CCIL Aggregate and Soil Proficiency Sample Program
Alberta and Yukon

2021 Alberta and Yukon MINI-CORRELATIONS

AGGREGATES and SOILS INCLUDING SUPERPAVE AGGREGATES

Please read the following Mini-Correlation instructions carefully BEFORE you start testing!

- Testing of mini correlation samples shall be according to the below instructions.
- Submission of results by **March 31st 2021** in the mini correlation report(s) provided in the labs portal. https://portal.ccil.com/ After signing into the portal, all mini-correlation reporting forms appropriate to your lab certification will be accessible under the tab for **Reporting Forms**. You will be able to enter your test results into the forms and submit to CCIL through the portal.
- Please record the mini-correlation sample identification information found on the sample labels in the "Comments" section of the reporting forms and send any photos of unclear labels to ewordenkwok@ccil.com

SAMPLES FOR MINI-CORRELATION TESTING

- Samples for the mini-correlation were shipped to the laboratory March 12th due to delays. The Due date has been extended to March 31st.
- The mini-correlation samples are pre-prepared to meet the requirements of the appropriate test method and are to be tested as received unless instructed otherwise.
- Generally, only one sample will be shipped for each test requiring a mini-correlation. Tests for a mini-correlation are not generally carried out in pairs.

Alberta and Yukon MINI-CORRELATION INSTRUCTIONS – AGGREGATES

Sample Preparation

Dry all mini-correlation aggregate samples to a constant mass at 110 ± 5°C.

ASTM C136: SIEVE ANALYSIS OF AGGREGATES,

If the problem with your original test results was with the fine aggregate sieves only, your lab will receive a mini-correlation sample of fine aggregate only. Otherwise, your lab will receive a combined coarse aggregate and fine aggregate sample.

Combined

If you receive a **combined coarse and fine aggregate sample**, test the entire mini-correlation sample as specified in C136 to determine the aggregate gradation. Report the percent passing on each sieve listed in the portal report (20, 15, 12.5, 10, 5, 2.5, 1.25, 0.630, 0.315, 0.16 and 0.08 mm). All sieves are to be reported to 1 decimal (0.1%), except the 5.0 mm and 0.080 mm sieves are to be reported to two decimal places (0.01%).

Fine Only

If you receive **only fine aggregate** for the mini-correlation sample, test the entire mini-correlation sample following C136 on the 2.5, 1.35, 0.63, 0.315, 0.16 and 0.080 mm sieves. However, when reporting the % passing, use the value from the following table to reduce the % passing on each sieve by the factor provided. All sieves are to be reported to 1 decimal (0.1%), except the 0.080 mm sieve is to be reported to two decimal places (0.01%).

Mini sample year on label	Factor for original % passing the 5mm sieve
2019	0.3786
2020	0.531
2021	0.3801

Example:

Sieve (mm)	Fine Aggregate % Passing of sample	Multiplication factor (%Passing 4.75mm)	Value to be reported in the portal report (% Passing of original)
2.50	77.7	0.4908	38.1
1.25	58.2	0.4908	28.6

ASTM C117: Wash Passing 0.075 mm sieve.

Test the entire mini correlation sample as specified in C117. Report the Percent Loss to one decimal (0.01%).

ASTM D5821: PERCENTAGE OF FRACTURED PARTICLES IN COARSE AGGREGATE

The mini-correlation sample is comprised of a single test sample representing all of the size fractions combined. Sieve over the 5 mm sieve to remove the fines and but do not separate into sized fractions. Reduce the sample by splitting to a minimum 2000 g test sample. Test as a single fraction and report a Percent Fractured Particles on that basis. Compute the percent fractured particles of the entire sample:

Percent Fractured particles = (A/B) x 100.
where: A = mass of fractured particles.
B = mass of test sample.

Determine the percentage of material with at least one fractured face to the nearest 0.1%

ASTM D4318: Liquid Limit, Plastic Limit and Plasticity Index of Soils

Determine the Liquid Limit, Plastic Limit and Plasticity Index of mini-correlation soil sample provided according to ASTM D 4318. Prepare the test specimens as outlined in Section 10.2 – Dry Preparation, and determine the Liquid Limit according to the procedure described in Section 11.0, Method A – Multi-point Liquid Limit. Determine the Plastic Limit using a minimum of two trials and report the mean value. Report the Liquid Limit, Plastic Limit and Plasticity Index to the nearest one decimal, i.e., 0.1 percent.