

U.S. Steel – Minntac Tailings Basin CCM Summary

Area of Concern	Finding
Industrial Stormwater Permit Coverage & SWPPP [SNC]	<ul style="list-style-type: none"> • USS does not appear to have effective NPDES industrial stormwater permit coverage for the Tailings Basin facility. • The SWPPP does not appear to address industrial stormwater at the Tailings Basin facility, including stormwater runoff from on-site haul and access roads constructed of waste rock, where discharge is composed entirely of stormwater and not combined with mine drainage.
Potential for Discharge Over and Through Sheet-Pile, Catch Basins 11&12	<ul style="list-style-type: none"> • Sheet pile in the vicinity of SC&R Catch Basin-12, was cut very low, just above grade. • Observed water staining on sheet pile at SC&R Catch Basin-11, at level of handling holes. • No discharge of wastewater over or through sheet pile was observed during the inspection. However, the inspection was conducted during dry weather.
Wastewater Discharging Through and Under Tailings Basin Containment Dike [SNC]	<ul style="list-style-type: none"> • NPDES permit authorizes and sets effluent limitations for seep discharges from outfalls 020 and 030 only. • Results confirm elevated levels of multiple pollutants, including sulfate, at Tailings Basin perimeter dike surface water seep discharge locations [S01, S02, S03, S04 (formerly Outfall 020), S06, S07, S09, S11, and S13], when compared to the USS background area sample location (S08). • Elevated levels of multiple pollutants, including sulfate, exist in wetlands adjacent to the SC&R seep containment system, and surface waters adjacent to the east and west Tailings Basin dikes. • Seeps to surface water occur “along the perimeter dike due to: 1) the elevated water levels in the Tailings Basin pools, and 2) the permeability of the perimeter dike allows sporadic surface seeps along the toe of the dike.” (CRA, 2013a). • EPA sampling results indicate additional Tailings Basin seep discharges to wetlands in Township 59N, Range 18W, Sections 6, 7, 10, 15, 19, 24, 30, and Timber Creek. The permit does not mention seep discharges to wetlands in these sections or to Timber Creek, and does not authorize or set effluent limitations for these seep discharges.
Pollutants Bypassing SC&R Containment [SNC]	<ul style="list-style-type: none"> • Elevated levels of multiple pollutants, including sulfate, exist in wetlands adjacent to the SC&R seep containment system. USS modeling suggests the presence of elevated levels of pollutants, including sulfate, in wetlands adjacent to SC&R containment structure, is the result of pollutant particles moving downward from the shallow overburden into the deep overburden and passing “under the sheet-pile wall, which extends through the shallow overburden only. The particles then move upwards back into the shallow overburden before discharging to the wetland area.” (CRA, 2013b; Appendix G)
Source of Wastewater Not Identified in Permit	<ul style="list-style-type: none"> • USS representative identified the Dark River Pond as a source for Seep C. The permit does not mention the Dark River Pond in its description of sources of wastewater.
Receiving Waters Not Identified in Permit [SNC]	<ul style="list-style-type: none"> • The permit identifies only the Dark and Sand Rivers as surface waters authorized to receive wastewater discharges. The permit states that “discreet seepage areas have been identified along the toe of the dam on the west side ([Township 59N, Range 18W], NW1/4, Section 18), and east side ([Township 59N, Range 18W], Sections 10 and 15) of the tailings basin.” The permit authorized discharge from “Two of the largest seepage points” on the west and east sides (outfall 020, and outfall 030). EPA sampling results indicate additional Tailings Basin seep discharges to wetlands in Township 59N, Range 18W, Sections 6, 7, 10, 15, 19, 24, 30, and Timber Creek. The permit does not identify Timber Creek or wetlands in these sections as waters authorized to receive discharges from the Tailings Basin.

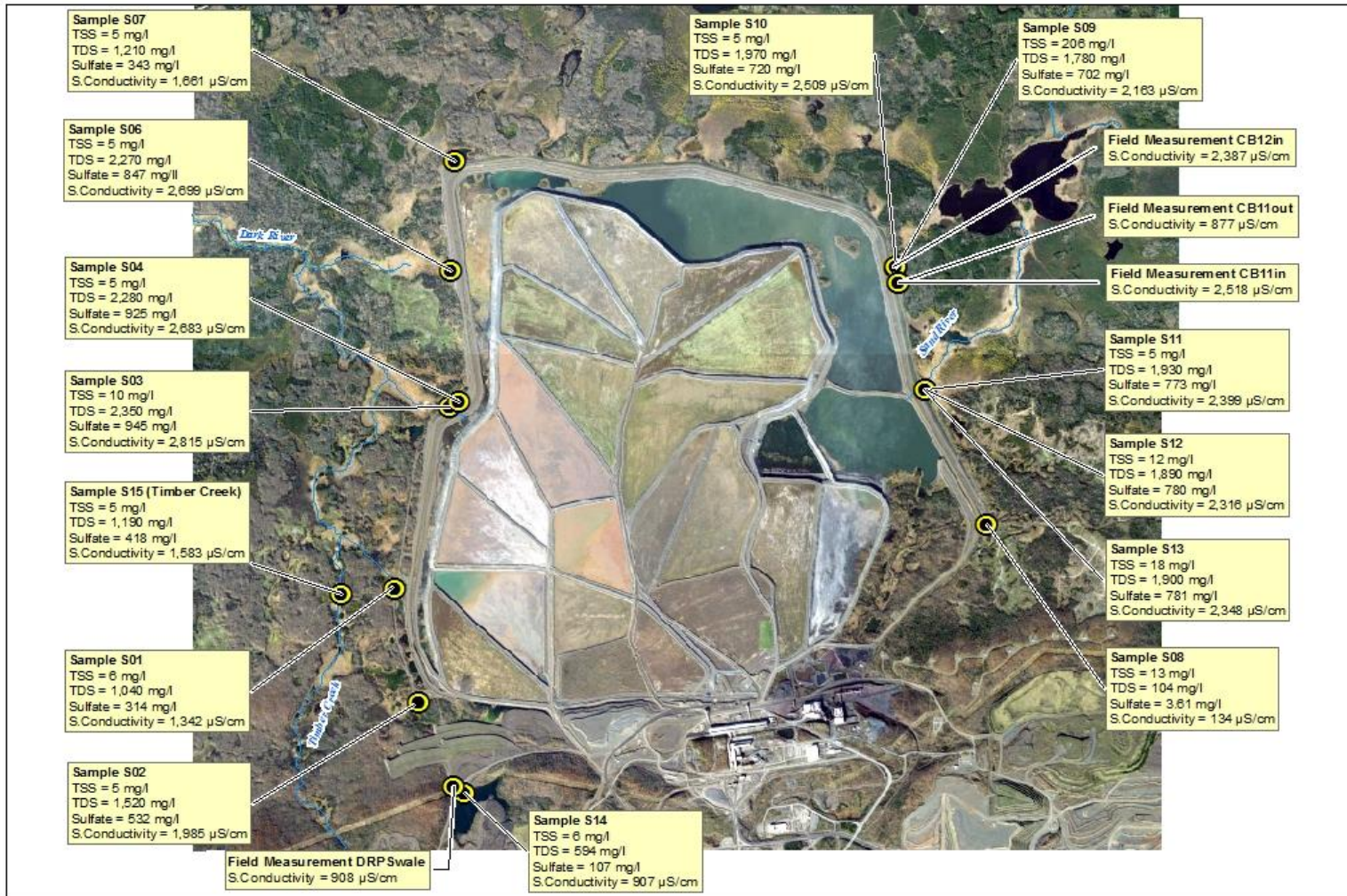


Figure 12. EPA Sample Results (TDS/TSS, Sulfate, Specific Conductivity)

● EPA Sample Locations

Clean Water Act Inspection Report
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