3vGEOMATICS

May 25, 2021

3v Geomatics Inc
200 – 2233 Columbia Street
Vancouver, British Columbia
Canada, V5Y 0M6

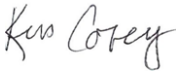
Re: CRIN Digital Oil and Gas Technology Competition

3vGeomatics is looking to partner with oil and gas producers to target areas with known or unknown geohazards that affect the integrity of their infrastructure. 3vG and our partner / partners would target areas of interest to develop an early warning system that pinpoints ground movement, encroachment activity and water body changes along their assets.

Pipelines face threats from natural forces as well as human factors: a) Ground displacement due to landslides, subsidence, sinkholes, soil dynamics, or permafrost freeze/thaw cycles can stress, wrinkle, or rupture a pipeline. b) Right of way encroachment and excavation activities constitute one of the primary threats to pipeline integrity, responsible for a large portion of pipeline leaks. c) Water movement and flooding can cause erosion and scouring, sweeping away the soil and support for pipelines. Both natural forces and human factors contribute to pipeline leaks and ruptures, causing the release of greenhouse gases and other hazardous materials into the environment. From 2016 to 2019, for natural gas and sour gas pipelines, there were 452 leaks and 16 ruptures listed on the Alberta Energy Regulator (AER) website. Among these, 3% of leaks and 13% of ruptures were due to Earth movement; a further 3% of leaks and 50% of ruptures were due to damage by others.

3v Geomatics (3vG) proposes to develop a satellite-based early warning system for pipelines impacted by ongoing ground surface change including displacement, encroachment, and water movement. The technology, products, and delivery methods will be tested over multiple focus sites and feedback from users will be integrated to develop a tool that is considered mission critical by pipeline operators. The technology and product upgrades, developed in collaboration with researchers at the University of Alberta (UofA), will enable fast automated delivery of actionable information products to pipeline operators. This project will improve environmental protection, create several new jobs, and train a team of graduate students in researching and operationalizing spaceborne imaging technologies. Mature products resulting from the project will be commercialized at scale, resulting in cost-effective monitoring of remote oil and gas assets throughout Canada.

Yours truly,
Kris Covey



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