

EXHIBIT / FOOT NOTE
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to 690ppm, which indicates negligible sulfate exposure for concrete (American Concrete Institute, 1994).

3.3 Clay Tailings Assessment

Samples of leached solids (LFilterCake), neutralization solids (NFilterCake), and sulfate salts (Salt) were provided by LNC and transported to the NewFields AMRL/AASHTO accredited laboratory in Elko, Nevada where the material testing was conducted. Select laboratory tests were performed on individual components (LFilterCake, NFilterCake, and Salt) along with testing performed on composite filtercake samples both with and without salt. The composite filtercake samples are identified as the “tailings” that will be stored in a geomembrane lined facility at the project site. The results of NewFields Tailings Assessment were presented in a Technical Memorandum, TM-07 (December 2019) and are presented in [Appendix C.6](#).

The tailings with salt samples were reconstituted at a ratio of 64.1 percent LFilterCake, 17.3 percent NFilterCake, and 18.6 percent Salt, as measured by dry weight. The salts were hydrated with 11.1 percent tap water prior to reconstitution with the tailings. The tailings without salt samples were reconstituted at a ratio of 78.7 percent LFilterCake and 21.3 percent NFilterCake, as measured by dry weight.

It should be noted that all moisture contents presented in this memorandum were completed as per ASTM D2216 and are reported on a dry basis (Weight of water/Weight of dry solids) as this is the common reporting practice for geotechnical reporting.

Index testing included moisture content and Atterberg limits testing, which were used to assess the relationship between as-received moisture and the materials plasticity. Moisture content – unit weight relationships were developed from bulk samples of tailings, both with and without salt. Strength properties of tailings are estimated based upon Unconsolidated Undrained (UU) and Consolidated Undrained (CU) triaxial testing. This laboratory testing program included:

- Atterberg Limits (ASTM D4318)
- Natural Moisture Content (ASTM D2216)
- Modified Proctor Moisture – Unit Weight Relationship (ASTM D1557)
- Unconsolidated Undrained Triaxial Compression (ASTM D2850)
- Consolidated Undrained Triaxial Compression (ASTM D4767)

Individual laboratory testing results for the clay tailings are summarized in [Tables 3-2, 3-3 and 3-4](#). Individual laboratory data sheets are presented in [Appendix C.7](#).

3.3.1 Clay Tailings Index Property Testing

The index properties of the materials were evaluated by particle size analysis, moisture content and Atterberg limits testing. The Atterberg limits test was used to measure the moisture content