CSPG ROCK ANALYSIS WORKSHOP
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Regulatory use and value of Rock Analysis in Oil Sands and Unconventional Plays

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The Alberta Energy Regulator (AER) ensures the safe, efficient, orderly, and environmentally responsible development of oil, oil sands, natural gas, and coal resources over their entire life cycle. This includes allocating and conserving water resources, managing public lands, and protecting the environment while providing economic benefits for all Albertans.

As part of this mandate, the AER is responsible for the preservation and integrity of thousands of core and drill cuttings stored at our Core Research Centre (CRC). AER staff is responsible for determining if sampling core or drill cuttings can happen and is responsible for determining how test results and residual material are returned to the AER. They also determine how test results are disseminated and monitor compliance to ensure test results are returned in a timely manner to the AER.

Our presentation will begin with an overview of the regulations that cover data collection and dissemination. It will then look at regulations and data collection requirements that have recently changed due to modern drilling and completion methods, such as the change in drill cutting sampling requirements in certain formations as a result of the Subsurface Orders. It will also touch on improvements we are making to data dissemination, such as adding formation names to test results using the Geologic Framework for great accessibility. An overview of statistical trends in rock analysis tests will be presented, and we will show examples of how rock analysis is being used by technical staff at the AER in their daily work. Several branches including the Alberta Geological Survey, Science and Evaluation and Authorizations uses the results of rock

analysis data for resource and reserve estimation, induced seismicity, geological prospectivity and to support decision making on industry submitted applications to name a few examples.

AER staff need not be world experts in rock analyses but they must know if the tests are the appropriate type to solve their technical questions, and they must be able to validate the quality of the data. AER staff rely both on industry submitted data as well as collecting their own data. Data collected from rock analysis is becoming increasingly important as new drilling targets and technology reveal new technical challenges and emerging regulatory needs.