

SURVEYS & SERVICES FOR

OIL & GAS



Our experience supporting the oil and gas industry spans the entire value chain, from exploration and production, through transportation and storage, to upgrading and refining. Challenger offers a full array of surveys, from initial mapping and desktop studies, surveys for oil sands exploration and drilling programs, to final plans, construction layout and as-builts for pipelines, terminals and major facility projects.

OUR SERVICES

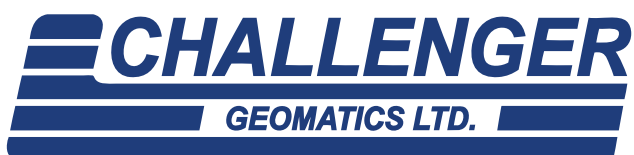
- Wellsite Surveys
- Core Hole Surveys
- Pipeline Desktop Studies and Scouting
- Pipeline Legal & Construction Surveys
- Pipeline Integrity Surveys
- Underground Locating
- Plant & Terminal Construction Surveys
- Construction Surveys (Roads, Grading & Underground Utilities)
- CPP, OSE & As-Built Mapping
- Mapping and Photogrammetry
- Topographical Surveys
- Terrestrial HDS Scanning & LiDAR
- High Precision Deformation Monitoring
- Volume Surveys & Certified Reports
- Bathymetry
- As-Builts

TECHNOLOGY

- State-of-the-art GNSS & Survey Instruments
- SmartPlans
- Unmanned Aerial Vehicles (UAVs)
- 3D Laser Scanning
- Modelling
- Aerial Mapping & LiDAR
- Satellite Imagery

NOTABLE PROJECTS

- Chevron Kaybob Duvernay Exploration/Appraisal
- Suncor Mackay River, Voyageur and Firebag OSE
- MEG Christina Lake, Duncan, Kirby and Surmont OSE
- Enbridge Pipeline Integrity
- Keyera Wapiti, Rimbey & Lockhart Pipelines
- SemCAMS North West Wapiti Pipeline Loop



SURVEYORS ♦ ENGINEERS

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SURVEYS & SERVICES FOR

OIL & GAS

- CONSTRUCTION
- MINING
- TRANSPORTATION
- INFRASTRUCTURE
- GOVERNMENT
- UTILITIES
- LAND DEVELOPMENT



PROJECT HIGHLIGHTS

Suncor Mackay River and Firebag OSE & SAGD

Annual survey and mapping support for OSE and SAGD pad development and infrastructure, including desktop studies, OSE, CPP and annual report mapping, corehole surveys, water source monitoring, disposition surveys for observation wells, access roads, camps, lay down and sump sites, SAGD pad construction, as-builts, and subsidence monitoring.

MEG Christina Lake, Duncan, Kirby & Surmount OSE

Annual survey and mapping support for OSE, including desktop studies, mapping support, OSE, CPP and annual report mapping, corehole surveys, water source monitoring, disposition surveys for observation wells, access roads, camps, lay down and sump sites, and as-builts.

Keyera Wapiti Pipeline

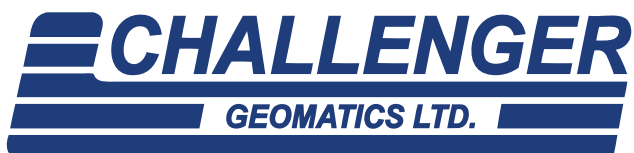
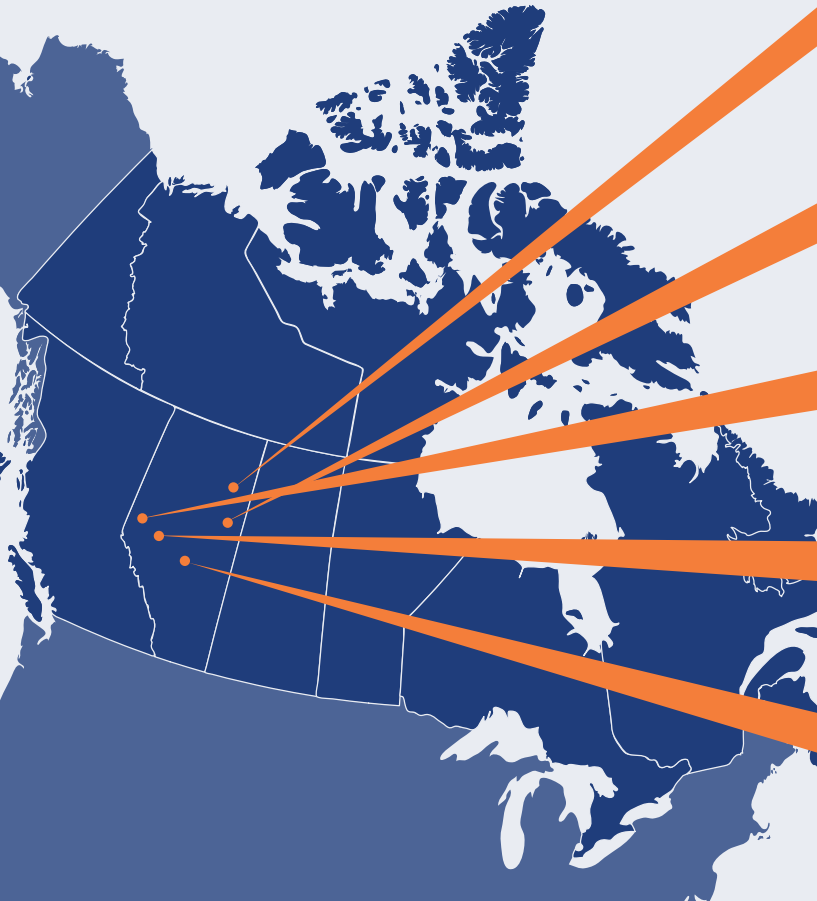
Route investigation and mapping, desktop studies, route scouting and surveys, construction flagging and support, and legal / as-built plan preparation for Keyera's 92km Wapiti multi-pipe right-of-way and various other pipeline projects including Lockhart, Rimbey ethane looping and Wilson Creek extension.

Chevron Kaybob Duvernay Exploration/Appraisal

Survey and mapping support for completing wellsite and pipeline projects since 2011, including desktop studies to support location and route selection, full survey support for development of water storage facilities and lines, lease construction support and facility layout, as well as GIS support as needed.

Enbridge Pipeline Integrity Program

Cross-Canada survey and mapping support from pre-screening through to construction, including document management and preparation for dig locations, field location scouting, workspace, access, and dig location layout, line locating as required, as-builts, and regulatory document preparation support (dispositions and TFA).



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