

A low-angle, upward-looking photograph of an oil or gas drilling rig. The image shows a complex network of metal beams, pipes, and cables against a blue sky with scattered white clouds. The rig's structure is made of weathered steel, and several large, dark pipes run vertically. The overall scene conveys a sense of industrial scale and height.

OIL & GAS SURVEYS

GEOMATICS EXPERTISE
FROM GREENFIELD TO FIRST GAS

OIL & GAS HAS FUELED HUMAN DEVELOPMENT FOR CENTURIES. THESE ABUNDANT NATURAL RESOURCES PROVIDE RELIABLE ENERGY TO BILLIONS OF PEOPLE, AND WSP CONTINUES TO PLAY A CRUCIAL ROLE IN BRINGING THESE DEPOSITS TO THE SURFACE, BY SUPPORTING THE APPROVALS, CONSTRUCTION AND LICENSING OF THESE ASSETS.

40,000+

Oil & Gas wells surveyed

25,000+

Kilometers of tie-in pipeline surveyed

70+

Years of surveying experience

PROVIDING INNOVATIVE SOLUTIONS WITH SPEED AND CERTAINTY



Oil production dates back more than 40,000 years ago with the earliest known wells being drilled in 347AD.

Today, advances in technology have allowed us to do the impossible: horizontal directional drilling (HDD), hydraulic fracturing, enhanced recovery, and more. These techniques have enabled more productive drilling than ever imagined, and in doing so have unlocked access to yet more energy.

Energy has fueled human civilizations for centuries and continues to play an integral role in our lives. As these explorations and extractions continue, we must also find innovative ways to deliver energy to the world's markets. Building well sites, pipelines and processing facilities requires time, capital and the coordination of many resources all while meeting the government's regulatory requirements.

At the start of every oil and gas project, surveyors are there to support development objectives and to record the project's progress: from construction to first gas, to site expansions, and finally, to decommissioning. With offices and field crews located from coast to coast, we have the capacity to provide the services that you need, in the locations that you require quickly and affordably. In our vast experience with oil and gas clients, we have built confidence that our work will continue to exceed expectations all while providing innovative solutions with speed and certainty.

Bringing Energy to your Projects

WSP's experienced project teams provide Geomatics services to support every stage of small and large-scale conventional oil & gas, heavy oil and oil sands exploration and development. Our crews operate under our stringent safety program as well as our ISO 9001:2008 aligned quality program. Because we have been the leading provider of survey services to oil and gas clients for over 70 years, we can achieve your objectives with speed, certainty and value.

You want speed: Project requirements change with little notice, and we can adjust. Thanks to our expansive geographical reach and capacity, WSP is able to provide additional resources to any project in order to meet its evolving requirements.

WSP is also committed to making technological innovation an integral part of our business. By utilizing new technology, our experts ensure that both client-facing and internal processes are increasingly more productive and efficient. We deliver the speed you require without sacrificing safety.

You want certainty: Knowing that your project will be conducted with the highest degree of quality, precision and accuracy, is priceless. Further, knowing that your survey provider can deliver this certainty means that your project will continue through each stage meeting its deadlines and milestones.

You want value: As the leader of surveying services to oil and gas clients, WSP delivers vast expertise and experience across Canada. When we work on a project, we think: solutions and return. Using innovative geospatial techniques, we often have a solution even before our crews are on site, a solution that drastically reduces time, environmental impact, and worker risk.



1 | IMPERIAL OIL LIMITED COLD LAKE

Cold Lake is the largest in-situ operation in North America, producing an average of 150,000 barrels of bitumen per day in recent years. WSP has been providing management and supervision of the cadastral and engineering survey requirements for the Imperial Oil Limited Cold Lake area since 1993. Responsible for survey and plan preparation on numerous pipeline rights-of-way (both above and below ground), well sites, pile layout for pads and pipelines, facility locates and as-builts, database upkeep and management of facilities drawings, annual conservation and reclamation reports, volumetric surveys, aerial photography and orthophoto preparation.



2 | SYNCRUDE, UPGRADER EXPANSION 1 PROJECT NORTHERN ALBERTA

WSP provides a variety of unionized surveying services to Syncrude's \$4 billion Upgrader Expansion 1 (UE-1) project. These services are provided on an as-needed basis at various phases of the project to Syncrude and other contractors. Surveying services include pile layout, verification of existing monuments, piping as-builts, anchor bolt and foundation surveys, surveying and scanning of underground utilities, steel alignment for new coker areas and implementation of a new first order control network.

3 | CNRL, HORIZON OIL SANDS ATHABASCA AREA, ALBERTA

The Horizon Oil Sands includes a surface oil sands mining and bitumen extraction plant, which began Phase I development in 2005. Full capacity of Phase I is 110,000 bbl/d, and with 5 planned expansions, the ultimate capacity of Horizon is to produce 500,000 bbl/d. WSP supports oil sands exploration through: core hole surveys, maps and supporting plans; legal surveys for well sites, pipelines, plants, access roads and other lease requirements; construction and industrial surveys from initial topographic surveys through to layout and as-built surveys; volumetric surveys; as well as other geomatics services. We provide these services in an innovative, technologically advanced manner as we strive to provide clients with options that result in time and cost effective surveys, maps and plans.

OUR SPECIALTIES AND EXPERTISE

OIL & GAS PRODUCTION SURVEYS

Desk-Top Well Location Planning

Access Road Surveys

Core Hole Surveys

Wellsite Surveys

Pipeline Tie-In Surveys

Facilities Surveys

Flagging for Clearing & Brushing

Plan & Title Searches

CAD Drafting

Oilfield Mapping (GIS)

LiDAR Data Management

Unmanned Aerial Vehicle Surveys

Aerial Photography

CIVIL & STRUCTURAL SURVEYS

Topographic Surveys

Earthworks & Volumes

Road Construction

Deformation Monitoring

Dimensional Control Surveys

Concrete, Anchor Bolt & Piling Surveys

3D Laser Scanning

PIPING & MECHANICAL SURVEYS

Line Locating

Above & Below Ground Pipe Tie-in

High-Precision Layout

HYDROGRAPHIC & BATHYMETRIC SURVEYS

Crossing Surveys

Depth Measurements

Water Pond Volumes

Ice Thickness Calculations

Erosion Monitoring

ABOUT WSP IN CANADA

As a Canadian multinational, WSP is one of the world's leading engineering consulting firms. A leader in transforming the built environment and restoring the natural environment, our expertise ranges from engineering iconic buildings to designing sustainable transport networks, to environmental remediation and urban planning, to developing tomorrow's energy sources and finding innovative ways to extract essential resources. Working with governments, businesses, architects and planners, we provide integrated solutions for all of the markets in which we operate. With more than 8,000 dedicated professionals in Canada, supported by a worldwide network spanning 40 countries, our teams are committed to helping our clients succeed no matter how they grow, what they choose to do, or where they move.



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