

Daily Oil Bulletin

**TOP
OPERATORS
2018**

**KPMG'S
MICHAEL
MCKERRACHER**
IS GUARDEDLY

OPTIMISTIC

INDUSTRY MAY
FINALLY BE
FINDING FIRMER
FOOTING

**TWO
STEPS
FORWARD**

**ONE
STEP
BACK**



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Canadian Production – July 2019

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Two steps forward, one step back

KPMG's **Michael McKerracher** is guardedly optimistic industry may finally be finding firmer footing

By Darrell Stonehouse

The last three years have been an uphill trek for Canada's oil and gas producers. Persistently low global commodity prices, combined with a series of domestic hurdles including market access, a growing regulatory burden and negative market sentiment, created high levels of investment uncertainty and made it challenging for many operators to survive.

The result of these downward pressures can be seen in this year's KPMG/Daily Oil Bulletin Top 100. The number of publicly traded Canadian oil and gas companies on the TSX tracked by the DOB

has declined by 30 per cent since 2014, and now totals only 72 TSX listed companies. The TSX Venture Exchange, where smaller companies are listed, fared even worse, falling by over 40 per cent. Market capitalization for TSX-listed companies declined from over \$310 billion to around \$210 billion from the end of 2014 to the end of 2018.

But it isn't all bad news, says Michael McKerracher, National Industry Leader for Energy at KPMG.

"If you step way back the industry is getting better," McKerracher says. "Globally, demand for

energy continues to grow, and the Canadian industry is getting better at telling its energy story to the world."

"There are still over a billion people in the world without electricity," he points out. "Canadian producers are still among the best producers to meet these needs."

Domestically, advances are being made to answer market access issues with the recent approvals of the Trans Mountain Pipeline and Canada LNG export facility.

Oil and gas producers have

largely cut costs and cleaned up balance sheets to compete in the current global commodity price environment, with many positioned for growth when market access comes on stream.

"We're at a bit of a tipping point. You need low costs and a strong balance sheet but you still have to spend money to grow," he says. "It's a balancing act for producers."

What is needed now is stability to bring investors back into the fold. A number of regulatory issues surrounding the project approval process remain unsolved. There are also concerns about high regulatory and taxation burdens. All these factors are making it challenging to understand how current investments will play out in the future.

"Investors put money where there is some comfort they can model future cash flows. If they can't, they won't invest," he says.

What investment there is in the industry is looking for yield, not growth.

"Most companies are using share buybacks or dividend increases. In a down environment this allows access to investors but it's not a long-term strategy. This is a capital intensive, high decline business that needs investment."

McKerracher says he is hopeful the federal election this fall will be the last hurdle to create more stability and have investors once again look at Canada as a potential growth area.

"I'm guardedly optimistic," he says. "Industry needs to take the little successes it has had and build on them. We have to change our sentiment and rebuild our confidence. We need to get our mojo back."

Oilsands operators will continue to consolidate and vertically integrate

The oilsands sector has consolidated significantly over the last two years as Canadian operators solidified their interest in production from northeast Alberta. This trend will likely continue as operators build the scale necessary to vertically integrate operations further downstream, says McKerracher.

"Vertical integration makes a lot of sense. If you look at 2018 you see that investors are putting money into those companies that are integrated with refineries. If fully vertically integrated, no matter where they are in the commodity cycle, they can take profits out of different businesses and maintain cash flow. Some smaller producers are less able to influence infrastructure and that hurts them from the production to the sales point."

"You need scale to integrate," he adds, pointing to more consolidation going forward.

More challenging years ahead for gas producers

While many oilsands operators have the scale and investor confidence

to move forward, natural gas is a different story, says McKerracher.

"Natural gas companies are facing greater difficulty. Adding the LNG Canada facility will be a boost for operators." McKerracher expects the LNG facility to expand quickly to four trains once construction begins. "However, for the near term, gas producers will remain in survival mode as it will remain difficult to reduce Canada's natural gas glut until an LNG facility is operational."

"We need two or three LNG facilities. I think we may eventually get two."

McKerracher says the consortium of Montney and Duvernay region gas producers, who put together a partnership to investigate developing their own export facility, are on the right track.

"I think it's a great idea. They have hired people with good experience to lead the initiative. The gas is there; they just need the international sales contracts. I think there is a good chance, if they put it all together with the support of the Indigenous communities, they will find financing."

While awaiting LNG exports, however, he expects investment will flow to the producers with the scale and control of infrastructure to ship production to a variety of markets.

"The junior group that has little control over infrastructure and is stuck selling at AECO. They need market diversification and that's tough without the control of infrastructure," he explains.

The tax burden also makes it difficult for smaller oil and gas operators to prosper.

"There's no big returns to begin with and everyone has their hand out for a piece of it. The more governments can understand the full picture of the whole tax burden and how it is affecting the industry, the better."

Add the recent Redwater court decision to the mix. Redwater puts regulators saddled with decommissioning costs at the front of the line in insolvency cases before creditors. As a result, banks and other debt financiers are taking a close look at company liabilities during credit renewal time.

"The majority of companies can survive Redwater," he says. "It will

cause a little uncertainty in smaller producers. Banks will look closer at asset retirement obligations and could limit reserve-based loans. Smaller companies already at the top of their lines could be in trouble. It could cause some consolidation."

Desperation in service sector will continue until investment returns

The lack of investment in growing production puts the oilfield services sector in a tough position. "Inefficient service companies are not around anymore," he says.

Those that remain are providing innovative solutions that drive down costs or drive up production. There is also a demand to work together with customers and others in the

supply chain.

"For individual companies to survive they need to build better alliances. Everyone has to be on one page," he explains. "We're not as tight as we could be with alliances."

The lack of investment has led to a number of service companies looking outside of Canada for opportunity. This could have a major effect if investment returns, says McKerracher.

"Our oilfield services are world-renowned. Our Energy Service companies are moving talented people to other places in the world. "It is a real concern for the whole industry when we are losing our young talent!"

McKerracher sums up, "Let's get our mojo back, build on the little wins, and show the world what the Canadian Energy sector is known for - hard work and resilience!"



Canadian company financial performance

| | | BOE/D | | Revenue (\$000) | | Net Income (\$000) | | Cash Flow From Operations (\$000) | | Net Capex (\$000) | |
|----|---------------------------------------|---------|-----------|-----------------|------------|--------------------|------------|-----------------------------------|------------|-------------------|-----------|
| | Company Name | 2017 | 2018 | 2017 | 2018 | 2017 | 2018 | 2017 | 2018 | 2017 | 2018 |
| 1 | Canadian Natural Resources Limited | 908,308 | 1,025,484 | 17,342,000 | 21,027,000 | 2,397,000 | 2,591,000 | 7,262,000 | 10,121,000 | 17,129,000 | 4,731,000 |
| 2 | Suncor Energy Inc. | 617,400 | 684,800 | 31,954,000 | 38,542,000 | 4,458,000 | 3,293,000 | 8,966,000 | 10,580,000 | 4,519,000 | 6,396,000 |
| 3 | Cenovus Energy Inc. | 470,490 | 483,458 | 17,043,000 | 20,844,000 | 3,366,000 | -2,669,000 | 3,059,000 | 2,154,000 | 16,839,000 | 654,000 |
| 4 | Imperial Oil Limited | 375,000 | 383,000 | 27,452,000 | 33,297,000 | 490,000 | 2,314,000 | 2,763,000 | 3,922,000 | 439,000 | 1,368,000 |
| 5 | Tourmaline Oil Corp. | 242,325 | 265,044 | 1,616,288 | 1,688,034 | 346,773 | 401,418 | 1,182,900 | 1,269,491 | 1,406,616 | 1,214,437 |
| 6 | Husky Energy Inc. | 283,133 | 252,300 | 18,639,000 | 22,102,000 | 786,000 | 1,457,000 | 3,704,000 | 4,134,000 | 2,698,000 | 3,589,000 |
| 7 | Encana Corporation | 179,833 | 224,500 | 5,067,869 | 7,223,872 | 1,069,711 | 1,387,658 | 1,358,158 | 2,985,607 | 1,440,941 | 1,945,837 |
| 8 | Seven Generations Energy Ltd. | 175,016 | 202,578 | 2,246,300 | 3,215,100 | 562,500 | 439,900 | 1,154,300 | 1,796,300 | 1,651,400 | 1,765,700 |
| 9 | Crescent Point Energy Corp | 149,085 | 140,027 | 2,858,700 | 3,320,500 | -124,000 | -2,616,900 | 1,718,700 | 1,748,000 | 1,896,700 | 1,589,900 |
| 10 | ARC Resources Ltd. | 122,937 | 132,724 | 1,208,500 | 1,395,900 | 388,900 | 213,800 | 672,800 | 862,800 | 929,800 | 484,400 |
| 11 | Peyto Exploration & Development Corp. | 102,614 | 92,012 | 668,909 | 475,524 | 176,575 | 129,110 | 535,344 | 486,478 | 529,110 | 238,763 |
| 12 | MEG Energy Corp. | 80,774 | 87,731 | 2,474,495 | 2,732,704 | 165,976 | -119,197 | 317,935 | 280,032 | 497,076 | -886,480 |
| 13 | Paramount Resources Ltd. | 44,970 | 85,941 | 466,772 | 896,291 | 336,893 | -367,163 | 126,295 | 223,413 | 848,123 | 397,860 |
| 14 | Birchcliff Energy Ltd. | 67,963 | 77,096 | 528,215 | 583,115 | -46,980 | 102,212 | 287,660 | 324,434 | 276,125 | 298,018 |
| 15 | Whitecap Resources Inc. | 57,450 | 74,415 | 866,383 | 1,257,209 | -123,968 | 65,128 | 489,119 | 727,934 | 1,296,046 | 517,983 |
| 16 | Bonavista Energy Corporation | 72,156 | 69,154 | 511,325 | 480,607 | -27,930 | 11,815 | 325,619 | 291,191 | 281,745 | 171,290 |
| 17 | Painted Pony Energy Ltd. | 42,882 | 57,879 | 244,285 | 398,027 | 122,376 | 7,064 | 106,917 | 169,035 | 303,478 | 154,360 |
| 18 | Vermilion Energy Inc. | 29,510 | 48,630 | 1,024,362 | 1,525,950 | 62,258 | 271,650 | 593,896 | 816,011 | 348,086 | 2,277,639 |
| 19 | Baytex Energy Corp. | 33,564 | 43,382 | 857,975 | 1,115,116 | 87,174 | -325,309 | 325,208 | 485,322 | 386,361 | 495,707 |
| 20 | Advantage Oil & Gas Ltd. | 39,315 | 41,651 | 225,377 | 224,830 | 95,039 | 11,119 | 186,401 | 160,162 | 248,774 | 203,834 |
| 21 | NuVista Energy Ltd. | 29,783 | 40,353 | 365,597 | 539,576 | 94,368 | 136,245 | 224,680 | 251,057 | 313,061 | 960,236 |
| 22 | Athabasca Oil Corporation | 35,421 | 39,203 | 772,407 | 790,941 | -209,407 | -569,657 | 61,697 | 83,844 | 171,837 | 276,328 |
| 23 | Bellatrix Exploration Ltd. | 36,872 | 35,635 | 219,864 | 199,347 | -91,363 | -146,339 | 55,210 | 62,475 | 74,452 | 59,569 |
| 24 | Teck Resources Limited | 0 | 31,955 | 11,910,000 | 12,564,000 | 2,460,000 | 3,107,000 | 5,049,000 | 4,438,000 | 2,299,000 | 2,613,000 |
| 25 | Obsidian Energy Ltd. | 31,723 | 28,953 | 420,000 | 408,000 | -84,000 | -305,000 | 125,000 | 99,000 | 30,000 | 155,000 |
| 26 | Kelt Exploration Ltd. | 22,130 | 27,006 | 234,000 | 358,576 | -23,178 | 8,154 | 115,222 | 186,383 | 127,977 | 285,498 |
| 27 | TORC Oil & Gas Ltd. | 20,871 | 25,339 | 326,194 | 446,064 | -10,490 | 16,894 | 187,815 | 294,347 | 187,546 | 374,478 |
| 28 | Tamarack Valley Energy Ltd. | 20,136 | 24,237 | 255,607 | 359,561 | -13,924 | 38,310 | 144,525 | 236,672 | 303,440 | 219,209 |
| 29 | International Petroleum Corporation | 0 | 23,900 | 262,578 | 589,908 | 29,385 | 134,504 | 186,077 | 367,288 | 30,556 | 542,586 |
| 30 | Crew Energy Inc. | 23,061 | 23,885 | 203,983 | 215,251 | 34,405 | 12,799 | 117,290 | 89,162 | 190,396 | 93,413 |
| 31 | PrairieSky Royalty Ltd. | 25,259 | 23,358 | 345,700 | 273,800 | 120,600 | 79,400 | 298,600 | 235,200 | 361,100 | 58,600 |
| 32 | Pengrowth Energy Corporation | 40,428 | 22,025 | 627,600 | 508,000 | -683,800 | -559,300 | 142,400 | 31,700 | -792,200 | 42,600 |
| 33 | Cardinal Energy Ltd. | 18,707 | 20,858 | 271,454 | 318,869 | -57,597 | 60,544 | 76,530 | 88,767 | 353,582 | 35,148 |
| 34 | Storm Resources Ltd. | 16,017 | 20,538 | 145,906 | 218,131 | 39,689 | 40,063 | 63,749 | 92,241 | 81,685 | 84,763 |
| 35 | Pine Cliff Energy Ltd. | 21,408 | 19,684 | 114,866 | 100,028 | -67,864 | -72,719 | 25,009 | 8,616 | 12,986 | 10,687 |
| 36 | Surge Energy Inc. | 14,922 | 18,058 | 213,311 | 264,162 | -6,673 | -71,533 | 93,682 | 121,907 | 170,931 | 448,317 |
| 37 | Enerplus Corporation | 19,677 | 14,929 | 920,693 | 1,292,736 | 236,998 | 378,279 | 476,125 | 738,784 | 417,800 | 619,300 |
| 38 | Bonterra Energy Corp. | 12,827 | 13,206 | 188,362 | 199,566 | 2,506 | 7,167 | 103,873 | 115,963 | 25,689 | 78,737 |
| 39 | Freehold Royalties Ltd. | 12,350 | 11,410 | 150,720 | 144,542 | 12,218 | 14,032 | 119,267 | 133,124 | 59,188 | 57,014 |
| 40 | Perpetual Energy Inc. | 9,876 | 10,594 | 72,209 | 76,580 | -35,971 | -20,380 | 19,170 | 31,525 | 72,557 | 15,318 |
| 41 | Journey Energy Inc. | 9,962 | 10,075 | 98,743 | 103,065 | -133,021 | -37,447 | 36,798 | 15,415 | 65,628 | 26,644 |
| 42 | Delphi Energy Corp. | 8,401 | 9,774 | 100,933 | 127,253 | 6,902 | -26,366 | 31,044 | 54,128 | 117,292 | 90,834 |

Canadian company financial performance (continued)

| | Company Name | BOE/D | | Revenue (\$000) | | Net Income (\$000) | | Cash Flow From Operations (\$000) | | Net Capex (\$000) | |
|----|-----------------------------------|--------|-------|-----------------|---------|--------------------|---------|-----------------------------------|--------|-------------------|---------|
| | | 2017 | 2018 | 2017 | 2018 | 2017 | 2018 | 2017 | 2018 | 2017 | 2018 |
| 43 | Yangarra Resources Ltd. | 5,741 | 9,425 | 71,501 | 121,573 | 19,485 | 33,566 | 51,775 | 83,768 | 83,472 | 150,832 |
| 44 | Petrus Resources Ltd. | 10,217 | 9,019 | 77,299 | 69,078 | -111,261 | -3,284 | 45,934 | 28,420 | 77,491 | 23,650 |
| 45 | Gear Energy Ltd. | 6,511 | 6,786 | 92,097 | 96,458 | 10,229 | 5,094 | 36,768 | 41,752 | 49,474 | 110,031 |
| 46 | Cequence Energy Ltd. | 8,139 | 6,507 | 57,886 | 56,227 | -99,362 | -9,699 | 19,884 | 11,758 | 21,580 | 20,937 |
| 47 | Prairie Provident Resources Inc. | 5,470 | 5,372 | 68,638 | 71,762 | -47,802 | -32,965 | 16,621 | 16,553 | 64,198 | 24,476 |
| 48 | Razor Energy Corp. | 3,813 | 4,888 | 52,859 | 100,942 | -3,650 | 4,239 | 4,351 | 22,360 | 42,602 | 36,726 |
| 49 | InPlay Oil Corp. | 3,972 | 4,653 | 55,972 | 69,535 | -7,701 | -8,598 | 22,552 | 30,411 | 50,291 | 28,736 |
| 50 | Chinook Energy Inc. | 3,425 | 3,719 | 22,277 | 26,887 | -16,914 | -27,654 | 6,118 | 255 | 21,206 | 2,890 |
| 51 | Leucrotta Exploration Inc. | 2,865 | 3,550 | 25,695 | 33,294 | -8,222 | -43 | 8,311 | 16,249 | 92,414 | 36,680 |
| 52 | TransGlobe Energy Corporation | 2,684 | 2,289 | 192,036 | 228,759 | -101,844 | 20,350 | 76,898 | 89,817 | 49,358 | 52,840 |
| 53 | Granite Oil Corp. | 2,668 | 1,995 | 39,235 | 32,459 | -5,508 | 753 | 22,910 | 10,191 | 18,750 | 10,211 |
| 54 | Questerre Energy Corporation | 1,379 | 1,871 | 20,268 | 31,084 | -24,821 | 13,466 | 14,661 | 13,091 | 27,746 | 31,102 |
| 55 | Zargon Oil & Gas Ltd. | 2,152 | 1,666 | 34,240 | 30,378 | -9,310 | -35,368 | 2,484 | 1,223 | 8,860 | 4,300 |
| 56 | Toscana Energy Income Corporation | 2,162 | 1,650 | 19,689 | 15,147 | -10,185 | -16,950 | 750 | 66 | -645 | -684 |
| 57 | Eagle Energy Inc. | 2,023 | 1,513 | 55,569 | 37,276 | -17,349 | -27,807 | 15,292 | 5,995 | 24,151 | -31,640 |
| 58 | Altura Energy Inc. | 1,128 | 1,172 | 16,404 | 15,167 | -103 | 2,693 | 9,548 | 9,787 | 21,197 | 9,367 |
| 59 | Blackbird Energy Inc. | 419 | 1,143 | 5,838 | 19,304 | -10,600 | -3,522 | -2,799 | 8,101 | 78,294 | 54,418 |
| 60 | Hemisphere Energy Corporation | 659 | 1,111 | 9,157 | 14,675 | -3,796 | -4,854 | 1,915 | 2,230 | 8,689 | 16,057 |
| 61 | Point Loma Resources Ltd. | 591 | 774 | 4,899 | 5,571 | -7,508 | -13,908 | -3,285 | -2,787 | 2,467 | 3,366 |
| 62 | Corridor Resources Inc. | 412 | 707 | 7,280 | 16,438 | 17,739 | -314 | 1,077 | 11,870 | -16,672 | 2,253 |
| 63 | Traverse Energy Ltd. | 768 | 559 | 9,695 | 6,397 | -5,006 | -17,705 | 3,420 | 2,216 | 17,706 | 2,954 |
| 64 | Pieridae Energy Limited | 0 | 528 | 90 | 2,652 | -8,825 | -34,870 | -10,239 | -8,407 | -12,418 | -5,964 |
| 65 | PetroFrontier Corp. | 373 | 260 | 4,936 | 3,269 | -1,762 | -2,290 | 605 | -438 | 2,994 | 207 |
| 66 | Saturn Oil & Gas Inc. | 58 | 255 | 169 | 4,057 | -2,399 | -1,523 | -171 | -143 | 3,980 | 16,081 |
| 67 | Vital Energy Inc. | 214 | 250 | 2,886 | 3,608 | -869 | -870 | 170 | 1,079 | 232 | 3,377 |
| 68 | Return Energy Inc. | 286 | 248 | 1,922 | 1,900 | -2,249 | -3,156 | -978 | -2,135 | 957 | 2,675 |
| 69 | Pulse Oil Corp. | 68 | 210 | 637 | 2,492 | -1,212 | 46 | -878 | 1,909 | 2,901 | 2,690 |
| 70 | DXI Energy Inc. | 273 | 186 | 2,480 | 1,744 | -5,209 | -11,632 | -1,558 | -891 | 456 | 781 |
| 71 | Tenth Avenue Petroleum Corp. | 80 | 180 | 324 | 759 | -477 | -200 | -167 | -26 | 1,253 | 0 |
| 72 | Arrow Exploration Corp. | 0 | 130 | 0 | 7,889 | 0 | -863 | 0 | 3,706 | 0 | 18,337 |
| 73 | Cobra Venture Corporation | 45 | 57 | 641 | 938 | -436 | -116 | -307 | 51 | 91 | 291 |
| 74 | Emerald Bay Energy Inc. | 20 | 49 | 428 | 1,126 | -3,631 | -3,020 | -833 | 421 | -84 | 475 |
| 75 | Southern Energy Corp. | 54 | 47 | 765 | 1,340 | -606 | -2,695 | -69 | -1,591 | -371 | 33,335 |
| 76 | Canadian Spirit Resources Inc. | 106 | 30 | 369 | 114 | -1,988 | -7,363 | -654 | -904 | 678 | 650 |
| 77 | Petrox Resources Corp. | 29 | 27 | 588 | 649 | -2,445 | -148 | -61 | 35 | 14 | 0 |
| 78 | Huntington Exploration Inc. | 29 | 23 | 116 | 53 | -425 | -316 | -290 | -320 | -119 | 0 |
| 79 | Strikewell Energy Corp. | 11 | 12 | 585 | 525 | -1,702 | -2,285 | 66 | 71 | 0 | 0 |
| 80 | Volt Energy Corp. | 15 | 12 | 0 | 0 | -225 | -1,171 | -180 | -603 | 1 | 77 |

Top Canadian companies by production

| | Company Name | BOE/D | | Oil (bbl/d) | | Gas (mmcf/d) | | % Oil | |
|----|---------------------------------------|---------|-----------|-------------|---------|--------------|-----------|-------|------|
| | | 2017 | 2018 | 2017 | 2018 | 2017 | 2018 | 2017 | 2018 |
| 1 | Canadian Natural Resources Limited | 908,308 | 1,025,484 | 641,475 | 777,151 | 1,601.000 | 1,490.000 | 71% | 76% |
| 2 | Suncor Energy Inc. | 617,400 | 684,800 | 615,500 | 684,300 | 11.400 | 3.000 | 100% | 100% |
| 3 | Cenovus Energy Inc. | 470,490 | 483,458 | 360,704 | 395,450 | 659.000 | 528.000 | 77% | 82% |
| 4 | Imperial Oil Limited | 375,000 | 383,000 | 355,000 | 361,000 | 120.000 | 129.000 | 95% | 94% |
| 5 | Tourmaline Oil Corp. | 242,325 | 265,044 | 38,737 | 47,540 | 1,221.529 | 1,305.020 | 16% | 18% |
| 6 | Husky Energy Inc. | 283,133 | 252,300 | 220,100 | 203,800 | 378.200 | 291.000 | 78% | 81% |
| 7 | Encana Corporation | 179,833 | 224,500 | 32,000 | 53,500 | 887.000 | 1,026.000 | 18% | 24% |
| 8 | Seven Generations Energy Ltd. | 175,016 | 202,578 | 102,434 | 120,831 | 435.500 | 490.500 | 59% | 60% |
| 9 | Crescent Point Energy Corp | 149,085 | 140,027 | 135,480 | 126,333 | 81.629 | 82.161 | 91% | 90% |
| 10 | ARC Resources Ltd. | 122,937 | 132,724 | 35,303 | 37,696 | 525.800 | 570.200 | 29% | 28% |
| 11 | Peyto Exploration & Development Corp. | 102,614 | 92,012 | 9,337 | 9,692 | 559.663 | 493.921 | 9% | 11% |
| 12 | MEG Energy Corp. | 80,774 | 87,731 | 80,774 | 87,731 | 0 | 0 | 100% | 100% |
| 13 | Paramount Resources Ltd. | 44,970 | 85,941 | 18,094 | 31,624 | 161.200 | 325.900 | 40% | 37% |
| 14 | Birchcliff Energy Ltd. | 67,963 | 77,096 | 14,475 | 15,068 | 320.927 | 372.170 | 21% | 20% |
| 15 | Whitecap Resources Inc. | 57,450 | 74,415 | 47,004 | 62,908 | 62.676 | 69.042 | 82% | 85% |
| 16 | Bonavista Energy Corporation | 72,156 | 69,154 | 21,269 | 19,587 | 305.680 | 297.000 | 29% | 28% |
| 17 | Painted Pony Energy Ltd. | 42,882 | 57,879 | 3,587 | 5,128 | 235.767 | 316.507 | 8% | 9% |
| 18 | Vermilion Energy Inc. | 29,510 | 48,630 | 13,195 | 27,068 | 97.890 | 129.370 | 45% | 56% |
| 19 | Baytex Energy Corp. | 33,564 | 43,382 | 27,533 | 36,112 | 36.186 | 43.622 | 82% | 83% |
| 20 | Advantage Oil & Gas Ltd. | 39,315 | 41,651 | 1,218 | 1,491 | 228.583 | 240.959 | 3% | 4% |
| 21 | NuVista Energy Ltd. | 29,783 | 40,353 | 11,753 | 16,228 | 108.187 | 144.750 | 39% | 40% |
| 22 | Athabasca Oil Corporation | 35,421 | 39,203 | 31,940 | 33,686 | 20.890 | 33.104 | 90% | 86% |
| 23 | Bellatrix Exploration Ltd. | 36,872 | 35,635 | 9,192 | 9,876 | 166.078 | 154.553 | 25% | 28% |
| 24 | Teck Resources Limited | 0 | 31,955 | 0 | 31,955 | 0 | 0 | 0% | 100% |
| 25 | Obsidian Energy Ltd. | 31,723 | 28,953 | 19,623 | 18,637 | 73.000 | 61.895 | 62% | 64% |
| 26 | Kelt Exploration Ltd. | 22,130 | 27,006 | 9,242 | 11,589 | 77.330 | 92.502 | 42% | 43% |
| 27 | TORC Oil & Gas Ltd. | 20,871 | 25,339 | 18,432 | 22,308 | 14.634 | 18.183 | 88% | 88% |
| 28 | Tamarack Valley Energy Ltd. | 20,136 | 24,237 | 11,987 | 15,719 | 48.893 | 51.108 | 60% | 65% |
| 29 | International Petroleum Corporation | 0 | 23,900 | 0 | 6,300 | 0 | 105.600 | 0% | 26% |
| 30 | Crew Energy Inc. | 23,061 | 23,885 | 5,954 | 6,199 | 102.642 | 106.116 | 26% | 26% |
| 31 | PrairieSky Royalty Ltd. | 25,259 | 23,358 | 12,242 | 11,467 | 78.100 | 71.300 | 48% | 49% |
| 32 | Pengrowth Energy Corporation | 40,428 | 22,025 | 25,200 | 17,239 | 91.367 | 28.716 | 62% | 78% |
| 33 | Cardinal Energy Ltd. | 18,707 | 20,858 | 15,801 | 18,095 | 17.431 | 16.579 | 84% | 87% |
| 34 | Storm Resources Ltd. | 16,017 | 20,538 | 2,930 | 3,702 | 78.521 | 101.019 | 18% | 18% |
| 35 | Pine Cliff Energy Ltd. | 21,408 | 19,684 | 1,122 | 1,166 | 121.718 | 111.110 | 5% | 6% |
| 36 | Surge Energy Inc. | 14,922 | 18,058 | 11,986 | 14,615 | 17.615 | 20.658 | 80% | 81% |
| 37 | Enerplus Corporation | 19,677 | 14,929 | 11,972 | 10,346 | 46.228 | 27.497 | 61% | 69% |
| 38 | Bonterra Energy Corp. | 12,827 | 13,206 | 8,812 | 9,114 | 24.087 | 24.549 | 69% | 69% |
| 39 | Freehold Royalties Ltd. | 12,350 | 11,410 | 6,792 | 6,212 | 33.346 | 31.186 | 55% | 54% |
| 40 | Perpetual Energy Inc. | 9,876 | 10,594 | 1,603 | 1,824 | 49.600 | 52.600 | 16% | 17% |
| 41 | Journey Energy Inc. | 9,962 | 10,075 | 4,560 | 4,729 | 32.413 | 32.083 | 46% | 47% |
| 42 | Delphi Energy Corp. | 8,401 | 9,774 | 3,218 | 3,953 | 31.098 | 34.925 | 38% | 40% |

Top Canadian companies by production (continued)

| | Company Name | BOE/D | | Oil (bbl/d) | | Gas (mmcf/d) | | % Oil | |
|----|-----------------------------------|--------|-------|-------------|-------|--------------|--------|-------|------|
| | | 2017 | 2018 | 2017 | 2018 | 2017 | 2018 | 2017 | 2018 |
| 43 | Yangarra Resources Ltd. | 5,741 | 9,425 | 3,257 | 5,593 | 14,902 | 22,993 | 57% | 59% |
| 44 | Petrus Resources Ltd. | 10,217 | 9,019 | 2,926 | 2,835 | 43,747 | 37,101 | 29% | 31% |
| 45 | Gear Energy Ltd. | 6,511 | 6,786 | 5,614 | 6,006 | 5,379 | 4,680 | 86% | 89% |
| 46 | Cequence Energy Ltd. | 8,139 | 6,507 | 1,395 | 1,491 | 40,466 | 30,098 | 17% | 23% |
| 47 | Prairie Provident Resources Inc. | 5,470 | 5,372 | 3,381 | 3,800 | 12,537 | 9,426 | 62% | 71% |
| 48 | Razor Energy Corp. | 3,813 | 4,888 | 3,405 | 4,260 | 2,448 | 3,770 | 89% | 87% |
| 49 | InPlay Oil Corp. | 3,972 | 4,653 | 2,662 | 3,248 | 7,857 | 8,431 | 67% | 70% |
| 50 | Chinook Energy Inc. | 3,425 | 3,719 | 492 | 584 | 17,602 | 18,806 | 14% | 16% |
| 51 | Leucrotta Exploration Inc. | 2,865 | 3,550 | 820 | 954 | 12,268 | 15,574 | 29% | 27% |
| 52 | TransGlobe Energy Corporation | 2,684 | 2,289 | 1,577 | 1,338 | 6,644 | 5,707 | 59% | 58% |
| 53 | Granite Oil Corp. | 2,668 | 1,995 | 2,598 | 1,978 | 0,417 | 0,102 | 97% | 99% |
| 54 | Questerre Energy Corporation | 1,379 | 1,871 | 821 | 1,265 | 3,350 | 3,634 | 60% | 68% |
| 55 | Zargon Oil & Gas Ltd. | 2,152 | 1,666 | 1,596 | 1,347 | 3,337 | 1,908 | 74% | 81% |
| 56 | Toscana Energy Income Corporation | 2,162 | 1,650 | 759 | 692 | 8,421 | 5,749 | 35% | 42% |
| 57 | Eagle Energy Inc. | 2,023 | 1,513 | 1,560 | 1,225 | 2,777 | 1,727 | 77% | 81% |
| 58 | Altura Energy Inc. | 1,128 | 1,172 | 948 | 943 | 1,085 | 1,369 | 84% | 80% |
| 59 | Blackbird Energy Inc. | 419 | 1,143 | 190 | 631 | 1,373 | 3,072 | 45% | 55% |
| 60 | Hemisphere Energy Corporation | 659 | 1,111 | 614 | 1,064 | 0,270 | 0,287 | 93% | 96% |
| 61 | Point Loma Resources Ltd. | 591 | 774 | 160 | 203 | 2,584 | 3,427 | 27% | 26% |
| 62 | Corridor Resources Inc. | 412 | 707 | 0 | 0 | 2,500 | 4,200 | 0% | 0% |
| 63 | Traverse Energy Ltd. | 768 | 559 | 375 | 264 | 2,358 | 1,774 | 49% | 47% |
| 64 | Pieridae Energy Limited | 0 | 528 | 0 | 11 | 0 | 3,103 | 0% | 2% |
| 65 | PetroFrontier Corp. | 373 | 260 | 373 | 260 | 0 | 0 | 100% | 100% |
| 66 | Saturn Oil & Gas Inc. | 58 | 255 | 58 | 255 | 0 | 0 | 100% | 100% |
| 67 | Vital Energy Inc. | 214 | 250 | 214 | 250 | 0 | 0 | 100% | 100% |
| 68 | Return Energy Inc. | 286 | 248 | 55 | 50 | 1,385 | 1,185 | 19% | 20% |
| 69 | Pulse Oil Corp. | 68 | 210 | 26 | 118 | 0,255 | 0,553 | 38% | 56% |
| 70 | DXI Energy Inc. | 273 | 186 | 82 | 62 | 1,145 | 0,747 | 30% | 33% |
| 71 | Tenth Avenue Petroleum Corp. | 80 | 180 | 14 | 14 | 0,398 | 1,012 | 17% | 8% |
| 72 | Arrow Exploration Corp. | 0 | 130 | 0 | 5 | 0 | 0,747 | 0% | 4% |
| 73 | Cobra Venture Corporation | 45 | 57 | 28 | 41 | 0,101 | 0,099 | 62% | 71% |
| 74 | Emerald Bay Energy Inc. | 20 | 49 | 18 | 40 | 0,014 | 0,054 | 89% | 82% |
| 75 | Southern Energy Corp. | 54 | 47 | 51 | 47 | 0,016 | 0 | 95% | 100% |
| 76 | Canadian Spirit Resources Inc. | 106 | 30 | 0 | 0 | 0,639 | 0,178 | 0% | 0% |
| 77 | Petrox Resources Corp. | 29 | 27 | 29 | 27 | 0 | 0 | 100% | 100% |
| 78 | Huntington Exploration Inc. | 29 | 23 | 0 | 0 | 0,178 | 0,138 | 1% | 0% |
| 79 | Strikewell Energy Corp. | 11 | 12 | 6 | 7 | 0,033 | 0,033 | 52% | 55% |
| 80 | Volt Energy Corp. | 15 | 12 | 15 | 12 | 0 | 0 | 100% | 100% |

Top International producers in Canada

| | Company Name | BOE/D | | Oil (bbl/d) | | Gas (mmcf/d) | | % Oil | | HQ Country |
|----|---------------------------------------|---------|---------|-------------|---------|--------------|------|-------|------|--------------|
| | | 2017 | 2018 | 2017 | 2018 | 2017 | 2018 | 2017 | 2018 | |
| 1 | ExxonMobil* | 448,333 | 475,833 | 412,000 | 438,000 | 218 | 227 | 92% | 92% | US |
| 2 | Royal Dutch Shell | 227,563 | 202,575 | 125,038 | 89,384 | 615 | 679 | 55% | 44% | Netherlands |
| 3 | Devon Energy Corporation | 130,833 | 116,667 | 128,000 | 115,000 | 17 | 10 | 98% | 99% | US |
| 4 | Chevron Corporation | 97,833 | 116,167 | 87,000 | 103,000 | 65 | 79 | 89% | 89% | US |
| 5 | Total | 59,000 | 95,000 | 59,000 | 95,000 | 0 | 0 | 100% | 100% | France |
| 6 | TAQA | 77,817 | 77,950 | 24,500 | 23,900 | 320 | 324 | 31% | 31% | UAE |
| 7 | Petronas** | 81,289 | 75,648 | 3,303 | 2,022 | 468 | 442 | 4% | 3% | Malaysia |
| 8 | ConocoPhillips | 102,167 | 70,000 | 71,000 | 68,000 | 187 | 12 | 69% | 97% | US |
| 9 | CNOOC Ltd | 64,161 | 69,776 | 57,711 | 64,026 | 39 | 35 | 90% | 92% | China |
| 10 | Repsol | 59,361 | 59,361 | 21,918 | 21,918 | 225 | 225 | 37% | 37% | Spain |
| 11 | Murphy Oil Corporation | 49,456 | 57,867 | 11,753 | 13,464 | 226 | 266 | 24% | 23% | US |
| 12 | Sinopec** | 25,392 | 27,734 | 8,562 | 3,419 | 101 | 146 | 34% | 12% | China |
| 13 | Harvest Operations Corp | 26,588 | 25,433 | 14,455 | 14,594 | 73 | 65 | 54% | 57% | Korea |
| 14 | BP Plc. | 21,500 | 25,167 | 20,000 | 24,000 | 9 | 7 | 93% | 95% | UK |
| 15 | PKN Orlen | 14,400 | 17,000 | 5,904 | 7,990 | 51 | 54 | 41% | 47% | Poland |
| 16 | JXTG Holdings, Inc.*** | 12,900 | 11,000 | 12,900 | 11,000 | 0 | 0 | 100% | 100% | Japan |
| 17 | Sasol Limited | 10,274 | 9,041 | 274 | 274 | 60 | 53 | 3% | 3% | South Africa |
| 18 | Indian Oil Corporation Limited | 10,090 | 8,384 | 779 | 604 | 56 | 47 | 8% | 7% | India |
| 19 | Woodside Petroleum Limited | 3,477 | 3,107 | 0 | 0 | 21 | 19 | 0% | 0% | Australia |
| 20 | Japan Petroleum Exploration Co., Ltd. | 1,564 | 2,467 | 1,564 | 2,467 | 0 | 0 | 100% | 100% | Japan |

* Includes production from Imperial Oil Ltd.

** estimated Working Interest production using CanOils Assets - Not reported figures

*** Non-December Year end, company's own year-end date used

Top Private company production

| | Company Name | BOE/D | | Oil & NGL bbl/d | | Natural Gas mmcf/d | | % Oil | |
|----|--|--------|--------|-----------------|--------|--------------------|------|-------|------|
| | | 2017 | 2018 | 2017 | 2018 | 2017 | 2018 | 2017 | 2018 |
| 1 | Jupiter Resources Inc.* | 64,081 | 69,287 | 19,905 | 20,579 | 265 | 292 | 31% | 30% |
| 2 | Torxen Energy Ltd. | 2,107 | 55,931 | 427 | 14,089 | 10 | 251 | 20% | 25% |
| 3 | Ember Resources Inc. | 52,308 | 48,960 | 380 | 333 | 312 | 292 | 1% | 1% |
| 4 | Canbriam Energy Inc. | 24,197 | 31,591 | 0 | 1 | 145 | 190 | 0% | 0% |
| 5 | Teine Energy Ltd. | 26,244 | 29,551 | 22,133 | 25,172 | 25 | 26 | 84% | 85% |
| 6 | Tundra Oil & Gas Limited | 24,810 | 25,460 | 24,667 | 25,348 | 1 | 1 | 99% | 100% |
| 7 | Hammerhead Resources Inc. | 16,598 | 23,548 | 5,549 | 8,595 | 66 | 90 | 33% | 36% |
| 8 | Black Swan Energy Ltd. | 15,753 | 21,546 | 242 | 148 | 93 | 128 | 2% | 1% |
| 9 | Lynx Energy ULC | 7,655 | 20,539 | 9 | 91 | 46 | 123 | 0% | 0% |
| 10 | Velvet Energy Ltd | 12,685 | 19,963 | 1,508 | 4,785 | 67 | 91 | 12% | 24% |
| 11 | Westbrick Energy Ltd. | 18,444 | 18,481 | 663 | 1,135 | 107 | 104 | 4% | 6% |
| 12 | Calgary Sinoenergy Investment Corp. | 22,544 | 17,389 | 7,158 | 5,934 | 92 | 69 | 32% | 34% |
| 13 | Saguaro Resources Ltd | 11,699 | 16,039 | 1,534 | 2,114 | 61 | 84 | 13% | 13% |
| 14 | Sequoia Resources Corp. | 3,505 | 12,710 | 353 | 2,039 | 19 | 64 | 10% | 16% |
| 15 | West Lake Energy Corp. | 6,497 | 12,668 | 5,327 | 10,672 | 7 | 12 | 82% | 84% |
| 16 | Trident Exploration (WX) Corp. | 13,123 | 12,530 | 192 | 206 | 78 | 74 | 1% | 2% |
| 17 | Modern Resources Inc. | 8,360 | 11,487 | 625 | 918 | 46 | 63 | 7% | 8% |
| 18 | OSUM Oil Sands Corporation | 8,279 | 11,274 | 8,100 | 11,082 | 1 | 1 | 98% | 98% |
| 19 | Karve Energy Inc. | 4,776 | 11,190 | 3,083 | 6,747 | 10 | 27 | 65% | 60% |
| 20 | Strath Resources Ltd. | 3,341 | 10,494 | 289 | 572 | 18 | 60 | 9% | 5% |
| 21 | Caltex Resources Ltd. | 8,082 | 10,295 | 7,743 | 9,983 | 2 | 2 | 96% | 97% |
| 22 | China Energy Reserve and Chemicals (International) Company Limited | 11,103 | 10,184 | 371 | 333 | 64 | 59 | 3% | 3% |
| 23 | Aspenleaf Energy Limited | 4,009 | 9,045 | 3,552 | 7,372 | 3 | 10 | 89% | 81% |
| 24 | Vesta Energy Ltd. | 4,216 | 8,589 | 3,256 | 7,388 | 6 | 7 | 77% | 86% |
| 25 | Tangle Creek Energy Ltd. | 5,727 | 8,310 | 2,347 | 2,999 | 20 | 32 | 41% | 36% |

* Reported Figures

Top Canadian companies by reserves

| | Company Name | BOE 1P | | Oil (bbl) 1P | | Gas (mmcf) 1P | | Undeveloped land (acres) | |
|----|---------------------------------------|---------------|---------------|---------------|---------------|---------------|-----------|--------------------------|------------|
| | | 2017 | 2018 | 2017 | 2018 | 2017 | 2018 | 2017 | 2018 |
| 1 | Canadian Natural Resources Limited | 8,660,666,667 | 9,678,500,000 | 7,539,000,000 | 8,579,000,000 | 6,730,000 | 6,597,000 | 19,221,000 | 20,152,000 |
| 2 | Cenovus Energy Inc. | 5,232,666,667 | 5,167,166,667 | 4,881,000,000 | 4,915,000,000 | 2,110,000 | 1,513,000 | 5,100,000 | 4,800,000 |
| 3 | Suncor Energy Inc. | 4,720,500,000 | 4,633,000,000 | 4,717,000,000 | 4,633,000,000 | 21,000 | 0 | 8,150,455 | 8,005,155 |
| 4 | Imperial Oil Limited | 4,196,166,667 | 4,101,166,667 | 4,111,000,000 | 4,008,000,000 | 511,000 | 559,000 | 1,352,000 | 1,315,000 |
| 5 | MEG Energy Corp. | 1,398,700,000 | 1,368,000,000 | 1,398,700,000 | 1,368,000,000 | 0 | 0 | 577,454 | 575,814 |
| 6 | Husky Energy Inc. | 1,169,783,333 | 1,315,883,333 | 974,100,000 | 1,101,200,000 | 1,174,100 | 1,288,100 | 5,198,000 | 5,203,000 |
| 7 | Tourmaline Oil Corp. | 1,055,702,000 | 1,206,381,167 | 184,745,000 | 225,144,000 | 5,225,742 | 5,887,423 | 1,474,630 | 1,366,656 |
| 8 | Seven Generations Energy Ltd. | 869,570,517 | 856,399,750 | 451,285,500 | 455,767,900 | 2,509,710 | 2,403,791 | 393,316 | 391,816 |
| 9 | Encana Corporation | 566,966,667 | 693,133,333 | 130,800,000 | 176,800,000 | 2,617,000 | 3,098,000 | 1,189,000 | 1,226,000 |
| 10 | Birchcliff Energy Ltd. | 664,480,533 | 689,674,117 | 82,458,100 | 89,938,000 | 3,492,135 | 3,598,417 | 238,706 | 178,297 |
| 11 | ARC Resources Ltd. | 506,319,000 | 550,799,000 | 136,169,000 | 135,399,000 | 2,220,900 | 2,492,400 | 722,937 | 636,563 |
| 12 | Peyto Exploration & Development Corp. | 451,274,133 | 516,326,667 | 44,700,200 | 67,957,000 | 2,439,444 | 2,690,218 | 309,709 | 325,528 |
| 13 | Painted Pony Energy Ltd. | 518,368,667 | 511,297,483 | 31,008,000 | 38,215,200 | 2,924,164 | 2,838,494 | 269,466 | 228,674 |
| 14 | Crescent Point Energy Corp | 493,621,667 | 479,960,500 | 446,903,000 | 435,929,000 | 280,312 | 264,189 | 2,112,442 | 1,924,819 |
| 15 | Athabasca Oil Corporation | 448,036,500 | 453,138,500 | 419,890,000 | 428,625,000 | 168,879 | 147,081 | 1,170,453 | 1,170,922 |
| 16 | Paramount Resources Ltd. | 375,870,667 | 390,687,167 | 142,704,000 | 162,921,000 | 1,399,000 | 1,366,597 | 2,123,000 | 2,083,000 |
| 17 | Teck Resources Limited | 366,000,000 | 371,000,000 | 366,000,000 | 371,000,000 | 0 | 0 | 0 | 0 |
| 18 | Whitecap Resources Inc. | 346,477,000 | 353,967,167 | 295,276,000 | 303,531,000 | 307,206 | 302,617 | 280,498 | 258,776 |
| 19 | Advantage Oil & Gas Ltd. | 306,061,533 | 325,064,833 | 23,061,200 | 28,894,500 | 1,698,002 | 1,777,022 | 71,040 | 85,934 |
| 20 | NuVista Energy Ltd. | 170,681,833 | 324,580,000 | 57,483,000 | 112,191,000 | 679,193 | 1,274,334 | 255,595 | 248,000 |
| 21 | Bonavista Energy Corporation | 275,009,000 | 294,176,167 | 82,507,000 | 90,578,000 | 1,155,012 | 1,221,589 | 536,556 | 448,699 |
| 22 | Pengrowth Energy Corporation | 192,668,667 | 193,637,333 | 165,512,000 | 160,377,000 | 162,940 | 199,562 | 160,927 | 165,067 |
| 23 | Bellatrix Exploration Ltd. | 171,198,333 | 192,978,733 | 48,445,200 | 62,308,100 | 736,519 | 784,024 | 148,804 | 133,814 |
| 24 | Vermilion Energy Inc. | 81,322,000 | 181,663,500 | 39,964,000 | 128,151,000 | 248,148 | 321,075 | 140,880 | 97,379 |
| 25 | International Petroleum Corporation | 0 | 173,983,333 | 0 | 112,400,000 | 0 | 369,500 | 0 | 0 |
| 26 | Crew Energy Inc. | 169,374,833 | 172,839,833 | 37,594,000 | 42,238,000 | 790,685 | 783,611 | 394,585 | 390,492 |
| 27 | Kelt Exploration Ltd. | 132,972,433 | 158,443,233 | 54,985,100 | 63,726,900 | 467,924 | 568,298 | 637,823 | 844,682 |
| 28 | Baytex Energy Corp. | 83,834,500 | 158,073,667 | 64,198,000 | 139,094,000 | 117,819 | 113,878 | 794,067 | 1,294,220 |
| 29 | Storm Resources Ltd. | 97,617,167 | 149,905,167 | 16,563,000 | 28,011,000 | 486,325 | 731,365 | 245,344 | 220,072 |
| 30 | Obsidian Energy Ltd. | 95,333,333 | 91,333,333 | 63,000,000 | 62,000,000 | 194,000 | 176,000 | 549,000 | 327,000 |
| 31 | TORC Oil & Gas Ltd. | 74,044,833 | 90,293,167 | 61,950,000 | 76,454,000 | 72,569 | 83,035 | 315,133 | 350,383 |
| 32 | Pieridae Energy Limited | 0 | 83,803,833 | 0 | 1,071,000 | 0 | 496,397 | 0 | 1,586,227 |
| 33 | Cardinal Energy Ltd. | 78,083,500 | 83,557,667 | 67,709,000 | 74,531,000 | 62,247 | 54,160 | 224,137 | 231,673 |
| 34 | Bonterra Energy Corp. | 78,592,233 | 80,633,767 | 55,029,400 | 54,971,600 | 141,377 | 153,973 | 44,228 | 59,776 |
| 35 | Surge Energy Inc. | 61,129,900 | 80,566,300 | 50,004,900 | 68,477,800 | 66,750 | 72,531 | 106,449 | 297,072 |
| 36 | Yangarra Resources Ltd. | 55,672,333 | 75,320,167 | 27,188,000 | 35,141,000 | 170,906 | 241,075 | 36,307 | 55,838 |
| 37 | Cequence Energy Ltd. | 61,903,500 | 57,036,167 | 9,326,000 | 9,342,000 | 315,465 | 286,165 | 171,165 | 208,198 |
| 38 | Tamarack Valley Energy Ltd. | 51,759,333 | 55,651,500 | 31,057,000 | 34,791,000 | 124,214 | 125,163 | 374,052 | 413,009 |
| 39 | Pine Cliff Energy Ltd. | 51,072,883 | 48,276,150 | 3,054,800 | 3,820,800 | 288,109 | 266,732 | 123,949 | 130,509 |
| 40 | Perpetual Energy Inc. | 42,790,500 | 42,461,167 | 4,837,000 | 6,486,000 | 227,721 | 215,851 | 331,578 | 320,189 |
| 41 | Enerplus Corporation | 42,936,833 | 37,432,500 | 33,377,000 | 32,088,000 | 57,359 | 32,067 | 210,900 | 143,083 |
| 42 | Journey Energy Inc. | 37,299,667 | 35,411,500 | 16,802,000 | 16,598,000 | 122,986 | 112,881 | 124,795 | 169,818 |

Top Canadian companies by reserves (continued)

| Company Name | BOE 1P | | Oil (bbl) 1P | | Gas (mmcf) 1P | | Undeveloped land (acres) | |
|--------------------------------------|------------|------------|--------------|------------|---------------|---------|--------------------------|-----------|
| | 2017 | 2018 | 2017 | 2018 | 2017 | 2018 | 2017 | 2018 |
| 43 Petrus Resources Ltd. | 31,465,200 | 32,316,733 | 9,315,200 | 11,208,400 | 132,900 | 126,650 | 170,386 | 160,869 |
| 44 Delphi Energy Corp. | 26,853,000 | 31,404,833 | 9,803,000 | 12,345,000 | 102,300 | 114,359 | 90,114 | 62,310 |
| 45 Blackbird Energy Inc. | 28,578,000 | 29,128,217 | 12,517,000 | 13,995,000 | 96,366 | 90,799 | 0 | 0 |
| 46 Prairie Provident Resources Inc. | 14,349,667 | 22,359,000 | 11,135,000 | 16,245,000 | 19,288 | 36,684 | 605,745 | 468,429 |
| 47 Leucrotta Exploration Inc. | 15,053,667 | 20,830,167 | 3,247,000 | 4,970,000 | 70,840 | 95,161 | 133,500 | 148,500 |
| 48 InPlay Oil Corp. | 17,473,333 | 18,858,800 | 11,951,000 | 13,400,300 | 33,134 | 32,751 | 82,803 | 81,162 |
| 49 Chinook Energy Inc. | 18,646,000 | 18,393,167 | 2,729,000 | 2,798,000 | 95,502 | 93,571 | 86,643 | 77,887 |
| 50 Gear Energy Ltd. | 14,463,000 | 17,133,333 | 12,105,000 | 15,147,000 | 14,148 | 11,918 | 152,575 | 132,620 |
| 51 Questerre Energy Corporation | 9,171,533 | 15,841,583 | 5,573,900 | 7,713,100 | 21,586 | 48,771 | 276,320 | 280,328 |
| 52 Razor Energy Corp. | 15,072,167 | 15,415,667 | 13,515,000 | 13,888,000 | 9,343 | 9,166 | 27,230 | 66,786 |
| 53 Granite Oil Corp. | 14,301,167 | 14,326,267 | 12,187,000 | 12,314,100 | 12,685 | 12,073 | 76,488 | 31,431 |
| 54 TransGlobe Energy Corporation | 11,462,667 | 11,000,000 | 7,642,000 | 7,400,000 | 22,924 | 21,600 | 42,266 | 33,837 |
| 55 Strategic Oil & Gas Ltd. | 8,540,567 | 7,634,167 | 5,601,300 | 5,125,000 | 17,636 | 15,055 | 348,716 | n/a |
| 56 Hemisphere Energy Corporation | 4,922,700 | 7,612,083 | 4,762,700 | 7,454,400 | 960 | 946 | 34,703 | 23,424 |
| 57 Eagle Energy Inc. | 10,592,833 | 6,535,167 | 9,223,000 | 6,375,000 | 8,219 | 961 | 12,730 | 6,293 |
| 58 Altura Energy Inc. | 3,107,467 | 6,269,600 | 2,503,600 | 4,685,100 | 3,623 | 9,507 | 59,711 | 46,901 |
| 59 Zargon Oil & Gas Ltd. | 5,998,667 | 4,589,500 | 4,903,000 | 3,911,000 | 6,574 | 4,071 | 29,000 | 31,000 |
| 60 Toscana Energy Income Corporation | 5,615,167 | 4,455,833 | 2,326,000 | 2,436,000 | 19,735 | 12,119 | 30,287 | 29,869 |
| 61 PetroFrontier Corp. | 3,853,000 | 3,844,000 | 3,853,000 | 3,844,000 | 0 | 0 | 7,232 | 7,232 |
| 62 Corridor Resources Inc. | 3,044,000 | 3,007,667 | 23,000 | 18,000 | 18,126 | 17,938 | 446,582 | 446,582 |
| 63 Point Loma Resources Ltd. | 3,499,850 | 2,967,150 | 948,500 | 1,229,500 | 15,308 | 10,426 | 156,535 | 53,286 |
| 64 Saturn Oil & Gas Inc. | 517,800 | 2,190,603 | 517,800 | 2,190,603 | 0 | 0 | 4,640 | 9,280 |
| 65 Pulse Oil Corp. | 1,785,433 | 1,950,583 | 1,229,000 | 1,366,000 | 3,339 | 3,508 | 28,676 | 27,867 |
| 66 Traverse Energy Ltd. | 1,775,767 | 1,431,733 | 1,031,600 | 827,400 | 4,465 | 3,626 | 178,200 | 202,800 |
| 67 Return Energy Inc. | 1,089,567 | 1,111,867 | 255,400 | 302,200 | 5,005 | 4,858 | 13,315 | 17,072 |
| 68 Arrow Exploration Corp. | 0 | 927,167 | 0 | 83,000 | 0 | 5,065 | 0 | 36,705 |
| 69 Tenth Avenue Petroleum Corp. | 675,500 | 717,667 | 66,000 | 57,000 | 3,657 | 3,964 | 0 | 0 |
| 70 Freehold Royalties Ltd. | 1,939,167 | 716,000 | 1,110,000 | 327,000 | 4,975 | 2,334 | 9,195 | 11,326 |
| 71 Cuda Oil and Gas Inc. | 0 | 696,050 | 0 | 156,383 | 0 | 3,238 | 0 | 1,823,952 |
| 72 Vital Energy Inc. | 474,000 | 417,500 | 428,000 | 389,400 | 276 | 169 | 7,780 | 12,410 |
| 73 Canadian Spirit Resources Inc. | 258,333 | 229,667 | 0 | 0 | 1,550 | 1,378 | 57,934 | 50,009 |
| 74 Southern Energy Corp. | 94,000 | 138,500 | 94,000 | 138,500 | 0 | 0 | 6,013 | 15,179 |
| 75 Cobra Venture Corporation | 70,100 | 99,167 | 38,100 | 77,000 | 192 | 133 | 0 | 0 |
| 76 Strikewell Energy Corp. | 91,017 | 81,700 | 50,900 | 45,300 | 241 | 218 | 432 | 432 |
| 77 DXI Energy Inc. | 119,833 | 54,667 | 73,000 | 25,000 | 281 | 178 | 5,875 | 5,875 |
| 78 Petrox Resources Corp. | 36,602 | 37,738 | 36,602 | 37,738 | 0 | 0 | 10,640 | 240 |
| 79 Sahara Energy Ltd. | 38,000 | 33,000 | 38,000 | 33,000 | 0 | 0 | 0 | 0 |
| 80 Emerald Bay Energy Inc. | 13,667 | 12,623 | 766 | 832 | 77 | 71 | 0 | 0 |



LNG light at end of tunnel for gas producers

By [Jim Bentein](#)

Western Canadian gas producers continued facing low prices, intense competition from U.S. producers for markets, and a lack of market access in 2018, building on decade of challenges.

As a result, the industry continues to shrink, Darren Gee, CEO and president of Peyto Exploration & Development, told a panel at the Global Petroleum Show.

Gee pointed out that production in Western Canada had declined from about 18 bcf/d to 16 bcf/d in the last 10 years, with prices collapsing as well.

"The price doesn't need to be \$10 ... but now it's selling for 65 cents," he said, adding that it's virtually impossible for gas production to be profitable at those prices.

LNG developers, however, are optimistic things are about to turn around in the near future.

"We'll be celebrating the success of LNG Canada," said Stefan Vos De Wael, general manager, commercial with Royal Dutch Shell plc, lead developer of LNG Canada, replying to a question about where the sector would be in five years.

"We'll see LNG projects on the west and east of Canada and we'll be serving the shipping and trucking markets," added Alfred Sorensen, CEO and president of Pieridae Energy Limited, which is planning to develop a \$10 billion LNG project near Goldboro in Nova Scotia.

The panel members agreed that it's crucial for producers to have access to export markets outside of Canada and the U.S.

"The price of gas has to go up," said Sorensen. "The commodity is being produced at a loss."

He said capital would not return to the Canadian gas sector until producers can access export markets. That will happen, the panellists agreed, because of world population growth, up from about six billion people now to 10 billion by the 2050s, the growth of the middle class globally, and the resultant energy demand growth. In addition, because natural gas produces about half of the greenhouse gases (GHG) of other fossil fuels, use of the commodity is expected to grow far more than coal or oil over the next several decades.

However, it is a sector that has seen painfully slow growth, said Sorensen.

A decade ago there were more than 20 LNG export projects proposed for Canada's West Coast, but developers have dropped plans for most of those, with the exception of Shell's project and the smaller Woodfibre LNG project, planned for the Squamish, B.C. area. It would be about one-quarter of the size of LNG Canada. Chevron Canada Limited earlier this year applied to the National Energy Board for a licence to export LNG from Canada for a term of 40 years.

Vos De Wael and Sorensen said the market for LNG is growing, beyond the traditional markets in Asia. "We see new markets in Southeast Asia, including India, Pakistan and Thailand," he noted.

In addition, he and Sorensen said the European market is growing, because countries like Germany don't want to be over-reliant on Russia for their gas supplies. They said demand for gas will also grow in the marine fuel market because stiff new standards for marine fuel use will force shipping firms to switch from diesel and other fuels to greener options.

Finally, they said there is also a potential for growing demand in the trucking market, as the demand for cleaner fuels grows.

Sorensen added that technological improvements are helping to grow the market, particularly in countries like Pakistan. He said the cost of building regasification facilities has declined significantly because of the emergence of floating facilities that can be built for \$250 million, down from \$1 billion or more for a land-based plant.

For gas producers, it means having access to a market of "five billion people" instead of a few hundred million in North America, he said. However, Sorensen said governments and Canadians would need to support LNG development, since companies like his need to attract outside capital.

He said the departure of U.S.-based majors and international companies like Shell from being heavily invested in the oilsands sector should be a lesson for Canada, as the LNG sector needs to attract domestic and foreign investment.

The panel members agreed that Canadian LNG developers have many advantages, including access to large and low cost gas supplies, faster access to Asian and other markets than U.S. Gulf Coast LNG plants and the lowest-emission LNG in the world, especially in B.C., where most of the province's power is generated by hydro.

Meanwhile, the head of Peyto Exploration & Development Corp. noted that producers would need to up their game, if the predictions from the industry leaders come true.

"We better get busy then if we are going to supply five bcf/d of gas in the next five years," said Gee.

Top 25 Canadian gas producers

| Company Name | | Gas (mmcf/d) | |
|--------------|---------------------------------------|--------------|-----------|
| | | 2017 | 2018 |
| 1 | Canadian Natural Resources Limited | 1,601.000 | 1,490.000 |
| 2 | Tourmaline Oil Corp. | 1,221.529 | 1,305.020 |
| 3 | Encana Corporation | 887.000 | 1,026.000 |
| 4 | ARC Resources Ltd. | 525.800 | 570.200 |
| 5 | Cenovus Energy Inc. | 659.000 | 528.000 |
| 6 | Peyto Exploration & Development Corp. | 559.663 | 493.921 |
| 7 | Seven Generations Energy Ltd. | 435.500 | 490.500 |
| 8 | Birchcliff Energy Ltd. | 320.927 | 372.170 |
| 9 | Paramount Resources Ltd. | 161.200 | 325.900 |
| 10 | Painted Pony Energy Ltd. | 235.767 | 316.507 |
| 11 | Bonavista Energy Corporation | 305.680 | 297.000 |
| 12 | Husky Energy Inc. | 378.200 | 291.000 |
| 13 | Advantage Oil & Gas Ltd. | 228.583 | 240.959 |
| 14 | Bellatrix Exploration Ltd. | 166.078 | 154.553 |
| 15 | NuVista Energy Ltd. | 108.187 | 144.750 |
| 16 | Vermilion Energy Inc. | 97.890 | 129.370 |
| 17 | Imperial Oil Limited | 120.000 | 129.000 |
| 18 | Pine Cliff Energy Ltd. | 121.718 | 111.110 |
| 19 | Crew Energy Inc. | 102.642 | 106.116 |
| 20 | International Petroleum Corporation | 0 | 105.600 |
| 21 | Storm Resources Ltd. | 78.521 | 101.019 |
| 22 | Kelt Exploration Ltd. | 77.330 | 92.502 |
| 23 | Crescent Point Energy Corp | 81.629 | 82.161 |
| 24 | PrairieSky Royalty Ltd. | 78.100 | 71.300 |
| 25 | Whitecap Resources Inc. | 62.676 | 69.042 |



Operators are applying hydraulic fracturing to conventional plays to drive growth
Credit: Trican

Light oil growth to come from new plays

By Maurice Smith

With the focus on getting oilsands and natural gas to market, light oil plays have flown under the radar recently in western Canada.

But that doesn't mean light oil producers have been sitting on their hands. Instead, they have been taking lessons learned over the last decade and applying that knowledge to new plays, with the hope of growing production says IHS Markit.

IHS is forecasting 40 per cent of light oil production growth in the next three to five years will come from plays flying under the radar. What it terms new technology plays—legacy conventional plays where operators are applying unconventional resource technologies – are providing many operators with significant production and expected ultimate recoveries

(EURs) with very positive economics, Michael Muirhead, director, Upstream Oil & Gas Consulting & Research at IHS Markit, said in Calgary recently.

The added production could add up to 200,000 to 500,000 bbls/d in the coming years, he said, and be developed by smaller companies that may lack the financial wherewithal to break in to the more well known plays.

In Western Canada, IHS Markit's new analysis into "some plays that aren't on everybody's radar" arises out of work it is conducting for its production forecast, said Muirhead, an expert in sedimentology, depositional environments and basin analysis who leads the Calgary-based upstream consulting group.

IHS Markit is examining play type curves, EURs,

break-evens and net present values to determine the potential value of the new technology plays, which are leveraging horizontal drilling, self-moving rigs and pad development, new bit designs and in some cases multistage fracturing.

"How we have termed this, a new technology play, is a conventional play where operators are starting to apply all these different learnings, and the cost savings that come along with that, in these conventional plays," Muirhead said.

"We actually saw in our forecast the only area of growth, outside of the oilsands, was light oil," he said. "When we updated it in 2018, we saw a very large increase in light oil production coming out of Western Canada. We saw a 200,000 bbls/d increase by 2030 over our original forecast. So we wanted to unpack this and understand if this is an area of growth opportunity in Western Canada."

Plays like the Montney, Duvernay, Spirit River, Cardium, Viking and Bakken are all showing growth, in part because of the application of horizontal drilling and multistage fracturing to increase performance on a per well basis and a recovery basis. But IHS Markit found something else.

"We thought we had captured all of that production increase for light oil in the major play types that everybody was familiar with. But 40 per cent of that increase is actually coming from other plays," Muirhead said.

A small play could be very economic, but if it's very short term, the overall effect for the industry or even the operators is not sustainable, he said. "That's always the question is how long are these things going to last and can you make money over a reasonable amount of time. If there is a significant push on these plays, if there is a lot of running room, we may be underestimating what the actual growth potential of light oil in Western Canada could be, from our forecast. So this is an ongoing research project that we are doing to really start to understand these plays."

The largest plays looked at in Alberta are Charlie Lake and Dunvegan, "but we have seen some significant

drilling in the Belly River and even in Nisku. The Nisku is really in its infancy, it's just getting started, and may have some very significant potential."

At Charlie Lake, wells are coming on with peak rates of up to 300 bbls/d of light oil, he said. To be able to drill essentially low-cost wells with initial production (IP) rates over 200 or 300 bbls/d "is a very significant advantage to drilling these wells, from a vertical well technology where you were only getting 30 or 40 barrels a day."

IHS approximates EUR for the Charlie Lake group it studied at about 132,000 bbls of oil. "We expect in our forecasts that operators will continue to ramp up drilling because 132,000 barrels for this type of drilling is quite viable."

Similarly in the Dunvegan, wells are easily doing 200 or 300 bbls/d, he told the conference, with a higher EUR of 210,000 bbls. "So again, targeting light oil has a major benefit in our current price environment when you compare that with heavy oil, and this is what's really driving that production outlook.

In southeast Saskatchewan, IHS did a blended cost analysis of formations such as the Frobisher and Alida, where some wells are frac stimulated and some formations are completed openhole. "We have seen from operators that their economics in some of the plays is very good, so we want to understand that better."

The openhole completions, which can be done for as little as little as \$900,000, are particularly good, he said. "Drilling these types of wells at over 100 bbls a day at under \$1 million, the economics are incredible. Some of the work we are doing right now on some of the competitor analysis, it looks like it will actually come in potentially sub \$30 for these openhole wells for their EUR."

"If we can really get a good handle on what the running room on these plays are, then we can update our forecast and give the industry a better picture of where a lot of this light oil is coming from, and potentially give, instead of that 200,000 [increased production], maybe it's going to be a half a million or even more than that, in the next three to five years," he added.

Top 25 Canadian liquids producers

| | | Oil (bbl/d) | |
|--------------|------------------------------------|-------------|---------|
| Company Name | | 2017 | 2018 |
| 1 | Canadian Natural Resources Limited | 641,475 | 777,151 |
| 2 | Suncor Energy Inc. | 615,500 | 684,300 |
| 3 | Cenovus Energy Inc. | 360,704 | 395,450 |
| 4 | Imperial Oil Limited | 355,000 | 361,000 |
| 5 | Husky Energy Inc. | 220,100 | 203,800 |
| 6 | Crescent Point Energy Corp | 135,480 | 126,333 |
| 7 | Seven Generations Energy Ltd. | 102,434 | 120,831 |
| 8 | MEG Energy Corp. | 80,774 | 87,731 |
| 9 | Whitecap Resources Inc. | 47,004 | 62,908 |
| 10 | Encana Corporation | 32,000 | 53,500 |
| 11 | Tourmaline Oil Corp. | 38,737 | 47,540 |
| 12 | ARC Resources Ltd. | 35,303 | 37,696 |
| 13 | Baytex Energy Corp. | 27,533 | 36,112 |
| 14 | Athabasca Oil Corporation | 31,940 | 33,686 |
| 15 | Teck Resources Limited | 0 | 31,955 |
| 16 | Paramount Resources Ltd. | 18,094 | 31,624 |
| 17 | Vermilion Energy Inc. | 13,195 | 27,068 |
| 18 | TORC Oil & Gas Ltd. | 18,432 | 22,308 |
| 19 | Bonavista Energy Corporation | 21,269 | 19,587 |
| 20 | Obsidian Energy Ltd. | 19,623 | 18,637 |
| 21 | Cardinal Energy Ltd. | 15,801 | 18,095 |
| 22 | Pengrowth Energy Corporation | 25,200 | 17,239 |
| 23 | NuVista Energy Ltd. | 11,753 | 16,228 |
| 24 | Tamarack Valley Energy Ltd. | 11,987 | 15,719 |
| 25 | Birchcliff Energy Ltd. | 14,475 | 15,068 |



ConocoPhillips' Surmount operations. Growth in oilsands is expected to slow due to market access issues

Forecasts call for slow oilsands growth

The explosion of oilsands growth that propelled Alberta's economy throughout much of the 21st century is over. In its place, industry should expect slower, more gradual increases in production, according to three recent outlooks.

The International Energy Agency (IEA) is painting a grim outlook for Canadian oil production growth, saying prospects have "significantly deteriorated."

In its annual 2019 oil market report, the IEA noted that last year at this time, it warned that rapid growth in oilsands production would exceed available pipeline capacity, and thus increase the need to move oil by rail.

"With rail capacity unable to meet demand, the discount of Canadian heavy crudes to US grades widened to as much as \$50/bbl in October 2018. This led the Government of Alberta to order production cuts, which will be evaluated over the course of 2019. In the meantime, the government and private companies are lining up additional rail capacity," the IEA said.

"The longer-term outlook looks more precarious. During 2018 and 2019, three planned pipeline projects needed to accommodate further output gains faced renewed headwinds," said the IEA, referring to delays in Enbridge's Line 3 Replacement Project, the Trans Mountain Pipeline Expansion project, and Keystone XL to the US Gulf Coast. "At least two of these three projects are needed to accommodate higher production volumes. If approved, the new capacity will reduce the need for expensive rail shipments, typically costing around \$15-20/bbl for Alberta to USGC deliveries."

With Canadian oil prices under pressure and so much uncertainty regarding new takeaway capacity, companies have been reluctant to launch new projects, the IEA noted. "Over our forecast period to 2024, total Canadian oil supply is expected to reach 5.5 million bbls/d, only 300,000 bbls/d higher than the 2018 average," the IEA said.

The Canadian Association of Petroleum Producers (CAPP) says the long-term pace of growth in the oilsands

“continues to be hampered” by uncertainty and delays related to new pipeline capacity out of Western Canada in its 2019 outlook.

The oilsands contributed nearly two-thirds of the crude produced in Western Canada in 2018, and will be responsible for the 1.41 million bbls/d of growth anticipated by 2035.

In the currently constrained environment, oilsands production is forecast to grow by 1.34 million bbls/d, reaching 4.25 million bbls/d by 2035 from 2.91 million in 2018.

From 2019 to 2021, annual oilsands production growth is expected to average four per cent. This growth rate, however, is less than half that of 2017 and 2018. Given the current regulatory environment and producers’ lack of confidence in market access alleviation, from 2022 onward the average production growth in the oilsands is expected to be only two per cent annually.

By 2035, production from mining operations will grow by 470,000 bbls/d. In situ production is forecast to yield 880,000 bbls/d of additional production by 2035.

“The Canadian oilsands industry is set to post its fifth consecutive annual decline in investment. The continued regulatory and policy challenges create significant barriers to future investment, putting Canadian jobs at risk,” CAPP said. “The current lack of certainty of timing and confidence in completion of current pipeline projects, layered with additional regulatory issues, has led to a constrained production outlook.”

CAPP noted that following the implementation of the Government of Alberta’s mandatory crude production curtailment program, price differentials have narrowed significantly; however, curtailment is not a long-term solution.

“Government initiatives such as the crude oil curtailment program create challenges when constructing a forecast for production, and can further constrain the outlook,” the association said. “While crude oil differentials might be reduced in the short run, production limits may directly affect firms’ drilling programs as they reduce capital spending on new wells to ensure they remain

within curtailment limits. Similarly, oilsands operators may have to adjust the timing of additional projects or new phases in order to avoid exceeding curtailment limits.”

Capital spending in the oilsands is forecast to decline for a fifth consecutive year to \$12 billion, which is approximately one-third of the investment levels seen in 2014.

CAPP’s president and CEO Tim McMillan said the forecast is fairly consistent with last year with a flatter production growth scenario than the more robust 2014 forecast.

“We are going to see growth,” said McMillan while addressing an audience at the Global Petroleum Show. “That’s a good thing. It is nowhere near the growth we should be seeing relative to the resources, the capacity that Canada has.”

The reality of a slower pace of investment and growth in Canada’s oilsands industry is already taking shape, the leader of IHS Markit’s Oil Sands Dialogue said.

A new production forecast by Kevin Birn projects that oilsands volumes would grow by approximately 100,000 bbls/d annually over the next ten years, down from the current decade, when annual growth regularly averaged in excess of 150,000 bbls/d.

Growth going forward will be driven by expansions to existing projects and new construction projects where some fieldwork has been completed but the project has been put on hold.

Total production is expected to increase by nearly one million bbls/d by 2030 to almost 4 million bbls/d, but that is down substantially from the last five years, when oilsands production grew by almost 750,000 bbls/d, Birn noted.

He agreed that the issue is transportation constraints such as a lack of adequate pipeline capacity, and the resulting sense of price insecurity.

“Ironically the call on Canadian heavy sour crude oil—the principal export from the Canadian oilsands—has never been greater as the rapid deterioration of Venezuelan

output tightens the supply of heavy sour crude globally," he said.

The cost of building and operating oilsands projects has fallen dramatically in the last five years, making the sector competitive with other crude sources, said Birn, falling by from 25 to over 33 per cent since 2014, while operating costs for both SAGD and mining projects have fallen by more than 40 per cent.

IHS says the plunge in capital costs is due to a number of factors, including efforts to simplify project designs, more rapid construction and the start of production and overall deflation.

The energy consulting firm says operating costs have fallen as a result of increased reliability, with less downtime and increased throughput, with that slashing costs by as much as 50 per cent.

"It is important to note that the largest share of these cost savings are coming from structural changes; the way projects are designed, constructed or operated, these types of savings tend to be more permanent. This means that oilsands costs have a greater potential to remain in check should inflationary pressures resume."

IHS concludes that the cost improvements have lowered the breakeven oil price - the price required for a project to earn a 10 percent return on investment - for new

oilsands projects or expansions. The firm estimated that the lowest cost oilsands projects, expansion of existing plants, required a more than \$65 WTI per barrel crude price to break even in 2014. Today, thanks to the cost cuts, that breakeven price has fallen to the mid \$40 WTI per barrel range. It concludes that an oilsands mining project without an upgrader needed a near \$100 WTI per barrel price in 2014 to break even, compared to \$65 in 2018.

"Oilsands economics have improved dramatically over a short period," Birn said. "Still, ongoing constraints continue to weigh on timing of future investments and the investment growth outlook continues to moderate. But growth is still anticipated."

IHS said one-third of the production growth to 2030 would come from ramping up of facilities and optimization of existing plants.

Despite the reduced outlook, IHS sees the potential for more growth.

"There is upside potential, but the key will be the ability of government and industry to restore confidence that Canadian crude will get to market, whether by pipe or rail," Birn said.

Oilsands company rankings

| | Company Name | Oilsands production (bbl/d) | | Oilsands Reserves (bbl) 1P | |
|----|------------------------------------|-----------------------------|---------|----------------------------|---------------|
| | | 2017 | 2018 | 2017 | 2018 |
| 1 | Suncor Energy Inc. | 563,700 | 630,900 | 4,619,000,000 | 4,510,000,000 |
| 2 | Canadian Natural Resources Limited | 402,166 | 534,029 | 6,614,000,000 | 7,631,000,000 |
| 3 | ExxonMobil* | 362,000 | 370,000 | 1,485,000,000 | 4,651,000,000 |
| 4 | Cenovus Energy Inc. | 292,479 | 362,996 | 4,765,000,000 | 4,831,000,000 |
| 5 | Imperial Oil Limited | 350,000 | 355,000 | 4,061,000,000 | 3,936,000,000 |
| 6 | Husky Energy Inc. | 119,100 | 124,200 | 747,400,000 | 889,700,000 |
| 7 | Devon Energy Corporation | 110,000 | 97,000 | 409,000,000 | 393,000,000 |
| 8 | Total | 60,274 | 95,890 | 928,000,000 | 843,000,000 |
| 9 | MEG Energy Corp. | 80,774 | 87,731 | 1,398,700,000 | 1,368,000,000 |
| 10 | Chevron Corporation | 79,000 | 77,000 | 702,000,000 | 672,000,000 |

* Includes production from Imperial Oil Ltd.

Top 25 operators by netback

| | Company Name | Operating Netback (C\$/boe) | |
|----|-------------------------------------|-----------------------------|-------|
| | | 2017 | 2018 |
| 1 | Crescent Point Energy Corp | 29.43 | 35.52 |
| 2 | Vermilion Energy Inc. | 29.75 | 35.07 |
| 3 | TORC Oil & Gas Ltd. | 29.92 | 34.28 |
| 4 | Suncor Energy Inc. | 32.60 | 34.21 |
| 5 | Freehold Royalties Ltd. | 30.10 | 31.96 |
| 6 | Whitecap Resources Inc. | 29.59 | 31.49 |
| 7 | Seven Generations Energy Ltd. | 24.08 | 31.04 |
| 8 | Saturn Oil & Gas Inc. | 5.71 | 30.26 |
| 9 | Tamarack Valley Energy Ltd. | 23.30 | 29.98 |
| 10 | TransGlobe Energy Corporation | 21.70 | 29.76 |
| 11 | Granite Oil Corp. | 29.90 | 29.74 |
| 12 | Petrox Resources Corp. | 21.02 | 29.58 |
| 13 | PrairieSky Royalty Ltd. | 28.84 | 29.10 |
| 14 | Questerre Energy Corporation | 20.34 | 28.45 |
| 15 | Yangarra Resources Ltd. | 26.36 | 28.21 |
| 16 | Enerplus Corporation | 19.80 | 27.36 |
| 17 | International Petroleum Corporation | 44.19 | 27.23 |
| 18 | Bonterra Energy Corp. | 26.98 | 26.91 |
| 19 | Blackbird Energy Inc. | 8.61 | 26.16 |
| 20 | Eagle Energy Inc. | 20.52 | 25.31 |
| 21 | Canadian Natural Resources Limited | 21.39 | 24.87 |
| 22 | Cobra Venture Corporation | 17.26 | 24.78 |
| 23 | Altura Energy Inc. | 27.47 | 24.55 |
| 24 | InPlay Oil Corp. | 21.89 | 24.09 |
| 25 | NuVista Energy Ltd. | 20.71 | 23.82 |

Top Canadian producers internationally

| | Company Name | BOE/D | | Oil (bbl/d) | | Gas (mmcf/d) | |
|----|-------------------------------------|---------|---------|-------------|---------|--------------|------|
| | | 2017 | 2018 | 2017 | 2018 | 2017 | 2018 |
| 1 | Encana Corporation | 183,500 | 188,367 | 129,500 | 155,200 | 324 | 199 |
| 2 | Enerplus Corporation | 65,034 | 78,287 | 28,821 | 39,564 | 217 | 232 |
| 3 | Frontera Energy Corporation | 70,082 | 71,032 | 64,298 | 66,846 | 35 | 25 |
| 4 | Canadian Natural Resources Limited | 53,956 | 53,329 | 43,761 | 43,627 | 61 | 58 |
| 5 | Suncor Energy Inc. | 67,900 | 49,500 | 67,900 | 49,500 | 0 | 0 |
| 6 | Husky Energy Inc. | 39,767 | 46,900 | 12,900 | 10,900 | 161 | 216 |
| 7 | Parex Resources Inc. | 35,541 | 44,408 | 35,212 | 43,788 | 2 | 4 |
| 8 | Vermilion Energy Inc. | 38,511 | 38,640 | 18,720 | 18,480 | 119 | 121 |
| 9 | Crescent Point Energy Corp | 26,928 | 38,139 | 22,766 | 33,770 | 25 | 26 |
| 10 | Baytex Energy Corp. | 36,678 | 37,076 | 28,313 | 28,851 | 50 | 49 |
| 11 | Gran Tierra Energy Inc. | 32,105 | 36,209 | 31,757 | 36,096 | 2 | 1 |
| 12 | Canacol Energy Ltd. | 17,080 | 21,352 | 3,315 | 1,685 | 83 | 118 |
| 13 | TransGlobe Energy Corporation | 12,822 | 12,150 | 12,822 | 12,150 | 0 | 0 |
| 14 | International Petroleum Corporation | 10,310 | 10,500 | 9,120 | 9,800 | 7 | 4 |
| 15 | Orca Exploration Group Inc. | 6,933 | 6,650 | 0 | 0 | 42 | 40 |
| 16 | PetroShale Inc. | 2,445 | 5,630 | 2,150 | 4,877 | 2 | 5 |
| 17 | Oryx Petroleum Corporation Limited | 2,100 | 4,200 | 2,100 | 4,200 | 0 | 0 |
| 18 | Shamara Petroleum Corp. | 1,096 | 3,562 | 1,096 | 3,562 | 0 | 0 |
| 19 | Jadestone Energy Inc. | 4,235 | 3,509 | 3,752 | 3,509 | 3 | 0 |
| 20 | Epsilon Energy Ltd. | 4,123 | 3,500 | 8 | 47 | 25 | 21 |

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