.0 U	2.0 U	2.4	2.4	4.8	3.1	2.0 U	2.0 U
Dissolved	Iron (Fe)	µg/L	NA	NA	NA	NA	740	710	510	510	NA	NA	610	680
Dissolved	Potassium (K)	mg/L	NA	NA	NA	NA	4.4	4.3	4.2	4.3	NA	NA	4.4	4.4
Dissolved	Manganese (Mn)	µg/L	NA	NA	NA	NA	53	50	120	120	NA	NA	72	72
Dissolved	Molybdenum (Mo)	µg/L	NA	NA	NA	NA	10 U	10 U	10 U	10 U	NA	NA	10 U	10 U
Dissolved	Sodium (Na)	mg/L	NA	NA	NA	NA	10	11	3.0	2.9	NA	NA	10	10
Dissolved	Nickel (Ni)	µg/L	94	169	10.4	18.8	2.0 U	2.0 U	2.0 U	2.0 U	74	8.2	2.0 U	2.0 U
Dissolved	Lead (Pb)	µg/L	8	17	0.3	0.7	2.0 U	2.0 U	2.0 U	2.0 U	210	8.1	2.0 U	2.0 U
Dissolved	Selenium (Se)	µg/L	NA	NA	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U
Dissolved	Strontium (Sr)	µg/L	NA	NA	NA	NA	34	35	30	30	NA	NA	36	36
Dissolved	Thallium (Tl)	µg/L	NA	NA	NA	NA	2.0 U	2.0 U	2.0 U	2.0 U	NA	NA	2.0 U	2.0 U
Dissolved	Titanium (Ti)	µg/L	NA	NA	NA	NA	10 U	10 U	10 U	10 U	NA	NA	10 U	10 U
Dissolved	Vanadium (V)	µg/L	NA	NA	NA	NA	10 U	10 U	10 U	10 U	NA	NA	10 U	10 U
Dissolved	Zinc (Zn)	µg/L	23	42	24	43	10 U	10 U	10 U	10 U	90	81	10 U	10 U

- Results below DWR laboratory detection limits (non-detects) are shown with the analytical practical quantitation limit (PQL) and a U qualifier.
- Water Quality Standards (WQS) provided for screening purposes, as some WQS require multiple metals sampling events to fully evaluate compliance.
- Some metals WQS vary based on water hardness. See total metals results table for hardness at each sampling location.
- Chromium results represent dissolved total chromium. WQS shown are for hexavalent chromium VI.