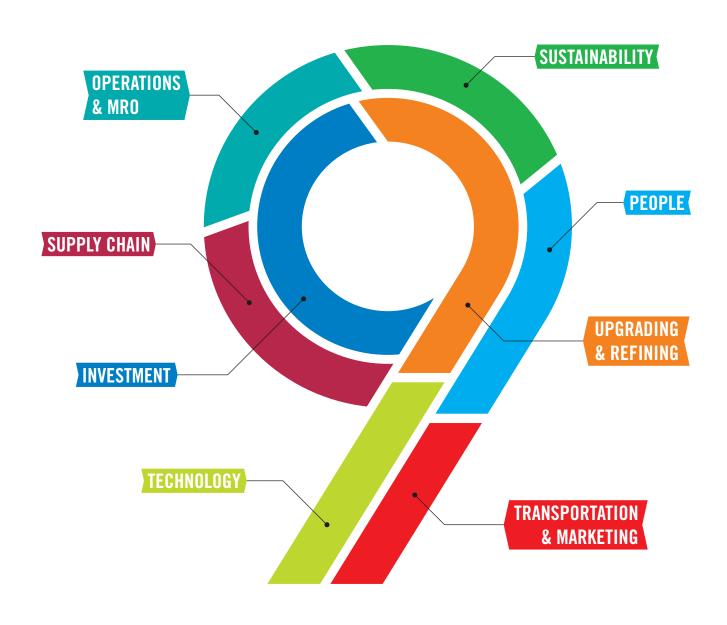
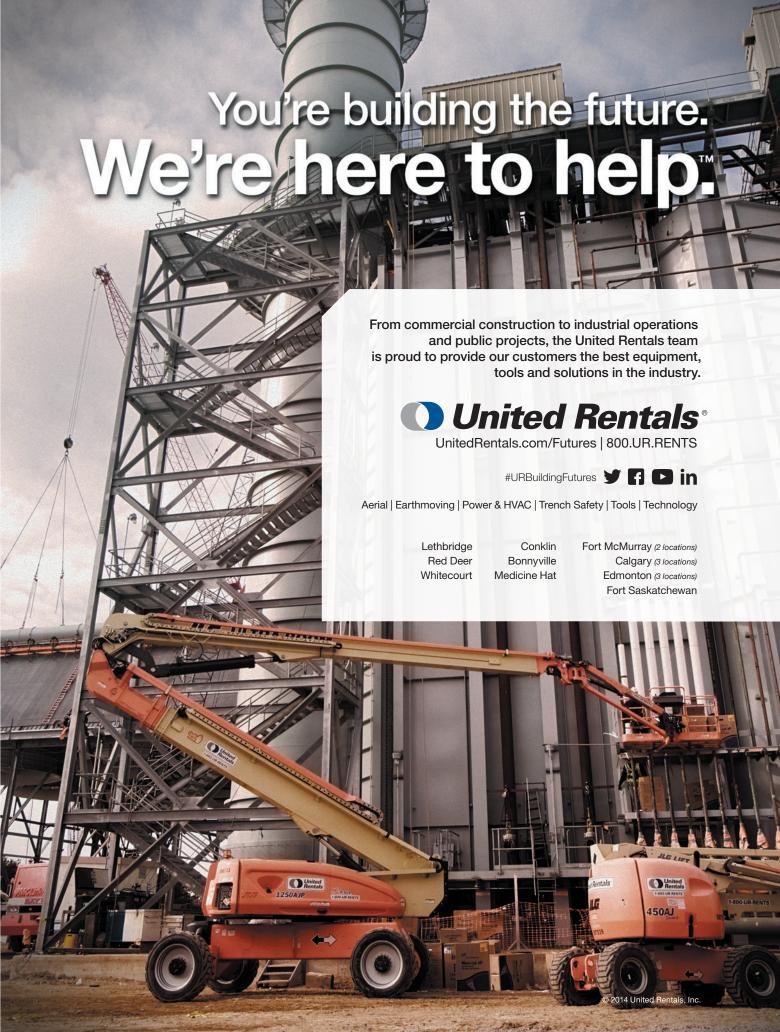
# HEAVY OIL & OILSANDS VOLUME 9 | 2014 | \$20 MGUIDEBOOK IX









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## **Editor's** note



articipating in the oilsands industry is a journey of constant tests. At first, it was that the technology was unproven. Then, it was that low oil prices severely challenged the economics. Then, with rising oil prices and new technology came the whirlwind of a boom coloured by the new visibility brought by a presence on the world stage.

Today's main challenges are physical in naturesteel in the ground, or the lack of it.

The unexpected influx of light, tight oil primarily from the United States into the North American crude supply/demand equation in recent years accelerated the problem that industry has known was coming for more than a decade: growing oilsands production demands new, expanded markets and the pipeline infrastructure to access them.

At times it has been and continues to be a bumpy road back to market equilibrium-or better yet, the goal: a seller's paradise. Canadian producers and governments have suffered the discount formed by U.S. Midwest refineries saturated with crude. But 2014 is a turning point as innovation and execution combine to open the valves.

Rail is evidence of both innovation and execution: innovation in figuring out how to make crude by rail work in today's market with today's crudes, and execution in getting it done. In late 2014, the first unit trains filled with oilsands crude left Alberta, a major step for growth in the already rapidly expanding crude-by-rail sector that has gone from essentially zero in 2012 to an expected 500,000 barrels per day this year.

For pipelines in 2014, it comes down to execution of incremental projects and, for major projects, the gap that is now closing between the regulatory process and shovels in the ground.

Oilsands producers, mainly majors with lots of internal cash flow, have seen this turn in the road coming and continued to push forward. That's why there is still so much capital going into the oilsands. And as the positive transportation infrastructure dynamic plays out, financial markets will have that clear view, too.

- Deborah Jaremko | Editor

## Table of contents

- 1 Editor's note
- 7 Welcome

From the Government of Alberta

8 Welcome

From the Canadian Heavy Oil Association

#### 10 Welcome

From the Government of Saskatchewan

12 Reflections on 2013, outlook 2014

By Deborah Jaremko

#### 19 TECHNOLOGY

#### Heavy oil and oilsands technology process diagrams

- 21 Mining and extraction
- 21 Upgrading
- 22 Paraffinic froth treatment
- 22 Cyclic steam stimulation
- 23 Cold heavy oil production with sand
- 23 Alkaline, surfactant, polymer flood
- 24 Steam assisted gravity drainage
- 24 Thermal plant central processing facility
- 25 Infill wells
- 26 Solvent injection/co-injection
- 26 Non-condensable gas co-injection

#### 28 In situ's "greatest opportunity"

Industry turns to solvents to reduce greenhouse gas emissions

By Gordon Cope

#### 33 INVESTMENT

#### 34 Oilsands activity outlook 2014: Another strong year ahead

By Randy Ollenberger, managing director, equity research, BMO Capital Markets

#### 41 Major oilsands investment transactions 2004-14

#### 42 Heavy returns

Conventional heavy oil production will continue ringing the cash register in 2014

By Darrell Stonehouse

#### **45 SUPPLY CHAIN**

#### 46 Spreading the wealth

New reports say provinces outside Alberta aren't benefiting as much from the oilsands boom as they could *By Jim Bentein* 

#### 48 Cross-Canada supply chain metrics

#### 50 Contract shift

Oilsands operators are wary of lump-sum agreements, even though they could provide greater cost certainty on projects

By Joseph Caouette

#### 55 OPERATIONS & MRO

#### 56 Cranking the machine in 2014

Despite its challenges, investment continues to bolster the oilsands sector based on scale and stability By Deborah Jaremko

#### Operating oilsands production profiles

- 58 Mining
- 62 In situ
- 73 Oilsands projects under construction
- 75 Oilsands project status listing
- 81 Conventional heavy oil: production and players

#### Heavy oil spotlight #1

#### 82 Threading the needle

Horizontal drilling opens up thin heavy oil formations to development

By Darrell Stonehouse

#### Heavy oil spotlight #2

#### 83 Polymer push

Operators fine-tune flooding recovery system at Pelican Lake heavy oil field By Darrell Stonehouse

#### 84 MRO: The oilsands annuity

By Deborah Jaremko

#### 84 Oilsands shutdown/turnaround list





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### Table of *contents* continued

#### 87 UPGRADING & REFINING

#### 89 Market balance

North American refinery investments in heavy oil processing capacity have largely paused the future of expanded Alberta upgrading *By Jim Bentein* 

- 92 Operating upgrader project profiles
- 95 Up-and-coming Alberta upgraders

#### 97 TRANSPORTATION & MARKETING

#### 98 Rolling stock

Rail provides netback enhancement and expanded market access By Dina O'Meara

#### 100 Long-term commitment

By Dina O'Meara

Producers have engaged with rail to move crude to markets, but the industry's fate remains tied to pipeline expansion efforts

101 New pipelines improving the ability to move Canadian crudes

#### 105 PEOPLE

Ten people you need to know in the heavy oil and oilsands sector

#### 106 Douglas Eyford

Special federal representative on West Coast energy infrastructure

#### 107 James Cairns

Vice-president, petroleum and chemicals, sales and marketing, Canadian National Railway Company

#### 108 Rich Kruger

Chairman, president and chief executive officer, Imperial Oil Limited

#### 109 Diana McQueen

Minister of Energy, Government of Alberta

#### 110 Randy Mikula

Founder and chief executive officer, Kalium Research Inc.

#### 111 Chris Seasons

President, Devon Canada Corporation

#### 112 John Stevens

President and chief executive officer, ENTREC Corporation



#### 113 Corey Goulet

Vice-president, Keystone Pipeline project, TransCanada Corporation

#### 114 Trevor Haynes

President and chief executive officer, Black Diamond Group Limited

#### 115 Paul Browning

President and chief executive officer, Irving Oil Limited

#### 117 SUSTAINABILITY

#### 118 Bringing it all together

With new energy regulatory and monitoring agencies launching and more land-use planning underway, Alberta is building a more integrated approach to oilsands development By Ashok Dutta

#### **Environmental performance**

#### 120 Land: Battling fragmentation

As industry spreads, caribou habitat shrinks, but collaboration, technology and policy could make a difference By Melanie Collison

#### 21 Air: Emissions opportunities

As Canada stalls on GHG regulations, industry seeks ways to drop its footprint

By Melanie Collison

#### 22 Water: Rethinking blue gold

Reducing impacts could mean changing the status quo toward true net benefit

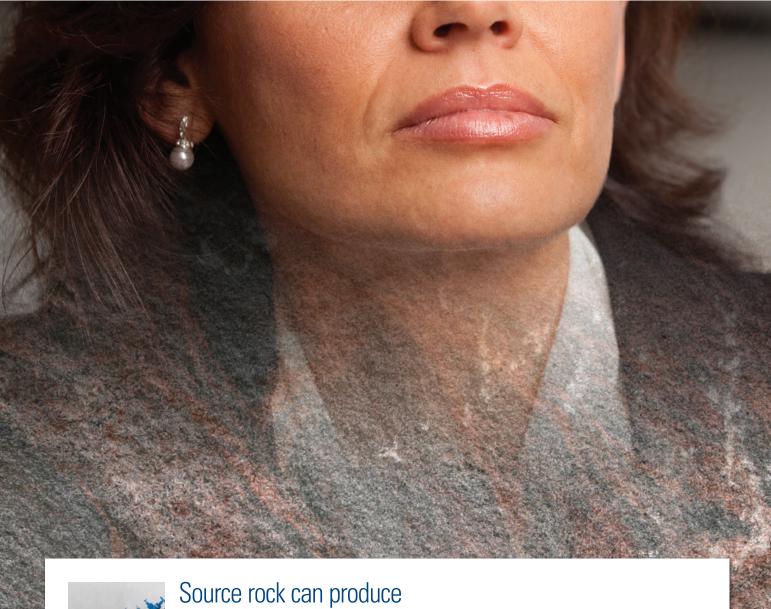
By Melanie Collison

#### 125 DIRECTORY

- 126 Producers
- 129 Service & Supply
- 157 Networking



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#### Welcome from the Government of Alberta

On behalf of the Government of Alberta, I am pleased to extend greetings to readers of the *Heavy Oil & Oilsands Guidebook*—a comprehensive guide to the challenges and innovations in Alberta's oil and oilsands industry.

With our vast reserves of oil and oilsands, and our commitment to managing our resources in an environmentally responsible manner, Alberta is poised to address the world's energy needs.

Over the past year, there has been a lot in the news about Alberta's energy resources—from the effects of the differential on our economy and revenues, to increasing shipments of oil by rail, to working with governments and stakeholders across Canada to access

new markets so that we can receive fair value for Alberta's resources.

Collaboration and dialogue with our neighbours and international audiences is how Alberta showcases itself as an energy leader. It is also how we get the facts to Albertans, Canadians and decision makers around the world—all while encouraging responsible energy development.

Thank you to all the people who continue to build Alberta's reputation as a clean, safe and reliable energy leader.

> **Diana McQueen** Alberta Minister of Energy







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#### Welcome from the Canadian Heavy Oil Association

Welcome to the 2014 *Heavy Oil & Oilsands Guidebook!* This marks the ninth anniversary of this publication, which is commonly referred to as the annual playbook for our industry sector.

Over the past several years, the world's attention has focused on Canadian heavy oil and oilsands. Although much of this attention has revolved around the environmental impact of this unique resource, it has also raised awareness of the role the industry can play in the secure supply of global energy resources in the future. The *Heavy Oil & Oilsands Guidebook* is an important part of the communication process to provide clear and factual information on the industry and to help it to advance.

Our industry continues to develop many remarkable technologies and business strategies that help to ensure sustainability. The technology section provides a review of the best extraction technologies and a glimpse into some of the most encouraging emerging technologies for increased efficiency and sustainable development.

What, if anything, has changed on the investment front following the new federal rules on foreign state-owned

company oilsands project ownership that were released last year? Inside, you will read about the current investment climate in the heavy oil and oilsands sector, including insights on foreign ownership.

With the significant recent focus on heavy oil and oilsands transportation issues from pipelines and politics to crude by rail, you will not want to miss the articles in the transportation and marketing section, where you will discover some surprising realities about the evolving markets situation, the outlook for major projects and forecasts for future growth.

As H.G. Wells once said, "Adapt or perish, now as ever, is nature's inexorable imperative." That's why our industry is so focused on sustainability, and that's how we close this publication—examining environmental performance metrics and what strategies are needed for a better, more sustainable future.

Kym Fawcett

President, Canadian Heavy Oil Association, 2012-2014





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#### Welcome from the Government of Saskatchewan

Saskatchewan's economy is strong and diverse, our investment climate is one of the most opportunity-rich jurisdictions in Canada and our energy sector remains one of the primary drivers of this success. This past year, the oil and gas industry is expected to reach an all-time high of \$15 billion in sales and contribute approximately \$1.6 billion in revenue to our provincial economy. These contributions will help pave the way for a bright future for all Saskatchewan citizens.

The men and women working in our oil and gas industry proved once again that hard work pays off, as the province's oil production for the year reached a record-high 177.9 million barrels, up from the previous 2012 record of 172.9 million barrels. As Canada's second-largest oil producer, we strive for growth, which resulted in robust drilling activity, setting another record number of 2,433 horizontal wells drilled for a grand total of 3,371 oil wells drilled. That makes 2013 the third-best year for oil drilling in Saskatchewan's history.

This is an industry that continues to flourish in all corners of the province—from the Bakken play in southeastern Saskatchewan to new thermal projects in the Lloydminster heavy oil belt and everything in between. The opportunities in this sector are vast.

As we continue to seek those opportunities, innovation, research and development of new technologies will lead the charge in unlocking new resources. Agencies such as

the Petroleum Technology Research Centre have already started driving this innovation with research on enhanced oil recovery and oil production technologies with support from the Ministry of the Economy and Innovation Saskatchewan. We have also seen advancements in horizontal well drilling, hydraulic fracturing, thermal recovery and vapour extraction, all of which have helped us access more of our resources. This push for innovation has yielded considerable success, and we look forward to the development of other innovative technologies that will help us extract more of our untapped resources.

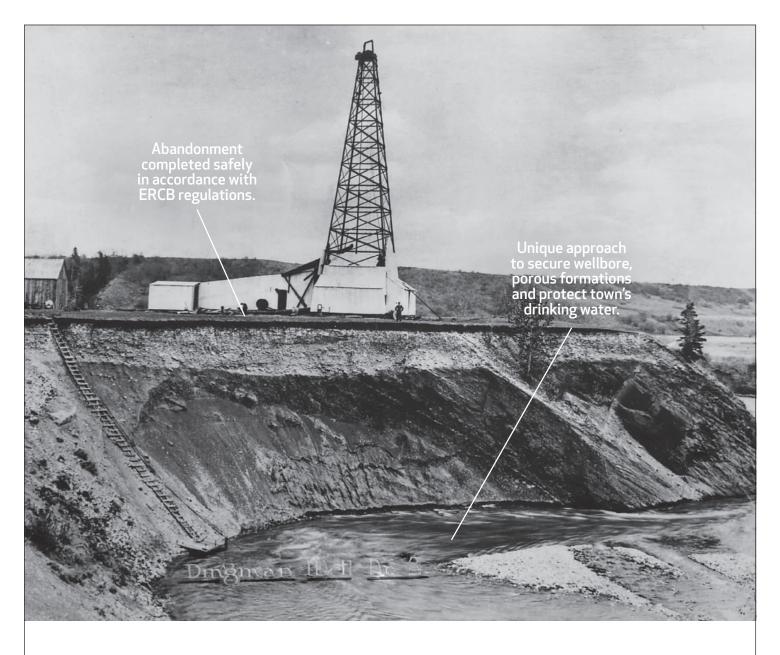
Recently, The Fraser Institute's annual *Global Petroleum Survey* ranked Saskatchewan as the number one jurisdiction in Canada for oil and gas investment policies. This is a vote of confidence from the industry, letting us know that we are doing the right things to ensure Saskatchewan remains competitive both nationally and globally.

Saskatchewan is open for business, and we are pleased that the oil and gas industry continues to see great potential in our province. Our future is bright, and we invite the oil and gas industry to invest and grow in Saskatchewan.

Tim McMillan

Minister of Energy and Resources, Government of Saskatchewan





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# New growth momentum builds

Reflections on 2013

#### **NEW ALBERTA ENERGY REGULATOR BEGINS OPERATIONS**

The new Alberta Energy Regulator (AER) officially launched in June 2013 with the proclamation of the Responsible Energy Development Act, ushering in a new era in energy regulation.

The AER says it brings a new governance structure that will achieve the benefits of strong corporate oversight and independent adjudication of energy applications throughout the hearing process.

"This new structure will allow the regulator's board of directors to set the direction for the organization's business, approve regulatory change and set performance expectations for the regulator," says Gerry Protti, AER chair. "The Alberta Energy Regulator board will operate as a corporate-style board."

The AER immediately took on all regulatory functions previously carried out by the Energy Resources Conservation Board and will assume additional responsibilities in the areas of public lands, water and the environment over the coming months.

#### **CANADIAN OILSANDS: THE NOT-SO-MARGINAL BARREL**

The oilsands has historically been seen by many as a source of crude with marginal economics, but as more companies and analysts review the oilsands against other capital investment opportunities including light tight oil, bitumen is holding its own.

"We estimate that supply cost for most oilsands projects are in the range of \$50-\$90 per barrel with in situ developments tending to fall at the lower end of the range while mining projects are toward the high end of the range because of their higher upfront capital requirements," reads a 2013 report by BMO Capital Markets. "In situ extraction of bitumen remains in its infancy overall and rapid advancements in technology and production processes could really improve the cost structures of high-quality projects."

In some cases, BMO notes that supply costs as low as \$25 per barrel are possible.

"These supply costs are in a similar range as tight oil, although most investors continue to assume that oilsands supply costs are much higher."



#### A DEARTH OF DEALS LEAVES PROJECTS WITHOUT FINANCING

Business law firm Osler, Hoskin & Harcourt LLP calls 2013 "the year the music stopped" for foreign-state investment in Canadian oil and gas, particularly the oilsands. In the wake of the federal government's late-2012 new rules governing state-owned enterprise (SOE) investment, deals practically dried up to nothing.

Osler says that mergers and acquisitions (M&A) activity in Canadian oil and gas in general was off more than 80 per cent in 2013 as compared to 2012, and overall transaction activity in the oilsands dropped to its lowest level in a decade.

The year had but one M&A high point: Imperial Oil Limited and ExxonMobil Canada's \$751-million purchase of the Clyden oilsands lease from ConocoPhillips Canada.

The situation left many producers, particularly the smaller juniors, hurting for cash.

"A number of Canadian oilsands producers struggled to attract additional funding in 2013, and several were forced to engage in strategic alternative processes at distressed valuations," says Glen Schmidt, president and chief executive officer of private Laricina Energy Ltd. "A competitive environment which includes multinational enterprises, Canadian companies and SOEs gives assurance of a competitive landscape with effective Canadian participation."

SOEs or not, M&A activity is expected to heat up as more transportation infrastructure solutions come to light for heavy oil and oilsands operators.

#### SUNCOR CANCELS THE VOYAGEUR UPGRADER

In early spring 2013, Suncor Energy Inc. and partner Total E&P Canada Ltd. announced the much-anticipated cancellation of the partially built Voyageur upgrader, an \$11.6-billion, 200,000-barrel-per-day project that had dominated Suncor's growth plans for more than a decade.

Originally sanctioned in 2007, construction was put on hold in 2008 following the financial collapse. In 2011, work began to restart the project, but in the end it just wouldn't happen.

After a year of warning the economics didn't look good because the oil supply market in North America was shifting dramatically, Suncor killed Voyageur to free up resources for higher-return projects.

#### CANADIAN OIL PRODUCTION EXPECTED TO INCREASE. **LED BY OILSANDS: IEA**

Canadian oil production is expected to increase steadily, as rising output from the oilsands and light, tight oil more than make up for a slow decline in conventional crude oil, according to the International Energy Agency's World Energy Outlook 2013.

In total, output rises by 62 per cent, from 3.8 million barrels per day in 2012 to 6.1 million barrels per day in 2035. The oilsands produce 4.3 million barrels per day in 2035, up from 1.8 million barrels per day in 2012, with their share of overall oil production rising from just under half to 70 per cent.

While the resources are "unquestionably large enough" to support such an expansion, achieving it is contingent on the construction of major new pipelines to enable the crude to be exported to Asia and the United States, the report notes.

— 13 —

#### STUDY CONFIRMS OILSANDS POLLUTING ALBERTA LAKES

Alberta's oilsands projects are definitely polluting lakes almost 100 kilometres from operations, says a 2013 report published in the Proceedings of the National Academy of Sciences of the United States of America.

The report says studies of sediment cores from five lakes near major oilsands operations and Namur Lake—about 90 kilometres from upgrading facilities—demonstrate that modern levels of polycyclic aromatic hydrocarbons (PAHs) are well above "natural," predevelopment levels.

"I think we have pretty strong evidence that it's not all natural; these PAHs are increasing due to the oilsands industry," says John Smol, a biology professor at Queen's University and Canada Research Chair in Environmental Change, as well as one of the study's authors. "Now to keep some perspective, we're not saying they are very high concentrations yet."

Smol cautions that the lakes in the study are not "poisonous pools," but rather reflect the level of PAHs that might be found in an urban lake. However, pollutant levels will be "quite a bit higher" in the next 15 years if all projected oilsands development takes place.

#### **OILSANDS MINES MISS TAILINGS-REDUCTION DEADLINE**

None of Alberta's oilsands mines met the Energy Resources Conservation Board's (ERCB's) first deadline for reducing tailings ponds, mostly because of start-up difficulties with their technology.

"The fines capture performance indicates that the expectations of the ERCB and industry were optimistic. The commercial implementation of tailings management technologies will take longer than expected and performance will be lower than expected until operational problems are resolved," says an ERCB report released in June 2013 that assessed industry attempts to meet the expectations of Directive 074 over the 2010-12 period.

The ERCB (now the Alberta Energy Regulator) will issue its next tailings management assessment report in 2015 and consider enforcement options at that time.

#### **NEW JOINT FEDERAL-ALBERTA OILSANDS MONITORING AGENCY STARTS OPERATIONS**

In October 2013, Diana McQueen, then Alberta's minister of environment and sustainable resource development, introduced a bill in the Alberta Legislature creating the new Alberta Environmental Monitoring, Evaluation and Reporting Agency. The agency, a joint initiative between the Alberta and federal governments with \$50 million in annual support from the industry, is responsible for operating a comprehensive, science-based monitoring system.

Access to federal and provincial environmental monitoring data on air, water, land and biodiversity in the oilsands is available through an online data portal (jointoilsandsmonitoring.ca).



#### MAJOR PROJECTS MARK A MAJOR STEP FORWARD, OFFERING AN OILSANDS VOTE OF CONFIDENCE

Two of Canada's biggest oilsands operators—Suncor Energy Inc. and Shell Canada Limited—sanctioned historic expansion projects in October 2013. Suncor will go ahead with the 180,000-barrel-per-day Fort Hills mine, while Shell will proceed with an 80,000-barrel-per-day expansion to its Peace River, Alta., thermal oilsands operations.

Eurasia Group director of energy and natural resources Robert Johnston writes that the sanction of these projects is contributing to "renewed upstream momentum in the oilsands" and represents "a good vote of confidence by industry that development is continuing despite uncertainty and hopefully not endless delays around market access. I retain the view that the market access questions are—for the most part—questions of 'when' not 'if,' and the industry strategy of pursuing multiple routes to new markets simultaneously is bearing fruit."

WHILE CANADIAN OILSANDS RESOURCES ARE
"UNQUESTIONABLY LARGE ENOUGH" TO SUPPORT AN

EXPANSION TO 4.3 MILLION BARRELS PER DAY IN

2035, UP FROM APPROXIMATELY TWO MILLION

BARRELS PER DAY IN 2012, THE INTERNATIONAL

ENERGY AGENCY NOTES ACHIEVING IT IS CONTINGENT ON
THE CONSTRUCTION OF MAJOR NEW EXPORT PIPELINES.

#### FEDERAL JOINT REVIEW PANEL RECOMMENDS APPROVAL OF THE NORTHERN GATEWAY PIPELINE

The year 2013 ended on a high note for the oilsands sector, with the federal Joint Review Panel into the Northern Gateway Pipeline recommending the project be approved, subject to 209 conditions

Following 18 months of hearings, the panel chaired by National Energy Board member Sheila Leggett determined that the project was in the Canadian public interest and could be built and operated safely without significant adverse impacts.

"We find that the project's potential benefit for Canada and Canadians outweigh the potential burdens and risks," the panel says.

A final decision on the project is expected from the federal government by mid-June.



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# Advancing toward expanded market access

Outlook 2014

#### CRUDE-BY-RAIL COULD BE THE DEFINING FACTOR OF LIGHT-HEAVY DIFFERENTIALS IN 2014

The year 2014 could prove to be a big one for closing the gap in North American crude oil differentials—and easing the revenue-jarring supply squeeze for oilsands producers—and it's all because of rail. The surge in crude-by-rail loading capacity in western Canada has seen volumes go from about 50,000 barrels per day in early 2012 to over 200,000 barrels per day in early 2014, according to a research report by Peters & Co. Limited.

The investment analysts estimate that loading capacity out of western Canada is about 450,000 barrels per day, and volumes could reach over 500,000 barrels per day by the end of the year, when capacity is expected to be over one million barrels per day—nearly matching the crude-by-rail capacity of North Dakota.

While there are positive developments anticipated in pipeline access this year, Peters & Co. says rail will be the main driver of incremental crude exports, and, as such, the cost of crude-by-rail will move the differential between Western Canadian Select and West Texas Intermediate.

"We believe that differentials will be largely driven by the cost to rail the marginal barrel of crude, and that these costs will come down over time as unit train loading facilities become more pronounced versus manifest. As a result, we believe that heavy differentials could very well be narrower in 2014 than the current strip indicates."

But the news is not without its caveats—the most visible of which currently being the potential for safety legislation in both Canada and the United States limiting the development of new rail transport capacity.

"We believe that the potential for new regulations in either Canada or the U.S. to slow down the pace of rail growth is an important factor," the Peters & Co. analysts write, "given that rail is critical to moving the incremental barrel of crude produced in Western Canada over the next couple of years."

#### TRANSCANADA FILES ENERGY EAST PROJECT DESCRIPTION WITH NEB

TransCanada Corporation initiated the regulatory process for the proposed \$12-billion Energy East Pipeline project in early 2014 with the filing of its project description with the National Energy Board.

The project description was created to support the environmental assessment process and provide preliminary information about an expected application later in 2014. It also provides details about the project's scope, activities and processes, based on extensive engineering assessments, environmental studies, as well as stakeholder and aboriginal engagement over the past years.

TransCanada expects to proceed with the regulatory filing in mid-2014, and Energy East is expected to be in service by 2018 for deliveries in Quebec and by late 2018 for deliveries in New Brunswick.



#### **TEMPERING COST ESCALATION WITH EXECUTION STRATEGY**

In late 2013, the partners in the Sturgeon Refinery— Canadian Natural Resources Limited and North West Upgrading Inc.—reported an increase to their capital cost estimate from \$5.7 billion to \$8.5 billion, "renewing memories of the frequent cost overruns witnessed in the oilsands industry during the past two oilsands booms," according to Raymond James Ltd. analysts Chris Cox and Matthew Murphy.

"While we acknowledge that this is just one data point of major capital cost overruns in Alberta, we do believe this at the very least highlights a meaningful risk to cost pressures for industry players pursuing largescale projects in the oilsands."

Jackie Forrest, director of global oil for IHS CERA, says that her group's surveys indicate that, by and large, times have changed, and the oilsands has moved past its days of overruns north of 100 per cent on billiondollar megaprojects.

"2013 has been relatively flat, and our outlook is that there will be some escalation, but not the rate that we saw in 2012 or in 2007-08," she says, adding that it is mainly because the mix of oilsands projects has changed.

"We're going to these smaller projects that are easier to manage. There's also companies that are templating, so there is more understanding of what the project is and more ability to control the costs. There's also more capacity within Alberta, and people have become more sophisticated about getting some services done outside of Alberta, which kind of takes off some of the pressure on the local labour force."

#### **NATIONAL ENERGY BOARD APPROVES ENBRIDGE LINE 9B REVERSAL**

Western Canadian crudes got a step closer to filling refineries in eastern Canada in early 2014 with the National Energy Board's conditional approval of Enbridge Inc.'s plan to reverse the flow of oil on Line 9B for eastward transportation between Westover, Ont., and Montreal.

The \$170-million project will increase the overall capacity of the 30-inch Line 9 pipeline between Sarnia, Ont., and Montreal to 300,000 barrels per day from 240,000 barrels per day, transporting light, medium and heavy crudes. It could be operating by the fourth quarter of 2014.

#### THE CONTINUING SAGA OF KEYSTONE XL

In January 2014, the U.S. Department of State issued its fifth—and final environmental review of the proposed Keystone XL Pipeline project, drawing mixed reviews from the industry and environmental groups, both claiming the report supports their respective arguments for and against the project.

President Barack Obama has said that climate impacts will play a key role in his determination on Keystone XL, which was expected sometime in 2014 but now faces further delays at the state level in Nebraska. In early 2014, a Nebraska court ruled that the appropriate regulatory body had not approved the revised route around the sensitive Sand Hills region.

#### DIFFERENTIAL FORECAST REFLECTS SLOWER-THAN-EXPECTED TRANSITION TO A MORE BALANCED MARKET: FIRSTENERGY

Investment bank FirstEnergy Capital Corp. has widened its outlook for the price spread between heavy Western Canadian Select (WCS) and light West Texas Intermediate (WTI) for the near term, but the differential forecast remains relatively tight against recent painful periods of "blowout" reaching \$30-\$40 per barrel.

"We have increased the outlook for the light-heavy [WTI-WCS] spread by about US\$5 per barrel for 2014, but just a US\$0.50-per-barrel increase in 2015 and 2016 compared to our previous outlook," the firm said in late 2013. "Beyond [2016], we expect the light-heavy differential to remain in the US\$15-per-barrel range."

A number of events and trends are expected to boost the narrowing of the differential, including the full transition of BP p.l.c.'s 405,000-barrel-per-day refinery in Whiting, Ind., to Canadian heavy feedstock, pipeline efficiency gains and better batching jobs on the Enbridge Mainline, significant pipeline additions in the United States and continued increases to rail throughput capacity on both sides of the border.

#### NO END IN SIGHT FOR OILSANDS LABOUR SHORTAGE

Direct operational staff such as power engineers, heavy equipment operators and petroleum engineers will make up a large part of the demand for the 22,200 skilled workers required by the oilsands industry in the near future, says the Petroleum Human Resources Council of Canada.

Power engineers will have the highest demand over the next decade and make up about 25 per cent of projected hiring requirements for both in situ and upgrading operations, says the council, whose findings have been published in its latest study.

These three occupations could generate nearly 7,500 job openings from industry expansion and age-related attrition alone, according to the report. "The skills shortage even extends to external industries the oilsands operations sector relies on, like support services, manufacturing and construction," the council says.

#### **POTENTIAL PROJECT SANCTIONS IN 2014-15**

- · Devon Canada Corporation/BP p.l.c. Pike
- Canadian Natural Resources Limited Kirby expansions
- · Canadian Natural Resources Limited Grouse
- Cenovus Energy Inc. Telephone Lake
- Cenovus Energy Inc. Grand Rapids
- · Marathon Oil Corporation Birchwood
- · MEG Energy Corp. Christina Lake Phase 3
- PetroChina Company Limited Dover (if the put gets resolved)

Statoil ASA Corner

SOURCES: PETERS & CO. LIMITED; OILSANDS REVIEW

#### OIL LEADS ALBERTA'S RESOURCE REVENUE

While natural gas was once the top contributor to Alberta's resource revenue, bitumen and conventional oil are now firmly in the front seat. In 2014-15, the province expects natural gas and byproduct to account for just nine per cent of its total non-renewable resource revenue. As recently as 2008-09, gas royalties comprised nearly half of the total figure.

Bitumen and conventional oil royalties are forecast to account for 83 per cent of non-renewable resource revenue for 2014-15. Bitumen royalties alone are forecast to make up 61 per cent of resource revenue in 2014-15, and by 2016-17 they are expected to comprise 70 per cent of the total.

Asked whether the dependence on bitumen and oil royalties highlights the need for greater takeaway capacity, Chris Theal, president and chief executive officer of Kootenay Capital Management Corp., says it actually underscores the need to find new markets to improve natural gas resource revenues.

#### ALBERTA TO RENEW GREENHOUSE GAS EMISSIONS REGULATIONS

In September 2014, the Government of Alberta is expected to renew its Specified Gas Emitters Regulation (SGER), the legislation that currently charges large emitters \$15 per tonne they miss against an established baseline. When Alberta introduced the SGER in 2007, it became the first jurisdiction in North America to regulate large emitters.

The government has been considering increasing its levy to as high as \$40 per tonne, but former premier Alison Redford has also stated that Alberta will not introduce rules that put the province at a competitive disadvantage against comparable jurisdictions, particularly the United States. However, Redford resigned in spring 2014.

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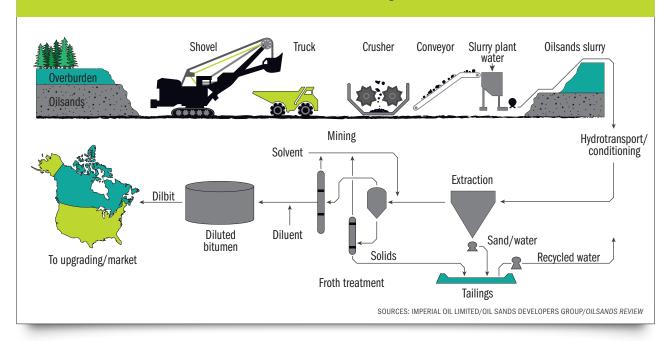
Stop by booth **2105** at the Oilsands Tradeshow & Conference September 9-10, 2014 or visit **cgis.ca** 



#### MINING AND EXTRACTION

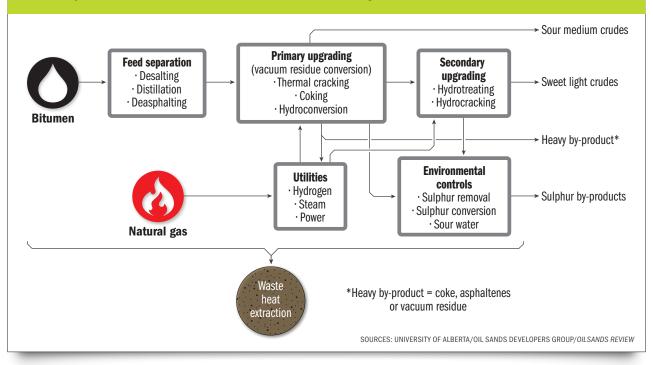
Trucks take oilsand to crushers where it is mixed with warm water and fed through a hydrotransport system to an extraction plant. The mixture of oil, sand and water is placed in separation vessels. Injected air forms tiny bubbles that separate bitumen from the sand and float it to the tank surface where it forms a thick froth that is skimmed

off, mixed with naphtha and spun in a centrifuge to remove remaining solids, water and dissolved salts. The cleaned sand and the water are then sent to the tailings area where the water is recycled back to the extraction process. Less than 20 per cent of the oilsands resource is shallow enough for mining.



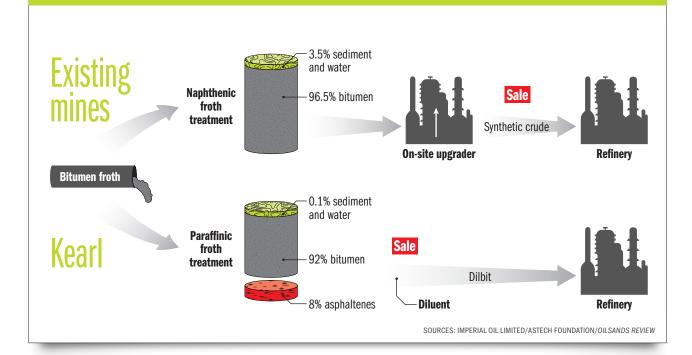
#### **UPGRADING**

Once bitumen is produced via mining or in situ extraction methods, it is sent for upgrading, a process that breaks down the heavy carbon molecules and converts the bitumen into a product similar to conventional crude oil that can be processed by refiners into value-added products. This can occur at dedicated upgrading facilities or as a component of refining operations with specialized processing infrastructure.



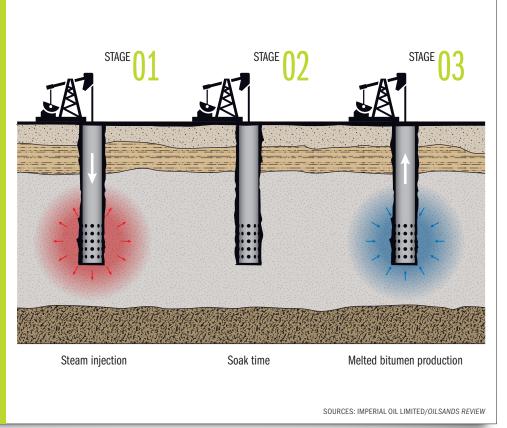
#### PARAFFINIC FROTH TREATMENT

A relatively new oilsands extraction process now in operation at two of five operating mining facilities, paraffinic froth treatment process uses a paraffinic solvent to produce a bitumen product that is essentially free of solids and water and has been partially upgraded through selective deasphalting. This process allows the Athabasca Oil Sands Project to locate its upgrader remotely and for Kearl production volumes to be processed at North American refineries without conventional upgrading.



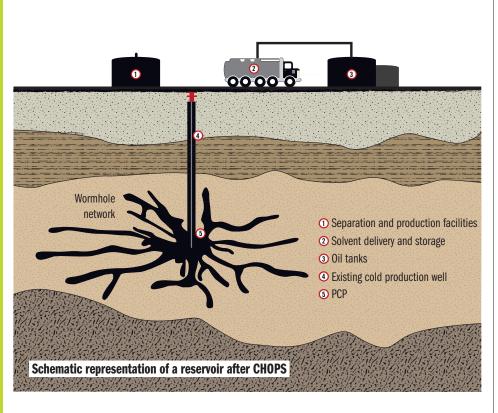
#### CYCLIC STEAM STIMULATION

Cyclic steam stimulation involves injecting high-pressure steam into the reservoir for several weeks, followed by several weeks where the reservoir is left to "soak." The heat softens the bitumen, and the water dilutes and separates the bitumen from the sand. The pressure creates cracks and openings through which the bitumen can flow back into the steam injector wells, which are converted to production mode using rod pumping systems.



# COLD HEAVY OIL PRODUCTION WITH SAND (PRIMARY PRODUCTION)

Cold heavy oil production with sand (CHOPS) is a non-thermal in situ production technology that involves the continuous production of sand through vertical, deviated or horizontal wells using progressing cavity pumps. Sand influx is deliberately initiated during the completion procedure and maintained during the productive life of the well. At the surface, sand is separated from the oil and finally disposed of. The sand is produced along with oil, water and gas, and separated from the oil by settling before being cleaned and sent to a facility for further processing.

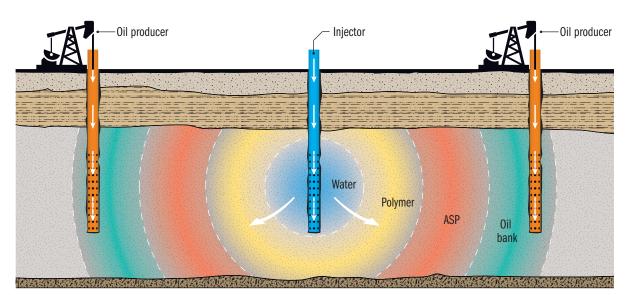


SOURCES: ALBERTA ENERGY/ALBERTA INNOVATES/OILSANDS REVIEW

#### ALKALINE, SURFACTANT, POLYMER FLOOD

This in situ production process is a chemical enhanced oil recovery flood that uses two sources of surfactant and a polymer. Alkaline chemicals such as sodium carbonate react with acidic oil components in situ to create petroleum soap, which is one of the surfactants. A synthetic surfactant

is injected simultaneously with the alkali. A water-soluble polymer is also injected, both in mixture with the alkali and surfactant and as a slug following the mixture, to increase the viscosity of the injectant, thereby improving mobility control of the flood fronts.

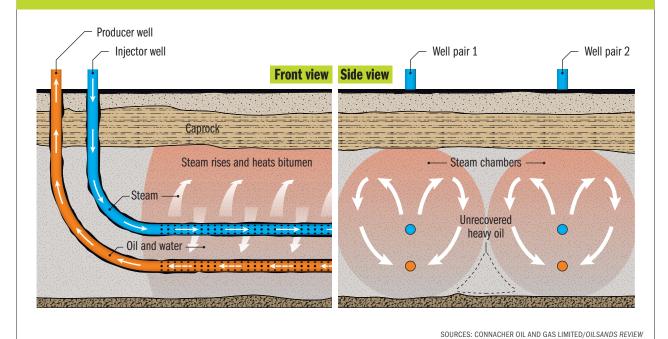


SOURCES: ROCK ENERGY INC./SCHLUMBERGER LIMITED

#### STEAM ASSISTED GRAVITY DRAINAGE

Steam assisted gravity drainage (SAGD) employs two parallel horizontal wells: one injection well near the top of the reservoir, through which high-pressure steam is continuously injected, and one production well near the bottom of the reservoir into which

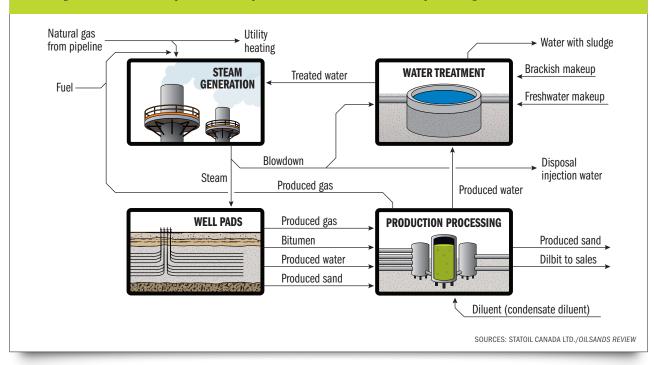
the softened bitumen continuously flows and can be pumped to the surface using mechanical pumps or gas lift. SAGD is responsible for the surge of in situ production growth from the oilsands, and the majority of expected oilsands growth in the future.



#### THERMAL PLANT CENTRAL PROCESSING FACILITY

The majority of units in a heavy oil or oilsands thermal facility are related to water treatment. At the heart of these plants is the central processing facility where water is treated and steam is generated to be sent to production well pads via

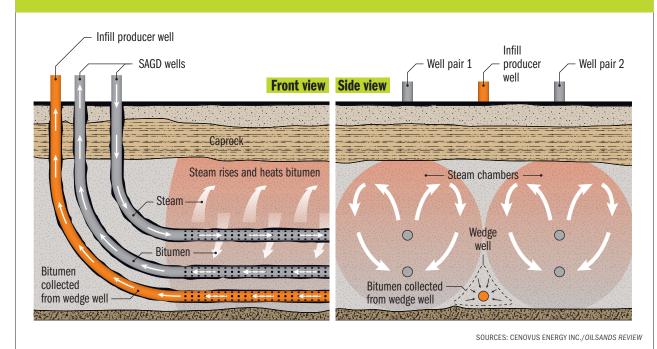
above-ground pipelines. The produced water and oil emulsion is returned via pipeline to the central processing facility where water, gas and impurities are removed and oil is sent to market for further processing.

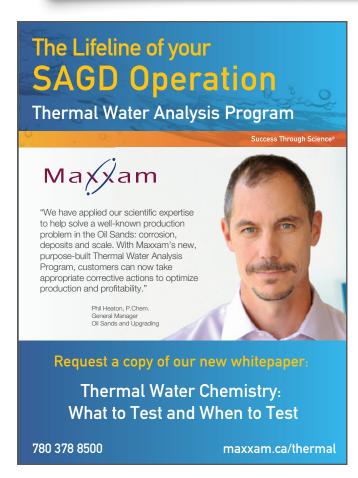


#### **INFILL WELLS**

Infill drilling is one of several incremental improvement techniques to the steam assisted gravity drainage (SAGD) process. Infill wells are horizontal wells drilled between SAGD well pairs designed to access bitumen that has been heated

by steam injection but is stranded from the production wells. The technology allows for increased oil production with little to no extra steam, reducing environmental impacts while adding to the bottom line.

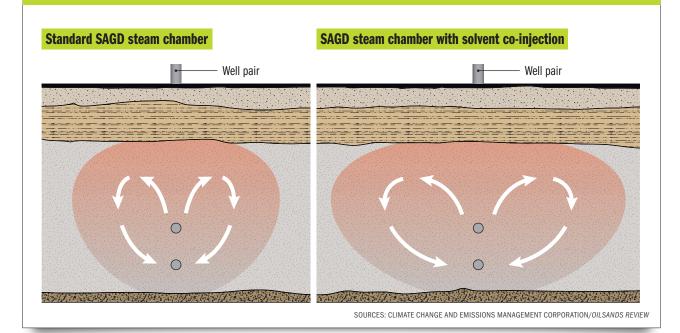






#### **SOLVENT INJECTION/CO-INJECTION**

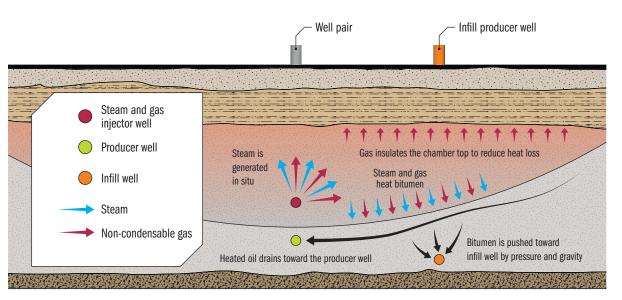
Solvent injection or co-injection with steam is seen as one of the most promising incremental enhancements to the steam assisted gravity drainage (SAGD) process. The solvent coinjection technology proposes to simultaneously inject a solvent and steam mixture to create a unique method that reduces energy and water requirements over conventional SAGD operations. Properly selected hot vapour solvents carried by steam can penetrate deeper into the warm bitumen zone than steam. This results in a thicker mobilization layer and a larger bitumen flow along the SAGD chamber wall and increased production.



#### NON-CONDENSABLE GAS CO-INJECTION

The steam injected into the oilsands reservoir in the steam assisted gravity drainage (SAGD) process helps bitumen flow in two ways: by reducing its viscosity by heating it and by increasing the pressure in the reservoir to help it flow. As the steam condenses back to a liquid state when it cools,

the pressure declines. Co-injecting trace amounts of a non-condensable gas, like methane, with the steam helps keep consistent pressure in the reservoir. This is particularly applicable as SAGD wells and steam chambers approach blowdown, or end of life.



SOURCES: MEG ENERGY CORP./OILSANDS REVIEW



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# In situ's "greatest Opportunity"

Industry turns to solvents to reduce greenhouse gas emissions

By Gordon Cope

he oilsands will struggle with relentless increases in greenhouse gas (GHG) emissions as production grows. Fortunately, new solvent technologies may offer promising solutions to industry's emissions problem.

While oilsands mines are most visible and associated with significant environmental damage, in situ operations on average actually produce higher GHGs. Add that to the fact that 80 per cent of the oilsands resource must be produced using in situ methods, and that in 2012 in situ volumes exceeded mining production for the first time, and you've got a sector looking for economical answers.

The slate of research being done to reduce in situ GHGs is building—particularly the partial or total replacement of steam with solvents, which holds tremendous potential.

"Over the next decade, the greatest opportunity for oilsands GHG emissions reductions is through adding solvents to the steam used for in situ recovery," notes IHS CERA in a recent special report, *Critical Questions for the Canadian Oil Sands*.

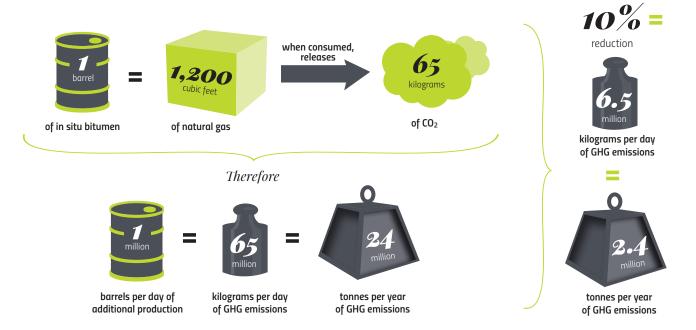
It's easy to see why. According to the National Energy Board, on average, it takes about 1,200 cubic feet of natural gas to produce one barrel of in situ bitumen. When consumed, 1,200 cubic feet of gas releases 65 kilograms of CO<sub>2</sub>. Therefore, one million barrels per day of additional production equals 65 million kilograms per day of additional GHG emissions, or approximately 24 million tonnes per year. Even a 10 per cent reduction in this figure could have tremendous impact.

But solvent-assisted processes could offer significantly better reductions. Imperial Oil Limited has been experimenting for several years at its Cold Lake project with a technique called cyclic solvent process and reports encouraging results.

"We estimate direct GHG emissions are reduced by more than 95 per cent, and direct plus indirect GHG emissions are reduced by more than 65 per cent," says Imperial spokesman Pius Rolheiser.



#### ACCORDING TO THE NATIONAL ENERGY BOARD



Solvents can also help increase oil recovery rates. At Narrows Lake, Cenovus Energy Inc. and partner ConocoPhillips Canada are currently building the first commercial-scale deployment of solvent-aided process (SAP) technology, in this case using butane. Based on test results at other locations, Cenovus anticipates SAP may improve the steam to oil ratio (SOR) and oil production rate by as much as 30 per cent when compared to steam assisted gravity drainage (SAGD) alone. Cenovus also anticipates that SAP may increase total oil recovery by as much as 15 per cent.

The company expects the 45,000-barrel-per-day project to be operational in 2016. The plan is to initially demonstrate SAP on 25 per cent of the wells, eventually phasing it in across the entire operation.

Despite its promise, hurdles remain before solvent-assisted processes can achieve widespread use. Based on availability and effectiveness, producers must choose between solvents—a specific hydrocarbon compound such as CO<sub>2</sub>, butane or ethane, for example—or condensate, which refers to various mixes of solvents. In the Fort McMurray region, condensate mixes are generally more readily available than distilled individual solvents.

Regardless of composition, condensate mixes and solvents cost more by volume than the oil they will be used to produce and must be used wisely in order to be economical. That means recovering solvent volumes during the process.

"The biggest challenges are the cost of the solvent-assisted processes and modelling and prediction necessary to rationalize the large investments needed," says Jalal Abedi, an associate professor of chemical and petroleum engineering at the University of Calgary and director of the Solvent Heat Assisted Recovery Processes (SHARP) research consortium.

Incidentally, Cenovus anticipates its SAP projects will have 10–20 per cent higher initial capital costs than conventional SAGD projects. However, these costs are expected to be offset by increased production volumes, increased oil recovery and lower operating costs.

The company has been testing SAP and researching its behaviour since early on in the operations of its Christina Lake SAGD project, which commenced operating in 2002.

For SHARP researchers, the goal is to foster widespread commercial use. Abedi's team wants to build the knowledge base around solvent-assisted extraction processes, train graduate students in researching and developing these processes, and facilitate the movement of knowledge and skills between academia, industry and government.

Using bitumen and solvents supplied by industry, SHARP conducts experiments in order to understand the basic mechanisms involved in solvent-assisted processes. The eventual goal is to develop universal equations and models that will allow an operator to pick the best process for their reservoir and predict the performance.

SHARP has made significant advances in identifying how solvents interact with bitumen within the reservoir, and is planning on entering into core experiments that will help identify the best commercial processes. "I am optimistic that within three to five years, solvent-based processes will play a significant role in in situ production," Abedi says.

Rolling out major-scale technologies that significantly reduce projected GHG increases will play a considerable role in addressing environmental criticism. "The oilsands are a tremendous resource that has to be unlocked, but we must do it in an environmentally friendly and responsible manner," Abedi says. "Everyone is trying to help by coming up with new technologies, and solvent-assisted processes will help decrease emissions significantly." >



#### UP-AND-COMING SOLVENT-BASED IN SITU BITUMEN RECOVERY PROCESSES

#### Enhanced solvent extraction incorporating electromagnetic heating (ESEIEH)

Harris Corporation, an international communications and information technology company based in Florida, has developed a process that transmits radio frequencies from the surface into a well pair through an antenna attached to the injection well. The low-frequency electromagnetic energy heats reservoir fluids in the formation. At the same time, solvent is injected into the formation in order to dilute and mobilize the bitumen.

Suncor Energy Inc. has been testing aspects of ESEIEH in the field since 2012 at its Steepbank mine. So far, testing has confirmed that the system can deliver sufficient heat to the reservoir. The next phase, scheduled for Suncor's Dover site in 2014, will be to inject solvents into a pay zone heated by radio frequencies to test recovery rates.

ESEIEH testing in the oilsands is a consortium effort that also includes Nexen Energy ULC and Laricina Energy Ltd.

#### Cyclic solvent process (CSP)

CSP is similar to cyclic steam stimulation, where steam is injected into a pay zone before the same well is switched over to production. The main difference is the liquid solvent used.

Liquid solvents are injected under pressure into the reservoir. Depending on the solvent used, heavier asphaltenes can precipitate out of the bitumen, allowing lighter, more valuable hydrocarbons to flow to the surface. The process relies on the energy released by the solvent coming out of solution as a gas to drive the flow.

Imperial Oil's pilot at Cold Lake was sufficiently successful to approve the building of a \$100-million field pilot that will undergo initial solvent injections in 2014.

#### Heated solvents

The process is similar to CSP, only adapted to SAGD wells. Instead of steam, warm propane or butane is introduced into the reservoir as a vapour through the injection well. The vapour condenses and begins to leach lighter hydrocarbons free of the bitumen, which then flow to the surface in the production well.

In 2012, construction began at Suncor Energy's Dover site on a field test of this technology, conceived of by N-Solv Corporation and referred to as bitumen extraction solvent technology. The process is expected to reduce capital costs by 30 per cent, operating costs by 30 per cent, energy use by 85 per cent and surface footprint by up to 50 per cent. The \$70-million facility is expected to produce 500 barrels per day when it enters production early in 2014.

#### Solvent addition to steam

Solvent addition to steam is designed to reduce the SOR, while at the same time improving drainage and production rates and lowering energy usage. Depending on the solvent used, the process can also partially upgrade the bitumen in the ground.

Several companies are testing solvent addition to steam, or solvent co-injection (the type of solvent process that Cenovus will use at Narrows Lake). These include Imperial, Connacher Oil and Gas Limited, Statoil Canada Ltd., Laricina Energy and Nexen.







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# INVESTMENT





#### Oilsands activity outlook 2014:

# Another strong Year another Strong

By Randy Ollenberger Managing director, equity research, BMO Capital Markets he year 2014 is shaping up to be another strong year for the Canadian oilsands business. BMO Capital Markets anticipates an increase in capital spending on oilsands projects in 2014 to approximately \$29.3 billion, which is up eight per cent from 2013. We expect that the majority of the spending will be focused on expansions of existing operations. Several projects are also expected to receive regulatory approvals and subsequent project sanctionings, and new phases of development are anticipated at several properties. Key events that are expected in 2014 include:

- Regulatory approvals and sanctions: Regulatory approvals are expected for Cenovus Energy Inc. Telephone Lake and Grand Rapids, BlackPearl Resources Inc. Blackrod and MEG Energy Corp. Surmont. Athabasca Oil Corporation could also see approvals for its Dover West steam assisted gravity drainage project and Leduc carbonates thermal assisted gravity drainage pilot.
- Regulatory clarity: Challenges from First Nations groups with respect to the cumulative impact of oilsands development on traditional use of lands protected under treaty rights have

created additional uncertainty regarding the regulatory process. We expect a conclusion to Fort McKay's legal opposition against the regulator's approval of the Dover project will provide needed clarity around the approval process for new projects going forward.

- Projects under construction: The year ahead will provide more clarity on cost inflation in the oilsands, including total costs incurred at Husky Energy Inc. Sunrise, which is expected to reach first oil by year-end. Progress reports on Fort Hills, MacKay (PetroChina Company Limited), Hangingstone (Athabasca Oil as well as Japan Canada Oil Sands Limited's project of the same name), Carmon Creek and the Sturgeon Refinery could be disclosed along with updated costs and timing.
- Expansion projects: The majority of capital continues to be spent adding phases of development to existing production. Large-scale additions are expected at Horizon, Kearl, Cenovus Foster Creek/Christina Lake, MEG Christina Lake and the thermal developments of Canadian Natural Resources Limited, Imperial Oil Limited and Suncor Energy Inc.

#### Oilsands spending trends by company \$14 2012 capex 2013 capex \$12 2014 budget \$10 \$8 \$6 \$4 \$2 \$0 SHELL CENOVUS CANADIAN OIL SANDS STATOIL CONOCOPHILLIPS **MEG ENERGY** PETROCHINA TECK SUNCOR CANADIAN NATURAL IMPERIAL OIL CNOOC **THABASCA** SOURCE: BMO CAPITAL MARKETS

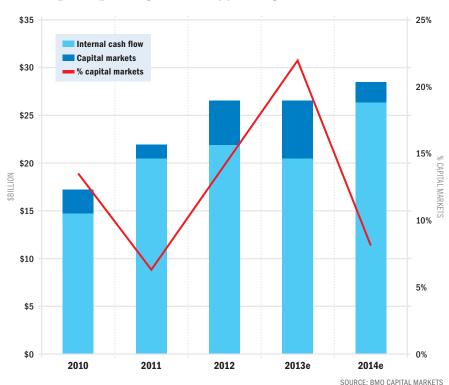
#### **SPENDING OUTLOOK**

Oilsands investment averaged roughly \$27.1 billion over the last two years, and, based on company disclosures, we expect 2014 spending to increase eight per cent to \$29.3 billion. Capital spending on growth projects (under construction, expansions and new projects) should total \$23.1 billion in 2014, up 10 per cent from 2013, while sustaining capital requirements should increase slightly to \$6.2 billion from \$6 billion.

Not surprisingly, spending on in situ development should continue to expand relative to mining development, owing to relatively robust economics, project scalability, and relatively less associated environmental and regulatory challenges. We forecast total in situ spending of \$13.6 billion in 2014 versus \$14.1 billion in 2013, while mining capital increases to \$11.4 billion from \$9.8 billion.

Upgrading capital could reach more than \$4 billion in 2014 versus \$3.1 billion in 2013, driven by spending at Horizon and potentially the Sturgeon Refinery. We expect the most notable capital outlays to be made by Suncor, Canadian Natural, Imperial, ConocoPhillips Canada, Cenovus and MEG Energy. →

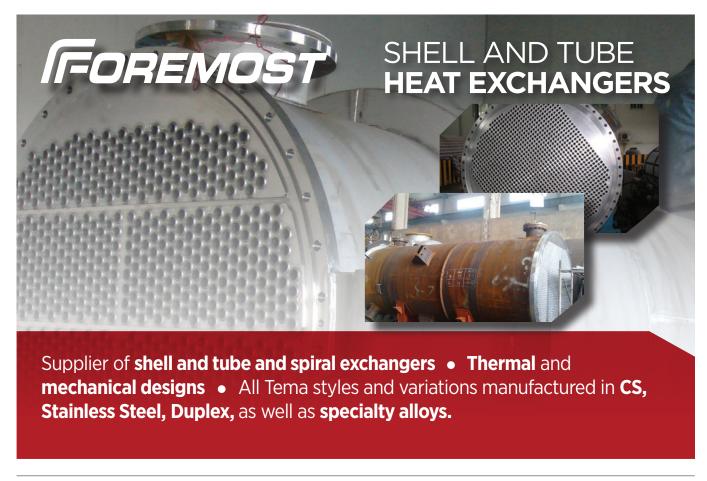
#### Capital spending sources of funding



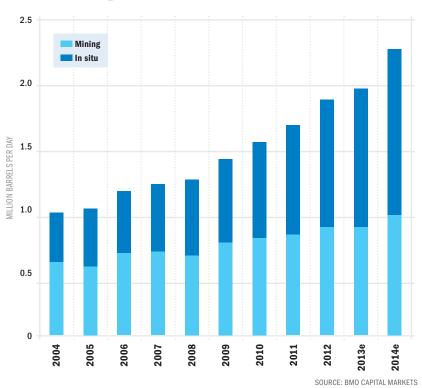
#### **FUNDING OUTLOOK**

The funding of oilsands projects is increasingly from internally generated cash flow rather than capital markets. Going forward, we expect more than 80 per cent of capital requirements can be sourced from internal cash flows. Projects that could require external debt funding include large mining developments such as the Kearl and Horizon projects, as well as the Sturgeon Refinery. The Sturgeon Refinery joint venture presents a special situation due to the "AAA" debt rating of the Alberta government, which allows the partnership to raise roughly 80 per cent of the \$8.5-billion cost through debt markets.

Access to capital continues to be a challenge for smaller oilsands developers; debt markets closed to emerging oilsands projects in 2013 following several underperforming debt issuances by challenged developers such as Connacher Oil and Gas Limited, Southern Pacific Resource Corp. and Athabasca Oil. Established heavy oil producer BlackPearl Resources also faced challenges funding its Onion Lake heavy oil development in 2013, given the tarnished image at other projects. However, we anticipate that



#### Oilsands production

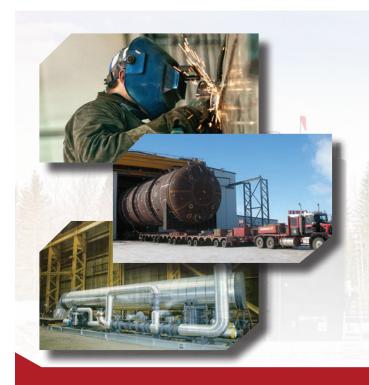


a rescaling of its project and recovery in market sentiment toward heavy oil in general should allow BlackPearl, a relatively high-quality company, to access new capital in 2014.

#### **PRODUCTION OUTLOOK**

We forecast oilsands production to increase from roughly 1.9 million barrels per day in 2013 to more than 2.2 million barrels per day in 2014. Year-over-year growth at Kearl accounts for the majority of the growth in mining output, with the balance from a number of in situ projects. The longer-term outlook also remains robust, and we believe that total oilsands production could exceed four million barrels per day by 2020.

Investors are often skeptical of the future production planned in the oilsands, believing that the industry represents the marginal barrel and oilsands projects will be the first ones to shut down in the event of a downward turn in commodity prices. We estimate that supply cost for most oilsands companies are in the range of \$60-\$100 per barrel, with in situ operators tending to fall at the lower  $\Rightarrow$ 



### **FOREMOST**

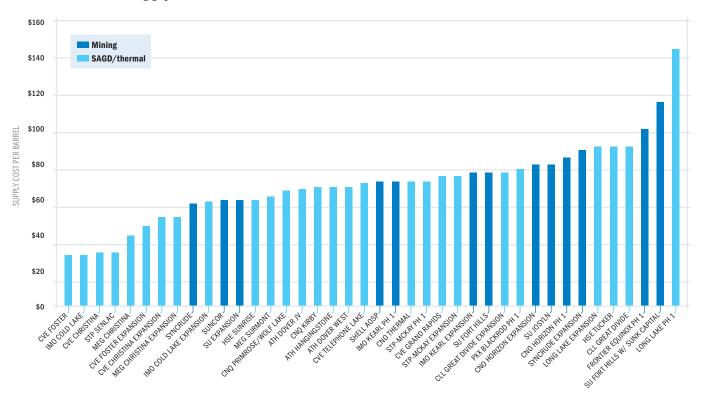
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#### Oilsands supply costs

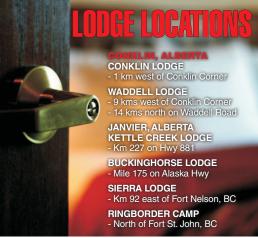


SOURCE: BMO CAPITAL MARKETS



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end of the range while mining operators are toward the high end of the range because of higher upfront capital requirements. These supply costs compare favourably with global average supply costs in the range of \$90 per barrel and even U.S. shale oil, which has supply costs in the range of \$50–\$85 per barrel.

#### **M&A OUTLOOK**

Historically active, meaningful merger and acquisition transactions in the oilsands have been largely absent since 2011 owing to heavy oil infrastructure uncertainties (pipeline takeaway) as well as new federal restrictions on foreign investment. Released on the back of the takeover of Nexen Inc. by CNOOC Limited in late 2012, these new guidelines focus on state-owned enterprises (SOEs), which are defined as "owned, controlled or influenced, directly or indirectly, by a foreign government."

Under the new rules, SOEs will only be allowed to purchase controlling stakes in Canadian oilsands assets on an "exceptional basis" and where there is a clear "net benefit" to Canada. The threshold for

review is any proposal over \$330 million, while private ventures face a review for proposals above \$1 billion. While the new rules still allow foreign SOEs to participate in joint ventures and to take minority stakes in projects, a lack of clarity around the specific rules has created technical challenges that to date have restricted even minority or joint-venture funding.

#### **REGULATORY CHALLENGES**

On Oct. 21, 2013, the Alberta Court of Appeal granted the Fort McKay First Nation the right to appeal the Alberta Energy Regulator's (AER's) previous August approval of Brion Energy Corporation's Dover oilsands project. The band previously asked for a nodevelopment buffer zone around reserve lands at Namur Lake, which, if enacted, could set a negative precedent for future oilsands developments. Leave was granted specifically to investigate a two-part question relating to the AER's interpretation and use of jurisdiction to address constitutional concerns raised by Fort McKay: a) did the AER misinterpret or misuse its jurisdiction

to address constitutional concerns raised by Fort McKay? and, if so, b) did any such error have a material impact on their decision?

Fort McKay's opposition to the Dover decision does not reflect its view of project development-rather it is an objection to how the regulator is considering (or not considering) its concerns regarding the effects of cumulative oilsands development on First Nations lands, which are protected under treaty rights in the Canadian constitution. To be clear, we do not believe Fort McKay is opposed to ongoing oilsands development; the band is estimated to generate some \$100 million per year from businesses largely supporting the oilsands industry, which suggests both Fort McKay and the industry have significant interest in maintaining a good relationship.

Brion and the band came to an undisclosed resolution in early 2014, but mounting legal pressure from First Nations groups and possible increased regulatory scrutiny may result in ongoing risk to oilsands developers.



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#### Major oilsands investment transactions 2004-14

YEAR	BUYER	SELLER	DESCRIPTION	COST (C\$ thousand)	
2014	STATOIL CANADA LTD.	PTT Exploration and Production Public Company Limited	40% interest in Leismer and Corner projects and relinquishment of 60% interest in remaining Kai Kos Dehseh assets	\$435,000	
2013	IMPERIAL OIL LIMITED/EXXONMOBIL CANADA	ConocoPhillips Canada	Clyden oilsands lease	\$751,000	
2012	CNOOC LIMITED	Nexen Inc.	Company, Long Lake project	US\$15,100,000	
	TECK RESOURCES LIMITED	SilverBirch Energy Corporation	50% Frontier	\$435,000	
	PETROCHINA COMPANY LIMITED	Athabasca Oil Sands Corporation	MacKay River	\$680,000	
	CNOOC LIMITED	OPTI Canada	Nexen/OPTI Long Lake SAGD	\$2,100,000	
2011	PETROCHINA COMPANY LIMITED	Dover Operating Company	JV projects	\$83,000	
	TOTAL E&P CANADA LTD.	Suncor Energy Inc.	Strategic alliance—Joslyn/Voyageur/Ft. Hills INPEX (Indonesia) has 10% interest in Joslyn	\$1,750,000	
	TECK COMINCO	UTS Energy Corp.	50% Lease 14	\$177,000	
	PTT EXPLORATION AND PRODUCTION PUBLIC COMPANY LIMITED	Statoil Canada Ltd.	40% interest in Kai Kos Dehseh project from Statoil	\$2,225,173	
2010	TOTAL SA	UTS Energy Corp.	UTS Energy Corp.	\$1,145,000	
	CHINA INVESTMENT CORPORATION	Penn West Exploration	45% interest in JV to develop resources	\$817,000	
	SINOPEC CORP.	ConocoPhillips Canada	9.03% interest in Syncrude	\$4,538,181	
2009	DEVON ENERGY CORPORATION	BP p.l.c.	50% interest in Pike oilsands leases from BP; form JV with BP for Pike	\$634,369	
	EXXON MOBIL CORPORATION	UTS Energy Corp.	Acquisition with Imperial—50% of UTS oilsands Lease 421	\$125,000	
2008	PETROCHINA INTERNATIONAL CO. LTD.	Athabasca Oil Sands Corp.	60% interest in AOSC's MacKay River & Dover oilsands projects	\$1,900,000	
2008	OCCIDENTAL PETROLEUM CORPORATION	Enerplus Corp.	Acquisition of Enerplus's 15% working interest in Joslyn oilsands	\$489,387	
	TOTAL SA	Synenco Energy Inc.	Synenco Energy Inc.	\$541,000	
2007	KOREA NATIONAL OIL CORPORATION	Newmont Mining Corporation	Blackgold oilsands lease	\$270,000	
	MARATHON OIL CORPORATION	Western Oil Sands, Inc.	Western Oil Sands, Inc.	\$6,495,065	
		N // A / O // O // O			
	STATOIL ASA	North American Oil Sands Corporation	North American Oil Sands Corporation	\$1,951,906	
	SURGE GLOBAL ENERGY, INC.  CONOCOPHILLIPS COMPANY	Peace Oil Corp.  EnCana Corporation	Peace Oil Corp.  JV to develop integrated North American heavy oil business	\$9,144 \$2,635,073	
2006	ROYAL DUTCH SHELL PLC	BlackRock Ventures Inc.	BlackRock Ventures Inc.	\$2,635,073	
	ROYAL DUTCH SHELL PLC	Alberta public offering	Acquisition of five parcels of oilsands land	\$101,200	
	KOREA NATIONAL OIL CORPORATION	Harvest Energy Trust	Harvest Energy Trust	\$ 264,483	
				, 201,100	
	ROYAL DUTCH SHELL PLC	Alberta public offering	Acquisition of one parcel of oilsands land from public offering	\$465,000	
2005	TOTAL SA	Deer Creek Energy Limited	Deer Creek Energy Limited	\$1,674,000	
	SINOPEC CORP.	Northern Lights Partnership	40% JV interest	\$149,700	
	AUUNA NATIONAL OFFICER OU CORRES	NEO Faculta Octor	A	0440 700	
2004	CHINA NATIONAL OFFSHORE OIL CORPORATION	MEG Energy Corp.	Acquisition of 2.1% of company	\$119,720	
	INPEX CORPORATION	Canada Oil Sands Co., Ltd.	Acquisition of 3.1% of company  SOURCES: CANADIAN ASSOCIATION OF PETROLEUM PRODUCI	\$3,803	

SOURCES: CANADIAN ASSOCIATION OF PETROLEUM PRODUCERS; OILSANDS REVIEW



## heavy returns

Conventional heavy oil production will continue ringing the cash register in 2014

By Darrell Stonehouse

combination of low finding and development costs, low operating costs and favourable pricing has made conventional heavy oil production a cash flow–generating machine for western Canadian producers for the last three years.

Operators expect the good times to continue in 2014 as improving pipeline access and expanded refinery capacity support narrower heavy oil to West Texas Intermediate differentials going forward.

#### JUST HOW PROFITABLE IS CONVENTIONAL HEAVY OIL PRODUCTION?

In Peters & Co. Limited's September 2013 ranking of North American resource plays, vertical heavy oil wells on the Alberta-Saskatchewan border at Lloydminster were the third-most profitable, providing a 125 per cent rate of return. Horizontal wells at Lloydminster ranked seventh of 45 plays, providing an over 100 per cent rate of return.

The profitability of conventional heavy oil hasn't been lost on Steve Laut, president of Canadian Natural Resources Limited.

"Primary heavy crude oil currently generates the highest return on capital in Canadian Natural's balanced portfolio, and with favourable heavy oil pricing expected for 2014, primary heavy crude oil will continue to generate significant free cash flow," Laut says.

Canadian Natural—the country's top drilling operator for the past two years—plans on drilling 900 heavy oil wells in 2014, up five per cent from 2013. Around 183 of these wells will be horizontals targeting thinner horizons.

The company is also focused on wringing more value out of its resource base using waterfloods and polymer floods. At Pelican Lake, its heavy oil polymer flood was expected to generate \$300 million in cash flow in 2013 and rise to around \$600 million per year by 2016, when the development is completed.

Canadian Natural's incremental capital cost of polymer flooding is in the range of \$13–\$17 per barrel, depending on the reservoir properties and the existing well density. This includes all the incremental wells, the polymer-mixing facilities, the water-treating facilities, the additional production facilities, the maintenance capital and the polymer itself. Incremental operating costs are about \$4 per barrel, mainly associated with handling the polymer and water.

Laut says Pelican Lake crude oil production growth is targeted to increase from 2013

by two per cent to between 47,000 and 51,000 barrels per day, while 2014 capital is targeted to decline by over 35 per cent from 2013 levels, with the completion of major facilities and infrastructure in 2013. He expects operating costs in the play to come in at less than \$9 per barrel.

Pelican Lake delivered an average netback of almost \$46 per barrel in 2012, the highest netback in Canadian Natural's portfolio.

Husky Energy Inc. is also focused on adding value to its heavy oil resource. The company plans on drilling 550 wells in 2014, including 140 horizontal wells in thinner reservoirs. But Husky's main focus is on advancing its steam-driven heavy oil plays.

"Thermal production has emerged as the central driver behind our expected steady growth in heavy oil production in 2014 and beyond," chief operating officer Robert Peabody told analysts at Husky's 2014 budget conference, adding that this is because it is more profitable than thermal oilsands production.

"Year-to-date operating costs from all our heavy oil thermal projects now on production are a little under \$10 a barrel," Peabody said. "Combine that with low finding and development costs in the \$10-\$15-per-barrel range and a premium product price about \$10 per barrel more than you'd get for a typical Fort McMurray bitumen barrel, and you can see why these projects generate very strong returns."

Husky is producing 37,000 barrels per day from thermal operations in the Lloydminster region and is on track to grow this production by another 50 per cent to 55,000 barrels per day by 2017.





AF PRIMARY HEAVY CRUDE OIL CURRENTLY GENERATES
THE HIGHEST RETURN ON CAPITAL IN CANADIAN
NATURAL'S BALANCED PORTFOLIO, AND WITH FAVOURABLE
HEAVY OIL PRICING EXPECTED FOR 2014, PRIMARY
HEAVY CRUDE OIL WILL CONTINUE TO
GENERATE SIGNIFICANT FREE CASH FLOW. 77

- Steve Laut, president, Canadian Natural Resources Limited

Baytex Energy Corp. is also cranking up its focus on conventional heavy oil in 2014 in anticipation of a tighter differential, resulting in an even better economic environment.

"We are excited to be entering 2014 in what could truly be a breakout year for Canadian heavy oil," says James Bowzer, Baytex president and chief executive officer. "Our drilling program is well underway, and we are targeting six per cent production growth this year."

While the company expects heavy differentials to remain volatile, it points to a number

of positive events that are likely to unfold in 2014 that should ultimately contribute to sustained lower differentials and stronger heavy oil pricing, Bowzer says. These include ongoing refinery conversions, continued increases in crude-by-rail volumes, and a number of pipeline capacity improvements and expansion projects.

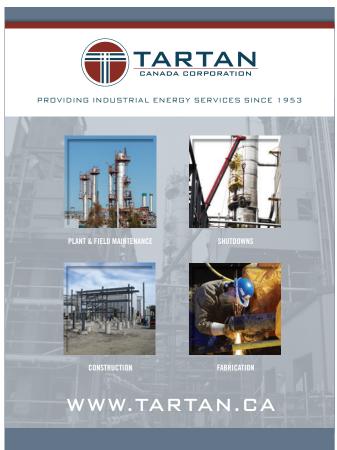
Among the positive trends is the completion of the upgrade to the BP p.l.c. Whiting, Ind., refinery in late 2013, which expands capacity to as much as 350,000 barrels per day of heavy crude refining. A

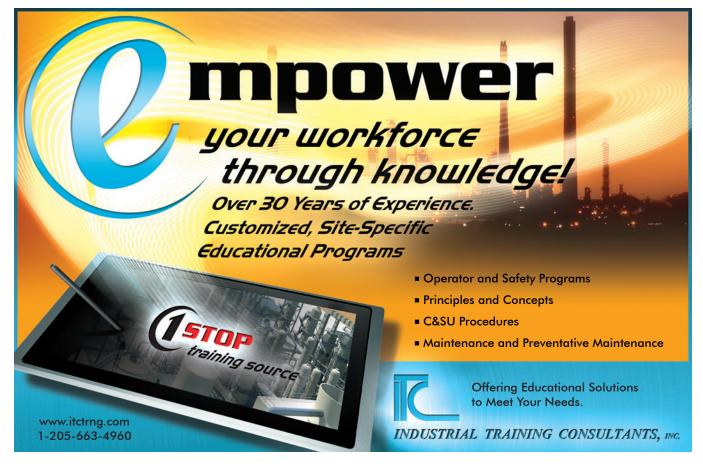
▲ Husky Energy's Pikes Peak South SAGD project near Lloydminster, along the Alberta-Saskatchewan border. Thermal projects have become the main driver behind Husky's steady growth in heavy oil production, which is approximately 115,000 barrels per day.

number of pipelines in the United States are also expected to come on stream throughout the year, providing access to new markets. TransCanada's 700,000-barrel-per-day Gulf Coast Pipeline, which recently started operating, opens access to four million barrels per day of heavy oil refining capacity. Enbridge Inc.'s Flanagan South Pipeline, expected to open by mid-year, will add another 585,000 barrels per day to Port Arthur, Texas, from the Chicago area.

Canadian heavy oil operators expect the additional pipeline capacity will narrow the spread between Canadian heavy oil and Maya heavy oil traditionally refined at Gulf Coast facilities. That spread was as high as \$20 per barrel in November, but as the new capacity comes on stream, Baytex expects the Canadian discount "to progressively reflect the transportation cost from western Canada to the U.S. Gulf Coast." •







### **SUPPLY CHAIN**





## Spreading the wealth

New reports say provinces outside Alberta aren't benefiting as much from the oilsands boom as they could

By Jim Bentein

ew capital investment and maintenance, repair and operations (MRO) expenditures in Alberta's oilsands are expected to reach up to \$1.8 trillion between 2012 and 2030, but unless steps are taken, manufacturers and workers in provinces other than Alberta will not share in that bounty as much as they could, a recent report by the Canadian Manufacturers & Exporters (CME) says.

The CME, which represents more than 10,000 companies accounting for 82 per cent of Canadian manufacturing production, has been working since 2000 to make Canadian manufacturers aware of the opportunities afforded to them by oilsands development.

The study, *Oil Sands Manufacturing*, which was produced in partnership with the governments of Alberta and Canada as well as Edmonton Economic Development Corporation, concludes that 2009 capital

investment and MRO spending in the oilsands totalled \$23 billion. Of that spending, the CME says only about 20 per cent went directly to Canadian manufacturers, with two-thirds of that staying within Alberta. The remaining one-third breaks down as 14 per cent to Ontario manufacturers, nine per cent to Saskatchewan and Manitoba manufacturers, four per cent to manufacturers in British Columbia and just one per cent to Atlantic Canada.

"If we're going to be profitable, if we're going to take advantage of the opportunities, if we're going to drive new business opportunity, and if we're going to make the case that this is not only opportunity for future growth but is going to be an opportunity for communities right across the country...things have to change," Jayson Myers, president and chief executive officer of the CME, said while releasing the report in mid-November.

Mathew Wilson, vice-president of national policy at the CME, says the opportunity is immense. "The economic opportunity in Canada is huge, and we're just at the beginning of the cycle," he says.

But, despite that potential, the oilsands industry is not producing the spinoffs it should, the CME study concludes. In particular, Wilson points out it is having minimal impact on Ontario, Canada's traditional industrial heartland.

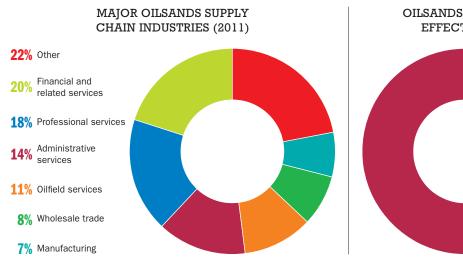
There are other opportunities as well, including the conventional mining sector, where another \$1 trillion—plus is expected to be invested through to 2030, and the power sector, with several large hydro projects, natural gas—fired plants and other large investments planned over the next 20–30 years.

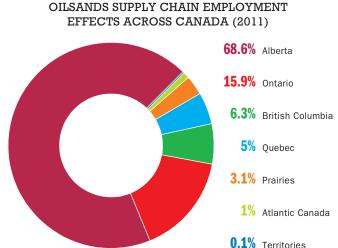
Wilson says none of those sectors will equal Ontario's auto industry, which remains key to the Canadian economy even after being hit hard in the 2008 recession. However, he says, "It's not a good strategy to expect the oilsands to pick up the slack."

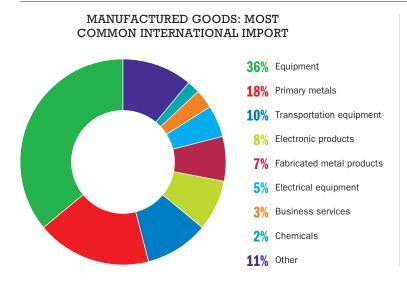
But that doesn't mean there aren't significant opportunities for Ontario and all other provinces. "Alberta now has the third-largest manufacturing sector in Canada, with shipments worth \$75 billion a year, representing almost nine per cent of its gross domestic product," he says.

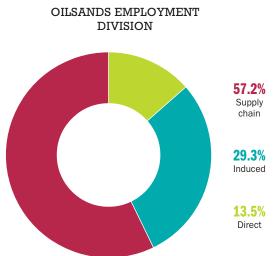
That will only grow in the future as the MRO sector in the oilsands becomes larger than new capital spending. "Every new oilsands plant that opens will have to maintain and replace its equipment," he said. "It's a value-added sector."

#### Cross-Canada impacts of the oilsands supply chain









SOURCE: CONFERENCE BOARD OF CANADA

#### PERSPECTIVES ON CROSS-CANADA MANUFACTURING

While *Oil Sands Manufacturing* refutes critics' claims that oilsands development inflated the Canadian dollar at the expense of the rest of Canada, a report released the same week by Équiterre and the Pembina Institute says otherwise.

"Canadians might have to move closer to the oil barrel in order to benefit from good health services, good education for their kids, and relatively low income tax," says University of Ottawa economics professor Serge Coulombe in the report Booms, Busts and Bitumen: The Economic Implications of Canadian Oilsands Development.

Myers disagrees, pointing to the lack of evidence that the value of the Canadian dollar

has been driven up by oilsands development and calling the study's conclusion "illogical and simply incorrect."

"I've got news for you: the Canadian dollar would be high with or without the oilsands. We do not have a petro-currency. We have a high currency because of the weakness of the U.S. dollar. That's why the Canadian dollar has gone up," he says.

Myers also says Canada's manufacturers would have been challenged if it were not for the oilsands and the tens of billions worth of manufacturing products it has procured in recent years. The oilsands provided an alternative market for manufacturers that would not have existed otherwise.

Both studies agree, though, that more can be done to spread the oilsands wealth to the rest of  $\frac{1}{2}$ 

Canada. The CME consulted companies involved in oilsands development, including manufacturers, engineering, procurement and construction management (EPCM) companies, and the project owners themselves in preparing the report. It also examined production and investment trends in the oilsands and conducted two detailed economic simulations of interprovincial trade.

The CME study sees the potential for Canadian manufacturers to sell between \$211.2 billion and \$386.9 billion worth of products through to 2030, including both capital and MRO investment.

But the report cautions that there is no guarantee this will happen, saying it is essential that "advanced manufacturing supply chains are developed domestically to support the investments."

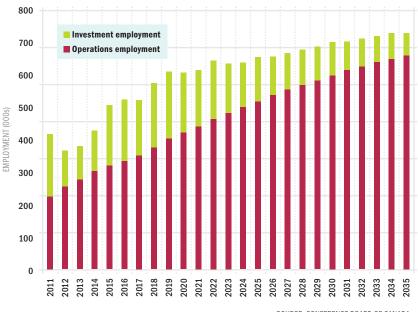
#### PLANNING FOR THE FUTURE

The CME also calls for improved dialogue between oilsands producers and Canadian manufacturers, urging the Canadian government to better understand the economic benefits and support the development of east-west transportation corridors to transport oilsands crude. It also recommends strengthening Canada's manufacturing business environment to support research and development for oilsands-related products.

To help share the wealth across Canada, the CME recommends:

- Establishing an oilsands supply chain working group with senior leaders from project owners, EPCM companies and manufacturers that would focus on bottlenecks in the supply chain and identify threats to growth;
- Having project owners and EPCM companies create a detailed "how-to" guide for manufacturers, which explains the expected actions to be taken to participate in oilsands supply chains;
- Establishing an oilsands supply chain resource and procurement office for manufacturers to learn about the specific procurement opportunities and how to engage and navigate supply chains; and
- Developing common supply chain prequalification standards and centralizing a process for pre-qualifying manufacturers and their specific products and services.

#### Oilsands-related employment growth



SOURCE: CONFERENCE BOARD OF CANADA

44 IF WE'RE GOING TO MAKE THE CASE THAT THIS IS NOT ONLY OPPORTUNITY FOR FUTURE GROWTH BUT IS GOING TO BE AN OPPORTUNITY FOR COMMUNITIES RIGHT ACROSS THE COUNTRY...THINGS HAVE TO CHANGE. 77

Jayson Myers, president and chief executive officer,
 Canadian Manufacturers & Exporters

### JOBS, JOBS AND GDP: CROSS-CANADA OILSANDS BENEFITS ABOUND

A January 2014 report by IHS CERA shows that the economic impact of the oilsands sector truly is a nation-wide phenomenon.

"It is estimated that in 2012, oilsands contributed C\$91 billion to the Canadian economy, or 5 per cent of GDP [gross domestic product], and to 478,000 jobs, or 3 per cent of all jobs in Canada—more than 5 out of 10 provinces," IHS reports.

Researchers say that in a future where oilsands production reaches 3.8 million barrels per day in 2025, the industry's contribution to Canadian GDP could nearly double, and one-third more jobs could be expected.

"Between 2012 and 2025, oilsands' contribution to Canadian GDP could grow from C\$91 billion to

C\$171 billion. This would be like adding an economy the size of Saskatchewan today to Canada by 2025. Oilsands could also add over one-quarter of a million more jobs, contributing to 753,000 jobs in Canada in 2025."

But IHS says the numbers may understate economic impacts to regions beyond Alberta.

"Comprehensive data on the geographic distribution of direct oilsands investment do not exist. As a result, a greater share of benefits is attributed to Alberta and too few to other regions. Current models are also not ideal for measuring the net effect of a large investment like the oilsands. Given the discussion over oilsands benefits to other regions, the development of more comprehensive tools and data is warranted."







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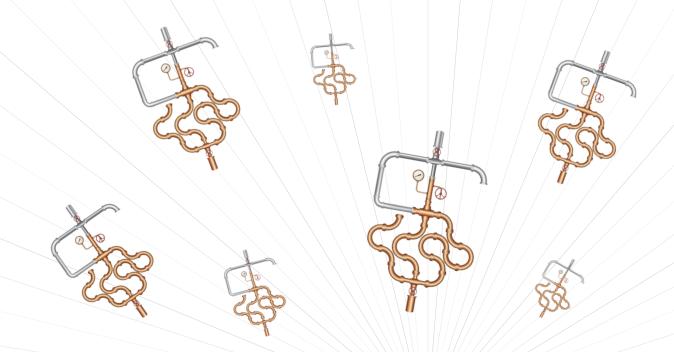












## contract shift

Oilsands operators are wary of lump-sum agreements, even though they could provide greater cost certainty on projects

By Joseph Caouette









 Oilsands project owners must review different contract strategies for new multi-billion dollar construction projects.

his is a tale of two homeowners.

The first-let's call him Jim-wants to build a new house. Plans haven't been quite settled, but he needs to begin building right away if he wants to move in before the next winter. He hires a contractor for a set fee and pledges to pay whatever costs are accrued along the way.

The second, Bob, also wants to build a new home. Unlike Jim, he prefers to plan everything down to the last nail before a shovel even hits the ground. He settles on a blueprint and hires a contractor that can provide solid estimates on the final price of materials and labour.

In this scenario, Jim opted for a cost-plus contract, while Bob chose lump sum. Observers would likely suggest Bob is the most prudent of the pair, while Jim might as well have signed over his bank account to Profligate Builders Inc. The choice seems obvious. But when this scenario is applied to the oilsands, many still choose cost-plus over lump sum, even though the former carries a clear threat of cost overruns. Why?

It's a question that has been asked for years. In 2010, a report commissioned by Alberta Finance and Enterprise argued lump sum offered the oilsands industry several benefits: a clear allocation of responsibility to a single contractor, less time and money spent managing contractors, and potentially lower costs overall.

"By using lump sum contracting to motivate through the prospect of a loss, healthy patterns of behavior can be set up from the outset of a project, for example, proper front end loading and construction management," the study says.

Authored by University of Calgary professor George Jergeas and his then-student Jacqueline O'Toole, the

#### 44 THERE ARE SO MANY PROJECT DELIVERY CHOICES NOW THAT YOU AS A PROCUREMENT AGENT REPRESENTING AN OWNER HAVE TO PICK THE RIGHT ONE FOR YOUR SITUATION. "

Scott Matheson, chair, Alberta Construction Association

report surveyed both owners and engineering firms about their interest in lump sum at the time. Unsurprisingly, owner enthusiasm easily trumped that of contractors, but both groups showed strong support. When asked if they were interested in lump sum, 91 per cent of the owners said yes compared to only nine per cent on the no side. With engineering firms, 62 per cent said yes and 38 per cent said no.

Since the survey was done, there have been several noteworthy lump-sum announcements. In November 2013, Laricina Energy Ltd. signed a two-phase deal on its Saleski in situ project with an unnamed "leading international engineering and construction company." The first phase would be done under a reimbursable structure, while the second would be lump sum.

At the same time, over half of the committed capital on Canadian Natural Resources Limited's Horizon project is held in lump-sum contracts. Notably, the project is currently 10 per cent below original cost estimates, according to the company. And Husky Energy Inc. >







has been converting contracts on the first phase of its Sunrise project wherever possible in order to achieve cost certainty.

Among engineering, procurement and construction (EPC) contractors, Saipem Canada Inc. is perhaps most strongly aligned with the lump-sum approach. Currently doing work for both Husky and Canadian Natural, the Italian company has staked its domestic business on lump sum, and it has one distinct advantage that other contractors may lack—a massive indoor modular fabrication facility that opened in Edmonton last fall. By bringing so much of its work into a controlled setting, the company is hoping it can create the efficiencies needed to profit from lump sum.

Yet despite these flickers of interest, enthusiasm for lump sum remains cool outside of small, easily managed aspects of projects. Larger contracts like those chased by Saipem tend to be more rare. Indeed, as Dundee Capital Markets Inc. notes in its 2013 survey of EPC firms serving the oilsands market, the Italian company is the last contractor to have snagged a lump-sum field construction contract when it was hired by Husky—back in 2010.

According to Maxim Sytchev, vice-president of infrastructure and industrials at Dundee, explorers and produ-cers simply don't have the appetite for lump sum these days. The "Armageddon dynamic" of the post-2008 crash years may have motivated some past deals, but contractors are no longer scrambling to find work now, he explains.

"Obviously, activity is not as robust as the 2006-08 time frame, but there's enough work for everybody," Sytchev says. "That careful balance of contractors not being too desperate and the E&P [exploration and production] clients knowing that it's not really worth extracting a pound of flesh at this point in time provides a nice backdrop for a rational environment when it comes to contract structure."

Of course, there are always a few owner companies trying to foist lump sum upon contractors, but that attitude is hardly common, he says. Alberta, with its tight labour markets and unforgiving weather, allows little margin for error when it comes to predicting productivity. Contractor and owner alike prefer not to take on the risk.

"When you have contractors who are not delivering, they stop paying their subcontractors, and there's a negative cascading effect that people should try to avoid," Sytchev says.

And why take a chance when there are so many other options to choose from out there?

"There are so many project delivery choices now that you as a procurement agent representing an owner have to pick the right one for your situation," says Scott Matheson, chair of the Alberta Construction Association and Alberta business development manager for PCL Construction Management Inc.



As Matheson notes, companies often break down projects into a range of contract structures for maximum flexibility and security. Everything from lump sum to construction management to design-build might be called upon in a single client-contractor relationship.

"You need different delivery models for the things you can't define," he says. "The only way you can do some of these things is to say, 'That's most of the time and material—go out and do that portion of it because we don't have time to engineer it."

Sytchev has also noticed increasing creativity in how many in the industry are structuring deals, with cost-plus projects incorporating target margins and other hybrid contracts. But he's cautious when asked if the industry has grown better at managing the challenges of cost-plus contracts.

"It's nice to contemplate staggering projects and so forth, but this is not a cartel," Sytchev says. "Every company is its own stand-alone legal entity, and they have shareholders and expectations. People will drive to be the first out of the gate. That's just natural."



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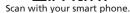
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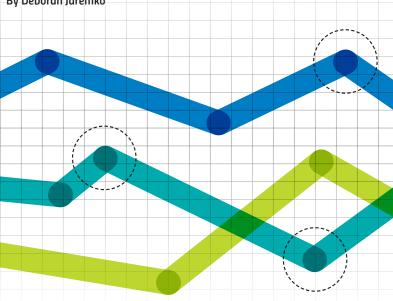
#### Cranking the machine

## in 2014

Despite its challenges, investment continues to

bolster the oilsands sector based on scale and stability





f the forecasts are correct—and lately they've been more likely to be revised up than down—2014 is going to be another big year for oilsands developers and the companies along the supply chain. The Canadian Association of Petroleum Producers (CAPP) is predicting that project owners will sink \$25 billion of capital investment into the sector this year, matching CAPP's revised estimate for 2013, which began the year at \$23 billion but ended it at \$25 billion. Peters & Co. Limited analysts peg the 2013 estimate even higher, at \$30 billion, which would be a new capex record.

"The oilsands continues to rank as a place to deploy significant new capital for a number of majors, national oil companies and large-cap North American independents, which is despite some of the challenges that are being faced in the sector," the investment firm wrote in its *Oil and Gas Overview: Winter 2014* 

"There are ultimately a number of different views that are being taken by companies, but we believe that a number will continue to be attracted to the oilsands as a result of some key factors, the most important of which are the scale of the projects/size of the resource, the more stable long-term production profile, views that the North American infrastructure bottlenecks will be resolved, and how Canada ranks as a place to deploy capital globally."

According to Dundee Capital Markets Inc.'s fifth annual oilsands survey, released in December 2013, there has been recent "thawing" of sentiment on the oilsands with major announcements such as Suncor Energy Inc. and partners sanctioning the Fort Hills mine.

The overall sentiment of their survey is positive, write Dundee's Maxim Sytchev and Shereen Zahawi, with most respondents reporting that capital spending is on track for 2013-14 relative to their own expectations.

"The caveat here would be that this is in line with 're-set' expectations. Participants also expect to see a pick-up in project awards, although cost containment and oil price volatility continue to be top of mind for [owners]."

The Dundee analysts say that the current oil price environment remains conducive to additional oilsands development, assuming a resolution of pipeline bottlenecks and no major macro-dislocations.

"One can't rule out the negative impact on the economics of these projects stemming from a potential deterioration in oil price." **\mathbb{\mathbb{H}}** 



#### **OILSANDS DEVELOPMENT IN 2014**

#### Reasons for optimism

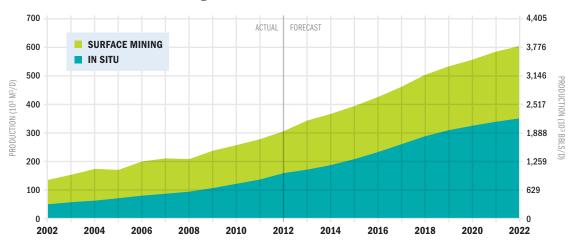
- ➤ A number of the majors and other large caps are deploying significant capital and pushing ahead with new projects:
  - Suncor/Total/Teck sanctioning of Fort Hills, despite questions around the economics
  - Shell sanctioning of Carmon Creek, with a plan to export off the east coast of Canada
  - Imperial application for Aspen, which would be its first SAGD project
  - Exxon/Imperial purchase of Clyden assets from Conoco
  - Exxon/Imperial optimism over Kearl and how the project ranks versus its other projects globally
  - · CNOOC acquisitions of Nexen/OPTI
  - PetroChina continued development of MacKay (100 per cent)
- ➤ JACOS/CNOOC sanctioning of Hangingstone expansion after running a demonstration project at the property since 1999—this project to date has ranked as being "average"
- ➤ A number of projects have demonstrated very strong performance (Cenovus Christina Lake, MEG Christina Lake, Pengrowth Lindbergh pilot)
- ➤ Rail investment and debottleneck of U.S. pipeline network should improve takeaway options in 2014 (Seaway + Flanagan South + Enbridge batching improvements + Keystone southern leg ramping up)
- ➤ Companies are continuing to invest significant capital in new technologies to improve long-term economics—some of these could result in significant step-changes

#### Reasons for pessimism

- ➤ Lack of clarity from federal government on investment criteria for state-owned enterprises
- ➤ Performance from a number of projects has been below expectations, and the SAGD industry is still in its infancy, which results in some of the older projects still going through new phases of development
  - Canadian Natural bitumen seepage to surface issues at Primrose
  - Cenovus wellbore maintenance issues and steam chamber coalescence at Foster Creek—this has been one of the most successful projects to date
- ➤ Managing operating and maintenance capital costs has continued to be a problem, even for the better operators; the potential for additional cost inflation remains a major concern
- ➤ Lots of assets are still for sale, both formally and informally; a number of packages were taken off the market last year
- ➤ Lack of clarity on Keystone XL has been an overhang and caused the industry to pause on the advancement of other initiatives—takeaway options are still an issue and have continued to result in price discounts for Canadian crudes
- ➤ A number of juniors have used too much debt to finance projects—this has eroded investor confidence and added to an already-tough market to raise capital
- ➤ Aboriginal rights issues have delayed some projects (Athabasca/PetroChina Dover, Enbridge Northern Gateway) and there is still uncertainty on how this will be resolved

SOURCE: PETERS & CO. LIMITED OIL AND GAS OVERVIEW: WINTER 2014

#### Alberta crude bitumen production

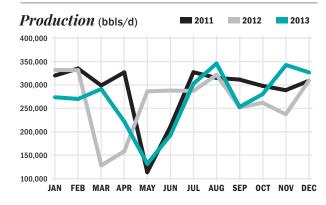


■ The Alberta Energy Regulator's spring 2013 crude bitumen production forecast predicts the industry will be extracting 3.8 million barrels per day in 2022.

SOURCE: ALBERTA ENERGY REGULATOR

#### Suncor





PROJECT	Suncor—Base and Millennium	
LOCATION	North Athabasca	
OWNERSHIP	Suncor Energy 100%	
PRODUCTION START	1967	
AVERAGE TOTAL VOLUME TO BITUMEN IN PLACE	8.1:1	
AVERAGE ORE GRADE (WEIGHT%)	11.61	
AVERAGE STRIP RATIO	1.3:1	
CURRENT PRODUCTION CAPACITY (BBLS/D)	501,000	
AVERAGE DAILY BITUMEN PRODUCTION 2013 (BBLS/D)	269,729	
AVERAGE DAILY BITUMEN PRODUCTION 2012 (BBLS/D)	266,291	

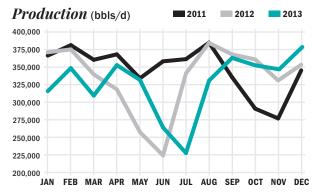
SOURCES: ALBERTA ENERGY REGULATOR; CORPORATE DISCLOSURES

#### Of interest:

Suncor Energy Inc. has recently freed capacity to process additional mined bitumen in its upgrading operations by installing infrastructure to send in situ bitumen production directly to market. One intended result is to "unlock" production in mining.

#### **Syncrude**





PROJECT	Syncrude Mildred Lake and Aurora	
LOCATION	North Athabasca	
OWNERSHIP	Canadian Oil Sands 36.74%, Imperial Oil Resources 25%, Suncor Energy 12%, Sinopec Oil Sands Partnership 9.03%, Nexen Oil Sands Partnership 7.23%, Mocal Energy 5%, Murphy Oil Company 5%	
PRODUCTION START	1978	
AVERAGE TOTAL VOLUME TO BITUMEN IN PLACE	North Mine: 7.2, Aurora North: 7.2, Aurora South: 8.0	
AVERAGE ORE GRADE (WEIGHT%)	North Mine: 11.0, Aurora North: 11.4, Aurora South: 11.0	
AVERAGE STRIP RATIO	North Mine: 1.5:1, Aurora North: 0.8:1, Aurora South: 0.9:1	
CURRENT PRODUCTION CAPACITY (BBLS/D)	407,000	
AVERAGE DAILY BITUMEN PRODUCTION 2013 (BBLS/D)	Aurora: 178,831, Mildred Lake: 147,777	
AVERAGE DAILY BITUMEN PRODUCTION 2012 (BBLS/D)	Aurora: 183,873, Mildred Lake: 151,723	

SOURCES: ALBERTA ENERGY REGULATOR; CORPORATE DISCLOSURES

#### Of interest:

Syncrude Canada Ltd. recently reached completion at two of four major capital projects designed to support operations and environmental performance: mine train relocations and a new consolidated tailings plant. Further mine train relocations and a tailings centrifuge plant are expected to be complete in 2014 and 2015, respectively.

#### **Athabasca Oil Sands Project**

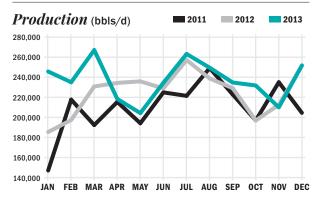
PROJECT	Athabasca Oil Sands Project
LOCATION	North Athabasca
OWNERSHIP	Shell Canada 60%, Chevron 20%, Marathon Oil 20%
PRODUCTION START	2002
AVERAGE TOTAL VOLUME TO BITUMEN IN PLACE	Muskeg River: 7.0:1, Jackpine: 7.2:1
AVERAGE ORE GRADE (WEIGHT%)	Muskeg River: 11.4, Jackpine: 10.4
AVERAGE STRIP RATIO	Muskeg River: 0.7:1, Jackpine: 0.6:1
CURRENT PRODUCTION CAPACITY (BBLS/D)	255,000
AVERAGE DAILY BITUMEN PRODUCTION 2013 (BBLS/D)	Muskeg River: 136,710, Jackpine: 80,629
AVERAGE DAILY BITUMEN PRODUCTION 2012 (BBLS/D)	Muskeg River: 128,227, Jackpine: 97,015

SOURCES: ALBERTA ENERGY REGULATOR; CORPORATE DISCLOSURES

#### Of interest:

In late 2013, Shell Canada Limited and its partners in the Athabasca Oil Sands Project received federal regulatory approval for the 100,000-barrel-perday Jackpine mine expansion despite "significant" adverse environmental impacts. Shell says the Jackpine expansion could be operational by 2017.





#### Horizon

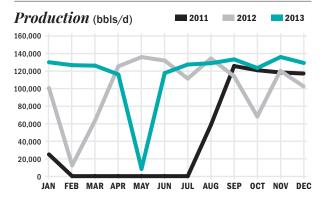
PROJECT	Horizon
LOCATION	North Athabasca
OWNERSHIP	Canadian Natural 100%
PRODUCTION START	2008
AVERAGE TOTAL VOLUME TO BITUMEN IN PLACE	10.3:1
AVERAGE ORE GRADE (WEIGHT%)	10.8
AVERAGE STRIP RATIO	1.2:1
CURRENT PRODUCTION CAPACITY (BBLS/D)	135,000
AVERAGE DAILY BITUMEN PRODUCTION 2013 (BBLS/D)	117,136
AVERAGE DAILY BITUMEN PRODUCTION 2012 (BBLS/D)	102,886.75

SOURCES: ALBERTA ENERGY REGULATOR; CORPORATE DISCLOSURES

#### Of interest:

Canadian Natural Resources Limited says the operating performance at Horizon has been strong since the project executed its first turnaround in May 2013. A phased expansion to 250,000 barrels of synthetic crude oil production per day is underway.





#### Kearl



80,000				
70,000				
60,000				/
50,000				
40,000		_/		
30,000		/		
20,000				
10,000				

PROJECT	Kearl
LOCATION	North Athabasca
OWNERSHIP	Imperial Oil 71%, ExxonMobil Canada 29%
PRODUCTION START	2013
AVERAGE TOTAL VOLUME TO BITUMEN IN PLACE	10.5:1
AVERAGE ORE GRADE (WEIGHT%)	11.4
AVERAGE STRIP RATIO	1.5:1
CURRENT PRODUCTION CAPACITY (BBLS/D)	110,000
AVERAGE DAILY BITUMEN PRODUCTION 2013 (BBLS/D)	24,969
AVERAGE DAILY BITUMEN PRODUCTION 2012 (BBLS/D)	

SOURCES: ALBERTA ENERGY REGULATOR; CORPORATE DISCLOSURES

#### Of interest:

Imperial Oil Limited achieved first production at Kearl in spring 2013. The company says it exited 2013 having achieved production rates of 100,000 barrels per day and is working to stabilize performance at these higher levels.





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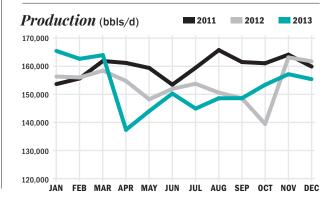


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#### **Cold Lake**





PROJECT	Cold Lake
LOCATION	Cold Lake
OWNERSHIP	Imperial Oil 100%
PRODUCTION START	1985
FORMATION/POOL	Clearwater
AVERAGE RESERVOIR DEPTH	400 m
TECHNOLOGY	Cyclic steam stimulation
CURRENT PRODUCTION CAPACITY (BBLS/D)	140,000
AVERAGE DAILY PRODUCTION 2013 (BBLS/D)	152,611
AVERAGE DAILY PRODUCTION 2012 (BBLS/D)	153,590
AVERAGE STEAM TO OIL RATIO 2013	3.62:1
AVERAGE STEAM TO OIL RATIO 2012	3.42:1
AVERAGE REALIZED PRICE PER BARREL 2013	\$60.57
AVERAGE REALIZED PRICE PER BARREL 2012	\$59.76

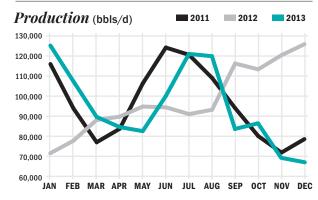
SOURCES: ALBERTA ENERGY REGULATOR; CORPORATE DISCLOSURES

#### Of interest:

Imperial Oil Limited is currently constructing a 40,000-barrel-per-day expansion to the Cold Lake project called Nabiye, which means "otter" in Dene. The project was 65 per cent complete at the end of 2013.

#### Primrose/Wolf Lake





PROJECT	Primrose/Wolf Lake	
LOCATION	South Athabasca, Cold Lake	
OWNERSHIP	Canadian Natural 100%	
PRODUCTION START	1985	
FORMATION/POOL	Clearwater, Upper Grand Rapids	
AVERAGE RESERVOIR DEPTH	450 m	
TECHNOLOGY	Cyclic steam stimulation	
CURRENT PRODUCTION CAPACITY (BBLS/D)	120,000	
AVERAGE DAILY PRODUCTION 2013 (BBLS/D)	94,742	
AVERAGE DAILY PRODUCTION 2012 (BBLS/D)	98,008	
AVERAGE STEAM TO OIL RATIO 2013	3.76:1	
AVERAGE STEAM TO OIL RATIO 2012	4.06:1	
AVERAGE REALIZED PRICE PER BARREL 2013*	\$62.84	
AVERAGE REALIZED PRICE PER BARREL 2012	\$67.99	

\*Average realized price for Canadian Natural's thermal bitumen production, all projects (Primrose/Wolf Lake and Kirby South)
SOURCES: ALBERTA ENERGY REGULATOR; CORPORATE DISCLOSURES

#### Of interest:

In May and June of 2013, Canadian Natural Resources Limited discovered four sites in the Primrose project area where bitumen emulsion had flowed to surface. The company says at the end of 2013 cleanup was essentially complete.

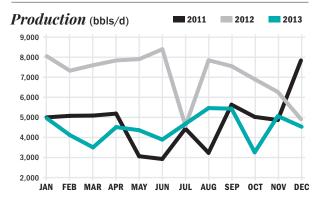
PROJECT	Peace River
LOCATION	Peace River
OWNERSHIP	Shell Canada 100%
PRODUCTION START	1986
FORMATION/POOL	Bluesky-Gething
AVERAGE RESERVOIR DEPTH	550 m
TECHNOLOGY	Cyclic steam stimulation
CURRENT PRODUCTION CAPACITY (BBLS/D)	12,500
AVERAGE DAILY PRODUCTION 2013 (BBLS/D)	4,487
AVERAGE DAILY PRODUCTION 2012 (BBLS/D)	7,108
AVERAGE STEAM TO OIL RATIO 2013	5.68:1
AVERAGE STEAM TO OIL RATIO 2012	3.68:1
AVERAGE REALIZED PRICE PER BARREL 2013	n/q
AVERAGE REALIZED PRICE PER BARREL 2012	n/q

SOURCES: ALBERTA ENERGY REGULATOR; CORPORATE DISCLOSURES

#### Of interest:

Shell Canada Limited has sanctioned an 80,000-barrel-per-day expansion to its Peace River operations called Carmon Creek. The project, which is now under construction, is the largest oilsands-related development ever in the Peace River oilsands deposit.





#### Hangingstone

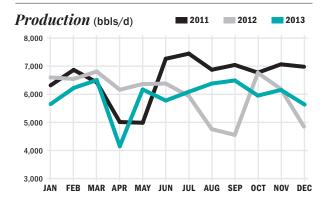
PROJECT	Hangingstone	
LOCATION	South Athabasca	
OWNERSHIP	Japan Canada Oil Sands 100%	
PRODUCTION START	1999	
FORMATION/POOL	Wabiskaw-McMurray	
AVERAGE RESERVOIR DEPTH	280-310 m	
TECHNOLOGY	Steam assisted gravity drainage	
CURRENT PRODUCTION CAPACITY (BBLS/D)	10,000	
AVERAGE DAILY PRODUCTION 2013 (BBLS/D)	5,940	
AVERAGE DAILY PRODUCTION 2012 (BBLS/D)	5,996	
AVERAGE STEAM TO OIL RATIO 2013	4.58:1	
AVERAGE STEAM TO OIL RATIO 2012	4.54:1	
AVERAGE REALIZED PRICE PER BARREL 2013	n/q	
AVERAGE REALIZED PRICE PER BARREL 2012	n/q	

SOURCES: ALBERTA ENERGY REGULATOR; CORPORATE DISCLOSURES

#### Of interest:

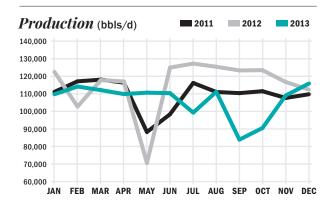
Japan Canada Oil Sands Limited is currently building a 20,000-barrel-perday expansion to the Hangingstone project that is expected to be operational in 2016. The expansion is 25 per cent owned by CNOOC Limited subsidiary Nexen Energy ULC.





#### **Foster Creek**





PROJECT	Foster Creek
LOCATION	South Athabasca
OWNERSHIP	Cenovus Energy 50%, ConocoPhillips Canada 50%
PRODUCTION START	2001
FORMATION/POOL	Wabiskaw-McMurray
AVERAGE RESERVOIR DEPTH	450 m
TECHNOLOGY	Steam assisted gravity drainage
CURRENT PRODUCTION CAPACITY (BBLS/D)	120,000
AVERAGE DAILY PRODUCTION 2013 (BBLS/D)	106,359
AVERAGE DAILY PRODUCTION 2012 (BBLS/D)	109,730
AVERAGE STEAM TO OIL RATIO 2013	2.48:1
AVERAGE STEAM TO OIL RATIO 2012	2.16:1
AVERAGE REALIZED PRICE PER BARREL 2013	\$66.30
AVERAGE REALIZED PRICE PER BARREL 2012	\$64.55

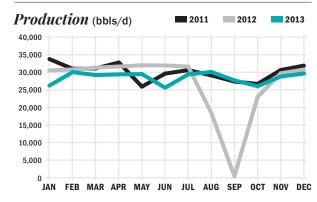
SOURCES: ALBERTA ENERGY REGULATOR; CORPORATE DISCLOSURES

#### Of interest:

There are currently three expansion stages under construction at Foster Creek. These are expected to add capacity of 45,000 barrels per day in 2014, 40,000 barrels per day in 2015 and a further 40,000 barrels per day in 2016 for combined project capacity of 245,000 barrels per day.

#### **MacKay River**





PROJECT	MacKay River
LOCATION	North Athabasca
OWNERSHIP	Suncor Energy 100%
PRODUCTION START	2002
FORMATION/POOL	Wabiskaw-McMurray
AVERAGE RESERVOIR DEPTH	150 m
TECHNOLOGY	Steam assisted gravity drainage
CURRENT PRODUCTION CAPACITY (BBLS/D)	33,000
AVERAGE DAILY PRODUCTION 2013 (BBLS/D)	28,524
AVERAGE DAILY PRODUCTION 2012 (BBLS/D)	26,938
AVERAGE STEAM TO OIL RATIO 2013	2.58:1
AVERAGE STEAM TO OIL RATIO 2012	2.39:1
AVERAGE REALIZED PRICE PER BARREL 2013	Con state for Cureor ungrader (nogo 02)
AVERAGE REALIZED PRICE PER BARREL 2012	See stats for Suncor upgrader (page 92)

SOURCES: ALBERTA ENERGY REGULATOR; CORPORATE DISCLOSURES

#### Of interest:

A sanction decision is expected in 2014 on the planned MR2 project, which would expand MacKay River production capacity to 53,000 barrels per day. In the meantime, Suncor Energy Inc. expects to increase production by approximately 20 per cent over the next two years through debottlenecking.



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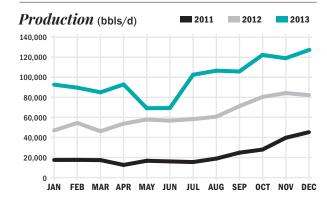
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An Enhanced Oil Recovery Company

#### Christina Lake (Cenovus Energy)





PROJECT	Christina Lake
LOCATION	South Athabasca
OWNERSHIP	Cenovus Energy 50%, ConocoPhillips Canada 50%
PRODUCTION START	2003
FORMATION/POOL	Wabiskaw-McMurray
AVERAGE RESERVOIR DEPTH	400 m
TECHNOLOGY	Steam assisted gravity drainage
CURRENT PRODUCTION CAPACITY (BBLS/D)	138,800
AVERAGE DAILY PRODUCTION 2013 (BBLS/D)	98,475
AVERAGE DAILY PRODUCTION 2012 (BBLS/D)	62,696
AVERAGE STEAM TO OIL RATIO 2013	1.85:1
AVERAGE STEAM TO OIL RATIO 2012	1.91:1
AVERAGE REALIZED PRICE PER BARREL 2013	\$51.26
AVERAGE REALIZED PRICE PER BARREL 2012	\$47.73

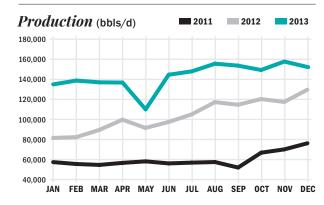
SOURCES: ALBERTA ENERGY REGULATOR; CORPORATE DISCLOSURES

#### Of interest:

Cenovus Energy Inc. recently commenced production from two 40,000-barrel-per-day expansion phases. Work continues on the next two phases, F and G, which will bring capacity to a total of 238,800 barrels per day in 2017, not including optimization phases.

#### Firebag





PROJECT	Firebag
LOCATION	North Athabasca
OWNERSHIP	Suncor Energy 100%
PRODUCTION START	2004
FORMATION/POOL	Wabiskaw-McMurray
AVERAGE RESERVOIR DEPTH	320 m
TECHNOLOGY	Steam assisted gravity drainage
CURRENT PRODUCTION CAPACITY (BBLS/D)	162,500
AVERAGE DAILY PRODUCTION 2013 (BBLS/D)	143,696
AVERAGE DAILY PRODUCTION 2012 (BBLS/D)	103,724
AVERAGE STEAM TO OIL RATIO 2013	3.30:1
AVERAGE STEAM TO OIL RATIO 2012	3.44:1
AVERAGE REALIZED PRICE PER BARREL 2013	San state for Support ungrador (nago 02)
AVERAGE REALIZED PRICE PER BARREL 2012	See stats for Suncor upgrader (page 92)

SOURCES: ALBERTA ENERGY REGULATOR; CORPORATE DISCLOSURES

#### Of interest:

Production continues to ramp up from Suncor Energy Inc.'s latest expansion at Firebag, the 42,500-barrel-per-day Stage 4 project, which started production in fall 2012. The previously planned stages 5 and 6 have been shelved in favour of debottlenecking at existing operations.

#### Christina Lake (MEG Energy)

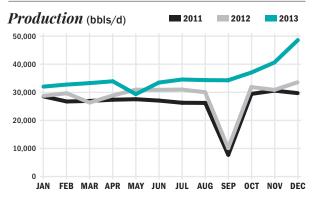
PROJECT	Christina Lake
LOCATION	South Athabasca
OWNERSHIP	MEG Energy 100%
PRODUCTION START	2003
FORMATION/POOL	Wabiskaw-McMurray
AVERAGE RESERVOIR DEPTH	350 m
TECHNOLOGY	Steam assisted gravity drainage
CURRENT PRODUCTION CAPACITY (BBLS/D)	60,000
AVERAGE DAILY PRODUCTION 2013 (BBLS/D)	35,298
AVERAGE DAILY PRODUCTION 2012 (BBLS/D)	28,749
AVERAGE STEAM TO OIL RATIO 2013	2.55:1
AVERAGE STEAM TO OIL RATIO 2012	2.43:1
AVERAGE REALIZED PRICE PER BARREL 2013	\$49.28
AVERAGE REALIZED PRICE PER BARREL 2012	\$46.93

SOURCES: ALBERTA ENERGY REGULATOR; CORPORATE DISCLOSURES

#### Of interest:

With the commissioning of Phase 2B in late 2013, Christina Lake capacity is now 60,000 barrels per day. Using non-condensable gas co-injection and infill drilling, MEG Enerygy Corp. expects to actually produce 80,000 barrels per day.





#### Tucker

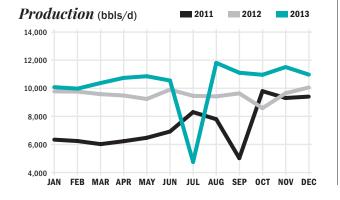
PROJECT	Tucker
LOCATION	Cold Lake
OWNERSHIP	Husky Energy 100%
PRODUCTION START	2006
FORMATION/POOL	Clearwater/Grand Rapids
AVERAGE RESERVOIR DEPTH	400 m
TECHNOLOGY	Steam assisted gravity drainage
CURRENT PRODUCTION CAPACITY (BBLS/D)	30,000
AVERAGE DAILY PRODUCTION 2013 (BBLS/D)	10,318
AVERAGE DAILY PRODUCTION 2012 (BBLS/D)	9,550
AVERAGE STEAM TO OIL RATIO 2013	5.71:1
AVERAGE STEAM TO OIL RATIO 2012	6.54:1
AVERAGE REALIZED PRICE PER BARREL 2013	\$55.60
AVERAGE REALIZED PRICE PER BARREL 2012	\$55.29

SOURCES: ALBERTA ENERGY REGULATOR; CORPORATE DISCLOSURES

#### Of interest:

Husky Energy Inc. has experienced performance challenges at Tucker stemming from well placement and start-up techniques. The company reports that it has drilled several new wells placed in the appropriate areas and continues to work on SAGD performance optimization.





#### **Great Divide**



${\it Production}$ (bbls/d)	2011 2012 2013
14,000	
12,000	
10,000	
8,000	<u> </u>
6,000	
4,000 JAN FEB MAR APR MAY	JUN JUL AUG SEP OCT NOV DEC

Note: Connacher combined the Great Divide (solid lines) and Algar (dotted lines) projects for reporting purposes in September 2012.

PROJECT	Great Divide
LOCATION	South Athabasca
OWNERSHIP	Connacher Oil and Gas 100%
PRODUCTION START	2007
FORMATION/POOL	Wabiskaw-McMurray
AVERAGE RESERVOIR DEPTH	Great Divide: 200 m, Algar: 450 m
TECHNOLOGY	Steam assisted gravity drainage
CURRENT PRODUCTION CAPACITY (BBLS/D)	Great Divide: 10,000, Algar: 10,000
AVERAGE DAILY PRODUCTION 2013 (BBLS/D)	11,793
AVERAGE DAILY PRODUCTION 2012 (BBLS/D)	Great Divide: 7,473.1, Algar: 6,185.0
AVERAGE STEAM TO OIL RATIO 2013	4.51:1
AVERAGE STEAM TO OIL RATIO 2012	Great Divide: 4.79:1, Algar: 4.60:1
AVERAGE REALIZED PRICE PER BARREL 2013	\$85.08
AVERAGE REALIZED PRICE PER BARREL 2012	\$41.35

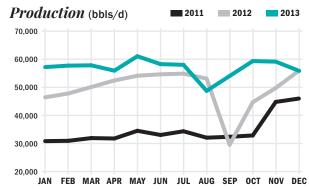
SOURCES: ALBERTA ENERGY REGULATOR; CORPORATE DISCLOSURES

#### Of interest:

Connacher Oil and Gas Limited says it is investing capital in production improvement including facilities, new wells and infill wells. Steam injection began on four new well pairs at the end of September 2013, with these wells expected to be put on production within 90 days. Four new infill wells were put on production in Q3, ahead of original schedule.

#### Jackfish





PROJECT	Jackfish
LOCATION	South Athabasca
OWNERSHIP	Devon Energy 100%
PRODUCTION START	2007
FORMATION/POOL	Wabiskaw-McMurray
AVERAGE RESERVOIR DEPTH	415 m
TECHNOLOGY	Steam assisted gravity drainage
CURRENT PRODUCTION CAPACITY (BBLS/D)	70,000
AVERAGE DAILY PRODUCTION 2013 (BBLS/D)	57,016
AVERAGE DAILY PRODUCTION 2012 (BBLS/D)	49,520
AVERAGE STEAM TO OIL RATIO 2013	2.47:1
AVERAGE STEAM TO OIL RATIO 2012	2.81:1
AVERAGE REALIZED PRICE PER BARREL 2013	n/q
AVERAGE REALIZED PRICE PER BARREL 2012	n/q

SOURCES: ALBERTA ENERGY REGULATOR; CORPORATE DISCLOSURES

#### Of interest:

Devon Energy Corporation has sold its conventional assets in Canada but retains its heavy oil and oilsands properties. The third stage of Jackfish, a 35,000-barrel-per-day replica of the first two phases, is under construction and more than 80 per cent complete.

PROJECT

LOCATION

OWNERSHIP

Long Lake

South Athabasca

Nexen Energy)

200-250 m

72,000

36,542

31 188

4.69:1 5.05:1

n/q

Wabiskaw-McMurray

2007

CNOOC 100% (operated by subsidiary

Steam assisted gravity drainage

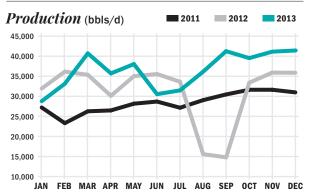
SOURCES: ALBERTA ENERGY REGULATOR; CORPORATE DISCLOSURES

**AVERAGE REALIZED PRICE PER BARREL 2012** 

#### Of interest:

Nexen Energy ULC continues to work to fill the Long Lake upgrader. A 40,000-barrel-per-day SAGD expansion is currently under construction.





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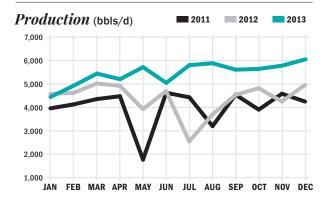
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#### **Orion**





PROJECT	Orion
LOCATION	Cold Lake
OWNERSHIP	Shell Canada 100%
PRODUCTION START	2007
FORMATION/POOL	Clearwater
AVERAGE RESERVOIR DEPTH	400 m
TECHNOLOGY	Steam assisted gravity drainage
CURRENT PRODUCTION CAPACITY (BBLS/D)	10,000
AVERAGE DAILY PRODUCTION 2013 (BBLS/D)	5,471
AVERAGE DAILY PRODUCTION 2012 (BBLS/D)	4,395
AVERAGE STEAM TO OIL RATIO 2013	4.34:1
AVERAGE STEAM TO OIL RATIO 2012	4.38:1
AVERAGE REALIZED PRICE PER BARREL 2013	n/q
AVERAGE REALIZED PRICE PER BARREL 2012	n/q

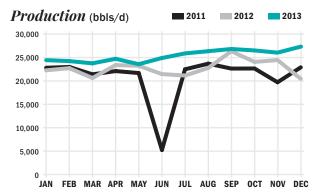
SOURCES: ALBERTA ENERGY REGULATOR; CORPORATE DISCLOSURES

#### Of interest:

In spring 2012, Shell Canada Limited put the Orion project up for sale, but has since announced that it has not received any offers that reflect its value and has ended sale activities.

#### **Surmont**





PROJECT	Surmont
LOCATION	South Athabasca
OWNERSHIP	ConocoPhillips Canada 50%, Total E&P Canada 50%
PRODUCTION START	2007
FORMATION/POOL	Wabiskaw-McMurray
AVERAGE RESERVOIR DEPTH	400 m
TECHNOLOGY	Steam assisted gravity drainage
CURRENT PRODUCTION CAPACITY (BBLS/D)	27,000
AVERAGE DAILY PRODUCTION 2013 (BBLS/D)	25,351
AVERAGE DAILY PRODUCTION 2012 (BBLS/D)	22,712
AVERAGE STEAM TO OIL RATIO 2013	2.39:1
AVERAGE STEAM TO OIL RATIO 2012	2.33:1
AVERAGE REALIZED PRICE PER BARREL 2013	n/q
AVERAGE REALIZED PRICE PER BARREL 2012	n/q

SOURCES: ALBERTA ENERGY REGULATOR; CORPORATE DISCLOSURES

#### Of interest:

ConocoPhillips Canada and Total E&P Canada Ltd. are currently building a massive expansion to the Surmont project that will increase capacity to 136,000 barrels per day. ConocoPhillips has announced plans to sell a 50 per cent stake in its oilsands assets, including Surmont, but a buyer has yet to emerge.



#### Leismer

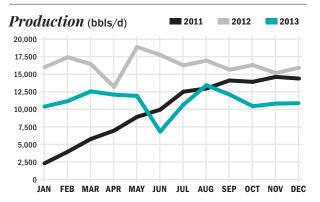
PROJECT	Leismer
LOCATION	South Athabasca
OWNERSHIP	Statoil Canada 60%, PTT Exploration and Production 40%
PRODUCTION START	2010
FORMATION/POOL	Wabiskaw-McMurray
AVERAGE RESERVOIR DEPTH	400 m
TECHNOLOGY	Steam assisted gravity drainage
CURRENT PRODUCTION CAPACITY (BBLS/D)	18,800
AVERAGE DAILY PRODUCTION 2013 (BBLS/D)	11,123
AVERAGE DAILY PRODUCTION 2012 (BBLS/D)	16,329
AVERAGE STEAM TO OIL RATIO 2013	3.49:1
AVERAGE STEAM TO OIL RATIO 2012	2.48:1
AVERAGE REALIZED PRICE PER BARREL 2013	n/q
AVERAGE REALIZED PRICE PER BARREL 2012	n/q

SOURCES: ALBERTA ENERGY REGULATOR; CORPORATE DISCLOSURES

#### Of interest:

Statoil Canada Ltd. and partner PTT Exploration and Production Public Company Limited have announced they will split up the Kai Kos Dehseh oilsands asset, which includes the Leismer project. Statoil will retain Leismer and become 100 per cent owner.







#### **STP-McKay**



Production (bbls/d)	2012 2013
2,500	
2,000	
1,500	
1,000	
500	
JAN FEB MAR APR MAY JUN	JUL AUG SEP OCT NOV

PROJECT	STP-McKay
LOCATION	North Athabasca
OWNERSHIP	Southern Pacific 100%
PRODUCTION START	2012
FORMATION/POOL	Wabiskaw-McMurray
AVERAGE RESERVOIR DEPTH	190 m
TECHNOLOGY	Steam assisted gravity drainage
CURRENT PRODUCTION CAPACITY (BBLS/D)	12,000
AVERAGE DAILY PRODUCTION 2013 (BBLS/D)	1,499
AVERAGE DAILY PRODUCTION 2012 (BBLS/D)	510
AVERAGE STEAM TO OIL RATIO 2013	7.29:1
AVERAGE STEAM TO OIL RATIO 2012	142.8:1
AVERAGE REALIZED PRICE PER BARREL 2013	n/q
AVERAGE REALIZED PRICE PER BARREL 2012	n/q

SOURCES: ALBERTA ENERGY REGULATOR; CORPORATE DISCLOSURES

#### Of interest:

Dogged by production challenges and the need for additional capital to fix them, Southern Pacific Resource Corp. has announced a strategic review process assisted by RBC Capital Markets. The review could result in any number of solutions, including a possible sale or merger.

#### **Kirby South**



<b>Production</b> (b)	ols/d)		2013
2,500			
2,000			
1,500			
1,000			
500			
JAN FEB MAR	APR MAY JUN	JUL AUG SEP	OCT NOV DEC

PROJECT	Kirby South
LOCATION	South Athabasca
OWNERSHIP	Canadian Natural 100%
PRODUCTION START	2013
FORMATION/POOL	Wabiskaw-McMurray
AVERAGE RESERVOIR DEPTH	525 m
TECHNOLOGY	Steam assisted gravity drainage
CURRENT PRODUCTION CAPACITY (BBLS/D)	40,000
AVERAGE DAILY PRODUCTION 2013 (BBLS/D)	1,196
AVERAGE DAILY PRODUCTION 2012 (BBLS/D)	
AVERAGE STEAM TO OIL RATIO 2013	52.17:1
AVERAGE STEAM TO OIL RATIO 2012	
AVERAGE REALIZED PRICE PER BARREL 2013*	\$62.84
AVERAGE REALIZED PRICE PER BARREL 2012	\$67.99

\*Average realized price for Canadian Natural's thermal bitumen production, all projects (Primrose/Wolf Lake and Kirby South)
SOURCES: ALBERTA ENERGY REGULATOR; CORPORATE DISCLOSURES

#### Of interest:

Canadian Natural Resources Limited achieved first steam at Kirby South in September 2013, on budget and two months ahead of the original schedule. The company says the project is the first step in its stage expansion for the Kirby area, where over time production is projected to grow to 140,000 barrels per day.



#### **Projects under construction**

PHASE	REGION	TECHNOLOGY	CAPACITY (BBLS/D)	BUDGET (\$M)	PRODUCTIO START
	RGY CORPORATION	N			
Sawn Lake Demonstration	Peace River	SAGD	1,400	\$25	2014
	IL CORPORATION	Ortab	1,400	Ψ20	2014
Hangingstone					
hase 1 BAYTEX ENER	South Athabasca	SAGD	12,000	\$563	2015
Gemini	di Corr.				
Pilot	Cold Lake	SAGD	1,200		2014
	Y CORPORATION				
MacKay River  hase 1	North Athabasca	SAGD	35.000	\$1,300	2015
	TURAL RESOURCE			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Horizon					
Reliability - Franche 2	North Athabasca	Mining/Upgrading	5,000	\$1,090	2014
hase 2A	North Athabasca	Mining/Upgrading	10,000		2015
Phase 2B	North Athabasca	Mining/Upgrading	45,000		2016
hase 3 CENOVUS ENE	North Athabasca	Mining/Upgrading	80,000		2017
Christina Lak					
hase F	South Athabasca	SAGD	50,000		2016
Foster Creek hase F	South Athabasca	SAGD	45,000	\$2,000	2014
hase G	South Athabasca	SAGD	40,000	ΨZ,000 	2014
hase H	South Athabasca	SAGD	40,000		2016
Narrows Lake		CAD1	4E 000	¢1.000	2047
hase A	South Athabasca	SAP <sup>1</sup>	45,000	\$1,600	2017
Long Lake					
Kinosis (K1A)	South Athabasca	SAGD	40,000		
CONOCOPHILL	IPS CANADA				
Surmont Phase 2	South Athabasca	SAGD	109,000	\$2,490	2015
	OA CORPORATION	Ortab	100,000	Ψ2,400	2010
Jackfish					
Phase 3	South Athabasca	SAGD	35,000	\$1,200	2015
BlackGold	RATIONS CORP.				
Phase 1	South Athabasca	SAGD	10,000	\$460	2014
HUSKY ENERG	Y INC.				
Sunrise Phase 1	North Athabasca	SAGD	60,000	\$2,800	2014
MPERIAL OIL		JAGD	00,000	Ψ2,000	2014
Cold Lake					
Phase 14-16	Cold Lake	CSS	40,000	\$2,000	2014
Kearl Phase 2	North Athabasca	Mining	110.000	\$8,900	2015
	A OIL SANDS LIMI		110,000	ψ0,500	2010
Hangingstone					
Expansion	South Athabasca	SAGD	20,000	\$1,400	2016
MEG ENERGY Christina Lak					
Phase 3A	South Athabasca	SAGD	50,000	\$500	2016
	UPGRADING INC.				
Redwater Upg Phase 1		Ungrading	50,000	¢9 500	2017
	Industrial Heartland ENERGY CORPORA	Upgrading TION	50,000	\$8,500	2017
Lindbergh					
Phase 1	Cold Lake	SAGD	11,240	\$590	2015
ROYAL DUTCH	SHELL PLC				
Peace River Carmon Creek -	Dance Divers	VCD2	40.000	do 450	0047
Phase 1	Peace River	VSD <sup>2</sup>	40,000	\$3,450	2017
Fort Hills	RGY INC.				
Phase 1	North Athabasca	Mining	160,000	\$15,120	2017
MacKay River		<u> </u>	,	, 3	
Debottleneck	North Athabasca	SAGD	5,000		
	SANDS LTD.				
West File		SAGD	5,000	\$525	2014
West Ells	North Athabasca	SAGD			
West Ells Phase A1		SAGD			
West Ells Phase A1 SYNCRUDE CA Mildred Lake,	ANADA LTD.	SAGD			
West Ells Phase A1 SYNCRUDE CA Mildred Lake, Centrifuge	ANADA LTD.			\$1,900	2015 <sup>3</sup>
West Ells Phase A1 SYNCRUDE CA Mildred Lake,	ANADA LTD. /Aurora	Mining  Total	 1,154,840	\$1,900 <b>\$56,413</b>	2015³

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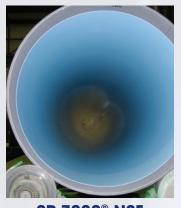


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#### Oilsands project status listing

Sourced from company disclosures and records of the Alberta Energy Regulator. Disclaimer: JuneWarren-Nickle's Energy Group accepts no liablity for errors or inaccuracies in the information provided in this report.



PHASE	REGION	TECHNOLOGY	CAPACITY (bbls/d)	PRODUCTION START
OPERATING OILSAN	IDS PROJECTS			
Baytex Energy Co	rp.			
Cliffdale				
Pilot	Peace River	CSS	2,000	2011
Harmon Valley				
Pilot	Peace River	CSS		2011
BlackPearl Resou	rces Inc.			
Blackrod				
Pilot	South Athabasca	SAGD	800	2011
Canadian Natura	l Resources Inc.			
Horizon				
Phase 1	North Athabasca	MINING	135,000	2008
Phase 1	North Athabasca	UPG	110,000	2009
Kirby				
KS1 - Kirby South	South Athabasca	SAGD	40,000	2013
Primrose & Wolf Lake				
Wolf Lake	Cold Lake	CSS	13,000	1985
Primrose South	Cold Lake	CSS	45,000	1985
Primrose North	Cold Lake	CSS	30,000	2006
Primrose East	Cold Lake	CSS	32,000	2008
Cenovus Energy I	nc.			
Christina Lake				
Phase 1A	South Athabasca	SAGD	10,000	2002
Phase 1B	South Athabasca	SAGD	8,800	2008
Phase C	South Athabasca	SAGD	40,000	2011
Phase D	South Athabasca	SAGD	40,000	2012
Phase E	South Athabasca	SAGD	40,000	2013

#### **TECHNOLOGY LEGEND ADC USP** (Upgrading) Accelerated decontamination, ultra-selective pyrolysis **AIRINI BEST** Bitumen extraction solvent technology C-SAGD Cyclic steam assisted gravity drainage C&SC Cyclic and solvent cyclic **CSS** Cyclic steam stimulation **ET-DSP** Electro-thermal dynamic stripping **HCSS** Horizontal cyclic steam stimulation HTL Heavy-to-light upgrading process LP-SAGD Low-pressure steam assisted gravity drainage MINING Truck and shovel mining **ORCRUDE** Primary upgrading process SAGD Steam assisted gravity drainage **SAP** Solvent-aided process SC-SAGD Solvent cyclic steam assisted gravity drainage **TAGD** Thermal assisted gravity drainage **THAI** Toe to heel air injection **UPG** Bitumen upgrading

PHASE	REGION	TECHNOLOGY	CAPACITY (bbls/d)	PRODUCTION START
Foster Creek				
Phase A	South Athabasca	SAGD	24,000	2001
Phase B Debottleneck	South Athabasca	SAGD	6,000	2003
Phase C Stage 1	South Athabasca	SAGD	10,000	2005
Phase C Stage 2	South Athabasca	SAGD	20,000	2007
Phase D	South Athabasca	SAGD	30,000	2009
Phase E	South Athabasca	SAGD	30,000	2009
Grand Rapids				
Pilot	South Athabasca	SAGD	600	2011
CNOOC Limited				
Long Lake				
Phase 1	South Athabasca	SAGD	72,000	2008
Phase 1	South Athabasca	ORCRUDE	58,500	2009
Connacher Oil and	d Gas Limited			
Great Divide				
Pod One	South Athabasca	SAGD	10,000	2007
Algar	South Athabasca	SAGD	10,000	2010

Vertical steam drive

**VSD** 

PHASE	REGION	TECHNOLOGY	CAPACITY (bbls/d)	PRODUCTION START
ConocoPhillip	s Canada			
Surmont				
Pilot	South Athabasca	SAGD	1,200	1997
Phase 1	South Athabasca	SAGD	27,000	2007
Devon Canad	a Corporation			
Jackfish				
Phase 1	South Athabasca	SAGD	35,000	2007
Phase 2	South Athabasca	SAGD	35,000	2011
Grizzly Oil Sa	nds ULC			
Algar Lake				
Phase 1	South Athabasca	SAGD	5,500	2014
Husky Energy	Inc.			
McMullen				
Thermal Conduction Pile	South Athabasca	AIRINJ	755	2012
Tucker				
Phase 1	Cold Lake	SAGD	30,000	2006
Imperial Oil L	imited			
Cold Lake				
Phase 1-10	Cold Lake	CSS	110,000	1985
Phase 11-13	Cold Lake	CSS	30,000	2002
Kearl				
Phase 1	North Athabasca	MINING	110,000	2013
Japan Canado	oil Sands Limited			
Hangingstone Pilot				
Pilot	South Athabasca	SAGD	11,000	1999
Laricina Ener	gy Ltd.			
Germain				
Phase 1 CDP	South Athabasca	SC-SAGD	5,000	2013
Saleski				
Experimental Pilot	South Athabasca	C&SC	1,800	2011
MEG Energy (	lorp.			
Christina Lake				
Phase 1 Pilot	South Athabasca	SAGD	3,000	2008
Phase 2A	South Athabasca	SAGD	22,000	2009
Phase 2B	South Athabasca	SAGD	35,000	2013
Murply Oil Co	mpany Ltd.			
Seal/Cadotte				
Pilot	Peace River	CSS		2010
Pengrowth E	nergy Corporation			
Lindbergh				
Pilot	Cold Lake	SAGD	1,260	2012
Penn West Pe	etroleum Ltd.			
Seal Main				
Pilot	Peace River	HCSS	75	2011
Royal Dutch S	ihell plc			
Orion				
Phase 1	Cold Lake	SAGD	10,000	2007
Peace River				
Cadotte Lake	Peace River	CSS	12,500	1986
Shell Albian S	iands			
Jackpine				
Phase 1A	North Athabasca	MINING	100,000	2010
Muskeg River				
Commercial	North Athabasca	MINING	155,000	2002
Scotford Upgrader 1				
Commercial	Industrial Heartland	UPG	155,000	2003
Expansion	Industrial Heartland	UPG	100,000	2011

PHASE	REGION	TECHNOLOGY	CAPACITY (bbls/d)	PRODUCTIO START
Southern Pacifi	c Resource Corp.			
STP-McKay				
Phase 1	North Athabasca	SAGD	12,000	2012
Statoil Canada	Ltd.			
Kai Kos Dehseh				
Leismer Demonstration	South Athabasca	SAGD	10,000	2010
Suncor Energy I	nc.			
Base Operations				
Millennium Mine	North Athabasca	MINING	294,000	1967
U1 and U2	North Athabasca	UPG	225,000	1967
Millennium Vacuum Unit	North Athabasca	UPG	35,000	2005
Steepbank Debottleneck Phase 3	North Athabasca	MINING	4,000	2007
Millennium Debottlenecking	North Athabasca	MINING	23,000	2008
Millennium Coker Unit	North Athabasca	UPG	97,000	2008
North Steepbank Extension	North Athabasca	MINING	180,000	2012
Dover				
Demonstration Plant	North Athabasca	BEST	500	2013
Firebag				
Stage 1	North Athabasca	SAGD	35,000	2004
Stage 2	North Athabasca	SAGD	35,000	2006
Cogeneration and Expansion	North Athabasca	SAGD	25,000	2007
Stage 3	North Athabasca	SAGD	42,500	2011
Stage 4	North Athabasca	SAGD	42,500	2012
MacKay River				
Phase 1	North Athabasca	SAGD	33,000	2002
Sunshine Oilsar	nds Ltd.			
Harper				
Carbonate Pilot	North Athabasca	CSS	1,000	2011
Syncrude Canac	la Ltd.			
Mildred Lake/Aurora				
Base Mine Stage 1 & 2 Expansion	North Athabasca	MINING	290,700	1978
Base Plant Stage 1 & 2 Debottleneck	North Athabasca	UPG	250,000	1978
Stage 3 Expansion	North Athabasca	MINING	116,300	2006
Stage 3 Expansion (UE-1)	North Athabasca	UPG	100,000	2006
OILSANDS PROJEC	TS WITH REGUL	TORY APPROV	AL	
Athabasca Oil C	orporation			
Dover West Carbonates (L	educ)			
Phase 1 Demonstration	North Athabasca	TAGD	6,000	2016
Baytex Energy (	Corp.			
Gemini				
Commercial	Cold Lake	SAGD	5,000	2016
BP p.l.c.				
Terre de Grace				
Pilot	North Athabasca	SAGD	10,000	TBD
Pilot	North Athabasca	ADC USP	8,400	TBD
Brion Energy Co	rporation			
Dover				
Dover North Phase 1	North Athabasca	SAGD	50,000	2016
Dover North Phase 2	North Athabasca	SAGD	50,000	2018
Dover South Phase 3	North Athabasca	SAGD	50,000	2021
Dover South Phase 4	North Athabasca	SAGD	50,000	2023

PHASE	REGION	TECHNOLOGY	CAPACITY (bbls/d)	PRODUCTION START
MacKay River				
Phase 2	North Athabasca	SAGD	40,000	2018
Phase 3	North Athabasca	SAGD	40,000	2020
Phase 4	North Athabasca	SAGD	35,000	2022
Canadian Natura	ıl Resources Limitec			
Kirby				
KN1 - Kirby North	South Athabasca	SAGD	40,000	2016
Cenovus Energy I	nc.			
Christina Lake				
Optimization (Phases	0 11 411 1	0400	22.222	2245
C, D, E)	South Athabasca	SAGD	22,000	2015
Phase G	South Athabasca	SAGD	50,000	2017
Narrows Lake				
Phase B	South Athabasca	SAP	45,000	TBD
Phase C	South Athabasca	SAP	40,000	TBD
CNOOC Limited				
Long Lake				
Kinosis (K1B)	South Athabasca	SAGD	40,000	TBD
Connacher Oil an	d Gas Limited			
Great Divide				
Expansion 1A	South Athabasca	SAGD	12,000	TBD
Expansion 1B	South Athabasca	SAGD	12,000	TBD
Grizzly Oil Sands	ULC			
Algar Lake				
Phase 2	South Athabasca	SAGD	5,500	TBD
Husky Energy Inc				
Caribou				
Demonstration	Cold Lake	SAGD	10,000	TBD
Sunrise			.,	
Phase 2A	North Athabasca	SAGD	70,000	2018
Phase 2B	North Athabasca	SAGD	70,000	2020
Imperial Oil Limit			,	
Kearl				
Phase 3	North Athabasca	MINING	80,000	2020
Phase 4 Debottleneck	North Athabasca	MINING	45,000	TBD
		WIINING	43,000	100
Laricina Energy L	ta.			
Saleski	County Ashahara	0.0400	10.700	0010
Phase 1	South Athabasca	C-SAGD	10,700	2016
MEG Energy Corp				
Christina Lake				
Phase 3B	South Athabasca	SAGD	50,000	2018
Phase 3C	South Athabasca	SAGD SAGD	50,000 50,000	2018 2020
Phase 3C  North West Upgr	South Athabasca			
Phase 3C  North West Upgr Redwater Upgrader	South Athabasca ading Inc.	SAGD	50,000	2020
Phase 3C  North West Upgr  Redwater Upgrader  Phase 2	South Athabasca ading Inc. Industrial Heartland	SAGD	50,000	2020 TBD
Phase 3C  North West Upgr Redwater Upgrader Phase 2 Phase 3	South Athabasca ading Inc. Industrial Heartland Industrial Heartland	SAGD	50,000	2020
Phase 3C  North West Upgr  Redwater Upgrader  Phase 2	South Athabasca ading Inc. Industrial Heartland Industrial Heartland	SAGD	50,000	2020 TBD
Phase 3C  North West Upgr Redwater Upgrader Phase 2 Phase 3	South Athabasca ading Inc. Industrial Heartland Industrial Heartland	SAGD	50,000	2020 TBD
Phase 3C  North West Upgr Redwater Upgrader  Phase 2  Phase 3  Northern Alberta	South Athabasca ading Inc. Industrial Heartland Industrial Heartland	SAGD	50,000	2020 TBD
Phase 3C  North West Upgr Redwater Upgrader  Phase 2  Phase 3  Northern Alberta  Sawn Lake	South Athabasca ading Inc.  Industrial Heartland In	UPG UPG	50,000 50,000 50,000	TBD TBD
Phase 3C  North West Upgr Redwater Upgrader  Phase 2  Phase 3  Northern Alberta  Sawn Lake  Pilot	South Athabasca ading Inc.  Industrial Heartland In	UPG UPG	50,000 50,000 50,000	TBD TBD
Phase 3C  North West Upgr Redwater Upgrader  Phase 2  Phase 3  Northern Alberta  Sawn Lake  Pilot  Oak Point Energy	South Athabasca ading Inc.  Industrial Heartland In	UPG UPG	50,000 50,000 50,000	TBD TBD
Phase 3C  North West Upgr Redwater Upgrader  Phase 2  Phase 3  Northern Alberta  Sawn Lake  Pilot  Oak Point Energy  Lewis	South Athabasca  ading Inc.  Industrial Heartland Industrial Heartland Oil Ltd.  Peace River Ltd.  North Athabasca	UPG UPG HCSS	50,000 50,000 700	TBD TBD
Phase 3C  North West Upgr Redwater Upgrader  Phase 2  Phase 3  Northern Alberta  Sawn Lake  Pilot  Oak Point Energy  Lewis  Pilot	South Athabasca  ading Inc.  Industrial Heartland Industrial Heartland Oil Ltd.  Peace River Ltd.  North Athabasca	UPG UPG HCSS	50,000 50,000 700	TBD TBD
Phase 3C  North West Upgr  Redwater Upgrader  Phase 2  Phase 3  Northern Alberta  Sawn Lake  Pilot  Oak Point Energy  Lewis  Pilot  Osum Oil Sands (	South Athabasca  ading Inc.  Industrial Heartland Industrial Heartland Oil Ltd.  Peace River Ltd.  North Athabasca	UPG UPG HCSS	50,000 50,000 700	TBD TBD

PHASE	REGION	TECHNOLOGY	(bbls/d)	PRODUCTION START
Petrobank Ener	gy and Resources Lt	d.		
Dawson				
Experimental THAI Demonstration	Peace River	THAI	10,000	2014
Royal Dutch She	ell pic			
Orion				
Phase 2	Cold Lake	SAGD	10,000	TBD
Peace River				
Carmon Creek - Phase 2	Peace River	VSD	40,000	TBD
Shell Albian Sar	nds			
Jackpine				
Phase 1B	North Athabasca	MINING	100,000	TBD
Expansion	North Athabasca	MINING	100,000	2017
Muskeg River				
Expansion & Debottlenecking	North Athabasca	MINING	115,000	TBD
Statoil Canada	Ltd.			
Kai Kos Dehseh				
Corner	South Athabasca	SAGD	40,000	2017
Leismer Commercial	South Athabasca	SAGD	10,000	TBD
Leismer Expansion	South Athabasca	SAGD	20,000	TBD
Suncor Energy I	nc.			
Firebag				
Stage 5	North Athabasca	SAGD	62,500	2018
Stage 6	North Athabasca	SAGD	62,500	2019
Fort Hills				
Debottleneck	North Athabasca	MINING	20,000	TBD
Meadow Creek				
Phase 1	South Athabasca	SAGD	40,000	TBD
Phase 2	South Athabasca	SAGD	40,000	TBD
Sunshine Oilsar	nds Ltd.			
Thickwood				
Phase A1	North Athabasca	SAGD	10,000	2015
West Ells				
Phase A2	North Athabasca	SAGD	5,000	2014
Syncrude Canad	la Ltd.			
Mildred Lake/Aurora				
Aurora South Train 1	North Athabasca	MINING	100,000	2016
Aurora South Train 2	North Athabasca	MINING	100,000	2018
Total E&P Cana	da Ltd.			
Joslyn North Mine	N A	A MANUALO	100.000	0004
Phase 1	North Athabasca	MINING	100,000	2021
Value Creation I	nc.			
Heartland	Indicated to	LIDO	40.202	TDD
Phase 2	Industrial Heartland	UPG	46,300	TBD
Phase 3	Industrial Heartland	UPG	46,300	TBD
<b>TriStar</b> Pilot	Courth Athahana	CACD	1.000	TBD
Pilot	South Athabasca South Athabasca	SAGD ADC USP	1,000	TBD TBD
OILSANDS PROJEC				
		ORT APPLICA	HUNFILED	
Athabasca Oil C				
Dover West Carbonates (L		TACD	6.000	TDD
Phase 2 Demonstration  Dover West Sands & Clast	North Athabasca	TAGD	6,000	TBD
	ICS			

PHASE	REGION	TECHNOLOGY	(bbls/d)	PRODUCTION START
Hangingstone				
Phase 2	South Athabasca	SAGD	40,000	2017
Phase 3	South Athabasca	SAGD	30,000	2018
Birchwood Res	sources Inc.			
Sage				
Pilot	Cold Lake	LP-SAGD	5,000	2015
BlackPearl Res		2 2 3 3	0,000	
Blackrod				
Phase 1	South Athabasca	SAGD	20,000	2015
Phase 2	South Athabasca	SAGD	30,000	2013
Phase 3	South Athabasca	SAGD	30,000	2021
			30,000	2021
_	ıral Resources Limite	d		
Grouse				
Commercial	South Athabasca	SAGD	50,000	2018
Kirby				
KN2 - Kirby North	South Athabasca	SAGD	60,000	2019
Cavalier Energ	y Inc.			
Hoole				
Phase 1	South Athabasca	SAGD	10,000	2017
Cenovus Energ	y Inc.			
Christina Lake				
Phase H	South Athabasca	SAGD	50,000	2019
Foster Creek				
Phase J	South Athabasca	SAGD	50,000	2019
Grand Rapids				
Phase A	South Athabasca	SAP	60,000	2017
Phase B	South Athabasca	SAP	60,000	TBD
Phase C	South Athabasca	SAP	60,000	TBD
Telephone Lake	South Athabasta	SAF	00,000	IDU
Phase A	North Athabasca	SAGD	45,000	TBD
Phase B	North Athabasca	SAGD	45,000	TBD
		SAGD	45,000	עפו
Devon Canada	Corporation			
Pike				
1A	South Athabasca	SAGD	35,000	2016
1B	South Athabasca	SAGD	35,000	2017
1C	South Athabasca	SAGD	35,000	2018
Walleye				
Phase 1	Cold Lake	SAGD	9,000	2017
Grizzly Oil San	ds ULC			
May River				
Phase 1	South Athabasca	SAGD	6,000	2016
Phase 2	South Athabasca	SAGD	6,000	TBD
Thickwood				
Phase 1	North Athabasca	CSS-SAGD	6,000	2017
Phase 2	North Athabasca	CSS-SAGD	6,000	TBD
Harvest Opera	tions Corp.			
BlackGold				
Phase 2	South Athabasca	SAGD	20,000	TBD
Husky Energy		-	,	
	me.			
Saleski Carbaneta Bilat	North Athabasa	000	2.000	2017
Carbonate Pilot	North Athabasca	CSS	3,000	2017
Imperial Oil Lir	nited			
Aspen				
Phase 1	North Athabasca	SAGD	45,000	2020
Phase 2	North Athabasca	SAGD	45,000	TBD

PHASE	REGION	TECHNOLOGY	CAPACITY (bbls/d)	PRODUCTION START
Ivanhoe Energy	Inc.			
Tamarack				
Phase 1	North Athabasca	SAGD	20,000	2017
Phase 1	North Athabasca	HTL	34,784	2017
Phase 2	North Athabasca	SAGD	20,000	TBD
Koch Exploration	on Canada L.P.			
Muskwa				
Pilot	South Athabasca	SAGD	10,000	2015
Laricina Energy	Ltd.			
Germain				
Phase 2	South Athabasca	SC-SAGD	30,000	2018
Phase 3	South Athabasca	SC-SAGD	60,000	TBD
Phase 4	South Athabasca	SC-SAGD	60,000	TBD
Marathon Oil C	orporation			
Birchwood				
Demonstration	North Athabasca	SAGD	12,000	2017
MEG Energy Co	rp.			
Surmont				
Phase 1	South Athabasca	SAGD	41,000	TBD
Phase 2	South Athabasca	SAGD	41,000	TBD
Phase 3	South Athabasca	SAGD	41,000	TBD
Osum Oil Sand	Corp.			
Sepiko Kesik				
Phase 1	South Athabasca	CSS-SAGD	30,000	2018
Phase 2	South Athabasca	CSS-SAGD	30,000	2020
Penn West Pet	roleum Ltd.			
Seal Main				
Commercial	Peace River	HCSS	10,000	2015
Prosper Petrole	eum Ltd.			
Rigel				
Phase 1	North Athabasca	SAGD	10,000	2017
Shell Albian Sa	nds			
Pierre River				
Phase 1	North Athabasca	MINING	100,000	2018
Phase 2	North Athabasca	MINING	100,000	TBD
SilverWillow E	nergy Corporation			
Audet				
Pilot	North Athabasca	SAGD	12,000	2016
Southern Pacif	ic Resource Corp.			
	ic Resource Corp.			
STP-McKay	ic Resource Corp.  North Athabasca	SAGD	6,000	2016
STP-McKay Phase 1 Expansion		SAGD SAGD	6,000 12,000	2016 2018
STP-McKay Phase 1 Expansion Phase 2A	North Athabasca			
STP-McKay Phase 1 Expansion Phase 2A	North Athabasca North Athabasca North Athabasca	SAGD	12,000	2018
STP-McKay Phase 1 Expansion Phase 2A Phase 2B Statoil Canada	North Athabasca North Athabasca North Athabasca	SAGD	12,000	2018
STP-McKay Phase 1 Expansion Phase 2A Phase 2B Statoil Canada Kai Kos Dehseh	North Athabasca North Athabasca North Athabasca	SAGD	12,000	2018
STP-McKay Phase 1 Expansion Phase 2A Phase 2B Statoil Canada Kai Kos Dehseh Corner Expansion	North Athabasca North Athabasca North Athabasca Ltd.	SAGD SAGD	12,000 6,000	2018 2018
STP-McKay Phase 1 Expansion Phase 2A Phase 2B Statoil Canada Kai Kos Dehseh Corner Expansion Hangingstone	North Athabasca North Athabasca North Athabasca Ltd. South Athabasca	SAGD SAGD	12,000 6,000 40,000	2018 2018 TBD
STP-McKay Phase 1 Expansion Phase 2A Phase 2B Statoil Canada Kai Kos Dehseh Corner Expansion Hangingstone Leismer Northwest	North Athabasca North Athabasca North Athabasca Ltd.  South Athabasca South Athabasca	SAGD SAGD SAGD SAGD	12,000 6,000 40,000 20,000	2018 2018 TBD
STP-McKay Phase 1 Expansion Phase 2A Phase 2B	North Athabasca North Athabasca North Athabasca Ltd.  South Athabasca South Athabasca South Athabasca	SAGD SAGD SAGD SAGD SAGD	12,000 6,000 40,000 20,000 20,000	2018 2018 TBD TBD
STP-McKay Phase 1 Expansion Phase 2A Phase 2B Statoil Canada Kai Kos Dehseh Corner Expansion Hangingstone Leismer Northwest Leismer South	North Athabasca North Athabasca North Athabasca Ltd.  South Athabasca South Athabasca South Athabasca South Athabasca	SAGD SAGD SAGD SAGD SAGD SAGD	12,000 6,000 40,000 20,000 20,000 20,000	2018 2018 TBD TBD TBD TBD
STP-McKay Phase 1 Expansion Phase 2A Phase 2B Statoil Canada Kai Kos Dehseh Corner Expansion Hangingstone Leismer Northwest Leismer South Thornbury Thornbury Expansion	North Athabasca North Athabasca North Athabasca Ltd.  South Athabasca South Athabasca South Athabasca South Athabasca South Athabasca South Athabasca	SAGD SAGD SAGD SAGD SAGD SAGD SAGD SAGD	12,000 6,000 40,000 20,000 20,000 20,000 40,000	Z018 Z018 TBD TBD TBD TBD TBD TBD
STP-McKay Phase 1 Expansion Phase 2A Phase 2B Statoil Canada Kai Kos Dehseh Corner Expansion Hangingstone Leismer Northwest Leismer South Thornbury	North Athabasca North Athabasca North Athabasca Ltd.  South Athabasca South Athabasca South Athabasca South Athabasca South Athabasca South Athabasca	SAGD SAGD SAGD SAGD SAGD SAGD SAGD SAGD	12,000 6,000 40,000 20,000 20,000 20,000 40,000	Z018 Z018 TBD TBD TBD TBD TBD TBD

PHASE	REGION	TECHNOLOGY	CAPACITY	PRODUCTION
	REGION	TECHNOLOGY	(bbls/d)	START
MacKay River				
MR2	North Athabasca	SAGD	20,000	2017
Voyageur South				
Phase 1	North Athabasca	MINING	120,000	TBD
Sunshine Oilsa	nds Ltd.			
Legend Lake				
Phase A1	North Athabasca	SAGD	10,000	2016
Surmont Energy	y Ltd.			
Wildwood				
Phase 1	South Athabasca	SAGD	12,000	2015
Teck Resources	Limited			
Frontier				
Phase 1	North Athabasca	MINING	74,600	2021
Phase 2	North Athabasca	MINING	84,000	2024
Phase 3	North Athabasca	MINING	79,300	2027
Phase 4 Equinox	North Athabasca	MINING	39,400	2030
Value Creation	Inc.			
Advanced TriStar				
ATS-1	South Athabasca	SAGD	15,000	2016
ATS-1	South Athabasca	ADC USP	12,750	2016
ATS-2	South Athabasca	SAGD	30,000	2018
ATS-2	South Athabasca	ADC USP	25,500	2018
ATS-3	South Athabasca	SAGD	30,000	2020
ATS-3	South Athabasca	ADC USP	25,500	2020
ANNOUNCED OILS			.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Athabasca Oil C	orporation.			
Birch				
Phase 1	North Athabasca	SAGD	12,000	TBD
Dover West Sands & Clast				
Phase 2	North Athabasca	SAGD	35,000	2019
Phase 3	North Athabasca	SAGD	35,000	2020
Phase 4	North Athabasca	SAGD	35,000	2022
Phase 5	North Athabasca	SAGD	35,000	2024
Canadian Natu	ral Resources Limite	d		
Birch Mountain				
Phase 1	North Athabasca	SAGD	60,000	2019
Phase 2	North Athabasca	SAGD	60,000	2023
Gregoire Lake				
Phase 1	South Athabasca	SAGD	60,000	TBD
Phase 2	South Athabasca	SAGD	60,000	TBD
	Inc			
Cavalier Energy	IIIC.			
Hoole Lavalier Energy	THC.			
_	South Athabasca	SAGD	35,000	TBD
Hoole		SAGD SAGD	35,000 35,000	TBD TBD
<b>Hoole</b> Phase 2	South Athabasca South Athabasca			
<b>Hoole</b> Phase 2 Phase 3	South Athabasca South Athabasca			
Hoole Phase 2 Phase 3 Cenovus Energy	South Athabasca South Athabasca			
Hoole Phase 2 Phase 3 Cenovus Energy East McMurray	South Athabasca South Athabasca / Inc.	SAGD	35,000	TBD
Phase 2 Phase 3 Cenovus Energy East McMurray Phase 1 Foster Creek	South Athabasca South Athabasca / Inc.	SAGD	35,000	TBD
Phase 2 Phase 3 Cenovus Energy East McMurray Phase 1 Foster Creek Future Optimization	South Athabasca South Athabasca / Inc. North Athabasca	SAGD	35,000	TBD
Phase 2 Phase 3 Cenovus Energy East McMurray Phase 1 Foster Creek	South Athabasca South Athabasca / Inc. North Athabasca South Athabasca	SAGD SAGD	35,000 30,000 15,000	TBD
Hoole Phase 2 Phase 3 Cenovus Energy East McMurray Phase 1 Foster Creek Future Optimization Steepbank Phase 1	South Athabasca South Athabasca / Inc. North Athabasca	SAGD	35,000	TBD  TBD
Hoole Phase 2 Phase 3 Cenovus Energy East McMurray Phase 1 Foster Creek Future Optimization Steepbank Phase 1 West Kirby	South Athabasca South Athabasca I Inc. North Athabasca South Athabasca North Athabasca	SAGD SAGD SAGD	35,000 30,000 15,000 30,000	TBD  TBD  TBD
Phase 2 Phase 3 Cenovus Energy East McMurray Phase 1 Foster Creek Future Optimization Steepbank Phase 1	South Athabasca South Athabasca / Inc. North Athabasca South Athabasca	SAGD SAGD	35,000 30,000 15,000	TBD  TBD

PHASE	REGION	TECHNOLOGY	(bbls/d)	PRODUCTION START
ConocoPhillips	Canada			
Surmont				
Phase 3 - Tranche 1	South Athabasca	SAGD	45,000	2020
Phase 3 - Tranche 2	South Athabasca	SAGD	45,000	TBD
Phase 3 - Tranche 3	South Athabasca	SAGD	45,000	TBD
Devon Canada	Corporation			
Jackfish East				
Expansion	South Athabasca	SAGD	20,000	2018
E-T Energy Ltd.				
Poplar Creek				
Phase 1	North Athabasca	ET-DSP	10,000	TBD
Phase 2	North Athabasca	ET-DSP	40,000	TBD
		2, 50,	10,000	100
Koch Exploration	on Cunada L.P.			
Dunkirk Phase 1	North Athabasca	SAGD	20.000	2018
Phase 2		SAGD	30,000	TBD
	North Athabasca	SAGD	30,000	IRN
Laricina Energy	/ Ltd.			
Saleski				
Phase 2	South Athabasca	IN SITU	30,000	2017
Phase 3	South Athabasca	IN SITU	60,000	2020
Phase 4	South Athabasca	IN SITU	60,000	2023
Phase 5	South Athabasca	IN SITU	60,000	2026
Phase 6	South Athabasca	IN SITU	60,000	TBD
Pengrowth Ene	ergy Corporation			
Lindbergh				
Phase 2	Cold Lake	SAGD	17,500	2017
Phase 3	Cold Lake	SAGD	20,000	2018
Petrobank Ene	rgy and Resources L	td.		
Dawson				
Phase 2	Peace River	THAI	10,000	TBD
Southern Pacif	ic Resource Corp.			
Red Earth				
Pilot Expansion	Peace River	CSS	3,000	TBD
Commercial	Peace River	css	10,000	TBD
Suncor Energy	Inc.			
Chard				
Phase 1	South Athabasca	IN SITU	40,000	TBD
Lewis			,	
Phase 1	North Athabasca	IN SITU	40,000	TBD
Phase 2	North Athabasca	IN SITU	40,000	TBD
Sunshine Oilsa			10,000	100
_	nus Ltu.			
Legend Lake	North Athahaan	0400	20.000	TDD
Phase A2	North Athabasca	SAGD	30,000	TBD
Phase B1	North Athabasca	SAGD	30,000	TBD
Phase B2	North Athabasca	SAGD	30,000	TBD
Thickwood	North Art	CAOD	20.000	0047
Phase A2	North Athabasca	SAGD	30,000	2017
Phase B	North Athabasca	SAGD	30,000	2021
West Ells				
Phase A3	North Athabasca	SAGD	30,000	2018
Phase B	North Athabasca	SAGD	20,000	2025
Phase C1	North Athabasca	SAGD	30,000	TBD
Phase C2	North Athabasca	SAGD	30,000	TBD
Syncrude Cana	da Ltd.			
Mildred Lake/Aurora				
Stage 3 Debottleneck	North Athabasca	UPG	75,000	TBD
Mildred Lake Mine Extension (MLX)	North Athabasca	MINING		2023



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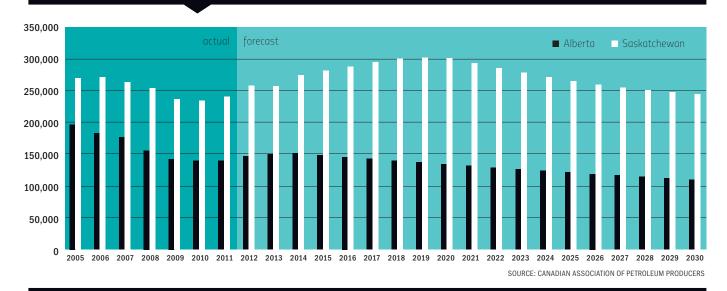
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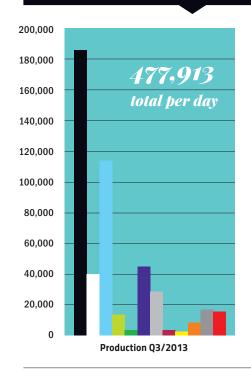
## Conventional heavy oil: production and players

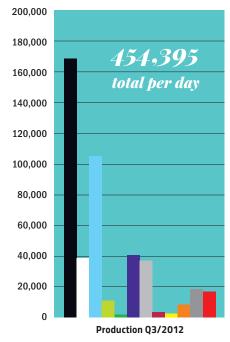
While it may be increasingly in the shadow of the oilsands, conventional heavy oil in Canada remains an attractive investment with a significant, albeit relatively flat, production future

#### Conventional heavy oil production forecast (bbls/d)



#### Canada's conventional heavy oil operators—public companies (bbls/d)





- Canadian Natural Resources Limited<sup>1</sup>
  □ Cenovus Energy Inc.<sup>1</sup>
- Husky Energy Inc.<sup>2</sup>
- Twin Butte Energy Ltd.
- Rock Energy Inc.3
- Baytex Energy Corp.
   Devon Canada Corporation
- Gear Energy Ltd.3
- Palliser Oil & Gas Corporation
- BlackPearl Resources Inc.4
- Harvest Operations Corp.Penn West Petroleum Ltd.

1. Includes volumes from primary heavy oil production as well as the Pelican heavy oil polymer flood, 2. Includes volumes from both primary and thermal heavy oil operations, 3. Includes natural gas liquids, 4. Includes volumes from primary production as well as ASP flooding at Mooney. List compiles publicly available data and does not include all Canadian heavy oil producers.

SOURCE: CORPORATE DISCLOSURES

#### Heavy oil spotlight #1

## Threading the Meddle

Horizontal drilling opens up thin heavy oil formations to development

By Darrell Stonehouse

There are nearly 30 billion barrels of heavy oil trapped in formations too thin to be developed by traditional methods in the Lloydminster heavy oil region crossing the border between Alberta and Saskatchewan. Improved horizontal drilling technology is turning millions of barrels of this resource into reserves.

Baytex Energy Corp. is one company using horizontal technology to access hard-to-reach resources. While vertical wells still drive production in the area, horizontal drilling is gaining a foothold as technology improves, Baytex chief financial officer Derek Aylesworth told a recent conference.

"A vertical well in the Lloydminster area quite often intercepts multiple pay zones. You produce the most prolific zone first, plug it, and then move to the next zone and recomplete it. Those recompletions add production reserves at very, very low costs. Finding and development costs in the Lloyd area using vertical development are about \$11.25 per barrel," Aylesworth said, adding that Baytex has just started to branch out with horizontal drilling in the region.

"The Lloydminster area historically wasn't thought to be very conducive for horizontal because a lot of the pay zones are quite thin. With the improvements in horizontal drilling technologies, we now can place horizontal wells in an area as thin as a two-metre pay zone, and we've been able to do that quite successfully. We're adding reserves there at about \$13.50 per barrel and about \$12,000 per flowing-day barrel."



Husky Energy Inc. is also increasingly using horizontal wells to target thinner pay zones. At Husky's 2014 capital spending presentation, chief operating officer Rob Peabody said the company plans on drilling 140 horizontal cold production wells this year.

"Cold horizontal production is expected to exceed 10,000 barrels per day," he added.

In unconventional shale reservoirs, drilling horizontal wells costs millions of dollars. But because Lloydminster heavy is shallow and horizontal legs average only around 500 metres, costs are much cheaper. This allows smaller companies to use the technology effectively.

An example of this is Twin Butte Energy Ltd. Twin Butte has amassed a horizontal drilling inventory of more than 100 heavy oil targets in the Lloydminster area. The company reports costs of around \$950,000 to drill, complete and tie in each horizontal well. Initial well production for the first 90 days comes in at 80 barrels per day, with

▲ Baytex Energy Corp. CHOPS operations in the Lloydminster region, where horizontal drilling is adding reserves at about \$13.50 per barrel.

expected ultimate recovery of 80,000 barrels. The average cost of adding a barrel of reserves comes in at \$11.88 per barrel.

Canadian Natural Resources Limited has steadily increased its use of horizontal wells in heavy oil plays. In 2009, the company drilled two horizontals in the Lloydminster area. In 2014, Canadian Natural plans on drilling 120 horizontal heavy oil wells, president Steve Laut said at the company's annual investor conference this winter.

Canadian Natural uses horizontal technology in areas with discovered resources that are not producible with vertical wells—horizontals are drilled in oil-bearing zones that are over water. The company also uses the technology in less permeable pools where vertical wells can't expose enough of the reservoir to be economically viable. M

## Polymer push

Operators fine-tune flooding recovery system at Pelican Lake heavy oil field

By Darrell Stonehouse

even years into the commercialization of polymer flooding at the Pelican Lake heavy oil field in northern Alberta, Canadian Natural Resources Limited is declaring the experiment to capture as much as 500 million barrels from its four-billion-barrel resource a success in the making.

"We're seeing a great response from the polymer flood," president Steve Laut said in late 2013. "There's only two polymer floods in the world with heavy oil, and Pelican Lake is the only one that works."

Polymer is a powder mixed with water to create a fluid that is more viscous than water. Injected into the reservoir, the polymer solution increases oil recovery by improving the sweep efficiency and reducing the amount of bypassed oil.

Canadian Natural is currently producing about 47,000 barrels per day of heavy oil at Pelican Lake. After a surge in investment in 2013 to bring new facilities on stream, it is slowing things down in 2014 to fine-tune operations.

"We're learning as we go," said Laut, adding that the company is taking a bit of a breather in the first part of 2014 to watch the response of the polymer floods and to test some ideas to improve operations.

"We'll take some time, watch the response as it develops here, and that will have an effect on how we space our drilling program [and] how we inject our polymer," he said. "We're looking at different ways of injecting polymer, reducing polymer viscosity. And in some cases, we have done a small experiment,



which will continue in 2014 where we fill the polymer injection with water. This improves injectivity and also reduces our operating costs going forward. So we have a bunch of things we want to make sure we get nailed down."

Cenovus Energy Inc. also operates a heavy oil polymer flood in the Pelican Lake region and reports it is also cutting back at this polymer flood to better understand the workings of the technology.

The company plans to invest between \$230 million and \$250 million at Pelican Lake in 2014, about 50 per cent lower when compared with the previous year's forecast, due to the company's decision to align investment with the more moderate production ramp-up associated with the initial results of the polymer flood program.

Pelican Lake is moving to a one-rig drilling program in 2014, says John Brannan, executive vice-president and chief operating officer.

"In addition, we have delayed the investment in a second battery. Our drilling in 2014

▲ According to Canadian Natural, there are only two polymer floods in the world targeting heavy oil, and Pelican Lake is the only area that works.

will be focused almost entirely on the pads with a longer history of waterflood where production response to the polymer flood has been largely as expected. In the meantime, we will look for further indication of production growth from the pads with less waterflood support."

Cenovus expects production at Pelican Lake to average between 25,000 and 28,000 barrels per day net in 2014, a six per cent increase compared with the average production forecast for 2013.

Canadian Natural is also testing polymer floods at another heavy oil field near Lloydminster, on the Alberta-Saskatchewan border, where it hopes to leverage its success at Pelican Lake.

#### MRO: The oilsands annuity

#### By Deborah Jaremko

t is occurring without a doubt. The business of the oilsands—the manufacturing of oil—is reaching a point where investment in maintenance, repair and operations (MRO) now equals or exceeds annual new capital investment. As facilities proliferate, MRO requirements increase and do not waver in the ups and downs of the market.

"This is my favourite part of the oilsands story," Don Thompson, former president of the Oil Sands Developers Group (now the Oil Sands Community Alliance) told sister publication *Oilsands Review* prior to his retirement. "The capital spending is a sugar high. The ongoing maintenance and operations spending goes on year after year, through thick and thin."

#### THE TURNAROUND LIST

Each spring and fall, several oilsands facilities, including mines, upgraders and thermal projects, complete planned maintenance shutdowns. Here is a selection of recent and planned activity.

COMPANY	PROJECT	TURNAROUND DATE	DURATION
Suncor Energy Inc.	Upgrader 2	2016	
Shell Albian Sands	Athabasca Oil Sands Project - mine	1H/2014	
Shell Albian Sands	Scotford Upgrader	1H/2014	
Imperial Oil Limited	Edmonton refinery	Q1/2014	
Cenovus Energy Inc.	Christina Lake	Q2/2014	
Suncor Energy Inc.	Edmonton refinery	Q2/2014	
Cenovus Energy Inc.	Christina Lake	2H/2014	
Cenovus Energy Inc.	Foster Creek	2H/2014	
Canadian Natural Resources Limited	Horizon	September 2014	20-25 days
Canadian Oil Sands Limited	Syncrude Coker 8-2	Q2/2014	3 months
Canadian Natural Resources Limited	Horizon	April 2013	24 days
Canadian Oil Sands Limited	Syncrude Coker 8-1	2H/2013	
Cenovus Energy Inc.	Foster Creek	2H/2013	
Cenovus Energy Inc.	Christina Lake	Q2/2013	11 days
Connacher Oil and Gas Limited	Great Divide Pod 1	Q2/2013	
Devon Canada Corporation	Jackfish 2	August 2013	3 weeks
Imperial Oil Limited	Cold Lake - Makheses	Q2/2013	
Nexen Energy ULC	Long Lake	September 2013	
Shell Canada Limited	Scotford Upgrader	April/May 2013	
Shell Canada Limited	Scotford Refinery	September/October 2013	
Suncor Energy Inc.	Upgrader 1	April 2013	7 weeks
Suncor Energy Inc.	Upgrader Hydrogen	March 2013	14 weeks
Suncor Energy Inc.	Upgrader 2	September 2013	4 weeks
Suncor Energy Inc.	Firebag	May 2013	3 weeks
Statoil Canada Ltd.	Leismer	June 2013	
Canadian Natural Resources Limited	Horizon	October 2012	12 days
Canadian Natural Resources Limited	Horizon	February 2012	5 weeks
Canadian Natural Resources Limited	Primrose/Wolf Lake - oil treatment	2012	
Canadian Oil Sands Limited	Syncrude Coker 8-1	March 2012	4 weeks
Canadian Oil Sands Limited	Syncrude Coker 8-3	Q2/2012	60 days
Canadian Oil Sands Limited	Syncrude Vacuum Distillation Unit	Q2/2012	
Cenovus Energy Inc.	Foster Creek	May 2012	2 weeks
Japan Canada Oil Sands Limited	Hangingstone	September 2012	
MEG Energy Corp.	Christina Lake	September 2012	
Nexen Energy ULC	Long Lake	September 2012	
Suncor Energy Inc.	Upgrader 2	March 2012	5 weeks
Suncor Energy Inc.	Firebag	May 2012	

Compiled by Oilsands Review through corporate disclosures, the rumour list of the International Boilermakers Local 14 and data presented to the Alberta Energy Regulator. Does not include all oilsands projects or maintenance shutdowns.

Thompson said that as more oilsands plants go into operation, ongoing spending on maintenance and operations is like an annuity.

"The oilsands is more like a manufacturing business, with sustainability being the key. You won't develop an oilsands plant like Syncrude [Canada Ltd.] or Suncor Energy [Inc.] have and abandon them, as you would with a conventional oil well."

According to this year's figures from the sometimes-conservative Canadian Energy Research Institute (CERI), oilsands owners will spend \$1.4 trillion on MRO between 2012 and 2046. CERI defines MRO as the combined forecast of sustaining capital requirements and operating costs.

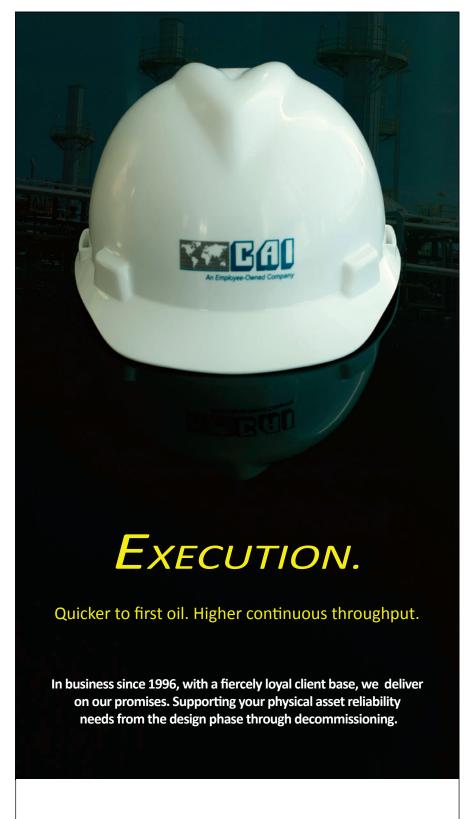
CERI's report, Canadian Oil Sands Supply Costs and Development Projects (2012-2046), increases the MRO figure from last year's analysis by \$137 billion over the period. The 2013 forecast suggests, for the first time, that oilsands MRO will eventually exceed \$50 billion per year, in this case reaching that level in 2037. By 2025, CERI indicates that the MRO spend will have more than doubled from the 2012 figure of \$19.8 billion to \$42.7 billion.

The magnitude of oilsands MRO, which encompasses everything from work gloves and coveralls to heavy industrial cleaning and replacement vessels, is unique to this sector of Canada's energy industry due to the size and complexity of the operations.

Reflecting the increased focus on in situ oilsands projects instead of mining installations, CERI's forecast shows MRO related to drilling production beginning to exceed that for trucks and shovels around 2030. Due to the continued expected low level of investment in new upgrading projects, associated MRO is anticipated to remain steady near 2012 levels through the forecast period.

While the CERI figures are impressive, it is important to note that actual investment both in new capital and MRO could be significantly higher. CERI acknowledges that its forecast for new projects becomes less clear after 2019, which also impacts its expectations for future MRO.

"The total costs increase from the beginning of the forecast period, 2012 until 2019, at which point initial capital starts to fall significantly, and hence the total costs flatten for the remainder of the forecast," reads the CERI report. "Initial capital starts to decline and approach zero by the end of the projection period. This does not reflect a slowdown in the oilsands, merely a lack of new capacity coming on stream, and relates back to CERI's assumptions for project start dates, and announcements from the oilsands proponents."



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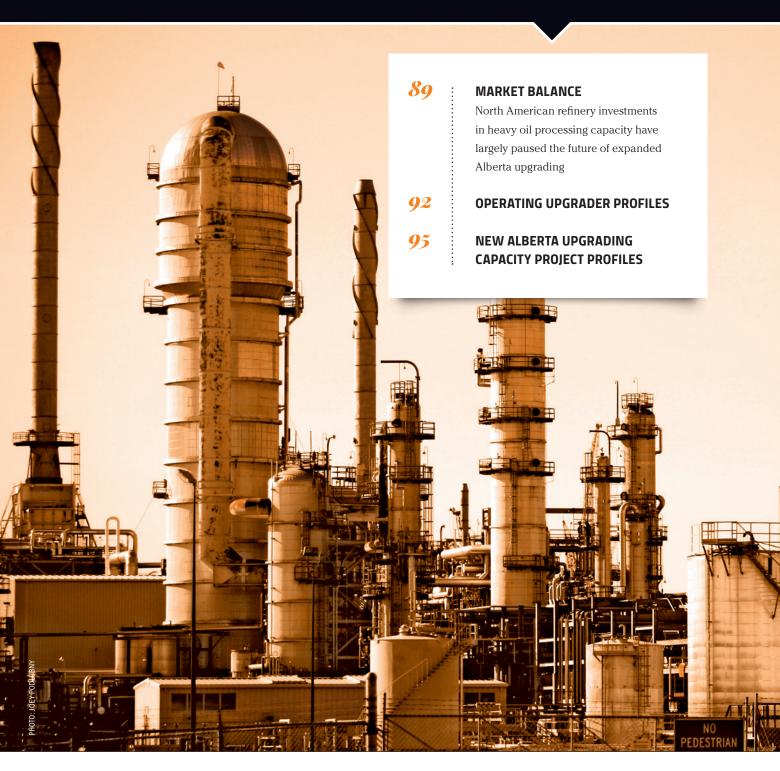
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# Market Dalance

North American refinery investments in heavy oil processing capacity have largely paused the future of expanded Alberta upgrading

By Jim Bentein

wo significant projects adding new heavy oil and oilsands upgrading capacity within Alberta are underway, but beyond their completion it's not likely much future investment will be seen in this area. That's according to Michael Ervin, principal of MJ Ervin & Associates Inc., a recognized authority on crude oil refining in North America.

"The market is already well served by existing refineries," says Ervin. "The trend has been towards exiting refineries improving their coking and cracking capacity, which means there's no need for standalone upgraders."

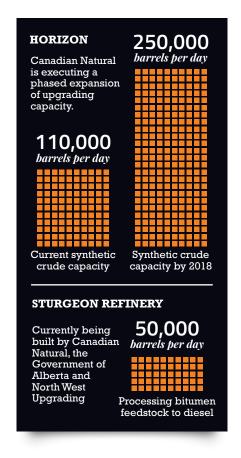
Ervin says the existing upgraders in Alberta and Saskatchewan aren't likely to have much company from future heavy oil and oilsands producers, which are likely to ship their products to existing refineries with upgrading capacity.

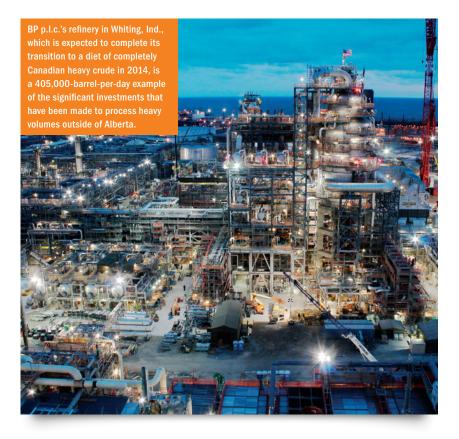
There are, however, those two notable exceptions—both of which are owned by Canadian Natural Resources Limited.

At the integrated Horizon mine north of Fort McMurray, Canadian Natural is executing a phased expansion that will increase synthetic crude oil production capacity from 110,000 to 250,000 barrels per day by 2018. Near Edmonton, the company and its partners—the Government of Alberta and tiny North West Upgrading Inc.—are building the 50,000-barrel-per-day Sturgeon Refinery, which will process bitumen feedstock directly to diesel.

Sturgeon is a special case, Ervin says, since it is backed by the Alberta government's Bitumen Royalty in-Kind program. It will process bitumen volumes that are owned by the province.

The market for heavy Canadian crude has grown in North America in recent years →





as refiners have invested in adding coking capacity, or the ability to handle heavier feedstock. These include the recently commissioned \$4-billion retrofit of BP p.l.c.'s Whiting, Ind., refinery, Phillips 66 Company projects at its Borger and Wood River refineries, and Marathon Petroleum Corporation in Detroit.

And that's just the U.S. Midwest, or PADD II. Getting more Canadian crude to the U.S. Gulf Coast (PADD III), which of course is the goal of the proposed Keystone XL Pipeline as well as numerous incremental projects, gives oilsands producers access to the world's largest refining cluster, which, incidentally, is quite prepared to take it.

"The U.S. Gulf Coast has nine million barrels per day of refining capacity and much of that has been reconfigured to process heavy crudes," says Todd Crawford, a senior economist with the Conference Board of Canada. "The issue is there might not be enough refining capacity in the U.S. for light, tight oil."

Crawford says the explosion of tight oil production in the United States illustrates how rapidly and dramatically things can change in energy markets.

"Four or five years ago, refiners were investing in heavy crude capacity. Nobody saw this coming."

#### MINES WITHOUT UPGRADERS

Imperial Oil's \$12.9billion Kearl project was the first oilsands mine to be built without an upgrader.

110,000 barrels per day

Production capacity at start-up in 2013 220,000
barrels per day

Production by completion of Kearl expansion

Because of this, BP and other firms that have completed heavy oil–targeted refinery retrofits in recent years still have the advantage of having been "first movers." Both Phillips 66 and BP initiated their projects as elements of joint-venture agreements with Canadian oilsands producers—Cenovus Energy Inc. for Phillips 66 and Husky Energy Inc. for BP.

The trend toward refining more heavy oil across North America is also evidenced by major upstream production developments in Alberta, particularly the historic decisions by Imperial Oil Limited and Suncor Energy Inc. to proceed with the first oilsands mines that will exist without a dedicated upgrader.

Imperial's \$12.9-billion, 110,000-barrelper-day Kearl project, which started producing in mid-2013, was the first project to mark this distinction. Crude volumes are expected to be processed at North American refineries owned by Imperial's parent, Exxon Mobil Corporation. An expansion at Kearl to 220,000 barrels per day is underway.

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- · Water use forecasting
- Transportation and marketing analysis
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- · Pilot project design assistance
- · Reserve evaluation

Suncor not only shelved its planned \$11.6-billion Voyageur upgrader in 2013, but in the sanction of the \$13.5-billion Fort Hills mine months later, the company opted to build a stand-alone mine dependent on North American refiners for value-added processing rather than constructing an integrated operation.

Canadian Natural has also indicated that expansions at the Horizon project may not include upgrading capacity based on North American market economics.

Looking to Asia, which Canadian crude volumes must ultimately reach to secure market diversity and growth, great opportunity exists, but there is a window of opportunity that could be missed, according to the Canadian Association of Petroleum Producers (CAPP).

"China's current ability to process large volumes of heavy crude oil from Canada may be limited but new refineries with high conversion capacity are being built due to China's higher demand for diesel fuel versus gasoline," reads CAPP's 2013 Crude Oil Forecast, Markets and Transportation. "Generally speaking, refineries able to process heavy crude oil can increase their production of diesel more easily than those configured to process light crude oil."

CAPP says that Indian Oil Corporation Ltd., India's largest refining company, has expressed interest in investing in Canada's oilsands with the intent to gain access to these supplies for export, but the lack of transportation infrastructure, specifically pipelines, remains an obstacle.

"Continued delays in establishing tidewater access could translate into a foregone opportunity to serve these large markets." 

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#### CURRENT **HEAVY OIL** AND **OILSANDS** UPGRADING DYNAMICS

- Alberta greenfield upgrading economics are challenged by an outlook for a narrow price difference between light and heavy crudes and high construction costs.
- Owing to challenging economics, expectations are for a future with less greenfield upgrading investment in Alberta.
- Less upgrader construction has benefits, since it reduces the strain on an already tight labour market.
- Instead of building new upgraders or refineries, modifying existing refining capacity to process oilsands is the most economic way to add processing capacity.
- For a greenfield refinery project focused on oilsands processing, the strongest investment return is in Asia where oil demand is growing.
- Although the potential is not as strong as in Asia, the economics of new refinery projects in Alberta and British Columbia could work under the right conditions.

SOURCE: IHS CERA SPECIAL REPORT: EXTRACTING ECONOMIC VALUE FROM THE CANADIAN OIL SANDS

UPGRADING AND REFINING IN ALBERTA (OR NOT)?, MARCH 2013

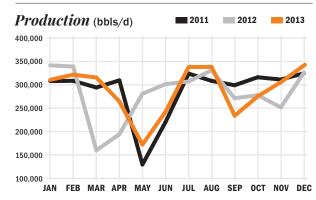
## THE U.S. GULF COAST HAS NINE MILLION
BARRELS PER DAY OF REFINING
CAPACITY AND MUCH OF THAT HAS BEEN
RECONFIGURED TO PROCESS HEAVY CRUDES. 77

- Todd Crawford, senior economist, Conference Board of Canada



#### **Suncor**





PROJECT	Suncor Base and Millennium
LOCATION	North Athabasca
OWNERSHIP	Suncor Energy 100%
PRODUCTION START	1967
CURRENT UPGRADING CAPACITY (BBLS/D)	357,000
AVERAGE DAILY SYNTHETIC CRUDE OIL Production 2013 (BBLS/D)	288,543
AVERAGE DAILY SYNTHETIC CRUDE OIL Production 2012 (BBLS/D)	282,070
AVERAGE REALIZED PRICE PER BARREL 2013 (LIGHT SWEET SCO)	\$97.98
AVERAGE REALIZED PRICE PER BARREL 2012 (LIGHT SWEET SCO)	\$91.17

#### Of interest:

In 2013, Suncor Energy Inc. made the final decision to abandon the \$11.9-billion Voyageur (upgrader 3) project, which would have added 200,000 barrels per day of SCO production capacity. The project economics were determined insufficient to proceed.

#### Syncrude



$m{Production}$ (bbls/d)	2011 2012 2013
350,000	
325,000	
300,000	
275,000	
250,000	
225,000	
200,000	<b>/ / / / / / / / / /</b>
175,000	
JAN FEB MAR APR MAY	JUN JUL AUG SEP OCT NOV DEC

PROJECT	Syncrude Mildred Lake
LOCATION	North Athabasca
OWNERSHIP	Canadian Oil Sands 36.74%, Imperial Oil Resources 25%, Suncor Energy 12%, Sinopec Oil Sands Partnership 9.03%, Nexen Oil Sands Partnership 7.23%, Mocal Energy 5%, Murphy Oil Company 5%
PRODUCTION START	1978
CURRENT UPGRADING CAPACITY (BBLS/D)	350,000
AVERAGE DAILY SYNTHETIC CRUDE OIL Production 2013 (BBLS/D)	274,421
AVERAGE DAILY SYNTHETIC CRUDE OIL Production 2012 (BBLS/D)	290,552
AVERAGE REALIZED PRICE PER BARREL 2013*	\$99.55
AVERAGE REALIZED PRICE PER BARREL 2012*	\$91.90

\*SOURCE: CANADIAN OIL SANDS LIMITED

#### Of interest:

Canadian Oil Sands Limited says that Syncrude SCO production volumes were impacted in 2013 by delays completing turnarounds. Production volumes in both 2013 and 2012 reflect unplanned outages in extraction units. Canadian Oil Sands says Syncrude is focused on delivering more consistent production levels in 2014.

#### Lloydminster

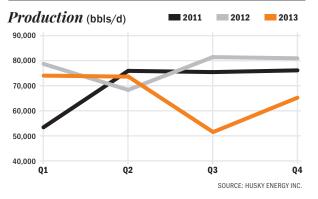
PROJECT	Lloydminster Upgrader
LOCATION	Lloydminster, Sask.
OWNERSHIP	Husky Energy 100%
PRODUCTION START	1992
CURRENT UPGRADING CAPACITY (BBLS/D)	82,000
AVERAGE DAILY SYNTHETIC CRUDE OIL Production 2013 (BBLS/D)	66,100
AVERAGE DAILY SYNTHETIC CRUDE OIL Production 2012 (BBLS/D)	77,400
AVERAGE REALIZED PRICE PER BARREL 2013*	n/q
AVERAGE REALIZED PRICE PER BARREL 2012	n/q

<sup>\*</sup>Because the Lloydminster Upgrader is located in Saskatchewan, it is not tracked by the AER, making comparable data to Alberta upgraders unavailable.

#### Of interest:

Husky Energy Inc.'s Lloydminster upgrader, which is fed by heavy oil operations in Alberta and Saskatchewan as well as volumes from the Tucker SAGD project in the Cold Lake oilsands deposit, was shut down for a scheduled 45-day maintenance turnaround in fall 2013.





#### **Scotford**

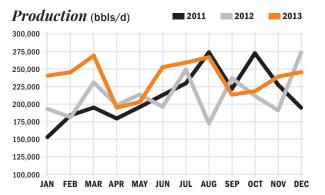
PROJECT	Scotford Upgrader
LOCATION	Industrial Heartland
OWNERSHIP	Shell Canada 60%, Chevron 20%, Marathon Oil 20%
PRODUCTION START	2003
CURRENT UPGRADING CAPACITY (BBLS/D)	249,000
AVERAGE DAILY SYNTHETIC CRUDE OIL Production 2013 (BBLS/D)	237,206
AVERAGE DAILY SYNTHETIC CRUDE OIL Production 2012 (BBLS/D)	212,605
AVERAGE REALIZED PRICE PER BARREL 2013*	\$87.51
AVERAGE REALIZED PRICE PER BARREL 2012*	\$81.72

<sup>\*</sup>SOURCE: MARATHON OIL CORPORATION

#### Of interest:

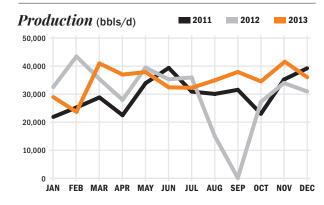
After commissioning a 100,000-barrel-per-day expansion at Scotford in 2011, the project owners launched a 10-year, multi-billion dollar debottle-necking project with the aim of eventually increasing production by as much as 85,000 barrels of oil equivalent per day.





#### **Long Lake**





PROJECT	Long Lake
LOCATION	South Athabasca
OWNERSHIP	CNOOC 100%
PRODUCTION START	2008
CURRENT UPGRADING CAPACITY (BBLS/D)	58,500
AVERAGE DAILY SYNTHETIC CRUDE OIL Production 2013 (BBLS/D)	34,963
AVERAGE DAILY SYNTHETIC CRUDE OIL Production 2012 (BBLS/D)	29,806
AVERAGE REALIZED PRICE PER BARREL 2013	n/q
AVERAGE REALIZED PRICE PER BARREL 2012*	\$80.13

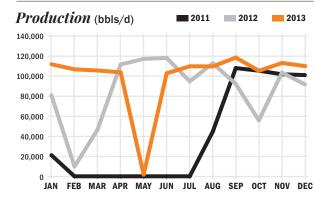
<sup>\*</sup>Premium sweet crude to September 30

#### Of interest:

Nexen Energy ULC (a wholly owned subsidiary of CNOOC Limited) as operator of the Long Lake project continues to work to fill the upgrader. A 40,000-barrel-per-day SAGD expansion is currently under construction.

#### Horizon





Horizon
North Athabasca
Canadian Natural 100%
2008
114,000
100,693
86,733
\$98.18
\$92.59

#### Of interest:

Canadian Natural Resources Limited is currently working on a phased expansion to 250,000 barrels of SCO per day that is made up of three parts.

#### New Alberta upgrading capacity: Sturgeon Refinery

	OWNER	Canadian Natural 50%, North West Upgrading 50%		
	PROJECT	Sturgeon Refinery		
	UPGRADING CAPACITY (BBLS/D)	50,000		
PHASE	Bitumen upgrader; diesel		STATUS	
Phase 1			Construction began in September 2013, several major contracts have been awarded and construction milestones achieved	



#### Of interest:

The Sturgeon Refinery will be the first upgrader to process feedstock sourced from the Government of Alberta. It will also connect to the Alberta Carbon Trunk Line where captured CO2 volumes will be used for enhanced oil recovery. The backing of the provincial government was instrumental in kickstarting the Sturgeon Refinery following the 2008 recession.

> ► Former Alberta premier Alison Redford and North West Upgrading chair Ian MacGregor break ground for the Sturgeon project in 2013.



#### **New Alberta upgrading capacity: Horizon expansion**

OWNER		Canadian Natural 100%			
PROJECT		Horizon mine/upgrader expansion			
UPGRADING CAPACITY INCREASE (BBLS/D)		110,000, expanding to 250,000			
PHASE	SUMMARY		START-UP	STATUS	
Tranche 2 (reliablity)	production reliability. Gas re	crease performance and overall oduction reliability. Gas recovery it will recover additional light barrels.		91% physically complete as of Q3/2013	
Phase 2A	Coker expansion; will use pre- invested infrastructure and equipment, alleviating existing bottleneck. Capacity increase of 12,000 barrels per day.		2014	70% physically complete as of Q3/2013	
Phase 2B	Expands capacity of major compon- ents such as gas/oil hydrotreat- ment, froth treatment and the hydrogen plant. Capacity increase of 45,000 barrels per day.		2016	20% physically complete as of Q3/2013	
The addition of supplementary extraction trains, resulting in additional reliability, redundancy and operating cost savings. Capacity increase of 80,000 barrels per day.		2017	19% physically complete as of Q3/2013		



Canadian Natural Resources Limited has broken the Horizon expansion into a series of phases, each with several component parts, in order to control costs.



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Lists of phase-by-phase new project and expansion development timelines

 Operating project performance details including efficiency metrics

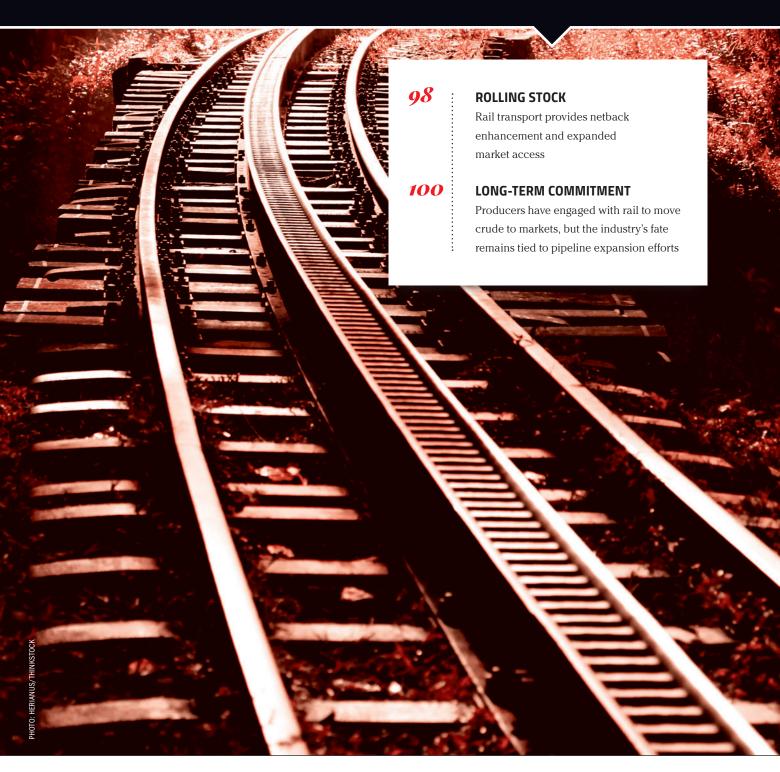
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## TRANSPORTATION & MARKETING



Rail transport provides netback enhancement and expanded market access

#### By Dina O'Meara

ased on rising oil production and tight pipeline capacity, the outlook for crude-by-rail projects in western Canada looks bright in 2014, despite concerns following a number of derailments.

Transporting Canadian oil to U.S. markets by rail has blossomed from a negligible industry in 2009, when producers shipped 500 railcars of crude, to a multi-billion dollar sector, with an estimated 140,000 railcars of oil being shipped in 2013, according to the Railway Association of Canada.

In 2014, on a per-barrel basis, rail shipments of western Canadian crude are slated to more than double to 500,000 barrels per day from an estimated 200,000 barrels per day in 2013. The soaring supply and demand comes as producers seek to bypass economically punishing pipeline constraints to access markets.

"Rail is not being used as a transportation method of last resort," said Pengrowth Energy Corporation president and chief executive

officer Derek Evans during the heavy oil producer's investor day in early 2014. "It is actually being used now by producers as a very specific netback enhancement technique when differentials start to move out a little wider."

Rising volumes of crude have squeezed pipeline capacity and pressured differentials as wide as US\$40 per barrel against U.S. and European benchmarks. The option to rail crude into markets, as well as the cost savings of requiring less diluent than pipeline, enhances heavy oil economics, Evans said.

#### **EXPANDED CAPACITY**

New and expanded loading-terminal projects are expected to add more than 600,000 barrels per day of capacity in western Canada in 2014. The growth spurt to more than one million barrels per day of capacity—larger than any one crude pipeline project in the works-will accommodate both pipeline bottlenecks and an estimated 300,000-barrel-per-day rise in oil production, primarily from Alberta's oilsands.

"The dramatic increase in rail-loading capacity expected in western Canada has been a very positive development for the near-term differential outlook, and the incremental capacity additions throughout 2014 should continue to be meaningful," says investment firm Peters & Co. Limited in a January 2014 report.

"The adoption of rail transportation has allowed for improved market access for Canadian heavy oil producers in recent months, resulting in higher realized pricing during periods of widened differentials."

Producers such as Cenovus Energy Inc., Baytex Energy Corp., Crescent Point Energy Corp., MEG Energy Corp. and Imperial Oil Limited are strong investors in rail for the higher netback during times of wide differentials. The cost per barrel of crude moved by rail averages between \$10 and \$15 compared to \$7-\$11 per barrel by pipeline. However, reduced diluent requirements can shave 30 per cent from costs. As well, railed crude can access higher Brent prices from Gulf Coast refiners than mid-continent refiners awash with Bakken crude.

#### **LONG HAUL**

Total expected rail-loading increases of almost 600,000 barrels per day in 2014 raises the question of excess capacity. However, pipeline constraints are likely to continue for the next three to five years as long-haul projects, such as Keystone XL to the Gulf Coast, Northern Gateway to the West Coast, and Energy East to Quebec and New Brunswick, sit in regulatory purgatory.

"Rail will be an essential, rather than an additional, mode of crude oil shipment should [none of the] projects be approved," says a recent report by the Washington, D.C.-based Energy Policy Research Foundation Inc.

TransCanada Corporation, proponent of the 830,000-barrel-perday Keystone XL pipeline from Alberta to the U.S. Gulf Coast, has confessed to being in discussions with producers and rail companies about building rail terminals in Alberta and Oklahoma should its \$6-billion crude pipeline project be rejected in the United States. The long-delayed pipeline, under review by the U.S. State Department since 2008, would carry oil from Alberta to refiners on the U.S. Gulf Coast.

TransCanada might look into building a rail terminal at Hardisty, Alta., where the pipeline would have started, as well as an import terminal at Cushing, Okla., site of the biggest U.S. oil storage hub.

However, concerns have been raised about the increasing use of rail to transport oil throughout North America after a number of recent derailments, including the tragic Lac-Mégantic, Que., accident in 2013 that killed 47 people.

Since the catastrophic incident, there have been three more explosive derailments of crude-ladened railcars, two on remote lines in the United States and the last in New Brunswick. No one was injured during the later incidents, but concerns were elevated on the prospect of higher volumes of potentially volatile crude passing through all major Canadian cities.

Older DOT-111 tank cars, which were involved in the Lac-Mégantic explosion, have been shown to be unsafe, and there are calls in Canada and the United States to upgrade or remove them-including from leading rail providers—but legislation in either country has yet to be passed.

#### Crude oil loading terminals in the Western Canadian Sedimentary Basin

OWNER	LOCATION	OPERATIONAL	CAPACITY (BBLS/D)		
OPERATING					
TORQ Transloading Inc.	Various SK/AB	pre-2013	119,000		
Altex Energy Ltd.	Various SK/AB	pre-2013	46,000		
Crescent Point Energy Corp.	Stoughton/ Dollard, SK	pre-2013	25,000		
Gibson Energy Inc.	Sexsmith/ Edmonton, AB	pre-2013	8,000		
Misc. other	Various SK/AB	2012/13	10,000		
Crescent Point Energy Corp.—expansions	Stoughton/ Dollard, SK	Q1/2013	27,000		
TORQ Transloading Inc.— expansions	Southall (Bromhead), SK	Q2/2013	16,000		
Crescent Point Energy Corp.—expansions	Stoughton/ Dollard, SK	Q2/2013	8,000		
Pembina Pipeline Corporation	Redwater, AB	Q3/2013	40,000		
Enbridge Inc./Tundra Energy Marketing Limited	Cromer, MB	Q3/2013	30,000		
Altex Energy Ltd.	Various AB	Q3/2013	24,000		
TORQ Transloading Inc.—expansion	Lloydminster, SK	Q3/2013	6,000		
Keyera Corp./Enbridge Inc.	Cheecham, AB	Q4/2013	25,000		
TORQ Transloading Inc.—expansion	Unity, SK	Q4/2013	36,000		
TORQ Transloading Inc.—expansion	Whitecourt, AB	Q4/2013	9,000		
Gibson Energy Inc.	Rimbey, AB	Q4/2013	6,000		
Canexus Corporation	Bruderheim, AB	Q4/2013	30,000		
Т	OTAL OPERATIONA	L CAPACITY	462,000		
ANNOUNCED EXPANS	IONS				
Enbridge Inc./Tundra Energy Marketing Limited—expansion	Cromer, MB	Q1/2014	30,000		
Altex Energy Ltd.	Lashburn, SK	Q1/2014	13,000		
Gibson Energy Inc./U.S. Development Group	Hardisty, AB	Q2/2014	120,000		
Keyera Corp./Kinder Morgan	Edmonton, AB	Q2/2014	40,000		
Ceres Global Ag Corp./ Scoular Company	Northgate, SK	Q2/2014	25,000		
Canexus Corporation— expansion	Bruderheim, AB	Q3/2014	60,000		
TORQ Transloading Inc.	Kerrobert, SK	Q4/2014	168,000		
Kinder Morgan/Imperial Oil Limited	Edmonton, AB	Q4/2014	100,000		
Altex Energy Ltd.	Various SK/AB	H2/2014	40,000		
TOTAL ANNOUNCED CAPACITY 596,00					
PROPOSED TOTAL CAPACITY 1,058,000					
SOURCE: PETERS & CO. LIMITE					

## Long-term commitment

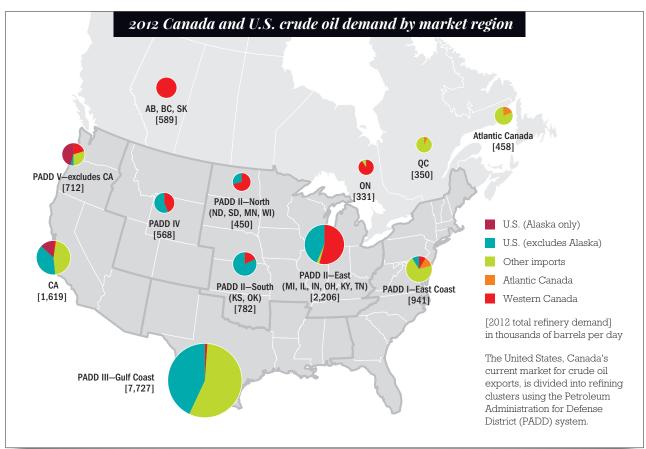
Producers have engaged with rail to move crude to markets, but the industry's fate remains tied to pipeline expansion efforts

#### By Dina O'Meara

ipelines and production are like love and marriage, going together like a horse and carriage, according to the old song. And, brother, you can't have one without the other.

Shippers and producers know that there can be a prolific well, but without access to market, there's no love for the shareholder. And you can have a fine, strapping pipeline, but without oil or gas to fill it, it's just an unproductive hunk of steel.

Canadian producers experienced this fact of oilpatch life when pipeline and refinery constraints in the United States in early 2013 led to steep discounts for Western Canadian Select blend compared to its American and European peers. Rising production on both sides of the border, driven by oilsands expansions and shale-applied drilling technologies, added to a push for more capacity—any capacity—to reach markets.



SOURCES: CANADIAN ASSOCIATION OF PETROLFUM PRODUCERS: CALIFORNIA ENERGY COMMISSION: U.S. ENERGY INFORMATION ADMINISTRATION: STATISTICS CANADA

Long-haul pipeline projects promise to open more than two million barrels per day of capacity if and when approved, but short-haul projects are just as needed to bring crude to export hubs.

"What you're seeing is old infrastructure getting filled back up with higher utilizations, and all this is requiring expansions," says David Noseworthy, director of equity research with CIBC.

Oil production in western Canada is expected to increase to 3.7 million barrels per day by 2015, up from three million barrels per day in 2012, with more than half of the increase coming from Alberta's oilsands, according to the Canadian Association of Petroleum Producers. To get those volumes to market, pipeline operators are investing billions of dollars in projects such as Northern Gateway to British Columbia, Keystone XL to the U.S. Gulf Coast, and Energy East to Ouebec and on to New Brunswick.

Noseworthy expects to see incremental expansions rather than new pipeline projects being announced this year, as operators deal with political and environmental opposition to new long-haul lines.

"We're in a very constrained market—not just necessarily transportation issue constraints, but also refinery constraints—so it doesn't take a lot to really make differentials blow out or come back," Noseworthy says. "It's going to continue to be a very volatile market until we have access to processing capacity and access to pipeline capacity."

#### **OPENING UP OPTIONS**

Canada exported about 2.4 million barrels of oil per day in 2013, most destined to saturated refiners in the U.S. Midwest set to handle heavy crude. Only a fifth of Canadian crude exports, or 551,000 barrels per day, reached refiners on the U.S. Gulf Coast or East Coast (Louisiana), where shippers could access higher prices for their heavy products.

Currently, producers and shippers in western Canada have four main pipeline options for moving their crude from Alberta into U.S. markets: Spectra Energy Corp.'s 280,000-barrel-per-day Platte system to Wood River, Ill.; Kinder Morgan's 300,000-barrel-per-day Trans Mountain line to the coast of British Columbia; TransCanada Corporation's 580,000-barrel-per-day Keystone line to Patoka, Ill.; and the granddaddy of them all, Enbridge Inc.'s Mainline, running at around two million barrels per day as the primary Canadian export line to the United States.

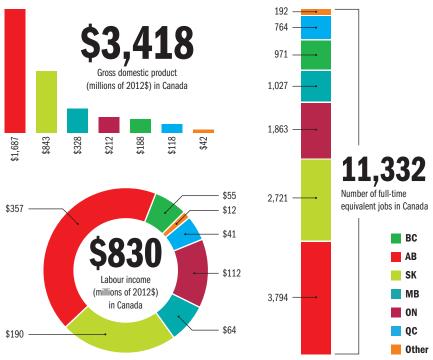
New pipelines improving the ability to move Canadian crudes						
PROJECT	OWNER	FROM	TO	THROUGHPUT CAPACITY (BBLS/D)	COMPLETION DATE*	
COMPLETED PROJE	CTS					
Keystone Phase 1	TransCanada Corporation	Hardisty, AB	Steele City, NE, and Wood River and Patoka, IL	435,000	June 2010	
Keystone Phase 2 (Cushing Extension)	TransCanada Corporation	Steele City, NE	Cushing, OK	156,000	February 2011	
Seaway Reversal Phase 1	Enterprise Products Partners L.P./ Enbridge Inc.	Cushing, OK	Freeport, TX	150,000	June 2012	
Seaway Reversal Phase 2	Enterprise Products Partners L.P./ Enbridge Inc.	Cushing, OK	Freeport, TX	250,000	January 2013	
Spearhead North Expansion (Line 62)	Enbridge Inc.	Flanagan, IL	Griffith, IN	105,000	Late 2013	
Line 9A Reversal	Enbridge Inc.	Sarnia, ON	Westover, ON	240,000	Late 2013	
Gulf Coast (Keystone XL Southern Leg)	TransCanada Corporation	Cushing, OK	Nederland, TX	700,000	January 2014	
APPROVED/UNDER	CONSTRUCT	ION PROJECTS	S			
Seaway Twinning/Looping	Enterprise Products Partners L.P./ Enbridge Inc.	Cushing, OK	Freeport, TX	450,000	H1/2014	
Flanagan South	Enbridge Inc.	Flanagan, IL	Cushing, OK	600,000	Mid-2014	
Clipper (Line 67) Phase 1	Enbridge Inc.	Hardisty, AB	Superior, WI	120,000	Mid-2014	
Line 9B Reversal & Expansion	Enbridge Inc.	Westover, ON	Montreal, QC	300,000	Q4/2014	
Batching Improvements	Enbridge Inc.			n/q		
PROPOSED PROJEC	TS					
Line 61 (Southern Access) Expansion Phase 1	Enbridge Inc.	Superior, WI	Flanagan, IL	160,000	Mid-2014	
Eastern Gulf Crude Access	Energy Transfer Partners, L.P.	Johnsonville, IL	St. James, LA	420,000	Mid-2015	
Line 61 (Southern Access) Expansion Phase 2	Enbridge Inc.	Superior, WI	Flanagan, IL	640,000	H2/2015	
Keystone XL	TransCanada Corporation	Hardisty, AB	Steele City, NE	830,000	2015	
Clipper (Line 67) Phase 2	Enbridge Inc.	Hardisty, AB	Superior, WI	230,000	2015	
Sandpiper (ND-MN)	Enbridge Inc.	Beaverlodge, ND	Clearbrook, MN	225,000	2016	
Sandpiper (MN-WI)	Enbridge Inc.	Clearbrook, MN	Superior, WI	375,000	2016	
Energy East	TransCanada Corporation	Hardisty, AB	Montreal and Quebec City, QC, and Saint John, NB	1,100,000	2017	
Trans Mountain Twinning	Kinder Morgan Canada	Edmonton, AB	Burnaby, BC	590,000	2017	
Northern Gateway	Enbridge Inc.	Edmonton, AB	Kitimat, BC	525,000	n/a	
*COMPLETION DATES SHOWN ARE	AS CURRENTLY TARGE	TED				

SOURCES: PETERS & CO. LIMITED ESTIMATES; COMPANY REPORTS



SOURCE: CANADIAN ASSOCIATION OF PETROLEUM PRODUCERS

#### Economic impacts from operation of crude oil transmission pipelines in Canada



SOURCE: ANGEVINE ECONOMIC CONSULTING LTD. FOR THE CANADIAN ENERGY PIPELINE ASSOCIATION, OCTOBER 2013

Until Enbridge's Northern Gateway is built and opens access to Asia, "the only markets that are going to be available for Canadian heavy producers are going to be refineries in U.S. Midwest who have retooled their refineries to take even more heavy crude," says Vern Yu, the company's vice-president of business and market development, liquids pipelines.

And then down from the Midwest is the nine-million-barrel-per-day U.S. Gulf Coast market, with its considerable heavy crude capacity, Yu adds. Enbridge has a significant—and growing—foothold in the region.

The company's 600,000-barrel-per-day Flanagan South project from Chicago to storage hub Cushing, Okla., will be in service July 1 of this year, at the same time the 450,000-barrel-per-day Seaway expansion comes online. Between the two, Enbridge will have the ability to move 800,000 barrels per day of crude from Alberta to the Gulf Coast.

#### **ON A DIFFERENT TRACK**

Pipeline companies are also investing in rail-loading terminals as another alternative. Crude by rail, relatively unused until 2012, now plays a large role in helping producers bypass pipeline constraints.

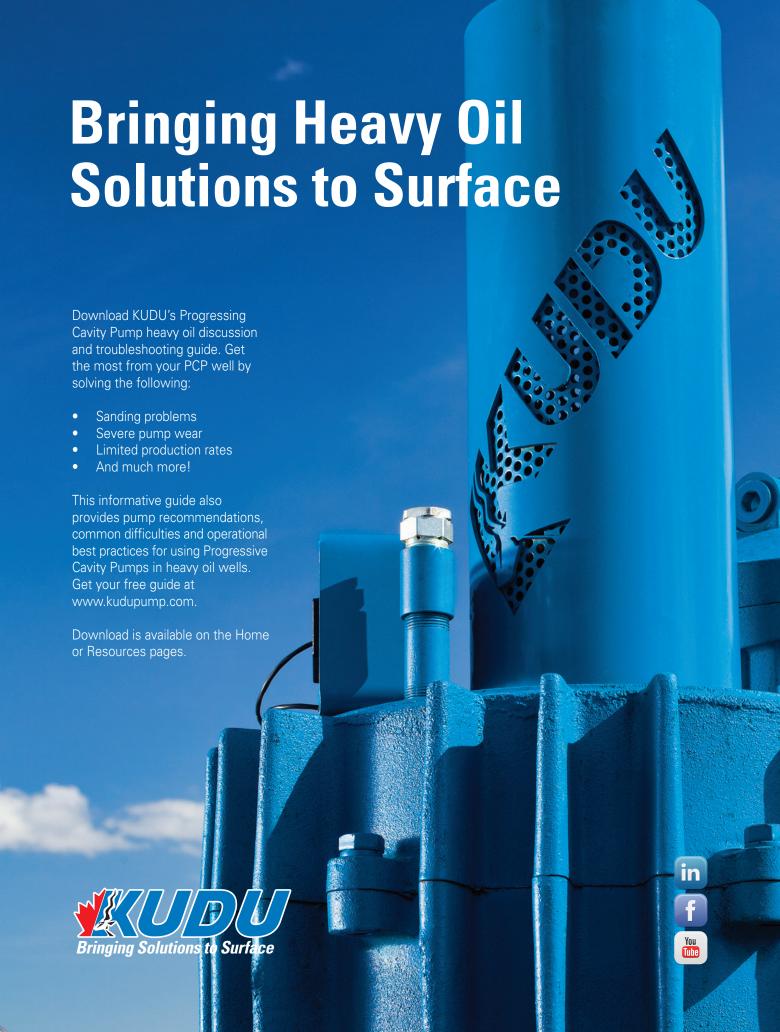
Analysts expect loading capacity in Canada will grow to 700,000 barrels per day by 2015, and up to 1.1 million barrels per day if built out to ultimate capacity. That compares to 3.7 million barrels per day of pipeline capacity out of western Canada.

Astute pipeline operators have invested in both, offering rail as alternate transportation once oil on regional systems hit storage hubs like Alberta's Redwater and Hardisty. Pembina Pipeline Corporation is one of the largest rail operators in western Canada, and was the first to load a crude-by-rail unit train late last year at its Redwater facility.

If demand drops on sufficient pipeline capacity, companies like Pembina and Keyera Corp. have the ability to use their rail lines to ship loads other than crude, like propane, Noseworthy says.

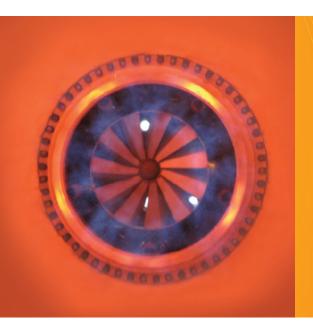
Going forward, he expects crude-by-rail capacity will have significant impact on bringing down differentials when projects such as Gibson Energy Inc.'s 120,000-barrel-per-day crude-by-rail facility at Hardisty start operations.

"Ultimately, if there is sufficient long-term production, pipeline will be the cheapest way to get from A to B. There will be need for rail in the mid to long term, but perhaps not 1.1 million barrels takeaway capacity."





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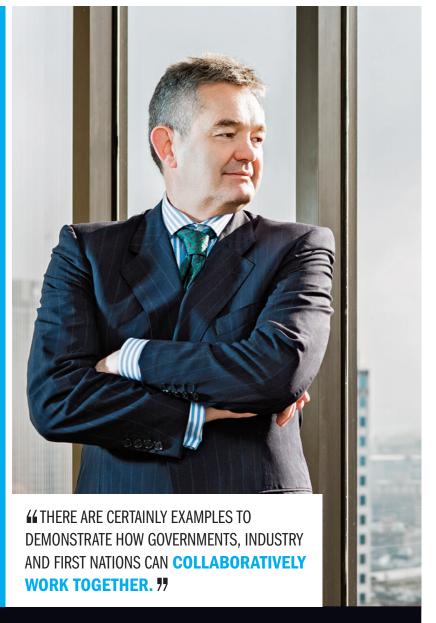
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#### **PEOPLE**





Douglas **EYFORD** 

Special federal representative on West Coast energy infrastructure

onnecting large volumes of Canadian crude to the country's coasts for tidewater export is seen as a critical step in enabling the industry to grow and continue to support prosperity. But, particularly to the West Coast, this effort is proving challenging, especially when it comes to First Nations issues along the proposed routes.

In late 2013, special federal representative on West Coast energy infrastructure Douglas Eyford provided objective, blunt advice to the prime minister on how to achieve success in his report, Forging Partnerships, Building Relationships: Aboriginal Canadians and Energy Development.

Your report asserts there has not been constructive dialogue about energy projects, particularly relating to First Nations. What needs to happen?

First, engagement between project proponents and First Nations has to start very early. Secondly, the Crown needs to be involved when issues are raised that the proponent isn't capable of dealing with.

A third aspect—probably most important—is if governments go to a First Nations community and say they want to talk about a project, they have to be prepared to discuss issues on the First Nation's agenda, not only their own.

#### Do you believe collaborative steps to realize the opportunities of West Coast infrastructure projects are truly possible?

I do believe it's possible. Constructive engagement can avoid some steps that hinder the process. It has to be guided by at least two of the three parties involved.

There are certainly examples to demonstrate how governments, industry and First Nations can collaboratively work together. One example is the expansion of container facilities in the Port of Prince Rupert. There was a very rocky start to the consultations between the port authority and the Tsimshian communities, but ultimately they were able to reach agreement. With perseverance you can make progress.

Ian Anderson, president of Kinder Morgan Canada, demonstrates how one individual can make a significant impact on the relationship between project proponents and First Nations communities. First Nations groups [have] told me Anderson has an established relationship with every chief and elected council on his pipeline route. It's important with First Nations to be meeting with high-level leaders in industry and government.

#### Is there a time limit to resolving these issues?

It's not open-ended. There are final investment decisions to be made; proponents need to assess the viability of their projects. Companies are not prepared to wait forever. s industry awaits approval and construction of new major crude oil pipelines, the transport of volumes by rail in North America is surging. Crude-by-rail offloads from western Canada have grown from almost zero in 2012 to 200,000 barrels per day in 2013 and a forecast of 500,000 barrels per day in 2014. Rail is allowing producers to reach different markets and, in turn, improve netbacks. But there have been some highly visible safety issues—including the multiple-fatality crash at Lac-Mégantic, Que., in 2013—and changing regulations could slow down the surge.

## How would you characterize the current state of crude by rail and the oilsands?

We are at the cusp of an inflection point in crude-by-rail shipments from the oilsands spurred on by the transition from manifest service to unit train. We have progressed from the simple truck-to-rail transload to truck-to-tank-to-railcar and now we are seeing the development of high-throughput, pipeline-connected facilities.

## Why do you feel that crude by rail has staying power versus being a short-term stopgap solution?

Rail offers a complementary service to pipe. Even with new pipeline development, there will always be some markets that are disconnected. Rail provides connectivity from production to virtually all markets in the U.S. and Canada.

# What are the biggest challenges in front of rail operators in terms of crude-by-rail delivery?

To date, the two biggest constraints have been facility development and railcar availability. Significant investment by customers in new unit train and manifest facilities in the U.S. and Canada, as well as a dramatic shift in railcar production from general-purpose tank car to coiled insulated tank cars required to ship heavy crudes, have gone a long way to alleviate constraints to growing crude-by-rail shipments.

# What is CN's position on the need for enhanced standards for crude-by-rail (DOT-111) cars?

One of the key issues for CN and the entire North American rail industry is the review of tank car design. In CN's view, tank car design is one of the most important systemic issues arising from the Lac-Mégantic accident.

The question of tank car robustness is central, and that question is being addressed by the Association of American Railroads, to which CN belongs, in a recent recommendation that calls for the retrofitting or phase out of the old DOT-111 cars used to transport flammable liquids and a reinforced standard for new tank cars built in the future.

*James* CAIRNS

Vice-president, petroleum and chemicals, sales and marketing

#### **CANADIAN NATIONAL RAILWAY COMPANY**



# *Rich* **KRUGER**

#### Chairman, president and chief executive officer

#### **IMPERIAL OIL LIMITED**



mperial Oil, the subsidiary of global supermajor Exxon Mobil Corporation, is one of the biggest players on Canada's oilsands scene—and it is getting bigger. Through a mix of in situ and mining development, Imperial is quickly bearing down on 500,000 oilsands barrels per day. Rich Kruger took the reins in early 2013 after three decades of technical and managerial experience with Exxon Mobil.

# Imperial Oil is one of the longest-running producers in the oilsands, through both its ownership in Syncrude and its in situ operations at Cold Lake. As the industry continues to evolve, are there advantages afforded by that longevity?

Imperial's long-term vision and business model support our commitment to operational excellence, advanced technology and innovation. Having served us well for more than 130 years, this model will continue to guide our strategies.

Imperial has significant experience with its Cold Lake operation, the largest thermal in situ heavy oil operation in the world. The Nabiye expansion currently under construction is being built using Imperial's 'design one, build many' approach, reducing design costs and capitalizing on equipment and facility knowledge.

Imperial strives for continuous performance improvement. Kearl, for example, was designed to be a next-generation oilsands development. Its proprietary froth treatment process eliminates the need for an upgrader, which significantly reduces costs, energy consumption and greenhouse gas emissions. We also apply our experience and rigorous operational standards to pursue continuous improvement at Syncrude.

# What do you see as the biggest challenges for Imperial Oil and for the oilsands sector in the coming years?

To address the accompanying challenges of responsible development and environmental protection, Imperial develops and applies technologies that enable us to reduce energy and emissions intensities, water use and land requirements while growing production.

Access to existing and new markets is an important component of continued growth and responsible development. The crude oil and petroleum products distribution system is a critical part of the North American energy infrastructure, moving vital products from locations where they're produced to the markets where they're consumed—to fuel our cars, heat our homes and strengthen our economy.

In the coming years, industry will need to rely on a variety of modes to transport crude oil and products. Market access is increasingly important to us as we increase production. We're looking at all options, including utilizing existing pipeline systems, participating in a number of planned new pipelines and leveraging our rail capabilities. Moreover the product of the product

f all of Alberta's elected officials, it is hard to imagine someone who at this time has a closer relationship with the heavy oil and oilsands sector. Currently minister of energy, Diana McQueen has previously served as minister of environment and sustainable resource development, as well as chair of Alberta's oil and gas regulatory enhancement task force. It is her belief that sustainability must underpin economic development.

# What are your priorities as minister of energy?

My priority is following through on our government's commitment to gain access to new markets for our energy resources. Market access will go a long way in getting fair value for Albertans' energy resources and allow us to maintain the quality of life we've come to expect in Alberta and Canada.

Our integrated resource management system looks at the big picture of resource development and all its economic, environmental and social impacts. In everything we do, we look at the total effects of development on our communities, our environment and each other.

It's my priority to find ways for government and industry to work together to develop our resources and promote sustainable growth.

# Alberta has proposed legislation that will give the minister of energy more control over the crude oil the government receives in lieu of royalties. Where and how would you use this authority?

The Building New Petroleum Markets Act allows the province a more active role in providing clear direction to the management of the Alberta Petroleum Marketing Commission [APMC] on initiatives like market development and managing Alberta's



BRIK [Bitumen Royalty in-Kind] policy. If we are to get higher prices and therefore greater revenue for our oil and gas, we need to get those resources to additional and more lucrative markets.

For example, the APMC has successfully put in place agreements to supply 37,500 BRIK barrels per day for the Sturgeon Refinery and to ship 100,000 barrels a day of crude oil on the Energy East Pipeline.

# This legislation would also clarify financial tools available, including the ability to make equity investments in projects. What kinds of projects are being envisioned or discussed?

We are providing the petroleum marketing commission with clearer processes and requirements for the use of financial tools such as providing loans or making equity investments in projects.



andy Mikula is among the pioneering researchers that have spent decades in the lab and on the ground working to improve oilsands processes, particularly in mined tailings. In 2013, Mikula won the prestigious ASTech Award for Innovation in Oil Sands Research, in part because of his work commercializing the centrifuge process for tailings processing, which will be realized in 2015 with the completion of Syncrude Canada Ltd.'s \$1.9-billion centrifuge complex.

Long the lead of oilsands tailings research for Natural Resources Canada, Mikula is now a private consultant at Kalium Research.

# There has been significant effort in recent years developing and implementing technologies for tailings management. Why do you think this is?

Some people believe recent progress is a result of [the Alberta Energy Regulator's] Directive 074, which mandates that 50 per cent of the fines in the processed ore be treated to reach [traffickable] strength after five years. I think that's only a small part of the story.

We saw more than 30 years ago that accumulating these volumes was unsustainable, and much of today's activity is a result of initiatives undertaken decades ago. Timing is important since now there are mined-out areas available for implementing many of these technologies.

# Do you think more effective tailings management technologies are being applied fast enough? What's missing in the effort?

Demonstrating a reclaimed landscape on fluid fine tailings is definitely not happening fast enough, while too much has been made of reclamation on sand or overburden.

There's no big area of reclaimed fluid fine tails we can talk about yet, but that's going to change fast. Industry has made tremendous progress achieving dry stackable tailings and will soon have showcase areas planted with trees. Then people will see we're moving forward.

Tailings management in general is going to move forward faster, and we'll be able to point to deposits that are starting to look like forests.

In terms of what might be done better, high on my list would be developing a more cooperative relationship among the regulators, the public and industry. A tremendous number of good, incremental things are happening that aren't being made public. Companies are reluctant to publicize them in case they don't pan out. If we had a more cooperative relationship, with both industry and regulators being more open, people would understand there is a lot of progress, but we can't just jump into things.

#### President

#### **DEVON CANADA CORPORATION**

ince entering the Canadian heavy oil and oilsands market, American independent Devon Energy Corporation has steadily grown production and visibility as a key operator. Now, even as Devon divests its conventional oil and gas assets in Canada as part of a portfolio shift, its heaviest assets remain core to company strategy.

# Why are Devon's Canadian heavy oil and oilsands assets so appealing to the company?

There are not many places in the world where you can find a billion barrels in a very small geographical area and have a 20- or 25-year flat production profile. That's pretty attractive. When we look at [our] overall portfolio, the oilsands in Canada—both cold flow and thermal—our positions there we believe are top quartile in the business or better, and we see a good cash flow coming out of them over time.

# Why does Devon continue to pursue an upstream-only strategy, especially as a growing heavy oil and oilsands producer?

From the get-go, we've been strictly an upstream company. When we look at the overall market, we see a strong demand pull for the product. We are able to enter into longterm relationships with refiners if we choose, and we are able to hedge if we choose because of the market liquidity. We have spent seven or eight years working to develop the Access Western Blend brand that we and MEG Energy Corp. sell. In probably five years, it will be the premium heavy oil traded. We're comfortable with letting the market determine the price.

That doesn't mean there are no pain points with the heavy oil price differential. We recognize risk, but large companies are in the best position to develop resources because we can handle price fluctuation.

# Devon has been operating in heavy oil and oilsands since 1998. What are your most important learnings?

Attention to detail—in how you run your operations, how you assess the resources you have and how you work with your stakeholders, especially local communities and regulators. You need to be on your game if you're going to have a profitable business.

Internally, we pay attention to safety performance and the culture we create at our work sites and in all our operations. Our internal culture of respect gives impetus to our external culture of putting something back into the places we impact.



assive oilsands production and processing equipment runs for decades, but first it has to get to northern Alberta, and that takes smart heavy hauls and lifts. ENTREC is one of the key players in this space, delivering all kinds of overweight and oversized equipment and cargo.

# How has the shift by project owners toward modularized construction affected your business?

Hauling modules is one of our core businesses. We haul modules north from Edmonton [and] we're licensed to pick up in the U.S. or any of the ports. We've hauled loads from Houston and Tacoma, [Wash.], that come from manufacturers overseas.

Modules are also big for us from a crane perspective. We have about 200 cranes, give or take. We use our cranes to put the modules in place on a project site, plus mod yards use our cranes to support their construction. We are fully operated and maintained, so we supply the operator as well as the crane.

Safety is our number one core value. It's catastrophic when something goes wrong with a crane, so we have a big safety team.

# What do you see as the biggest challenges for heavy-haul and crane services in the oilsands sector?

Definitely the biggest challenge is finding operators, especially crane operators. There are only two places in Alberta that provide the three-year crane and hoisting equipment apprenticeship program—NAIT [Northern Alberta Institute of Technology] in Edmonton and Keyano College in Fort McMurray—and they have far fewer openings than they have people applying for the training.

# We've been working with NAIT, sponsoring classrooms and putting scholarships in place to double the number of spots for the program.

We also need drivers for our specialized Goldhofer [AG, the German manufacturer] hydraulic platform trailers for hauling over-dimensional and overweight loads. We train our drivers in-house, both classroom and field training, and certify them for the trailer operator program. Goldhofer came to our site and gave us kudos. This year, we also sent some people to Germany for training.

## What lessons from the past do you think provide the most value as you develop your business?

Two big lessons: number one, we make sure our employees are engaged. We focus on it every day.

Second, it's critical that you have a system in place to measure what you need to measure. If it gets measured, it gets managed, so we put scorecards in place.  $\mbox{\sc M}$ 





Gorey
GOULET

Vice-president, Keystone Pipeline project

#### TRANSCANADA CORPORATION

he proposed Keystone XL Pipeline would provide a direct connection for more than 800,000 barrels per day of Canadian oilsands crude to the massive U.S. Gulf Coast refining cluster, breaking the oilsands clear of its glutted conventional market. But, mired in environmental politics, it has been in the regulatory process in the United States for over five years, and while indications are it will ultimately be approved, nothing is certain.

There have been claims by some that with other major export pipelines under development and the massive growth in crude-by-rail transportation across North America, the Keystone XL Pipeline may no longer be necessary. How do you answer this?

We have contracts with our shippers—both producers and refiners—to move crude oil from Alberta, pick up some Bakken crude, and carry it to the U.S. Gulf Coast. Our shippers continue to support their transportation service agreements and support the pipeline project because they need that service.

Refiners on the Gulf Coast retrofitted their facilities when they recognized a business opportunity to switch to heavier crude because it's becoming more prevalent around the world. We're displacing crude oil that comes from other, less-friendly nations. Keystone XL was envisioned to meet that need.

## What would you say are the key features of Keystone XL that continue to make it a compelling project for TransCanada?

The largest refining centre in the continent is at the Gulf Coast; it handles almost half the capacity of North America. Notwithstanding the delays, the project is very well advanced in terms of engineering, land, and permits in the U.S. and Canada. It's well ahead of other opportunities to move crude to markets in North America.

The [U.S. president's decision] is impossible for anyone to predict, but we remain confident the fundamentals of the project are sound: increased energy security for the U.S., providing jobs into an economy that needs those jobs [and] the economic stimulus the project brings beyond the jobs.

## What are your thoughts as you await the U.S. president's decision?

The Department of State has really moved the project through the final steps. On Feb. 7, 2013, it started the clock on a 90-day national interest determination period. The [State Department's] final environmental impact statement was unequivocal—there's minimal impact, the oilsands would be developed in any event [and] pipelines are the best method of transporting crude. It gave us a lot of confidence.



Trevor HAYNES

President and chief executive officer

#### **BLACK DIAMOND GROUP LIMITED**

s more and more people flock to northern Alberta to build, operate and maintain oilsands facilities, workforce housing has become a sizzling business market. It is estimated that more than 40,000 people currently live in camps in the Athabasca oilsands region alone, a population that continues to grow with the industry. Founded in 2003, Black Diamond Group believes it is responsible for

50 per cent of the beds in the southern half of Athabasca, operating 4,500–5,000 beds.

# Why do you think the oilsands workforce housing sector has become so competitive?

In our view, this has always been a competitive market sector. We've seen a change in the size of the market in terms of number of people being housed and the amount

of square footage and services in demand for remote housing projects. This makes it a more visible segment in the services sector than it has been in the past; however, no more or less competitive.

# Camps in the oilsands have changed dramatically over the years to become more and more hotel style. Is there such a thing as 'too nice' for the practical oilsands workforce?

Evolving from dormitory-style to hotel-style rooms with private washrooms and more space per person, and adding high-end fitness facilities and dining rooms, reflects rising standards to attract more highly skilled people to work remotely.

There's a settling point best described as a three-star hotel standard—a comfortable room of size that is still realistically industrial. I don't think we're at risk of 'too nice.' It's a matter of providing what's reasonable to get the right people to come and work. Just offering more square footage brings diminishing returns. Delivering more customized services within the camps—whether a franchised coffee kiosk or movies on demand—is more effective because it gives remote workers options for meeting the standards for how they want to live.

# What do you think are the biggest challenges for oilsands workforce housing providers in the near term?

On the growth side, meeting additional demand coming from northern B.C. while satisfying oilsands demand. On the economics side, continuing to work with our customers on defining the aspects of their camps that differentiate their camps to attract the top-end skill sets.

The overall industry issue of where we're going to find enough skilled labour over the next five years is the problem we connect into with our customers.



fter less than a year at the helm of Irving Oil, Paul Browning is adding muscle to Saint John, N.B.'s vision of becoming a major marine exporter of crude oil. In a joint venture with TransCanada Corporation, Irving Oil plans to build a \$300-million deepwater marine terminal to complement its 300,000-barrel-per-day Atlantic Coast refinery. TransCanada's proposed 1.1-million-barrel-per-day Energy East Pipeline is to supply both, primarily with heavy oil and oilsands crude.

# Through its commitments to the proposed Energy East Pipeline, export terminal and added rail capacity in Alberta and Atlantic Canada, Irving Oil appears highly engaged with energy producers in the West. What benefits do you expect?

North American demand for crude oil substantially outpaced domestic supply for decades, so coastal refineries like ours relied on waterborne crudes. Meanwhile, producers in western Canada shipped to mid-continental refiners because they were closer and the transport infrastructure was there.

But technology has changed the dynamic. Western crudes need new destinations—and we welcome them at our New Brunswick refinery, Canada's largest. To remain competitive, we need pipeline, rail and marine access to the mid-continent to replace our imports with North American crudes

Canada's oilsands region is [also] the only major crude basin in the world with no access to a deepwater port. We can open up markets around the world to producers.

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# By what means do you think people in eastern and Atlantic Canada opposed to these developments will be won over?

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Paul BROWNING

President and chief executive officer

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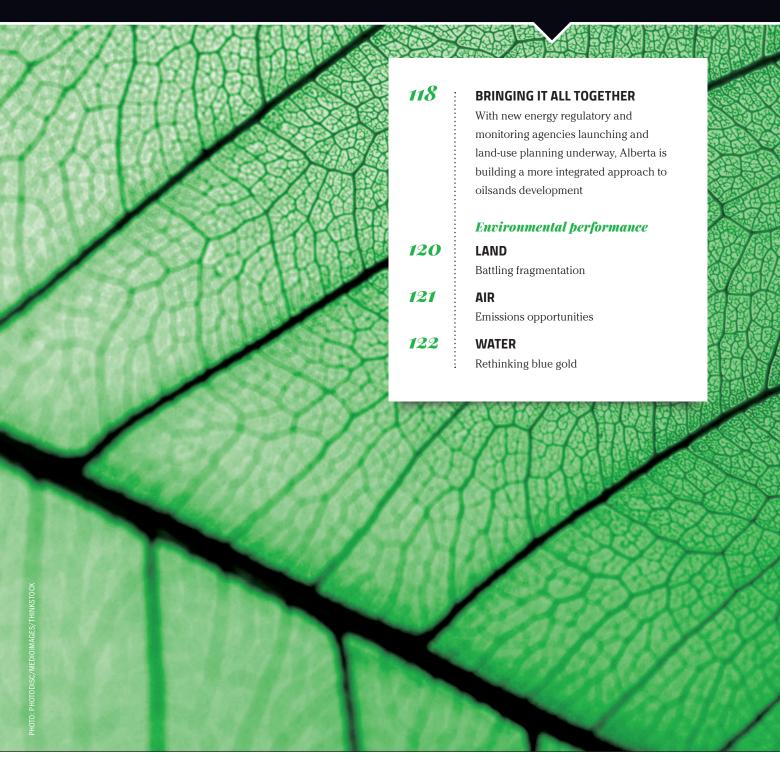








# **SUSTAINABILITY**





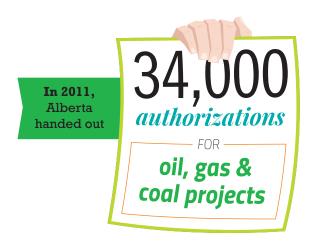
# Bringing to the standard and the standar

With new energy regulatory and monitoring agencies launching and land-use planning underway, Alberta is building a more integrated approach to oilsands development

By Ashok Dutta

WHEN THE NEW ALBERTA ENERGY REGULATOR STARTED OPERATIONS IN 2013, ONE OF ITS FIRST ACTIONS WAS TO ISSUE A NEW PIPELINE LEAK REPORTING SYSTEM.

NOW, MORE DETAILS WILL BE ISSUED MORE FREQUENTLY ON THE 400,000 KILOMETRES OF CRUDE OIL PIPELINES IN THE PROVINCE.



lberta's oilsands industry is continuing its push toward adding another million barrels per day of output, but this growth will be done in a much different regulatory environment than in the past due to the combination of a new single regulator, regional land-use planning and a new environmental monitoring agency.

The initiatives—all part of the provincial government's new integrated approach to resource development—are designed to focus on the big picture rather than break down the impacts of the oilsands simply on a project-by-project basis.

#### **ALBERTA ENERGY REGULATOR**

Established under the province's Responsible Energy Development Act, the Alberta Energy Regulator (AER) lines up with industry's long-standing demand to reduce project approval timelines. After the organization started operations in summer 2013, it quickly got down to business by issuing a new pipeline leak reporting system.

"Lots of questions were being asked by Albertans and stakeholders in relation to pipeline leaks, and we came up with a new reporting system that will make it more transparent and do away with speculations," says Jim Ellis, the AER's new chief executive officer.

Previously, the Alberta regulator's annual report would provide details on leaks on the 400,000 kilometres of crude oil pipelines in the province. But that has changed, with the focus shifting to providing more details of the leaks and increasing the frequency of reporting incidents, he says.

As part of speeding up the regulatory decision-making process, 14 major groups have been set up to streamline the existing regulations and increase efficiency.

"In 2011, the province handed out about 34,000 authorizations for oil, gas and coal projects. The rules we have are good, but there are duplications resulting in delays. Besides, there are also some gaps in the existing system that will need to be looked into," Ellis says, although he does not elaborate on what those gaps might be.

There's no specific timeline for approving applications to build new oil and gas facilities, but the AER is working on "fixing" timelines to provide a level of certainty for both the industry and its stakeholders, according to Ellis. Meanwhile, the AER is continuing the efforts of its predecessor, the Energy Resources Conservation Board (ERCB), to build a new regulatory framework to develop unconventional oil and gas resources in Alberta. In late 2011, the ERCB said it was seeking input from stakeholders for a new plan to minimize surface impacts, protect water and monitor waste management while maximizing resource recovery.

## ALBERTA ENVIRONMENTAL MONITORING, EVALUATION AND REPORTING AGENCY

In late 2013, the Alberta legislature officially established the new Alberta Environmental Monitoring, Evaluation and Reporting Agency (AEMERA). More than two years in the making, this joint federal-provincial initiative will eventually be rolled out across Alberta, but it will start with the oilsands sector.

AEMERA will have a seven-member board of directors to be appointed through a public application process, and its first area of focus will be the Lower Athabasca Regional Plan (LARP) region.

The province and the industry will both provide funding for the organization—oilsands producers have put forward \$50 million annually for the next three years.

"Most importantly, this system requires comprehensive, sciencebased and integrated environmental monitoring, evaluation and reporting," says former environment and sustainable resource development minister Diana McQueen. "Such a foundation is imperative if we are to be successful in our efforts to strengthen and maintain the credibility of our resource management system."

Independence from government control will be at the heart of AEMERA, and that in turn will make the data collection and dissemination process more credible, she argues.

However, not everyone shares her belief that the agency will be untouched by the heavy hand of politics.

Andrew Read, a technical and policy analyst in the Pembina Institute's oilsands group, wrote in a recent blog post that "the government's efforts to improve the rigour of environmental monitoring are commendable, yet the desire to control the message risks repeating past failures and tarnishing the quality of data—not to mention the appearance of transparency and independence—that the new monitoring system would provide."

#### **LAND-USE FRAMEWORK REGIONAL PLANS**

A great deal of focus in 2014 is expected to be on developing long-term land-use plans for Alberta's major watersheds, the first of which is in the oilsands region.

LARP came into effect in September 2012 with the aim of setting strong environmental limits, conserving sensitive lands, providing certainty to the industry, diversifying the economy and offering recreational opportunities in the region.

Some of the major elements of LARP include establishing six new conservation areas—bringing the total conserved land in the region to 22 per cent (two million hectares)—creating a new Wildland Provincial Park, and addressing infrastructure challenges and new strategies to plan for urban development around Fort McMurray.

Facing a growing population and industrial development, the Alberta government is also reviewing existing laws on water usage and conservation with the aim of formulating a new provincial wetland policy. Details are expected to be revealed later in 2014. M

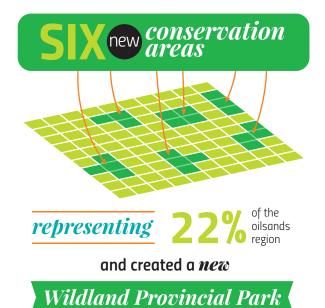
MOST IMPORTANTLY, THIS [JOINT FEDERAL-PROVINCIAL MONITORING] SYSTEM REQUIRES COMPREHENSIVE, **SCIENCE-BASED AND INTEGRATED ENVIRONMENTAL MONITORING**, EVALUATION AND REPORTING. SUCH A FOUNDATION IS IMPERATIVE IF WE ARE TO BE SUCCESSFUL IN OUR EFFORTS TO STRENGTHEN AND MAINTAIN THE CREDIBILITY OF OUR RESOURCE MANAGEMENT SYSTEM. ??

 Diana McQueen, Alberta minister of energy, former minister of environment and sustainable resource development

· Oilsands producer funding



• The Lower Athabasca Regional Plan established





# Environmental berformance

# LAND: Battling fragmentation

As industry spreads, caribou habitat shrinks, but collaboration, technology and policy could make a difference

#### By Melanie Collison

Oilsands companies are tackling the challenges of restoring linear corridors that were not replanted in the years before regulations were stringent, but concern continues to escalate about threatened caribou herds.

Caribou are a sensitive species that provide a warning of the cumulative effects of the oilsands. In its first annual evaluation of progress by the Canadian Parks and Wilderness Society (CPAWS) since the federal government issued its caribou recovery plan in October 2012, CPAWS says most provinces and territories are falling short of providing the protection Environment Canada calls for.

"Caribou need areas free of, or with very low levels of, industrial activity," says Simon Dyer, regional director of Alberta and the North at the Pembina Institute.

#### Oilsands land data:

Canadian Association of Petroleum Producers

IN SITU	2008	2009	2010	2011	2012
Active operated wells (number)	9,514	9,405	10,229	10,196	13,191
Inactive operated wells (number)	7,010	7,863	8,030	9,034	9,204
Annual well abandonments (number)*	49	135	424	212	751
Temporarily deferred abandoned wells (number)*				813	2,260
Abandoned wells in active reclamation/ remediation (number)*	853	404	1,363	3,981	4,955
Abandoned wells in monitoring/assessment or application (number)*	59	1,128	4,019	2,477	5,312
Annual reclamation certifications or releases received (number)*	3	53	115	339	321

Annual well abandonments metric became mandatory in 2010.

Abandoned wells in active reclamation/remediation became mandatory in 2010.

Abandoned wells in monitoring/assessment or application became mandatory in 2010.

Data summarizes reclamation and disturbance statistics for oilsands mining operations.

Starting in 2009, reclamation certificates for oilsands exploration wells were reported per well instead of per program to more accurately reflect the work completed.

MINING	2009	2010	2011	2012
EPEA approved footprint (ha)	134,155	135,157	136,647	145,299
Mine site footprint (ha)	63,373	67,924	72,598	80,309
Plant site footprint (ha)	4,045	3,527	3,566	4,083
Total active footprint (ha)	67,418	71,451	76,164	84,424
Cleared (ha)	18,550	17,047	17,050	20,435
Disturbed: Used for mine or plant purposes (ha)	41,261	46,773	51,334	55,902
Ready for reclamation: No longer used for mine or plant purposes (ha)	913	394	250	372
Soils placed (terrestrial, wetlands and aquatics) (ha)	1,093	1,534	1,513	1,447
Permanent reclamation (terrestrial) (ha)	3,503	3,652	3,548	3,827
Permanent reclamation (wetlands and aquatics) (ha)	1,237	1,271	1,229	1,215
Temporary reclamation (terrestrial) (ha)	863	780	1,241	1,227
Certified (ha)	104	104	104	104

SOURCES: ALBERTA ENVIRONMENT AND SUSTAINABLE RESOURCE DEVELOPMENT; \*CAPP RCE DATA

He says caribou herds in northeastern Alberta continue to decline at a rate averaging 10 per cent per year while the industrial footprint increased by 13 per cent between 2007 and 2010. He's quoting a new report by the Alberta Biodiversity Monitoring Institute at the University of Alberta called *The Status of Biodiversity in the Athabasca Oil Sands*.

"All the ranges are currently too fragmented. Rather than proposing to restore some of these ranges, government and industry are planning further development. We're at a decision point of land-use planning and trade-offs."

In the northern Alberta bitumen belt, the companies tackling the challenges of restoring old cutlines are members of Canada's Oil Sands Innovation Alliance (COSIA), a

collaboration forged to make oilsands development more sustainable.

Two COSIA initiatives are underway to restore caribou habitat in the boreal forest: the Algar Historic Restoration Project and the Linear Deactivation Project.

In the five-year Algar project, six companies are planting native trees and shrubs across 570 square kilometres of bogs and wetlands—outside their lease areas—primarily using winter planting techniques developed in collaboration with the province and Grande Prairie Regional College.

The project will monitor the effect of the restoration on wildlife by means of a multi-layered model informed by geospatial data and forest industry modelling techniques. Vegetation is added according to the model's forecasts, which look out as far as 50 years.

COSIA's land environmental protection group is using that same model to develop a baseline of land uses for the oilsands region.

The second COSIA approach, the Linear Deactivation Project, was developed by Cenovus Energy Inc.

On a 37,000-hectare piece of the Cold Lake Weapons Range, the company is planting conifer seedlings in soil mounds designed to provide adequate drainage for the young roots and discourage invasive grasses.

Cenovus will compare reforestation progress against one equally disturbed control block and one relatively undisturbed control block.

Results of the two projects will be shared and discussed by COSIA members to evaluate what works better as the restoration advances.

# AIR: Emissions opportunities

As Canada stalls on GHG regulations, industry seeks ways to drop its footprint

#### By Melanie Collison

Canada needs to go on a stricter greenhouse gas (GHG) diet if it is to achieve its promised Copenhagen Accord targets. In the meantime, despite being the fastest-growing emitter, the oilsands industry says it's working on improvements.

In 2009, Canada promised to reduce GHG emissions by 17 per cent from 2005 levels by 2020, but the country is on track to miss the target by about half.

The federal government is taking a sectorby-sector approach to regulating emissions reductions. Oil and gas, transportation and electricity are the top three emitters.

Ottawa has halted the construction of traditional coal-fired power plants and tightened emissions regulations on both light and heavy-duty vehicles, but has not yet introduced its promised energy industry rules.

"It's not an exaggeration to say, from a climate perspective, the oilsands in 2014 are essentially unregulated," says Simon Dyer, regional

#### Oilsands air emissions data:

Canadian Association of Petroleum Producers

CO <sub>2</sub>	2008	2009	2010	2011	2012
Total CO <sub>2</sub> equivalent emissions (tonnes/yr)	37,332,657	40,482,998	46,253,129	47,077,398	58,250,198*
Total production (m <sup>3</sup> OE/d)	195,281	226,121	252,567	276,586	332,937*
Tonnes GHG emitted per m <sup>3</sup> OE	0.52	0.49	0.50	0.47	0.48
GHG intensity = (CO <sub>2</sub> e emissions)/(production	*365); 2008 and	prior data may be	e impacted by flu	ctuations in CAPI	membership.
NO <sub>X</sub>	2008	2009	2010	2011	2012
NO <sub>x</sub> emissions (tonnes/yr)	58,255	69,307	82,342	84,037	86,290*
Total production (m <sup>3</sup> OE/d)	195,281	226,121	252,567	276,586	332,937*
NO <sub>x</sub> intensity (tonnes per 10 <sup>3</sup> m <sup>3</sup> OE)	0.83	0.84	0.89	0.83	0.71
NO <sub>x</sub> reporting became mandatory in 2009; NO <sub>x</sub>	intensity = (1,00	0*NO <sub>x</sub> emissions	)/(production*36	i5)	
<b>SO</b> <sub>2</sub>	2008	2009	2010	2011	2012
SO <sub>2</sub> emissions (tonnes/yr)	116,405	131,655	114,267	101,111	109,293*
Total production (m <sup>3</sup> OE/d)	195,281	226,121	252,567	276,586	332,937*
SO <sub>2</sub> intensity tonnes per 10 <sup>3</sup> m <sup>3</sup> OE	1.64	1.60	1.24	1.00	0.90
SO <sub>2</sub> intensity = (1,000*SO <sub>2</sub> emissions)/(produ	ction*365)				

<sup>\*</sup>Methodology change introduced in 2012 to better align with government sources. Now includes cold-flow bitumen projects and excludes Saskatchewan SAGD projects.

SOURCE: CAPP RCE DATA

director of Alberta and the North at the Pembina Institute. He says Alberta's carbon tax on the biggest GHG emitters is not a significant-enough signal to drive emissions reductions.

"Canada is on track to miss our Copenhagen promise by 130 megatonnes; the U.S. is on track to meet its obligations. We're on track to miss it because Canada isn't regulating its oil and gas sector."

Environment Canada has been tweaking its oilsands modelling even as the sector has been studying its processes for ways to reduce its energy intensity or emissions per barrel of crude.

Using its own site and facilities, Suncor Energy Inc. teamed up with Jacobs Consultancy Inc. to calculate the direct and indirect energy requirements of producing →

bitumen via both in situ and mined extraction plus the required upgrading.

The \$1.94-million project was 40 per cent funded by the Climate Change and Emissions Management Corporation, which is funded from Alberta's \$15-per-tonne carbon tax for big emitters. Suncor and Jacobs also had funding from Alberta Innovates – Energy and Environment Solutions.

Their report, A Greenhouse Gas Reduction Roadmap for Oil Sands, identifies energy efficiency and GHG-reduction opportunities in operational improvements, capital investment projects and technology advances.

Heat and power input sources are key to emissions, but reservoir geology, water and air treatment requirements, and natural gas flaring also factor in, Suncor says.

The company found no single emissions reduction solution could apply to all facilities; a portfolio of technologies and innovations is needed to reduce emissions.

At the University of Calgary, leading lifecycle analyst Joule Bergerson has published work demonstrating the variability of emissions from one project to another for both oilsands and conventional crudes. "[Theirs] is a good study, a good starting point to talk about these things," Bergerson says.

"It's the first time I've seen—in the public domain—a discussion about process improvements and integration options. There's been a lot of talk about technologies to improve emissions. This quantifies it from incremental changes that can add up to relatively substantial reductions."

Canada's Oil Sands Innovation Alliance says the road map provides "a foundation and direction for future efforts to improve the energy efficiency in all oilsands operations."

# WATER: Rethinking blue gold

Reducing impacts could mean changing the status quo toward true net benefit

By Melanie Collison

Oilsands extraction is a massively waterintensive process. In order to reduce the industry's overall environmental footprint, one obvious answer seems to be to use the lowest-quality water possible for operations, leaving fresh water hands off. But, as the Government of Alberta is learning, that is not necessarily the best solution for a net benefit.

Before it opened its so-called water conversation in 2013, designed to gather public input for its evolving water policy, the province identified its permit principle for applicants as using less-desirable water first along with proving they've made an effort to find low-quality sources before moving to cleaner sources.

Now the water policy branch of Alberta Environment and Sustainable Resource Development is looking at the whole environmental footprint of tapping into a water source, according to branch director Andy Ridge.

Fresh versus saline is just one aspect.

"Look at where you are, the purpose of the water, then look at the entire footprint associated with different sources," Ridge says. "Saline water you have to drill maybe hundreds of wells versus having an abundant supply of surface water, so energy impacts, greenhouse gases, look at those elements. In some [situations] maybe ground water is more ideal, and in others maybe surface water is more ideal. Whether it's municipal or industrial growth, let's look at the amount, type and net footprint to determine what the best water supply might be."

In northern Alberta, surface water is so abundant, the net environmental cost might turn out to be much larger if a company has to drill for water, transport it and pour energy into cleaning it.

The province has been driving for years toward updating its Water for Life policy

to coordinate the entire regulatory structure around cumulative impacts not only of energy development, but how it fits with municipalities' requirements and other water uses.

"There's still a hierarchy to use the worst water, reuse and recycle, and move up to the freshest, but you might be putting more energy into preparing that worst source than if you were using something not as bad," Ridge says. "On an exception basis, [applicants] will go through a transparent process to demonstrate if better-quality water is more appropriate."

A new minister was rotated into Environment and Sustainable Resource Development in December 2013. Ridge says, "Water is an important part of the government agenda."

#### Oilsands water data:

#### Canadian Association of Petroleum Producers

MINING	2008	2009	2010	2011	2012
Freshwater withdrawal (millions m³/yr)	184.3	162.4	152.4	143.5	167.0
Total mined bitumen production (millions m³/yr)	42.0	47.9	49.7	51.8	54.1
Barrels of freshwater withdrawal per barrel of bitumen produced	4.4	3.4	3.1	2.8	3.1
IN SITU	2008	2009	2010	2011	2012
Freshwater withdrawal (millions m³/yr)	19.1	16.6	17.7	18.0	19.9
Non-freshwater withdrawal (millions m³/yr)	14.2	16.6	18.4	16.9	21.1
Total in situ bitumen production (millions m³/yr)	34.0	38.5	43.9	49.4	57.8
Fresh water as a percentage of total water withdrawal	57%	50%	49%	52%	49%
Barrels of freshwater withdrawal per barrel of bitumen produced	0.6	0.4	0.4	0.4	0.3
Includes: thermal oilsands, cold bitumen; excludes: WCSB thermal (SK	heavy oil)				

SOURCE: GOVERNMENT OF ALBERTA

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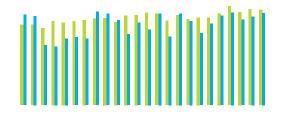
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1300-734 7 Ave SW Calgary AB T2P 3P8 Phone: (403) 265-1116 Fax: (403) 265-1118 www.standardland.com

**STOPE Corporation** 

344-918 16 Ave NW Calgary AB T2M 0K3 **Phone:** (604) 613-1334

**Storm Exploration** 

62C Riel Dr St Albert AB T8N 5C4 **Phone:** (780) 460-9994

**Terrene Resources** 

351 Hampstead Way NW Calgary AB T3A 6E6 **Phone:** (403) 389-2554

**Township Land Co Ltd** 

31218 Elbow River Dr Calgary AB T3Z 2T8 **Phone:** (403) 234-8134 **Fax:** (403) 233-0203

**US Oil Sands Inc** 

1600-521 3 St SW Calgary AB T2P 3T3 **Phone:** (403) 233-9366 **www.usoilsandsinc.com** 

**Waldron Energy Corporation** 

2300-144 4 Ave SW Calgary AB T2P 3N4 **Phone:** (403) 532-6770 **Fax:** (403) 532-3993 **www.waldronenergy.ca** 

**Western Land Services Co Ltd** 

220-1509 Centre St SW Calgary AB T2P 2E6 Phone: (403) 266-3076 Fax: (403) 262-3430 www.wlslimited.com

Windfall Resources Ltd

900-202 6 Ave SW Calgary AB T2P 2R9 **Phone:** (403) 261-1000 **Fax:** (403) 263-5263

**Producers** 

Advantage Oil & Gas Ltd

300-440 2 Ave SW Calgary AB T2P 5E9 Phone: (403) 718-8000 Fax: (403) 718-8332 www.advantageog.com

Alberta Oilsands Inc

2800-350 7 Ave SW Calgary AB T2P 3N9 **Phone:** (403) 263-6700 **Fax:** (403) 263-6702 **www.aboilsands.ca** 

**Albian Sands Energy Inc** PO Box 5670 Stn Main

Fort McMurray AB T9H 4W1 **Phone:** (780) 713-4400 **Fax:** (780) 713-4601

**Andora Energy Corporation** 

1505-505 3 St SW Calgary AB T2P 3E6 **Phone:** (403) 294-1770 **Fax:** (403) 294-1780

Arrowwood Oil & Gas Ltd

31213 Elbow River Dr Calgary AB T3Z 2T9 **Phone:** (403) 269-8913 **Fax:** (403) 237-7963

**Athabasca Oil Corporation** 

2000-250 6 Ave SW Calgary AB T2P 3H7 **Phone:** (403) 237-8227 **www.atha.com** 

**Atlas Energy Ltd** 

2500-111 5 Ave SW Calgary AB T2P 3Y6 **Phone:** (403) 215-8313 **Fax:** (403) 262-5123

**BA Energy Inc** 

1100-635 8 Ave SW Calgary AB T2P 3C5 **Phone:** (403) 539-4500

**Baytex Energy Ltd** 

2800-520 3 Ave SW Calgary AB T2P 0R3 **Phone:** (587) 952-3000 **Fax:** (587) 952-3029 **www.baytex.ab.ca** 

**Bellatrix Exploration Ltd** 

2300-530 8 Ave SW Calgary AB T2P 3S8 **Phone:** (403) 266-8670 **Fax:** (403) 264-8163 **www.bellatrixexploration.com** 

Birchwood Resources Inc

1200-630 6 Ave SW Calgary AB T2P 0S8 Phone: (403) 265-1244 www.birchwoodresources.ca

**BlackPearl Resources Inc** 

700-444 7 Ave SW
Calgary AB T2P 0X8
Phone: (403) 215-8313
Fax: (403) 262-5123
www.blackpearlresources.ca

Bonavista Energy Corp 1500-525 8 Ave SW

Calgary AB T2P 1G1
Phone: (403) 213-4300
Fax: (403) 262-5184
www.bonavistaenergy.com

**Border Petroleum** 

2000-840 7 Ave SW Calgary AB T2P 3G2 **Phone:** (403) 538-8448 **Fax:** (403) 444-5042 **www.borderpetroleum.com** 

**Bounty Developments Ltd** 

1250-340 12 Ave SW Calgary AB T2R 1L5 **Phone:** (403) 264-4994 **Fax:** (403) 266-6031 **www.bountydev.com** 

#### **BP Canada Energy Group ULC**

PO Box 200 Stn Main Calgary AB T2P 2H8 Phone: (403) 233-1313 Fax: (403) 233-5610 www.bp.com

#### **Brion Energy Corporation** 1000-150 9 Ave SW

Calgary AB T2P 3H9 **Phone:** (403) 265-6635 Fax: (403) 265-6636 www.brionenergy.com

#### **Canadian Natural Resources Limited**

2500-855 2 St SW Calgary AB T2P 4J8 Phone: (403) 517-6700 **Fax:** (403) 517-7350 www.cnrl.com

#### **Canadian Oil Sands Trust**

2500-350 7 Ave SW Calgary AB T2P 3N9 Phone: (403) 218-6200 Fax: (403) 218-6201

#### **Canol Resources Ltd**

2040-605 5 Ave SW Calgary AB T2P 3H5 Phone: (403) 269-6400 **Fax:** (403) 269-8050

#### **Caspian Energy Inc**

410-396 11 Ave SW Calgary AB T2R 0C5 Phone: (403) 252-2462 **Fax:** (403) 252-1399 www.caspianenergvinc.com

#### **Cavalier Energy Inc**

2500-255 5 Ave SW Calgary AB T2P 3G6 **Phone:** (403) 268-3940 Fax: (403) 268-3987 www.cavalierenergy.com

#### **Cenovus Energy Inc**

PO Box 766 Calgary AB T2P 0M5 Phone: (403) 766-2000 Fax: (403) 766-7600 www.cenoviis.com

#### **Chevron Canada Resources**

 $500\;5\;\text{Ave}\;\text{SW}$ Calgary AB T2P 0L7 **Phone:** (403) 234-5000 **Fax:** (403) 234-5947 www.chevron.com

#### **Chinook Energy Inc**

700-700 2 St SW Calgary AB T2P 2W1 Phone: (403) 261-6883 Fax: (403) 266-1814 www.chinookenergyinc.com

#### **Clampett Energy Ltd**

503-535 10 Ave SW Calgary AB T2R 0A8 **Phone:** (403) 266-3453 Fax: (403) 266-8935

#### **CNOOC** Canada Inc

1600-555 4 Ave SW Calgary AB T2P 3E7 **Phone:** (403) 249-9425 **Fax:** (403) 225-2606

#### **CNPC International (Canada) Ltd**

1800-140 4 Ave SW Calgary AB T2P 3N3 Phone: (403) 261-3970 Fax: (403) 261-3974 www.cnpc-canada.com

#### **Coastal Resources Limited**

1400-520 5 Ave SW Calgary AB T2P 3R7 **Phone:** (403) 266-1930 Fax: (403) 266-2032

#### Connacher Oil & Gas Ltd

900-332 6 Ave SW Calgary AB T2P 0B2 Phone: (403) 538-6201 Fax: (403) 538-6225 www.connacheroil.com

#### ConocoPhillips Canada Limited

1600-401 9 Ave SW Calgary AB T2P 3C5 Phone: (403) 233-4000 **Fax:** (403) 233-5143 www.conocophillips.com

#### Deep Well Oil & Gas Inc

700-10150 100 St NW Edmonton AB T5J 0P6 Phone: (780) 409-8144 **Fax:** (780) 409-8146 www.deepwelloil.com

#### **Devon Canada Corporation**

3000-400 3 Ave SW Calgary AB T2P 4H2 Phone: (403) 232-7597 Fax: (403) 232-7211 www.dvn.com

#### **Diaz Resources Ltd**

1800-633 6 Ave SW Calgary AB T2P 2Y5 Phone: (403) 269-9889 Fax: (403) 269-9890 www.diazresources.com

Encana Corp 1800-855 2 St SW Calgary AB T2P 4Z5 Phone: (403) 645-2000 Fax: (403) 645-3400 www.encana.com

**Enerplus Corporation** 3000-333 7 Ave SW Calgary AB T2P 2Z1 **Phone:** (403) 298-2255 **Fax:** (403) 298-2211 www.enerplus.com

#### **Equal Energy Ltd**

2700-500 4 Ave SW Calgary AB T2P 2V6 Phone: (403) 263-0262 **Fax:** (403) 294-1197 www.equalenergy.ca

#### E-T Energy Ltd

400-1210 8 St SW Calgary AB T2R 1L3 Phone: (403) 264-9431 Fax: (403) 264-9438 www.e-tenergy.com

#### ExxonMobil Canada Ltd

PO Box 800 Stn M Calgary AB T2P 2J7 Phone: (403) 232-5300 **Fax:** (403) 237-2197 www.exxonmobil.com

**439 GP Partnership** 200-1210 11 Ave SW Calgary AB T3C 0M4 Phone: (403) 571-4466 Fax: (403) 571-4474

#### Freehold Royalty Trust

400-144 4 Ave SW Calgary AB T2P 3N4 Phone: (403) 221-0802 **Fax:** (403) 221-0888 www.freeholdroyalties.com

#### Frog Lake Energy Corp

Frog Lake First Nations General Delivery Frog Lake AB TOA 1MO Phone: (780) 943-3737 **Fax:** (780) 943-3966

#### Grizzly Oil Sands ULC

2700-605 5 Ave SW Calgary AB T2P 3H5 Phone: (403) 930-6400 www.grizzlyoilsands.com

#### **Habanero Resources Inc**

1470-701 West Georgia St Vancouver BC V7Y 1C6 Phone: (604) 646-6900 Fax: (604) 689-1733 www.habaneroresources.com

#### Harvard Energy

2100-300 5 Ave SW Calgary AB T2P 3C4 Phone: (403) 261-2950 **Fax:** (403) 264-2251 www.harvardenergy.com

#### **Harvest Operations Corp**

2100-330 5 Ave SW Calgary AB T2P 0L4 Phone: (403) 265-1178 **Fax:** (403) 265-3490 www.harvestenergy.ca

#### Hunt Oil Company of Canada, Inc

2700-255 5 Ave SW Calgary AB T2P 3G6 **Phone:** (403) 531-1530 Fax: (403) 215-8600 www.huntoil.com

#### **Husky Energy Inc**

707 8 Ave SW Calgary AB T2P 1H5 Phone: (403) 298-6111 Fax: (403) 298-7464 www.huskyenergy.ca

#### **Imperial Oil Resources Limited**

237 4 Ave SW Calgary AB T2P 3M9 Phone: (800) 567-3776 Fax: (403) 237-4017 www imperialoil ca

#### Indian Oil & Gas Canada

100-9911 Chiila Blvd SW Tsuu T'ina AB T2W 6H6 Phone: (403) 292-5625 **Fax:** (403) 292-5618 www.iogc.gc.ca

## ISH Energy Ltd 900-700 4 Ave SW

Calgary AB T2P 3J4 Phone: (403) 262-2244 Fax: (403) 265-1792

Ivanhoe Energy 1900-101 6 Ave SW Calgary AB T2P 3P4 Phone: (403) 269-2871 www.ivanhoeenergy.com

#### Jaco Energy Ltd

240 Lake Mead Rd SE Calgary AB T2J 4A5 **Phone:** (403) 278-7129 **Fax:** (403) 278-7129

#### Japan Canada Oil Sands Limited

PO Box 5120

Fort McMurray AB T9H 3G2 **Phone:** (780) 799-4000 Fax: (780) 799-4010 www.jacos.com

#### Kaiser Exploration Ltd

1200-700 4 Ave SW Calgary AB T2P 3J4 Phone: (403) 263-4245

#### Kinderock Resources Ltd

21 Capilano Dr Saskatoon SK S7K 4A4 Phone: (306) 244-6721 Fax: (306) 653-5710

#### **Koch Oil Sands Operating ULC**

1500-111 5 Ave SW Calgary AB T2P 3Y6 Phone: (403) 716-7800 **Fax:** (403) 716-7602 www.kochind.com

#### **Korea National Oil Corporation**

2100-330 5 Ave SW Calgary AB T2P 0L4 Phone: (403) 999-6572 www.knoc.co.kr

#### Laricina Energy Ltd

800-425 1 St SW Calgary AB T2P 3L8 **Phone:** (403) 750-0810 Fax: (403) 263-0767 www.laricinaenergy.com

#### **Marathon Oil Canada Corporation**

2400-440 2 Ave SW Calgary AB T2P 5E9 Phone: (403) 233-1700 Fax: (403) 294-9006 www.marathonoil.com

#### Marauder Resources East Coast Inc

720-440 2 Ave SW Calgary AB T2P 5E9 Phone: (403) 262-3907 Fax: (403) 269-4232

#### **MEG Energy Corp**

11 Flr-520 3 Ave SW Calgary AB T2P 0R3 Phone: (403) 770-0446 Fax: (403) 264-1711 www.megenergy.com

#### Murphy Oil Company, Ltd

4000-520 3 Ave SW Calgary AB T2P 0R3 Phone: (403) 294-8000 Fax: (403) 294-8853 www.murphyoilcorp.com

#### Nexen

801 7 Ave SW Calgary AB T2P 3P7 Phone: (403) 699-4000 Fax: (403) 699-5800 www.nexencnoocltd.com

**- 127 -**

#### North Peace Energy Corp

630-505 3 St SW Calgary AB T2P 3E6 Phone: (403) 269-5243 Fax: (403) 269-5273

#### North West Upgrading Inc

2800-140 4 Ave SW Calgary AB T2P 3N3 Phone: (403) 451-4165 **Fax:** (403) 451-4197

#### www.northwestupgrading.com

#### Northpine Energy Ltd

103-1601 Westmount Rd NW Calgary AB T2N 3M2 Phone: (403) 262-8410 Fax: (403) 262-7173

#### NorthWest Redwater Partnership

2800-140 4 Ave SW Calgary AB T2P 3N3 **Phone:** (403) 398-0900 Fax: (403) 451-4197 www.nwrpartnership.com

N-Solv Corp 2300-801 6 Ave SW Calgary AB T2P 3W3 Phone: (403) 920-3210 Fax: (403) 233-8754 www.n-solv.com

Oak Point Energy 1000-734 7 Ave SW Calgary AB T2P 3P8 **Phone:** (403) 539-0366 www.oakpointenergy.ca

#### Oilsands Quest Inc

800-326 11 Ave SW Calgary AB T2R 0C5 Phone: (403) 263-1623 Fax: (403) 263-9812 www.oilsandsquest.com

#### **OSUM Oil Sands Corp** 1900-255 5 Ave SW

Calgary AB T2P 3G6 Phone: (403) 283-3224 Fax: (403) 283-3970 www.osumcorp.com

#### **Pan Orient Energy**

1505-505 3 St SW Calgary AB T2P 3E6 Phone: (403) 294-1770 Fax: (403) 294-1780 www.panorient.ca

#### Pan Pacific Oils Ltd

1000-441 5 Ave SW Calgary AB T2P 2V1 Phone: (403) 266-8726 www.panpacificoils.com

#### **Paramount Resources Ltd**

4700-888 3 St SW Calgary AB T2P 5C5 **Phone:** (403) 290-3600 Fax: (403) 262-7994 www.paramountres.com

#### **Peace River Oil Inc**

814-800 Ramage Close Red Deer AB T4P 3X9 Phone: (403) 314-3463 Fax: (403) 343-3572

#### Pearl E & P Canada Ltd

700-444 7 Ave SW Calgary AB T2P 0X8 **Phone:** (403) 215-8313 **Fax:** (403) 262-5123

#### **Pembina Pipeline Corporation** 3800-525 8 Ave SW

Calgary AB T2P 1G1 Phone: (403) 231-7500 Fax: (403) 237-0254 www.pembina.com

#### **Pengrowth Energy Corporation**

2100-222 3 Ave SW Calgary AB T2P 0B4 Phone: (403) 233-0224 Fax: (403) 265-6251 www.pengrowth.com

#### **Penn West Petroleum Ltd**

200-207 9 Ave SW Calgary AB T2P 1K3 Phone: (403) 777-2500 **Fax:** (403) 777-2699 www.pennwest.com

#### **Perpetual Energy Inc** 3200-605 5 Ave SW

Calgary AB T2P 3H5 **Phone:** (403) 269-4400 Fax: (403) 269-4444 www.perpetualenergyinc.com

#### **Petrobank Energy and Resources Ltd**

3000-525 8 Ave SW Calgary AB T2P 1G1 Phone: (403) 750-4400 Fax: (403) 266-5794 www.petrobank.com

#### Petrolama Energy Canada Inc

330-715 5 Ave SW Calgary AB T2P 2X6 Phone: (403) 457-1266 www.petrolama.com

#### **Petromin Resources Ltd**

390-1090 W Georgia St Vancouver BC V6E 3V7 Phone: (604) 682-8831 Fax: (604) 682-8683 www.petromin.ca

#### PTTEP Canada Ltd

1770-525 8 Ave SW Calgary AB T2P 1G1 Phone: (587) 893-4095

#### **Rock Energy Inc**

800-607 8 Ave SW Calgary AB T2P 0A7 **Phone:** (403) 218-4380 Fax: (403) 234-0598 www.rockenergy.ca

#### Roland Resources (87) Inc

62 Mission Rd SW Calgary AB T2S 3A2 Phone: (403) 243-7833 Fax: (403) 243-7947

#### Sedna Oil and Gas Ltd

804-825 8 Ave SW Calgary AB T2P 2T3 Phone: (403) 538-0024 Fax: (403) 538-0025

#### **Shell Canada Limited**

PO Box 100 Stn M Calgary AB T2P 2H5 Phone: (403) 691-3111 Fax: (403) 691-4894 www.shell.ca

SilverWillow Energy Corp 3100-715 5 Ave SW Calgary AB T2P 2X6 Phone: (403) 538-7030 Fax: (403) 538-7033 www.swenergy.ca

#### SinoCanada Petroleum Corporation

2700-112 4 Ave SW Calgary AB T2P 0H3 **Phone:** (403) 266-6900 Fax: (403) 266-6988

**Sinopec Daylight Energy Ltd** 2700-112 4 Ave SW Calgary AB T2P 0H3 Phone: (403) 266-6900 **Fax:** (403) 266-6988 www.sinopeccanada.com

#### **Skylight Energy Resources Ltd**

1210 8 Ave W Kindersley SK

Phone: (306) 463-4800 Fax: (306) 463-4779

#### **Spyglass Resources Corp**

1700-250 2 St SW Calgary AB T2P 0C1 Phone: (403) 303-8500 Fax: (403) 264-0085 www.spyglassresources.com

#### Statoil Canada Ltd

3600-308 4 Ave SW Calgary AB T2P 0H7 Phone: (403) 234-0123 www.statoil.com

#### Strata Oil & Gas

408-918 16 Ave NW Calgary AB T2M 0K3 **Phone:** (403) 668-6539 Fax: (403) 770-8882 www.strataoil.com

#### **Sun Century Petroleum Corp**

1400-550 6 Ave SW Calgary AB T2P 0S2 Phone: (403) 269-2880 Fax: (403) 269-2897

Suncor Energy Inc 150 6 Ave SW PO Box 2844 Calgary AB T2P 3E3 Phone: (403) 296-8000 Fax: (403) 296-3030 www.suncor.com

#### **Sunshine Oilsands Ltd**

1020-903 8 Ave SW Calgary AB T2P 0P7 Phone: (403) 984-1450 Fax: (403) 455-7674 www.sunshineoilsands.com

#### **Surmont Energy**

2600-144 4 Ave SW Calgary AB T2P 3N4 Phone: (800) 972-8139 www.surmontenergy.com

#### Syncrude Canada Ltd

PO Bag 4009 Fort McMurray AB T9H 3L1 **Phone:** (780) 790-5911 Fax: (780) 790-6215 www.syncrude.ca

#### Talisman Energy Inc 2000-888 3 St SW Calgary AB T2P 5C5 Phone: (403) 237-1234

Fax: (403) 237-1902 www.talisman-energy.com

**Teck Resources Ltd** 3300-550 Burrard St Vancouver BC V6C 2K2 **Phone:** (604) 699-4000 Fax: (604) 699-4750 www.teck.com

#### Total E&P

4 place de Saverne Courbevoie Paris La Defense Cedex 92971 Phone: 330 147444546 www.total-ep-canada.com

#### Total E&P Canada Ltd

2900-240 4 Ave SW Calgary AB T2P 4H4 Phone: (403) 571-7599 **Fax:** (403) 571-7595 www.total-ep-canada.com

#### **Value Creation Inc**

1100-635 8 Ave SW Calgary AB T2P 3M3 Phone: (403) 539-4500 Fax: (403) 539-4501 www.vctek.com

#### Williams Energy (Canada) Inc

600-604 1 St SW Calgary AB T2P 1M7 Phone: (403) 444-4500 Fax: (403) 444-4505 www.williams.com

# service & supply

#### **Accommodations**

Alta-Fab Structures Ltd

504 13 Ave Nisku AB T9E 7P6

Phone: (780) 955-7733 www.altafab.com

ARAMARK Remote Workplace Services

9647 45 Ave NW

Edmonton AB T6E 5Z8 **Phone:** (780) 437-5665 **www.aramark.ca** 

Athabasca Open Camp and RV Park

Rg Rd 203 Hwy 55 Athabasca AB **Phone:** (780) 499-3670 **www.athabascaopencamp.com** 

**Best Western Wainwright Inn & Suites** 

1209 27 St

Wainwright AB T9W 0A2 **Phone:** (780) 845-9938

**Boyle Motor Lodge** 

PO Box 64 Boyle AB TOA 0M0 **Phone:** (780) 689-3944

**Canada North Open Camps** PO Box 208

Wabasca AB TOG 2K0
Phone: (780) 891-3391
www.canadanorthcamp.com

**Chard Camp Catering Ltd** 

113 Wood Buffalo Way Fort McMurray AB T9K 1W5 **Phone:** (780) 791-0232

**Christina Lake Lodge** 

3790 98 St NW Edmonton AB T6E 6B4 **Phone:** (780) 577-1552 www.christinalakelodge.com

Clean Harbors Lodging Services 216-26229 Twp Rd 531A

Acheson AB T7X 5L4 **Phone:** (780) 960-1507

**Clearwater Suites Hotel** 

Fort McMurray Hotel Group 4 Haineault St Fort McMurray AB T9H 1R6 Phone: (780) 799-7676 www.fortmcmurrayhotels.ca

Corona Hotel PO Box 236

Thorhild AB TOA 3J0 **Phone:** (780) 398-3534

**CRC Open Camp & Catering Ltd** 

PO Box 2100 Lac La Biche AB TOA 2C0 **Phone:** (780) 623-3788

**Crown Camp Services** 

PO Box 5025 Fort McMurray AB T9H 3G2 **Phone:** (780) 790-5447 Edmonton Destination Hotels - South Side

1-9301 50 St Edmonton AB T6B 2L5 **Phone:** (780) 628-2509 www.tanneryoung.com

**Gold Eagle Lodge** 

12004 Railway Ave E North Battleford SK S9A 3W3 **Phone:** (306) 446-8877 www.goldeaglelodge.com

Hamburg Open Camp

PO Box 818 Manning AB TOH 2M0 **Phone:** (780) 836-9026

Jennifer's Open Camp

1091 Hwy 813 Wabasca AB TOG 2K0 **Phone:** (780) 891-2267

**MM Limited Partnership** 

345 MacAlpine Cres Fort McMurray AB T9H 4Y4 **Phone:** (780) 791-1020

Nakoda on the Lake

PO Box 149 Morley AB TOL 1NO **Phone:** (403) 881-3949 **www.nakodalodge.com** 

Noralta Lodge Ltd

Fort McMurray AB Phone: (780) 791-3334 www.noraltalodge.com

Northgate Industries Ltd

12345 121 St NW Edmonton AB T5L 4Y7 Phone: (780) 448-9222 www.northgateindustries.com

**PTI Group Inc** 

3790 98 St NW Edmonton AB T6E 6B4 **Phone:** (780) 463-8872 **www.ptigroup.com** 

**Red Earth Lodge Ltd** 

275 Hwy 88 Red Earth Creek AB **Phone:** (780) 649-2422 **www.redearthlodge.ca** 

**Red Rest Motel** 

5311 48 Ave Redwater AB **Phone:** (780) 942-3066

Sawridge Inn & Conference Centre

530 MacKenzie Blvd Fort McMurray AB T9H 4C8 Phone: (780) 791-7900 www.sawridge.com

Super 8 Motel

5108 47 Ave Vermilion AB T9X 1J6 **Phone:** (780) 853-4741 **www.super8.com**  Super 8 Motel

1006 Hwy 16 North Battleford SK S9A 3W2 **Phone:** (306) 446-8888 **www.super8.com** 

Third Mission Heritage Suites PO Box 7505

Peace River AB T8S 1T1
Phone: (780) 624-3883
www.thirdmission.ca

Travelodge Canada

201-609 14 St NW Calgary AB T2N 2A1 **Phone:** (877) 999-6671 www.travelodge.ca

Western Budget Motel 6026 50 Ave

Bonnyville AB T9N 2N4 **Phone:** (780) 812-2131 **www.westernbudgetmotel.com** 

#### **Air Charter Services**

**Airco Aircraft Charters Ltd** 

6-11930 109 St NW Edmonton AB T5G 2T8 Phone: (780) 471-4771 www.aircocharters.com

Black Swan Helicopters PO Box 263

Berwyn AB TOH 0E0 **Phone:** (780) 338-2964 **www.blackswanhelicopters.com** 

**Can-West Corporate Air Charters Ltd** 

PO Box 40 Slave Lake AB TOG 2A0

Slave Lake AB TOG 2A0 Phone: (780) 849-5353 www.canwestair.com

Delta Helicopters Ltd

13-26004 Twp Rd 544 Sturgeon County AB T8T 0B6 Phone: (780) 458-3564 www.deltahelicopters.com

**Emirates Airlines** 

90 Sheppard Ave E Toronto ON M2N 3A1 **Phone:** (800) 777-3999 www.emirates.com

**McMurray Aviation** 

Site 1 Box 5 RR 1 Fort McMurray AB T9H 5B4 **Phone:** (780) 791-2182 **www.mcmurrayaviation.com** 

Northern Air Charter Inc Hangar 5, Peace River Airport

Peace River AB
Phone: (780) 624-1911
www.flynorthernair.com

**Phoenix Heli-Flight** 

Site 1 Box 6 RR 1 Fort McMurray AB T9H 5B4 **Phone:** (780) 799-0141 www.phoenixheliflight.com Remote Helicopters

PO Box 1340 Slave Lake AB TOG 2A0 Phone: (780) 849-2222 www.remotehelicopters.com

Rupert's Land Operations Inc PO Box 6099

Bonnyville AB T9N 2G7 **Phone:** (780) 826-7777

**Wood Buffalo Helicopters** 

Bldg 29 Airport Rd Fort McMurray AB **Phone:** (780) 743-5588 www.WoodBuffaloHelicopters.ca

#### Building Products & Services

AECON Mining

316 MacKay Cres Fort McMurray AB T9H 4E4 Phone: (780) 791-5477 www.aecon.com

**All Weather Shelters Inc** 

12304 184 St NW Edmonton AB T5V 0A5 **Phone:** (780) 930-1551 **www.allweather-shelters.com** 

**Aluma Systems** 

304 69 Ave NW Edmonton AB T6P 0C1 Phone: (780) 440-1320 www.aluma.com

Aluma Systems Canada Inc

55 Costa Rd Concord ON L4K 1M8 Phone: (905) 660-8176 www.aluma.com

**ATCO Structures & Logistics Ltd** 

115 Peacekeepers Dr SW Calgary AB T3E 7X4 Phone: (403) 292-7600 www.atcosl.com

**Atco Sustainable Communities** 

1243 McKnight Blvd NE Calgary AB T2E 5T1 Phone: (403) 292-7660 www.atcosc.com

**Badger Daylighting** 

6740 65 Ave Red Deer AB T4P 1A5 **Phone:** (403) 343-0303 **www.badgerinc.com** 

Bexson Construction Ltd

3705 51 Ave Lloydminster AB T9V 2C3 Phone: (780) 875-0333 www.bexsonconstruction.com

**Big Eagle Services** 

3815A 47 Ave Camrose AB T4V 4S4 **Phone:** (780) 672-3863 **www.bigeagle.ca** 

#### **Cam-Trac Inspection Services**

RR 1

Legal AB TOG 1L0 **Phone:** (780) 460-5440 www.cam-trac.ca

#### Chinook Industrial Ltd

516 60 Ave SE Calgary AB T2H OP9 **Phone:** (403) 253-8291 www.chinook.ca

#### **ClearSpan Fabric Structures**

1395 John Fitch Blvd South Windsor CT 06074 Phone: (866) 643-1010

#### **Comec Industrial Services LP**

7301 50 Ave Bonnyville AB T9N 2P3 Phone: (780) 826-4450

#### **Con-Force Structures**

205-26229 Twp Rd 531A Zone 2 Acheson AB T7X 5A4 Phone: (403) 998-6022 www.con-force.com

#### **Container West**

11660 Mitchell Rd Richmond BC V6V 1T7 Phone: (604) 322-0533 www.containerwest.com

#### D & G Polyethylene Products Ltd

PO Box 276 Neilburg SK SOM 2CO **Phone:** (306) 823-4789 www.dgpolyproducts.com

#### Doug's Bobcat & Backhoe Services

PO Box 166 Mannville AB TOB 2W0 Phone: (780) 763-3991

#### **Fisher Building Systems Inc**

PO Box 2689 Lloydminster SK S9V 0Y3 Phone: (306) 825-4513

#### **HAMMERSTONE Corporation**

PO Box 5636 Fort McMurray AB T9H 3G6 **Phone:** (780) 743-1853 www.hammerstonecorp.com

#### **Hart Construction** (911478 Alberta Ltd)

PO Box 89 Tofield AB TOB OJO Phone: (780) 662-2541 www.hartconstruction.ca

#### MakLoc Buildings Inc

706 17 Ave Nisku AB T9E 7T1 Phone: (780) 955-2951 www.makloc.com

#### **Matakana Scaffolding & Enclosures**

4606 101 St NW Edmonton AB T6E 5G9 Phone: (780) 986-6844

#### Norseman Structures

3815 Wanuskewin Rd Saskatoon SK S7P 1A4 Phone: (306) 385-2888 www.norsemanstructures.com

#### One 4 Haul Trans4mer Ltd

105-10110 Fraser Ave Fort McMurray AB T9H 5C2 Phone: (780) 881-7702

#### **Redguard Canada**

300-400 5 Ave SW Calgary AB T2P 0L6 Phone: (403) 515-6078

#### Rolled Alloys-Canada, Inc

19-7251 67 St NW Edmonton AB T6B 3N3 Phone: (780) 469-9469 www.rolledalloys.ca

#### Safway Services Canada Inc 11237 87 Ave

Fort Saskatchewan AB T8L 2S3

Phone: (780) 992-1929 www.safway.com

#### **Shandro George Contracting** PO Box 7556

Bonnyville AB T9N 2H8 Phone: (780) 826-2211

#### Skyway Canada Limited

3408 76 Ave NW Edmonton AB T6B 2N8 Phone: (780) 413-8007 www.skywaycanada.ca

#### **Sprung Structures Ltd**

PO Box 62 Maple Leaf Rd Aldersyde AB TOL 0A0 Phone: (403) 601-2292 www.sprung.com

#### **Star Concrete & Construction**

PO Box 93 Mallaig AB TOA 2KO Phone: (780) 635-3082

#### **Stuart Olson Dominion Construction Ltd**

15505 137 Ave NW Edmonton AB T5V 1R9 Phone: (780) 452-4260 www.sodcl.com

#### Thompson Cats Ltd

PO Box 240 Kitscoty AB TOB 2P0 **Phone:** (780) 846-2908

#### Triple M Housing

3501 Giffen Rd N Lethbridge AB T1H 0E8 **Phone:** (403) 320-8588 www.triplemhousing.com

#### **Universal Fabric Structures**

3115 State Rd Telford PA 18951 Phone: (800) 634-8368 www.ufsinc.com

#### Valard Construction Ltd

14310 97 St Grande Prairie AB T8V 7B6 Phone: (780) 539-4750 www.valard.com

#### **Vertical Building Solutions**

PO Box 366 Stn Main Grande Prairie AB T8V 3A5 Phone: (780) 532-0366 www.verticalhuildings.com

#### **Completion Products &** Services

#### **Baker Hughes Canada Company** 805 Memorial Dr Fort McMurray AB T9K 0K4

Phone: (780) 714-6672 www.bakerhughes.com

#### **Logan Completion Systems**

6402 56 St Lloydminster AB **Phone:** (780) 808-8788 www.logancompletionsystems.com

#### **Logan Completion Systems**

210-600 6 Ave SW Calgary AB T2P 0S5 **Phone:** (403) 930-6810

#### www.logancompletionsystems.com

#### **Lone Wolfe Distributors**

c/o Sci-Tech Engineered Chemicals 340-53016 Hwy 60 Acheson AB T7X 5A7 Phone: (780) 960-1200

#### **NEXEO Solutions**

1720 106 Ave NW Edmonton AB T6P 1X9 Phone: (780) 417-9385 www ashland com

#### **Noralco Consulting Ltd**

5707 39 St Lloydminster AB T9V 2P2 Phone: (780) 875-2337

#### **NPS - Alberta Oil Tool**

6939 68 Ave NW Edmonton AB T6B 3E3 Phone: (780) 434-8566 www.albertaoiltool.com

#### **Prodahl Environmental Services Ltd**

3705 52 St Close Lloydminster SK S9V 1K4 **Phone:** (306) 825-5933 www.prodahlenv.ca

#### Pro-Rod

1220-633 6 Ave SW Calgary AB T2P 2Y5 Phone: (403) 269-5116 www.prorod.com

#### Quadra Chemicals (Western) Ltd

470-700 4 Ave SW Calgary AB T2P 3J4 Phone: (403) 232-8130 www.quadrachemicals.com

#### **Raise Production Inc**

2620 58 Ave SE Calgary AB T2C 1G5 Phone: (403) 699-7675 www.raiseproduction.com

#### Regent Energy Group Ltd

1600-734 7 Ave SW Calgary AB T2P 3P8 Phone: (403) 269-8088 www.regentenergygroup.com

#### **RG Industries Ltd**

6939 68 Ave NW Edmonton AB T6B 3E3 Phone: (780) 496-7473 www.rodguideindustries.com

#### **Rock Solid Nitrogen Services Ltd** 4538 47 Ave

Vermilion AB T9X 1H8 **Phone:** (780) 853-6604 www.rocksolidcompanies.ca

#### **Select Energy Systems Inc**

4215 54 Ave SE Calgary AB T2C 2A2 Phone: (403) 243-7542 www.selectesi.com

#### **Synerchem International Inc**

4333 46 Ave SE Calgary AB T2B 3N5 Phone: (403) 203-1481 www.synerchem.com

#### W E Greer Ltd

14704 119 Ave NW Edmonton AB T5L 2P1 **Phone:** (780) 451-1516 www.wegreer.com

#### **Weatherford PC Pump**

4604 62 Ave Lloydminster AB T9V 2G2 **Phone:** (780) 875-0103 www.weatherford.com

#### Windale Oilfield Services Ltd

5517 38 St Lloydminster AB **Phone:** (780) 871-1999

#### Winterhawk Enterprises (Provost) Ltd

PO Box 2925 Wainwright AB T9W 1S8 Phone: (780) 842-2841

#### Construction

#### A 1 Topsoil & Construction

Services Ltd 15 May Cres

Fort McMurray AB T9H 1J8 **Phone:** (780) 799-0233

#### **Aecon Industrial**

53367 Rg Rd 232 Sherwood Park AB T8A 4V2 Phone: (780) 433-9321 www.aecon.com

#### **All Terrain Road**

11724 180 St NW Edmonton AB T5S 1N7 Phone: (780) 437-8107

#### Allan's Backhoe Service

PO Box 135 Minburn AB TOB 3B0 Phone: (780) 593-2256

#### **Babcock & Wilcox**

17611 105 Ave NW Edmonton AB T5S 1T1 Phone: (780) 489-0404 www.babcock.com

#### **Bellamy Backhoe Service Ltd**

Site 1 Box 156 RR 1 Dapp AB TOG OSO Phone: (780) 954-2029

#### **Benoit Oilfield Construction** (1997) Ltd

PO Box 277 Chauvin AB TOB OVO Phone: (780) 858-3794 www.benoitoilfield.ca

#### **Bird Construction Company**

16815 117 Ave NW Edmonton AB T5M 3V6 Phone: (780) 452-8770 www.birdindustrial.ca

#### **Bob's Backhoe Service**

PO Box 1916 Lloydminster SK S9V 1N4 Phone: (306) 825-2596

**Border City Concrete Ltd** 

PO Box 1618 Stn Main Lloydminster SK S9V 1K5 **Phone:** (780) 875-0550 www.bordercityconcrete.com

**Border Paving Ltd** 

4217 41 St Camrose AB T4V 3V8 **Phone:** (780) 672-3389 www.borderpaving.com

**Bryce & Youngman Construction Ltd** PO Box 1476

Lloydminster SK S9V 1T4 **Phone:** (780) 875-2660

**Cameron Construction Services** 

5-285145 Wrangler Way SE Calgary AB T1X 0K3 Phone: (403) 735-1021 www.cameronconstruction.ca

Canam Group

270 chemin Du Tremblay Boucherville QC J4B 5X9 Phone: (450) 641-4000 www.canamgroup.ws

Cardinal's Backhoe Service

PO Box 522

Lac La Biche AB TOA 2CO Phone: (780) 623-7987

**Carmacks Enterprises Ltd** 

701 25 Ave Nisku AB T9F 0C1 **Phone:** (780) 955-5545 www.carmacksent.com

**Casman Group of Companies** 

330 MacKenzie Blvd Fort McMurray AB T9H 4C4 Phone: (780) 791-9283 www.casman.ca

**CBS Construction Ltd** 

150 MacKay Cres Fort McMurray AB T9H 4W8 **Phone:** (780) 743-1810 www.cbsconstruction.ca

**CEMATRIX (Canada) Inc** 

5440 53 St SE Calgary AB T2C 4B6 Phone: (403) 219-0484 www.cematrix.com

Lot 50A First Nations 468 Fort McMurray AB T9H 3G4 Phone: (780) 334-2277 www.centerfire.ca

**Chinchaga Anchors & Pilings Ltd** 

PO Box 489 Manning AB TOH 2M0 Phone: (780) 836-3800

**Christian Labour Association of** Canada

232-2333 18 Ave NE Calgary AB T2E 8T6 Phone: (403) 686-0288 **Fax:** (403) 686-0357

www.clac.ca

**Consolidated Gypsum Supply Ltd** 

11660 170 St NW Edmonton AB T5S 1J7 Phone: (780) 452-7786 www.consolidatedgypsum.ca Copp's Services Inc

225 Burnt Ridge Rd Red Deer County AB **Phone:** (403) 347-6222 www.coppsinc.ca

**D R C Construction Ltd** 

PO Box 8026 Bonnyville AB T9N 2J3 **Phone:** (780) 826-3994

**Danny's Picker Service Ltd** 

PO Box 131 Slave Lake AB TOG 2A0 Phone: (780) 849-5441

www.dannyspicker.com

**Datum Energy Projects Inc** PO Box 40059 RPO Southridge Medicine Hat AB T1B 4S6 Phone: (403) 580-9876 www.datumenergyprojects.com

**DBY Contractors Inc** 

PO Box 39 Tangent AB TOH 3JO Phone: (780) 359-2363

**Demers Contracting Services Ltd** 

240 MacLennan Cres Fort McMurray AB T9H 4G1 Phone: (780) 799-3222 www.dcsl.ca

**Dipper Oilfield Developments** 

PO Box 2340 Lac La Biche AB TOA 2CO Phone: (780) 559-2244 www.dipperoilfield.com

**Elk Point Sand & Gravel** 

PO Box 690 Elk Point AB TOA 1A0 Phone: (780) 724-4144

**FAM Canada Inc** 

1750-444 5 Ave SW Calgary AB T2P 2T8 **Phone:** (403) 764-0777 www.fam-canada.com

Ferbey Sand & Gravel Ltd

4509 47 Ave Vermilion AB T9X 1H9 Phone: (780) 853-4960

Finning (Canada)

16830 107 Ave NW Edmonton AB T5P 4C3 Phone: (780) 930-4800 www finning ca

**Fleming Cats Inc** 

PO Box 1320 Lac La Biche AB TOA 2CO Phone: (780) 623-4701

Floyd's Backhoe & Vacuum Truck Service

PO Box 7491 Bonnyville AB T9N 2H8 Phone: (780) 826-5340

Force Pile Driving Ltd

PO Box 585 Red Deer AB T4N 5G1 Phone: (403) 341-0030 www.forcepiledriving.com

**General Fence Ltd** 2215 59B Ave

Lloydminster AB T9V 3J3 Phone: (780) 875-8894 www.generalfence.ca

Gishorne Group 1201 6 St

Nisku AB T9E 7P1 Phone: (780) 447-3830

**H. Wilson Industries Ltd** 

PO Box 5660

Fort McMurray AB T9H 3G6 **Phone:** (780) 743-1881 www.wilson-industries.com

Hammer's Gravel Supplies Ltd

PO Box 385 Viking AB TOB 4N0 Phone: (780) 336-3232

**Helical Pier Systems Ltd** 

8610 111 St

Fort Saskatchewan AB T8L 3T4 Phone: (780) 992-0007 www.helicalpiersystems.com

**IPAC Services Corporation** 

8701 102 St Clairmont AB TOH OWO Phone: (780) 532-7350 www.ipacservices.com

IRISNDT Corp

5311 86 St NW Edmonton AB T6E 5T8 Phone: (780) 437-4747 www.irisndt.com

J W Contracting

PO Box 1157 Redwater AB TOA 2WO Phone: (780) 942-4000

**Jacobs Engineering Group** 

205 Quarry Park Blvd SE Calgary AB T2C 3E7 Phone: (403) 258-6411 www.jacobs.com

Jim Wagner Enterprises Ltd

PO Box 351 Mannville AB TOB 2W0 Phone: (780) 763-3860

**JLG Ball Enterprises** 

PO Box 211 Boyle AB TOA OMO **Phone:** (780) 689-2395 www.jlgball.com

**KBR Canada Ltd** 

3300 76 Ave NW Edmonton AB T6P 1J4 **Phone:** (780) 468-1341 www khr com

Ketron Construction Ltd PO Box 772 Stn Main

Cold Lake AB T9M 1P2 Phone: (780) 594-2085

**KMC Mining** 

Bldg 30-60 Flight Line Rd NW Edmonton AB T5G 3G2 Phone: (780) 454-0664

**Ledcor Group of Companies** 

9910 39 Ave NW Edmonton AB T6E 5H8 Phone: (780) 462-9616 www.ledcor.com

Lehigh Hanson Canada Region

12640 Inland Way NW Edmonton AB T5V 1K2 Phone: (780) 420-2500 www.inlandcanada.com Lloyd's & Frank's Backhoe Services Ltd

3401 Canyon Rd Athabasca AB T9S 1J6 Phone: (780) 675-2762

**Lockerbie & Hole Contracting** 

14940 121A Ave NW Edmonton AB T5V 1A3 Phone: (780) 452-1250 www.lockerhiehole.com

Mainroad

200-17474 56 Ave Surrey BC V3S 1C3 Phone: (604) 575-7045

MCL Industrial Insulating PO Box 2117

Slave Lake AB TOG 2A0 Phone: (780) 849-2994

**Mellov Industrial Services Inc** 

2305 5 St Nisku AB T9E 7X1 Phone: (780) 955-8500 www.melloy.com

**Monad Industrial Constructors Inc** 

9744 45 Ave NW Edmonton AB T6E 5C5 Phone: (780) 468-8026 www.monad.ca

**Mywaart Construction** 

188 Saprae Cres Fort McMurray AB T9H 5B4 **Phone:** (780) 791-1559

**NEC Contractors Ltd** 

PO Box 2100 Lac La Biche AB TOA 2CO Phone: (780) 623-4643

Nuna Innovations Inc

104-39149 Discovery Way Squamish BC V6B 0E6 Phone: (604) 815-4385 www.nunainnovations.com

**OEC Industrial Project Services Ltd** 

2000-500 4 Ave SW Calgary AB T2P 2V6 Phone: (403) 232-8771 www.oecindustrial.ca

Olson's Sand & Gravel Ltd

PO Box 218 Chauvin AB TOB OVO Phone: (780) 858-2360

**PCL Industrial Management Inc** 

5404 99 St NW Edmonton AB T6E 3N7 Phone: (780) 733-5700 www.pcl.com

**PCL Pipe Fabrication & Module Construction Facilities** 

2107 4 St Nisku AB T9E 7W6 Phone: (780) 979-6300 www.pcl.com

**Process Plant Construction Ltd** 

PO Box 5178 Fort McMurray AB T9H 3G3 Phone: (780) 334-4365

**R P Oilfield Construction** 

502 5 St Wainwright AB T9W 1A7 Phone: (780) 842-3940 R T Grading & Roadbuilding

PO Box 6033

Peace River AB T8S 1S1 Phone: (780) 624-8298

**Reda Enterprises Ltd** 

PO Box 7130 Bonnyville AB T9N 2H5 **Phone:** (780) 826-2737 www.redaent.ca

Reinhart Group of Companies

PO Box 12628 Lloydminster AB T9V 0Y4 Phone: (780) 808-2233 www.reinhartpm.com

**Reon Oilfield Contractors Ltd** 

B-4902 48 St Athabasca AB T9S 1B8 Phone: (780) 675-2614

**Rickard Excavation Ltd** 

PO Box 5057 Stn Main Fort McMurray AB T9H 3G2 **Phone:** (780) 791-2867

**Roberge Construction Ltd** 

PO Box 82 Jarvie AB TOG 1HO Phone: (780) 954-2534

**Rogo Holdings Ltd** 

PO Box 4031 Spruce Grove AB T7X 3B2 Phone: (780) 962-9209

**Rondell Road Contracting** 

PO Box 1145 St Paul AB TOA 3A0 Phone: (780) 645-5083

Seisland Surveys Ltd

7235 Flint Rd SE Calgary AB T2H 1G2 **Phone:** (403) 255-2770 www.seisland.com

Seko Construction Ltd

201-425 Gregoire Dr Fort McMurray AB T9H 4K7 **Phone:** (780) 743-1636 www.sekoconstruction.com

Simplex/UAH Universal Air Hydraulics

1008 16 Ave Nisku AB T9E 0A9 Phone: (780) 955-7073

Site Energy Services

170-120 Pembina Rd Sherwood Park AB T8H 0M2 Phone: (780) 400-7483 www.siteenergy.com

Snelgrove R & Sons Ltd 4605 47 St

Vermilion AB T9X 1L6 Phone: (780) 853-4040

Steeplejack Industrial Insulation Services Ltd

8925 62 Ave NW Edmonton AB T6E 5L2 Phone: (780) 465-9016 www.steeplejack.ca

**Superior Propane** 

1111 49 Ave NF Calgary AB T2E 8V2 Phone: (403) 287-1356

**Supermetal Structures Inc** 3813 75 Ave Leduc AB T9E OK3 Phone: (780) 980-4830 www.supermetal.com

**Sureway Construction** Management Ltd 7331 18 St NW

Edmonton AB T6P 1P9 **Phone:** (780) 440-2121 www.surewaygroup.ca

**Surmont Sand Gravel Ltd** 

290 McLennan Cres Fort McMurray AB T9H 5M5 Phone: (780) 743-2533 www.surmont.ca

Swamp Cats Ltd

PO Box 1885 Lac La Biche AB TOA 2CO Phone: (780) 623-2891 www.swampcats.ca

T B G Contracting Ltd Hwy 63N

Fort McMurray AB Phone: (780) 743-8474 www.tbgcontracting.com

Tartan Canada Corp 730-407 2 St SW

Calgary AB T2P 2Y3 **Phone:** (403) 538-4802 www.tartan.ca

Tartan Canada Corporation

201-17507 107 Ave NW Edmonton AB T5S 1E5 Phone: (780) 455-3804 www.tartan.ca

Thermal Energy Services Inc

12 Derrick Dr Devon AB T9G 2A1 **Phone:** (780) 987-5917 www.thermalenergy.ca

Thiel Scaffolding Canada

27324 Twp Rd 513 Spruce Grove AB T7Y 1H8 Phone: (780) 968-1420

**Tuccaro Group Companies** 283 MacAlpine Cres

Fort McMurray AB T9H 4Y4
Phone: (780) 791-9386
www.tuccaroinc.com

Valley C Construction Ltd

PO Box 2157 Stn Main Lloydminster SK S9V 1R6 Phone: (780) 875-1659

Voice Construction Ltd

7545 52 St NW Edmonton AB T6B 2G2 Phone: (780) 469-1351 www.voiceconstruction.com

Ward's Hydraulic Services Ltd

291C MacAlpine Cres Fort McMurray AB T9H 4Y4 **Phone:** (780) 799-7340 www.wardshydraulic.com

Westlock Sand & Gravel Co Ltd

4819 50 St Clyde AB

Phone: (780) 348-5252

**Whitemud Ironworks Limited** 

7727 18 St NW Edmonton AB T6P 1N9 Phone: (780) 465-5888 www.whitemud.com

**WSP Canada Inc** 

132-2693 Broadmoor Blvd Sherwood Park AB T8H 0G1 Phone: (780) 410-6740 www.wspgroup.com

#### **Contractors-General** Oilfield

**Arnett & Burgess Oilfield Construction** Limited

2930-715 5 Ave SW Calgary AB T2P 2X6 Phone: (403) 265-0900 www.abpipeliners.com

**Arnett & Burgess Pipeliners Ltd** 

2930-715 5 Ave SW Calgary AB T2P 2X6 Phone: (403) 265-0900 www.abpipeliners.com

**Athabasca Industrial Maintenance** 

PO Box 549 Boyle AB TOA OMO Phone: (780) 689-2440

**Basarab Garry Construction & Grader** 

PO Box 1467 High Prairie AB TOG 1E0 Phone: (780) 523-4793

**Battle River Oilfield Construction Ltd** 

PO Box 957 Manning AB TOH 2M0 **Phone:** (780) 836-3498 www.battleriveroilfield.com

**Bear Slashing Inc** 

PO Box 7610 Bonnyville AB T9N 2H9 Phone: (780) 826-8048 www.bearslashing.com

**Beder Holdings Limited** 

PO Box 116 Marwayne AB TOB 2X0 Phone: (780) 847-3815

**BFL Energy Services Ltd** PO Box 7447 Bonnyville AB T9N 2H7

**Phone:** (780) 826-4412 www.bflenergv.ca

**Black Gold Drilling** PO Box 480

Nampa AB TOH 2RO Phone: (780) 322-2123 www.blackgolddrilling.com

**B-Line Directional Drilling** 

PO Box 1240 Elk Point AB TOA 1A0 Phone: (780) 210-2225

**Boisson Contracting Inc** 

PO Box 1868 High Prairie AB TOG 1E0 **Phone:** (780) 523-2561

**Boxer Petroleum Services Inc** 

PO Box 6819

Bonnyville AB T9N 2H3 Phone: (780) 826-5002 **Brother's Oilfield Services** 

PO Box 3273 Wainwright AB T9W 1T2 Phone: (780) 842-4220

**Calibre Production Operators Ltd** 

202-9835 104 St

Fort Saskatchewan AB T8L 2E5 Phone: (780) 997-0037

**Carson Energy Services Ltd** 

PO Box 12188 Lloydminster AB T9V 3C4 **Phone:** (780) 808-8450 www.carsonwelding.com

**CD Rouleau Construction** 

PO Box 327 Eaglesham AB TOH 1H0 Phone: (780) 837-1712

**CERA Contracting Ltd** 

PO Box 338 Waskatenau AB TOA 3PO **Phone:** (780) 358-2792

Christina River Enterprises (1987) Ltd

PO Box 6040 Fort McMurray AB T9H 4W1

**Phone:** (780) 334-2446 www.christinariverenterprises.ca

**Consun Contracting Ltd** 

280G MacLennan Cres Fort McMurray AB T9H 4G1 Phone: (780) 743-3163 www.consun.ca

**Crude Energy Services Inc** 

PO Box 2635 Lac La Biche AB TOA 2CO Phone: (780) 623-4409 www.crude-energy.ca

C's Oilfield Consulting & Construction Service Ltd

PO Box 1155 Lloydminster AB T9V 1G1 Phone: (780) 808-2272

**D Prpich Enterprises Ltd** 

PO Box 597

High Prairie AB TOG 1E0 Phone: (780) 523-3661

**Denision Contractors Ltd** 

7912 97 Ave Peace River AB T8S 1W5 Phone: (780) 624-5718

**Denmax Energy Services** 

PO Box 2881 Wainwright AB T9W 1S7 **Phone:** (780) 842-3661 www.denmax.ca

**Deynaka Developments Ltd** PO Box 935

High Prairie AB TOG 1E0 Phone: (780) 523-2420

**Digrite Backhoe Service Ltd** 

PO Box 305 Chauvin AB TOB OVO Phone: (780) 858-3976

**E Construction Ltd** 10130 21 St NW

Edmonton AB T6P 1W7 Phone: (780) 467-7701 www.ecltd.ca

E G Gas Operators Ltd

PO Box 26 Innisfree AB TOB 2G0

Phone: (780) 592-3733

#### East Village Eagle Ridge **Developments Ltd**

36 Riedel St Fort McMurray AB T9H 3E1 Phone: (780) 791-1500

## Enmax Corporation 141 50 Ave SE

Calgary AB T2G 4S7 **Phone:** (403) 689-6150 www.enmax.com

#### **Estabrook Construction Ltd**

PO Box 258 Grimshaw AB TOH 1WO Phone: (780) 332-4111

#### Fearless Oilfield Service (FOS)

PO Box 691 Slave Lake AB TOG 2A0 Phone: (780) 849-8554

#### **First Nation Reclamation Consulting Ltd**

PO Box 76

Red Earth Creek AB TOG 1X0 Phone: (780) 649-0060

#### Flint Field Services Ltd

PO Box 8029 Bonnyville AB T9N 2J3 Phone: (780) 826-5523 www.flintenergy.com

#### **Fort McKay Group of Companies**

PO Box 5360 Stn Main Fort McMurray AB T9H 3G4 Phone: (780) 828-2400 www.fortmckay.com

#### Foster Bulldozing Services Ltd PO Box 540

Mannville AB TOB 2W0 **Phone:** (780) 763-3750 www.fosterbulldozing.com

#### **GEM Grant Energy Maintenance**

PO Box 1683 High Prairie AB TOG 1E0 **Phone:** (780) 523-3470 www.grantenergy.ca

#### **Gift Lake Metis Settlement**

PO Box 60 Gift Lake AB TOG 1B0 Phone: (780) 767-3794

#### Gill's Vacuum Service Ltd PO Box 5

Kinsella AB TOB 2NO **Phone:** (780) 336-3520

#### **Glen Armstrong Construction Ltd**

8122 102 Ave Peace River AB T8S 1M6 Phone: (780) 624-2101

www.glenarmstrongconstruction.com

#### **Granite Oilfield Services Inc**

6006 52 Ave Lloydminster AB T9V 2S8 Phone: (780) 875-1652

#### **Grimm Mel Holdings Ltd**

PO Box 630 Manning AB TOH 2M0 Phone: (780) 836-3632

#### **Homeland Well Servicing Ltd**

GD Fishing Lake AB TOA 3G0 Phone: (780) 943-2466

#### **Hugo Zbinden Contracting**

50 Cougarstone Terrace SW Calgary AB T3H 4Z8 Phone: (403) 454-6241

#### Jav's Salvage & Cats Ltd

Site 632 Comp 3 RR 1 Lac La Biche AB TOA 2C1 Phone: (780) 623-4096

#### JMB Crushing Systems Ltd

4725 Railway Ave Elk Point AB Phone: (780) 724-3960

#### K G Enterprises Ltd PO Box 787

Lamont AB TOB 2RO **Phone:** (780) 895-7554

#### L Robert Enterprises Ltd

125 MacKay Cres Fort McMurray AB T9H 4C9 **Phone:** (780) 791-0118 www.lre.ca

#### **Lakeshore Contracting Ltd**

Lot C2 Airport Fort McMurray AB **Phone:** (780) 714-3665

www.lakeshorecontractingItd.com

#### Lorenzen's Oilfield Service Ltd

PO Box 353 Manning AB TOH 2M0

Phone: (780) 836-3786

#### M & J Cats Ltd

PO Box 749 Lac La Biche AB TOA 2CO Phone: (780) 623-7653

#### **Macmillan Construction Ltd**

PO Box 7080 Peace River AB T8S 1S7 Phone: (780) 624-3777 www maccon ca

#### Millennium Cats Inc

PO Box 1914 Lac La Biche AB TOA 2CO Phone: (780) 623-4036

#### **Neegan Development Corp Ltd**

283 MacAlpine Cres Fort McMurray AB T9H 4Y4 Phone: (780) 791-0654 www.tuccaroinc.com

#### **NorDen Contracting Ltd**

PO Box 2307 Lac La Biche AB TOA 2CO Phone: (780) 623-7567

#### **Northern Backhoe Ltd**

PO Box 149 Manning AB TOH 2M0 Phone: (780) 836-2617

#### **Northsite Contractors Ltd**

PO Box 712 Grimshaw AB TOH 1WO **Phone:** (780) 332-4592

#### Permasteel Projects Ltd

17430 103 Ave NW Edmonton AB T5S 2K8 Phone: (780) 452-7281 www.permasteel.com

#### Peter Kiewit Infrastructure Co

11211 215 St NW Edmonton AB T5S 2B2 Phone: (780) 447-3509 www.kiewit.com

#### **Phoenix Industrial**

710-10180 101 St NW Edmonton AB T5J 3S4 Phone: (780) 778-5883 www.phoenixindustrial.ca

#### **Powell Cats Ltd**

PO Box 248 Chauvin AB TOB OVO Phone: (780) 858-3978

#### **Prairie Tech Oilfield Services**

PO Box 819 Elk Point AB TOA 1A0 Phone: (780) 614-1873

#### **Precision Contractors Ltd**

PO Box 10578 Lloydminster AB T9V 3A7 Phone: (780) 875-1962 www.precisioncontractors.com

#### **Predator Logistics**

PO Box 1816 Vegreville AB T9C 1S9 **Phone:** (780) 632-9394

#### **Pyramid Corporation** 2308 8 St

Nisku AB T9E 7Z2 Phone: (780) 955-2988 www.pyramidcorporation.com

#### Quinn Contracting Ltd

PO Box 539 Blackfalds AB TOM 0J0 Phone: (403) 845-1000 www.quinncontracting.ca

#### Riverside Oilfield Services 5709 50 Ave

Bonnyville AB Phone: (780) 826-9327

#### Rocky Pine Oilfield Services Ltd

PO Box 739 Stn Main Lloydminster SK S9V 1C1 Phone: (780) 724-2625

#### **S N R Contracting Ltd**

PO Box 357 Wabasca AB TOG 2KO Phone: (780) 891-2169

#### Shamrock Valley Enterprises Ltd

PO Box 505 Elk Point AB TOA 1A0 Phone: (780) 724-3177 www.shamrockvalley.ca

#### **Skully's Oilfield Maintenance Ltd**

PO Box 272 Viking AB TOB 4N0 Phone: (780) 336-4064

#### Spirig Welding Ltd PO Box 68

Dixonville AB TOH 1E0 Phone: (780) 971-3730

#### SRS Industrial Services

1-2333 91 Ave NW Edmonton AB T6P 1L1 Phone: (780) 467-1882 www.specializedrigging.com

#### Stony Valley Contracting

245 TaigaNova Cres Fort McMurray AB T9K 0T4 Phone: (780) 743-0527 www.stonyvalley.ca

#### Stuber's Cat Service Ltd

Site 7 Box 12 RR 2 Barrhead AB T7N 1N3 Phone: (780) 785-2173 www.stuhers.ca

#### Swamp Mats

1600-505 3 St SW Calgary AB T2P 3E6 Phone: (403) 265-8757 www.swampmats.ca

#### Szmyrko Construction

PO Box 300 Bovle AB TOA OMO Phone: (780) 689-9497

#### Thompson Bros (Constr) LP

411 South Ave Spruce Grove AB Phone: (780) 962-1030 www.thompsonbros.com

#### Trans Tech Contracting Inc.

811-53016 Hwy 60 Acheson AB T7X 5A7 Phone: (780) 447-3700 www.transtechcontracting.com

#### Tri-Rez Oil & Gas Productions Ltd

PO Box 1769 Stn Main Cold Lake AB T9M 1P4 Phone: (780) 594-7183

#### TWB Construction Ltd

210 Weston Ave W Maidstone SK SOM 1M0 Phone: (306) 893-4500

#### W.A.T. Holdings Ltd PO Box 1170

Wabasca AB TOG 2KO Phone: (780) 891-3006

#### West Can Seal Coating Inc

PO Box 669 Didsbury AB TOM OWO Phone: (403) 335-9137 www.west-cansealcoating.com

#### **West Penetone Inc**

11411 160 St NW Edmonton AB T5M 3T7 Phone: (780) 454-3919 www.westpenetone.com/en

#### **Drilling Products &** Services

#### **Aable Directional Boring**

Site 15 Box 14 RR 3 Olds AB T4H 1P4 Phone: (403) 391-3227

#### **AKITA Drilling Ltd**

900-311 6 Ave SW Calgary AB T2P 3H2 Phone: (403) 292-7979 www.akita-drilling.com

#### Alfa Laval Inc

305-2912 Memorial Dr SE Calgary AB T2A 6R1 Phone: (403) 269-5300 www.alfalaval.ca

**Anchor Industries Ltd** 

RR 240 Edmonton AB

Phone: (780) 921-2144

**Anchors First Ltd** 

PO Box 2388 Stn Main Lloydminster SK S9V 1W5 **Phone:** (306) 825-6535

Apex Oilfield Services (2000) Inc

910-734 7 Ave SW Calgary AB T2P 3P8 Phone: (403) 257-5152 www.apexoil.ca

**Boart Longyear Drilling Services** 

4025 96 Ave SE Calgary AB T2C 4T7 Phone: (403) 287-1460 www.boartlongyear.com

**Bonnyville Drilling Services** 

5210 54 Ave Bonnyville AB T9N 2H9 **Phone:** (780) 826-3906

Brian Steed Contracting & Horizontal Directional Drilling Ltd

PO Box 6934 Peace River AB T8S 1S7 **Phone:** (780) 624-8609

**Canadian Mat Systems Inc** 

241 76 Ave NW Edmonton AB T6P 1P2 Phone: (780) 485-0808 www.matsystems.ca

**Carnwood Wireline Service Ltd** 

108-3907 98 St NW Edmonton AB T6E 6M3 Phone: (780) 434-1122 www.carnwood.com

Cheyenne Rig Repair & Supply Ltd

PO Box 1319 Gibbons AB TOA 1NO **Phone:** (780) 414-1477 www.chevron.ca

**Clean Harbors Directional Boring** 

256-28042 Hwy 11 Red Deer AB T4S 2L4 **Phone:** (403) 346-7332 **www.cleanharbors.com** 

D & D Oilfield Rentals

PO Box 237 Blackfoot AB TOB 0L0 Phone: (780) 875-5171 www.ddoil.net

Edcon Power Tongs and Oilfield Services Ltd

PO Box 209 Lac La Biche AB TOA 2C0 **Phone:** (780) 623-4808

Emco Corporation - Waterworks & Geosynthetics

1-360 Mackenzie Blvd Fort McMurray AB T9H 44 Phone: (780) 713-2433 www.emcoltd.com

**ENCORE Coring & Drilling Inc** 

1345 Highfield Cres SE Calgary AB T2G 5N2 Phone: (403) 287-0123 www.ensignenergy.com/encore **Essential Coil Well Service** 

1100-250 2 St SW Calgary AB T2P 0C1 **Phone:** (403) 263-6778 www.essentialenergy.ca

**Essential Energy Services Ltd** 

PO Box 10667 Lloydminster AB T9V 3A7 **Phone:** (780) 875-0800 **www.trytontoolservices.com** 

FMC Technologies Inc

PO Box 1370 Tupelo MS 38802 **Phone:** (662) 869-5711

Fourth Meridian Enterprises Ltd PO Box 1908 Stn Main

Lloydminster SK S9V 1N4 **Phone:** (306) 753-7424

**Frontier Engineering Corp** 

300-1601 Westmount Rd NW Calgary AB T2N 3M2 Phone: (403) 265-3900 www.frontierpm.ca

G & L Slotco Oil Field Services

1110-700 4 Ave SW Calgary AB T2P 3J4 **Phone:** (403) 261-1717 **www.gl-slotco.com** 

Garritty And Baker Geotechnical Drilling Inc

5715 56 Ave NW Edmonton AB T6B 3G3 **Phone:** (780) 433-8786 **www.gbdrilling.com** 

GE Oil & Gas

3500-525 8 Ave SW Calgary AB T2P 1G1 **Phone:** (403) 775-8630 **www.ge.com/oilandgas** 

Gosselin Pipe & Steel Ltd

PO Box 3083 Wainwright AB T9W 1S9 Phone: (780) 842-5705 www.gosselinpipe.com

Hallmark Tubulars Ltd

400-308 4 Ave SW Calgary AB T2P 0H7 Phone: (403) 266-3807 www.hallmarksolutions.ca

**Hunting Energy Services (Canada) Ltd** 

5550 Skyline Way NE Calgary AB T2E 7Z7 Phone: (403) 543-4477 www.huntingplc.com

**Hurricane Industries Ltd** 

PO Box 2038 Lloydminster AB S9V 1R5 Phone: (780) 875-5597 www.hurricanefoam.com

Impact Rock Bits PO Box 6448

Peace River AB T8S 1S3 **Phone:** (780) 624-2640

**Import Tool Corp Ltd** 

930-910 7 Ave SW Calgary AB T2P 3N8 **Phone:** (403) 261-3032 **www.importtool.com**  **Inspectrite Services Inc** 

PO Box 6235 Bonnyville AB T9N 2G8 **Phone:** (780) 826-3480

4511 Manitoba Rd SE Calgary AB T2G 4B9 Phone: (403) 287-3300 www.jandlsupply.com

J & L Supply Co Ltd

**JayNart Directional Drilling Ltd** 

PO Box 400

Redwater AB TOA 2W0 Phone: (780) 942-4105 www.jaynartdrilling.ca

J.E.D. Anchors & Environmental Ltd

Eckville AB TOM 0X0 Phone: (403) 746-3408 www.jed-drilling.com

K & S Power Tongs Ltd

3614 63 Ave Close Lloydminster AB T9V 2W1 Phone: (780) 875-0000 www.kspowertongs.com

**Kodiak Wireline Services Partnership** 9702 90 Ave

Morinville AB
Phone: (780) 939-5554
www.kodiakservices.ca

**Marquis Fluids Inc** 

700-706 7 Ave SW Calgary AB T2P 0Z1 **Phone:** (403) 264-1588

**McAllister Drilling Inc** 

PO Box 1189 Stn Main Lloydminster SK S9V 1G1 **Phone:** (780) 875-2409

McCoy Coatings & Hydraulics Inc 4263 95 St NW

Edmonton AB T6E 5R6
Phone: (780) 461-8333
www.inotec-inc.com

M-I Drilling Fluids

500-700 2 St SW Calgary AB T2P 2W2 **Phone:** (403) 290-5336

**Mid-East Oilfield Services Inc** 

PO Box 56 Minburn AB TOB 3B0 **Phone:** (780) 593-3946

**Mighty Mite Power Tongs** 

2313 Twp Rd 564 Sturgeon County AB TOA 1N5 **Phone:** (780) 554-5453

Mitee Industries Inc 2313 Twp Rd 564

Sturgeon County AB TOA 1N3 **Phone:** (780) 554-5453

**Nabors Canada** 

2800-500 4 Ave SW Calgary AB T2P 2V6 **Phone:** (403) 263-6777 **www.naborscanada.com** 

**National Energy Equipment Inc** 

1850 Derry Rd E Mississauga ON L5S 1Y6 **Phone:** (905) 564-2422

www.nee.ca

Newpark Canada Inc 300-635 6 Ave SW Calgary AB T2P 0T5

Phone: (403) 266-7383 www.newpark.ca

Newsco Directional & Horizontal Services Inc

7000 Railway St SE Calgary AB T2H 3A8 **Phone:** (403) 243-2331 www.newsco.ca

**Northstar Drillstem Testers Inc** 

201-736 1 Ave NE Calgary AB T2E 0B8 **Phone:** (403) 265-8987 **www.northstardst.com** 

**NOV Downhole** 

1000-800 6 Ave SW Calgary AB T2P 3G3 **Phone:** (403) 234-9999 www.nov.com/downhole

NOV FluidControl/Brandt Product Sales

1700-715 5 Ave SW Calgary AB T2P 2X6 **Phone:** (403) 264-9646 **www.nov.com** 

**Peak Energy Services** 

900-222 3 Ave SW Calgary AB T2P 0B4 **Phone:** (403) 543-7325 **www.peak-energy.com** 

Petroline Rentals Ltd PO Box 118

High Prairie AB TOG 1E0 **Phone:** (780) 523-0063

**Prairie Dog Directional Drilling** 

PO Box 7921 Stn Main Bonnyville AB T9N 2J2 **Phone:** (780) 812-9145

**Precision Drilling** 

800-525 8 Ave SW Calgary AB T2P 1G1 Phone: (403) 264-4882 www.precisiondrilling.com

Q'Max Solutions Inc 1700-407 2 St SW Calgary AB T2P 2Y3

Phone: (403) 269-2242 www.qmaxsolutions.com

RBI Canada 2000 Inc

5677 Burleigh Cres SE Calgary AB T2H 1Z7 Phone: (403) 255-3730 www.rbi-canada.com

Remote Wireline Services 8804 98 St

Morinville AB T8R 1K6 Phone: (780) 939-6655 www.remotewireline.com

**Ryan Directional Services Inc** 

2900-500 4 Ave SW Calgary AB T2P 2V6 **Phone:** (403) 269-5981 **www.ryanenergy.com** 

Savanna Drilling

1800-311 6 Ave SW Calgary AB T2P 3H2 Phone: (403) 503-0652 www.savannaenergy.com

#### **Scormac Oilfield Bits Inc**

4710 62 Ave Lloydminster AB

**Phone:** (780) 808-6462

#### **Shield Wireline Ltd**

6006A 50 Ave Lloydminster AB T9V 2T9 **Phone:** (780) 875-2772 www.shieldwireline.ca

#### Sicotte Drilling Tools

1101 77 Ave NW Edmonton AB T6P 1M8 Phone: (780) 440-6700 www.sicottedrillingtools.com

#### Silverline Coil

PO Box 570 Slave Lake AB TOG 2A0 Phone: (780) 849-8377

#### **Smith Bits**

700-396 11 Ave SW Calgary AB T2R 0C5 **Phone:** (403) 264-6077 www.smithbits.com

#### **Smith International Canada Ltd**

710-396 11 Ave SW Calgary AB T2R 0C5 **Phone:** (403) 264-6077 www.smith.com

#### **Smith Services**

710-396 11 Ave SW Calgary AB T2R 0C5 Phone: (403) 264-6077

#### Stream-Flo Industries Ltd

400-202 6 Ave SW Calgary AB T2P 2R9 **Phone:** (403) 269-5531 www.streamflo.com

#### **Summit Wireline Inc**

PO Box 1439 Lloydminster SK S9V 1K4 Phone: (306) 825-4191

#### www.summitwirelineinc.com

Superheat FGH Canada, Inc 1303 77 Ave NW Edmonton AB T6P 1M8 Phone: (780) 469-8008 www.superheatfgh.com

#### **Tallrig International Inc**

PO Box 12387 Lloydminster AB T9V 3C6 Phone: (780) 808-5311 www.tallrig.ca

#### **Tartan Controls Inc**

350-1201 5 St SW Calgary AB T2R 0Y6 Phone: (403) 232-1490 www.tartancontrols.com

#### Ted's Power Tongs & Laydown **Machine Ltd**

PO Box 267 Manning AB TOH 2M0 **Phone:** (780) 836-2460

#### Titus Tools Inc 6014 52 Ave

Lloydminster AB T9V 2S8 **Phone:** (780) 875-6280 www.titustools.com

#### TMK IPSCO

3000-150 6 Ave SW Calgary AB T2P 3Y7 **Phone:** (403) 538-2182 www.tmk-ipsco.com

#### **Tomtruck Enterprises Ltd**

PO Box 1705 Lloydminster SK S9V 1M6 **Phone:** (780) 205-1535

#### **Tornado Technologies Inc**

200-261200 Wagon Wheel Way Rocky View AB T4A 0E3 Phone: (403) 244-3333 www.tornadotech.com

#### **Trendon Bit Service**

PO Box 548 Redcliff AB TOJ 2P0 Phone: (403) 548-7242 www.trendonbitservice.com

#### Treo Drilling Services LP

600-333 11 Ave SW Calgary AB T2R 1L9 Phone: (403) 723-8600 www.treodrilling.com

#### **Trinidad Drilling Ltd**

2500-700 9 Ave SW Calgary AB T2P 3V4 **Phone:** (403) 265-6525 www.trinidaddrilling.com

#### **Unique Boring**

PO Rox 1122 Slave Lake AB TOG 2A0 Phone: (780) 849-0232

#### **Val's Drilling Ltd**

Site 17 Comp 18 RR 3 Airdrie AB T4A 0P7 Phone: (403) 226-0572 www.vdrill.com

#### **Varel Rock Bits Canada Inc**

9926 29 Ave NW Edmonton AB T6N 1A2 Phone: (780) 435-5706

#### Variperm Canada Limited

10-3424 26 St NE Calgary AB T1Y 4T7 **Phone:** (403) 250-7263 www.variperm.com

#### **Volant Products Inc**

4110 56 Ave NW Edmonton AB T6B 3R8 **Phone:** (780) 490-5185 www.volantproducts.ca

#### **Vortex Energy Pumping Services Inc**

5115 62 St Vegreville AB T9C 1N6 Phone: (780) 632-3558

#### **Wavefront Sandpumps & Rentals Ltd**

PO Box 124 Marsden SK SOM 1P0 Phone: (306) 826-5750

#### Wellhead Distributors Int'l Ltd.

9732 54 Ave NW Edmonton AB T6F 0A9 Phone: (780) 440-9714 www.wellheaddistributors.com

#### **Welltec Canada Inc**

4860 25 St SE Calgary AB T2B 3M2 **Phone:** (403) 263-2248 www.welltec.com

#### Welltec Wireline Services

5617 50 Ave Bonnyville AB T9N 2L1 Phone: (780) 812-2585 www.welltec.com

#### West Rock Energy Consultants Ltd

1110-910 7 Ave SW Calgary AB T2P 3N8 Phone: (403) 663-4860 www.westrock-energy.com

#### **Electrical-**Instrumentation/ Controls

#### ABB Inc

250 42 Ave SE Calgary AB T2G 1Y4 Phone: (403) 287-6026 www.abb.ca/oilandgas

#### **ABB** Inc

110-4411 6 St SE Calgary AB T2G 4E8 Phone: (403) 225-5511 www.abb.com

#### Ainsworth Inc

102-7304 30 St SE Calgary AB T2C 1W2 Phone: (403) 265-6750 www.ainsworth.com

#### **Aircom Instrumentation Ltd**

9328 37 Ave NW Edmonton AB T6E 5K3 Phone: (780) 434-6916 www.aircominstrumentation.com

#### All-Tek Industrial & Auto Electric

6015 53 Ave Lloydminster AB T9V 2T1

Phone: (780) 808-5209

#### Amercable 3812 64 St

Stettler AB TOC 2L1 Phone: (403) 742-1833

#### **APEX Distribution Inc** PO Box 446

Slave Lake AB TOG 2A0 Phone: (780) 849-3432 www.apexdistribution.com

#### **Apex Valve Services**

5807 47 Ave Bonnyville AB T9N 0B3 Phone: (780) 826-4355 www.apexdistribution.com

#### Applied Rigaku Technologies, Inc

9825 Spectrum Dr Bldg 4 Ste 475 Austin TX 78717

#### Phone: (512) 225-1796 www.RigakuEDXRF.com

B J Electric Supplies Ltd 4143 97 St NW Edmonton AB T6E 6E9 Phone: (780) 461-2334

www.bielectric.ca

#### Baldor - A Member of the ABB Group

4053 92 St NW Edmonton AB T6E 6R8 Phone: (780) 434-4900 www.ehaldor.ca

#### **Baldor Dodge Reliance**

230 MacAlpine Cres Fort McMurray AB T9H 4A6 **Phone:** (780) 743-1123 www.baldor.com

#### **Battle River Electric Ltd**

1330 10A St Wainwright AB T9W 1K5 **Phone:** (780) 842-4485

#### **Bavzik Oilsands Electric**

606-425 Gregorie Dr Fort McMurray AB T9H 4K7 Phone: (780) 743-2995 www.bayzikelectric.com

#### **Benchmark Instrumentation & Analytical Services Inc**

1243 70 Ave NW Edmonton AB T6P 1N5 Phone: (780) 669-1300 www.benchmarkinc.ca

#### Bentek Systems Ltd

315-3750 46 Ave SE Calgary AB T2B 0L1 Phone: (403) 243-5135 www.scadalink.com

#### **Bi-Systems Electric & Controls Ltd**

6015 53 Ave Lloydminster AB T9V 2T1 Phone: (780) 875-4047

#### **Bredon Electrical Systems Ltd**

PO Roy 6136 Fort McMurray AB T9H 4W1 Phone: (780) 799-9117

#### **Brews Supply**

12203 40 St SE Calgary AB T2Z 4E6 Phone: (800) 661-6884 www.brewssupply.com

#### **Canonbie Contracting Ltd**

161-2055 Premier Way Sherwood Park AB T8H 1G2 Phone: (780) 410-6900 www.canonbie.ca

#### Carbon Controls Ltd

Bay 124-11979 40 St SE Calgary AB T2Z 4M3 Phone: (403) 238-9944 www.carboncontrolsltd.com

#### **Cat the Rental Store** 14849 124 Ave NW

Edmonton AB T5L 3B2 Phone: (780) 434-8421 www.wirtanen.com

#### CD Nova Instruments Ltd

117-1144 29 Ave NF Calgary AB T2E 7P1 Phone: (403) 250-5600 www.cdnova.com

#### Centurion Energy Services Ltd

6-242 MacAlpine Cres Fort McMurray AB T9H 4A6 Phone: (780) 791-5661 www.centurionenergy.ca

#### **CG Industrial Specialties Ltd**

2812 Ellwood Dr SW Edmonton AB T6X 0A9 Phone: (780) 462-1014 www.cgis.ca

**Chemco Electrical Contractors Ltd** 

10014 Main St

Fort McMurray AB T9H 2G5 Phone: (780) 790-9722 www.chemco-elec.com

**Concept Controls Inc** 

1-2315 30 Ave NE Calgary AB T2E 7C7 Phone: (403) 208-1065 www.conceptcontrols.com

**CSA International** 

1707 94 St NW Edmonton AB T6N 1E6 Phone: (780) 450-2111 www.csa-international.org

D'Lanne Electro Controls (2000)

905 4 St NW Slave Lake AB TOG 2A1 **Phone:** (780) 849-4316

**Eagletech Electric Ltd** 

PO Box 542 Slave Lake AB TOG 2A0 **Phone:** (780) 849-7818

EECOL Electric

63 Sunpark Dr SE Calgary AB T2X 3V4 **Phone:** (403) 253-1952 **www.eecol.com** 

**Emes Electric Ltd** 

409 Balsam Rd NE Slave Lake AB TOG 2A2 Phone: (780) 849-2771 www.emeselectric.com

**Endress + Hauser** 

318-8925 51 Ave NW Edmonton AB T6E 5J3 **Phone:** (780) 486-3222 www.ca.endress.com

EnerFest Inc

202-5240 1A St SE Calgary AB T2H 1J1 **Phone:** (403) 261-8008 **www.enerfest.ca** 

**Energy Electric Ltd** 

4111 48 St Bonnyville AB T9N 1P4 **Phone:** (780) 826-7795

**Enviro Measure Inc** 

100-18130 105 Ave NW Edmonton AB T5S 2T4 **Phone:** (780) 487-4334

Fluid Lift Systems Inc PO Box 104

Vimy AB TOG 2J0 **Phone:** (780) 961-3545

Fort McMurray Valve & Fitting Ltd

2-266 MacKay Cres Fort McMurray AB T9H 5C6 **Phone:** (780) 790-0640

G G Electric

3807 46A Ave Close Lloydminster SK S9V 2C1 **Phone:** (306) 825-5484

**General Electric Canada Inc** 

9353 45 Ave NW Edmonton AB T6E 5Z7 **Phone:** (780) 438-3280 **Grizzly Electric & Instrumentation Ltd** 

250 Caribou Trl SW Slave Lake AB TOG 2A0 **Phone:** (780) 849-2246

**Guillevin International Co** 

4220A Blackfoot Trl SE Calgary AB T2G 4E6 **Phone:** (403) 287-1680 **www.guillevin.com** 

**Hampton Power Systems Ltd** 

200-3415 29 St NE Calgary AB T1Y 5W4 **Phone:** (403) 730-8877 **www.hampton-power.com** 

Harris Electric Co Ltd 6205 48 St

Lloydminster AB T9V 2G1 Phone: (780) 875-3336 www.harriselectric.ca

Honeywell

5925 Centre St SW Calgary AB T2H 0C2 **Phone:** (403) 509-1200 **www.honeywellprocess.com** 

**Hy-Lok Canada Inc** 

2407 96 St NW Edmonton AB T6N 0A7 **Phone:** (780) 409-4484 www.hylok.ca

Industrial Electrical Services (Fort McMurray) Ltd

8333 Fraser Ave Fort McMurray AB T9H 1W9 **Phone:** (780) 743-9393

InTech NDE

6211 Roper Rd NW Edmonton AB T6B 3G6 **Phone:** (780) 448-9575 **www.intech-nde.com** 

**Invensys Systems Canada Inc** 

4540 104 Ave SE Calgary AB T2C 1R7 Phone: (403) 777-1150 www.invensys.com

**IPS Monarch Cleveland** 

5325 W 130 St Cleveland OH 44130 **Phone:** (216) 433-7800 www.ins.us

JAG Instrument Services Ltd

PO Box 1138 Slave Lake AB TOG 2A0 **Phone:** (780) 849-2786

**Kenry Electric Ltd** 

9717 90 Ave Peace River AB T8S 1G8 **Phone:** (780) 624-5435

**Kingsway Instruments Inc** 

4319 Roper Rd NW Edmonton AB T6B 3S5 Phone: (780) 463-5264 www.kingswayinstruments.com

Kintek Ltd 34 Alberta Dr

Fort McMurray AB T9H 1P5 **Phone:** (780) 790-0746

Kondro Electric (1980) Ltd

6202 50 Ave Lloydminster AB T9V 2C9 **Phone:** (780) 875-6226 **Laird Electric Inc** 

225 MacDonald Cres Fort McMurray AB T9H 4B5 Phone: (780) 743-2595 www.lairdelectric.com

**Lamont Electrical Services Ltd** 

PO Box 83 Lamont AB TOB 2R0 **Phone:** (780) 915-1029

**Link Industrial Technologies Ltd** 

9544 27 Ave NW Edmonton AB T6N 1B2 Phone: (780) 437-4380 www.linkindustrial.com

**Marlyn Electric Ltd** 

PO Box 805 Slave Lake AB TOG 2A0 **Phone:** (780) 849-4447

**Matrikon Inc** 

1800-10405 Jasper Ave NW Edmonton AB T5J 3N4 Phone: (780) 448-1010 www.matrikon.com

**Midlite Powerline Construction** 

PO Box 25058

Fort McMurray AB T9H 5N8 **Phone:** (780) 714-6966

**Midwest Communications** 

5910 44 St Lloydminster AB T9V 1V7 **Phone:** (780) 808-2223

www.midwestcommunications.ca

Moventas Ltd

PO Box 20100 Cambridge ON N1R 8C8 Phone: (519) 621-6390 www.moventas.com

Nedco

280 TaigaNova Cres Fort McMurray AB T9K 0T4 **Phone:** (780) 743-3461 **www.nedco.ca** 

Nipisi Electric Ltd

PO Box 1216 Slave Lake AB TOG 2A0 Phone: (780) 849-3700 www.nipisielectric.ca

**Nomad Electrical Contractors Ltd** 

8909 96 St Peace River AB T8S 1G8 Phone: (780) 624-2447 www.nomadservices.ca

Noralta Technologies Inc

6010B 50 Ave Lloydminster AB T9V 2T9 Phone: (780) 875-6777 www.noralta.com

**Nor-Tech Systems LP** 

4819 55 Ave Grimshaw AB TOH 1W0 Phone: (780) 332-3944 www.nor-techsystems.com

North Star Electric PO Box 517

High Prairie AB TOG 1E0 **Phone:** (780) 523-5511

**Northern Electric Canada Ltd** 

4610 112 Ave SE Calgary AB T2C 2K2 Phone: (403) 257-4434 www.northernelec.ca

**Novicor Commissioning & Start-Up** 

402-1711 4 St SW Calgary AB T2S1V8 **Phone:** (403) 805-3486 **www.novigor.ga** 

PCL Intracon Power Inc 5350 99 St NW

Edmonton AB T6E 5L7

Phone: (780) 733-5300

www.pcl.com

PMC Process Measurement & Controls Inc

6235B 86 Ave SE Calgary AB T2C 2S4 **Phone:** (403) 258-3670 **www.pmcprocess.com** 

**Primary Flow Signal Canada Inc** 

4003 97 St NW Edmonton AB T6E 5Y5 **Phone:** (780) 440-0109

**Procon Systems Inc** 

6025 99 St NW Edmonton AB T6E 3P1 **Phone:** (780) 437-0244 www.proconsystems.com

**Pronghorn Controls Ltd** 

101-4919 72 Ave SE Calgary AB T2C 3H3 **Phone:** (403) 720-2526 **www.pronghorn.ca** 

**Regent Electric Ltd** 

6202 49 Ave Bonnyville AB T9N 2M5 **Phone:** (780) 826-5573

R.L. Electric Motor Rewinding (1995) Ltd

6506 50 Ave

Lloydminster AB T9V 2W8 **Phone:** (780) 875-6880

Rockwell Automation

230-6223 2 St SE Calgary AB T2H 1J5 Phone: (403) 253-1020 www.rockwellautomation.com

Rotork Controls (Canada) Ltd

6-820 28 St NE Calgary AB T2A 6K1 **Phone:** (403) 569-9455 **www.rotork.com** 

**Simark Controls Ltd** 

10509 46 St SE Calgary AB T2C 5C2 Phone: (403) 236-0580 www.simark.com

SMS Equipment Inc 16116 111 Ave NW

Edmonton AB T5M 2S1 Phone: (780) 451-2630 www.smsequip.com

**Spartan Controls Ltd** 

305 27 St SE Calgary AB T2A 7V2 Phone: (403) 207-0700 www.spartancontrols.com **Stellar Tech Energy Services Inc** 

Unit C-7056 Farrell Rd SE Calgary AB T2H 0T2 Phone: (403) 279-8367 www.stes.ca

**Stone Eagle Electrical Supply** 

385 MacKenzie Blvd Fort McMurray AB T9H 5E2 **Phone:** (780) 715-4463 www. Stone Eagle Supply.com

Studon Electric & Controls Inc

1030-540 5 Ave SW Calgary AB T2P 0M2 **Phone:** (403) 781-6302 www.studon.com

Studon Electric & Controls Inc

102-8024 Edgar Industrial Cres Red Deer AB T4P 3R3 Phone: (800) 825-1646 www.studon.com

Stuve Electrical Contractors Ltd.

8128 Manning Ave Fort McMurray AB T9H 1V7 Phone: (780) 743-2424

**Systech Instrumentation Inc** 

3-4351 104 Ave SE Calgary AB T2C 5C6 Phone: (403) 291-3535 www.systechinst.com

**Tarpon Energy Services Ltd** 7020 81 St SE

Calgary AB T2C 5B8 Phone: (403) 234-8647 www.tarponenergy.com

**Techmation Electric & Controls Ltd** 5210C 55 St

Bonnyville AB T9N 2K7 Phone: (780) 826-2461 www.techmationelectric.com

**TECO-Westinghouse Motors** (Canada) Inc

18060 109 Ave NW Edmonton AB T5S 2K2 Phone: (780) 444-8933 www.tecowestinghouse.ca

**Telvent Canada** 

200-10333 Southport Rd SW Calgary AB T2W 3X6 Phone: (403) 253-8848 www.telvent.com

Thomas & Betts Ltd 700 Thomas Ave

Saint-Jean-Sur-Richelieu QC J2X 2M9 Phone: (450) 347-5318

www.tnb.com

**Toran Power & Equipment Ltd** 

7506 43 St Leduc AB T9E 7E8 Phone: (780) 980-8000 www.toranpower.com

Tracer Industries Inc

11004 174 St NW Edmonton AB T5S 2P3 Phone: (780) 455-8111

TurboCare Canada Ltd

4920 43 St SE Calgary AB T2B 3N3 Phone: (403) 279-2211 www.turbocare.com

**TYCO Thermal Controls** 

11004 174 St NW Edmonton AB T5S 2P3 Phone: (780) 434-7417 www.tycothermal.com

**Vanko Analytics Ltd** 

4408 51 Ave NW Edmonton AB T6B 2W2 Phone: (780) 436-0281 www.vanko.net

**Voyageur Electric Ltd** 

PO Box 159 Plamondon AB TOA 2TO Phone: (780) 798-3939

**Vulcan Electrical Ltd** 

18225 107 Ave NW Edmonton AB T5S 1K4 Phone: (780) 483-0036 www.vulcanelectrical.com

**WEG Motors & Drives** 

64 Samor Rd Toronto ON M6A 1J7 Phone: (800) 275-4934 www.weg.net/ca

**Wesco Distribution Canada Inc** 385 MacKenzie Blvd

Fort McMurray AB T9H 5E2 Phone: (780) 799-4337 www.wesco.ca

Western Gauge & Instruments Ltd

4-12181 44 St SE Calgary AB T2Z 4H3 **Phone:** (403) 236-4888 www.wgiltd.com

Wika Instruments Canada Ltd 3103 Parsons Rd NW

Edmonton AB T6N 1C8 Phone: (780) 463-7035 www.wika.ca

#### **Engineering Firms**

**Advantage Insight Group Inc** 

Box 15047 Aspen Woods PO Calgary AB T3H 0H7 Phone: (403) 571-1705

140 Quarry Park Blvd SE Calgary AB T2C 3G3 Phone: (403) 248-4331 www.amec.com

**AMEC Americas Limited** 

900-801 6 Ave SW Calgary AB T2P 3W3 Phone: (403) 298-4170 www.amec.com

**Associated Engineering Alberta Ltd** 

1000-10909 Jasper Ave NW Edmonton AB T5J 5B9 Phone: (780) 451-7666 www.ae.ca

**ATECH Application Technology Limited** 2927 13 Ave NW

Calgary AB T2N 1M1 **Phone:** (403) 261-0005 www.atech.ca

Ausenco Engineering Alberta, Inc

600-220 12 Ave SW Calgary AB T2R 0E9 **Phone:** (587) 233-1700 www.ausenco.com

**Autopro Automation Consultants Ltd** 

103-11039 78 Ave Grande Prairie AB T8W 2J7 Phone: (780) 539-2450 www.autopro.ca

**Bantrel Co** 

1201 Glenmore Trl SW Calgary AB T2V 4Y8 **Phone:** (403) 290-5000 www.bantrel.com

**BAR Engineering** 

6004 50 Ave Llovdminster AB T9V 2T9 **Phone:** (780) 875-1683 www.bareng.ca

**Beta Machinery Analysis Ltd** 

118-4242 7 St SE Calgary AB T2G 2Y8 Phone: (403) 245-5666 www.betamachinery.com

**BitCan Geosciences & Engineering Inc** 109-2770 3 Ave NE

Calgary AB T2A 2L5 Phone: (403) 235-5520 www.bitcange.com

**CB** Engineering Ltd

100-18220 105 Ave NW Edmonton AB T5S 2R5 Phone: (780) 465-9370 www.cbeng.com

2103 Research Forest Dr The Woodlands TX 77380 Phone: (832) 513-1191 www.CBI.com

C-FER Technologies

200 Karl Clark Rd NW Edmonton AB T6N 1H2 Phone: (780) 450-8989 www.cfertech.com

**Chapman Petroleum Engineering Ltd** 

445-708 11 Ave SW Calgary AB T2R 0E4 Phone: (403) 266-4141 www.chapeng.ab.ca

CH2M Hill Canada Ltd

540 12 Ave SW Calgary AB T2R 0H4 **Phone:** (403) 407-6000 www.ch2m.com

**Computer Modelling Group Ltd** 

200-1824 Crowchild Trl NW Calgary AB T2M 3Y7 Phone: (403) 531-1300 www.cmgl.ca

Corrnro

10848 214 St NW Edmonton AB T5S 2A7 Phone: (780) 447-4565 www.corrprocanada.com

**DeGolyer and MacNaughton** Canada Limited 1430-311 6 Ave SW

Calgary AB T2P 3H2 Phone: (403) 266-8680 www.demac.com

**Diamondback Enterprises Ltd** 

20 Woodgate Bay SW Calgary AB T2W 4B8 Phone: (403) 238-3874

**Eadie Engineering Inc** 

704 Wilkin Close NW Edmonton AB T6M 2H9 Phone: (780) 906-0577 www eadie com

**Equinox Engineering Ltd** 10 Flr-909 5 Ave SW Calgary AB T2P 3G5 Phone: (403) 205-3833 www.equinox-eng.com

Falcon EDF Ltd

76 Skyline Cres NE Calgary AB T2K 5X7 **Phone:** (403) 253-2741 www.falcon-edf.com

Fekete Associates Inc

2000-540 5 Ave SW Calgary AB T2P 0M2 Phone: (403) 213-4200 www.fekete.com

Fluor Canada Ltd 55 Sunpark Plaza SE Calgary AB T2X 3R4 Phone: (403) 537-4600

www.fluor.com Focus Corporation

300-9925 109 St NW Edmonton AB T5K 218 **Phone:** (780) 466-6555

Focus Corporation Ltd

Bay 1-118 Millennium Dr Fort McMurray AB T9K 2S8 Phone: (780) 790-0704 www.focus.ca

Fractical Solutions Inc

6010 Signal Ridge Hts SW Calgary AB T3H 2N7 Phone: (403) 242-1240

**Gas Liquids Engineering Ltd** 

300-2749 39 Ave NE Calgary AB T1Y 4T8 Phone: (403) 250-2950 www.gasliquids.com

**Gemini Corporation** 

400-839 5 Ave SW Calgary AB T2P 3C8 Phone: (403) 255-2006 www.geminicorp.ca

**GLJ Petroleum Consultants** 

4100-400 3 Ave SW Calgary AB T2P 4H2 Phone: (403) 266-9500 www.gljpc.com

**Golder Associates Ltd** 

102-2535 3 Ave SE Calgary AB T2A 7W5 Phone: (403) 299-5600 www.golder.com

Hatch

340-840 7 Ave SW Calgary AB T2P 3G2 Phone: (403) 269-9555 www.hatch.ca

**Hemisphere Engineering Inc** 

10950 119 St NW Edmonton AB T5H 3P5 Phone: (780) 452-1800 www.hemisphere-eng.com

#### **Rockwell Automation Canada Ltd**

103-801 Manning Rd NE Calgary AB T2E 7M8 **Phone:** (403) 365-3600 www.rockwellautomation.com

#### **HOCS Projects**

200-1209 59 Ave SE Calgary AB T2H 2P6 Phone: (403) 212-7700 www.hocs.ca

#### **Horton CBI Ltd**

9816 Hardin St Fort McMurray AB T9H 4K3 **Phone:** (780) 743-0114 www.cbi.com

#### IFP Technologies (Canada) Inc

810-744 4 Ave SW Calgary AB T2P 3T4 Phone: (403) 234-0342 www.ifp-canada.com

#### **IHS Global Canada Ltd**

1720-144 4 Ave SW Calgary AB T2P 3N4 Phone: (403) 266-7086 www.purvingertz.com

#### **JA Sprinkle Engineering Ltd**

PO Box 1054 Lloydminster AB T9V 1E9 Phone: (780) 875-5307

#### JPI Geo-Industry Engineering

Consultants 8403 187 St NW Edmonton AB T5T 1H9 Phone: (780) 443-2290 www.jpicanada.com

Kade Technologies Inc 1450-707 7 Ave SW Calgary AB T2P 3H6 Phone: (403) 269-5556 www.kadeinc.com

#### **KBC Advanced Technologies** Canada Ltd

314-333 11 Ave SW Calgary AB T2R 1L9 Phone: (403) 206-1533 www.kbcat.com

#### Kilowatts Design Company Inc

90-2150 29 St NE Calgary AB T1Y 7G4 Phone: (403) 272-9404 www.kilowatts.com

#### **Lauren Concise**

700-736 6 Ave SW Calgary AB T2P 3T7 **Phone:** (403) 237-7160 www.laurenec.com

#### **Levelton Consultants Ltd**

203-6919 32 Ave SW Calgary AB T3B 0K6 Phone: (403) 269-4141 www.levelton.com

#### Lochterra Inc

PO Box 2096 Stn Main Calgary AB T2P 2M4 Phone: (403) 651-4090

#### Ma O'Kane Consultants Inc

171 Barber Dr Fort McMurray AB T9K 1X1 **Phone:** (780) 881-0592 www.okane-consultants.com

#### **McLeay Geological Consultants** (2006) Ltd 3815 29 St NE

Calgary AB T1Y 6B5 **Phone:** (403) 250-1926 www.mcleay.ab.ca

#### **Morrison Hershfield Ltd**

300-6807 Railway St SE Calgary AB T2H 2V6 Phone: (403) 246-4500 www.morrisonhershfield.com

#### Noetic Engineering 2008 Inc

4120 56 Ave NW Edmonton AB T6B 3R8 Phone: (780) 414-6241 www.noetic.ca

#### **Norwest Corporation** 2700-411 1 St SE

Calgary AB T2G OR3 Phone: (403) 237-7763 www.norwestcorp.com

#### **Opus Stewart Weir Ltd**

PO Box 6938 Bonnyville AB T9N 2H3 **Phone:** (780) 812-3183 www.swg.ca

#### **PCL Constructors Inc** 5410 99 St NW

Edmonton AB T6E 3P4 Phone: (780) 733-5000 www.pcl.com

#### **Petrel Robertson Consulting Ltd**

500-736 8 Ave SW Calgary AB T2P 1H4 Phone: (403) 218-1618 www.petrelrob.com

#### **Petroleum Geomechanics Inc**

PO Box 31062, RPO Bridgeland 112 4 St NE Calgary AB T2E 9A3

**Phone:** (403) 874-7066 www.petroleumgeomechanics.com

#### **Petrospec Engineering Ltd**

275 Portage Close Sherwood Park AB T8H 2R5 Phone: (780) 449-1027 www.petrospeceng.com

#### **Post Process Consultants Corp**

Comp 27 Site 7 RR 8 Calgary AB T2J 2T9 Phone: (403) 651-9099 www.post-process.com

#### **RAE Engineering & Inspection Ltd**

4810 93 St NW Edmonton AB T6E 5M4 Phone: (780) 469-2401 www.raeengineering.ca

#### **Rangeland Engineering**

400-534 17 Ave SW Calgary AB T2S 0B1 Phone: (403) 265-5130 www.rangelandeng.com

#### **Ridgeline Engineering Ltd**

202-501 18 Ave SW Calgary AB T2S 0C7 Phone: (403) 519-5385

#### **RPS Energy Canada Ltd**

700-555 4 Ave SW Calgary AB T2P 3E7 Phone: (403) 265-7226 www.rpsgroup.com

#### **Sacre-Davey Engineering**

315 Mountain Hwy North Vancouver BC V7J 2K7 Phone: (604) 986-0663 www.sacre-davev.com

#### **SNC-Lavalin Inc**

1700-605 5 Ave SW Calgary AB T2P 3H5 Phone: (403) 294-2431 www.snc-lavalin.com

#### **Sproule Associates Limited**

900-140 4 Ave SW Calgary AB T2P 3N3 Phone: (403) 294-5500 www.sproule.com

#### Stantec Consulting Ltd

600-4808 Ross St Red Deer AB T4N 1X5 Phone: (403) 341-3320 www.stantec.com

#### **Technip Canada Ltd**

2110-801 6 Ave SW Calgary AB T2P 3W2 Phone: (403) 266-2007 www.technip.com

#### Terracon Geotechnique Ltd

800-734 7 Ave SW Calgary AB T2P 3P8 Phone: (403) 266-1150 www.terracon.ca

#### Thimm Engineering Inc

214-3916 64 Ave SE Calgary AB T2C 2B4 Phone: (403) 265-0792 www.hfthimm.com

Thurber Engineering Ltd 200-9636 51 Ave NW Edmonton AB T6E 6A5 Phone: (780) 438-1460 www.thurber.ca

#### Toyo Engineering Canada Ltd

1400-727 7 Ave SW Calgary AB T2P 0Z5 **Phone:** (403) 266-4400 www.toyo-eng.ca

#### **TWD Technologies**

905 Century Dr Burlington ON L7L 5J8 Phone: (905) 634-3324 www.twdepcm.com

#### **United Oil & Gas Consulting Ltd**

910-396 11 Ave SW Calgary AB T2R 0C5 Phone: (403) 265-0111 www.uogc.com

#### **Upside Engineering Ltd**

409 10 Ave SE Calgary AB T2G 0W3 Phone: (403) 290-4650 www.upsideeng.com

#### Vista Projects Ltd

330-4000 4 St SE Calgary AB T2G 2W3 Phone: (403) 255-3455 www.vistaprojects.com

#### **Wood Group Mustang**

1400-1100 1 St SE Calgary AB T2G 2H6 Phone: (403) 537-8811 www.wgmustang.ca

#### WorleyParsons Canada Ltd

1150-10201 Southport Rd SW Calgary AB T2W 4X9 Phone: (403) 258-8000 www.worleyparsons.com

#### **Environmental Products** & Services

#### **Ace Vegetation Control Service Ltd** 2001 8 St

Nisku AB T9E 7Z1 Phone: (780) 955-8980 www.acevegetation.com

#### **Altus Energy Services Partnership**

PO Box 6727 Bonnyville AB T9N 2H3 Phone: (780) 826-2290

#### **Apex Geoscience Ltd**

200-9797 45 Ave NW Edmonton AB T6E 5V8 Phone: (780) 439-5380 www.apexgeoscience.com

#### **Aquatech International Corp**

205-259 Midpark Way SE Calgary AB T2X 1M2 Phone: (403) 256-8700 www.aquatech.com

#### **ATCO Emissions Management**

1243 McKnight Blvd NE Calgary AB T2E 5T1 Phone: (403) 292-7804 www.atcoem.com

#### **Beaver Regional Waste Management** Commission

PO Box 322 Ryley AB TOB 4A0 **Phone:** (780) 663-2038 www.beavermunicipal.com

#### **Bulldog Protective Coatings**

605 Caribou Trl SW Slave Lake AB Phone: (780) 849-2581 www.bulldogcoatings.ca

#### C. Herman Trucking Ltd PO Box 1132

Slave Lake AB TOG 2A0 Phone: (780) 849-5399

#### **Cave Inspection Ltd**

PO Box 25 Kitscoty AB TOB 2P0 Phone: (780) 846-2437

#### **Century Environmental Services**

3422 Millar Ave Saskatoon SK S7K 5Y7 Phone: (306) 934-4549

#### www.century-environmental.com

**Chedkor Contracting Ltd** PO Box 313 Lac La Biche AB TOA 2CO Phone: (780) 623-2407

#### **Clariant Oil Services**

80-5200 64 Ave SE Calgary AB T2C 4V3 Phone: (403) 262-7846 www.oil.clariant.com

Clean Harbors Canada Inc

PO Box 390 Ryley AB TOB 4A0 **Phone:** (780) 663-3828 www.cleanharbors.com

#### **Codeco Energy Group**

3 Flr-3333 8 St SE Calgary AB T2G 3A4 **Phone:** (403) 237-7808 www.codeco.com

#### **Contain Enviro Services Ltd**

13535 97 St Grande Prairie AB T8X 1S8 Phone: (877) 513-8885 www.contain.ca

#### **Core Laboratories Canada Ltd**

2810 12 St NE Calgary AB T2E 7P7 Phone: (403) 250-4000 www.corelab.com

#### Cozy Cats Ltd

PO Box 1282 Lac La Biche AB TOA 2CO Phone: (780) 623-1926

#### **Dentor Enterprises**

PO Box 5665 Stn Main Fort McMurray AB T9H 3G6 **Phone:** (780) 743-9446

#### **Deuce Disposal Ltd**

PO Box 362 Slave Lake AB TOG 2A0 Phone: (780) 849-3334

#### **Dow Chemical Canada Inc**

2100-450 1 St SW Calgary AB T2P 5H1 **Phone:** (403) 267-3500 www.dowcanada.com

#### Dziengielewski Enterprises Ltd

PO Box 6321 Peace River AB T8S 1S2

#### Phone: (780) 624-5532

**Elemental Controls Ltd** 3230 Wharton Way Mississauga ON LÁX 2C1 Phone: (905) 282-9974

#### **Enviro Vault Canada Ltd**

105-7370 Sierra Morena Blvd SW Calgary AB T3H 4H9 Phone: (403) 263-4433 www.envirovault.com

#### **EnviroSORT Inc**

740-222 3 Ave SW Calgary AB T2P 0B4 **Phone:** (403) 543-7325 www.cleanharbors.com

#### **Espar Climate Control Systems**

6099A Vipond Dr Mississauga ON L5T 2B2 Phone: (800) 387-4800 www.espar.com

#### **Evergreen Solutions**

110-3506 118 Ave SE Calgary AB T2Z 3X1 **Phone:** (403) 273-8000 www.evergreensolutions.com

#### **Excel Vegetation Services**

Tofield AB TOB 4J0 Phone: (780) 446-8015

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#### Fluid Life

9321 48 St NW Edmonton AB T6B 2R4 Phone: (780) 462-2400 www.fluidlife.com

#### **Garnier Environmental Service**

PO Box 223 Lloydminster SK S9V 0Y2 Phone: (780) 871-8840

#### **GCHEM Ltd**

Bay 1-4810 62 Ave Lloydminster AB T9V 2E9 **Phone:** (780) 871-4668 www.gchem.ca

#### **Global Analyzer Services Ltd**

305-4625 Varsity Dr NW Calgary AB T3A 0Z9 Phone: (403) 286-6556

#### **Gourley Construction Ltd**

4606 49 Ave Vermilion AB T9X 1R6 Phone: (780) 853-5087

#### **Gower & Co Vegetation** Management Inc

PO Box 11812 Lloydminster AB T9V 3C1 **Phone:** (780) 808-3141 www.gowerandcompany.com

#### **Hatfield Consultants**

10208 Centennial Dr Fort McMurray AB T9H 1Y5 **Phone:** (780) 743-4290 www.hatfieldgroup.com

#### **HAZCO Environmental Services**

103-3355 114 Ave SE Calgary AB T2Z 0K7 Phone: (403) 297-0444 www.hazco.com

#### **Highland Maintenance**

PO Box 1220 Stn Main Llovdminster SK S9V 1G1 Phone: (780) 875-6882

#### **Hobblestone Enterprises Inc**

PO Box 28 Blackfoot AB TOB OLO Phone: (780) 875-7282 www.hobblestoneplastics.com

#### **IDE Technologies Ltd**

PO Box 5016 Kadima 60920 Phone: 972 9-8929-777 www.ide-tech.com

#### Innov-X Technologies Canada Ltd

2-1201 W Georgia St Vancouver BC V6E 3J5 Phone: (604) 671-3781

#### **INTEGRA Technologies Limited**

8121 43 St NW Edmonton AB T6B 2M3 Phone: (780) 413-6872 www.integratechnologies.com

#### Interra Environmental Inc

12-2180 Pegasus Way NE Calgary AB T2E 8M5 Phone: (403) 236-4901

#### **Intrinsik Environmental Sciences Inc**

1060-736 8 Ave SW Calgary AB T2P 1H4 **Phone:** (403) 237-0275 www.intrinsikscience.com

#### John Zink Company, LLC

11920 East Apache St Tulsa OK 74116-1309 Phone: (918) 234-2707 www.johnzink.com

333 50 Ave SE Calgary AB T2G 2B3 **Phone:** (403) 297-0868 www kaizenlah ca

#### **Katch Kan Limited**

8210 McIntyre Rd NW Edmonton AB T6E 5C4 Phone: (780) 414-6083 www.katchkan.com

#### **Key Maintenance Technologies**

204 Carmichael Close NW Edmonton AB T6R 2K6 Phone: (780) 437-7659 www.kmt1.ca

#### Kinsella Plastics

PO Box 5 Kinsella AB TOB 2NO Phone: (780) 336-3308

#### Kleen-Bee Lloydminster

5402 51 St Lloydminster AB T9V 0P8 Phone: (780) 875-7627

#### Klohn Crippen Berger Ltd

102-1724 50 Ave Lloydminster AB T9V 0Y1 **Phone:** (780) 871-0711 www.klohn.com

#### **Layfield Geosynthetics & Industrial** Fabrics Ltd

17720 129 Ave NW Edmonton AB T5V 0C4 Phone: (780) 453-6731 www.geomembranes.com

## **Little Dipper Holdings Ltd** PO Box 10457

Lloydminster AB T9V 3A6 Phone: (780) 875-0657 www.littledipper.ab.ca

#### **Lorrnel Consultants**

1915 11 St SE Calgary AB T2G 3G5 Phone: (403) 233-0900 www.lorrnel.com

#### **Manning Disposals**

PO Box 637 Manning AB TOH 2M0

**Phone:** (780) 836-2637

#### **Marksmen Vegetation Management Inc**

5205 60 St

Lloydminster AB T9V 2S9 Phone: (780) 875-1210 www.marksmeninc.com

#### Maxxam Analytics Inc

6744 50 St NW Edmonton AB T6B 3M9 Phone: (780) 378-8500 www.maxxam.ca/petroleum

#### **MB Mighty Mulching Ltd**

PO Box 7479 Bonnyville AB T9N 2H8 Phone: (780) 826-9660

#### **Millennium EMS Solutions Ltd**

208-4207 98 St NW Edmonton AB T6E 5R7 Phone: (780) 496-9048 www.mems.ca

#### **Morgan Construction & Environmental Ltd**

702 Acheson Rd Acheson AB T7X 5A7 Phone: (780) 960-6966 www.mcel.ca

#### MWH Canada Inc

1010-600 6 Ave SW Calgary AB T2P 0S5 Phone: (403) 543-5353 www.mwhglobal.com

#### Neegan Technical Services Ltd (NTS)

PO Box 5570 Fort McMurray AB T9H 3G5 Phone: (780) 715-2444 www.tuccaroinc.com

#### **Newalta Corporation**

2326-211 11 Ave SW Calgary AB T2R 0C6 Phone: (403) 806-7000 www.newalta.com

#### Nilex Inc

9222 40 St SE Calgary AB T2C 2P3 **Phone:** (403) 543-5454 www.nilex.com

#### **Noise Solutions Inc**

210-3015 5 Ave NE Calgary AB T2A 6T8 Phone: (403) 232-0916 www.noisesolutions.com

#### Norwesco Canada Ltd

12015 152 St NW Edmonton AB T5V 1G4 Phone: (780) 474-7440 www.norwescocanada.com

#### Panther Environmental Inc

PO Box 7793 Bonnyville AB T9N 2J1 Phone: (780) 812-2702

#### **Pembina Institute** 219 19 St NW

Calgary AB T2N 2H9 **Phone:** (403) 269-3344 www.pembina.org

#### PHH ARC Environmental Ltd

111-11505 35 St SE Calgary AB T2Z 4B1 Phone: (403) 250-5722 www.phharcenv.com

#### **PROECO Corporation**

7722 9 St NW Edmonton AB T6P 1L6 Phone: (780) 440-1825 www.proeco.com

#### **Quik Pick Waste Disposal**

PO Box 710 Lloydminster AB S9V 0Y7 Phone: (780) 875-4100 www.quikpick.ca

#### **Radium Reclamation Ltd**

PO Box 26 Mallaig AB TOA 2KO Phone: (780) 210-1499 www.radiumreclamation.com **Red Oak Industries Inc** 

PO Box 582

Bruderheim AB TOB OSO Phone: (780) 796-3851

#### **RemedX Remediation Services Inc**

305-1550 5 St SW Calgary AB T2R 1K3 Phone: (403) 209-0004 www.remedx.net

#### SDS Environmental Services Ltd

1811 17 Ave Wainwright AB T9W 1L2 Phone: (780) 842-6365

www.sdsenvironmental.ca

#### **Sterling Technical Services Ltd**

PO Box 261 Ardmore AB TOA OBO Phone: (780) 207-0800

#### Strata Environmental Ltd

5807 51 Ave Vermilion AB T9X 1V8 **Phone:** (780) 853-3396 www.strataenergy.net

#### **Tarbender Family of Degreasers**

142 Tusselwood Hts NW Calgary AB T3L 2M7 **Phone:** (403) 375-0062

#### Tetra Tech EBA Inc

14940 123 Ave NW Edmonton AB T5V 1B4 **Phone:** (780) 451-2121 www.eba.ca

#### Ton Spray

305 Griffin Rd W Cochrane AB T4C 2C4 Phone: (403) 932-1464

#### **Total Combustion Inc**

1510-734 7 Ave SW Calgary AB T2P 3P8 Phone: (403) 309-7731 www.tciburners.com

#### Tri-Gen Construction Ltd

PO Box 399 Boyle AB TOA OMO **Phone:** (780) 689-3831 www.tri-genconstruction.com

#### **Tundra Environmental & Geotechnical** Drilling

Stettler AB Phone: (403) 883-2671 www.tundraenvirodrilling.ca

#### **Veracity Energy Services Ltd**

200-744 4 Ave SW Calgary AB T2P 3T4 Phone: (403) 537-1300 www.veracityenergy.com

#### **Waste Management of Canada** Corporation

7940 25 St NW Edmonton AB T6P 1M9 Phone: (780) 440-1700 www wm com

#### **Wave Control Systems Ltd**

9612 60 Ave NW Edmonton AB T6E 0C1 Phone: (780) 468-4320 www.wavecontrol.ca

#### **Welclean Land Reclamation** Services Ltd

2306 52A Ave Close Lloydminster AB T9V 2R5 Phone: (780) 875-6354

#### **Westwater Environmental Ltd**

900-808 4 Ave SW Calgary AB T2P 3E8 Phone: (403) 233-0202

## Williams Engineering Canada Inc 10010 100 St NW

Edmonton AB T5J 0N3 Phone: (780) 424-2393 www.williamsengineering.com

#### WorleyParsons

4500 16 Ave NW Calgary AB T3B 0M6 **Phone:** (403) 247-0200 www.worleyparsons.com

#### X-Terra Environmental Consulting Ltd

4201 66 Ave Lloydminster AB T9V 2Y7 **Phone:** (780) 875-1442 www.xtec.ca

22151 E 91 St Broken Arrow OK 74014 Phone: (918) 286-0263 www.zeeco.com

#### Financial Institutions & **Legal Firms**

Action Tax Services 309-9612 Franklin Ave Fort McMurray AB T9H 2J9 **Phone:** (780) 791-1511

#### **Acumen Capital Partners**

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#### **Allegro Energy Capital Corporation**

960-630 6 Ave SW Calgary AB T2P 0S8 Phone: (403) 294-0002 www.energycapital.ca

#### **AON Reed Stenhouse**

900-10025 102A Ave NW Edmonton AB T5J 0Y2 Phone: (780) 423-9801 www.aon.ca

3911 Trasimene Cres SW Calgary AB T3E 7J6 **Phone:** (403) 685-1888 www.apectec.com

#### **ARC Financial Corporation**

4300-400 3 Ave SW Calgary AB T2P 4H2 Phone: (403) 292-0680 www.arcfinancial.com

#### **Aston Hill Financial**

500-321 6 Ave SW Calgary AB T2P 3H3 **Phone:** (403) 770-4800 www.astonhill.ca

#### **ATB Corporate Financial Services**

600-444 7 Ave SW Calgary AB T2P 0X8 **Phone:** (403) 974-5127 www.atb.com

#### **Bennett Jones LLP**

4500-855 2 St SW Calgary AB T2P 4K7 **Phone:** (403) 298-3100 www.bennettjones.com

#### **BMO Capital Markets**

900-525 8 Ave SW Calgary AB T2P 1G1 Phone: (403) 515-3656 www.bmo.com

#### **Borden Ladner Gervais LLP**

1900-520 3 Ave SW Centennial Place. East Tower Calgary AB T2P 0R3 **Phone:** (403) 232-9500 www.blgcanada.com

#### **Business Development Bank of** Canada

110-444 7 Ave SW Calgary AB T2P 0X8 Phone: (403) 292-5600 www.bdc.ca

#### **Canaccord Capital Corp**

2200-450 1 St SW Calgary AB T2P 5H1 **Phone:** (403) 508-3800 www.canaccord.com

#### **Canaccord Enermarket Ltd**

2200-450 1 St SW Calgary AB T2P 5H1 Phone: (403) 262-1442 www.canaccordenermarket.com

#### **Canadian Energy Capital Inc**

3228 Conrad Dr NW Calgary AB T2L 1B4 Phone: (403) 874-0830

#### Canadian Western Bank

606 4 St SW Calgary AB T2P 1T1 Phone: (403) 262-8700 www.cwbank.com

#### **Canalta Business Brokers Inc**

1420-5555 Calgary Trl NW Edmonton AB T6H 5P9 Phone: (780) 468-1602 www.canaltabb.com

#### **CCS Income Trust**

1800-140 10 Ave SE Calgary AB T2G OR1 **Phone:** (403) 233-7565 www.ccsincometrust.com

#### **Chrysalis Capital Advisors Inc**

15 Bel Aire PI SW Calgary AB T2V 2C3 Phone: (403) 252-2911 www.chrysaliscapital.ca

#### **CIBC World Markets Inc**

900-855 2 St SW Calgary AB T2P 4J7 Phone: (403) 260-0500 www.cibc.ca

#### **Community Futures Wood Buffalo** 100B-9816 Hardin St

Fort McMurray AB T9H 4K3 **Phone:** (780) 791-0330 www.woodbuffalo.albertacf.com

#### Davis IIP

1000-250 2 St SW Calgary AB T2P 0C1 Phone: (403) 296-4470 www.davis.ca

#### **Deloitte & Touche**

700-850 2 St SW Calgary AB T2P OR8 **Phone:** (403) 267-1700 www delnitte ca

#### **Dentons Canada LLP**

15 Flr-850 2 St SW Calgary AB T2P OR8 **Phone:** (403) 268-7000 www.fmc-law.com

#### **Eagle Insurance**

2-4228 50 Ave Bonnyville AB T9N 1B6 Phone: (780) 826-4160

#### **Enstar Financial Corp**

900-304 8 Ave SW Calgary AB T2P 1C2 **Phone:** (403) 974-8270 www.enstarfinancial.com

#### **Ernst & Young**

1100-440 2 Ave SW Calgary AB T2P 5E9 Phone: (403) 290-4100 www.ey.com

#### FirstEnergy Capital Corp

1100-311 6 Ave SW Calgary AB T2P 3H2 Phone: (403) 262-0600 www.firstenergy.com

#### **Foster Park Baskett Insurance Ltd**

200-17704 103 Ave NW Edmonton AB T5S 1J9 Phone: (780) 489-4961

#### www.fpb.ca

**FRPL Finance Ltd** C-5799 3 St SE Calgary AB T2H 1K1 Phone: (403) 451-1161

#### GE Canada Equipment Financing G.P.

2120-530 8 Ave SW Calgary AB T2P 3S8 Phone: (403) 571-2150 www.gecapital.ca

#### **GMP Securities Ltd** 4800-525 8 Ave SW

Calgary AB T2P 1G1 **Phone:** (403) 543-3030 www.gmpsecurities.com

Gowlings 1600-421 7 Ave SW TD Canada Trust Tower Calgary AB T2P 4K9 Phone: (403) 298-1000 www.gowlings.com

#### **Grant Thornton LLP**

900-833 4 Ave SW Calgary AB T2P 3T5 **Phone:** (403) 260-2500 www.grantthornton.ca

#### **Haywood Securities Inc**

301-808 1 St SW Calgary AB T2P 1M9 Phone: (403) 509-1900 www.haywood.com

ITG Canada Corp 400-407 8 Ave SW Calgary AB T2P 1E5 Phone: (403) 294-9111 www.itg.com

**Jennings Capital Inc** 

2700-308 4 Ave SW Calgary AB T2P 0H7 **Phone:** (403) 292-0970 www.jenningscapital.com

**Jones Brown Inc** 

800-639 5 Ave SW Calgary AB T2P 0M9 **Phone:** (403) 265-1920 www.ionesbrown.com

**KPMG MSLP** 

3100-205 5 Ave SW Calgary AB T2P 4B9 Phone: (403) 691-8000 www.kpmg.ca

**Lawson Lundell LLP** 

3700-205 5 Ave SW Calgary AB T2P 2V7 **Phone:** (403) 269-6900 www.lawsonlundell.com

Leede Financial Markets Inc

3415-421 7 Ave SW Calgary AB T2P 4K9 **Phone:** (403) 531-6800 www.leedefinancial.com

**Lionhart Capital Ltd** 

876 Parkridge Rd SE Calgary AB T2J 5C6 Phone: (403) 287-2807 www.lionhartcapital.com

**Longbow Capital Inc** 

701-421 7 Ave SW Calgary AB T2P 4K9 Phone: (403) 264-1888

**Macquarie Tristone** 

2020-335 8 Ave SW Calgary AB T2P 1C9 Phone: (403) 294-9541 www.macquarie.com

**Marsh Canada Limited** 

1100-222 3 Ave SW Calgary AB T2P 0B4 Phone: (403) 290-7900 canada.marsh.com

**McCarthy Tetrault** 3300-421 7 Ave SW Calgary AB T2P 4K9 **Phone:** (403) 260-3500 www.mccarthv.ca

**McLean & Partners Wealth** Management Ltd

801 10 Ave SW Calgary AB T2R 0B4 **Phone:** (403) 234-0005 www.mcleanpartners.com

McLennan Ross LLP

600-12220 Stony Plain Rd NW Edmonton AB T5N 3Y4 Phone: (780) 482-9200 www.mross.com

**Merrill Lynch Canada Ltd** 

2620-255 5 Ave SW Bow Valley Square Calgary AB T2P 3G6 Phone: (403) 231-7314

www ml com

Miles Davison LLP

1600-205 5 Ave SW Calgary AB T2P 2V7 Phone: (403) 298-0333 www.milesdavison.com

Miller Thomson LLP

3000-700 9 Ave SW Calgary AB T2P 3V4 **Phone:** (403) 298-2400 www.millerthomson.ca

300-622 5 Ave SW Calgary AB T2P 0M6 Phone: (403) 263-3385 www.mnp.ca

**National Bank Financial** 

2802-450 1 St SW Calgary AB T2P 5H1 **Phone:** (403) 531-8400 www nhfinancial com

**National Bank Financial Group** 

1800-311 6 Ave SW Calgary AB T2P 3H2 Phone: (403) 294-4946 www.nbc.ca

Native Venture Capital Co Ltd

27 Pointe Artist View Calgary AB T3Z 3N3 Phone: (403) 208-5380

**Norfolk Group The** 

1100-940 6 Ave Calgary AB T2P 3T1 Phone: (403) 232-8545 www.norfolkgrp.com

Norton Rose Fulbright Canada LLP

3700-400 3 Ave SW Calgary AB T2P 4H2 Phone: (403) 267-8222 www.nortonrosefulbright.com

**Parlee McLaws LLP** 

1500-10180 101 St NW Edmonton AB T51 4K1 Phone: (780) 423-8500 www.parlee.com

Peters & Co Limited

2300 Jamieson PI 308 4 Ave SW Calgary AB T2P 0H7 Phone: (403) 261-2203

www.petersco.com

**Priority Leasing Inc** 

3615 9 St SE Calgary AB T2G 3G7 Phone: (403) 216-1930 www.priorityleasing.net

111 5 Ave SW Calgary AB T2P 5L3 Phone: (403) 509-7555 www.pwc.com/ca/energy

**Raymond James Ltd** 4250-525 8 Ave SW

Calgary AB T2P 1G1 Phone: (403) 509-0500 www.raymondjames.ca

**RBC Royal Bank Energy Banking** 

3900-888 3 St SW Calgary AB T2P 5C5 Phone: (403) 299-7111 www.royalbank.com

**RBC** Rundle

3900-888 3 St SW Calgary AB T2P 5C5 Phone: (403) 299-7111 www.rbcrundle.com

Rogers Insurance Ltd

600-1000 Centre St NE Calgary AB T2E 7W6 **Phone:** (403) 296-2400 www.rogersinsurance.ca

Rothschild (Canada) Inc

1910-525 8 Ave SW Calgary AB T2P 1G1 **Phone:** (403) 537-6300 www.rothschild.com

**Rovnat Capital** 

3900-700 2 St SW Calgary AB T2P 2W2 Phone: (403) 269-7755 www.roynat.com

Sayer Energy Advisors 1620-540 5 Ave SW Calgary AB T2P 0M2 Phone: (403) 266-6133 www.sayersecurities.com

**SCF Partners** 

3430-400 3 Ave SW Calgary AB T2P 4H2 **Phone:** (403) 244-7888 www.scfpartners.com

Servus Credit Union

5012 49 St Lloydminster AB T9V 0K2 Phone: (780) 875-4434

Sphere Energy Corp

750-815 8 Ave SW Calgary AB T2P 3P2 Phone: (403) 233-2822 www.sphereenergy.ca

Stikeman Elliott LLP

1600-50 O'Connor St Ottawa ON K1P 6L2 Phone: (613) 566-0530 www.stikeman.com

**TD Securities** 

800-324 8 Ave SW Calgary AB T2P 2Z2 **Phone:** (403) 299-8572 www.tdsecurities.com

The Co-operators

140-9521 Franklin Ave Fort McMurray AB t9k 3z7 Phone: (780) 743-2926 www.cooperators.ca

Trans Action Oil & Gas Ventures Inc

445-708 11 Ave SW Calgary AB T2R 0E4 Phone: (403) 263-9270

**Union Bank** 

730-440 2 Ave SW Calgary AB T2P 5E9 Phone: (403) 233-4800 www.uboc.com

**Valiant Trust Company** 310-606 4 St SW

Calgary AB T2P 1T1 Phone: (403) 233-2801 www.valianttrust.com

Van Helden Agencies Ltd

224 15 Ave SW Calgary AB T2R 0P7 Phone: (403) 244-8957 www.vanheldenagencies.com

**Veracity Financial Services** 

4909 49 St

Lloydminster SK S9V 0M2 Phone: (306) 825-6200 www.veracityfinancial.ca

Willis Canada Inc

1600-520 5 Ave SW Calgary AB T2P 3R7 Phone: (403) 263-6117 www.willis.com

**Working Capital Corporation** 

2806-505 6 St SW Calgary AB T2P 1X5 Phone: (403) 262-2803 www.workingcapitalcorp.com

**Land Agents** 

Allied Land Services (1978) Ltd

200-718 15 Ave SW Calgary AB T2R 0R6 Phone: (403) 244-5530

Antelope Land Services Ltd 1920 10 Ave SW

Calgary AB T3C 0J8 Phone: (403) 265-2855

**Aurora Land Consulting Ltd** 200-11907 111 Ave NW

Edmonton AB T5G 0E4 Phone: (780) 423-0211

**Britt Resources Ltd** 1100-630 6 Ave SW

Calgary AB T2P 0S8 **Phone:** (403) 266-5746 www hrittland com

Canada West Land Services Ltd

101-1933 18 St NE Calgary AB T2E 7T8 Phone: (403) 250-7240 www.canadawestland.com

**Caribou Land Services Ltd** 200-1638 10 Ave SW

Calgary AB T3C 0J5 Phone: (403) 276-1940 www caribouland ca

Cavalier Land Ltd

400-440 2 Ave SW Calgary AB T2P 5E9 Phone: (587) 952-8282 www.cavalierland.ca

**Charchun Consulting Ltd** 

1000-10909 Jasper Ave NW Edmonton AB T5J 5B9 Phone: (780) 453-5783

D R Hurl & Associates Ltd

232-2833 Broadmoor Blvd Sherwood Park AB T8H 2H3 Phone: (780) 464-7990 www.hurland.com

Dallas E Maynard & Associates Inc

91 Lombard Cres St Albert AB T8N 3N1 Phone: (780) 458-7123 **Essential Energy Services Ltd** 

1100-250 2 St SW Calgary AB T2P 0C1 Phone: (403) 263-6778 www.essentialenergy.ca

Heritage Freehold Specialists & Co

Ltd

165-6815 8 St NE Calgary AB T2E 7H7 **Phone:** (403) 291-2804

**Horizon Land Services Ltd** 

1807 Bowness Rd NW Calgary AB T2N 3K5 **Phone:** (403) 261-7787

Integrity Land Inc 9940 99 Ave

Fort Saskatchewan AB T8L 4G8
Phone: (877) 998-1500
www.integrityland.com

**Majestic Land Services Ltd** 

E-7239 Flint Rd SE Calgary AB T2H 1G2 **Phone:** (403) 281-8025 **www.majesticland.ca** 

Meridian Land Services (90) Ltd

100-1721 10 Ave SW Calgary AB T3C 0K1 Phone: (403) 266-2858 www.meridianland.com

Pioneer Professional Services Group

200-1711 10 Ave SW Calgary AB T3C 0K1 **Phone:** (403) 229-3969 **www.pioneer-group.ca** 

Progress Land Services Ltd 12831 163 St NW

Edmonton AB T5V 1M5
Phone: (866) 454-4717
www.progressland.com

**Ranger Land Services Ltd** 

211-1215 13 St SE Calgary AB T2G 3J4 **Phone:** (403) 265-2225 **www.rangerland.ca** 

**Reid-Bicknell Land Ltd** 

420 Christie Knoll Pt SW Calgary AB T3H 2V2 **Phone:** (403) 240-2880

Remco Land Services Ltd 258 Vista Dr

Sherwood Park AB T8A 4J4 **Phone:** (780) 449-3120

Scott Land & Lease Ltd

900-202 6 Ave SW Calgary AB T2P 2R9 Phone: (403) 261-1000 Fax: (403) 263-5263 www.scottland.ca

**Sundance Land Services Ltd** 

23 Slocan Rd SW Calgary AB T2W 0S9 **Phone:** (403) 255-1996

Thompson G B Resource Consultants Ltd

2200-801 6 Ave SW Calgary AB T2P 3W2 **Phone:** (403) 264-4352

# Oilfield Equipment Manufacturing-Welding Products/Services

A Amyotte & Sons Welding Ltd

PO Box 96 Mallaig AB TOA 2KO **Phone:** (780) 635-3880 **www.amyotteweld.ca** 

**Accurate Machining Ltd** 

PO Box 10402 Lloydminster AB T9V 3A5 **Phone:** (780) 875-8756 www.accuratemachining.ca

Advance Engineered Products Group

615 71 Ave SE Calgary AB T2H 0S7 **Phone:** (403) 255-5578

www.advanceengineeredproducts.com

**Advantage Products Inc** 

11-31264 Hwy 2A Didsbury AB TOM 0W0 Phone: (403) 264-1647 www.advantageproductsinc.com

AGI-Envirotank

PO Box 879 Biggar SK SOK OMO **Phone:** (306) 948-5262 www.envirotank.com

**Aker Solutions** 

110-115 Quarry Park Rd SE Calgary AB T2C 5G9 **Phone:** (403) 640-4230 **www.akersolutions.com** 

Almita Piling Inc

2 Flr-8750 58 Ave Edmonton AB T6E 6G6 Phone: (780) 431-9582 www.almita.com

Almita Piling Inc

RR 4 Site 1 Box 8 Ponoka AB T4J 1R4 Phone: (403) 783-5800 www.almita.com

A-Plus Machining Ltd

4702 62 Ave Lloydminster AB T9V 2G2 **Phone:** (780) 875-6969 **www.aplusmachining.com** 

**Aqua Industrial Ltd** 

204-9912 Franklin Ave Fort McMurray AB T9H 2K5 **Phone:** (780) 799-7300 www.aquaindustrialltd.com

**Argus Machine Co Ltd** 

5820 97 St NW Edmonton AB T6E 3J1 Phone: (780) 434-9451 www.argusmachine.com

Bartan Machine & Welding Co Ltd

285 MacDonald Cres Fort McMurray AB T9H 4B7 **Phone:** (780) 743-1817

**Battle River Ironworks Inc** 

4708 43 Ave Forestburg AB **Phone:** (780) 582-3596 **www.battleriverironworks.ca**  **Bend Tec Fabricating** 

PO Box 11793 Lloydminster AB T9V 3C1 Phone: (780) 872-5234 www.bendtec.ca

**Big B's Portable Welding** 

224 Cheecham Dr Anzac AB TOP 1JO **Phone:** (780) 881-3977

**Black Diamond Welding Ltd** 

PO Box 616 Turtleford SK SOM 2YO **Phone:** (306) 845-3198

**Bonnyville Sandblasting Ltd** 

PO Box 6296 Bonnyville AB T9N 2G8 **Phone:** (780) 826-4532

Bonnyville Welding Ltd PO Box 8075

Bonnyville AB T9N 2J3

Phone: (780) 826-3847

www.bonnyvillewelding.com

**Border Steel** 

PO Box 710 Lloydminster SK S9V 0Y7 **Phone:** (780) 875-3235

**Boyd Lay's Welding** 

PO Box 6551 Bonnyville AB T9N 2H1 **Phone:** (780) 826-7717

**Bradken** 

9624 35 Ave NW Edmonton AB T6E 5S3 **Phone:** (780) 434-3402 **www.bradken.com** 

**Bushrat Welding & Picker Service** 

Site 4 Box 7 RR 1 Westlock AB T7P 2N9 **Phone:** (780) 954-2239

**Cameron Process Systems** 

PO Box 850 Stn T Calgary AB T2H 2H3 **Phone:** (403) 236-1850 **www.c-a-m.com** 

C.B. Inspection Services

Site 3 Box 10 RR 3 Eckville AB TOM 0X0 **Phone:** (780) 603-7301

**Century Machining Services Ltd** 

201 MacKay Cres Fort McMurray AB T9H 4T5 **Phone:** (780) 743-5109

**Cessco Fabrication & Engineering Ltd** 

7310 99 St NW Edmonton AB T6E 3R8 **Phone:** (780) 433-9531 **www.cessco.ca** 

Clearwater Welding & Fabricating Ltd

355 Mackenzie Blvd Fort McMurray AB T9H 5E2 **Phone:** (780) 743-2171 www.clearwater-energy.ca

CleaverBrooks

6940 Cornhusker Hwy Lincoln NE 68507 **Phone:** (402) 434-2080 **Collins Industries Ltd** 

3740 73 Ave NW Edmonton AB T6B 2T8 Phone: (780) 440-1414 www.collins-industries-ltd.com

**Dacro Industries Inc** 

9325 51 Ave NW Edmonton AB T6E 4W8 **Phone:** (780) 434-8900 www.dacro.com

Dale's Welding 2008 Ltd

PO Box 1155 Lloydminster AB T9V 1G1 **Phone:** (780) 875-0032

**Damik Machine Ltd** 

Westlock AB T7P 2N9 **Phone:** (780) 349-3431

**Davco Welding & Crane Service Ltd** 

402 4 Ave S Wainwright AB Phone: (780) 842-5559 www.davco.cc

Dewan's Welding

PO Box 7586 Bonnyville AB T9N 2H9

**Phone:** (780) 826-2531

Don Hiebert's Welding Ltd PO Box 3492

Wainwright AB T9W 1T5 **Phone:** (780) 842-3238

**Donnelly Machining & Fabricating Ltd** 

PO Box 289 Donnelly AB TOH 1G0 **Phone:** (780) 925-2021

**Double B Machining & Fabricating Ltd** 

PO Box 786 Slave Lake AB TOG 2A0

**Phone:** (780) 849-6688

DTS Welding Ltd 3501 51 Ave

Lloydminster AB T9V 1C9 **Phone:** (780) 871-5979

E & E Radiator Service (1992)

10003 94A Ave Westlock AB T7P 2M7 **Phone:** (780) 349-4234

Edmonton Exchanger & Refinery

Services Ltd 5545 89 St NW Edmonton AB T6E 5W9 Phone: (780) 468-6722 www.edmontonexchanger.com

Electra Welding (1988) Ltd

2152 1 Ave Wainwright AB T9W 1L7 **Phone:** (780) 842-4066

Ellett Industries Ltd

1575 Kingsway Ave Port Coquitlam BC V3C 4E5 **Phone:** (604) 941-8211 www.ellett.ca

**Endura Manufacturing Company Ltd** 

12425 149 St NW Edmonton AB T5L 2J6 **Phone:** (780) 451-4242 **www.endura.ca**  Enerflex Ltd 2103 8 St Nisku AB T9E 7Z1

Phone: (403) 955-5628 www.enerflex.com

**ENG Machining Ltd** 

3-5202 63 St Lloydminster AB T9V 2E6 **Phone:** (780) 875-1500

Feldspar Excavating & Redi-Mix

5002 65 St Lloydminster AB T9V 2K2

**Phone:** (780) 875-2208

Foremost 1225 64 Ave NE Calgary AB T2E 8P9

Phone: (403) 266-4556 www.foremost.ca

**Fourpoint Industrial Services Inc** 

6 Boulder Blvd Stony Plain AB T7Z 1V7 Phone: (780) 968-1024 www.fourpointindustrial.ca

**Ganotec West** 

131-26230 Twp Rd 531A Acheson AB T7X 5A4 **Phone:** (780) 960-7450 **www.ganotecwest.com** 

**Garneau Manufacturing Inc** 

PO Box 3154 Morinville AB T8R 1S1 Phone: (780) 939-2129 www.garweld.com

G.L.M. Industries LP

1508 8 St Nisku AB T9E 7S6 **Phone:** (780) 955-2233 **www.glmindustries.com** 

**Golden View Fabricating Ltd** 

PO Box 71 Smoky Lake AB TOA 3C0 Phone: (780) 656-3575 www.goldenviewfabricating.com

Greg Chapman Welding

3104 55A Ave Lloydminster AB T9V 1S6 **Phone:** (780) 875-7539

**Grit Industries Inc** 

PO Box 10448 Lloydminster AB T9V 3A5 **Phone:** (780) 875-5577 **www.gritindustries.com** 

**Guthrie Mechanical Services Ltd** 

9916 Manning Ave Fort McMurray AB T9H 2B9 **Phone:** (780) 715-0946

**Hirschfeld Industries** 

112 West 29 St San Angelo TX 76902 Phone: (325) 486-4784 www.hirschfeld.com

Hitachi Power Systems Canada Ltd

826 58 St E Saskatoon SK S7K 5Z4 **Phone:** (306) 242-9222 www.hitachi-hpsca.ca **Hotsy Water Blast Manufacturing LP** 

16712 118 Ave NW Edmonton AB T5V 1P7 **Phone:** (780) 451-4521 www.HotsyAB.com

**Hritzuk Peter Welding Ltd** 

PO Box 106 Tofield AB TOB 4J0 **Phone:** (780) 662-4664

ICI Artificial Lift Inc PO Box 21027

Lloydminster AB T9V 2S1 Phone: (780) 872-7470 www.icisolutions.ca

**Inproheat Industries Ltd** 

207-4999 43 St SE Calgary AB T2B 3N4 **Phone:** (403) 253-2228 **www.inproheat.com** 

JV Driver Projects Inc

212-3601 82 Ave Leduc AB T9E 0H7 **Phone:** (780) 980-5837 **www.jvdriver.com** 

Kinetic Process Systems

400-839 5 Ave SW Calgary AB T2P 3C8 **Phone:** (403) 258-1971

Koenders Manufacturing (1997) Ltd

PO Box 171 Englefeld SK SOK 1NO Phone: (877) 581-8877 www.koendersmfg.com

**KTI Corporation** 

11700 Katy Fwy Ste 150 Houston TX 77079 **Phone:** (281) 249-2455 **www.kticorp.com** 

Lemax Machine & Welding Ltd

175 MacDonald Cres Fort McMurray AB T9H 4B3 **Phone:** (780) 791-1445

Liebherr-Canada Ltd

208-53016 Hwy 60 Acheson AB T7X 5A7 **Phone:** (780) 962-6088 **www.liebherr.com** 

M H Welding Ltd

PO Box 6027 Bonnyville AB T9N 2G7 **Phone:** (780) 826-3906

Magnum Energy Services Ltd PO Box 5348

Bonnyville AB T9N 2G5 **Phone:** (780) 826-3092

www.magnumenergyservicesItd.com

**Maloney Industries** 

Radiolay Industries 8825 Shepard Rd SE Calgary AB T2C 4N9 Phone: (403) 279-5000 www.maloneyindustries.ca

MaXfield Inc

6235B 86 Ave SE Calgary AB T2C 2S4 **Phone:** (403) 258-3680 **www.maxfield.ca**  MaxxiMaT

2107 5 St Nisku AB T9E 7X4 **Phone:** (780) 979-6588 **www.maxximat.com** 

**Metal Fabricators & Welding Ltd** 

12509 124 St NW Edmonton AB T5L 0N6 **Phone:** (780) 455-2186 www.metalfab.ca

Metaltek Machining Ltd

PO Box 10433 Lloydminster AB T9V 3A5 **Phone:** (780) 875-6535 **www.metaltekmachining.com** 

Murland Projects Inc

PO Box 256 Lloydminster SK S9V 0Y2

Phone: (780) 871-4671

Nardei Fabricators Ltd

8915 44 St SE Calgary AB T2C 2P5 Phone: (403) 279-3301 www.nardei.com

NGC Product Solutions Ltd

110-3160 118 Ave SE Calgary AB T2Z 3X1 **Phone:** (403) 295-3114 **www.ngc-ps.com** 

**Noremac Industrial Coatings** 

PO Box 6231

Fort McMurray AB T9H 4W1 **Phone:** (780) 743-5968

**NorthWest Fabricators Ltd** 

4001 Elleffson St Athabasca AB T9S 1T7 Phone: (780) 675-4900 www.nwfltd.net

Orion Machining & Manufacturing Inc

8-6202 48 St Lloydminster AB T9V 2G2 **Phone:** (780) 875-1535 www.orionmachining.com

**Peerless Engineering Sales Ltd** 

7316 18 St NW Edmonton AB T6P 1N8 Phone: (780) 439-3322 www.peerlessengineering.com

Penfabco Ltd 5715 56 Ave NW

Edmonton AB T6B 3G3 Phone: (780) 434-0222 www.penfabco.com

Plainsman Mfg. Inc

8305 McIntyre Rd NW Edmonton AB T6E 5J7 Phone: (780) 496-9800 www.plainsmanmfg.com

Plamondon Welding Ltd PO Box 1192

Lac La Biche AB TOA 2C0 **Phone:** (780) 623-2149

Porterco Oilfield Service Inc 5B Parkdale Way

Slave Lake AB TOG 2A0 **Phone:** (780) 805-4000

Powell Canada Inc

6005 72A Ave NW Edmonton AB T6B 2J1 Phone: (780) 465-7038 www.powellind.ca

Propak Systems Ltd

440 East Lake Rd Airdrie AB T4A 2J8 Phone: (403) 912-7000 www.propakenergy.com

PSC Cleaning Systems Inc

27 3300 Steeles Ave W Concord ON L4K 2Y4 **Phone:** (905) 761-7733 **www.pscclean.com** 

PWM Steel Services Ltd

6300 59 Ave Lloydminster AB **Phone:** (780) 875-3167

R & R Stress Relieving Service Ltd

2103 6 St Nisku AB T9E 7X8 **Phone:** (780) 955-7559 **www.rrstress.com** 

Riverside Machine & Welding Ltd

5111 58 St Athabasca AB T9S 1S6 **Phone:** (780) 675-2048

Sabre Machining Ltd PO Box 10717

Lloydminster AB T9V 3A7 **Phone:** (780) 875-4780 **www.sabremachining.com** 

S.C.K. Welding Ltd

Site 1 Box 67 RR 2 Tofield AB TOB 4J0 **Phone:** (780) 662-3733

Shaw Cat & Equipment Ltd

PO Box 3354 Wainwright AB T9W 1T3 **Phone:** (780) 842-2195

Sinclair Welding PO Box 454

St Paul AB TOA 3A0 Phone: (780) 645-5242 Sorge's Welding Ltd

PO Box 5768 Stn Main Fort McMurray AB T9H 4V9 Phone: (780) 743-9739 www.ace-ind.com

Standard Machine Ltd/Hamilton Gear

868 60 St E Saskatoon SK S7K 8G8 **Phone:** (306) 931-3343

www.standardmachine.ca

Strad Energy Services-Manufacturing 602 25 Ave Nisku AB T9E 7N6 Phone: (780) 955-9393 www.stradenergy.com

Streamline Services Ltd

PO Box 69069 RPO Skyview Edmonton AB T6V 1G7 **Phone:** (780) 488-2287

Supreme Steel Ltd 10457 184 St NW

Edmonton AB T5S 1G1
Phone: (780) 483-3278
www.supremesteel.com

**Terry's Welding** 

5204 54 Ave

Bonnyville AB T9N 2E1 **Phone:** (780) 826-2158

**TIW WESTERN Inc** 

7770 44 St SE Calgary AB T2C 2L5 **Phone:** (403) 279-8310 **www.tiwwestern.com** 

**Tomco Production Services Ltd** 

PO Box 7062 Bonnyville AB T9N 2H4

**Phone:** (780) 826-2522

Triangle Machine Shop

PO Box 2061 High Prairie AB TOG 1E0 **Phone:** (780) 523-2479

**Ultimate Sandblasting & Painting Ltd** 

PO Box 183 Stn Main Lloydminster AB T9V 0N9 **Phone:** (780) 875-5574

**United Fabrication & Welding Ltd** 

4603 57 Ave Two Hills AB TOB 4K0 **Phone:** (780) 657-2509 **www.unitedfab.ca** 

VaporTech Energy Services Inc

20711 107 Ave NW Edmonton AB T5S 1W5 Phone: (800) 485-7175 www.vaportechinc.com

Wabash Mfg Inc

9312 110A St Westlock AB T7P 2M4 **Phone:** (780) 349-4282 www.wabash.ca

**Waiward Steel Fabricators Ltd** 

10030 34 St NW Edmonton AB T6B 2Y5 **Phone:** (780) 469-1258 **www.waiward.com** 

**Westech Industrial Ltd** 

5636 Burbank Cres SE Calgary AB T2H 1Z6 Phone: (403) 252-8803 www.westech-ind.com

Westech Vac Systems

1002 15 Ave Nisku AB T9E 7S5 **Phone:** (780) 955-3030 www.westechyac.com

Western Truck Body Mfg

6115 30 St NW Edmonton AB T6P 1J8 Phone: (780) 466-8065 www.westerntruckbody.com

**Whitemud Ironworks Group Inc** 

300-8170 50 St NW Edmonton AB T6B 1E6 **Phone:** (780) 701-3295 **www.whitemud.com** 

(WWL) Weaver Welding Ltd

7501 107 Ave Peace River AB T8S 1M6 **Phone:** (780) 618-7522 **www.weaverwelding.ca**  ZCL Composites Inc

1420 Parsons Rd SW Edmonton AB T6X 1M5 Phone: (780) 466-6648 www.zcl.com

Pipeline Products & Services

A H McElroy Sales & Service (Canada) Ltd

9310 Yellowhead Trl NW Edmonton AB Phone: (780) 454-0638 www.ahmcelroy.com

Access Pipeline Inc

1510-540 5 Ave SW Calgary AB T2P 0M2 **Phone:** (403) 264-6514 **www.accesspipeline.com** 

Alberta Line Find Inc

440 Aquaduct Dr Brooks AB T1R 1C4 Phone: (403) 793-2800 www.linefind.com

**ATCO Pipelines** 

1200-909 11 Ave SW Calgary AB T2R 1L8 **Phone:** (403) 245-7060 **www.atcopipelines.com** 

**Baker Hughes** 

5816 50 Ave Bonnyville AB T9N 2N6 **Phone:** (780) 826-3409 **www.bakerhughes.com** 

**Bandit Pipeline** 

PO Box 12248 Lloydminster AB T9V 3C5 Phone: (780) 875-8764 www.banditpipeline.com

Bayou Perma-Pipe Canada Ltd

104-221 18 St SE Calgary AB T2E 6J5 **Phone:** (403) 264-4880 **www.bayoupermapipe.com** 

Bendtec Inc 366 Garfield Ave

Duluth MN 55802 **Phone:** (218) 722-0205

Beretta Pipeline Construction Ltd PO Box 21042 RPO Lloydmall

PO Box 21042 RPO Lloydmall Lloydminster AB T9V 2S1 **Phone:** (780) 875-6522

**BJ Process & Pipeline Services** 

9010 34 St NW Edmonton AB T6B 2V1 Phone: (780) 465-6495 www.bjservices.com

Brenntag Canada Inc

1900-777 8 Ave SW Calgary AB T2P 3R5 **Phone:** (403) 263-8660 **www.brenntag.ca** 

**Burvn Construction** 

PO Box 651 Redwater AB TOA 2W0 **Phone:** (780) 942-3635 **CIDRA Oilsands Ltd** 

50 Barnes Park N Wallingford CT 06492 **Phone:** (203) 265-0035 **www.cidra.com** 

Clean Harbors

Box 1038-5301 57 Ave Grimshaw AB TOH 1W0 Phone: (780) 332-1330 www.cleanharbors.com

Comco Pipe & Supply Ltd

300 MacDonald Cres Fort McMurray AB T9H 4B6 **Phone:** (780) 743-3404

**Crane Supply Inc** 

324 58 Ave SE Calgary AB T2H 0P2 **Phone:** (403) 252-7811 www.cranesupply.com

**Deer Creek Oilfield Services** 

PO Box 265

Bruderheim AB TOB 0S0 **Phone:** (780) 446-6972

**Doran Stewart Oilfield Services** 

PO Box 1750

Rocky Mountain House AB T4T 1B3 Phone: (403) 845-4044 www.doranstewart.com

Edgen Murray Canada

8440 Roper Rd NW Edmonton AB T6E 6W4 **Phone:** (780) 440-1475

**Enbridge Inc** 

3000-425 1 St SW Calgary AB T2P 3L8 **Phone:** (403) 231-5768 **www.enbridgetechnology.com** 

Evraz Inc NA Canada 400-505 3 St SW

400-505 3 St SW Calgary AB T2P 3E6 Phone: (403) 543-8000 www.evrazna.com

**Exact Oilfield Developing Ltd** 

PO Box 755 Slave Lake AB TOG 2A0 Phone: (780) 849-2211 www.exactoilfield.com

Flexpipe Systems

3501 54 Ave SE Calgary AB T2C 0A9 Phone: (403) 503-0548 www.flexpipesystems.com

FlexSteel Pipeline Technologies Inc

500-500 Dallas Street Houston TX 77002 **Phone:** (832) 531-8555

Fullkote Pipeline Services (1996) Ltd

4873 46 St Lacombe AB T4L 2B2 **Phone:** (403) 782-3176 **www.fullkote.com** 

**Global Fusion Coating Inc** 1710 18 St

Wainwright AB T9W 1L2
Phone: (780) 842-6860
www.globalfusioncoating.com

Global Steel Ltd

401-888 4 Ave SW Calgary AB T2P 0V2 **Phone:** (403) 237-8108 **www.globalsteel.ca** 

**Hefei Ziking Steel Pipe Inc** 

1200 W 73 Ave Vancouver BC V6P 6G5 **Phone:** (604) 638-2716

Hex-Hut Shelter Systems Ltd

120-2719 7 Ave NE Calgary AB T2A 2L9 Phone: (403) 293-7333 www.hex-hut.com

Hy-Pro Plastics Inc 2628 58 Ave SE Calgary AB T2C 1G5 Phone: (403) 263-4373 www.hyproplastics.com

IR Corrosion Control Ltd

37 Camelot Ave Leduc AB T9E 4L7 **Phone:** (780) 986-5553

**Jim Houlder Construction** 

PO Box 560 Grimshaw AB TOH 1W0 **Phone:** (780) 332-4691 www.houlderconstruction.com

Kinder Morgan Canada Inc 2700-300 5 Ave SW Calgary AB T2P 5J2

Calgary AB T2P 5J2

Phone: (403) 514-6400

www.kindermorgan.com

**Kool Welding Ltd** 

PO Box 64 St Brides AB TOA 2YO **Phone:** (780) 645-2388

**Krantz Contracting Ltd** 

PO Box 728 Manning AB TOH 2M0 Phone: (780) 836-2830 www.kclcontracting.ca

**Lincoln County Oilfield Services Ltd** 

1-3603 53 St Athabasca AB T9S 1A9 **Phone:** (780) 675-9613 **www.lcos.ca** 

**Line Finders Ltd** 

PO Box 147 Marshall SK SOM 1R0 **Phone:** (306) 387-6264

**LTD Oilfield Services Inc** 

PO Box 859 Redwater AB TOA 2W0 Phone: (780) 942-4484 www.ltdoil.com

Maverick Oilfield Services Ltd PO Box 597

Provost AB TOB 3S0 **Phone:** (780) 753-2992 **www.mavoil.com** 

**Mistras Group Inc** 

195 Clarksville Rd Princeton Jct NJ 08550 **Phone:** (609) 716-4038

**North American Construction Group** 

2-53016 Hwy 60 Acheson AB T7X 5A7 **Phone:** (780) 960-7171 **www.nacg.ca**  **O.J. Pipelines Canada** 1409 4 St

Nisku AB T9E 7M9 Phone: (780) 955-3900 www.ojpipelines.com

**Pinpoint Locating & Hydrovac Service** 

PO Box 1642 Athabasca AB T9S 2B4 Phone: (780) 675-5228

**Pipetech Corporation Ltd** 

3311 114 Ave SE Calgary AB T2Z 3X2 Phone: (403) 287-3558 www.pipetechcorp.com

**Pro Line Locators Ltd** 5108 27 St

Lloydminster AB T9V 2K9 Phone: (780) 808-8393

**Proline Pipe Equipment Inc** 

7141 67 St NW Edmonton AB T6B 3L7 Phone: (780) 465-6161 www.proline-global.com

**Red Flame Industries** 

6736 71 St Red Deer AB T4P 3Y7 Phone: (403) 343-2012 www.redflame.ca

**Round Pipeline Inspection &** Consulting Ltd

PO Box 5716 Stn Main Lacombe AB T4L 1X3 Phone: (780) 782-3623

Saddle Tech, Inc.

4015 53 St Athabasca AB T9S 1A7 Phone: (780) 675-5661 www.saddletech.ca

**Santec Tool Services Ltd** 

5209 63 St Lloydminster AB **Phone:** (780) 875-1216

**Sharp Underground** 

1808 19 Ave Wainwright AB T9W 1L2 **Phone:** (780) 842-3336 www.sharpunderground.com

**Shaw Pipe Protection Ltd** 

3200-450 1 St SW Calgary AB T2P 5H1 **Phone:** (403) 263-2255 www.shawpipe.ca

**ShawCor CSI Services** 

1607 10 St Nisku AB T9E 7X3 Phone: (780) 955-2856 www.shawcorcsi.com

**Specialty Polymer Coatings Inc** 104-20529 62 Ave

Langley BC V3A 8R4 Phone: (604) 514-9711 www.spc-net.com

**Summit Tubulars Corp** 

2400-350 7 Ave SW Calgary AB T2P 3N9 **Phone:** (403) 232-6066 www.summit-tubulars.com **Tartan Industrial Contractors Ltd** PO Box 9

Redwater AB TOA 2WO Phone: (780) 942-3802 www.tartan.ca

T.D. Williamson Canada ULC

9503 28 Ave NW Edmonton AB T6N 0A3 Phone: (780) 440-6637 www.tdwilliamson.com

TransCanada PipeLines Ltd 450 1 St SW

Calgary AB T2P 5H1 Phone: (403) 920-2000 www.transcanada.com

**Triple D Bending** 

4707 Glenmore Trl SE Calgary AB T2C 2R9 Phone: (403) 255-2944 www.pipebending.com

Viking Power Dozer Ltd

PO Box 204 Viking AB TOB 4N0 **Phone:** (780) 336-3032 www.powerdozer.com

**Wachs Canada Ltd** 

5411 82 Ave NW Edmonton AB T6B 2J6 Phone: (780) 469-6402 www.ehwachs.com

**Waschuk Equipment Rentals** 

PO Box 5003 Red Deer AB T4N 6A1 Phone: (403) 342-2447 www.waschukpipeline.com

**Willbros Canada** 

261 Seneca Rd Sherwood Park AB T8A 4G6 Phone: (780) 400-4200 www.willbroscanada.com

**Wolseley Engineered Pipe Alberta** 

3780 98 St Edmonton AB T6E 6B4 Phone: (780) 461-9400 www.hdpe.ca

**Production Products & Services** 

**A-Fire Burner Systems** 

5508 59 Ave Lloydminster AB T9V 3A8 Phone: (780) 875-0672 www.a-fire.ca

Alstom Group Canada Inc

3122 114 Ave SE Calgary AB T2Z 3V6 **Phone:** (403) 236-3389 www.alstom.com

**Altex Industries Inc** 

6831 42 St NW Edmonton AB T6B 2X1 Phone: (780) 468-6862 www.altexindustriesinc.com

A-1 Oilfield Services

PO Box 6469 Bonnyville AB T9N 2H1 Phone: (780) 826-7763

**Apex Equipment Ltd** 116-5726 Burleigh Cres SE Calgary AB T2H 1Z8 Phone: (403) 214-2049 www.apexequipmentItd.com

Argo Sales Ltd

1300-717 7 Ave SW Calgary AB T2P 0Z3 **Phone:** (403) 265-6633 www.argosales.com

**Armour Valve Ltd** 

6-2221 41 Ave NE Calgary AB T2E 6P2 Phone: (403) 229-3171 www.armourvalve.com

**Baker Hughes Canada Company** 

1000-401 9 Ave SW Calgary AB T2P 3C5 Phone: (403) 537-3400 www.bakerhughes.com

**Baytex Energy Corp** 

2800-520 3 Ave SW Calgary AB T2P OR3 **Phone:** (403) 269-4282 www.baytex.ab.ca

**Beartrax Pumpjack Services Inc** 

PO Box 2465 Slave Lake AB TOG 2A0 Phone: (780) 849-3388

Bornemann Inc

310-441 5 Ave SW Calgary AB T2P 2V1 Phone: (403) 294-0777 www.bornemann.com

**Braiker Oilfield Services Ltd** 5214 62 St

Lloydminster AB T9V 2E4 Phone: (780) 808-2999

**Bucyrus Canada Limited** 

18131 118 Ave NW Edmonton AB T5J 2L9 Phone: (780) 454-9000 www.bucyrus.com

Canada Pump & Power

53113 Rg Rd 211 Ardrossan AB T8G 2C5 Phone: (877) 898-3494 www.mightypumps.com

Canadian Advanced ESP Inc 5307 72A Ave NW

Edmonton AB T6B 2J1 Phone: (780) 469-0770 www.cai-esp.com

**Canadian Dewatering LP** 

8350 1 St NW Edmonton AB T6P 1X2 Phone: (780) 400-2260 www.canadiandewatering.com

**Canitron Systems Inc** 220 Pump Hill Rise SW

Calgary AB T2V 4C8 **Phone:** (403) 259-8732

**Canwell Enviro-Industries Ltd** 600-540 5 Ave SW

Calgary AB T2P 0M2 Phone: (403) 290-1331 www.canwell.com

**Caradan Chemicals Inc** 

1914 19 Ave Wainwright AB T9W 1L2 Phone: (780) 955-3050 www.caradanchemicals.com

**CCI Thermal Technologies Inc** 

5918 Roper Rd NW Edmonton AB T6B 3E1 Phone: (780) 466-3178 www.ccithermal.com

Chamco Industries Ltd

8900 Venture Ave SE Calgary AB T3S 0A2 Phone: (403) 777-1206 www.chamco.com

**CHEP Catalyst & Chemical Containers** 

5106 51 St

Llovdminster AB T9C 0P4 **Phone:** (780) 875-3271 www.chep.com

Christie Corrosion Control (1983) Ltd

PO Box 1458

Lloydminster AB T9V 1K4 Phone: (780) 875-6559 www.christiecorrosion.com

Cougar Pump Supply & Service Ltd 1802 1 Ave

Wainwright AB T9W 1L7 Phone: (780) 842-6710

**Commercial Truck Equipment Corp** 

11199 48 St SE Calgary AB T2C 5N4 Phone: (403) 253-6421 www.dancoequipment.com

E S Fox Ltd

9805 51 Ave NW Edmonton AB T6E 4W8 Phone: (780) 434-9475 www.esfox.com

**Electric Motor Service Limited** 

201 MacKay Cres Fort McMurray AB T9H 4T5 **Phone:** (780) 790-9550 www.emsl.ca

**Ensol Systems Inc** 

2-5550 Panorama Dr Surrey BC V3S 1B7 **Phone:** (604) 576-8333 www.ensolsystems.com

**Express Integrated Technologies** 

Canada

611-550 11 Ave SW Calgary AB T2R 1M7 Phone: (403) 263-1016 www.ExpressTechTulsa.com

Fleetwood Air Equipment Ltd

5622 76 Ave NW Edmonton AB T6B 0A6 Phone: (780) 432-1616 www.fleetair.ca

**FMC Technologies** 

1000-333 11 Ave SW Calgary AB T2R 1L9 Phone: (403) 262-4000 www.pure-energy.ca

**Gas Drive** 

4700 47 St SE Calgary AB T2B 3R1 Phone: (403) 387-6300 www.gasdriveglobal.com **Gateway Compression Inc** 

10-11 Rowland Cres St Albert AB T8N 5B3 **Phone:** (780) 458-1770 www.gatewaycompress.com

**GE Oil & Gas Artificial Lift** 

3500-525 8 Ave SW Calgary AB T2P 1G1 **Phone:** (403) 263-7166 www.geoilandgas.com

**GEA Mechanical Equipment** Canada Inc

835 Harrington Crt Burlington ON L7N 3P3 Phone: (289) 288-5511 www.gea-westfalia.ca

**GIW Industries** 

500 Wrightsboro Rd Grovetown GA 30813-2842 Phone: (706) 863-1011 www.giwindustries.com

**Grenco Energy Services Inc** 

3710 78 Ave NW Edmonton AB T6B 3E5

Phone: (780) 468-2000 www.grenco.com

**Grithog Sand Control Systems Ltd** 

PO Box 11698 Lloydminster AB T9V 3B9 **Phone:** (780) 875-2741 www.grithog.com

Guest Controls (2001) Ltd

6320 63 Ave

Lloydminster AB T9V 3A1 Phone: (780) 875-5822 www.guestcontrols.com

Halliburton 1600-645 7 Ave SW Calgary AB T2P 4G8 **Phone:** (403) 231-9300 www.halliburton.com

**HC Starck North American Trading LLC** 

45 Industrial PI Newton MA 02461-1951 Phone: (617) 630-5800

Hiltap Fittings Ltd

1-3140 14 Ave NE Calgary AB T2A 6J4 **Phone:** (403) 250-2986 www.hiltap.com

**Holyoke Contracting Ltd** 

PO Box 7284 Bonnyville AB T9N 2H6 Phone: (780) 826-7626

**Hot Tools** 

6014 52 Ave Lloydminster AB T9V 2S8 Phone: (780) 875-2468 www.2hottools.ca

**ICS Group Inc** 

8124 Manning Ave Fort McMurray AB T9H 1V7 **Phone:** (780) 791-4484 www.icsgroup.ca

**ITW Devcon** 

30 Endicott St Danvers MA 01923 Phone: (978) 646-5876 **Kema Enterprizes** 

PO Box 769 Redwater AB TOA 2W0 Phone: (780) 736-2232

**Kenilworth Combustion Ltd** 

PO Box 12118 Lloydminster AB T9V 3C4 **Phone:** (780) 744-3974 www.kenilworth.ca

Klaus Enterprises Ltd 123 Cree Rd

Sherwood Park AB T8A 3X9

Phone: (780) 467-7823

Krupp Canada Inc

405-1177 11 Ave SW Calgary AB T2R 1K9 Phone: (403) 245-2866 www.krupp.ca

**Lufkin Industries Canada Ltd** 

3400-525 8 Ave SW Calgary AB T2P 1G1 Phone: (403) 234-7692 www.lufkin.com

**Marking Services Canada Ltd** 

3902 81 Ave Leduc AB T9E 0C3 **Phone:** (780) 986-8480 www.markserv.com

**Mosquito Enterprises** 

3828 63A Ave Close Lloydminster AB T9V 3G5 **Phone:** (780) 871-4221

**Nalco Canada Energy Services** 

180-3553 31 St NW Calgary AB T2L 2K7 **Phone:** (403) 284-6275 www.nalco.com

**Nalco Champion** 

2200-144 4 Ave SW Calgary AB T2P 3N4 Phone: (403) 269-3016 www.nalcochampion.com

**National Process Equipment** 

5-3401 19 St NE Calgary AB T2E 6S8 Phone: (403) 219-0270 www.natpro.com

**NETZSCH Canada Inc** 

51 Douglas Bank Dr SE Calgary AB T2Z 2B6 Phone: (403) 990-7950 www.netzsch.ca

**Northern Industrial Insulation Contractors Inc** 

18910 111 Ave NW Edmonton AB T5S 0B6 Phone: (780) 483-1850 www.northern-insulation.ca

Oil Lift Technology Inc

37-19 Aero Dr NE Calgary AB T2E 8Z9 Phone: (403) 291-5300

www.npsdover.com/oillifttechnology

**Oilflow Solutions Inc** 

840-355 4 Ave SW Calgary AB T2M 4E2 Phone: (403) 648-4959 www.oilflowsolutions.com P & H MinePro Services of Canada

10-2256 29 St NE Calgary AB T1Y 7G4 Phone: (403) 730-9851 www.minepro.com

**Prime Pump Industries** 

550-407 2 St SW Calgary AB T2P 2Y3 Phone: (403) 234-7033

**ProMinent Fluid Controls Ltd** 

490 Southgate Dr Guelph ON N1G 4P5 Phone: (519) 780-3006 www.prominent.ca

**Pro-Rod Coiled Rod Solutions** 

3201 84 Ave NW Edmonton AB T6P 1K1 **Phone:** (780) 449-7101 www.prorod.com

**Quadrise Canada Fuel Systems Inc** 

2-4816 35B St SE Calgary AB T2B 3N1 Phone: (403) 290-1100 www.quadrisecanada.com

**Quinn Pumps** 

PO Box 846 Stn Postal Box Ctr Red Deer AB T4N 5H2 Phone: (403) 347-1128 www.quinnpumps.com

RamEx Exchanger Inc

253-54150 Rge Rd 224 Fort Saskatchewan AB T8L 3Y5 Phone: (780) 992-8333 www.ramex.ca

**Rivard Enterprises Ltd** 

155 MacLean Rd Fort McMurray AB T9H 4X2 Phone: (780) 743-3003

**RJV Gas Field Services** 

4901 Bruce Rd Vegreville AB T9C 1C3 Phone: (780) 632-7774 www.terravestindustries.com

**Robbins & Myers** 

10586 US Hwy 75 N Willis TX 77378-5715 Phone: (936) 890-1064

**Rocanda Enterprises Ltd** 

1352 Victor Ave Mississauga ON L5G 3A3 Phone: (647) 208-3987 www.rocanda.com

**Sandale Utility Products** 

4435 90 Ave SE Calgary AB T2C 2S6 Phone: (403) 663-2101 www.sandale.ca

**Seven Lakes Oilfield Services Corp** 

PO Box 779 Cold Lake AB T9M 1P2 Phone: (780) 594-1630

**Shaw Pipe** 

3200-450 1 S SW Calgary AB T2P 5H1 Phone: (403) 263-2255 www.shawpipe.ca

**SlurryFlo Valve Corp** 

5304 68 Ave NW Edmonton AB T6B 3M4 Phone: (780) 468-6945 www.slurryflo.com

**Smith-Cameron Pump Solutions** 

4312 76 St NW Edmonton AB T6B 2H8 Phone: (780) 432-6202 www.smithcameron.com

**StonCor Group** 

95 Sunray St Whitby ON L1N 9C9 **Phone:** (800) 263-3112 www.stoncor.ca

**Summit Valve & Controls Inc** 

5304 68 Ave NW Edmonton AB T6B 3M4 Phone: (780) 468-6900 www.summitvalve.com

**Talmek Energy Services Ltd** 

PO Box 1152 Slave Lake AB TOG 2A0 Phone: (780) 849-6844

**Texacana Turbines Inc** 

6132 46 St SE Calgary AB T2C 4X4 Phone: (403) 720-8080 www.texacanaturbines.com

Tex-Fin Inc

19115 Aldine Westfield Rd Houston TX 77073 Phone: (281) 821-7150

The Pickford Group Ltd

30-3250 51 Ave NW Edmonton AB T6P 0E1 Phone: (780) 469-6002 www.pickford.com

Thermex Engineered Systems Inc

2234 Carpenter St Abbotsford BC V2T 6B4 Phone: (604) 859-4351 www.thermex-systems.com

Thermo Design Engineering Ltd

300-400 5 Ave SW Calgary AB T2P 0L6 Phone: (403) 269-3724 www.thermodesign.com

**Thermon Canada Inc** 8734 51 Ave NW

Edmonton AB T6E 5E8 Phone: (780) 437-6326 www.thermon.com

**Tracerco Process Diagnostics** 

8908 60 Ave NW Edmonton AB T6E 6A6 Phone: (780) 469-0055 www.tracerco.com

**Universal Industries** 

5014 65 St Lloydminster AB T9V 2K2 Phone: (780) 875-6161 www.uic.ca

**Wajax Equipment** 

17604 105 Ave NW Edmonton AB T5S 1G4 Phone: (780) 483-6641 www.waiaxequipment.com Weir Minerals Canada

2715 18 St NF Calgary AB T2E 7E6 Phone: (403) 250-7000

#### **Westcomm Pump & Equipment Ltd**

2-3424 26 St NE Calgary AB T2E 7A4 Phone: (403) 215-7867 www.westcommpump.com

#### Wild Rows Pump & Compression Ltd 5901 63 Ave

Lloydminster AB T9V 3C1 **Phone:** (780) 875-0650 www.wildrowspump.com

### Zazula Process Equipment Ltd

4609 Manitoba Rd SE Calgary AB T2G 4B9 **Phone:** (403) 244-0751 www zazula com

#### ZIRCO (1989) Ltd

5614A Burbank Rd SE Calgary AB T2H 1Z4 Phone: (403) 259-3303 www.zirco.com

#### **Rig-Moving**

#### **Allnite Trucking Ltd**

PO Box 99 Boyle AB TOA OMO Phone: (780) 689-2121 www.allnitetrucking.com

#### **Calnash Trucking Ltd**

1 Parker Rd Lac La Biche AB TOA 2CO Phone: (780) 623-4817

#### **ENTREC Corporation**

PO Box 5476 Stn M Fort McMurray AB T9H 3G5 **Phone:** (780) 790-0279 www.entrec.com

#### **ENTREC Corporation**

235132 84 St SE Calgary AB T1X OK1 Phone: (403) 777-1644 www.entrec.com

#### H & E Oilfield Services Ltd

2202 1 Ave Wainwright AB T9W 1L7 **Phone:** (780) 842-6444 www.heoil.com

#### **Mammoet Canada Western Ltd**

12920 33 St NF Edmonton AB T6S 1H6 Phone: (780) 449-0552 www.mammoet.com

#### **Marvin Sheehan Services - MSS**

5902 57 Ave Grimshaw AR Phone: (780) 332-4777 www.msstrucking.com

#### **Mullen Trucking Inc**

PO Box 87 Aldersyde AB TOL OAO **Phone:** (403) 652-8888 www.mullentrucking.com

#### **Premay Equipment Ltd**

11310 215 St NW Edmonton AB T5S 2B5 Phone: (780) 447-5555 www.premay.com

Singer Specialized 235132 84 St SE Calgary AB T1X 0K1 Phone: (403) 569-8605 www.entrec.com

700-300 5 Ave SW Calgary AB T2P 3C4 **Phone:** (403) 218-7100 www.flintenergv.com

#### **Safety Products & Services**

#### **Aeromedical Industrial Services**

10713 95 St High Level AB TOH 1ZO Phone: (780) 926-2166 www.aeromedical.ca

#### Alberta Health Services EMS

Peace River AB Phone: (780) 624-3375

#### Alberta Traffic Supply Ltd

9015 14 St NW Edmonton AB T6P 0C9 Phone: (780) 440-4114 www.atstrafficgroup.com

#### **Ansell Canada Inc**

105 rue Lauder Cowansville QC J2K 2K8 Phone: (450) 266-1850 www.ansellcanada.ca

#### Arctic Response Canada Ltd

203-23033 Wve Rd Sherwood Park AB T8B 1H9 Phone: (780) 570-5600 www.arcticresponse.ca

#### **ASTEC Safety Inc**

2602 50 Ave Lloydminster AB T9V 2S3 Phone: (780) 875-0331 www.astecsafetv.com

#### **Atco Energy Sense**

400-909 11 Ave SW Calgary AB T2R 1L8 Phone: (403) 310-7283

#### Athabasca Fire & Safety Inc

PO Box 3003 Athabasca AB T9S 2B9 Phone: (780) 675-5572

#### **Audits & Safety Services**

9420 85 Ave Peace River AB T8S 1G2 **Phone:** (780) 624-0615

### www.peaceriversafetytraining.com

### **Bigstone Industrial Medical Services**

PO Box 1080 Wahasca AB TOG 2KO Phone: (780) 891-0973 www.bigstonehealth.ca

#### **Bonnyville Municipal Ambulance**

PO Box 6827 Bonnyville AB T9N 2H3 Phone: (780) 826-6224 www.bonnvvilleems.ca

#### **Bootie Butler (Protexer)**

3925 Papermill Dr Knoxville TN 37909 Phone: (865) 670-1085

#### **Bulwark Protective Apparel Ltd**

9146 Yellowhead Trl NW Edmonton AB T5B 1G2 Phone: (780) 479-4444 www.bulwark.com

#### **Bumper To Bumper**

PO Box 510 High Prairie AB TOG 1E0 Phone: (780) 523-4521

#### BW Technologies by Honeywell

2840 2 Ave SE Calgary AB T2A 7X9 Phone: (403) 248-9226 www.gasmonitors.com

#### Canadian Linen & Uniform Service

8631 Stadium Rd NW Edmonton AB T5H 3W9 Phone: (780) 665-3905 www.canadianuniform.com

#### **CannAmm Occupational Testing** Services

150-4808 87 St NW Edmonton AB T6E 5W3 Phone: (800) 440-0023 www.cannamm.com

#### Cansafe Inc

3-4720 50 St Llovdminster SK S9V 0M7 **Phone:** (306) 825-8845 www.cansafesafetv.com

#### **Checkers Industrial Safety Products**

620 Compton St Broomfield CO 80020 Phone: (720) 890-1187

#### **Community Futures Lesser Slave Lake** Region

PO Box 2100 Slave Lake AB TOG 2A0 **Phone:** (780) 849-3232 www.cflsl.com

#### ComplyWorks Ltd

235 17 Ave SE Calgary AB T2G 1H5 Phone: (403) 219-4792 www.complyworks.com

#### CTS Industries Ltd

4530 101 St NW Edmonton AB T6E 5G9 Phone: (780) 465-9645 www.cts-industries.com

#### **D C Safety and Welding Supplies**

621 Main St NF Slave Lake AB TOG 2A2 Phone: (780) 849-9898

#### Dino Holdings Inc (o/a In-Spec)

PO Box 149 Smoky Lake AB TOA 3CO Phone: (780) 656-0101

#### ElectroGas Monitors Ltd

1-7961 49 Ave Red Deer AB T4P 2V5 Phone: (403) 341-6167 www.electrogasmonitors.com

### Fire Power Oilfield Firefighting Ltd

400-635 6 Ave SW Calgary AB T2P 0T5 Phone: (403) 233-7904 www.firepower.ca

#### **Firemaster Oilfield Services Inc**

4728 78A St Close Red Deer AB T4P 2J2 Phone: (403) 342-7500 www.firemaster.ca

#### Geroline Inc

18-2275 Regional Rd 20 Pelham ON L3B 5N5 Phone: (905) 380-3697

#### **Goodfish Lake Development** Corporation

PO Box 273

Goodfish Lake AB TOA 1RO Phone: (780) 636-2863 www.gfldc.ca

#### **Government of Alberta Apprenticeship** & Industry Training

7-9915 Franklin Ave Fort McMurray AB T9H 2K4 Phone: (780) 743-7150 www.tradesecrets.gov.ab.ca

#### **Harsco Infrastructure**

7030 51 Ave NW Edmonton AB T6B 2P4 Phone: (780) 468-3292 www.harsco-i.com

#### **Honey Well Safety Products**

6303 Roper Rd NW Edmonton AB T6B 3G6 Phone: (780) 437-2641 www.northsafety.com

#### **Honeywell Analytics**

2840 2 Ave SE Calgary AB T2A 7X9 Phone: (403) 248-9226 www.honevwellanalytics.com

#### **Horizon Enterprises Inc**

170-22555 Twp Rd 530 Sherwood Park AB T8A 4T7 **Phone:** (780) 467-5149 www.horizoncanada.net

#### **HSE Integrated Ltd**

391 MacKenzie Blvd Fort McMurray AB T9H 5E2 Phone: (780) 715-2088 www.hseintegrated.com

#### **Imagewear**

9230 41 Ave NW Edmonton AB T6E 6R7 Phone: (780) 437-4887 www.imagewear.ca

#### **Industrial Life Support**

PO Box 1815 Slave Lake AB TOG 2A0 Phone: (780) 849-6787 www.industriallifesupport.com

#### **Industrial Paramedic Services Ltd**

100-630 4 Ave SW Calgary AB T2P 0J9 **Phone:** (403) 264-6435 www.ipsems.com

#### Just-In Case Fire Ltd

309-11979 40 St SE Calgary AB T2Z 4M3 Phone: (403) 243-9728 www.firecaddy.com

#### **Lea-Der Coatings**

PO Box 4086 Stn Main Spruce Grove AB T7X 3B3 Phone: (780) 962-5060 www.lea-der.com

Leeway Heavy Oil (1996) Ltd

4609 51 Ave Elk Point AB TOA 1A0 Phone: (780) 724-3026

**Levitt-Safety** 

9241 48 St NW Edmonton AB T6B 2R9 Phone: (780) 461-8088 www.levitt-safety.com

**Lloydminster Emergency Care Services** 4734 42 St

Lloydminster SK S9V 0E1 Phone: (306) 825-7077

MISAFETY

PO Box 1231 Nisku AB T9E 8A8 Phone: (780) 987-3465 www.misafety.ca

**Mobile Industrial Health Services** 

5-122 Millennium Dr Fort McMurray AB T9K 2S8 Phone: (780) 791-9898 Fax: (780) 791-9807 portal.mobilehealth.ca

**MSA Canada** 

222-5535 Eglinton Ave W Toronto ON M9C 5K5 Phone: (416) 620-4225 www.msasafetv.com

**Northern Factory Workwear** 

4006 50 Ave Llovdminster AB T9V 1B2 **Phone:** (780) 875-4800 www.factoryworkwear.ca

**Onvsty Environmental Services Ltd** PO Box 1212

Athabasca AB T9S 2B1 Phone: (780) 213-0133

Peace Safety & Environmental Training

PO Box 6215 Stn Main Peace River AB T8S 1S2 Phone: (780) 624-4886 www.peacesafety.ca

Pipe Oil Management

307-102 Cartier Rd Fort McMurray AB T9K 2L2 Phone: (780) 743-2038

Primco Dene (EMS) LP PO Box 2070

Cold Lake AB T9M 1P5 Phone: (780) 594-4034

www.primcodene.com

**Protective Clothing Supplies Ltd** 

7-8802 Franklin Ave Fort McMurray AB T9H 2J7 Phone: (780) 743-4055

RODA DEACO

3230 97 St NW Edmonton AB T6N 1K4 Phone: (780) 465-4429 www.rodadeaco.com

Safe-Net Safety Service 7-901 10 St

Cold Lake AB Phone: (780) 639-4156 www.safe-net.ca

SafeTech Consulting Group Ltd

12126 90 St NW Edmonton AB T5B 3Z3 Phone: (877) 455-4480 www.safetech.ca

Safety BOSS Inc

Bay 1-2501 Alyth Rd SE Calgary AB T2G 1P7 Phone: (800) 882-4967 www.safetyboss.com

Safety Builders Consulting Corp

2 Briarwood Way Stony Plain AB T7Z 2R4 **Phone:** (780) 963-5933 www.safetvbuilders.com

Safety Buzz

4401 52 Ave Bonnyville AB T9N 1B1 Phone: (780) 573-0311 www.safety-buzz.com

**Safety Direct Ltd** 

100-2210 Premier Way Sherwood Park AB T8H 2L3 Phone: (780) 464-7139 www.safetydirect.ca

**Safety First** 

218-307 Athabasca Ave Fort McMurray AB T9J 1G9 Phone: (780) 799-1416

Safety Link

PO Box 1016 Grimshaw AB TOH 1W0 Phone: (780) 332-2339

**Schram Crane & Rigging Ltd** 

165 Garnet Cres Wetaskiwin AB T9A 2S3 Phone: (780) 352-3199 www.schramcrane.ab.ca

Sign Language

Bay 2-6206 50 Ave Lloydminster AB T9V 2C9 **Phone:** (780) 875-7446 www.h2oil.ca

SimplexGrinnell

PO Box 4950 Fort McMurray AB T9H 3G2 Phone: (780) 790-1525 www.simplexgrinnell.com

Slave Lake Ambulance Service 309 6 St NE SS 2

Slave Lake AB TOG 2A2 Phone: (780) 849-4977

Slave Safety Supply Ltd

207 Caribou Trl Slave Lake AB TOG 2A0 Phone: (780) 849-4214

STARS (Shock Trauma Air Rescue Society)

1441 Aviation Park NE Calgary AB T2E 8M7 Phone: (403) 295-1811 www stars ca

**Sum Canada Enterprises Ltd** Fort McMurray AB

Phone: (780) 715-0815

**Superior Safety Ltd** 6025 50 Ave Bonnyville AB T9N 2L3 Phone: (780) 826-6031 www.superior-safety.ca **Target Safety Services Ltd** 5531 70 Ave

Lloydminster AB T9V 3A8

**Phone:** (780) 870-5350 www.targetsafety.ca

**Total Safety Services** 

104-3923 81 Ave Leduc AB T9E 8S6 **Phone:** (780) 612-0131 www.totalsafetv.com

**United Safety Ltd** 

125 East Lake Rd Airdrie AB T4A 2G1 Phone: (403) 912-3690 www.UnitedSafetv.net

**Wapose Medical Services Inc** 

PO Box 5414

Fort McMurray AB T9H 3G4 **Phone:** (780) 714-6654 www.waposeems.ca

Service Companies-**Integrated Services** 

ATCO Ltd

1400-909 11 Ave SW Calgary AB T2R 1N6 Phone: (403) 292-7438 Fax: (403) 292-7643 www.atco.com

**Baker Hughes Canada Company** 

1000-401 9 Ave SW Calgary AB T2P 3C5 Phone: (403) 537-3400 www.bakerhughes.com

**CEDA International** 2200-250 5 St SW

Calgary AB T2P 0R4 Phone: (403) 476-5600 www.cedagroup.com

**Commissioning Agents International** 

Canada, Ltd 3300-205 5 Ave SW Calgary AB T2P 2V7 **Phone:** (403) 538-5441

**ClearStream Energy Holdings** 

2112 Premier Way Sherwood Park AB T8H 2G4 Phone: (780) 410-9835 www.clearstreamenergv.ca

**Davis LLP** 

1201-10060 Jasper Ave NW Edmonton AB T5J 4E5 **Phone:** (780) 426-5330 www.davis.ca

**Ensign Drilling Partnership** 

1000-400 5 Ave SW Calgary AB T2P 0L6 Phone: (403) 262-1361 www.ensignenergy.com

**Exergy Engineers & Constructors Inc** 

308-1228 Kensington Rd NW Calgary AB T2N 3P7 **Phone:** (403) 670-0060 www.exergy.ca

**Ferus Inc** 

1220-401 9 Ave SW Calgary AB T2P 3C5 Phone: (403) 517-8777 www.ferus.ca

FourQuest Energy 8835 53 Ave NW Edmonton AB T6E 5E9 Phone: (780) 485-0690

www.fourquest.com

1430-7717 7 Ave SW Calgary AB T2P 0Z3 **Phone:** (403) 750-3450

www.genoil.ca

**Gibson Energy** 

1700-440 2 Ave SW Calgary AB T2P 5E9 **Phone:** (403) 206-4000 www.gibsons.com

Halliburton

1600-645 7 Ave SW Calgary AB T2P 4G8 Phone: (403) 231-9300 www.halliburton.com

Hydrodig

Bentley AB Phone: (403) 748-2110 www.hydrodig.com

**Integrated Production Services** 

1900-840 7 Ave SW Calgary AB T2P 3G2 Phone: (403) 266-0908 www.ipsadvantage.ca

Jacobs Canada Inc

100-205 Quarry Park Blvd SE Calgary AB T2C 3E7 Phone: (403) 258-6411 www.jacobs.com

**Kirby Hayes Incorporated** 5601 35 St

Lloydminster AB T9V 1S1 Phone: (780) 871-2555

www.kirbvhaves.com Kudu Industries Inc

1200-717 7 Ave SW Calgary AB T2P 0Z3 Phone: (403) 279-5838 www.kudupump.com

**McDaniel & Associates Consultants Ltd** 

2200-255 5 Ave SW Calgary AB T2P 3G6 **Phone:** (403) 262-5506 www mcdan com

McElhanney Land Surveys Ltd.

450-999 8 St SW Calgary AB T2R 1J5 Phone: (403) 245-4711 www.mcelhanney.com/mlsl

**Mikisew Group of Companies** 

8335 Roper Rd NW Edmonton AB T6E 6W2 Phone: (780) 490-0255 www.mikisewgroup.com

**Powell Canada Inc** 

6005 72A Ave NW Edmonton AB T6B 2J1 Phone: (780) 465-7038 www.powellind.ca

**Pro Energy** 

9-7459 Edgar Industrial Bend Red Deer AB Phone: (403) 347-7353

www.proenergy.ca

Proper Cat Construction Ltd.

PO Box 1521 Stn Main Lloydminster AB S9V 1K5 **Phone:** (780) 875-1865

**Pryatel's Ditching** 

PO Box 122 Lamont AB TOB 2R0 **Phone:** (780) 895-2072

#### **Roevin Engineering Recruitment**

900-10060 Jasper Ave NW Edmonton AB T5J 3R8 Phone: (780) 420-6232 www.roevin.ca

**Sanjel Corporation** 

200-505 2 St SW Calgary AB T2P 1N8 Phone: (403) 269-1420 www.sanjel.com

#### Saskatchewan Research Council (SRC)

121-15 Innovation Blvd Saskatoon SK S7N 2X8 Phone: (877) 772-7227 www.src.sk.ca/energy

#### Schlumberger Canada Limited

PO Box 6836 Stn D Calgary AB T2P 2E9 Phone: (403) 509-4000 www.slb.com

#### **Strad Energy Services-Matting**

1200-440 2 Ave SW Calgary AB T2P 5E9 Phone: (403) 232-6900 www.stradenergy.com

#### Sulzer Turbo Services Canada Ltd

5218 68 Ave NW Edmonton AB T6B 2X7 Phone: (780) 577-9200 www.sulzerts.com

#### Superior Industries Inc

PO Box 8427 Stn Main Cold Lake AB T9M 1N2 Phone: (780) 639-2849

#### Telus

411 1 St SE Calgary AB T2G 4Y5 Phone: (403) 530-4185 www.telus.com/energysector

2200 West Loop S Ste 800 Houston TX 77027 Phone: (713) 767-4400 www.tenaris.com

500-140 10 Ave SE Calgary AB T2G OR1 Phone: (403) 233-7565 www.tervita.com

#### **Titanium Corporation Inc**

1001-360 Bay St Toronto ON M5H 2V6 Phone: (416) 955-0715 www.titaniumcorporation.com

#### **Total Energy**

2 Hardscrabble Rd North Salem NY 10560 Phone: (914) 276-0490 www.totalenergy.com

#### **Trican Well Service**

2900-645 7 Ave SW Calgary AB T2P 4G8 Phone: (403) 266-0202 www.trican.ca

#### **Tridon Communications**

10017 Oueen St Fort McMurray AB T9H 4Y9 **Phone:** (780) 791-1002 www.tridon.com

#### Tristar Resource Management Ltd

800-815 8 Ave SW Calgary AB T2P 3P2 **Phone:** (403) 262-8595 www.tstar.ca

#### **URS Flint**

700-300 5 Ave SW Calgary AB T2P 3C4 **Phone:** (403) 218-7100 www.ursflint.com

#### **Vertex Resource Group Ltd**

121-2055 Premier Way Sherwood Park AB T8H 0G2 Phone: (780) 985-2213 www.vertex.ca

#### Weatherford Canada Partnership

1200-333 5 Ave SW Calgary AB T2P 3B6 Phone: (403) 693-7500 www.weatherford.com

#### **Specialty Services**

#### **Acuren Group Inc**

2-240 TaigaNova Cres Fort McMurray AB T9K 0T4 **Phone:** (780) 790-1776 www acuren com

#### **Advanced Pressure Testing Ltd**

4708 38 St Lloydminster SK S9V 0B1 Phone: (780) 871-4729

#### **Aggressive Steaming Ltd**

PO Box 375 Falher AB TOH 1M0 Phone: (780) 837-0962

#### **Alberta North Steamers**

PO Box 1127 Manning AB TOH 2M0 Phone: (780) 836-5542

#### Alcatel-Lucent

341-2116 27 Ave NE Calgary AB T2E 7A6 **Phone:** (403) 461-8032 www.alcatel-lucent.com

#### **ALS Environmental**

2559 29 St NE Calgary AB T1Y 7B5 Phone: (403) 291-9897 www.alsglobal.com

#### Altal ink

2611 3 Ave SE Calgary AB T2A 7W7 **Phone:** (403) 267-3400 www.altalink.ca

#### **Altus Geomatics Limited Partnership**

17327 106A Ave NW Edmonton AB T5S 1M7 Phone: (780) 481-3399 www.altusgeomatics.com

#### **APL Advanced Paramedic Limited**

PO Box 7320 Peace River AB T8S 1S9 Phone: (780) 624-4911 www.advancedparamedic.com

#### **Apollo-Clad Laser Cladding Ltd**

7609 39 St Leduc AB T9E 0B3 **Phone:** (780) 980-5231 www.apollomachine.com

#### **Asset Performance Canada**

1050-444 5 Ave SW Calgary AB T2P 2T8 Phone: (403) 457-2737 www.ap-canada.ca

#### ATCO Energy Solutions Ltd (AESL)

200-919 11 Ave SW Calgary AB T2R 1P3 Phone: (403) 513-3700 www.atcoenergysolutions.com

**ATCO Group** 500-909 11 Ave SW Calgary AB T2R 1N6 **Phone:** (403) 292-7550 www.atco.com

500-10035 105 St NW Edmonton AB T5J 1C8 Phone: (780) 420-7875 www.atcoitek.com

#### **Attack Energy Services Ltd**

PO Box 2674 High Prairie AB TOG 1E0 **Phone:** (780) 523-3302 www.attackenergy.ca

### Attack Hydrovac

PO Box 1166 Manning AB TOH 2M0 **Phone:** (780) 836-3609

#### AVEVA Canada

310-333 5 Ave SW Calgary AB T2P 0M2 **Phone:** (587) 233-0200 www.aveva.com

#### **AVG Consulting Services**

276 Cochrane Cres Fort McMurray AB T9K 1J4 Phone: (780) 791-0920

#### Badger Daylighting Inc

230B MacDonald Cres Fort McMurray AB T9H 4B4 Phone: (780) 743-9031 www.badgerinc.com

#### Bakos (N.D.T.) Inspection (1989) Ltd

PO Box 1832 Lac La Biche AB TOA 2CO Phone: (780) 623-1119

#### **Boss Pressure Services**

PO Box 923 Slave Lake AB TOG 2A0 Phone: (780) 849-8868

#### **Brother's Specialized Coating**

Systems Ltd 6150 76 Ave NW Edmonton AB T6B 0A6 Phone: (780) 440-2855 www.brotherscoating.com

#### **Bruin Instruments Corp**

9001 20 St NW Edmonton AB T6P 1K8 Phone: (780) 430-1777 www.bruinpumps.com

#### **Cancen Oil Processors Inc**

11464 149 St NW Edmonton AB T5M 1W7 Phone: (780) 941-2272

#### Carreau Oilfield Specialties

2907 Parsons Rd NW Edmonton AB T6N 1A3 Phone: (780) 436-7730 www.carreauoilfield.com

#### **CCS Midstream Services**

1800-140 10 Ave SE Calgary AB T2G OR1 Phone: (403) 263-6248 www.ccsmidstreamservices.com

#### CG Hylton & Associates Inc

103-138 18 Ave SE Calgary AB T2G 5P9 Phone: (403) 264-5288 www.hylton.ca

#### CGG Services (Canada) Inc

2400-715 5 Ave SW Calgary AB T2P 5A2 Phone: (403) 205-6000 www.cgg.com

#### **Challenger Geomatics Ltd**

200-9945 50 St NW Edmonton AB T6A OL4 Phone: (780) 424-5511 www.challengergeomatics.com

#### **Clean Harbors**

15715 121A Ave NW Edmonton AB T5V 1B1 Phone: (780) 451-6969 www.cleanharbors.com

#### Contava Inc.

1-3030 Sunridge Way NE Calgary AB T1Y 7G4 Phone: (403) 255-2655 www.contava.com

#### **CP Rail**

500-401 9 Ave SW Calgary AB T2P 4Z4 Phone: (403) 319-6639 www.cpr.ca

#### Daniel's Drafting & Consulting Ltd

PO Box 173 Mundare AB TOB 3HO Phone: (780) 764-0984 www.danielsdrafting.com

#### Das Disposals Ltd

4302 47 St Vegreville AB T9C 1C3 Phone: (780) 632-2966 www.dasdisposals.com

#### **Design Group Staffing Inc**

10012 Jasper Ave NW Edmonton AB T5J 1R2 Phone: (780) 428-1505 www.dgstaff.com

#### deSIGNS by Tam Ltd

4938 O'Brien Dr High Prairie AB TOG 1E0 Phone: (780) 523-2272 www.designsbytam.com

#### **Dynalife DX Diagnostic Laboratory** Service

200-10150 102 St NW Edmonton AB T5J 5E2 Phone: (780) 451-3702 www.dynalifedx.com

#### **Dynasoft Communications Inc**

4-4602 50 Ave Lloydminster AB T9V 0W3 Phone: (780) 808-8731 www.dynasoft2000.com

E & L Mobile Steaming Ltd

Marie-Reine AB T8S 1V8 Phone: (780) 322-2118

#### E.I. du Pont Canada Company

PO Box 5000 Kingston ON K7L 5A5 Phone: (613) 548-5290 www.dupont.com

#### **Emerald Associates Inc**

B8, 140-2526 Battleford Ave SW Calgary AB T3E 7J4 Phone: (403) 686-7100 www.emerald-associates.com

#### **Empire Iron Works Ltd**

21104 107 Ave NW Edmonton AB T5S 1X2 Phone: (780) 447-4650 www.empireiron.com

#### **Environmental Refuelling Systems Inc**

208-10464 Mayfield Rd NW Edmonton AB T5P 4P4 Phone: (780) 444-4104 www.envirofuel.ca

#### **EPCOR Alberta**

1210-401 9 Ave SW Calgary AB T2P 3C5 **Phone:** (403) 717-4600 www.epcor.ca

#### **ES Denbina Petroleum Consulting** Services

136 Parkland Hill SE Calgary AB T2J 4K6 Phone: (403) 278-9284 www.members.shaw.ca/denbina/ index.htm

#### Fugro Canada

610-600 6 Ave SW Calgary AB T2P 0S5 **Phone:** (403) 444-7979 www.fugro-jason.com

**Gaffney, Cline & Associates** 1000-401 9 Ave SW Calgary AB T2P 3C5 Phone: (403) 537-3400 www.gaffney-cline.com

#### **Garda Security Group Inc**

1390 Barre St Montreal OC H3C1N4 Phone: (877) 809-1484

## geoLOGIC Systems Ltd 900-703 6 Ave SW

Calgary AB T2P 0T9 **Phone:** (403) 262-1992 www.geologic.com

#### **G4S Secure Solutions (Canada) Ltd**

600-150 Ferrad Dr Toronto ON M3C 3E5 Phone: (647) 678-5111 www.g4s.ca

#### **Global Thermoelectric**

9-3700 78 Ave SE Calgary AB T2C 2L8 **Phone:** (403) 236-5556 www.globalte.com

950 78 Ave NW Edmonton AB T6B 1L7 Phone: (780) 440-1440 www.guardianoil.com

#### **Hardbanding Solutions**

5500 W 164 St Cleveland OH 44142 Phone: (216) 265-9000 www.hardbandingsolutions.com

#### **Heavy Equipment Repair Ltd**

PO Box 2343 Slave Lake AB TOG 2A0 Phone: (780) 849-3768 www.heavyequipmentrepair.ca

#### **Hitachi Consulting**

1000-888 3 St SW Calgary AB T2P 5C5 Phone: (403) 540-8506 www.hitachiconsulting.com

#### **Hydra-Tech International Corp**

6060 86 Ave SE Calgary AB T2C 4L7 **Phone:** (403) 720-7740 www.hydra-tech.net

#### Ian Murray & Company Ltd

150-344 12 Ave SW Calgary AB T2R 0H2 Phone: (403) 269-9266 www.imcprojects.ca

#### IKM Testing (Canada) Ltd

40 St Anne's Cres Paradise NL A1L 1K1 Phone: (709) 782-5051 www.ikm.no

#### Immerse Communications Inc

8-105 Village Hts SW Calgary AB T3H 2L2 Phone: (403) 319-0331

#### Iracore International

3516 13 Ave E Hibbing MN 55746 Phone: (218) 263-8831 www.irproducts.com

#### **Instrument Database Solutions**

202-501 18 Ave SW Calgary AB T2S 0C7 Phone: (403) 519-5385 www.idscontact.ca

#### Intergraph Canada Ltd

1120 68 Ave NE Calgary AB T2E 8S5 Phone: (403) 569-5512 www.intergraph.com

### **International Cooling Tower Inc**

3310 93 St NW Edmonton AB T6N 1C7 Phone: (780) 469-4900 www.ICTower.com

#### **IRED Thermal Group Ltd**

11330 143 St NW Edmonton AB T5M 1V5 Phone: (780) 761-1388

#### K. Ridge Mobile Hot Wash Ltd

PO Box 609 Athabasca AB T9S 2A5 Phone: (780) 675-2919

#### **Kema Enterprizes**

PO Box 769 Redwater AB TOA 2W0 Phone: (780) 736-2232

#### L & L Steam Service

PO Box 569 Viking AB TOB 4NO **Phone:** (780) 336-2330

#### Lac La Biche Regional Community **Development Corp**

10106 102 Ave Lac La Biche AB TOA 2CO Phone: (780) 623-2662 www.laclabicheregion.com

#### Llovd's Steam Cleaning Ltd PO Box 6961 Stn Main

Bonnyville AB T9N 2H4 Phone: (780) 826-5503

#### LoCo Power Tongs Ltd

PO Box 1401 High Prairie AB TOG 1E0

Phone: (780) 523-0513

#### **Mannville Enterprises**

5120 51 St Mannville AB

Phone: (780) 763-3991

### Marengo Energy Research Ltd

62129 Twp Rd 252 Calgary AB T3Z 3P5 Phone: (403) 932-4162

#### **Merichem Company**

5455 Old Spanish Trl Houston TX 77023 Phone: (713) 428-5233 www.merichem.com

#### **MMD Mineral Sizing (Canada) Inc**

22511 112 Ave NW Edmonton AB T5S 2M4 Phone: (780) 451-5100 www.mmdsizers.com

#### **Mobile Augers & Research Ltd**

5603 54 St NW Edmonton AB T6B 3G8 Phone: (780) 436-3960 www.mobileaugers.com

#### **Norcan Fluid Power**

3053 Faithfull Ave Saskatoon SK S7K 8B3 Phone: (306) 384-9100 www.norcanfluidpower.com

#### Normcan

1800-140 10 Ave SE Calgary AB T2P 3S8 Phone: (403) 231-8513

#### **Norspec Filtration Ltd**

4704 91 Ave NW Edmonton AB T6B 2L1 Phone: (780) 468-9296 www.norspec.com

#### Northern Lights Steam & Clean

PO Box 316

Red Earth Creek AB TOG 1X0 Phone: (780) 649-2272

#### **Northern Transportation Company Limited**

1209-10104 103 Ave NW Edmonton AB T5J 0H8 Phone: (780) 441-3932 www.ntcl.com

#### OilCareers.Com

302-1333 8 St SW Calgary AB T2R 1M6 **Phone:** (403) 209-3551 www.oilcareers.com

#### **Oilsands Shovel Products**

168 Grayling Cres Fort McMurray AB T9J 1K9 Phone: (780) 791-6777 www.oilsandsshovelproducts.ca

PO Box 1794 Stn A Sydney NS B1P 6W4 **Phone:** (902) 564-5189

## www.otsl.ca

**Owen Oil Tools** 5409-39139 Hwy 2A Red Deer County AB T4S 2B3 Phone: (403) 340-1017 www.corelab.com/pe/owen

#### **Patriot Solar Group**

1007 Industrial Ave Albion MI 49224 **Phone:** (517) 629-9292 www.PatriotSolarGroup.com

#### **Penetrators Canada Inc**

8002 Edgar Industrial Ave Red Deer AB T4P 3S2 Phone: (403) 346-7474 www.maxperf.ca

#### **Penlynn Contracting**

PO Box 1645 Grimshaw AB TOH 1WO **Phone:** (780) 332-2048

#### **POLARIS Laboratories**

5140 75 St NW Edmonton AB T6E 6W2 Phone: (877) 808-3750 www.polarislabs.ca

#### **Precision Giant Systems Inc**

7217 Girard Rd NW Edmonton AB T6B 2C5 Phone: (780) 463-0026 www.precisionscale.com

#### **Quorum Business Solutions Inc**

210-101 6 St SW Calgary AB T2P 5K7 **Phone:** (403) 806-2550 www.qbsol.com

#### **Rang Hydraulics Ltd**

5104 62 St Lloydminster AB T9V 2E4 Phone: (780) 875-7657 www.ranghydraulics.ca

#### **Ranger Inspection Ltd**

13-3716 56 Ave SE Calgary AB T2C 2B5 Phone: (403) 252-4487 www.rangerinspection.com

#### Regent Energy Group Ltd

1600-734 7 Ave SW Calgary AB T2P 3P8 Phone: (403) 269-8088 www.regentenergygroup.com

#### **Richard Oilfield Services Ltd**

PO Box 507

Plamondon AB TOA 2TO Phone: (780) 798-3288

#### Riddell Kurczaba Architecture **Engineering Interior Design Ltd**

2530 Hochwald Ave SW Calgary AB T3E 7H5 Phone: (403) 266-2100 www riddell ca

#### **Roch-On Steaming**

Falher AB

**Phone:** (780) 837-0045

#### Roplast GmbH

Am Seitenkanal 8 49811

Lingen

Phone: 49 5919136150

#### Saint-Gobain Abrasives Canada Inc

3 Beach Rd Hamilton ON

Phone: (905) 547-2551

### www.carborundumabrasives.com

#### **Shaw Business**

400-2421 37 Ave NE Calgary AB T2E 6Y7 Phone: (888) 606-2307 www.shaw.ca/sbs

#### SIF Superior Industrial Frictions Ltd

11570 154 St NW

Edmonton AB T5M 3N8 Phone: (780) 451-6894 www.sifbrake.com

#### Silvertip Inspection Services Ltd

PO Box 6264

Bonnyville AB T9N 2G8 Phone: (780) 826-1596

#### Singletouch

300-110 8 Ave SW Calgary AB T2P 1B3 Phone: (403) 648-3930 www.singletouch.com

#### SITECH Western Canada Solutions Ltd.

10627 172 St NW Edmonton AB T5S 1P1 Phone: (855) 974-8324

#### **Specialty Products Research & Supply** (SPRS)

9763 60 Ave NW Edmonton AB T6E 0C4 Phone: (780) 436-1010 www.sprs.ca

#### **Strategy West Inc**

PO Box 76037 Calgary AB T2Y 2Z9 Phone: (403) 256-9220 www.strategywest.com

#### **Team Industrial Services**

701 9 St SW SS 4 Slave Lake AB TOG 2A4 Phone: (780) 805-6384

#### **Team Snubbing Services Inc**

Site 4 Box 35 RR 2 Rocky Mountain House AB T4T 2A2

**Phone:** (403) 844-2728 www.teamsnubbing.com

500-140 10 Ave SE Calgary AB T2G OR1 Phone: (403) 233-7565 www.tervita.com

#### The Surveillance Shop/Survshop Security

23-4511 Glenmore Trl SE Calgary AB T2C 2R9 Phone: (403) 288-6468 www.survshop.com

#### Thunder Bay Port Authority

100 Main St

Thunder Bay ON P7B 6R9 **Phone:** (807) 345-6400 www.portofthunderbay.ca

#### TISI Canada Inc

8525 18 St NW Edmonton AB T6P 1K4 Phone: (780) 467-8070 www.teaminc.com

#### **Unified Sourcing Canada Inc**

204-2304 Ellwood Dr SW Edmonton AB T6X 0A9 Phone: (780) 235-8988

### **Veolia Water Solutions & Technologies**

23563 W Main St Plainfield IL 60544 Phone: (815) 609-2054 www.veoliawaterst.com

#### **Viewpoint Medical Assessment** Services Inc

1-9250 Macleod Trl SE Calgary AB T2J 0P5 Phone: (403) 253-4272 www.viewpointmedical.ca

#### X-Act Technologies Ltd

101-4447 46 Ave SE Calgary AB T2B 3N6 **Phone:** (403) 291-9175 www.xact.ca

#### Young EnergyServe Inc

234125 Wrangler Rd SE Rocky View AB T1X 0K2 Phone: (403) 517-2100 www.youngenergy.ca

#### Zvbertech

206-3112 11 St NE Calgary AB T2E 7J1 Phone: (403) 202-7291 www.zybertech.com

#### **Supplies-Rentals & Sales**

#### **Acklands-Grainger Inc**

200-284 MacDonald Cres Fort McMurray AB T9H 4B6 Phone: (780) 743-3344 www.acklandsgrainger.com

### **AFD Petroleum Ltd**

1444 78 Ave NW Edmonton AB T6P 1L7 Phone: (780) 438-5930 www.afdpetroleum.com

#### Air Liquide Canada Inc

10020 56 Ave NW Edmonton AB T6E 5Z2 Phone: (780) 438-5600 www.airliquide.ca

### A-1 Fencing

PO Box 3157 Wainwright AB T9W 1T1 **Phone:** (780) 842-3082

#### **Apex Advanced Solutions Inc** 18110 102 Ave NW

Edmonton AB T5S 1S7 Phone: (780) 462-8271 www.apex-advanced.com

#### **Apex Distribution Inc**

905 3 St NW Slave Lake AB TOG 2A0 Phone: (780) 849-6111

#### **ARW Truck Equipment Ltd**

8019 54 St SE Calgary AB T2C 4R7 Phone: (403) 243-6111 www.arwtruck.com

#### **B W Rig Supply**

609 21 Ave Nisku AB T9E 7X9 **Phone:** (780) 955-8686 www.hyduke.com

#### **Baron Oilfield Supply**

PO Box 66 High Prairie AB TOG 1E0 Phone: (780) 523-4000 www.baronoilfield.ca

#### **Benoit Rentals Ltd**

PO Box 51 Chauvin AB TOB 0V0 Phone: (780) 858-2212 www.benoitrentals.com

#### B.G.E. Service & Supply Ltd

5711 1034 St NW Edmonton AB T6H 2J6 Phone: (780) 436-6960 www.thefiltershop.com

#### **BIW Connector Systems**

Suite D-161 Liberton Dr St Albert AB T8N 6A7 Phone: (780) 460-3993 www.ittcannon.com

#### Black Cat Blades Ltd

5604 59 St NW Edmonton AB T6B 3C3 Phone: (780) 465-6666 www.blackcatblades.com

#### **Bobcat of Fort McMurray**

270 MacKay Cres Fort McMurray AB T9H 5C6 Phone: (780) 714-9200 www.bobcat.com

#### **B.W. Rentals**

PO Box 1228 High Prairie AB TOG 1E0 Phone: (780) 523-3051

#### **Cameron Valves & Measurement**

1300-311 6 Ave SW Calgary AB T2P 3H2 Phone: (403) 398-9930 www.c-a-m.com

#### Camex Equipment Sales & Rentals Inc

1511 Sparrow Dr Nisku AB T9E 8H9 **Phone:** (780) 955-2770 www.camex.com

### **CARBER Testing Alberta Inc**

Bay 31-380 MacKenzie Blvd Fort McMurray AB T9H 4C4 **Phone:** (780) 743-2496 www.carbertesting.com

#### Cat Rental Store

9520 51 Ave NW Edmonton AB T6E 5A6 Phone: (780) 989-1300 www.catrents.ca

#### **CE Franklin Ltd**

1800-635 8 Ave SW Calgary AB T2P 3M3 **Phone:** (403) 531-5600 www.cefranklin.com

#### Classic Oilfield Service Ltd

5222 65 St Lloydminster AB T9V 2T3 Phone: (780) 875-3276 www.classoil.com

#### **Cold Weather Technologies**

5508 59 Ave Llovdminster AB Phone: (780) 875-2530 www.coldweathertech.com

#### **Commercial Solutions Inc**

2714 5 St Nisku AB T9E 0H1 Phone: (780) 955-7494 www.csinet.ca

#### **Communications Cold Lake Inc**

5605 55 St Cold Lake AB T9M 1R6 Phone: (780) 594-0000 www.ccinetworks.com

#### **Communications Group**

7434 50 Ave Red Deer AB T4P 1X7 Phone: (403) 347-0777 www.commgroup.net

#### Continental Chain & Rigging Ltd

7011 Girard Rd NW Edmonton AB T6B 2C4 Phone: (780) 437-2701 www.continentalchain.com

#### **Crest-Way Fencing**

8-2933 67 Ave Lloydminster AB T9V 3H6 **Phone:** (780) 875-5448

#### **Deran Oilfield Services Ltd**

PO Box 307 Lac La Biche AB TOA 2CO Phone: (780) 623-2193 www.deranoilfield.ca

#### Dezurik

3424 78 Ave NW Edmonton AB T6B 2X9 Phone: (780) 465-3110 www.dezurik.com

#### Dicks Boiler Ltd

PO Box 474 Blairmore AB TOK 0E0 Phone: (403) 562-7600

#### **Douglas Coatings Ltd**

150 MacKay Cres Fort McMurray AB T9H 4W8 Phone: (780) 743-1810 www.douglascoatings.ca

#### **Drillex Oilfield Services Ltd**

PO Box 49 Streamstown AB TOB 4G0 Phone: (780) 808-9500

#### **Duraguard Fence Ltd (Fort McMurray)**

10624 214 St NW Edmonton AB T5S 2A5 Phone: (780) 447-5465

www.duraguardfence.ca

#### **Edmonton Valve & Fitting Inc**

4503 93 St NW Edmonton AB T6E 5S9 Phone: (780) 437-0640 www.swagelok.com/edmonton

**Enerig Supply** PO Box 456 Bashaw AB TOB OHO Phone: (780) 372-3883 www.enerigsupply.com

#### Enernac

N86 W12500 Westbrook Crossing Menomonee Falls WI 53051 **Phone:** (262) 293-1600 www.enerpac.com

#### **Exhaust Masters**

5905 44 St Lloydminster AB T9V 1V6 **Phone:** (780) 875-8851

### www.exhaustmasters.ca **Fabco Plastics Western Ltd**

12938 148 St NW Edmonton AB T5L 2H8 Phone: (780) 451-0238 www.fabcoplastics.com

#### Flowserve (FCD)

9044 18 St NW Edmonton AB T6P 1K6 **Phone:** (780) 449-4850 www.flowserve.com

#### Fluid Clarification Inc (FCI)

Bay 131-3953 112 Ave SE Calgary AB T2C 0J4 Phone: (403) 236-0666 www.fluidclarification.com

#### Frontier Power Products Ltd

9204 37 Ave NW Edmonton AB T6E 5L4 Phone: (780) 455-2260 www.frontierpower.com

#### **Gladiator Equipment Inc** 6603 44 St

Leduc AB T9E 7E5 Phone: (780) 980-7555

#### Goodall Rubber Co of Canada Ltd

9748 12 Ave SW Edmonton AB T6X 0J5 **Phone:** (780) 437-1260 www.goodall-canada.com

#### **Hazloc Heaters**

1-666 Goddard Ave NE Calgary AB T2K 5X3 Phone: (403) 730-2488 www.HazlocHeaters.com

### **Hertz Equipment Rental**

6110 86 St NW Edmonton AB T6E 5K2 Phone: (780) 435-3711 www.hertzequip.com

#### **Hose Solutions Inc**

9419 E San Salvador Dr Ste 104 Scottsdale AZ 85258 Phone: (480) 607-1507 www.allhoses.com

#### **Hydro Engineering Inc**

865 W 2600 S Salt Lake City UT 84119 **Phone:** (801) 972-3265 www.hydroblaster.com

#### **HYTORC Sales & Service**

45 Corriveau Ave St Albert AB T8N 5A3 Phone: (780) 459-5004 www.hvtorcwest.ca

#### **Inland Industrial Supply Ltd**

Bay 4D-380 MacKenzie Blvd Fort McMurray AB T9H 4C4 **Phone:** (780) 742-2430 www.inlandindustrial.ca

#### **In-Situ Machining Solutions Ltd**

4-51309 Hwy 60 Spruce Grove AB T7Y 1C4 **Phone:** (780) 913-5075 www.insitumachining.com

#### **ITM Instruments Inc**

101-10505 48 St SE Calgary AB T2C 2B7 Phone: (403) 272-9332 www.itm.com

#### J C Inspections & Associates Ltd 5202 63 St

Llovdminster AB Phone: (780) 875-5711

#### Jet-Lube Of Canada Ltd

3820 97 St NW Edmonton AB T6F 5S8 Phone: (780) 463-7441 www.jetlubecanada.com

#### **Karborah Contracting Services Ltd**

124 Aspenhill Dr Fort McMurray AB T9J 1E1 **Phone:** (780) 791-3056

#### **Keddco Mfg Ltd**

3911 76 Ave NW Edmonton AB T6B 2S8 Phone: (780) 438-4944 www.keddco.com

#### Kelro Pump & Mechanical Ltd

1 Kam's Industrial Park Lloydminster AB Phone: (780) 875-7252 www.kelro.com

#### **Kenwood Electronics Canada Inc**

6070 Kestrel Rd Mississauga ON L5T 1S8 Phone: (905) 670-7211 www.kenwood.ca

#### **Ketek Rentals**

270 MacLennan Cres Fort McMurray AB T9H 4G1 Phone: (780) 714-5059 www.ketek.ca

#### Klassen Specialty Hydraulics Inc

PO Box 7 Rosedale BC VOX 1X0 Phone: (604) 794-7755 www.klassenhydraulics.com

#### Kramer I td

PO Box 707 Stn Main Regina SK S4P 3A8 Phone: (306) 545-3311 www.kramer.ca

**Lafarge Canada Inc** 300-115 Quarry Park Rd SE Calgary AB T2C 5G9 **Phone:** (403) 271-9110 www.lafargecorp.com

4111 53 Ave NW Edmonton AB T6B 3R5 Phone: (780) 461-5557 www lamons com

#### Lampson Canada Ltd

PO Box 510 Beiseker AB TOM 0G0 Phone: (403) 947-2222 www.lampsoncrane.com

#### **LaPrairie Crane**

PO Box 23038 Fort McMurray AB T9H 4N6 **Phone:** (780) 714-5438 www.laprairiegroup.com

#### **Len's Repair Shop**

PO Box 6115 Westlock AB T7P 2P7 Phone: (780) 349-2899

#### **Lloydminster Nut & Bolt**

5113 63 St Lloydminster AB T9V 2E7 Phone: (780) 875-4155

#### Lonetech 5310 57 Ave

Grimshaw AR Phone: (780) 332-4767

#### **Lube-Power Inc**

50146 Utica Dr Shelby Township MI 48315 Phone: (586) 247-6500

#### **Max Fuel Distributors Ltd**

PO Box 327 Whitecourt AB T7S 1N5 Phone: (780) 778-2346

#### McCann Equipment Ltd

4120 97 St NW Edmonton AB T6E 5Y6 **Phone:** (780) 414-1808 www.torquetools.com

#### **Meltric Corporation**

4640 Ironwood Dr Franklin WI 53132 Phone: (414) 817-6160 www.meltric.com

#### Meridian

3780 98 St NW Edmonton AB T6E 6B4 Phone: (780) 468-7161 www.meridianvalve.ca

#### **Midway Distributors Ltd**

5402 44 St Lloydminster AB T9V 0B4 Phone: (780) 875-5551

#### Milwaukee Electric Tool (Canada) Ltd

4-140 Fernstaff Crt Vaughan ON L4K 3L8 Phone: (800) 268-4015 www.milwaukeetool.com

#### **Moffatt Supply Ltd**

PO Box 5477 Fort McMurray AB T9H 3G5

Phone: (780) 715-9387 www.moffattsupply.com

#### MRC Canada III C

2500-144 4 Ave SW Calgary AB T2P 3N4 Phone: (403) 233-7166 www.mrcglobal.com

#### **Mutual Propane Ltd**

PO Box 1064 Lac La Biche AB TOA 2CO Phone: (780) 623-2363 www.mutualpropane.ab.ca

#### **Neptune Automated Wheel Wash**

**Systems** 

174 Cornerstone Crt

Hot Springs National Park AR 71913 Phone: (501) 525-8484

#### **Northeastern Energy Services**

PO Box 2310 Lac La Biche AB TOA 2CO

Phone: (780) 689-7098

#### Northwell Rentals (Lloydminster) Inc

6401 63 Ave Lloydminster AB T9V 2S9 Phone: (780) 875-6604

#### **Oil Boss Rentals Inc**

PO Box 219

Rocky Mountain House AB T4T 1A2 Phone: (403) 844-3031 www.oilbossrentals.com

#### **Olympus NDT**

48 Woerd Ave Waltham MA 02453 Phone: (781) 419-3518 www.olympus-ims.com

#### Pall (Canada) Ltd

6-3450 Ridgeway Dr Mississauga ON L5L 0A2 Phone: (905) 542-0330 www.pall.com

#### **Panther Technologies Inc**

PO Box 7793 Bonnyville AB T9N 2J1 Phone: (780) 871-2784

#### **Pason Systems Corp**

6130 3 St SE Calgary AB T2H 1K4 **Phone:** (403) 301-3400 www.pason.com

#### **PECOFacet Canada**

1351 Hastings Cres SE Calgary AB T2G 4C8 Phone: (403) 717-2891 www.pecofacet.com

#### **Phoenix Fence**

12816 156 St NW Edmonton AB T5V 1E9 Phone: (780) 447-1919 www.phoenixfence.ca

#### **Platinum Grover Int. Inc**

750-333 11 Ave SW Calgary AB T2R 1L9 Phone: (403) 264-6688 www.platinumgrover.com

#### **Platinum Pumpjack Services Corp**

750-333 11 Ave SW Calgary AB T2R 1L9 Phone: (403) 264-6688 www.platinumenergycanada.com **Polar Pipe and Fittings** 

2305 84 Ave NW Edmonton AB T6P 1K1 **Phone:** (780) 410-4848 **www.polarpipe.ca** 

#### **Precision Bolting Ltd**

3880 74 Ave NW Edmonton AB T6B 2P7 Phone: (780) 466-9869 www.precisionbolting.com

### Process Combustion Systems (2000) Inc.

33-1515 Highfield Cres SE Calgary AB T2G 5M4 Phone: (403) 250-1075 www.processcombustion.com

#### **PROMORE**

2100-125 9 Ave SE Calgary AB T2G 0P6 **Phone:** (403) 571-1669 **www.promore.com** 

#### REDCO Equipment Sales Ltd

8168 46 St NW Edmonton AB T6B 2M8 **Phone:** (780) 462-8148 **www.redcovalves.com** 

#### **Relay Distributing**

6005 50 Ave Lloydminster SK S9V 2A4 **Phone:** (306) 825-4322 **www.relaydistributing.ca** 

#### Rentco Equipment Ltd 7913 100 Ave

Peace River AB T8S 1M5 Phone: (780) 624-4646 www.rentcoequipment.com

#### **RIDGID Professional Tools**

400 Clark St Elyria OH 44035-6108 **Phone:** (440) 329-4469 **www.ridgid.com** 

#### **Sabre Communications Inc**

PO Box 541 Lloydminster SK S9V 0N7 **Phone:** (306) 825-8500 **www.sabrecom.ca** 

#### Score TransCanada Ltd

5135 67 Ave NW Edmonton AB T6B 2R8 Phone: (780) 455-5273 www.score-group.com

#### **Sil Industrial Minerals**

8635 Stadium Rd NW Edmonton AB T6S 1G3 **Phone:** (780) 467-2627 **www.sil.ab.ca** 

#### **Silvertip Rentals and Fishing Tools**

PO Box 207 Slave Lake AB TOG 2A0 Phone: (780) 849-8372 www.silvertiprentals.com

#### **Silverwood Toyota Import Specialists**

5103 25 St Lloydminster AB T9V 3G2 Phone: (780) 808-8801 www.silverwoodtoyota.com

#### 661254 Alberta Ltd

PO Box 6231 Stn Main Fort McMurray AB T9H 4W1 **Phone:** (780) 743-5968

#### **Stewart Sales & Rentals**

24 Nipewon Rd Lac La Biche AB Phone: (780) 623-3243 www.stewartsalesandrentals.ca

#### **TenarisPrudential**

400-530 8 Ave SW Calgary AB T2P 3W8 Phone: (403) 767-0100 www.tenaris.com

#### **Topco Oilsite Products Ltd**

5-3401 19 St NE Calgary AB T2E 6S8 **Phone:** (403) 219-0255 **www.topcooilsite.com** 

#### **Total Oilfield Rentals LP**

PO Box 129
Red Earth Creek AB TOG 1X0
Phone: (780) 649, 2202

Phone: (780) 649-2202 www.totaloilfield.ca

### Trailer Canada Inc

St Paul AB Phone: (780) 645-6998 www.trailercanada.com

#### Unified Alloys

8835 50 Ave NW Edmonton AB T6E 5H4 Phone: (780) 468-5656 www.unifiedallovs.com

#### **United Rentals**

292-2181 Premier Way Sherwood Park AB T8H 2V1 **Phone:** (780) 417-2612

#### **United Rentals of Canada**

140 TaigaNova Cres Fort McMurray AB T9K 0T4 **Phone:** (780) 743-9555 www.unitedrentals.com

#### Van Leeuwen Pipe & Tube (Canada)

2875 64 Ave NW Edmonton AB T6P 1R1 **Phone:** (780) 469-7410

#### **Vermilion Ready-Mix Concrete**

4807 47 Ave Vermilion AB T9X 1J4 **Phone:** (780) 853-4818

#### **Voith Turbo Inc**

1-171 Ambassador Dr Mississauga ON L5T 2J1 **Phone:** (905) 670-3122

#### **Wajax Industrial Components**

1403 5 St Nisku AB T9E 8C7 Phone: (780) 955-2155 www.wajaxindustrial.com

#### **Waskatenau Motors**

PO Box 91 Waskatenau AB TOA 3P0 **Phone:** (780) 358-2287

#### Westlund

5-6206 50 Ave Lloydminster AB T9V 2C9 Phone: (780) 875-5455 www.westlund.ca

#### Westlund

4103 84 Ave NW Edmonton AB T6B 2Z3 **Phone:** (780) 463-7473 www.westlund.ca

#### Wetland Equipment Co Ltd

118 W Main St Thibodaux LA 70301 Phone: (985) 447-0354 www.wetlandequipmentco.com

#### Wilter Auto & Industrial Supply

5609 55 St Cold Lake AB T9M 1R6 **Phone:** (780) 594-4666

#### XL Resources Ltd

5211 65 St Lloydminster AB T9V 2E8 **Phone:** (780) 875-6100

#### Xylem Inc

300 Labrosse Ave Pointe-Claire QC H9R 4V5 **Phone:** (514) 866-5505

### Your Safety & Workwear Store & Westlock Dry Cleaners

Westlock AB T7P 1K6
Phone: (780) 349-3919
www.safetyandworkwear.ca

#### **Trucking**

#### Affinity Oilfield Services Ltd PO Box 4883

Bonnyville AB T9N 0H3 Phone: (780) 573-9725 www.affinityoilfield.com

#### **Aim Transport**

PO Box 1440 Stn Main Lloydminster SK S9V 1K4 Phone: (306) 825-9336 www.baytex.ab.ca

#### **Allan Trucking**

PO Box 1655 St Paul AB TOA 3A0 **Phone:** (780) 635-2191

#### **Allvac Oilfield Services Ltd**

PO Box 7993 Bonnyville AB T9N 2J3 **Phone:** (780) 826-5151

#### Andre's Water Delivery Ltd

9113 93 St Lac La Biche AB TOA 2CO **Phone:** (780) 623-4027

#### **Attack Oilfield Services Inc**

PO Box 1166 Manning AB TOH 2M0 Phone: (780) 836-3609 www.attackoilfield.com

#### **AV Transportation Inc**

5-380 MacKenzie Blvd Fort McMurray AB T9H 4C4 **Phone:** (780) 790-0630

#### **Axani Bros Trucking**

1205 5 Ave Cold Lake AB T9M 1A8 **Phone:** (780) 812-5362

#### **B & R Eckel's Transport Ltd**

5520 50 Ave Bonnyville AB T9N 2K8 **Phone:** (780) 826-3889 www.breckels.com

#### **Baron Transport**

PO Box 537 Slave Lake AB TOG 2A0 **Phone:** (780) 849-4360

#### **Barracuda Oilfield Service**

PO Box 26 High Prairie AB TOG 1E0

Phone: (780) 523-7119

#### **Barry's Tank Truck Service**

PO Box 303 Glendon AB TOA 1P0 **Phone:** (780) 635-2674

#### **Barry's Transport Ltd**

PO Box 493 Boyle AB TOA OMO **Phone:** (780) 689-3994

#### **Beniuk's Water Hauling Ltd**

PO Box 1394

Lac La Biche AB TOA 2CO **Phone:** (780) 623-2236

#### **Blair's Oilfield Hauling**

3409 47 Ave Lloydminster SK **Phone:** (306) 387-6865

#### Blue Ray Trucking Ltd

PO Box 7267 Bonnyville AB T9N 2H6 Phone: (780) 815-7012 www.blueraytrucking.com

#### **BOS Oilfield Service Ltd**

PO Box 176 Glendon AB TOA 1PO **Phone:** (780) 635-4459

#### **Brydon Trucking & Picker Service Ltd**

PO Box 658 Viking AB TOB 4N0 **Phone:** (780) 336-2034

#### **Bry-Tan Trucking Ltd**

PO Box 655 Stn Main Lloydminster SK S9V 0Y7 **Phone:** (780) 875-9250 **www.bry-tantrucking.ca** 

#### **Bush Baby Trucking Ltd**

PO Box 2454 Slave Lake AB TOG 2A0 **Phone:** (780) 849-5565

#### **Calmont Truck Rentals & Leasing**

14610 Yellowhead Trl NW Edmonton AB T5L 3C5 Phone: (780) 454-0491 www.calmont.ca

#### Canada Cartage

17508 116 Ave NW Edmonton AB T5S 2T9 **Phone:** (780) 452-7773 **www.canadacartage.com** 

#### Caribou Trail Truck Parts

PO Box 827 Slave Lake AB TOG 2A0 **Phone:** (780) 849-2449

#### **Cen-Alta Oilfield Trucking Ltd**

PO Box 359 Legal AB TOG 1L0 Phone: (780) 961-4148 www.cen-altaoilfieldtrucking.com

#### www.com artaonnelatracking.com

CF Reclamation & Water Services PO Box 613 Boyle AB TOA 0M0 Phone: (780) 689-3902 C.H. Robinson Project Logistics

102-6715 8 St NE Calgary AB T2E 7H7 Phone: (403) 295-1505 www.chrprojectlogistics.com

### Chem-Tech Transportation Service (1994)

4807 37 St Lloydminster SK S9V 0A7 **Phone:** (780) 871-4040

#### Chief Hauling Contractors Inc

140 MacLennan Cres Fort McMurray AB T9H 4E8 Phone: (780) 791-7808 www.chiefhauling.com

#### **Cold Lake Ford**

PO Box 1888 Stn Main Cold Lake AB T9M 1P4 Phone: (780) 594-3000 www.coldlakeford.com

#### **Continental Cartage Inc**

2-210 MacAlpine Cres Fort McMurray AB T9H 4A6 Phone: (780) 788-0321 www.continentalcartage.com

#### D & E Water-Vac Ltd

4005 63A Ave Lloydminster AB T9V 2X8 **Phone:** (780) 872-7733

#### D G R Tank Truck & Steamer

PO Box 73 Calmar AB TOC 0V0 **Phone:** (780) 649-2230

#### **D Janzen Picker & Tractors**

PO Box 916 Slave Lake AB TOG 2A0 **Phone:** (780) 849-4315

#### **D W Hot Shot Service**

PO Box 885 Lloydminster SK S9V 1C3

### **Phone:** (306) 821-2383

**Delorme Enterprises Ltd** PO Box 1089 High Prairie AB TOG 1E0 **Phone:** (780) 523-3278

#### **Dennis Roth Trucking Ltd**

PO Box 772 Slave Lake AB TOG 2A0 **Phone:** (780) 849-4468

#### Desran Holdings Ltd

PO Box 102 Perryvale AB TOG 1TO Phone: (780) 698-2137 www.desranholdings.com

## Dessert Storm Vacuum Truck & Water Hauling

198 Weiss Dr Fort McMurray AB T9H 4K7

Phone: (780) 715-1885

#### DFI

3403 74 Ave NW Edmonton AB T6B 3B8 **Phone:** (780) 466-5237 **www.dfi.ca** 

#### Diamond B Transport

PO Box 1602 Lloydminster SK S9V 1K5 Phone: (780) 808-9123 www.diamondbtransport.com

#### **Diamond D Oilfield Hauling Ltd**

RR 1 Boyle AB TOA OMO **Phone:** (780) 525-3380

#### **Docktor Freight Solutions Corp**

750-333 11 Ave SW Calgary AB T2R 1L9 **Phone:** (403) 266-4131 **www.dfscorp.com** 

#### **Docktor Oilfield Transport Corp**

6225 54 Ave Drayton Valley AB T7A 1S8 **Phone:** (780) 514-7898 www.docktortransport.com

#### **Dot-Lyn Sales & Service Ltd**

5701 Mackenzie Rd Grimshaw AB TOH 1W0 **Phone:** (780) 332-4230

#### DRIVING FORCE

9503 34 Ave NW Edmonton AB T6E 5W8 Phone: (780) 483-9559 www.drivingforce.ca

#### **DT Planetaries Inc**

11550 154 St NW Edmonton AB T5M 3N8 **Phone:** (780) 454-9922 www.dthubs.com

#### **Duniece Bros Trucking Ltd**

PO Box 2280 Athabasca AB T9S 2B8 **Phone:** (780) 525-2262

#### **Dymen Holdings Ltd**

PO Box 305 Lac La Biche AB TOA 2C0 **Phone:** (780) 623-3541

#### E & N Trucking Ltd

RR 2 Boyle AB TOA 0M0 **Phone:** (780) 525-2646

#### **Edmonton Trailer Sales & Leasing Ltd**

26420 Twp Rd 531A Acheson AB T7X 5A3 Phone: (780) 962-8195 www.edmontontrailer.com

#### **EJR Trucking Inc**

PO Box 1920 Lac La Biche AB TOA 2CO Phone: (780) 623-3082 www.ejrtrucking.ca

### Elkow Enterprises

PO Box 244 Two Hills AB TOB 4K0 **Phone:** (780) 208-1792

#### **Eric Auger & Sons Contracting**

PO Box 360 Wabasca AB TOG 2K0 Phone: (780) 891-3751 www.ericaugerandsons.ca

#### Fat Cat Trucking Ltd

PO Box 406 Nampa AB TOH 2R0 **Phone:** (780) 322-3928

#### **Feather River Transport Ltd**

1045 15 Ave Wainwright AB T9W 1J8 **Phone:** (780) 842-2645

#### Formula Powell LP

PO Box 1707 Lloydminster SK S9V 1M6 Phone: (780) 875-7960 www.formulapowell.com

#### **Four Star Pressure Services Ltd**

PO Box 92 Kinsella AB TOB 2NO **Phone:** (780) 336-1048

#### Frontier Peterbilt Sales Ltd

5201 40 Ave Lloydminster SK S9V 2B7 Phone: (306) 825-3553 www.frontierpeterbilt.com

#### **G Force Diesel Service Ltd**

PO Box 1040 Lloydminster SK S9V 1E9 **Phone:** (306) 825-2875 **www.gforcediesel.com** 

#### **G Force Oilfield Services Inc**

3902 41 Ave Bonnyville AB T9N 1V4 Phone: (780) 812-0930 www.gforceoilfield.com

#### **Garry's Trucking**

PO Box 63 Eaglesham AB TOH 1H0 **Phone:** (780) 837-5220

#### **Gator Ventures Inc**

PO Box 131 Plamondon AB TOA 2TO **Phone:** (780) 798-2332

#### **Gear Centre The**

215 MacDonald Cres Fort McMurray AB T9H 4B5 **Phone:** (780) 714-3570 www.gearcentre.com

#### Golosky Trucking & Contracting LP 355 MacKenzie Blvd

Fort McMurray AB T9H 5E2 Phone: (780) 743-2171 www.goloskytrucking.ca

#### **Gordy's Oilfield Servicing Ltd**

PO Box 95 Marwayne AB TOB 2X0 **Phone:** (780) 875-9802

#### **Gray's Water Hauling Ltd**

PO Box 127 Marsden SK SOM 1P0 **Phone:** (306) 826-5751

#### **Green Valley Mechanical**

PO Box 6305 Peace River AB T8S 1S2 **Phone:** (780) 624-2448

#### **Grimshaw Trucking LP**

PO Box 960 Edmonton AB T5J 2L8 Phone: (780) 414-2850 www.grimshaw-trucking.com

#### **Heavy Crude Hauling LP**

6601 62 St Lloydminster AB T9V 3A9 Phone: (780) 875-5358 www.heavycrudehauling.com

#### **Hidden Lake Oilfield Services Ltd**

PO Box 360 Ardmore AB TOA 0B0 **Phone:** (780) 826-4481

#### **Hoffman's Tank Truck Service Ltd**

PO Box 67 Elk Point AB TOA 1A0 Phone: (780) 724-4117 www.hoffmansoilfield.com

#### Inter-Rail Transport Ltd

8621 18 St NW Edmonton AB T6P 1K4 Phone: (780) 464-7046 www.inter-railtransport.com

#### J. Loewen Mechanical

PO Box 932 Slave Lake AB TOG 2A0 **Phone:** (780) 849-6416

#### **Jay Reid Trucking Ltd**

PÓ Box 7849 Bonnyville AB T9N 2J2 **Phone:** (780) 826-8602

#### Jaymar Hauling (88) Ltd

PO Box 1038 Slave Lake AB TOG 2A0 **Phone:** (780) 849-3466

#### **Jules Bastien Trucking Ltd**

PO Box 259 Guy AB TOH 1Y0 **Phone:** (780) 925-2168

#### **Kamieniecki Gary Contracting Ltd**

PO Box 338 Manning AB TOH 2M0 **Phone:** (780) 836-3630

#### Lac La Biche Transport Ltd

PO Box 36 Lac La Biche AB TOA 2CO Phone: (780) 623-4711 www.laclabichetransport.ca

### Larson Management Inc

PO Box 21 Tulliby Lake AB TOA 3K0 **Phone:** (780) 875-9693

#### Leading Edge Hot Shot & Picker Service

PO Box 809 Manning AB TOH 2M0 **Phone:** (780) 836-2445 **www.leadedge.ca** 

#### Lebid Ron Trucking

PO Box 756 Athabasca AB T9S 2A6 **Phone:** (780) 675-4754

#### **Ledcor Industrial Maintenance Ltd**

9910 39 Ave NW Edmonton AB T6E 5H8 **Phone:** (780) 463-2140 **www.ledcor.com** 

#### **Lorette Truck Service Ltd** PO Box 766

Grimshaw AB TOH 1W0 **Phone:** (780) 332-4039

#### Mach 1 Diesel Repair Ltd

6512 66 St Lloydminster AB T9V 2E0 **Phone:** (780) 875-3306

#### **Manitoulin Transport**

400 MacAlpine Cres Fort McMurray AB T9H 4B1 Phone: (780) 791-1478 www.manitoulintransport.com

#### **Matco Transportation Systems**

18151 107 Ave NW Edmonton AB T5S 1K4 **Phone:** (780) 484-8800 www.matco.ca

#### **MBT Enterprises**

PO Box 6214 Peace River AB T8S 1S2 **Phone:** (780) 618-9730

#### **McBride Trucking**

PO Box 239 Edgerton AB TOB 1K0 **Phone:** (780) 755-3790

### McCoy's Trucking Ltd

PO Box 5821 Westlock AB T7P 2P6 **Phone:** (780) 348-5451

#### **McMurray Serv-U Expediting Ltd**

2-350 MacAlpine Cres Fort McMurray AB T9H 4A8 Phone: (780) 791-3530 www.mcmurrayservu.com

#### **Metro Gordey Trucking Ltd**

7110 Bulyea Ave Fort McMurray AB T9H 1B1 **Phone:** (780) 743-4487

#### **Millartime Transport**

PO Box 2332 Stn Main Lloydminster SK S9V 1S6 **Phone:** (306) 825-3899

#### **Mosan Communications Ltd**

PO Box 3342 Wainwright AB T9W 1T3 **Phone:** (780) 842-0220

#### **Mud 'n Dust Trucking**

PO Box 654 Wabasca AB TOG 2K0 **Phone:** (780) 891-0303

#### NCSG Crane & Heavy Haul Services

811-53016 Hwy 60 Acheson AB T7X 5A7 **Phone:** (780) 447-4440 **www.ncservicesgroup.com** 

### Night Hawk Trucking

5905 47 St Lloydminster AB T9V 2G4 **Phone:** (780) 875-4955 **www.nighthawktrucklines.com** 

#### Nitro Heavy Hauling Ltd

PO Box 11632 Stn Main Lloydminster AB T9V 3B8 Phone: (780) 875-6832 www.nitroheavyhauling.com

## North Max Light Oilfield Hauling & Rentals

PO Box 546 Manning AB TOH 2M0 **Phone:** (780) 836-5225

#### Northern Plains Moving & Transport Ltd

140 MacKay Cres Fort McMurray AB T9H 4W8 **Phone:** (780) 790-1336

#### Northwest Transport Ltd

400 MacAlpine Cres Fort McMurray AB T9H 4B1 **Phone:** (780) 791-1478

#### Nor-Trail Oilfield Ltd

PO Box 147 Slave Lake AB TOG 2A0 **Phone:** (780) 849-5230

#### **Orion's Way Hot Shot Service**

PO Box 536 Manning AB TOH 2M0 **Phone:** (780) 836-5545

#### **Over-D Trucking**

PO Box 1024 Falher AB TOH 1M0 **Phone:** (780) 837-8254

#### **Peace River Towing & Glass**

4-9710 94 St Peace River AB T8S 1J2 **Phone:** (780) 624-7777

#### **Peace Truck & Trailer Ltd**

9103 75 St Peace River AB T8S 1T2 **Phone:** (780) 624-8655

#### **Pebbles Trucking Ltd**

PO Box 271 Blackfoot AB TOB OLO **Phone:** (780) 875-8460

#### **Pioneer Truck Lines Ltd**

8321 1 St NW Edmonton AB T6P 1X2 **Phone:** (780) 467-8880 www.pioneertrucklines.com

#### **Prax Enterprises**

PO Box 1274 Slave Lake AB TOG 2A0 **Phone:** (780) 849-2938

#### **Q-Line Trucking Ltd**

Box 110B RR 4 Corman Industrial Park Saskatoon SK S7K 3J7

## Phone: (306) 651-3540 www.qlinetrucking.com

#### **Q-Tek Tankers Ltd**

PO Box 306 Viking AB TOB 4N0 **Phone:** (780) 336-2696 **www.q-tek.ca** 

#### **Quality Asphalt Ltd**

320 Balsam Rd NE Slave Lake AB **Phone:** (780) 849-5685

#### Quantum Winch

PO Box 6977 Bonnyville AB T9N 2H4 **Phone:** (780) 826-3272

#### R M J B Trucking Ltd

2909 55 Ave Lloydminster AB T9V 1N6 **Phone:** (780) 875-6875

#### **R & M Vacuum And Tank Service**

PO Box 994 Falher AB TOH 1M0 **Phone:** (780) 837-0996

#### Red Planet Trucking Ltd PO Box 258

Red Earth Creek AB TOG 1X0 Phone: (780) 649-3401 www.redplanettrucking.com

#### Reimer Express Lines Ltd

10120 52 St SE Calgary AB T2C 4M2 **Phone:** (403) 279-6866

#### Rene's Vacuum Service Inc

1-26107 SH651 Sturgeon County AB TOG 1L1 Phone: (780) 961-3064 www.renesvacuum.com

#### **Renigade Trucking**

PO Box 7220 Bonnyville AB T9N 2H6 **Phone:** (780) 826-2811

#### **Rick's Oilfield Hauling**

PO Box 979 Redwater AB TOA 2W0 **Phone:** (780) 942-2025 www.ricksoilfield.ca

#### **Ridgid Oilfield Services Ltd**

PO Box 135 Lloydminster SK S9V 0Y1 **Phone:** (780) 875-7939

#### Ridley & Son's Hauling Ltd

4816 7 Ave N Chauvin AB TOB 0V0 **Phone:** (780) 858-2584

#### RJ Hoffman Holdings Ltd

PO Box 12069 Lloydminster AB T9V 3C3 Phone: (780) 871-0723 www.rjhoffman.com

#### Roadrunner Water Hauling Ltd PO Box 356

Innisfree AB TOB 2G0 **Phone:** (780) 592-2271

#### **Ro-Bar Trucking Ltd**

PO Box 39 Slave Lake AB TOG 2M0 **Phone:** (780) 369-2191

#### **Rock'n T Trucking**

PO Box 59 Nampa AB TOH 2R0 **Phone:** (780) 618-2124

#### Ron's Vacuum Service Ltd

PO Box 2930 Wainwright AB T9W 1S8 **Phone:** (780) 842-2390

#### **Rosenau Transport Ltd**

5805 98 St NW Edmonton AB T6E 3L4 **Phone:** (780) 431-2877 **www.rosenau.org** 

#### **Ryker Oilfield Hauling Ltd**

2009B 1 St Wainwright AB T9W 1L5 Phone: (780) 842-2222 rykerhauling.com

#### **Sandpiper Truck Services Ltd**

PO Box 10453

Lloydminster SK T9V 3A6 **Phone:** (780) 875-2850 **www.sandpipertruck.com** 

#### Shale Industrial Ltd

260B MacKay Cres Fort McMurray AB T9H 5C6 **Phone:** (780) 791-4619

#### **Shamrock Heavy Hauling**

PO Box 687 Wabasca AB TOG 2K0 **Phone:** (780) 891-0456

#### Silverman Oilfield Services Ltd

PO Box 145 Neilburg SK SOM 2CO **Phone:** (306) 823-4722 www.silverman-oil.com

#### Slave Lake Specialties

PO Box 87 Slave Lake AB TOG 2A0 **Phone:** (780) 849-3863

#### **SLH Picker Service & Pile Driving**

1701 8 St NE Slave Lake AB TOG 2A2

**Phone:** (780) 849-5275

#### Smoky Lake Tank Service PO Box 372

Smoky Lake AB TOA 3C0 **Phone:** (780) 656-4055

#### Southview Trucking Ltd

4801 40 St Vermilion AB T9X 1H6 **Phone:** (780) 853-2734

#### Spectra Oilfield Services

PO Box 10684 Lloydminster AB T9V 3A7 **Phone:** (780) 871-3309

#### Stanchuck Trucking (1997) Ltd

6007 52 Ave Lloydminster AB T9V 2S7

**Phone:** (780) 875-7665

#### Stan's Trucking PO Box 1550

Slave Lake AB TOG 2A0 **Phone:** (780) 849-5307

#### **Steel View Oil Pressure Services Ltd**

PO Box 265 Chauvin AB TOB 0V0 **Phone:** (780) 858-2213 www.stlview.ca

#### Stephane's Mobile Repair Ltd

PO Box 1889

Lac La Biche AB TOA 2CO Phone: (780) 623-7100 www.stephanesmobilerepair.ca

#### Tank'd H20 Trucking

PO Box 73 Fort Kent AB TOA 1H0 Phone: (780) 812-0061 www.tankdh2otrucking.ca

#### Tee-Jay Water Hauling Ltd

PO Box 7398 Bonnyville AB T9N 2H7 **Phone:** (780) 826-7571

#### Triple K Oilfield Services Inc

315 Poplar St Red Earth Creek AB TOG 1X0 Phone: (780) 921-2221 www.triplekoilfield.ca

#### **Triple Random Inc**

1101 6 St Nisku AB T9E 7N7 Phone: (780) 979-0717 www.triplerandom.com

#### Twin M Trucking Ltd

PO Box 868 Redwater AB TOA 2W0 **Phone:** (780) 942-2960 **Illmer Chev Olds** 

2101 50 Ave

Lloydminster SK S9V 1Z7 Phone: (306) 825-8866 www.ulmerchev.com

Ultra-Vac Ltd

RR 1

Edgerton AB TOB 1KO **Phone:** (780) 755-2372

Unrau's Trucking Ltd

5905 47 St

Lloydminster AB T9V 2G4 Phone: (780) 875-5622

Wakaluk Trucking & Gravel Sales

PO Box 795 Falher AB TOH 1M0 Phone: (780) 359-2330

Wally's Pilot Service 33-5201 42 St

Llovdminster AB T9V 1M8 Phone: (780) 808-6295

Wellside Services

PO Box 1346 Grimshaw AB TOH 1WO Phone: (780) 332-2512

Wellsite Industrial (1985) Ltd

PO Box 855 Viking AB TOB 4NO Phone: (780) 336-3459

Whillans Mechanical

PO Box 623 Manning AB TOH 2M0 **Phone:** (780) 836-2011

White Thunder Trucking Ltd PO Box 86

Perryvale AB TOG 1TO Phone: (780) 698-2461

Wildcat Vacuum Services Ltd

PO Box 1827 Stn Main Lloydminster SK S9V 1N4 Phone: (780) 875-0464

WJT Wes Johnson Trucking Ltd

PO Box 1019 Manning AB TOH 2M0 Phone: (780) 836-2405

W-K Trucking Inc

PO Box 117 Mundare AB TOB 3H0 Phone: (780) 632-5555 www.wktrucking.com

Wounded's Picker Service Inc PO Box 2113

Llovdminster SK S9V 1R6 Phone: (780) 871-4697

X-Cel Energy Services Ltd PO Box 1170 High Prairie AB TOG 1E0 **Phone:** (780) 523-4412

**Xtreme Air Ltd** 

PO Box 1476 St Paul AB TOA 3A0 Phone: (780) 645-5979 www.xtremeair.ca

**Zacharko Trucking** 

PO Box 294 Bruderheim AB TOB OSO Phone: (780) 796-2341

#### **Well Service**

Alberta Insulation Supply & Services

Ltd PO Box 900 Peace River AB T8S 1T4

Phone: (780) 624-2996

**Billey Insulation Ltd** PO Box 173

Smoky Lake AB TOA 3CO Phone: (780) 656-2126

**Cadieux Oilfield Services** 

PO Box 599 Lac La Biche AB TOA 2CO Phone: (780) 623-3443 www.cadieuxoilfield.com

Career Well Servicing Ltd

3117 51 Ave

Lloydminster AB T9V 1H9 Phone: (780) 875-3088

**Concord Well Servicing** 

PO Box 1528 Valleyview AB TOH 3NO Phone: (780) 524-2113 www.concordwell.com

D & D Insulating

217 Greenbriar Bay Fort McMurray AB T9H 3Y5 **Phone:** (780) 791-2613

**Datalog Technology Inc** 10707 50 St SE

Calgary AB T2C 3E5 Phone: (403) 243-2024 www.datalogtechnology.com

**Energy Insulation Ltd** 

24511 34 St NW Edmonton AB T5Y 6B4 Phone: (780) 478-4959 www.enerproinsulation.com

**EPS Flushby Systems** 

PO Box 3283 Wainwright AB T9W 1T2 **Phone:** (780) 806-0000

Frog Lake Oilfield Services LP

5109 47 St Elk Point AB TOA 1A0 Phone: (780) 724-3131

**Fuller Austin Insulation Inc** 

11604 186 St NW Edmonton AB T5S 0C4 Phone: (780) 452-1701 www.fulleraustin.com

**Garrison Oilwell Servicing Ltd** 

PO Box 1368 Lloydminster SK S9V 1K4 Phone: (306) 825-7914

LeaseLink Services Ltd

PO Rox 1530 Cold Lake AB T9M 1P4 Phone: (780) 826-0979 www.leaselinkservices.com

**MADDON Oilfield Services** 

52518 Hwy 857 N Vegreville AB Phone: (780) 632-9910 www.maddon.ca

**Metal Masters Insulation Ltd** 

PO Box 1137 Manning AB TOH 2M0 Phone: (780) 836-2979

**O** K Industries

PO Box 1977 Lac La Biche AB TOA 2CO Phone: (780) 623-2675

**Park Derochie** 

11850 28 St NF Edmonton AB T6S 1G6 Phone: (780) 478-4688 www.ParkDerochie.com

**Pimee Well Servicing Ltd** 

PO Box 39 Kehewin AB TOA 1CO Phone: (780) 826-6392

Polycore Tubular Linings Corp/ Conestoga Pipe & Supply

430-736 8 Ave SW Calgary AB T2P 1H4 Phone: (403) 444-5545 www.polycore.ca

**Precision Well Servicing** 

6002 53 Ave Lloydminster AB T9V 2T2 Phone: (780) 875-5333 www.precisiondrilling.com

**Pro Insul Limited** 

14212 128 Ave NW Edmonton AR TSI 3H5 Phone: (780) 452-4724 www.proinsul.com

**R R C Insulation Services Ltd** 

RR 1 Gibbons AB TOA 1NO

Phone: (780) 921-4060 **Raider Well Servicing Ltd** 

6306 53 Ave

Lloydminster AB T9V 2E2

Phone: (780) 875-7373

**RD Scan Inc** PO Box 7159

Bonnyville AB T9N 2H5 Phone: (780) 812-6699 www.rdscan.biz

**REPPSCO Services Ltd** 

2130 121 Ave NE Edmonton AB T6S 1B1 Phone: (780) 791-4333 www.reppscoservices.com

**Royal Well Servicing Ltd** 

5211 65 St Lloydminster AB T9V 2E8 **Phone:** (780) 808-2333

**Serpa Petroleum Consulting Ltd** 

403 Oakside Cir SW Calgary AB T2V 4P1 Phone: (403) 861-6753 www.serpaconsulting.com

**Spears Well Servicing Ltd** 

5211 65 St

Lloydminster AB T9V 2E8 Phone: (780) 875-6100

**Thermal Insulation Association of Alberta** 

400-1040 7 Ave SW Calgary AB T2P 3G9 Phone: (403) 244-4487

www.tiaa.cc

**Twilight Urethanes Ltd** 

PO Box 1862 Stn Main Lloydminster SK S9V 1N4 **Phone:** (306) 825-4132

**Wizard Well Servicing Ltd** 

5211 65 St Lloydminster AB T9V 2E8 **Phone:** (780) 875-6035

## networking

#### Associations/ Organizations

#### **Alberta Chamber of Resources**

800 Sunlife Place 10123-99 St NW Edmonton AB T5J 3H1 Phone: (780) 420-1030 Fax: (780) 425-4623 www.acr-alberta.com

#### **Alberta Chambers of Commerce**

1808-10025 102A Ave NW Edmonton AB T5J 272 **Phone:** (780) 425-4180 **Fax:** (780) 486-7309 **www.abchamber.ca** 

#### Alberta Construction Safety Association

101-225 Parsons Rd SW Edmonton AB T6X 0W6 Phone: (780) 453-3311 Fax: (780) 455-1120 Toll Free: (800) 661-2272 Toll Free Fax: (877) 441-0440 www.acsa-safety.org

### Alberta Ironworkers Apprenticeship and Training Plan

10512 122 St NW Edmonton AB T5N 1M6 Phone: (780) 482-0908 Fax: (780) 482-0901 www.ironworkers720.com

#### **Alberta Land Surveyors' Association**

1000-10020 101A Ave NW Edmonton AB T5J 3G2 **Phone:** (780) 429-8805 **Fax:** (780) 429-3374 **www.alsa.ab.ca** 

#### **Alberta Sand & Gravel Association**

701-10080 Jasper Ave NW Edmonton AB T5J 1V9 **Phone:** (780) 435-2844 **Fax:** (780) 435-2044 **www.asga.ab.ca** 

#### Alberta Urban Municipalities Association

300-8616 51 Ave NW Edmonton AB T6E 6E6 **Phone:** (780) 433-4431 **Fax:** (780) 433-4454 **www.auma.ca** 

#### -----

1500-10060 Jasper Ave NW Edmonton AB T5J 4A2 **Phone:** (780) 426-3990 **Fax:** (780) 426-1877 **www.apega.ca** 

#### **APEGS**

104-2255 13 Ave Regina SK S4P 0V6 **Phone:** (306) 525-9547 **Fax:** (306) 525-0851 **www.apegs.sk.ca** 

#### ASET-Association of Science & Engineering Technology Professionals of Alberta

1630-10020 101A Ave NW Edmonton AB T5J 3G2 Phone: (780) 425-0626 Fax: (780) 424-5053 www.aset.ab.ca

#### **Bonnyville Chamber of Commerce**

PO Box 6054 Bonnyville AB T9N 2G7 **Phone:** (780) 826-3252 **www.bonnyvillechamber.com** 

#### Cactus Corridor Economic Development Corporation

PO Box 1255 Hanna AB TOJ 1P0 **Phone:** (403) 854-2099

#### **Calgary Chamber of Commerce**

600-237 8 Ave SE Calgary AB T2G 5C3 Phone: (403) 750-0400 Fax: (403) 266-3413 www.calgarychamber.com

## Canadian Association of Geophysical Contractors (CAGC)

1045-1015 4 St SW Calgary AB T2R 1J4 **Phone:** (403) 265-0045 **Fax:** (403) 265-0025 **www.cagc.ca** 

#### Canadian Association of Oilwell Drilling Contractors

2050-717 7 Ave SW Calgary AB T2P 0Z3 **Phone:** (403) 264-4311 **Fax:** (403) 263-3796 **www.caodc.ca** 

### Canadian Association of Petroleum Land Administration (CAPLA)

350-500 5 Ave SW Calgary AB T2P 3L5 **Phone:** (403) 237-6635 **www.caplacanada.org** 

## Canadian Association of Petroleum Landmen

350-500 5 Ave SW Calgary AB T2P 3L5 **Phone:** (403) 237-6635 **Fax:** (403) 263-1620 **www.landman.ca** 

### Canadian Association of Petroleum Producers (CAPP)

2100-350 7 Ave SW Calgary AB T2P 3N9 Phone: (403) 267-1100 Fax: (403) 261-4622 www.capp.ca

## Canadian Energy Pipeline Association (CEPA)

200-505 3 St SW Calgary AB T2P 3E6 Phone: (403) 221-8777 Fax: (403) 221-8760 www.cepa.com

#### Canadian Energy Research Institute

150-3512 33 St NW Calgary AB T2L 2A6 **Phone:** (403) 282-1231 **Fax:** (403) 284-4181 www.ceri.ca

#### **Canadian Heavy Oil Association**

400-500 5 Ave SW Calgary AB T2P 3L5 Phone: (403) 269-1755 Fax: (403) 453-0179 www.choa.ab.ca

#### **Canadian Society for Chemical**

Engineering (CSChE)
Engineering Bldg, 57 Campus Dr
Saskatoon SK S7N 5A9
Phone: (306) 966-4771
Fax: (306) 966-4777
www.chemeng.ca

#### Canadian Society of Exploration Geophysicists (CSEG)

570-400 5 Ave SW Calgary AB T2P 0L6 **Phone:** (403) 262-0015 **Fax:** (403) 262-7383 **www.cseg.ca** 

#### Canadian Society of Petroleum Geologists (CSPG)

110-333 5 Åve SW Calgary AB T2P 3B6 **Phone:** (403) 264-5610 **Fax:** (403) 264-5898 **www.cspg.org** 

#### **Canadian Standards Association**

1707 94 St NW Edmonton AB T6N 1E6 **Phone:** (780) 450-2111 **Fax:** (780) 461-5322

#### Canadian Well Logging Society

2200-700 2 St SW Calgary AB T2P 2W1 **Phone:** (403) 269-9366 **Fax:** (403) 269-2787 www.cwls.org

#### Central Alberta Economic Partnership Ltd (CAEP)

B102, 354-5212 48 St Red Deer AB T4N 7C3 Phone: (403) 357-2237 Fax: (403) 357-2288 www.centralalberta.ab.ca

## Certified Management Accountants Of Alberta

300-1210 8 St SW Calgary AB T2R 1L3 Phone: (403) 269-5341 Fax: (403) 262-5477 www.cma-alberta.com

#### Clean Air Strategic Alliance (CASA)

1000-10035 108 St NW Edmonton AB T5J 3E1 Phone: (780) 427-9793 Fax: (780) 422-3127 www.casahome.org

#### **Coal Association of Canada**

150-205 9 Ave SE Calgary AB T2G 0R3 **Phone:** (403) 262-1544 **Fax:** (403) 265-7604 www.coal.ca

#### Construction Labour Relations An Alberta Association

207-2725 12 St NE Calgary AB T2E 7J2 **Phone:** (403) 250-7390 **Fax:** (403) 250-5516 Toll Free: (800) 308-9466

#### www.clra.org

#### Construction Owners Association of Alberta

1940-10180 101 St NW Edmonton AB T5J 3S4 Phone: (780) 420-1145 Fax: (780) 425-4623 www.coaa.ab.ca

#### Cumulative Environmental Management Association (CEMA)

214-9914 Morrison St Fort McMurray AB T9H 4A4 **Phone:** (780) 799-3947 **Fax:** (780) 714-3081 **www.cemaonline.ca** 

#### **Edmonton Chamber of Commerce**

700-9990 Jasper Ave NW Edmonton AB T5J 1P7 **Phone:** (780) 426-4620 **Fax:** (780) 424-7946 **www.edmontonchamber.com** 

## **Environmental Services Association of Alberta (ESAA)**

102-2528 Ellwood Dr SW Edmonton AB T6X 0A9 Phone: (780) 429-6363 Fax: (780) 429-4249

### EPAC (Explorers & Producers Association of Canada)

1060-717 7 Ave SW Calgary AB T2P 0Z3 **Phone:** (403) 269-3454 **Fax:** (403) 269-3636 **www.explorersandproducers.ca** 

#### Executrade

9917 112 St NW Edmonton AB T5K 1L6 **Phone:** (780) 944-1122 www.executrade.com

### Fort McMurray Chamber of Commerce

304-9612 Franklin Ave Fort McMurray AB T9H 2J9 Phone: (780) 743-3100 Fax: (780) 790-9757 www.fortmcmurraychamber.ca

#### **Freehold Owners Association**

1403 12 St SW Calgary AB T3C 1B3 **Phone:** (403) 245-4438 **Fax:** (403) 245-4420 **www.fhoa.ca** 

- 157 -

#### **Genesis Executive Corporation**

1800-520 5 Ave SW Calgary AB T2P 3R7 Phone: (403) 237-8622 www.genesisexecutive.ca

#### **Geoscientists Canada**

200-4010 Regent St Burnaby BC V5C 6N2 **Phone:** (604) 412-4888 **Fax:** (604) 433-2494 **www.ccpg.ca** 

#### **International Energy Foundation**

Site 8 Box 64 RR 1 Okotoks AB T1S 1A1 Phone: (403) 938-6210 Fax: (403) 938-6210 www.ief-energy.org

### International Union of Painters & Allied Trades

17804 118 Ave NW Edmonton AB T5S 2W3 **Phone:** (780) 484-8645 **Fax:** (780) 486-7309

#### Lakeland Industry & Community Association

5107 W 50 St Bonnyville AB T9N 2J5 **Phone:** (780) 812-2182 **Fax:** (780) 812-2186 www.lica.ca

#### **Lloydminster Chamber of Commerce**

4419 52 Ave Lloydminster AB T9V 0Y8 **Phone:** (780) 875-9013 **Fax:** (780) 875-0755

### www.lloydminsterchamber.com

## Manufacturers' Health & Safety Association

201-292060 Wagon Wheel Link Rocky View AB T4A 0E2 **Phone:** (403) 279-5555 **Fax:** (403) 279-1993 **www.mhsa.ab.ca** 

#### **Merit Contractors Association**

103-13025 St Albert Trl NW Edmonton AB T5L 5G4 **Phone:** (780) 455-5999 **Fax:** (780) 455-2109 **www.meritalberta.com** 

#### Oil Sands Environmental Research Network (OSERN)

Room 751, General Services Bldg University of Alberta Edmonton AB T6G 2H1 Phone: (780) 492-6538 Fax: (780) 492-4323 www.osrin.ualberta.ca

#### Oil Sands Safety Association (OSSA)

Box 13-8115 Franklin Ave Fort McMurray AB T9H 2H7 **Phone:** (780) 791-4944 **Fax:** (780) 715-3945 **www.ossa-wb.ca** 

### Peace River and District Chamber of Commerce

9309 100 St Peace River AB T8S 1S4 **Phone:** (780) 624-4166 **Fax:** (780) 624-4663

### Petroleum Joint Venture Assocation (PJVA)

400-1040 7 Ave SW Calgary AB T2P 3G9 Phone: (403) 244-4487 Fax: (403) 244-2340 www.pjva.ca

### Petroleum Services Association of Canada

1150-800 6 Ave SW Calgary AB T2P 3G3 **Phone:** (403) 264-4195 **Fax:** (403) 263-7174 **www.psac.ca** 

#### Petroleum Technology Alliance Canada (PTAC)

Canada (PIAC) 400-500 5 Ave SW Calgary AB T2P 3L5 Phone: (403) 218-7700 Fax: (403) 920-0054 www.ptac.org

### Progressive Contractors Association of Canada - PCAC

1024 Parsons Rd SW Edmonton AB T6X 0J4 Phone: (780) 466-3819 Fax: (780) 466-5410 www.pcac.ca

#### **Society of Petroleum Engineers**

900-521 3 Ave SW Calgary AB T2P 3T3 **Phone:** (403) 930-5454 **Fax:** (403) 930-5470 **www.spe.org** 

#### **Special Areas Board**

PO Box 820 Hanna AB TOJ 1P0 Phone: (403) 854-5600 Fax: (403) 854-5627 www.specialareas.ab.ca

#### Workers' Compensation Board-Alberta 9912 107 St NW

Edmonton AB T5K 1G5 Phone: (780) 498-3999 Fax: (780) 498-7875 www.wcb.ab.ca

#### **Education**

#### **Athabasca University**

1 University Dr Athabasca AB T9S 3A3 **Phone:** (780) 675-6100 **Fax:** (780) 675-6437 **www.athabascau.ca** 

#### **Ayrton Exploration Consulting Ltd.**

1409 Shelbourne St SW Calgary AB T3C 2L1 Phone: (403) 262-5440 Fax: (403) 229-0083 www.ayrtonexploration.com

#### **CAREERS: The Next Generation**

204-10470 176 St NW Edmonton AB T5S 1L3 **Phone:** (780) 426-3414 **Fax:** (780) 428-8164 **www.nextgen.org** 

#### **DeVry Institute of Technology**

2700 3 Ave SE Calgary AB T2A 7W4 Phone: (403) 235-3450 Fax: (403) 207-6225 Toll Free: (800) 247-7800 International Office Phone: (602) 216-7700 www.devry.ca

#### **Enform Technology and International**

5055 11 St NE Calgary AB T2E 8N4 Phone: (403) 516-8000 Fax: (403) 291-9408 www.enform.ca

#### Engineering Internship ProgramSchulich School of Engineering, University of Calgary

118-2500 University Dr NW Calgary AB T2N 1N4 **Phone:** (403) 220-2930 **Fax:** (403) 220-9057 **www.schulich.ucalgary.ca/eip** 

#### Faculty of Extension, University of Alberta

10230 Jasper Ave Edmonton AB T5J 4P6 **Phone:** (780) 492-3116

#### **Grande Prairie Regional College**

10726 106 Ave Grande Prairie AB T8V 4C4 Phone: (780) 539-2975 Fax: (780) 539-2791 www.gprc.ab.ca

#### **Industrial Training Consultants, Inc**

Pelham AL 35124
Phone: (205) 663-4960
Fax: (205) 663-4962
www.itctrng.com

#### Institute For Sustainable Energy,

Environment & Economy
220 CCIT Bldg, University of Calgary
2500 University Dr NW
Calgary AB T2N 1N4
Phone: (403) 220-6100
Fax: (403) 210-9770
www.iseee.ca

#### Keyano College

8115 Franklin Ave Fort McMurray AB T9H 2H7 Phone: (780) 791-4800 Fax: (780) 791-1555 www.keyano.ca

#### **Lakeland College**

5707 College Dr Vermilion AB T9X 1K5 **Phone:** (780) 853-8400 **www.lakelandc.ab.ca** 

### Lakeland College Emergency Training Centre

5704 College Dr Vermilion AB T9X 1K4 Phone: (780) 853-5800 Fax: (780) 853-3008 www.lakelandcollege.ca

### Lloydminster Heavy Oil Show

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