

# Validation of Reduced Spacing from Residences for Enclosed Combustors

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Oil and gas producers operating in Western Canada, with support from government regulators, want independent third-party emissions and performance testing on the Black Gold Rush (BGR) 36 LP Combustor. SRC was contracted to provide this testing using funding from the Saskatchewan Ministry of Energy and Resources, the Alberta Upstream Petroleum Research Fund Program (the "AUPRF Fund"), and the BC Oil and Gas Research Innovation Society (BC OGRIS). These combustors are designed to destroy volatile hydrocarbons using an enclosed high-efficiency burner system with no visible flame. Conversion of methane is purported to be nearly complete. The results of this testing may be used to inform regulations related to combustor operation, pending regulator priorities. For example, if an exemption to the "distance to residence" regulations (SK Direction S10, AB Directive 056 and 060, and BC Drilling and Production Regulations, Section 47c, and 48) can be obtained in the future, exploration and production companies will have added flexibility when designing and operating

facilities near residences. As well, they will have an easier route to compliance with emerging regulations for emissions from oil and gas operations.

SRC has provided independent third-party field testing on the BGR 36 LP Combustor, dispersion modeling, a safety review, and validation services on this project. The field testing took place at a Western Canadian oil producer site in Alberta. An industry partner provided the site and access to their combustor, and BGR installed an extended stack containing the appropriate sample ports. SRC personnel travelled to the site with one of SRC's Centre for the Demonstration of Emissions Reductions (CeDER) trailers, which housed the equipment required to measure the key performance parameters.

Final Report