

Upstream Petroleum Industry Flaring and Venting Report

**Industry Performance for Year
Ending December 31, 2016**

December 2017

Alberta Energy Regulator

ST60B-2017: Upstream Petroleum Industry Flaring and Venting Report, 2016

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Executive Summary

The Alberta Energy Regulator (AER) annually publishes *ST60B: Upstream Petroleum Industry Flaring and Venting Report* to fulfil the commitment it made in *Directive 060: Upstream Petroleum Industry Flaring, Incinerating, and Venting* to make flaring and venting data accessible.

The report's primary focus is on solution gas flaring and venting from crude oil and crude bitumen production operations. The report includes flared and vented volumes from in situ bitumen facilities, gas batteries, well testing, gas plants, gas gathering systems, and natural gas transmission lines. Also included are emission statistics for glycol dehydrators, surface casing vent flow (SCVF), and gas migration (GM). The report does not include flared and vented volumes from bitumen upgraders and oil sands mine operations, nor does it include emissions in the upstream petroleum industry that do not have to be reported to the AER.

The data used to compile the report are obtained from Canada's Petroleum Information Network (Petrinex) and the AER.

Key statistics from 2016: *

- Crude bitumen production increased by 1.9 per cent to 81 million cubic metres (10^6 m^3).
- Crude oil production decreased by 15.6 per cent to 26 10^6 m^3 .
- Solution gas produced from crude bitumen batteries decreased by 1.0 per cent to 2617 10^6 m^3 .
- Solution gas produced from crude oil batteries decreased by 8.9 per cent to 16 890 10^6 m^3 .
- Solution gas conservation increased to 96.8 per cent from 96.4 per cent in 2015.
- Solution gas flared from crude bitumen and crude oil batteries was 376 10^6 m^3 , down from 419 10^6 m^3 in 2015, a 10.3 per cent decrease.
 - Total solution gas flared represented 1.0 million tonnes of carbon dioxide equivalent ($10^6 \text{ tCO}_2\text{e}$) of greenhouse gas (GHG) emissions.
 - Flaring from crude bitumen batteries was 112 10^6 m^3 , up from 99 10^6 m^3 in 2015, a 13.0 per cent increase.
 - Flaring from crude oil batteries was 264 10^6 m^3 , down from 320 10^6 m^3 in 2015, a 17.5 per cent decrease.
- Solution gas vented from crude bitumen and crude oil batteries was 241 10^6 m^3 , down from 354 10^6 m^3 in 2015, a 31.9 per cent decrease.
 - Total solution gas vented represented 3.4 $10^6 \text{ tCO}_2\text{e}$ of GHG emissions.
 - Venting from crude bitumen batteries was 108 10^6 m^3 , down from 187 10^6 m^3 in 2015, a 42.5 per cent decrease.

* Some totals and per cent changes may not be exact due to rounding.

- Venting from crude oil batteries was $133 \times 10^6 \text{ m}^3$, down from $166 \times 10^6 \text{ m}^3$ in 2015, a 19.9 per cent decrease.
- Flaring and venting from other sources:
 - Gas batteries
 - Flaring – $47 \times 10^6 \text{ m}^3$, down from $82 \times 10^6 \text{ m}^3$ in 2015, a 43.2 per cent decrease
 - Venting – $10 \times 10^6 \text{ m}^3$, down from $18 \times 10^6 \text{ m}^3$ in 2015, a 44.3 per cent decrease
 - Well testing
 - Flaring – $61 \times 10^6 \text{ m}^3$, down from $152 \times 10^6 \text{ m}^3$ in 2015, a 59.6 per cent decrease
 - Venting – $9 \times 10^6 \text{ m}^3$, down from $22 \times 10^6 \text{ m}^3$ in 2015, a 60.1 per cent decrease
 - Gas plants
 - Flaring – $122 \times 10^6 \text{ m}^3$, down from $151 \times 10^6 \text{ m}^3$ in 2015, a 19.3 per cent decrease
 - Venting – $4 \times 10^6 \text{ m}^3$, up from $3 \times 10^6 \text{ m}^3$ in 2015, an 8.1 per cent increase
 - Gas gathering systems
 - Flaring – $54 \times 10^6 \text{ m}^3$, down from $62 \times 10^6 \text{ m}^3$ in 2015, a 13.6 per cent decrease
 - Venting – $7 \times 10^6 \text{ m}^3$, down from $9 \times 10^6 \text{ m}^3$ in 2015, a 22.7 per cent decrease
 - Transmission lines
 - Flaring – $2 \times 10^6 \text{ m}^3$, down from $4 \times 10^6 \text{ m}^3$ in 2015, a 42.8 per cent decrease
 - Venting – $11 \times 10^6 \text{ m}^3$, up from $8 \times 10^6 \text{ m}^3$ in 2015, a 25.9 per cent increase
- Emissions from glycol dehydrators
 - 1646 glycol dehydrators emitted 501 tonnes of benzene in 2016, compared with 1778 glycol dehydrators that emitted 609 tonnes of benzene in 2015
- Emissions from SCVF and GM
 - 9972 wells with either SCVF or GM emitted $81 \times 10^6 \text{ m}^3$ of natural gas in 2016, compared with 10 247 wells that emitted $86 \times 10^6 \text{ m}^3$ of natural gas in 2015

For questions about this report, email the AER Environment and Operational Performance Branch, Resource Compliance Team, at ResourceCompliance@aer.ca, or call the Customer Contact Centre at 403-297-8311 or toll free at 1-855-297-8311.

1 Introduction

The Alberta Energy Regulator (AER) is the province's single energy regulator whose core functions include conserving Alberta's energy resource, protecting public safety and the environment, and disseminating energy-related information. The AER's activities on reducing flaring and venting, including its partnership work, address conservation, public safety, and information dissemination.

The AER worked with the consensus-based, multistakeholder Flaring and Venting Project Team of the Clean Air Strategic Alliance (CASA) to develop flaring and venting management recommendations for the Province of Alberta. The recommendations included determining flaring and venting baselines, flaring reduction targets, and operational requirements for the upstream oil and gas industry. The AER adopted the recommendations put forward by CASA and incorporated them into the 1999 edition of *Guide 60: Upstream Petroleum Industry Flaring Guide* (subsequently known as *Directive 060: Upstream Petroleum Industry Flaring, Incinerating, and Venting*). The AER will continue to work with CASA, industry, and other stakeholders to reduce the volume of solution gas flared and vented in Alberta.

ST60B: Upstream Petroleum Industry Flaring and Venting Report, published annually, fulfils the AER's commitment to report flaring and venting volumes, as set out in *Directive 060*.

The report's primary focus is on solution gas flaring and venting from crude oil and crude bitumen production operations. The report includes flared and vented volumes from in situ bitumen facilities, gas batteries, well testing, gas plants, gas gathering systems, and natural gas transmission lines. Also included are emissions data for glycol dehydrators and for surface casing vent flow (SCVF) and gas migration (GM). The report does not include flared and vented volumes from bitumen upgraders and oil sands mine operations, nor does it include emissions in the upstream petroleum industry that do not have to be reported to the AER.

The data used to compile the report are obtained from Canada's Petroleum Information Network (Petrinex) and the AER.

For this report:

- Crude bitumen is oil that is produced within the AER-designated oil sands areas¹ and that has a density of 920 kilograms per cubic metre (kg/m³) or more.
- Crude oil is all other crude oil production in the province, including oil with a density of 920 kg/m³ or more produced outside the designated oil sands areas.
- All reported flared volumes include gas that was incinerated, unless otherwise stated.
- Venting is the noncombusted release of gas to the atmosphere.

¹ See *ST98-2017: Alberta's Energy Reserves 2016 and Supply/Demand Outlook*, figure R3.1, available on the AER website, www.aer.ca.

- Gas conservation is the recovery of solution gas to use as fuel for production facilities, to sell, to inject for enhanced recovery from oil or condensate pools, or to generate power, among other uses. It is calculated as follows:

$$\text{Conservation} = \frac{[\text{Volume of gas produced} - (\text{Volume of gas flared} + \text{Volume of gas vented})]}{\text{Volume of gas produced}}$$

- Greenhouse gas (GHG) emissions are expressed in tonnes of carbon dioxide equivalent (tCO₂e).² The GHG emission factors used to quantify emissions from flaring and venting, vary depending on the type of production as set out below^{3,4}:
 - Crude oil⁵
 - Vented gas GHG emission factor = 12.5 tCO₂e per thousand cubic metres (10³ m³) of gas
 - Flared gas GHG emission factor = 2.9 tCO₂e per 10³ m³ of gas
 - Crude bitumen within the Peace River area⁶
 - Vented gas GHG emission factor = 15.9 tCO₂e per 10³ m³ of gas
 - Flared gas GHG emission factor = 2.5 tCO₂e per 10³ m³ of gas
 - Crude bitumen outside the Peace River area⁷
 - Vented gas GHG emission factor = 16.2 tCO₂e per 10³ m³ of gas
 - Flared gas GHG emission factor = 2.5 tCO₂e per 10³ m³ of gas

For information on flaring, incinerating, and venting requirements, see *Directive 060*. For questions about this report, email the AER Environment and Operational Performance Branch, Resource Compliance Team, at ResourceCompliance@aer.ca or call the Customer Contact Centre at 403-297-8311 or toll free at 1-855-297-8311.

² tCO₂e is a way of expressing the global warming potential (GWP) of a greenhouse gas relative to carbon dioxide. Since every greenhouse gas has a different capacity to absorb and trap heat in the atmosphere, carbon dioxide is used as a frame of reference for easy comparison. The GWP of other gases can be calculated and converted into the equivalent amount of carbon dioxide. For example, one tonne of methane, which is a major component in venting, has 25 times more GWP than carbon dioxide over 100 years (Government of Alberta, *Carbon Offset Emission Factors Handbook* [2015], <http://aep.alberta.ca/climate-change/guidelines-legislation/specified-gas-emitters-regulation/documents/CarbonEmissionHandbook-Mar11-2015.pdf>, table 1).

³ The GHG emission factors in this report differ from *ST60B-2016* due to changes made by the federal government in calculating them.

⁴ Flaring is assumed to have a 95 per cent conversion efficiency.

⁵ Solution gas from crude oil production is assumed to have a methane content of 53 per cent by mass.

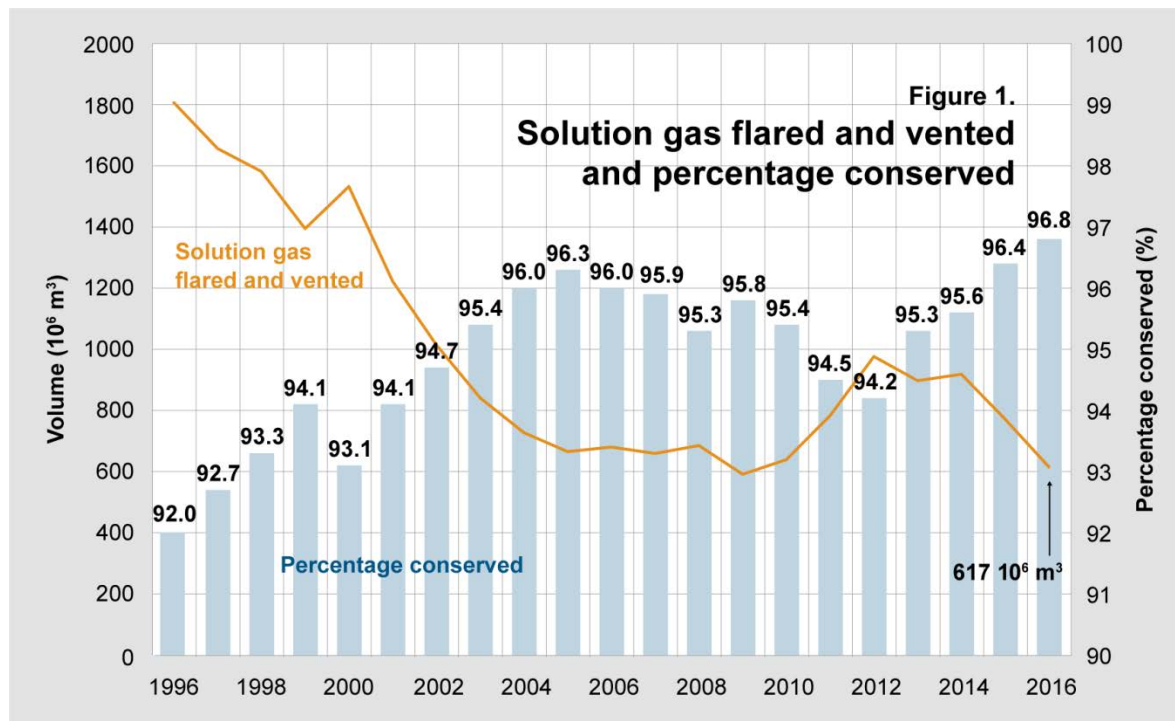
⁶ For a map of the Peace River area, see *Directive 060: Upstream Petroleum Industry Flaring, Incinerating, and Venting*, figure 10, available on the AER website, www.aer.ca. Solution gas from crude bitumen production within the Peace River area is assumed to have a methane content of 89 per cent by mass.

⁷ Solution gas from crude bitumen production outside the Peace River area is assumed to have a methane content of 94 per cent by mass.

2 Solution Gas Conserved, Flared, and Vented, 1996–2016

Industry achieved a 96.8 per cent solution gas conservation rate in 2016, compared with 96.4 per cent in 2015 (see figure 1). Data from all crude oil and crude bitumen batteries were used in calculating the percentage of solution gas conserved.

The combined volume of flared and vented solution gas decreased 14.4 per cent to 617 million cubic metres (10^6 m^3) in 2016 from 773 10^6 m^3 in 2015.⁸ The total volume of gas flared and vented at crude oil and crude bitumen batteries represented 4.5 $10^6 \text{ tCO}_2\text{e}$.

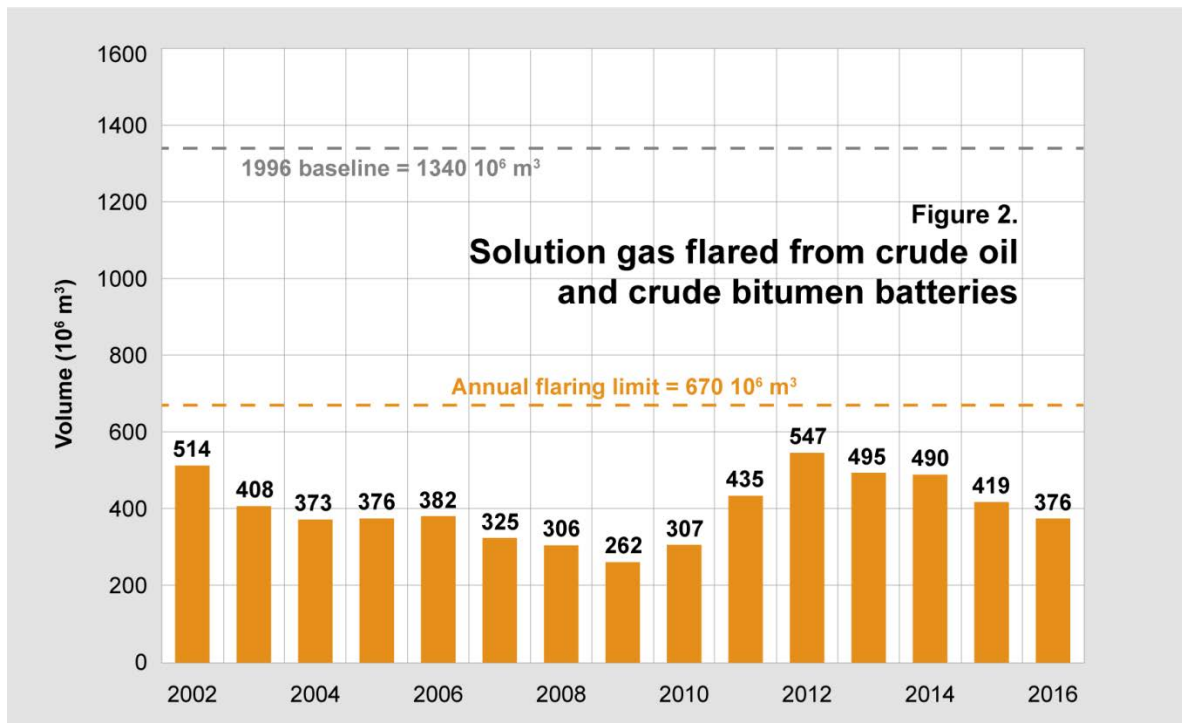


⁸ Gas volumes in this report have been rounded to the nearest 10^6 m^3 .

3 Solution Gas Flaring and Venting Performance

In 2016, $376 \times 10^6 \text{ m}^3$, or $1.0 \times 10^6 \text{ tCO}_2\text{e}$, of gas was flared and $241 \times 10^6 \text{ m}^3$, or $3.4 \times 10^6 \text{ tCO}_2\text{e}$, was vented. The flared volumes were 71.9 per cent less than the 1996 flaring baseline of $1340 \times 10^6 \text{ m}^3$ and 10.3 per cent less than 2015 volumes (see figure 2). Flaring was also below the provincial annual flaring limit of $670 \times 10^6 \text{ m}^3$, set out in *Directive 060*. The vented volumes were 65.8 per cent less than the 2000 venting baseline of $704 \times 10^6 \text{ m}^3$ and 31.9 per cent less than the 2015 volumes (see figure 3).

The years 1996 and 2000 were selected as the baseline years for solution gas flaring and venting, respectively, since data from these years were the most recent available to the CASA Flaring and Venting Project Team.



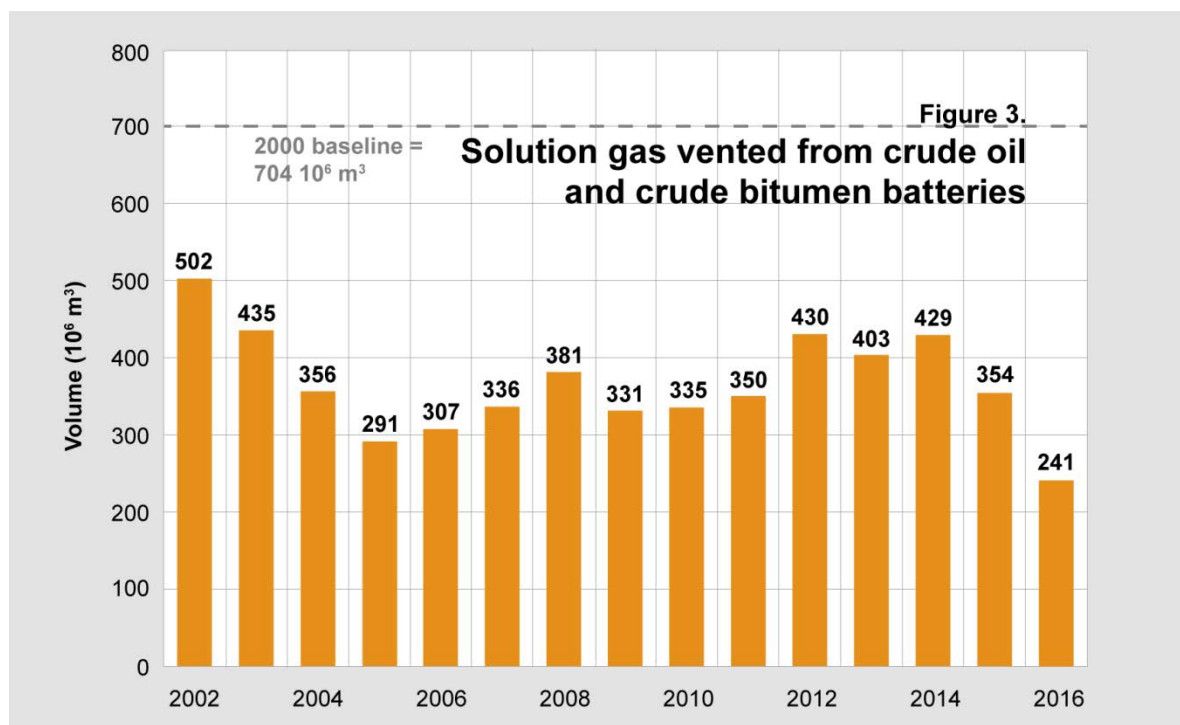


Table 1 shows oil and bitumen production and solution gas flaring, venting, production, and conservation for crude oil and crude bitumen batteries. Comparing the 2015 and 2016 data, it can be seen that in 2016

- crude oil production decreased while crude bitumen production increased;
- total solution gas flared and vented decreased along with gas production;
- solution gas conservation increased for both crude oil and crude bitumen production; and
- for crude bitumen batteries, venting decreased while flaring increased which is more desirable since flaring contributes less to GHG emissions than venting.

Table 1. Flaring and venting from crude oil and crude bitumen batteries, 2015–2016

| | 2016 (10 ⁶ m ³) | | | 2015 (10 ⁶ m ³) | | | 2016 vs. 2015 (% change) | | |
|---------------------------------|--|---------------------|---------------|--|---------------------|---------------|--------------------------|---------------------|-----------------|
| | Crude bitumen batteries | Crude oil batteries | Total | Crude bitumen batteries | Crude oil batteries | Total | Crude bitumen batteries | Crude oil batteries | Combined change |
| Crude oil or bitumen production | 81 | 26 | 107 | 80 | 30 | 110 | 1.9 | –15.6 | –2.9 |
| Solution gas production | 2 617 | 16 890 | 19 507 | 2 644 | 18 535 | 21 179 | –1.0 | –8.9 | –7.9 |
| Solution gas flaring | 112 | 264 | 376 | 99 | 320 | 419 | 13.0 | –17.5 | –10.3 |
| Solution gas venting | 108 | 133 | 241 | 187 | 166 | 353 | –42.5 | –19.9 | –31.9 |
| Solution gas conservation | 91.6% | 97.6% | 96.8% | 89.2% | 97.4% | 96.4% | 2.4 | 0.3 | 0.5 |

Table 2 shows the total number of batteries operating in 2016 and the number of batteries flaring, venting, or conserving gas. The number of batteries operating in 2016 decreased compared with 2015.

Table 2. Number of crude oil and crude bitumen batteries flaring or venting, 2015–2016^a

| | 2016 (#) | | | 2015 (#) | | | 2016 vs. 2015 (% change) | | |
|--|-------------------------|---------------------|--------|-------------------------|---------------------|--------|--------------------------|---------------------|-----------------|
| | Crude bitumen batteries | Crude oil batteries | Total | Crude bitumen batteries | Crude oil batteries | Total | Crude bitumen batteries | Crude oil batteries | Combined change |
| Solution gas flaring | 160 | 1 588 | 1 748 | 168 | 1 875 | 2 043 | –4.8 | –15.3 | –14.4 |
| Solution gas venting | 2 465 | 4 586 | 7 051 | 2 764 | 5 106 | 7 870 | –10.8 | –10.2 | –10.4 |
| Solution gas conservation ^b | 1 310 | 4 746 | 6 056 | 1 153 | 5 029 | 6 182 | 13.6 | –5.6 | –2.0 |
| # of operating batteries | 3 361 | 9 611 | 12 972 | 3 711 | 10 539 | 14 250 | –9.4 | –8.8 | –9.0 |

^a A battery can flare, vent, or conserve or engage in one, two, or all three of these activities.

^b Batteries with an annual gas conservation of at least 90.0 per cent.

Discussion

Directive 060, starting with the edition that went into effect on January 31, 2007, requires that all solution gas flares or vents releasing more than 900 m³/day must be economically evaluated to see if gas conservation is viable. If the net present value (NPV) of gas conservation at a crude oil battery is found to be greater than negative \$55 000, the well or battery must not be produced until the gas is conserved. At crude bitumen batteries, as soon as gas flow rates exceed an average of 900 m³/day for any consecutive three-month period within a rolling six-month window, operators have up to six months to conserve the solution gas if the NPV of gas conservation is greater than negative \$55 000. Before 2007, *Directive 060* required at least a neutral NPV (i.e., \$0.00) before solution gas conservation was necessary.

Despite the change in the NPV threshold for solution gas conservation, low natural gas prices and higher pipeline and compression capital costs in 2016 continued to challenge the economic viability of conservation.

The decrease in flaring from crude oil batteries in 2016 compared with 2015 can be mainly attributed to a decrease in the number of crude oil batteries operating and a decrease in crude oil production. For crude bitumen batteries, the increase in flaring and simultaneous decrease in venting in 2016 compared with 2015 suggests that an increasing portion of gas is being flared rather than vented.

Crude bitumen batteries accounted for $220 \times 10^6 \text{ m}^3$, or 35.6 per cent, of the total solution gas flared and vented in 2016, with 49.0 per cent of this volume being vented. Crude bitumen generally has lower gas-to-oil ratios and solution gas production volumes than crude oil, which means that solution gas is less likely to be combusted.

The reduction in the vented gas volumes in 2016 compared with 2015 can be mainly attributed to the AER working with operators to enhance compliance with venting requirements.

This report covers two types of crude bitumen operations: nonthermal operations (e.g., cold heavy oil production) and thermal operations (e.g., steam-assisted gravity drainage or cyclical steam stimulation). Thermal operations generally have less flaring and venting than nonthermal operations because the produced gas is more economical to conserve. Table 3 shows the volume of flaring and venting for nonthermal operations (3312 batteries) and thermal operations (49 batteries) in 2016.

Table 3. Flaring and venting at nonthermal and thermal operations (10^6 m^3), 2016

| | Nonthermal operations | Thermal operations | Total |
|------------------------------------|----------------------------------|-------------------------------|--------------|
| Crude bitumen production | 13 | 68 | 81 |
| Solution gas production | 1 261 | 1 356 | 2 617 |
| Solution gas flaring | 88 | 24 | 112 |
| Solution gas venting | 106 | 1 | 108 |
| % of solution gas conserved | 84.6% | 98.1% | 91.6% |

Conserving gas is more challenging for nonthermal operations than for thermal operations. Nevertheless, the oil and gas industry is constructively using a large portion of produced solution gas from nonthermal crude bitumen operations as fuel to run pump motors and tank heaters. Unfortunately, conserving the remaining small volume of gas is more economically challenging.

4 Flaring from All Upstream Oil and Gas Sources, 2000–2016

The total flared volume from all upstream oil and gas sources in 2016 was 662 10^6 m^3 , a decrease of 23.9 per cent from 2015 (see figure 4). The data in table 4 were used to prepare figure 4.

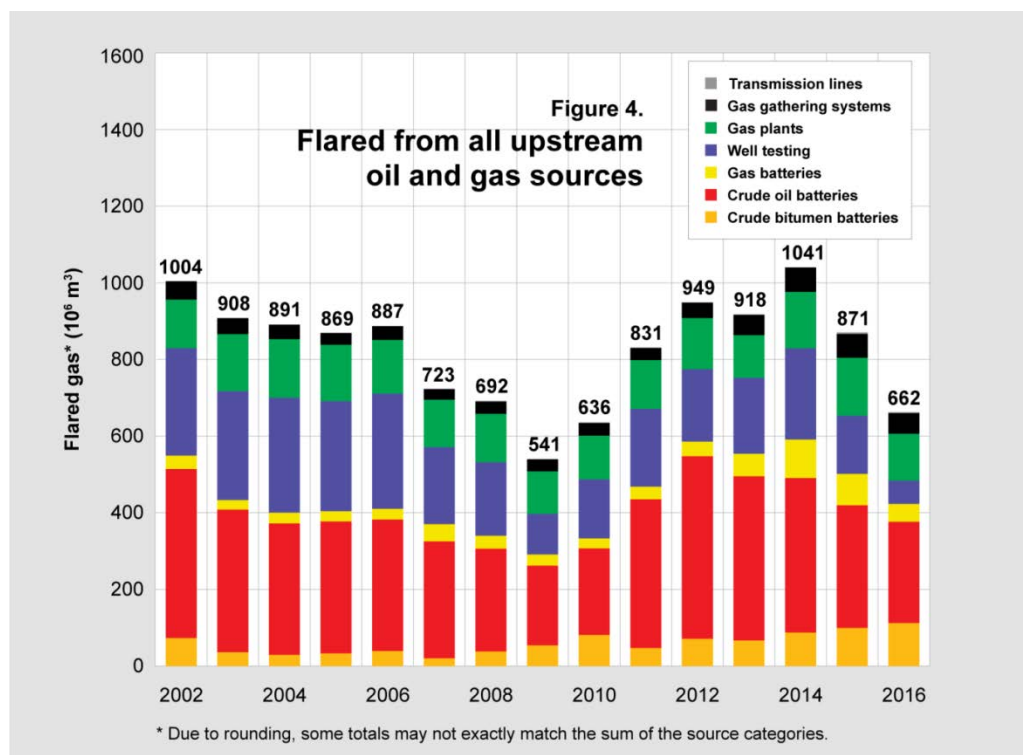


Table 4. Flaring from upstream oil and gas sources (10^6 m^3)^a

| Year | Crude bitumen batteries | Crude oil batteries | Gas batteries | Well testing | Gas plants ^b | Gas gathering systems ^b | Transmission lines ^c | Total flared 10^6 m^3 |
|------|-------------------------|---------------------|---------------|--------------|-------------------------|------------------------------------|---------------------------------|---------------------------------|
| 2000 | 76 | 755 | 36 | 335 | 196 | 48 | - | 1 446 |
| 2001 | 66 | 558 | 41 | 326 | 159 | 50 | - | 1 200 |
| 2002 | 73 | 441 | 35 | 280 | 127 | 48 | - | 1 004 |
| 2003 | 36 | 372 | 25 | 284 | 149 | 42 | - | 908 |
| 2004 | 29 | 343 | 28 | 300 | 153 | 38 | - | 891 |
| 2005 | 33 | 344 | 27 | 287 | 147 | 31 | - | 869 |
| 2006 | 39 | 343 | 28 | 301 | 140 | 36 | - | 887 |
| 2007 | 20 | 305 | 45 | 201 | 124 | 28 | - | 723 |
| 2008 | 38 | 268 | 34 | 192 | 126 | 32 | 2 | 692 |
| 2009 | 54 | 208 | 29 | 106 | 111 | 31 | 2 | 541 |
| 2010 | 81 | 226 | 26 | 154 | 114 | 33 | 2 | 636 |
| 2011 | 47 | 388 | 33 | 203 | 127 | 32 | 1 | 831 |
| 2012 | 70.8 | 476.7 | 37.9 | 189.0 | 133.6 | 40.1 | 1.1 | 949 |
| 2013 | 66.6 | 428.6 | 58.5 | 198.4 | 111.1 | 52.9 | 2.0 | 918 |

| Year | Crude bitumen batteries | Crude oil batteries | Gas batteries | Well testing | Gas plants ^b | Gas gathering systems ^b | Transmission lines ^c | Total flared 10 ⁶ m ³ |
|----------------------|-------------------------|---------------------|---------------|--------------|-------------------------|------------------------------------|---------------------------------|---|
| 2014 | 87.4 | 403.0 | 100.5 | 237.7 | 147.8 | 63.5 | 0.6 | 1041 |
| 2015 | 99.3 | 320.0 | 82.0 | 151.7 | 151.4 | 62.1 | 4.2 | 871 |
| 2016 | 112.2 | 264.0 | 46.6 | 61.2 | 122.2 | 53.6 | 2.4 | 662 |
| 2016 vs. 2015 change | 13.0% | -17.5% | -43.2% | -59.6% | -19.3% | -13.6% | -42.8% | -23.9% |

^a Due to rounding, some totals may not exactly match the sum of the source categories. An additional decimal place has been added to the volumes for 2012 onwards to more accurately reflect the percentage changes.

^b The figures for gas plants and gas gathering systems include both flared *and* vented volumes for the years 2000 to 2006.

^c Transmission line data are voluntarily reported to the AER. The AER does not regulate these lines. Flaring from transmission lines was not tracked by the AER until 2008.

Table 4 shows that flaring from crude bitumen batteries increased in 2016 compared with 2015, while flaring from crude oil batteries, gas batteries, well testing, gas plants, gas gathering systems, and transmission lines decreased in 2016.

Discussion

Gas batteries

In 2016, flared gas volumes from gas batteries was 47 10⁶ m³, a decrease of 43.2 per cent from 2015, despite gas production from gas batteries increasing 1.1 per cent from 2015. The flaring decrease is mainly attributed to the decrease in the number of horizontal multistage hydraulically fractured gas wells drilled in 2016 compared with 2015 (table 5). It takes longer to clean out the wells in these operations to meet pipeline specifications before transmission, so flare volumes are higher and flaring duration is longer than for vertical wells that are not hydraulically fractured. The flared volume during this cleanup period is reported as gas battery flaring and not as well test flaring. Fewer horizontal multistage hydraulically fractured gas wells drilled results in lower flaring volumes for gas batteries.

Well testing

In 2016, 613 well tests were conducted, compared with 1211 tests in 2015. There were 507 well tests conducted that flared or vented compared with 1121 tests in 2015. The decrease in the number of well tests is mainly due to a decrease in the number of wells drilled in 2016 compared with 2015.

An AER review of 45 well tests done in 2016 showed that 56 per cent of the flared gas was reported incorrectly. The reported flare volumes during well testing may have included some nonhydrocarbon gas, such as carbon dioxide and nitrogen from fracturing operations. In other situations, gas that was pipelined (i.e., conserved) by testing in line was incorrectly included in the flared gas volumes. The AER subtracted these gas volumes from the reported flared volumes to get the actual hydrocarbon gas that was flared

during these well tests. This adjustment was only made for the 45 well tests reviewed, and the volumes were not prorated for the entire well test dataset.

The average volume of gas flared per test in 2016 was $99.9 \times 10^3 \text{ m}^3$, compared with $125.2 \times 10^3 \text{ m}^3$ per test in 2015, a decrease of 20.2 per cent (see table 5). This can be attributed to 150 fewer horizontal multistage fractured gas wells drilled in 2016 compared with 2015.

Table 5. Average volume of gas flared per well test and number of wells drilled by type

| Year | Volume flared per well test (10^3 m^3) | Number of horizontal multistage fractured gas wells | Number of horizontal multistage fractured oil wells | Total number of wells drilled |
|------|--|---|---|-------------------------------|
| 2005 | 34.6 | - | - | 20 179 |
| 2006 | 40.8 | - | - | 18 878 |
| 2007 | 40.1 | - | - | 14 723 |
| 2008 | 45.6 | 93 | 53 | 12 914 |
| 2009 | 39.3 | 160 | 120 | 6 392 |
| 2010 | 63.5 | 350 | 778 | 8 946 |
| 2011 | 83.2 | 645 | 1645 | 9 303 |
| 2012 | 102.3 | 530 | 1839 | 8 143 |
| 2013 | 109.8 | 626 | 1612 | 7 812 |
| 2014 | 140.6 | 846 | 1506 | 7 543 |
| 2015 | 125.2 | 662 | 573 | 3 411 |
| 2016 | 99.9 | 512 | 419 | 2 638 |

Directive 060 requires that operators seek alternatives to well test flaring. Operators are required to test in line when it is both economically viable and safe to do so. Testing in line can mean either connecting to an existing gas gathering system directly or laying a temporary surface pipeline to connect a well to a remote gas gathering system. By either method, the gas from the well test is conserved.

Table 6 shows the gas flared from well tests for the 25 companies with the most well tests in 2016 and the average volume of gas flared per test.

Table 6. Well test flaring, 2016; ranked by number of well tests conducted

| Company | Number of well tests | Gas flared (10^6 m^3) | Average gas flared per test (10^3 m^3) |
|-------------------------------|----------------------|-----------------------------------|--|
| Tourmaline Oil Corp. | 97 | 6.1 | 63.2 |
| Encana Corporation | 71 | 0.6 | 7.9 |
| Shell Canada Limited | 56 | 3.8 | 68.7 |
| Seven Generations Energy Ltd. | 48 | 9.2 | 192.5 |
| Bellatrix Exploration Ltd. | 25 | 3.5 | 139.1 |
| Bonavista Energy Corporation | 24 | 1.9 | 77.2 |
| NuVista Energy Ltd. | 20 | 0.4 | 19.5 |

| Company | Number of well tests | Gas flared (10 ⁶ m ³) | Average gas flared per test (10 ³ m ³) |
|--|----------------------|--|---|
| Chevron Canada Limited | 20 | 1.4 | 70.8 |
| Velvet Energy Ltd. | 20 | 2.6 | 131.8 |
| ConocoPhillips Canada Operations Ltd. | 20 | 0.8 | 39.7 |
| Repsol Oil & Gas Canada Inc. | 19 | 3.0 | 158.0 |
| Canadian Natural Resources Limited | 17 | 1.6 | 95.1 |
| Birchcliff Energy Ltd. | 15 | 0.0 | 3.1 |
| Advantage Oil & Gas Ltd. | 10 | 1.1 | 112.4 |
| Cenovus Energy Inc. | 9 | 0.3 | 32.1 |
| TAQA North Ltd. | 8 | 1.5 | 184.8 |
| ConocoPhillips Canada Resources Corp. | 8 | 1.1 | 143.5 |
| Canadian International Oil Operating Corp. | 8 | 1.8 | 227.3 |
| Boulder Energy Ltd. | 7 | 1.0 | 143.1 |
| Exshaw Oil Corp. | 7 | 2.2 | 315.3 |
| High Ground Energy Inc. | 7 | 0.1 | 20.8 |
| Athabasca Oil Corporation | 6 | 1.3 | 220.8 |
| RMP Energy Inc. | 5 | 1.1 | 226.5 |
| Aspenleaf Energy Limited | 5 | 0.1 | 25.2 |
| Tangle Creek Energy Ltd. | 5 | 0.4 | 86.9 |
| Total | 537 | 47.2 | |
| % of total well tests | 87.6% | 77.1% | |

Gas plants

Of the 1132 gas plants reporting gas receipts in 2016, only 390 gas plants reported flared gas volumes. The total volume of gas flared was 122 10⁶ m³, which is a 19.3 per cent decrease from 2015. All gas plant subtypes contribute to this report, including sweet gas, acid gas flare, acid gas injection, sulphur recovery, straddle, and fractionation. Table 7 shows the top 30 gas plants that flared in 2016 by volume, representing 62.5 per cent of flaring from all gas plants. The gas flared as a percentage of gas plant receipts shows the magnitude of the flared gas volumes in relation to the size of the gas plant.

Table 7. Top 30 flaring gas plants in 2016

| Gas plant | Location | Operator name | Gas flared (10 ⁶ m ³) | Gas flared as a percentage of gas plant receipts (%) |
|-------------|----------------|------------------------------------|--|--|
| ABGP0001901 | 10-11-020-01W4 | Plains Midstream Canada ULC | 5.8 | 0.04 |
| ABGP0001060 | 09-27-031-04W5 | AltaGas Ltd. | 5.8 | 0.18 |
| ABGP0118855 | 08-13-063-05W6 | Pembina Gas Services Ltd. | 4.4 | 0.39 |
| ABGP0094954 | 08-11-060-03W6 | Pembina Gas Services Ltd. | 4.3 | 0.34 |
| ABGP0001129 | 13-26-067-05W6 | Canadian Natural Resources Limited | 4.2 | 0.56 |

| Gas plant | Location | Operator name | Gas flared (10 ⁶ m ³) | Gas flared as a percentage of gas plant receipts (%) |
|-------------------------------------|----------------|--|---|---|
| ABGP0001004 | 02-05-044-01W5 | Keyera Energy Ltd. | 4.2 | 0.14 |
| ABGP0001740 | 04-25-062-06W6 | Pembina Gas Services Ltd. | 3.4 | 0.15 |
| ABGP0001892 | 04-08-075-07W6 | Encana Corporation | 2.8 | 0.15 |
| ABGP0001133 | 11-35-037-09W5 | Keyera Energy Ltd. | 2.8 | 0.15 |
| ABGP0001506 | 01-01-078-10W6 | Canadian Natural Resources Limited | 2.7 | 0.22 |
| ABGP0001147 | 11-18-074-12W6 | Veresen Midstream General Partner Inc. | 2.5 | 0.07 |
| ABGP0001192 | 01-08-070-10W5 | Apache Canada Ltd. | 2.5 | 9.13 ^a |
| ABGP0001058 | 08-09-064-19W5 | Trilogy Resources Ltd. | 2.5 | 0.30 |
| ABGP0001105 | 10-10-109-08W6 | Husky Oil Operations Limited | 2.3 | 0.21 |
| ABGP0001113 | 09-06-063-25W5 | Keyera Energy Ltd. | 2.3 | 0.17 |
| ABGP0001350 | 04-08-070-11W6 | ConocoPhillips Canada (BRC) Partnership | 2.2 | 0.10 |
| ABGP0001037 | 13-13-025-05W5 | Shell Canada Energy | 2.1 | 0.21 |
| ABGP0137899 | 12-36-057-23W5 | Pembina Gas Services Ltd. | 1.9 | 0.15 |
| ABGP0134628 | 09-26-062-06W6 | Pembina Gas Services Ltd. | 1.8 | 0.23 |
| ABGP0001169 | 15-03-081-04W6 | Canadian Natural Resources Limited | 1.8 | 0.35 |
| ABGP0001107 | 01-12-062-20W5 | SemCAMS ULC | 1.6 | 0.11 |
| ABGP0001028 | 01-29-057-21W4 | ARC Resources Ltd. | 1.6 | 5.48 |
| ABGP0126279 | 12-36-057-23W5 | Pembina Gas Services Ltd. | 1.6 | 0.10 |
| ABGP0130964 | 15-07-060-18W5 | XTO Energy Canada | 1.5 | 0.31 |
| ABGP0140439 | 10-29-063-23W5 | Encana Corporation | 1.5 | 0.48 |
| ABGP0001520 | 06-19-073-08W6 | ConocoPhillips Canada Energy Partnership | 1.4 | 0.17 |
| ABGP0001047 | 10-05-046-06W5 | Keyera Energy Ltd. | 1.3 | 0.27 |
| ABGP0001013 | 15-22-040-03W5 | Keyera Energy Ltd. | 1.3 | 0.45 |
| ABGP0001530 | 01-35-019-28W4 | Lexin Resources Ltd. | 1.3 | 1.31 |
| ABGP0001360 | 15-02-049-20W5 | CQ Energy Canada Resources Partnership | 1.2 | 0.07 |
| Total | | | 76.4 | |
| % of total gas plant flaring | | | 62.5% | |

^a Flaring was due to a downstream outage.

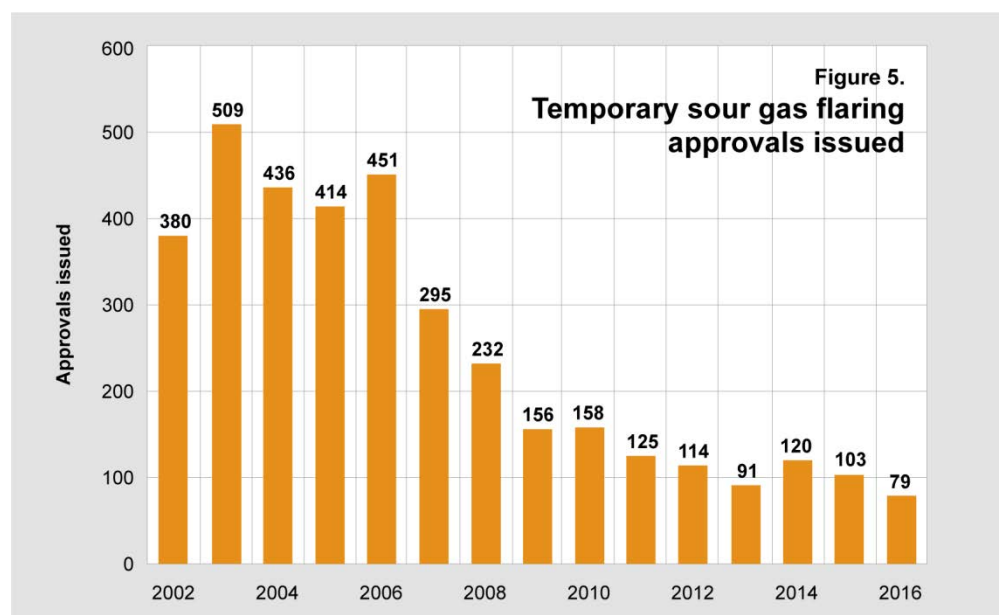
Gas gathering systems

In 2016, 50 per cent of the total volume flared from gas gathering systems came from 5 of the 5665 systems.

Sour gas or sour oil well testing

In cases of sour gas or sour oil well testing, if the gas to be flared contains more than 5 per cent hydrogen sulphide (H_2S), a sour gas flaring approval is required. The temporary sour gas approval process involves a detailed review of air quality dispersion modelling and is conducted to ensure that the Alberta ambient air quality objectives (AAAQO) set by Alberta Environment and Parks will not be exceeded. The application for a sour gas flaring approval may also include plans that document how any predicted exceedances of the AAAQO will be mitigated. When the AER is satisfied that the AAAQO will be met, and that levels of all other parameters (such as flared volumes and sulphur emissions) are justified and minimized, a temporary sour gas flaring approval may be issued.

In 2016, the AER issued 79 temporary sour gas flaring approvals, a decrease from the 103 issued in 2015 (see figure 5).



The reason for the decreases in sour gas flaring approvals since 2006 may be twofold. First, market conditions for natural gas have not been as favourable in recent years, which may have resulted in upstream oil and gas licensees rebalancing their capital and operating budgets.

Second, with the release of the revised *Directive 060* at the end of January 2007, a new allowance to flare small volumes of gas containing H_2S volumes in excess of 5 per cent without a sour gas flaring approval was introduced. With this new allowance, companies are still required to conduct dispersion modelling if the H_2S concentration of the gas to be flared is in excess of 1 per cent, and proper notification to the AER and public at least 24 hours in advance of flaring operations is still required.

5 Venting from All Upstream Oil and Gas Sources, 2000–2016

Figure 6 shows vented volumes broken down by source for 2000 to 2016. The data in table 8 were used to prepare figure 6. As indicated in the table, the total volume vented from all upstream oil and gas sources in 2016 was $281 \times 10^6 \text{ m}^3$, a decrease of 32.2 per cent from 2015.

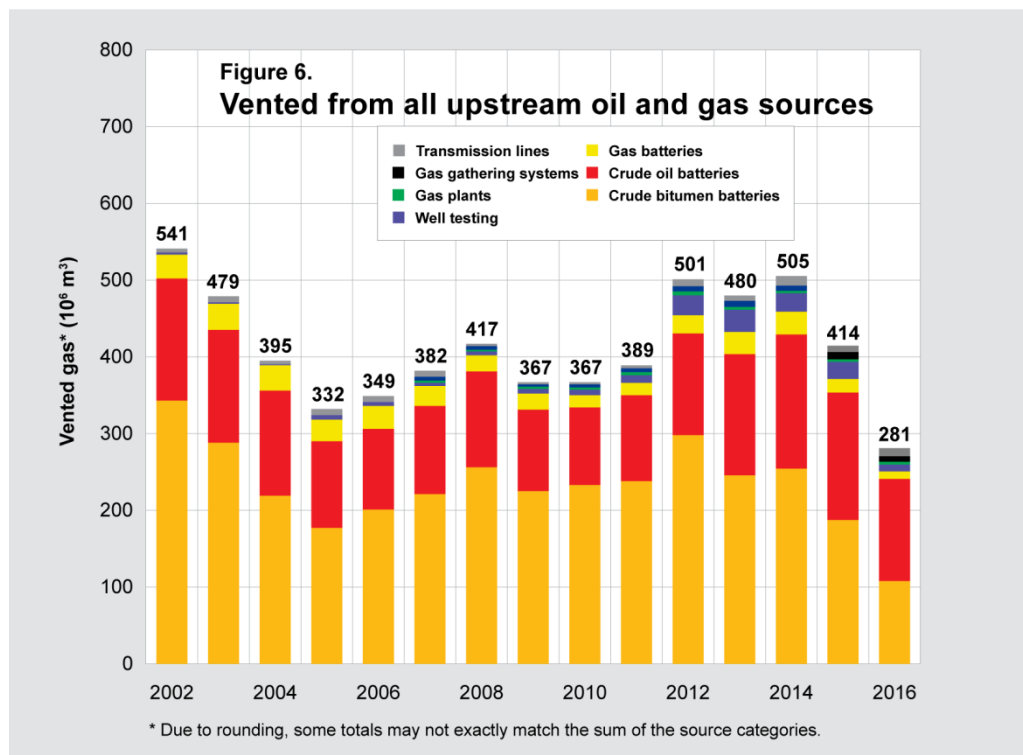


Table 8. Venting from upstream oil and gas sources (10^6 m^3)^a

| Year | Crude bitumen batteries | Crude oil batteries | Gas batteries | Well testing | Gas plants | Gas gathering systems | Transmission lines ^b | Total vented (10^6 m^3) |
|------|-------------------------|---------------------|---------------|--------------|------------|-----------------------|---------------------------------|-------------------------------------|
| 2000 | 554 | 150 | 12 | 7 | 0 | 0 | 12 | 735 |
| 2001 | 436 | 164 | 24 | 7 | 0 | 0 | 8 | 639 |
| 2002 | 343 | 159 | 31 | 3 | 0 | 0 | 5 | 541 |
| 2003 | 288 | 147 | 34 | 2 | 0 | 0 | 8 | 479 |
| 2004 | 219 | 137 | 33 | 1 | 0 | 0 | 5 | 395 |
| 2005 | 177 | 113 | 28 | 6 | 0 | 0 | 8 | 332 |
| 2006 | 201 | 105 | 30 | 5 | 0 | 0 | 8 | 349 |
| 2007 | 221 | 115 | 26 | 4 | 3 | 5 | 8 | 382 |
| 2008 | 256 | 125 | 21 | 5 | 2 | 5 | 3 | 417 |
| 2009 | 225 | 106 | 21 | 6 | 3 | 3 | 3 | 367 |
| 2010 | 233 | 101 | 16 | 7 | 3 | 4 | 3 | 367 |
| 2011 | 238 | 112 | 16 | 10 | 4 | 5 | 4 | 389 |
| 2012 | 298.0 | 132.4 | 23.7 | 26.0 | 5.1 | 6.8 | 9.0 | 501 |

| Year | Crude bitumen batteries | Crude oil batteries | Gas batteries | Well testing | Gas plants | Gas gathering systems | Transmission lines ^b | Total vented (10 ⁶ m ³) |
|---------------------|-------------------------|---------------------|---------------|--------------|------------|-----------------------|---------------------------------|--|
| 2013 | 245.5 | 157.9 | 29.0 | 28.8 | 3.7 | 8.0 | 7.0 | 480 |
| 2014 | 254.2 | 174.8 | 29.7 | 24.1 | 3.1 | 6.8 | 12.7 | 505 |
| 2015 | 187.3 | 166.2 | 17.6 | 22.2 | 3.4 | 9.4 | 8.4 | 414 |
| 2016 | 107.7 | 133.1 | 9.8 | 8.9 | 3.7 | 7.2 | 10.6 | 281 |
| 2016 vs 2015 change | -42.5% | -19.9% | -44.3% | -60.1% | 8.1% | -22.7% | 25.9% | -32.2% |

^a Due to rounding, some totals may not exactly match the sum of the source categories. An additional decimal place has been added to the volumes for 2012 onwards to more accurately reflect the percentage changes.

^b Transmission line data are voluntarily reported to the AER. The AER does not regulate these lines.

Table 8 shows a decrease in 2016 compared with 2015 in venting from crude bitumen batteries, crude oil batteries, gas batteries, well testing, and gas gathering systems. Venting from gas plants and transmission lines increased in 2016.

Discussion

Although the AER does not collect data on greenhouse gas emissions, it is concerned about the impact that these gases can have on the environment. Accordingly, *Directive 060* requires that vented gas that can sustain continuous combustion and that is uneconomic to conserve must be burned.

The most significant source of venting is crude bitumen batteries, where solution gas is vented from the production casing annulus at a large number of individual wells. In some instances, small volumes of solution gas are also vented from treaters and stock tanks at crude oil and crude bitumen batteries.

Venting during well testing is primarily from shallow, sweet, low-deliverability gas wells, including coalbed methane wells.

In *ST60B-2004: Upstream Petroleum Industry Flaring and Venting Report, 2003*, the AER made commitments to identify and set out conservation measures aimed at reducing the volumes of solution gas vented from crude bitumen operations. As a result of industry implementing these measures, there was a net decrease in venting from crude bitumen batteries between 2004 and 2007. However, in 2008 this trend was reversed and there was an increase of 16.9 per cent compared with 2004, which was mainly attributed to the increase in crude bitumen operations in the province. In 2016, venting from crude bitumen batteries was 50.8 per cent lower than the venting baseline from 2004.

In 2016, venting from crude bitumen batteries decreased by 42.5 per cent, to 108 10⁶ m³, compared with 2015. Crude bitumen production grew by 1.9 per cent, to 81 10⁶ m³, in 2016 compared with 2015 despite a decrease of 350 crude bitumen batteries operating. Gas conservation from crude bitumen batteries increased to 91.6 per cent in 2016 from 89.2 per cent in 2015. Since 2014, there has been a substantial decrease in venting from crude bitumen operations mainly due to increased gas conservation. Enhanced compliance with venting requirements in 2016 also contributed to decreased venting.

In 2016, venting from crude oil batteries decreased by 19.9 per cent, to $133 \times 10^6 \text{ m}^3$, compared with 2015. Crude oil production decreased by 15.6 per cent, to $26 \times 10^6 \text{ m}^3$, with 928 fewer crude oil batteries operating. Gas conservation from crude oil batteries increased to 97.6 per cent in 2016, from 97.4 per cent in 2015.

6 Emissions from Glycol Dehydrators

Companies are required to meet the benzene emission requirements for glycol dehydrators (dehydration and refrigeration) set out in *Directive 039: Revised Program to Reduce Benzene Emissions from Glycol Dehydrators*. Under *Directive 039*, licensees must complete and submit to the AER an annual dehydrator inventory list that details the emissions from all their glycol dehydrators.

In 2016, 1646 glycol dehydrators processed 151.8 billion cubic metres of gas. Table 9 shows the number of glycol dehydrators, the volume of gas processed, the amount of benzene that would have been emitted without engineering controls,⁹ the amount of benzene emitted with engineering controls in place, and the overall control efficiency each year since 2008.

Table 9. Benzene emissions from operating glycol dehydrators^a

| Year | Number of dehydrators ^b | Volume of gas processed (10 ⁶ m ³) | Benzene emissions before controls (tonnes) | Benzene emissions after controls (tonnes) | Overall control efficiency (%) ^c |
|------|------------------------------------|---|--|---|---|
| 2008 | 2 396 | 159 417 | 3 011 | 1 248 | 58.6 |
| 2009 | 2 236 | 153 323 | 2 750 | 1 093 | 60.3 |
| 2010 | 2 107 | 134 681 | 2 365 | 989 | 58.2 |
| 2011 | 2 006 | 137 790 | 2 286 | 849 | 62.9 |
| 2012 | 1 985 | 148 334 | 2 228 | 794 | 64.4 |
| 2013 | 1 905 | 142 110 | 2 757 | 777 | 71.8 |
| 2014 | 1 886 | 146 036 | 2 640 | 746 | 71.7 |
| 2015 | 1 778 | 153 486 | 2 376 | 609 | 74.4 |
| 2016 | 1 646 | 151 825 | 2 307 | 501 | 78.3 |

^a Benzene amounts have been rounded to the nearest tonne.

^b Benzene occurs in varying concentrations in natural gas streams throughout the province, and some locations may not have any benzene. All operating dehydrators are included, regardless of the concentration of benzene in the gas stream.

^c The control efficiency is the total benzene emissions before controls minus the total benzene emissions after controls divided by the total benzene emissions before controls.

In 2016, 501 tonnes of benzene were emitted after controls compared with 1248 tonnes in 2008—a 59.9 per cent reduction. This can mainly be attributed to a decrease in the number of glycol dehydrators operating and to licensees complying with the emission reduction requirements in *Directive 039*. The overall effectiveness of controls in reducing emissions has also increased since 2008, indicating that controls were used more often and were more efficient at reducing emissions.

Table 10 lists the top 30 companies by the number of glycol dehydrators in 2016. The data in the table represent 71.4 per cent of the total number of operating glycol dehydrators and 68.7 per cent of the benzene emissions after controls.

⁹ Controls are methods for reducing benzene emissions. Condenser systems, incinerators, flare stacks, and burners are examples of engineering controls.

Table 10. Top 30 companies according to the number of operating glycol dehydrators in 2016

| Company | Number of dehydrators | Benzene emissions before controls (tonnes) | Benzene emissions after controls (tonnes) |
|---|------------------------------|---|--|
| Canadian Natural Resources Limited | 299 | 259 | 79 |
| Cenovus Energy Inc. | 68 | 9 | 8 |
| Husky Oil Operations Limited | 57 | 52 | 8 |
| Ember Resources Inc. | 56 | 4 | 4 |
| TAQA North Ltd. | 52 | 61 | 13 |
| ConocoPhillips Canada Operations Ltd. | 51 | 114 | 30 |
| Tourmaline Oil Corp. | 43 | 194 | 13 |
| Long Run Exploration Ltd. | 41 | 34 | 9 |
| Bonavista Energy Corporation | 40 | 152 | 20 |
| Apache Canada Ltd. | 34 | 132 | 20 |
| Direct Energy Marketing Limited | 31 | 56 | 9 |
| Pengrowth Energy Corporation | 31 | 39 | 12 |
| Penn West Petroleum Ltd. | 30 | 27 | 14 |
| Keyera Energy Ltd. | 24 | 97 | 10 |
| Tidewater Midstream and Infrastructure Ltd. | 24 | 13 | 10 |
| Trident Exploration (Alberta) Corp. | 24 | 3 | 3 |
| Bellatrix Exploration Ltd. | 23 | 69 | 11 |
| Harvest Operations Corp. | 23 | 61 | 9 |
| Peyto Exploration & Development Corp. | 22 | 26 | 4 |
| Encana Corporation | 22 | 5 | 5 |
| Repsol Oil & Gas Canada Inc. | 21 | 119 | 12 |
| Sequoia Resources Corp. | 21 | 5 | 5 |
| Seven Generations Energy Ltd. | 20 | 98 | 10 |
| ATCO Energy Solutions Ltd. | 20 | 2 | 0 |
| ARC Resources Ltd. | 19 | 11 | 4 |
| Trilogy Resources Ltd. | 18 | 20 | 7 |
| Pine Cliff Energy Ltd. | 18 | 8 | 5 |
| Shell Canada Limited | 15 | 52 | 5 |
| AltaGas Ltd. | 15 | 2 | 2 |
| Niska Gas Storage Ltd. | 14 | 32 | 3 |
| Total | 1 176 | | 344 |
| % of total glycol dehydrators | 71.4% | | 68.7% |

Glycol is the most commonly used desiccant for the dehydration process, but it has a high affinity for water and benzene. Benzene emissions mainly result from the glycol regeneration process, where the water is separated from the glycol through boiling. The AER requires that benzene emissions are managed to ensure that AAAQO are not exceeded.

7 Emissions from Surface Casing Vent Flow and Gas Migration

Surface casing vent flow (SCVF) is the flow of gas or liquid, or both, out of the surface casing or casing annulus of a well. Gas migration (GM) is a flow of gas that is detectable at the surface outside of the outermost casing string.

In 2003, the AER issued *Interim Directive 2003-01: 1) Isolation Packer Testing, Reporting, and Repair Requirements; 2) Surface Casing Venting Flow/Gas Migration Testing, Reporting, and Repair Requirements; 3) Casing Failure Reporting and Repair Requirements*, which requires companies to electronically report emissions from SCVF and GM. Over the years, the AER has worked with licensees to ensure proper reporting of SCVF and GM.

Table 11 shows the number of wells with SCVF, GM, or both and the estimated natural gas emissions each year since 2000. In 2016, 9972 wells with SCVF or GM emitted a total of $81 \times 10^6 \text{ m}^3$ of natural gas.

Table 11. Emissions from SCVF and GM

| Year | Number of wells with SCVF, GM, or both ^{a,b} | Natural gas emissions (10^6 m^3) ^{c,d,e} |
|------|---|---|
| 2000 | 4 404 | 53 |
| 2001 | 4 557 | 55 |
| 2002 | 5 197 | 70 |
| 2003 | 5 663 | 84 |
| 2004 | 6 052 | 86 |
| 2005 | 6 479 | 94 |
| 2006 | 7 337 | 95 |
| 2007 | 7 880 | 100 |
| 2008 | 8 495 | 104 |
| 2009 | 8 762 | 98 |
| 2010 | 8 926 | 95 |
| 2011 | 9 318 | 92 |
| 2012 | 9 563 | 88 |
| 2013 | 9 624 | 89 |
| 2014 | 9 982 | 84 |
| 2015 | 10 247 | 86 |
| 2016 | 9 972 | 81 |

^a The natural gas emissions are calculated for wells that have not been repaired.

^b There are wells that have SCVF flow rates that are too small to measure and wells where a GM flow rate cannot be determined. For these cases, a flow rate of $1 \text{ m}^3/\text{day}$ was used.

^c The flow rates reported are from a single point in time and are extrapolated to determine annual emissions. Flow rates for SCVF and GM can fluctuate significantly over a period of time.

^d Typically, the methane content of natural gas in SCVF and GM is between 95 and 99 per cent.

^e If no emissions type (e.g. natural gas, saline water, or nonsaline water) is reported, SCVF or GM is assumed to be natural gas and have a flow rate equal to the average of all other reported natural gas SCVFs.

The age, construction, and operation of a well affect the rates of SCVF or GM. As a result, these SCVF or GM rates differ throughout the well's life cycle. Table 12 shows the percentage of wells with SCVF or GM in 2016, both repaired and unrepaired, based on the status of the well. For all wells that were not abandoned, 7.0 per cent had a reported SCVF or GM.

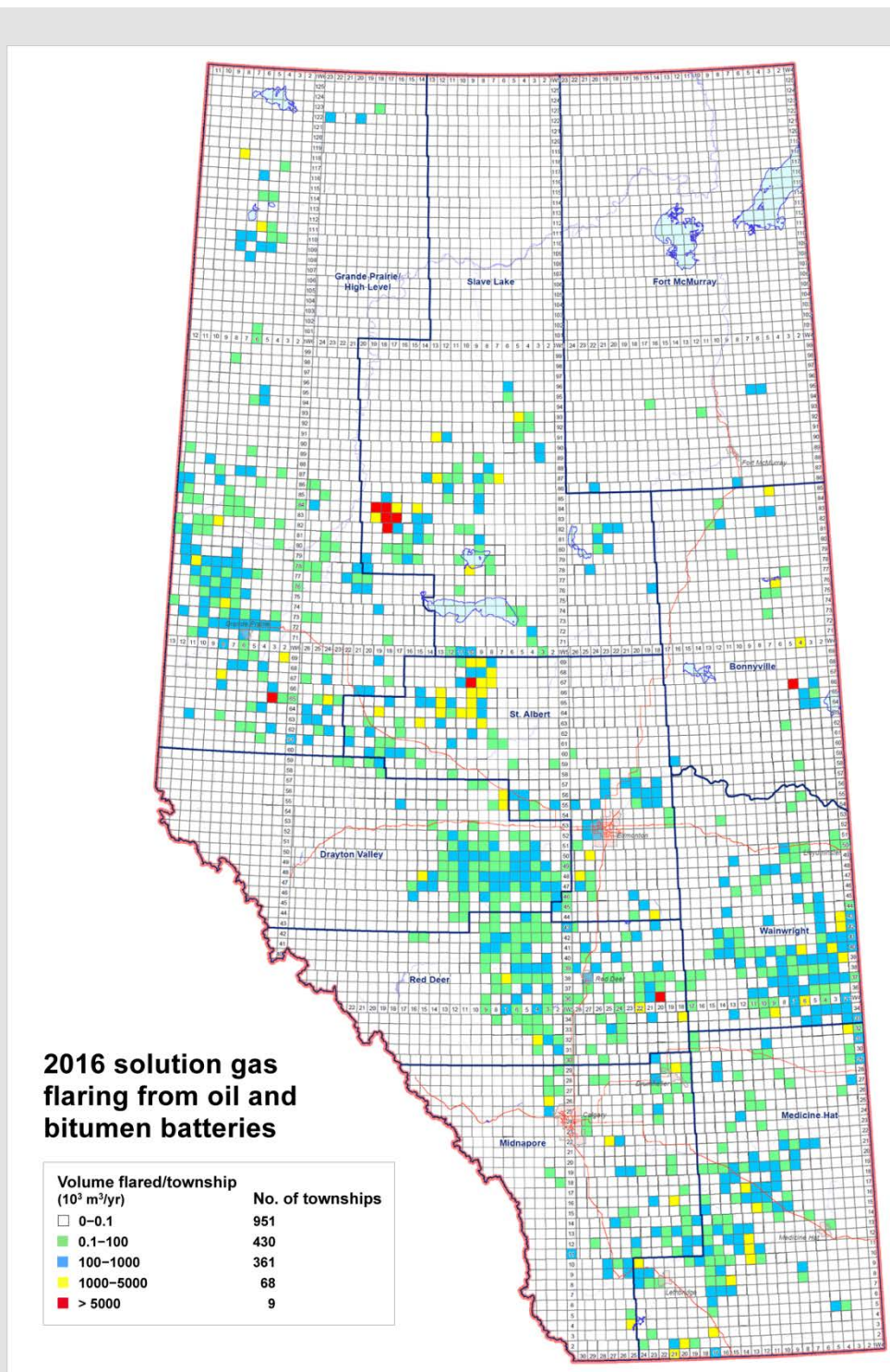
Table 12. Percentage of wells with SCVF, GM, or both by well status in 2016

| Well status | Number of wells | Number of wells that reported SCVF or GM | Percentage of wells with SCVF, GM, or both |
|--------------------|------------------------|---|---|
| New drill | 1 116 | 33 | 3.0 |
| Active | 178 214 | 9 266 | 5.2 |
| Inactive | 88 244 | 9 530 | 10.8 |
| Total | 267 574 | 18 829 | 7.0 |

New drills are wells that have been recently drilled and for which licensees are required to test and report any SCVF or GM. Active wells are those that are currently producing or injecting and reporting volumetric activity on Petrinex. Under *Directive 013: Suspension Requirements for Wells*, inactive wells are those that have not reported any volumetric activity for either 6 or 12 months, depending on the well's risk classification. However, the number of inactive wells shown in the table also includes wells that are not covered by *Directive 013*, such as observation wells and training wells.

8 Provincial Solution Gas Flaring and Venting Maps

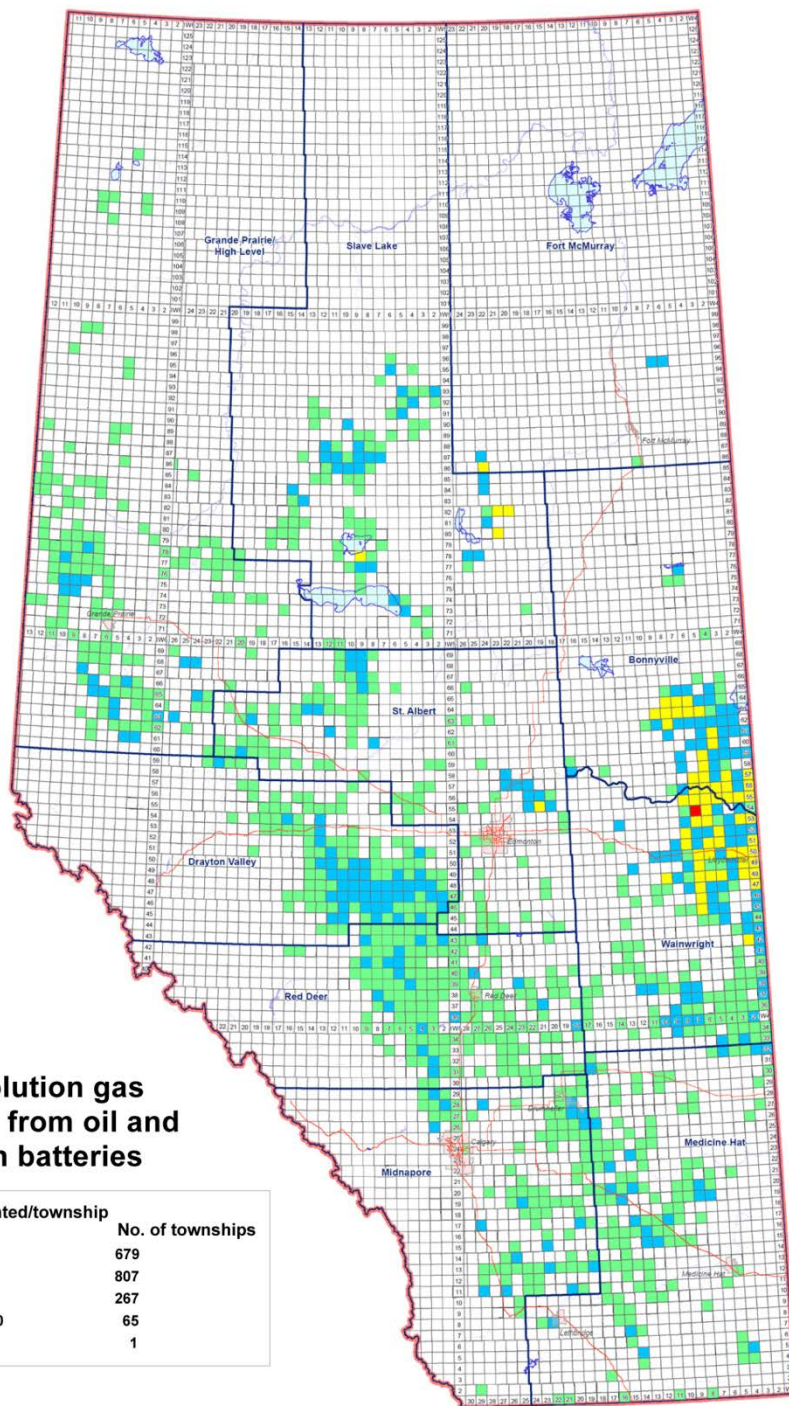
The following maps of the province depict solution gas flaring and venting by township.



The AER does not warrant the accuracy or completeness of the information contained in this map and is not responsible for any errors or omissions in its content, and accepts no liability for the use of this information. Base data contains information licensed under the Open Government Licence – Alberta.

2016 solution gas venting from oil and bitumen batteries

| Volume vented/township (10 ³ m ³ /yr) | No. of townships |
|--|------------------|
| 0–0.1 | 679 |
| 0.1–100 | 807 |
| 100–1000 | 267 |
| 1000–5000 | 65 |
| > 5000 | 1 |



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9 Solution Gas Emissions Ranking of Operators for 2016

The AER has ranked companies based on volumes from operated crude oil and crude bitumen batteries of (1) solution gas production, (2) vented solution gas, and (3) flared plus vented solution gas. The tables that follow provide information on individual companies. The second column in the tables shows the percentage of solution gas conserved by an operator. The operator's performance can be compared with the provincial average of 96.8 per cent solution gas conservation.

In this section, all crude oil and crude bitumen batteries have been included except for batteries that had an experimental well reporting fluid production in a month. The information on experimental wells remains confidential. This exclusion of data from experimental wells is the reason for variances between the values in the preceding sections of this report and the values contained in the ranking tables in this section.

Note that it is possible for an operator to flare or vent a significant volume of solution gas due to the magnitude of the company's operations and still have a high percentage of gas conserved.

Companies are ranked province-wide and within each AER field centre area based on the solution gas flared plus vented from their operating facilities in 2016. The following describes the fields that appear in the ranking tables:

Company: Name of company operating crude oil and crude bitumen batteries.

Gas cons: Percentage of solution gas conserved.

Gas cons change: Percentage change in gas conservation from the previous year. Blanks represent companies that did not report in 2015 due to mergers, name changes, acquisitions, etc.

Gas flared + vented (1000 m³): Solution gas flared plus vented from operated crude oil and crude bitumen batteries.

Gas flared + vented rank: The company's ranking compared with other companies based on the operated volume of solution gas flared plus vented.

Gas flared (1000 m³): Solution gas flared from operated crude oil and crude bitumen batteries.

Flare rank: The company's ranking compared with other companies based on the volume of solution gas flared.

Gas vented (1000 m³): Solution gas vented from operated crude oil and crude bitumen batteries.

Vent rank: The company's ranking compared with other companies based on the volume of solution gas vented.

Oil prod (m^3): Volume of crude oil and crude bitumen produced from operated crude oil and crude bitumen batteries.

Sol'n gas prod (1000 m^3): Volume of solution gas produced from operated crude oil and crude bitumen batteries.

Sol'n gas rank: The company's ranking compared with other companies based on the volume of solution gas produced.

GHG emissions (tCO_2e): The total GHG emissions based on flared and vented gas volumes.

GHG emissions rank: The company's ranking compared with other companies based on the GHG emissions.

Operators with the Largest Solution Gas Produced Volumes in 2016¹

Crude Oil and Crude Bitumen Batteries for Alberta

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| Company | Gas cons | Gas cons change | Gas flared + vented | | Gas flared + vented rank | Gas flared (1000 m³) | Flare rank | Gas vented (1000 m³) | Vent rank | Oil prod (m³) | Sol'n gas prod (1000 m³) | Sol'n gas rank |
|--|----------|-----------------|---------------------|-----|--------------------------|----------------------|------------|----------------------|------------|---------------|--------------------------|----------------|
| | | | (1000 m³) | | | | | | | | | |
| Canadian Natural Resources Limited | 95.2% | 1.2% | 109,835 | 1 | 34,441 | 2 | 75,394 | 1 | 16,699,727 | 2,266,085 | 1 | |
| Husky Oil Operations Limited | 96.6% | 1.1% | 52,917 | 3 | 4,382 | 19 | 48,535 | 2 | 4,808,702 | 1,576,742 | 2 | |
| Birchcliff Energy Ltd. | 99.9% | 0.3% | 653 | 96 | 636 | 77 | 17 | 185 | 332,117 | 809,854 | 3 | |
| ARC Resources Ltd. | 98.8% | 0.1% | 8,798 | 12 | 6,256 | 10 | 2,543 | 12 | 1,061,105 | 747,016 | 4 | |
| Pengrowth Energy Corporation | 99.1% | 0.3% | 5,897 | 21 | 4,980 | 17 | 917 | 27 | 1,529,412 | 623,738 | 5 | |
| Whitecap Resources Inc. | 99.0% | 0.1% | 5,644 | 22 | 3,523 | 23 | 2,121 | 14 | 899,572 | 546,545 | 6 | |
| Penn West Petroleum Ltd. | 86.8% | -6.4% | 65,182 | 2 | 62,161 | 1 | 3,020 | 9 | 1,379,659 | 493,906 | 7 | |
| Bellatrix Exploration Ltd. | 99.8% | 0.3% | 1,084 | 72 | 507 | 91 | 577 | 37 | 103,528 | 456,064 | 8 | |
| Imperial Oil Resources | 99.6% | 0.4% | 1,787 | 47 | 1,395 | 48 | 391 | 50 | 9,385,581 | 444,925 | 9 | |
| Canadian International Oil Operating Corp. | 96.7% | 1.5% | 13,123 | 8 | 12,954 | 5 | 169 | 85 | 220,645 | 396,667 | 10 | |
| Exshaw Oil Corp. | 99.9% | 0.3% | 367 | 131 | 367 | 103 | 0 | 274 | 289,786 | 395,608 | 11 | |
| Cenovus Energy Inc. | 97.9% | 0.5% | 8,274 | 14 | 1,229 | 54 | 7,045 | 6 | 2,334,679 | 391,911 | 12 | |
| Long Run Exploration Ltd. | 98.6% | -0.2% | 4,590 | 29 | 3,314 | 27 | 1,276 | 19 | 321,067 | 330,069 | 13 | |
| Apache Canada Ltd. | 96.3% | -1.3% | 11,749 | 10 | 9,862 | 6 | 1,888 | 16 | 473,885 | 320,072 | 14 | |
| Lightstream Resources Ltd. | 97.6% | 0.4% | 7,157 | 16 | 6,053 | 11 | 1,104 | 22 | 351,310 | 294,366 | 15 | |
| Omers Energy Inc. | 99.5% | -0.1% | 1,576 | 51 | 1,427 | 45 | 150 | 93 | 84,919 | 289,341 | 16 | |
| NAL Resources Limited | 99.6% | 0.1% | 1,099 | 70 | 631 | 78 | 467 | 43 | 201,316 | 288,974 | 17 | |
| Kelt Exploration Ltd. | 99.3% | 0.5% | 1,998 | 46 | 1,963 | 38 | 35 | 150 | 255,474 | 274,051 | 18 | |
| TAQA North Ltd. | 98.1% | 0.2% | 5,167 | 27 | 2,201 | 35 | 2,966 | 10 | 292,063 | 268,640 | 19 | |
| Journey Energy Inc. | 99.2% | 0.3% | 2,148 | 45 | 1,006 | 61 | 1,142 | 21 | 233,802 | 264,936 | 20 | |
| RMP Energy Inc. | 100.0% | 0.5% | 34 | 248 | 8 | 228 | 26 | 163 | 183,381 | 248,233 | 21 | |
| Tamarack Acquisition Corp. | 97.7% | 0.7% | 5,638 | 23 | 1,281 | 52 | 4,357 | 8 | 312,217 | 244,725 | 22 | |
| Cenovus FCCL Ltd. | 96.3% | -2.0% | 8,950 | 11 | 8,491 | 7 | 459 | 44 | 17,407,549 | 244,185 | 23 | |
| Trilogy Resources Ltd. | 99.0% | 0.5% | 2,532 | 40 | 2,120 | 36 | 411 | 48 | 271,568 | 243,517 | 24 | |
| Bonterra Energy Corp. | 98.6% | 0.3% | 3,453 | 33 | 2,108 | 37 | 1,345 | 18 | 454,250 | 239,067 | 25 | |
| Subtotal | | | 329,652 | | 173,296 | | 156,355 | | 59,887,314 | 12,699,237 | | |
| % of Provincial Total | | | 53.5% | | 46.1% | | 65.0% | | 56.1% | 65.2% | | |

¹ Caution is required when comparing with last year's report due to corporate mergers, acquisitions, and divestments.

Operators with the Largest Solution Gas Vented Volumes in 2016¹
Crude Oil and Crude Bitumen Batteries for Alberta
Run Date: Apr. 17, 2017

| Company | Gas cons | Gas cons change | Gas flared + vented (1000 m ³) | Gas flared + vented rank | Gas flared (1000 m ³) | Flare rank | Gas vented (1000 m ³) | Vent rank | Oil prod (m ³) | Sol'n gas prod (1000 m ³) |
|---|----------|-----------------|--|-----------------------------|--------------------------------------|---------------|--------------------------------------|--------------|-------------------------------|--|
| Canadian Natural Resources Limited | 95.2% | 1.2% | 109,835 | 1 | 34,441 | 2 | 75,394 | 1 | 16,699,727 | 2,266,085 |
| Husky Oil Operations Limited | 96.6% | 1.1% | 52,917 | 3 | 4,382 | 19 | 48,535 | 2 | 4,808,702 | 1,576,742 |
| Devon Canada | 87.3% | 10.6% | 19,313 | 6 | 70 | 169 | 19,243 | 3 | 7,734,300 | 152,019 |
| Twin Butte Energy Ltd. | 78.6% | 3.6% | 14,639 | 7 | 5,809 | 14 | 8,830 | 4 | 514,167 | 68,486 |
| Gear Energy Ltd. | 88.8% | 22.1% | 8,535 | 13 | 30 | 199 | 8,505 | 5 | 243,896 | 76,303 |
| Cenovus Energy Inc. | 97.9% | 0.5% | 8,274 | 14 | 1,229 | 54 | 7,045 | 6 | 2,334,679 | 391,911 |
| Cardinal Energy Ltd. | 91.2% | 1.4% | 12,147 | 9 | 6,001 | 12 | 6,146 | 7 | 750,822 | 137,908 |
| Tamarack Acquisition Corp. | 97.7% | 0.7% | 5,638 | 23 | 1,281 | 52 | 4,357 | 8 | 312,217 | 244,725 |
| Penn West Petroleum Ltd. | 86.8% | -6.4% | 65,182 | 2 | 62,161 | 1 | 3,020 | 9 | 1,379,659 | 493,906 |
| TAQA North Ltd. | 98.1% | 0.2% | 5,167 | 27 | 2,201 | 35 | 2,966 | 10 | 292,063 | 268,640 |
| Surge Energy Inc. | 96.8% | 2.8% | 6,237 | 19 | 3,405 | 25 | 2,832 | 11 | 384,563 | 192,868 |
| ARC Resources Ltd. | 98.8% | 0.1% | 8,798 | 12 | 6,256 | 10 | 2,543 | 12 | 1,061,105 | 747,016 |
| Repsol Oil & Gas Canada Inc. | 83.9% | -2.6% | 5,523 | 25 | 3,057 | 28 | 2,466 | 13 | 534,610 | 34,305 |
| Whitecap Resources Inc. | 99.0% | 0.1% | 5,644 | 22 | 3,523 | 23 | 2,121 | 14 | 899,572 | 546,545 |
| Harvest Operations Corp. | 95.9% | 1.0% | 5,581 | 24 | 3,490 | 24 | 2,092 | 15 | 542,747 | 137,773 |
| Apache Canada Ltd. | 96.3% | -1.3% | 11,749 | 10 | 9,862 | 6 | 1,888 | 16 | 473,885 | 320,072 |
| TORC Oil & Gas Ltd. | 93.4% | 3.5% | 6,723 | 18 | 5,117 | 16 | 1,606 | 17 | 199,193 | 101,555 |
| Bonterra Energy Corp. | 98.6% | 0.3% | 3,453 | 33 | 2,108 | 37 | 1,345 | 18 | 454,250 | 239,067 |
| Long Run Exploration Ltd. | 98.6% | -0.2% | 4,590 | 29 | 3,314 | 27 | 1,276 | 19 | 321,067 | 330,069 |
| Prairie Provident Resources Canada Ltd. | 98.2% | N/A | 1,257 | 60 | - | 258 | 1,257 | 20 | 105,423 | 68,480 |
| Journey Energy Inc. | 99.2% | 0.3% | 2,148 | 45 | 1,006 | 61 | 1,142 | 21 | 233,802 | 264,936 |
| Lightstream Resources Ltd. | 97.6% | 0.4% | 7,157 | 16 | 6,053 | 11 | 1,104 | 22 | 351,310 | 294,366 |
| Spur Resources Ltd. | 97.2% | -0.4% | 1,399 | 55 | 333 | 106 | 1,067 | 23 | 123,703 | 50,504 |
| Predator Oil Ltd. | 31.8% | 0.6% | 2,762 | 39 | 1,746 | 40 | 1,016 | 24 | 73,872 | 4,049 |
| Crescent Point Energy Corp. | 88.1% | -1.2% | 24,371 | 5 | 23,373 | 4 | 999 | 25 | 586,070 | 203,991 |
| Subtotal | | | 399,039 | | 190,248 | | 208,795 | | 41,415,404 | 9,212,321 |
| % of Provincial Total | | | 64.7% | | 50.6% | | 86.8% | | 38.8% | 47.3% |

¹ Caution is required when comparing with last year's report due to corporate mergers, acquisitions, and divestments.

Provincial Ranking of Operators – 2016 Flared + Vented Volume¹

Crude Oil and Crude Bitumen Batteries for Alberta

Run Date: Apr. 17, 2017

| Company | Gas cons | Gas cons change | Gas flared + vented (1000 m ³) | Gas flared + vented rank | Gas flared (1000 m ³) | Flare rank | Gas vented (1000 m ³) | Vent rank | Oil prod (m ³) | Sol'n gas prod (1000 m ³) | GHG emissions (tCO ₂ e) | GHG emissions rank |
|--|----------|-----------------|--|--------------------------|-----------------------------------|------------|-----------------------------------|-----------|----------------------------|---------------------------------------|------------------------------------|--------------------|
| Canadian Natural Resources Limited | 95.2% | 1.2% | 109,835 | 1 | 34,441 | 2 | 75,394 | 1 | 16,699,727 | 2,266,085 | 1,271,780 | 1 |
| Penn West Petroleum Ltd. | 86.8% | -6.4% | 65,182 | 2 | 62,161 | 1 | 3,020 | 9 | 1,379,659 | 493,906 | 199,073 | 4 |
| Husky Oil Operations Limited | 96.6% | 1.1% | 52,917 | 3 | 4,382 | 19 | 48,535 | 2 | 4,808,702 | 1,576,742 | 672,661 | 2 |
| Baytex Energy Ltd. | 86.4% | 1.9% | 28,767 | 4 | 28,213 | 3 | 554 | 38 | 901,730 | 211,913 | 80,350 | 9 |
| Crescent Point Energy Corp. | 88.1% | -1.2% | 24,371 | 5 | 23,373 | 4 | 999 | 25 | 586,070 | 203,991 | 79,997 | 10 |
| Devon Canada | 87.3% | 10.6% | 19,313 | 6 | 70 | 169 | 19,243 | 3 | 7,734,300 | 152,019 | 291,997 | 3 |
| Twin Butte Energy Ltd. | 78.6% | 3.6% | 14,639 | 7 | 5,809 | 14 | 8,830 | 4 | 514,167 | 68,486 | 153,122 | 5 |
| Canadian International Oil Operating Corp. | 96.7% | 1.5% | 13,123 | 8 | 12,954 | 5 | 169 | 85 | 220,645 | 396,667 | 39,528 | 17 |
| Cardinal Energy Ltd. | 91.2% | 1.4% | 12,147 | 9 | 6,001 | 12 | 6,146 | 7 | 750,822 | 137,908 | 94,254 | 8 |
| Apache Canada Ltd. | 96.3% | -1.3% | 11,749 | 10 | 9,862 | 6 | 1,888 | 16 | 473,885 | 320,072 | 52,110 | 12 |
| Cenovus FCCL Ltd. | 96.3% | -2.0% | 8,950 | 11 | 8,491 | 7 | 459 | 44 | 17,407,549 | 244,185 | 29,044 | 22 |
| ARC Resources Ltd. | 98.8% | 0.1% | 8,798 | 12 | 6,256 | 10 | 2,543 | 12 | 1,061,105 | 747,016 | 49,892 | 13 |
| Gear Energy Ltd. | 88.8% | 22.1% | 8,535 | 13 | 30 | 199 | 8,505 | 5 | 243,896 | 76,303 | 114,637 | 6 |
| Cenovus Energy Inc. | 97.9% | 0.5% | 8,274 | 14 | 1,229 | 54 | 7,045 | 6 | 2,334,679 | 391,911 | 102,934 | 7 |
| Aspenleaf Energy Limited | 70.2% | -10.2% | 7,793 | 15 | 7,633 | 8 | 160 | 88 | 184,118 | 26,176 | 24,052 | 25 |
| Lightstream Resources Ltd. | 97.6% | 0.4% | 7,157 | 16 | 6,053 | 11 | 1,104 | 22 | 351,310 | 294,366 | 31,303 | 21 |
| Murphy Oil Company Ltd. | 85.7% | 11.2% | 6,748 | 17 | 6,531 | 9 | 217 | 75 | 183,673 | 47,285 | 19,904 | 28 |
| TORC Oil & Gas Ltd. | 93.4% | 3.5% | 6,723 | 18 | 5,117 | 16 | 1,606 | 17 | 199,193 | 101,555 | 34,881 | 20 |
| Surge Energy Inc. | 96.8% | 2.8% | 6,237 | 19 | 3,405 | 25 | 2,832 | 11 | 384,563 | 192,868 | 45,279 | 14 |
| SanLing Energy Ltd. | 83.0% | N/A | 6,169 | 20 | 5,878 | 13 | 291 | 64 | 100,938 | 36,358 | 20,623 | 27 |
| Pengrowth Energy Corporation | 99.1% | 0.3% | 5,897 | 21 | 4,980 | 17 | 917 | 27 | 1,529,412 | 623,738 | 25,842 | 23 |
| Whitecap Resources Inc. | 99.0% | 0.1% | 5,644 | 22 | 3,523 | 23 | 2,121 | 14 | 899,572 | 546,545 | 36,744 | 18 |
| Tamarack Acquisition Corp. | 97.7% | 0.7% | 5,638 | 23 | 1,281 | 52 | 4,357 | 8 | 312,217 | 244,725 | 58,230 | 11 |
| Harvest Operations Corp. | 95.9% | 1.0% | 5,581 | 24 | 3,490 | 24 | 2,092 | 15 | 542,747 | 137,773 | 36,651 | 19 |
| Repsol Oil & Gas Canada Inc. | 83.9% | -2.6% | 5,523 | 25 | 3,057 | 28 | 2,466 | 13 | 534,610 | 34,305 | 39,694 | 16 |
| Bearspaw Petroleum Ltd. | 35.1% | 1.5% | 5,219 | 26 | 5,213 | 15 | 6 | 217 | 48,067 | 8,045 | 15,129 | 33 |
| TAQA North Ltd. | 98.1% | 0.2% | 5,167 | 27 | 2,201 | 35 | 2,966 | 10 | 292,063 | 268,640 | 43,526 | 15 |
| Nexen Energy ULC | 82.7% | -16.2% | 4,935 | 28 | 4,935 | 18 | - | 274 | 1,265,750 | 28,475 | 12,569 | 39 |
| Long Run Exploration Ltd. | 98.6% | -0.2% | 4,590 | 29 | 3,314 | 27 | 1,276 | 19 | 321,067 | 330,069 | 25,543 | 24 |
| Velvet Energy Ltd. | 92.6% | -6.8% | 4,220 | 30 | 4,058 | 20 | 162 | 87 | 21,542 | 56,992 | 13,744 | 35 |
| Mancal Energy Inc. | 94.0% | 0.7% | 4,124 | 31 | 3,964 | 21 | 160 | 89 | 165,086 | 68,935 | 13,385 | 37 |
| Granite Oil Corp. | 95.5% | 5.2% | 3,961 | 32 | 3,961 | 22 | - | 274 | 163,675 | 87,402 | 11,439 | 41 |
| Bonterra Energy Corp. | 98.6% | 0.3% | 3,453 | 33 | 2,108 | 37 | 1,345 | 18 | 454,250 | 239,067 | 22,925 | 26 |
| Kainai Energy Corp. | 0.0% | 0.0% | 3,392 | 34 | 3,392 | 26 | - | 274 | 10,054 | 3,392 | 9,797 | 51 |
| InPlay Oil Corp. | 92.4% | 26.1% | 3,037 | 35 | 2,371 | 33 | 666 | 33 | 95,649 | 39,906 | 15,181 | 32 |
| Point Loma Resources Ltd. | 58.2% | N/A | 3,031 | 36 | 2,957 | 29 | 74 | 126 | 7,910 | 7,244 | 9,462 | 52 |
| Toro Oil & Gas Ltd. | 63.6% | -11.5% | 2,873 | 37 | 2,569 | 31 | 303 | 62 | 23,124 | 7,901 | 11,215 | 44 |
| Rockeast Energy Corp. | 2.0% | -94.0% | 2,872 | 38 | 2,872 | 30 | - | 274 | 40,151 | 2,931 | 8,294 | 55 |
| Predator Oil Ltd. | 31.8% | 0.6% | 2,762 | 39 | 1,746 | 40 | 1,016 | 24 | 73,872 | 4,049 | 17,756 | 29 |
| Trilogy Resources Ltd. | 99.0% | 0.5% | 2,532 | 40 | 2,120 | 36 | 411 | 48 | 271,568 | 243,517 | 11,273 | 43 |

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| Company | Gas cons | Gas cons change | Gas flared + vented (1000 m ³) | Gas flared + vented rank | Gas flared (1000 m ³) | Flare rank | Gas vented (1000 m ³) | Vent rank | Oil prod (m ³) | Sol'n gas prod (1000 m ³) | GHG emissions (tCO ₂ e) | GHG emissions rank |
|---|----------|-----------------|--|--------------------------|-----------------------------------|------------|-----------------------------------|-----------|----------------------------|---------------------------------------|------------------------------------|--------------------|
| Imaginea Energy Corp. | 94.6% | 3.6% | 2,403 | 41 | 2,393 | 32 | 10 | 202 | 232,295 | 44,510 | 7,034 | 61 |
| Raging River Exploration Inc. | 96.2% | -3.8% | 2,344 | 42 | 1,734 | 41 | 610 | 35 | 68,580 | 61,447 | 12,647 | 38 |
| Shell Canada Energy | 98.8% | -1.0% | 2,254 | 43 | 2,240 | 34 | 15 | 191 | 818,336 | 185,658 | 5,846 | 67 |
| Rifle Shot Oil Corp. | 76.0% | -1.7% | 2,225 | 44 | 1,800 | 39 | 426 | 47 | 91,471 | 9,256 | 10,526 | 46 |
| Journey Energy Inc. | 99.2% | 0.3% | 2,148 | 45 | 1,006 | 61 | 1,142 | 21 | 233,802 | 264,936 | 17,203 | 30 |
| Kelt Exploration Ltd. | 99.3% | 0.5% | 1,998 | 46 | 1,963 | 38 | 35 | 150 | 255,474 | 274,051 | 6,107 | 65 |
| Imperial Oil Resources | 99.6% | 0.4% | 1,787 | 47 | 1,395 | 48 | 391 | 50 | 9,385,581 | 444,925 | 9,887 | 50 |
| Arsenal Energy Inc. | 84.5% | -2.3% | 1,601 | 48 | 1,586 | 43 | 15 | 190 | 70,337 | 10,344 | 4,767 | 79 |
| Gryphon Petroleum Corp. | 0.2% | 0.1% | 1,594 | 49 | 1,589 | 42 | 5 | 222 | 19,419 | 1,597 | 4,648 | 81 |
| CQ Energy Canada Resources Partnership | 94.1% | -5.2% | 1,589 | 50 | 1,343 | 50 | 247 | 69 | 93,284 | 27,022 | 6,964 | 62 |
| Omers Energy Inc. | 99.5% | -0.1% | 1,576 | 51 | 1,427 | 45 | 150 | 93 | 84,919 | 289,341 | 5,995 | 66 |
| Cleo Energy Corp. | 74.8% | N/A | 1,572 | 52 | 1,509 | 44 | 63 | 130 | 63,039 | 6,227 | 5,147 | 74 |
| Boulder Energy Ltd. | 98.5% | 3.7% | 1,533 | 53 | 1,417 | 46 | 116 | 110 | 173,454 | 102,031 | 5,540 | 69 |
| Little Rock Resources Ltd. | 75.5% | N/A | 1,432 | 54 | 1,408 | 47 | 24 | 168 | 25,290 | 5,849 | 4,363 | 84 |
| Spur Resources Ltd. | 97.2% | -0.4% | 1,399 | 55 | 333 | 106 | 1,067 | 23 | 123,703 | 50,504 | 14,314 | 34 |
| Shackleton Exploration Ltd. | 94.5% | 1.7% | 1,395 | 56 | 1,383 | 49 | 12 | 195 | 12,467 | 25,311 | 4,147 | 88 |
| Summerland Energy Inc. | 89.3% | -2.6% | 1,356 | 57 | 1,247 | 53 | 109 | 113 | 95,051 | 12,696 | 4,962 | 75 |
| Ouro Preto Resources Inc. | 19.8% | -14.1% | 1,282 | 58 | 1,281 | 51 | - | 259 | 16,284 | 1,598 | 3,705 | 93 |
| Sinopec Daylight Energy Ltd. | 98.9% | 0.5% | 1,276 | 59 | 631 | 79 | 645 | 34 | 240,275 | 120,191 | 9,892 | 49 |
| Prairie Provident Resources Canada Ltd. | 98.2% | N/A | 1,257 | 60 | - | 258 | 1,257 | 20 | 105,423 | 68,480 | 15,975 | 31 |
| ORLEN Upstream Canada Ltd. | 99.1% | 1.3% | 1,250 | 61 | 1,189 | 55 | 61 | 132 | 82,171 | 137,410 | 4,194 | 86 |
| Blackpearl Resources Inc. | 90.1% | -4.9% | 1,238 | 62 | 482 | 94 | 756 | 31 | 132,410 | 12,496 | 13,457 | 36 |
| Enercapita Energy Ltd. | 95.9% | 45.6% | 1,221 | 63 | 749 | 69 | 471 | 42 | 77,405 | 30,143 | 8,065 | 56 |
| Novus Energy Inc. | 86.3% | 44.7% | 1,176 | 64 | 1,162 | 56 | 14 | 193 | 6,592 | 8,553 | 3,531 | 96 |
| Bonavista Energy Corporation | 99.4% | 0.5% | 1,162 | 65 | 243 | 123 | 919 | 26 | 128,316 | 192,633 | 12,203 | 40 |
| NEP Canada ULC | 99.1% | 0.7% | 1,159 | 66 | 1,159 | 57 | - | 274 | 309,351 | 124,188 | 3,348 | 98 |
| Cuda Energy Inc. | 0.0% | N/A | 1,145 | 67 | 1,145 | 58 | - | 274 | 1,867 | 1,146 | 3,308 | 100 |
| Strategic Oil & Gas Ltd. | 97.0% | -2.6% | 1,136 | 68 | 1,106 | 60 | 30 | 156 | 80,046 | 37,497 | 3,571 | 94 |
| Changhua Energy Canada Ltd. | 0.0% | 0.0% | 1,112 | 69 | 1,112 | 59 | - | 274 | 2,556 | 1,112 | 3,213 | 102 |
| NAL Resources Limited | 99.6% | 0.1% | 1,099 | 70 | 631 | 78 | 467 | 43 | 201,316 | 288,974 | 7,674 | 58 |
| Mosaic Energy Ltd. | 97.7% | 0.6% | 1,092 | 71 | 364 | 104 | 728 | 32 | 31,082 | 48,157 | 10,160 | 48 |
| Bellatrix Exploration Ltd. | 99.8% | 0.3% | 1,084 | 72 | 507 | 91 | 577 | 37 | 103,528 | 456,064 | 8,847 | 53 |
| Deltastream Energy Corporation | 64.5% | 13.9% | 1,076 | 73 | 246 | 122 | 830 | 29 | 43,760 | 3,033 | 11,167 | 45 |
| Enerplus Corporation | 98.8% | 1.6% | 1,039 | 74 | 916 | 65 | 124 | 106 | 560,014 | 85,576 | 4,194 | 85 |
| Bernum Petroleum Ltd. | 87.3% | -3.6% | 1,016 | 75 | 991 | 62 | 25 | 165 | 30,452 | 7,975 | 3,180 | 104 |
| Mount Bastion Oil & Gas Corp. | 94.3% | N/A | 1,015 | 76 | 241 | 124 | 774 | 30 | 223,447 | 17,805 | 10,386 | 47 |
| ConocoPhillips Canada (BRC) Partnership | 99.5% | 0.1% | 1,015 | 77 | 584 | 82 | 431 | 46 | 129,966 | 213,159 | 7,079 | 60 |
| Caltex Resources Ltd. | 92.6% | -3.0% | 984 | 78 | 597 | 80 | 388 | 51 | 128,127 | 13,292 | 6,574 | 64 |
| Ascensun Oil And Gas Ltd. | 9.9% | -3.6% | 980 | 79 | 980 | 63 | - | 274 | 12,224 | 1,087 | 2,829 | 114 |
| LGX Oil + Gas Inc. | 66.4% | 0.9% | 973 | 80 | 949 | 64 | 24 | 169 | 11,726 | 2,895 | 3,038 | 106 |
| Craft Oil Inc. | 99.2% | N/A | 931 | 81 | 712 | 72 | 219 | 74 | 64,326 | 122,634 | 4,796 | 77 |
| Perpetual Operating Corp. | 96.3% | N/A | 908 | 82 | - | 255 | 908 | 28 | 62,302 | 24,357 | 11,367 | 42 |
| Baccalieu Energy Inc. | 98.9% | 0.1% | 903 | 83 | 385 | 100 | 519 | 39 | 121,864 | 85,178 | 7,602 | 59 |
| Manitok Energy Inc. | 99.4% | -0.1% | 888 | 84 | 734 | 70 | 154 | 91 | 130,200 | 156,910 | 4,041 | 92 |
| Vermilion Energy Inc. | 99.4% | 0.7% | 886 | 85 | 284 | 116 | 602 | 36 | 321,332 | 154,563 | 8,356 | 54 |

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| Company | Gas cons | Gas cons change | Gas flared + vented (1000 m ³) | Gas flared + vented rank | Gas flared (1000 m ³) | Flare rank | Gas vented (1000 m ³) | Vent rank | Oil prod (m ³) | Sol'n gas prod (1000 m ³) | GHG emissions (tCO ₂ e) | GHG emissions rank |
|---|----------|-----------------|--|--------------------------|-----------------------------------|------------|-----------------------------------|-----------|----------------------------|---------------------------------------|------------------------------------|--------------------|
| Venturian Oil Limited | 88.9% | -6.2% | 877 | 86 | 816 | 67 | 62 | 131 | 167,062 | 7,877 | 3,127 | 105 |
| Tangle Creek Energy Ltd. | 99.1% | -0.2% | 839 | 87 | 546 | 87 | 293 | 63 | 139,688 | 96,703 | 5,240 | 72 |
| Insignia Energy Ltd. | 96.3% | 0.2% | 829 | 88 | 829 | 66 | - | 274 | 19,655 | 22,469 | 2,393 | 128 |
| Quattro Exploration and Production Ltd. | 75.2% | -19.6% | 786 | 89 | 786 | 68 | - | 274 | 7,009 | 3,174 | 2,269 | 131 |
| ConocoPhillips Canada Energy Partnership | 99.1% | 0.2% | 737 | 90 | 717 | 71 | 20 | 177 | 68,052 | 80,580 | 2,320 | 130 |
| Karve Energy Inc. | 84.1% | N/A | 722 | 91 | 378 | 102 | 344 | 55 | 23,665 | 4,550 | 5,399 | 71 |
| Zargon Oil & Gas Ltd. | 94.8% | -1.3% | 719 | 92 | 707 | 73 | 12 | 197 | 95,535 | 13,758 | 2,191 | 134 |
| Flow-Back Oil & Gas Ltd. | 24.9% | -7.2% | 700 | 93 | 700 | 74 | - | 274 | 456 | 931 | 2,020 | 139 |
| ExxonMobil Canada Energy | 99.2% | N/A | 692 | 94 | 641 | 76 | 51 | 139 | 86,155 | 84,812 | 2,483 | 122 |
| Hemisphere Energy Corporation | 88.2% | -9.5% | 685 | 95 | 685 | 75 | 1 | 257 | 27,201 | 5,802 | 1,984 | 140 |
| Birchcliff Energy Ltd. | 99.9% | 0.3% | 653 | 96 | 636 | 77 | 17 | 185 | 332,117 | 809,854 | 2,052 | 138 |
| Goldenkey Oil Inc. | 84.1% | -0.2% | 632 | 97 | 509 | 90 | 123 | 107 | 9,241 | 3,978 | 3,012 | 110 |
| New Star Energy Ltd. | 99.5% | 0.2% | 632 | 98 | 326 | 108 | 306 | 61 | 60,581 | 125,779 | 4,768 | 78 |
| Traverse Energy Ltd. | 97.0% | 0.4% | 601 | 99 | 490 | 93 | 111 | 111 | 17,238 | 19,847 | 2,807 | 115 |
| Georox Resources Inc. | 15.6% | -23.3% | 597 | 100 | 597 | 81 | - | 274 | 638 | 707 | 1,723 | 149 |
| Shield Energy Ltd. | 94.4% | 0.1% | 590 | 101 | 536 | 88 | 54 | 137 | 18,677 | 10,570 | 2,224 | 132 |
| ConocoPhillips Canada Resources Corp. | 98.5% | 0.5% | 580 | 102 | 575 | 83 | 5 | 220 | 4,090,990 | 39,130 | 1,528 | 154 |
| Osum Production Corp. | 95.3% | 1.6% | 575 | 103 | 575 | 84 | - | 274 | 422,223 | 12,345 | 1,463 | 159 |
| ConocoPhillips Western Canada Partnership | 99.5% | 0.6% | 557 | 104 | 494 | 92 | 63 | 129 | 143,089 | 119,390 | 2,219 | 133 |
| N7 Energy Ltd. | 0.0% | N/A | 556 | 105 | 554 | 85 | 3 | 232 | 5,458 | 556 | 1,632 | 150 |
| City Of Medicine Hat | 24.6% | -6.0% | 556 | 106 | 184 | 136 | 372 | 53 | 16,125 | 736 | 5,181 | 73 |
| Verity Energy Ltd. | 0.0% | 0.0% | 553 | 107 | 553 | 86 | - | 274 | 846 | 553 | 1,598 | 152 |
| Vesta Energy Ltd. | 95.9% | 2.1% | 539 | 108 | 428 | 99 | 111 | 112 | 67,287 | 13,160 | 2,626 | 117 |
| Response Energy Corporation | 75.8% | -3.1% | 533 | 109 | 267 | 118 | 266 | 66 | 8,439 | 2,203 | 4,100 | 89 |
| Fort Calgary Resources Ltd. | 73.1% | 0.7% | 533 | 110 | 127 | 153 | 406 | 49 | 6,973 | 1,982 | 5,450 | 70 |
| Bow River Energy Ltd. | 40.5% | 4.9% | 521 | 111 | 521 | 89 | - | 274 | 20,533 | 876 | 1,504 | 157 |
| Bering Exploration Company ULC | 82.5% | 11.4% | 520 | 112 | 330 | 107 | 190 | 83 | 23,190 | 2,969 | 3,329 | 99 |
| Kasten Energy Inc. | 49.6% | -2.3% | 518 | 113 | - | 258 | 518 | 40 | 14,425 | 1,028 | 8,062 | 57 |
| Firenze Energy Ltd. | 84.7% | -2.2% | 513 | 114 | 383 | 101 | 130 | 102 | 27,636 | 3,361 | 2,728 | 116 |
| Progress Energy Canada Ltd. | 99.6% | 0.4% | 488 | 115 | 176 | 138 | 312 | 59 | 99,028 | 119,548 | 4,409 | 83 |
| BLZ Energy Ltd. | 0.0% | 0.0% | 481 | 116 | 481 | 95 | - | 274 | 675 | 481 | 1,389 | 163 |
| Cedar Creek Energy Ltd. | 98.1% | N/A | 480 | 117 | 477 | 96 | 4 | 227 | 38,370 | 25,086 | 1,421 | 160 |
| Ember Resources Inc. | 84.4% | -0.2% | 477 | 118 | 20 | 210 | 457 | 45 | 13,557 | 3,058 | 5,779 | 68 |
| Petrocapita GP I Ltd. | 67.4% | -28.2% | 477 | 119 | - | 258 | 477 | 41 | 14,191 | 1,465 | 6,610 | 63 |
| Paramount Resources Ltd. | 96.4% | -0.9% | 472 | 120 | 468 | 97 | 5 | 221 | 14,357 | 13,100 | 1,412 | 161 |
| Ikkuma Resources Corp. | 1.3% | N/A | 455 | 121 | 455 | 98 | - | 274 | 1,049 | 461 | 1,315 | 165 |
| Yangarra Resources Corp. | 99.4% | -0.3% | 453 | 122 | 323 | 109 | 131 | 101 | 43,717 | 76,826 | 2,569 | 118 |
| Canadian Oil & Gas International Inc. | 95.6% | 0.8% | 439 | 123 | 313 | 112 | 126 | 105 | 31,335 | 9,873 | 2,479 | 124 |
| Suncor Energy Inc. | 98.2% | 0.3% | 418 | 124 | 316 | 111 | 102 | 115 | 12,107,843 | 22,905 | 2,458 | 125 |
| Questfire Energy Corp. | 98.3% | 0.2% | 413 | 125 | 102 | 163 | 311 | 60 | 16,363 | 23,863 | 4,188 | 87 |
| Signalta Resources Limited | 89.2% | -0.3% | 406 | 126 | 196 | 133 | 210 | 76 | 6,993 | 3,754 | 3,191 | 103 |
| Rolling Hills Energy Ltd. | 97.8% | 10.7% | 392 | 127 | 265 | 119 | 127 | 103 | 20,475 | 17,507 | 2,356 | 129 |
| Virginia Hills Oil Corp. | 91.1% | 0.4% | 377 | 128 | - | 258 | 377 | 52 | 77,670 | 4,238 | 4,716 | 80 |
| Long Term Asset Management Inc. | 77.5% | 22.6% | 374 | 129 | 223 | 127 | 151 | 92 | 2,543 | 1,659 | 2,518 | 120 |
| C Group Energy Inc. | 89.1% | 82.5% | 372 | 130 | 349 | 105 | 23 | 170 | 10,624 | 3,406 | 1,293 | 168 |

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| Company | Gas cons | Gas cons change | Gas flared + vented (1000 m ³) | Gas flared + vented rank | Gas flared (1000 m ³) | Flare rank | Gas vented (1000 m ³) | Vent rank | Oil prod (m ³) | Sol'n gas prod (1000 m ³) | GHG emissions (tCO ₂ e) | GHG emissions rank |
|-------------------------------|----------|-----------------|--|--------------------------|-----------------------------------|------------|-----------------------------------|-----------|----------------------------|---------------------------------------|------------------------------------|--------------------|
| Exshaw Oil Corp. | 99.9% | 0.3% | 367 | 131 | 367 | 103 | - | 274 | 289,786 | 395,608 | 1,060 | 173 |
| Anderson Energy Inc. | 99.2% | 1.2% | 364 | 132 | 11 | 224 | 353 | 54 | 33,493 | 44,844 | 4,447 | 82 |
| Blackspur Oil Corp. | 99.3% | -0.2% | 353 | 133 | 255 | 121 | 98 | 117 | 67,482 | 51,398 | 1,967 | 141 |
| Crew Energy Inc. | 92.1% | 6.0% | 349 | 134 | 16 | 217 | 333 | 56 | 63,230 | 4,418 | 4,864 | 76 |
| Prairie Storm Energy Corp. | 99.4% | N/A | 335 | 135 | 77 | 167 | 258 | 67 | 31,916 | 55,525 | 3,452 | 97 |
| Marquee Energy Ltd. | 99.2% | 0.7% | 333 | 136 | 133 | 151 | 200 | 79 | 71,093 | 41,229 | 2,884 | 113 |
| Cortona Energy Ltd. | 75.3% | N/A | 331 | 137 | 4 | 236 | 327 | 57 | 16,974 | 1,340 | 4,100 | 90 |
| Canamax Energy Ltd. | 98.9% | 1.4% | 330 | 138 | 321 | 110 | 10 | 205 | 57,820 | 30,751 | 1,045 | 174 |
| Entrada Resources Inc. | 99.0% | N/A | 325 | 139 | - | 258 | 325 | 58 | 29,884 | 34,025 | 4,070 | 91 |
| Procyon Energy Corp. | 69.5% | -12.8% | 319 | 140 | 196 | 132 | 123 | 108 | 1,165 | 1,044 | 2,101 | 136 |
| Grandview Exploration Inc. | 54.0% | -0.5% | 317 | 141 | 292 | 114 | 25 | 167 | 4,261 | 688 | 1,152 | 172 |
| Taku Gas Limited | 40.8% | 5.1% | 305 | 142 | 26 | 205 | 279 | 65 | 4,560 | 515 | 3,568 | 95 |
| Anterra Energy Inc. | 88.7% | -6.6% | 302 | 143 | 300 | 113 | 2 | 235 | 18,290 | 2,667 | 893 | 180 |
| Avalon Energy Ltd. | 61.9% | 3.9% | 292 | 144 | 291 | 115 | 1 | 246 | 4,953 | 766 | 856 | 182 |
| Westbrick Energy Ltd. | 99.5% | 0.2% | 290 | 145 | 39 | 191 | 251 | 68 | 33,803 | 64,167 | 3,249 | 101 |
| Houston Oil & Gas Ltd. | 96.9% | N/A | 287 | 146 | 213 | 129 | 74 | 125 | 6,189 | 9,213 | 1,544 | 153 |
| Hard Rock Resources Ltd. | 1.7% | -3.5% | 287 | 147 | 269 | 117 | 18 | 182 | 1,691 | 292 | 1,003 | 177 |
| Connacher Oil And Gas Limited | 97.9% | 1.2% | 258 | 148 | 258 | 120 | - | 274 | 499,986 | 12,534 | 658 | 192 |
| Longshore Resources Ltd. | 99.1% | N/A | 253 | 149 | 233 | 126 | 19 | 180 | 39,132 | 27,726 | 914 | 179 |
| Triaxon Oil Operations Ltd. | 98.0% | 1.4% | 251 | 150 | 105 | 160 | 146 | 95 | 32,549 | 12,722 | 2,128 | 135 |
| Grizzly Resources Ltd. | 0.0% | -0.5% | 242 | 151 | - | 258 | 242 | 70 | 26,157 | 242 | 3,026 | 107 |
| Ener T Corporation | 0.0% | 0.0% | 242 | 152 | 1 | 247 | 241 | 71 | 4,950 | 242 | 3,017 | 108 |
| Canuck North Resources Ltd. | 0.0% | 0.0% | 241 | 153 | - | 258 | 241 | 72 | 1,175 | 241 | 3,014 | 109 |
| Eagle Energy Inc. | 98.8% | N/A | 240 | 154 | 159 | 144 | 81 | 123 | 142,611 | 19,698 | 1,470 | 158 |
| Panam Energy Services Ltd. | 39.9% | -0.1% | 238 | 155 | 238 | 125 | - | 274 | 648 | 396 | 688 | 191 |
| Westdrum Energy Ltd. | 71.6% | 3.4% | 233 | 156 | 167 | 141 | 66 | 127 | 1,627 | 822 | 1,312 | 166 |
| Freehold Royalties Ltd. | 95.5% | 4.8% | 232 | 157 | - | 258 | 232 | 73 | 9,131 | 5,156 | 2,905 | 112 |
| Athabasca Oil Corporation | 99.8% | -0.1% | 227 | 158 | 217 | 128 | 9 | 208 | 467,233 | 91,038 | 739 | 184 |
| Insch Commodity Ltd. | 91.2% | -0.8% | 217 | 159 | 28 | 201 | 189 | 84 | 3,145 | 2,464 | 2,442 | 126 |
| XTO Energy Canada | 99.0% | 0.2% | 214 | 160 | 181 | 137 | 33 | 152 | 20,773 | 20,609 | 936 | 178 |
| Owl River Resources Ltd. | 76.4% | 0.1% | 211 | 161 | 13 | 220 | 197 | 81 | 423 | 892 | 2,509 | 121 |
| Dark Warrior Resources Ltd. | 0.0% | 0.0% | 209 | 162 | - | 258 | 209 | 77 | 2,738 | 209 | 2,993 | 111 |
| Relentless Resources Ltd. | 94.6% | -1.0% | 207 | 163 | 207 | 130 | - | 274 | 4,926 | 3,841 | 599 | 198 |
| High North Resources Ltd. | 8.0% | -9.1% | 207 | 164 | 207 | 131 | - | 274 | 394 | 225 | 597 | 199 |
| Lexin Resources Ltd. | 97.2% | 0.6% | 206 | 165 | 70 | 170 | 136 | 100 | 4,078 | 7,369 | 1,903 | 143 |
| Aeraden Energy Corp. | 65.9% | N/A | 205 | 166 | - | 258 | 205 | 78 | 7,955 | 600 | 2,562 | 119 |
| Joli Fou Petroleums Ltd | 19.0% | -0.2% | 198 | 167 | 193 | 135 | 6 | 216 | 2,251 | 245 | 629 | 195 |
| Pismo Energy Ltd. | 90.9% | N/A | 198 | 168 | - | 258 | 198 | 80 | 23,149 | 2,172 | 2,479 | 123 |
| Rising Star Resources Ltd. | 99.5% | N/A | 195 | 169 | 195 | 134 | - | 274 | 45,398 | 36,095 | 562 | 204 |
| Dark Energy Ltd. | 37.8% | -1.8% | 192 | 170 | - | 258 | 192 | 82 | 5,158 | 308 | 2,399 | 127 |
| Clampett Energy Ltd. | 19.1% | -8.3% | 183 | 171 | 117 | 157 | 66 | 128 | 2,206 | 226 | 1,158 | 171 |
| Copper Island Resources Ltd. | 89.9% | -0.3% | 176 | 172 | 13 | 222 | 164 | 86 | 2,203 | 1,744 | 2,084 | 137 |
| Enhance Energy Inc. | 98.5% | -0.8% | 172 | 173 | 172 | 139 | - | 274 | 42,860 | 11,126 | 498 | 209 |
| Westhill Resources Limited | 93.7% | -1.7% | 170 | 174 | 170 | 140 | - | 274 | 239 | 2,711 | 490 | 211 |
| Barnwell of Canada Limited | 61.9% | -10.2% | 169 | 175 | 167 | 142 | 2 | 238 | 2,416 | 443 | 504 | 208 |

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| Company | Gas cons | Gas cons change | Gas flared + vented (1000 m ³) | Gas flared + vented rank | Gas flared (1000 m ³) | Flare rank | Gas vented (1000 m ³) | Vent rank | Oil prod (m ³) | Sol'n gas prod (1000 m ³) | GHG emissions (tCO ₂ e) | GHG emissions rank |
|---------------------------------------|----------|-----------------|--|--------------------------|-----------------------------------|------------|-----------------------------------|-----------|----------------------------|---------------------------------------|------------------------------------|--------------------|
| Spry2 Energy Inc. | 98.9% | 8.8% | 159 | 176 | 159 | 143 | - | 274 | 17,313 | 14,666 | 459 | 213 |
| Coastal Resources Limited | 88.8% | 9.1% | 157 | 177 | 144 | 148 | 13 | 194 | 7,254 | 1,402 | 576 | 202 |
| Sitka Exploration Ltd. | 99.6% | 0.4% | 154 | 178 | - | 252 | 154 | 90 | 33,991 | 40,024 | 1,927 | 142 |
| Rally Canada Resources Ltd. | 98.6% | 1.6% | 152 | 179 | 152 | 145 | - | 274 | 36,677 | 10,491 | 438 | 218 |
| Hitic Energy Ltd. | 98.5% | 0.0% | 150 | 180 | 150 | 146 | - | 274 | 26,051 | 10,214 | 434 | 219 |
| New North Resources Ltd. | 86.5% | -10.8% | 150 | 181 | 121 | 155 | 29 | 158 | 3,109 | 1,113 | 714 | 187 |
| Forge Oil & Gas Limited | 23.0% | 23.0% | 149 | 182 | 57 | 177 | 91 | 118 | 1,357 | 193 | 1,310 | 167 |
| Kaiser Exploration Ltd. | 71.5% | -11.3% | 148 | 183 | - | 258 | 148 | 94 | 192 | 520 | 1,851 | 144 |
| Polar Star Canadian Oil And Gas Inc. | 95.4% | -2.3% | 148 | 184 | 146 | 147 | 1 | 246 | 9,582 | 3,227 | 439 | 217 |
| Arrow Point Oil & Gas Ltd. | 60.3% | -19.3% | 146 | 185 | 129 | 152 | 18 | 183 | 5,799 | 369 | 593 | 201 |
| Thoroughbred Energy Ltd. | 15.9% | 4.4% | 146 | 186 | - | 258 | 146 | 96 | 2,836 | 173 | 1,822 | 145 |
| Sifton Petroleum Inc. | 98.6% | -0.9% | 146 | 187 | 66 | 171 | 79 | 124 | 11,081 | 10,045 | 1,183 | 170 |
| Iberdrola Canada Energy Services Ltd. | 99.8% | 0.0% | 144 | 188 | - | 258 | 144 | 97 | 3,381 | 80,268 | 1,805 | 146 |
| Highvale Operating Corp. | 51.3% | 13.5% | 143 | 189 | 3 | 239 | 140 | 98 | 1,361 | 294 | 1,759 | 147 |
| Alexander Oilfield Services Ltd. | 66.3% | -3.9% | 143 | 189 | 143 | 149 | - | 274 | 936 | 424 | 413 | 223 |
| Sphere Energy Corp. | 95.2% | -0.7% | 143 | 189 | 17 | 215 | 126 | 104 | 4,803 | 2,955 | 1,629 | 151 |
| Ridal Resource Ltd. | 24.3% | 24.3% | 138 | 192 | - | 258 | 138 | 99 | 1,333 | 183 | 1,730 | 148 |
| 97837 Resources Ltd. | 20.6% | 6.7% | 134 | 193 | 134 | 150 | - | 274 | 355 | 168 | 386 | 224 |
| Corinthian Oil Corp. | 91.5% | -7.7% | 130 | 194 | 44 | 185 | 86 | 120 | 2,335 | 1,535 | 1,208 | 169 |
| Trident Exploration (wx) Corp. | 97.1% | 1.8% | 129 | 195 | 124 | 154 | 5 | 223 | 5,211 | 4,482 | 415 | 222 |
| Petrus Resources Corp. | 99.8% | 0.1% | 128 | 196 | 103 | 162 | 26 | 164 | 38,146 | 61,503 | 616 | 196 |
| Standard Exploration Ltd. | 43.8% | -0.5% | 128 | 197 | 75 | 168 | 53 | 138 | 3,708 | 227 | 881 | 181 |
| Executive Adventures 2008 Inc. | 27.6% | -19.9% | 125 | 198 | 116 | 158 | 9 | 210 | 684 | 172 | 442 | 216 |
| Top Oil Production Ltd. | 89.3% | 4.6% | 121 | 199 | - | 258 | 121 | 109 | 3,357 | 1,124 | 1,512 | 155 |
| Cequence Energy Ltd. | 99.5% | 1.3% | 120 | 200 | 84 | 166 | 36 | 148 | 15,119 | 23,353 | 694 | 189 |
| Huron Resources Corp. | 0.4% | 0.4% | 119 | 201 | 119 | 156 | - | 274 | 508 | 120 | 344 | 229 |
| Rife Resources Ltd. | 99.4% | 1.8% | 113 | 202 | 13 | 221 | 99 | 116 | 70,929 | 20,017 | 1,512 | 156 |
| Wolf Coulee Resources Inc. | 98.9% | 2.5% | 111 | 203 | 109 | 159 | 3 | 233 | 8,583 | 9,929 | 345 | 228 |
| Notine Holdings Inc. | 98.0% | N/A | 108 | 204 | - | 258 | 108 | 114 | 1,201 | 5,378 | 1,357 | 164 |
| Broadview Energy Ltd. | 98.2% | 6.3% | 108 | 205 | 93 | 164 | 15 | 189 | 20,391 | 6,009 | 457 | 214 |
| Alberta Petroleum Energy Limited | 18.5% | 4.0% | 103 | 206 | 103 | 161 | - | 274 | 2,470 | 126 | 297 | 238 |
| Aeneid Exploration Inc. | 93.0% | N/A | 91 | 207 | 60 | 174 | 31 | 155 | 30,859 | 1,299 | 566 | 203 |
| Prosper Petroleum Ltd. | 0.0% | N/A | 88 | 208 | - | 258 | 88 | 119 | 4,756 | 88 | 1,404 | 162 |
| Lance Exploration Corp. | 15.3% | N/A | 86 | 209 | 86 | 165 | - | 274 | 211 | 102 | 249 | 243 |
| Topanga Resources Ltd. | 60.4% | -10.0% | 85 | 210 | 3 | 238 | 81 | 122 | 3,718 | 214 | 1,028 | 175 |
| BDJ Energy Inc. | 93.7% | 0.3% | 82 | 211 | 35 | 193 | 47 | 142 | 9,996 | 1,309 | 691 | 190 |
| Derrick Petroleum Ltd. | 74.0% | 35.3% | 82 | 212 | - | 258 | 82 | 121 | 821 | 314 | 1,023 | 176 |
| Waldron Energy Corporation | 98.2% | -0.8% | 69 | 213 | 58 | 176 | 12 | 197 | 4,379 | 3,835 | 315 | 235 |
| Second Wave Petroleum Inc. | 99.4% | 0.5% | 68 | 214 | 30 | 200 | 38 | 146 | 6,728 | 11,729 | 561 | 205 |
| Hawk Exploration Ltd. | 95.6% | -4.4% | 64 | 215 | 64 | 172 | - | 274 | 10,043 | 1,445 | 185 | 251 |
| Forent Energy Ltd. | 96.7% | 3.7% | 63 | 216 | 30 | 198 | 33 | 154 | 6,207 | 1,904 | 494 | 210 |
| High Ground Energy Inc. | 99.6% | 14.4% | 63 | 216 | 6 | 230 | 57 | 135 | 17,239 | 14,579 | 725 | 186 |
| Border Petroleum Limited | 0.0% | -0.1% | 62 | 218 | 19 | 211 | 43 | 143 | 250 | 62 | 597 | 200 |
| Tourmaline Oil Corp. | 99.9% | 0.0% | 61 | 219 | 61 | 173 | - | 274 | 90,832 | 99,142 | 177 | 252 |
| Pine Cliff Energy Ltd. | 99.0% | 58.3% | 59 | 220 | - | 258 | 59 | 133 | 3,092 | 5,996 | 743 | 183 |

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|-----------------------------------|----------|-----------------|--|--------------------------|-----------------------------------|------------|-----------------------------------|-----------|----------------------------|---------------------------------------|------------------------------------|--------------------|
| MEG Energy Corp. | 100.0% | 0.3% | 59 | 221 | 59 | 175 | - | 274 | 4,711,951 | 200,737 | 151 | 256 |
| Kairos Resources (2011) Ltd. | 25.4% | 18.2% | 58 | 222 | - | 258 | 58 | 134 | 481 | 78 | 731 | 185 |
| Sydco Energy Inc. | 99.1% | -0.2% | 57 | 223 | 41 | 190 | 17 | 186 | 10,768 | 6,337 | 326 | 233 |
| Clearbrook Resources Inc. | 99.1% | -0.4% | 57 | 224 | 54 | 179 | 2 | 234 | 17,975 | 5,999 | 186 | 250 |
| Superman Resources Inc. | 98.6% | 0.0% | 56 | 225 | - | 258 | 56 | 136 | 2,424 | 4,068 | 701 | 188 |
| Statoil Canada Ltd. | 99.6% | 0.0% | 56 | 226 | 56 | 178 | - | 274 | 1,188,197 | 12,447 | 142 | 262 |
| Shiningstar Energy Ltd. | 99.9% | 0.5% | 52 | 227 | 24 | 207 | 28 | 160 | 19,232 | 34,914 | 417 | 221 |
| NuVista Energy Ltd. | 86.4% | 43.5% | 51 | 228 | 49 | 182 | 1 | 244 | 326 | 374 | 160 | 255 |
| Beaver Lake Resources Corporation | 0.0% | 0.0% | 51 | 229 | 51 | 180 | - | 274 | 453 | 51 | 146 | 259 |
| Tykewest Limited | 78.8% | -2.5% | 51 | 230 | - | 258 | 51 | 139 | 2,348 | 238 | 632 | 194 |
| Keyera Energy Ltd. | 100.0% | 0.1% | 50 | 231 | 50 | 181 | - | 274 | 41,181 | 189,491 | 145 | 260 |
| Convega Energy Ltd. | 96.8% | 0.0% | 49 | 232 | 49 | 183 | - | 274 | 2,407 | 1,520 | 141 | 263 |
| Zeal Energy Inc. | 94.6% | 33.2% | 48 | 233 | - | 258 | 48 | 141 | 8,737 | 880 | 600 | 197 |
| Ribbon Creek Resources Inc. | 98.4% | -0.5% | 46 | 234 | 25 | 206 | 21 | 175 | 3,186 | 2,903 | 339 | 230 |
| Wilcox Energy Corp. | 33.2% | 4.9% | 46 | 235 | 27 | 203 | 19 | 179 | 812 | 69 | 320 | 234 |
| Artis Exploration Ltd. | 88.4% | -11.6% | 44 | 236 | 44 | 184 | - | 274 | 7,305 | 381 | 128 | 266 |
| Gamet Resources Ltd. | 96.9% | 3.9% | 43 | 237 | 43 | 186 | - | 263 | 1,290 | 1,385 | 127 | 268 |
| Shale Petroleum Ltd. | 90.5% | N/A | 42 | 238 | 42 | 187 | - | 274 | 536 | 446 | 122 | 269 |
| Elcano Exploration Inc. | 0.0% | N/A | 42 | 239 | 42 | 188 | - | 274 | 888 | 42 | 121 | 270 |
| Ohana Resources Inc. | 97.2% | N/A | 41 | 240 | 41 | 189 | - | 274 | 10,745 | 1,465 | 119 | 272 |
| Inception Exploration Ltd. | 99.5% | 0.7% | 41 | 241 | 21 | 209 | 20 | 176 | 3,205 | 8,111 | 312 | 236 |
| Crazy Hill Resources Ltd. | 55.3% | 4.9% | 41 | 242 | - | 258 | 41 | 144 | 458 | 91 | 511 | 207 |
| Windtalker Energy Corp. | 93.5% | -1.4% | 40 | 243 | - | 258 | 40 | 145 | 25,425 | 620 | 652 | 193 |
| Surat Energy Inc. | 0.0% | 0.0% | 40 | 244 | 34 | 194 | 6 | 215 | 838 | 40 | 171 | 253 |
| Sanford Petroleum Ltd. | 95.4% | 0.8% | 37 | 245 | - | 258 | 37 | 147 | 1,466 | 810 | 463 | 212 |
| Silver Blaze Energy Ltd. | 79.5% | 15.4% | 36 | 246 | - | 258 | 36 | 149 | 248 | 174 | 447 | 215 |
| RON Resources Ltd. | 71.4% | -27.8% | 35 | 247 | 35 | 192 | - | 259 | 149 | 123 | 106 | 276 |
| RMP Energy Inc. | 100.0% | 0.5% | 34 | 248 | 8 | 228 | 26 | 163 | 183,381 | 248,233 | 347 | 227 |
| Golden Spike Energy Inc. | 34.3% | 2.8% | 33 | 249 | - | 258 | 33 | 151 | 312 | 51 | 418 | 220 |
| South Ridge Management Ltd. | 0.0% | 0.0% | 33 | 250 | 33 | 195 | - | 274 | 212 | 33 | 96 | 278 |
| Barcomp Petroleum Ltd. | 0.0% | 0.0% | 33 | 251 | - | 258 | 33 | 153 | 6,407 | 33 | 531 | 206 |
| Persta Resources Inc. | 66.1% | -29.1% | 32 | 252 | 32 | 196 | - | 274 | 3,545 | 93 | 92 | 279 |
| Altura Energy Inc. | 99.6% | -0.4% | 31 | 253 | 26 | 204 | 6 | 218 | 31,883 | 7,457 | 144 | 261 |
| Raimount Oil and Gas Inc. | 0.0% | N/A | 31 | 254 | 31 | 197 | - | 274 | 62 | 31 | 89 | 281 |
| Ascent Energy Ltd. | 93.6% | 15.1% | 30 | 255 | - | 258 | 30 | 157 | 836 | 466 | 372 | 225 |
| TimberRock Energy Corp. | 91.0% | -2.8% | 29 | 256 | - | 254 | 29 | 159 | 833 | 322 | 362 | 226 |
| Successor Resources Ltd. | 98.4% | 1.9% | 28 | 257 | 1 | 244 | 27 | 161 | 1,469 | 1,747 | 339 | 231 |
| Regent Resources Ltd. | 99.5% | -0.1% | 27 | 258 | 27 | 202 | - | 274 | 9,485 | 5,528 | 78 | 284 |
| Whitehall Energy Ltd. | 89.4% | 6.1% | 26 | 259 | - | 258 | 26 | 162 | 3,314 | 247 | 329 | 232 |
| 545279 Alberta Limited | 0.0% | 0.0% | 25 | 260 | - | 258 | 25 | 166 | 160 | 25 | 310 | 237 |
| Axiom Oil and Gas Inc. | 99.7% | N/A | 24 | 261 | 14 | 219 | 10 | 203 | 8,001 | 8,244 | 162 | 254 |
| Sunshine Oilsands Ltd. | 0.0% | 0.0% | 24 | 262 | 24 | 208 | - | 274 | 8,024 | 24 | 60 | 286 |
| Modern Resources Inc. | 100.0% | 0.9% | 23 | 263 | - | 258 | 23 | 171 | 65,039 | 46,404 | 282 | 239 |
| 611890 Alberta Inc. | 0.0% | 0.0% | 23 | 263 | - | 258 | 23 | 171 | 2,526 | 23 | 282 | 239 |
| Primrose Drilling Ventures Ltd. | 16.8% | 16.8% | 22 | 265 | - | 258 | 22 | 173 | 557 | 26 | 273 | 241 |

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|-----------------------------------|----------|-----------------|--|--------------------------|-----------------------------------|------------|-----------------------------------|-----------|----------------------------|---------------------------------------|------------------------------------|--------------------|
| Scollard Energy Ltd. | 99.8% | N/A | 22 | 266 | - | 258 | 22 | 174 | 3,621 | 12,459 | 269 | 242 |
| Deckland Inc. | 87.6% | -0.4% | 20 | 267 | - | 258 | 20 | 178 | 461 | 158 | 245 | 244 |
| Redwater Energy Corp. | 97.5% | 10.1% | 19 | 268 | 19 | 212 | - | 274 | 2,571 | 762 | 55 | 288 |
| Sogar Resources Ltd. | 99.0% | -0.1% | 19 | 269 | - | 258 | 19 | 181 | 771 | 1,959 | 235 | 245 |
| Indra Oil & Gas Ltd. | 0.0% | 0.0% | 18 | 270 | 10 | 225 | 8 | 211 | 505 | 18 | 128 | 265 |
| Range 3 Inc. | 24.7% | 4.5% | 17 | 271 | - | 258 | 17 | 184 | 46 | 23 | 218 | 246 |
| Jupiter Resources Inc. | 100.0% | 2.7% | 17 | 272 | 17 | 213 | - | 274 | 32,529 | 38,083 | 50 | 289 |
| Encana Corporation | 99.9% | 0.0% | 17 | 273 | 17 | 214 | - | 271 | 6,081 | 13,561 | 49 | 290 |
| Croverro Energy Ltd. | 0.0% | 0.0% | 16 | 274 | - | 258 | 16 | 187 | 681 | 16 | 204 | 248 |
| Japan Canada Oil Sands Limited | 98.7% | 2.4% | 16 | 275 | 16 | 216 | - | 274 | 90,752 | 1,243 | 41 | 294 |
| Outlier Resources Ltd. | 95.4% | N/A | 16 | 276 | 1 | 249 | 15 | 188 | 254 | 348 | 194 | 249 |
| Chinook Energy Inc. | 99.9% | 3.4% | 15 | 277 | 15 | 218 | - | 274 | 4,154 | 12,258 | 44 | 293 |
| Sequoia Resources Corp. | 99.0% | N/A | 14 | 278 | - | 258 | 14 | 192 | 489 | 1,452 | 205 | 247 |
| Andora Energy Corporation | 4.5% | -28.8% | 13 | 279 | 13 | 223 | - | 274 | 5,953 | 13 | 32 | 298 |
| 935821 Alberta Ltd. | 0.0% | 0.0% | 12 | 280 | - | 258 | 12 | 196 | 1,403 | 12 | 150 | 257 |
| Tower Ridge Enterprises Corp. | 73.4% | 0.0% | 12 | 281 | - | 258 | 12 | 199 | 470 | 44 | 148 | 258 |
| Rustum Petroleum Limited | 4.4% | -58.9% | 11 | 282 | - | 258 | 11 | 200 | 1,757 | 11 | 136 | 264 |
| Jast Energy Ltd. | 83.0% | 2.3% | 11 | 283 | 8 | 228 | 3 | 228 | 1,733 | 64 | 63 | 285 |
| Edalis Energy Inc. | 98.7% | -1.3% | 11 | 284 | 1 | 249 | 10 | 201 | 2,849 | 816 | 128 | 267 |
| Norwegian Petroleum Inc. | 94.0% | -3.1% | 10 | 285 | - | 258 | 10 | 203 | 243 | 160 | 120 | 271 |
| Eclipse Resources Ltd. | 99.7% | -0.1% | 10 | 285 | 3 | 240 | 7 | 214 | 9,763 | 3,459 | 91 | 280 |
| Taber Water Disposal Inc. | 0.0% | 0.0% | 10 | 287 | - | 258 | 10 | 205 | 667 | 10 | 119 | 273 |
| HBC Energy Ltd. | 0.0% | 0.0% | 9 | 288 | - | 258 | 9 | 207 | 517 | 9 | 115 | 274 |
| Blaze Energy Ltd. | 99.9% | 0.1% | 9 | 289 | 9 | 226 | - | 274 | 5,275 | 16,422 | 26 | 301 |
| Tallahassee Resources Inc. | 0.0% | 0.0% | 9 | 290 | - | 258 | 9 | 209 | 244 | 9 | 109 | 275 |
| Vulture Energy Ltd. | 74.5% | 21.4% | 8 | 291 | 8 | 227 | 1 | 255 | 627 | 33 | 30 | 299 |
| Writers Oil & Gas Limited | 0.0% | 0.0% | 8 | 292 | - | 258 | 8 | 212 | 253 | 8 | 99 | 277 |
| Brahma Resources Ltd. | 94.4% | 18.0% | 7 | 293 | - | 258 | 7 | 213 | 1,280 | 118 | 83 | 283 |
| Striker Exploration Corp. | 96.5% | -2.3% | 6 | 294 | 6 | 231 | - | 274 | 740 | 171 | 17 | 310 |
| Glenogle Energy Inc. | 100.0% | 0.3% | 6 | 295 | 6 | 232 | - | 274 | 40,452 | 54,061 | 17 | 311 |
| Incipient Exploration Ltd. | 99.8% | 0.1% | 5 | 296 | - | 258 | 5 | 219 | 2,574 | 2,166 | 85 | 282 |
| Scavenger Energy Gp Inc. | 83.1% | 83.1% | 5 | 297 | 5 | 233 | - | 268 | 264 | 30 | 16 | 312 |
| HESC Energy Corporation | 99.9% | 10.5% | 5 | 298 | 5 | 234 | - | 274 | 4,726 | 4,224 | 13 | 317 |
| Concerto Resources Ltd. | 49.4% | 0.9% | 4 | 299 | 4 | 235 | - | 274 | 36 | 9 | 13 | 318 |
| Pennine Petroleum Corporation | 98.1% | -0.3% | 4 | 299 | - | 258 | 4 | 224 | 544 | 232 | 55 | 287 |
| Wildcat Rentals Ltd. | 92.7% | 9.8% | 4 | 301 | - | 258 | 4 | 225 | 1,329 | 49 | 45 | 291 |
| Questerre Energy Corporation | 0.0% | -9.1% | 4 | 301 | - | 258 | 4 | 225 | 372 | 4 | 45 | 291 |
| Winslow Resources Inc. | 99.9% | N/A | 4 | 301 | 3 | 241 | 1 | 248 | 2,320 | 4,977 | 21 | 304 |
| Lockwood Resources Ltd. | 0.0% | -57.5% | 3 | 304 | 3 | 237 | - | 274 | 23 | 3 | 10 | 321 |
| Sun Century Petroleum Corporation | 99.4% | 10.5% | 3 | 305 | - | 258 | 3 | 229 | 7,831 | 576 | 40 | 295 |
| Ish Energy Ltd. | 98.8% | -1.0% | 3 | 306 | - | 258 | 3 | 230 | 55 | 243 | 38 | 296 |
| Tri-Ment Corporation Ltd. | 37.8% | -7.0% | 3 | 307 | - | 258 | 3 | 231 | 20 | 5 | 35 | 297 |
| Five O Oil & Gas Ltd. | 77.6% | 77.6% | 2 | 308 | - | 258 | 2 | 235 | 117 | 10 | 28 | 300 |
| Rampart Oil Inc. | 100.0% | N/A | 2 | 309 | 2 | 242 | - | 274 | 88,939 | 6,012 | 6 | 324 |
| Terra Energy Corp. | 16.7% | -75.1% | 2 | 310 | 2 | 243 | - | 274 | 139 | 2 | 6 | 325 |

¹ Caution is required when comparing with last year's report due to corporate mergers, acquisitions, and divestments.

| Company | Gas cons | Gas cons change | Gas flared + vented (1000 m ³) | Gas flared + vented rank | Gas flared (1000 m ³) | Flare rank | Gas vented (1000 m ³) | Vent rank | Oil prod (m ³) | Sol'n gas prod (1000 m ³) | GHG emissions (tCO ₂ e) | GHG emissions rank |
|--|----------|-----------------|--|--------------------------|-----------------------------------|------------|-----------------------------------|-----------|----------------------------|---------------------------------------|------------------------------------|--------------------|
| Tuscany Energy Ltd. | 0.0% | -31.3% | 2 | 311 | - | 258 | 2 | 237 | 545 | 2 | 24 | 302 |
| Band Energy Resources Ltd. | 60.0% | -13.9% | 2 | 312 | - | 258 | 2 | 238 | 282 | 5 | 23 | 303 |
| KinMerc Oil & Gas Inc. | 98.5% | 18.4% | 2 | 313 | - | 252 | 1 | 243 | 9,206 | 116 | 18 | 308 |
| Roswell Petroleum Corporation | 0.0% | -95.1% | 2 | 314 | - | 258 | 2 | 240 | 316 | 2 | 20 | 305 |
| The Locke Stock & Barrel Company Ltd. | 0.0% | 0.0% | 2 | 315 | - | 258 | 2 | 241 | 354 | 2 | 19 | 306 |
| Mistahiya Resources Ltd. | 93.5% | -1.6% | 2 | 315 | - | 258 | 2 | 241 | 302 | 23 | 19 | 306 |
| Canstone Energy Ltd. | 99.5% | 99.5% | 1 | 317 | - | 258 | 1 | 244 | 256 | 291 | 18 | 309 |
| NEO Exploration Inc. | 0.0% | -77.7% | 1 | 318 | 1 | 245 | - | 274 | 90 | 1 | 3 | 332 |
| Eastnell Resources Ltd. | 0.0% | 0.0% | 1 | 319 | - | 258 | 1 | 248 | 81 | 1 | 14 | 314 |
| Nexstep Resources Ltd. | 99.2% | -0.1% | 1 | 319 | - | 258 | 1 | 248 | 112 | 138 | 14 | 314 |
| Bashaw Oil Corp. | 99.4% | 2.2% | 1 | 319 | - | 258 | 1 | 248 | 1,045 | 193 | 14 | 314 |
| Petromin Resources Ltd. | 0.0% | -83.1% | 1 | 322 | - | 258 | 1 | 252 | 121 | 1 | 16 | 313 |
| Murelle Enterprises Inc. | 99.6% | 0.2% | 1 | 322 | - | 258 | 1 | 252 | 369 | 250 | 13 | 319 |
| Hutton Energy Ltd. | 0.0% | 0.0% | 1 | 324 | - | 258 | 1 | 254 | 215 | 1 | 10 | 320 |
| Success Resources Ltd. | 100.0% | 0.1% | 1 | 325 | 1 | 246 | - | 274 | 2,361 | 3,607 | 2 | 335 |
| Tidewater Midstream and Infrastructure Ltd. | 99.9% | 0.1% | 1 | 326 | 1 | 248 | - | 274 | 162 | 486 | 2 | 336 |
| Hillsdale Drilling Ltd. | 0.0% | 0.0% | 1 | 326 | - | 258 | 1 | 255 | 354 | 1 | 8 | 322 |
| Signa Oilfield Canada Inc. | 0.0% | 0.0% | 1 | 328 | - | 258 | 1 | 257 | 160 | 1 | 6 | 323 |
| Dire Resources Ltd. | 98.5% | N/A | - | 329 | - | 258 | - | 259 | 642 | 26 | 5 | 326 |
| Mount Dakota Energy Corp. | 93.9% | -3.4% | - | 329 | - | 258 | - | 259 | 31 | 7 | 5 | 326 |
| Dirham Oil (2000) Inc. | 0.0% | 0.0% | - | 329 | - | 251 | - | 274 | 41 | - | 1 | 339 |
| Trident Exploration (Alberta) Corp. | 100.0% | 1.8% | - | 332 | - | 258 | - | 263 | 1,243 | 1,964 | 4 | 328 |
| Optimus Energy Limited | 95.4% | N/A | - | 333 | - | 258 | - | 265 | 316 | 7 | 4 | 329 |
| Milen's Oilfield Enterprises Ltd. | 100.0% | 0.0% | - | 333 | - | 258 | - | 265 | 78 | 2,501 | 4 | 329 |
| Steppe Petroleum Inc. | 98.9% | -0.9% | - | 333 | - | 258 | - | 265 | 170 | 26 | 4 | 329 |
| Shanpet Resources Ltd. | 0.0% | 0.0% | - | 336 | - | 258 | - | 268 | 1,088 | - | 3 | 333 |
| Innes Oilfield Services Ltd. | 0.0% | 0.0% | - | 336 | - | 258 | - | 268 | 88 | - | 3 | 333 |
| Benjaka Exploration Inc. | 97.4% | 22.2% | - | 338 | - | 258 | - | 271 | 256 | 4 | 1 | 337 |
| Long Lake Energy Ltd. | 99.6% | N/A | - | 338 | - | 255 | - | 274 | 172 | 25 | 0 | 340 |
| Sahara Energy Ltd. | 0.0% | 0.0% | - | 338 | - | 258 | - | 271 | 37 | - | 1 | 337 |
| Luxur Resources Inc. | 0.0% | N/A | - | 338 | - | 255 | - | 274 | 65 | - | 0 | 340 |
| Pocahontas Petroleum Ltd. | 0.0% | 0.0% | - | 342 | - | 258 | - | 274 | - | - | 0 | 342 |
| International Frontier Resources Corporation | 100.0% | 0.0% | - | 342 | - | 258 | - | 274 | 1,637 | 65 | 0 | 342 |
| Extra Energy Inc. | 100.0% | 0.0% | - | 342 | - | 258 | - | 274 | 49 | 87 | 0 | 342 |
| Drakkar Energy Ltd. | 0.0% | N/A | - | 342 | - | 258 | - | 274 | - | - | 0 | 342 |
| Ironhorse Oil & Gas Inc. | 0.0% | N/A | - | 342 | - | 258 | - | 274 | - | - | 0 | 342 |
| AltaGas Ltd. | 100.0% | 0.0% | - | 342 | - | 258 | - | 274 | 1,043 | 1,967 | 0 | 342 |
| Accurate Energy Solutions Ltd. | 0.0% | 0.0% | - | 342 | - | 258 | - | 274 | - | - | 0 | 342 |
| Sino-Western Petroleum Inc. | 100.0% | 23.2% | - | 342 | - | 258 | - | 274 | 435 | 31 | 0 | 342 |
| G. Herman Group Inc. | 100.0% | 0.0% | - | 342 | - | 258 | - | 274 | 87 | 286 | 0 | 342 |
| Artisan Energy Corporation | 100.0% | 3.4% | - | 342 | - | 258 | - | 274 | 52 | 9 | 0 | 342 |
| Ferrybank Resources Ltd. | 100.0% | 0.0% | - | 342 | - | 258 | - | 274 | 1,649 | 796 | 0 | 342 |
| Grand Rapids Petroleum Ltd. | 0.0% | 0.0% | - | 342 | - | 258 | - | 274 | - | - | 0 | 342 |
| Glencoe Resources Ltd. | 100.0% | 0.0% | - | 342 | - | 258 | - | 274 | 9 | 375 | 0 | 342 |
| Sojourn Energy Inc. | 0.0% | 0.0% | - | 342 | - | 258 | - | 274 | - | - | 0 | 342 |

¹ Caution is required when comparing with last year's report due to corporate mergers, acquisitions, and divestments.

| Company | Gas cons | Gas cons change | Gas flared + vented (1000 m ³) | Gas flared + vented rank | Gas flared (1000 m ³) | Flare rank | Gas vented (1000 m ³) | Vent rank | Oil prod (m ³) | Sol'n gas prod (1000 m ³) | GHG emissions (tCO ₂ e) | GHG emissions rank |
|---------------------------------------|----------|-----------------|--|--------------------------|-----------------------------------|------------|-----------------------------------|-----------|----------------------------|---------------------------------------|------------------------------------|--------------------|
| Just Freehold Energy Corp. | 100.0% | 0.0% | - | 342 | - | 258 | - | 274 | 1,112 | 925 | 0 | 342 |
| Qwest Diversified Capital Corporation | 100.0% | 0.0% | - | 342 | - | 258 | - | 274 | 763 | 522 | 0 | 342 |
| Big Lake Energy Ltd. | 0.0% | 0.0% | - | 342 | - | 258 | - | 274 | - | - | 0 | 342 |
| Spartan Energy Corp. | 100.0% | 0.0% | - | 342 | - | 258 | - | 274 | 13,942 | 2,680 | 0 | 342 |
| Butte Energy Inc. | 0.0% | 0.0% | - | 342 | - | 258 | - | 274 | - | - | 0 | 342 |
| Brion Energy Corporation | 0.0% | N/A | - | 342 | - | 258 | - | 274 | - | - | 0 | 342 |
| Capital Oil Ltd. | 0.0% | N/A | - | 342 | - | 258 | - | 274 | - | - | 0 | 342 |
| Corex Resources Ltd. | 0.0% | N/A | - | 342 | - | 258 | - | 274 | - | - | 0 | 342 |
| Peyto Exploration & Development Corp. | 100.0% | 0.0% | - | 342 | - | 258 | - | 274 | 626 | 1,136 | 0 | 342 |
| Duel Energy Inc. | 0.0% | 0.0% | - | 342 | - | 258 | - | 274 | - | - | 0 | 342 |
| Corse Energy Corp. | 100.0% | 0.0% | - | 342 | - | 258 | - | 274 | 438 | 949 | 0 | 342 |
| Spyglass Resources Corp. | 0.0% | -87.3% | - | 342 | - | 258 | - | 274 | - | - | 0 | 342 |
| Silver Bay Resources Ltd. | 0.0% | -100.0% | - | 342 | - | 258 | - | 274 | - | - | 0 | 342 |
| 1506928 Alberta Ltd. | 100.0% | 0.0% | - | 342 | - | 258 | - | 274 | 835 | 16 | 0 | 342 |
| Ruger Energy Inc. | 0.0% | -87.9% | - | 342 | - | 258 | - | 274 | - | - | 0 | 342 |
| Kelt Exploration (LNG) Ltd. | 0.0% | N/A | - | 342 | - | 258 | - | 274 | - | - | 0 | 342 |
| Wescan Energy Corp. | 100.0% | 0.0% | - | 342 | - | 258 | - | 274 | 5,122 | 1,725 | 0 | 342 |
| Palliser Oil & Gas Corporation | 0.0% | -16.8% | - | 342 | - | 258 | - | 274 | - | - | 0 | 342 |
| Winstar Resources Ltd. | 0.0% | N/A | - | 342 | - | 258 | - | 274 | - | - | 0 | 342 |
| Stout Energy Inc. | 0.0% | 0.0% | - | 342 | - | 258 | - | 274 | - | - | 0 | 342 |
| Nordegg Resources Inc. | 100.0% | 3.3% | - | 342 | - | 258 | - | 274 | 8,405 | 8,793 | 0 | 342 |
| Perpetual Energy Inc. | 0.0% | 0.0% | - | 342 | - | 258 | - | 274 | - | - | 0 | 342 |
| ZNX Energy Ltd. | 100.0% | 0.0% | - | 342 | - | 258 | - | 274 | 1,813 | 2,055 | 0 | 342 |
| Nytis Exploration Company Inc. | 100.0% | 0.0% | - | 342 | - | 258 | - | 274 | 176 | 45 | 0 | 342 |
| 1288131 Alberta Ltd. | 100.0% | 0.0% | - | 342 | - | 258 | - | 274 | 730 | 341 | 0 | 342 |
| Success Energy Ltd. | 0.0% | 0.0% | - | 342 | - | 258 | - | 274 | - | - | 0 | 342 |
| Rimfire Energy Inc. | 100.0% | 0.0% | - | 342 | - | 258 | - | 274 | 1,265 | 1,203 | 0 | 342 |
| 1316751 Alberta Ltd. | 0.0% | -27.4% | - | 342 | - | 258 | - | 274 | - | - | 0 | 342 |
| 979968 Alberta Ltd. | 100.0% | N/A | - | 342 | - | 258 | - | 274 | 1,523 | 1,563 | 0 | 342 |
| Reber Exploration Ltd. | 100.0% | 87.5% | - | 342 | - | 258 | - | 274 | 110 | 1 | 0 | 342 |
| Tori Resources Inc. | 100.0% | N/A | - | 342 | - | 258 | - | 274 | - | 114 | 0 | 342 |
| Delphi Energy Corp. | 100.0% | 0.6% | - | 342 | - | 258 | - | 274 | 371 | 98 | 0 | 342 |
| Logic Energy Ltd. | 100.0% | 0.0% | - | 342 | - | 258 | - | 274 | 11,593 | 8,273 | 0 | 342 |
| Petro Buyers Inc. | 100.0% | 2.9% | - | 342 | - | 258 | - | 274 | 1,958 | 401 | 0 | 342 |
| Goodland Energy Ltd. | 0.0% | -48.7% | - | 342 | - | 258 | - | 274 | 20 | - | 0 | 342 |
| Sun Star Energy Inc. | 100.0% | 0.0% | - | 342 | - | 258 | - | 274 | 83 | 162 | 0 | 342 |
| (blank) | 0.0% | N/A | - | 342 | - | 258 | - | 274 | - | - | 0 | 342 |
| Regco Petroleums Ltd. | 0.0% | 0.0% | - | 342 | - | 258 | - | 274 | - | - | 0 | 342 |
| Rockbridge Energy Alberta Inc. | 100.0% | 0.0% | - | 342 | - | 258 | - | 274 | 142 | 98 | 0 | 342 |
| Gulf Canada Limited | 0.0% | N/A | - | 342 | - | 258 | - | 274 | - | - | 0 | 342 |
| Northern Utilities (sask.) Ltd. | 100.0% | 0.0% | - | 342 | - | 258 | - | 274 | 162 | 1 | 0 | 342 |
| Unit 18 Corp. | 100.0% | 0.0% | - | 342 | - | 258 | - | 274 | 12,004 | 245 | 0 | 342 |
| Plains Environmental Inc. | 0.0% | N/A | - | 342 | - | 258 | - | 274 | - | - | 0 | 342 |
| Corval Energy Ltd. | 100.0% | 0.3% | - | 342 | - | 258 | - | 274 | 2,041 | 377 | 0 | 342 |
| Malak Energy Inc. | 100.0% | 0.0% | - | 342 | - | 258 | - | 274 | 421 | 79 | 0 | 342 |

¹ Caution is required when comparing with last year's report due to corporate mergers, acquisitions, and divestments.

| Company | Gas cons | Gas cons change | Gas flared + vented (1000 m ³) | Gas flared + vented rank | Gas flared (1000 m ³) | Flare rank | Gas vented (1000 m ³) | Vent rank | Oil prod (m ³) | Sol'n gas prod (1000 m ³) | GHG emissions (tCO ₂ e) | GHG emissions rank |
|-----------------------------------|--------------|-----------------|--|--------------------------|-----------------------------------|------------|-----------------------------------|-----------|----------------------------|---------------------------------------|------------------------------------|--------------------|
| Koch Oil Sands Operating ULC | 0.0% | -58.5% | - | 342 | - | 258 | - | 274 | 1 | - | 0 | 342 |
| Gibson Energy ULC | 0.0% | N/A | - | 342 | - | 258 | - | 274 | - | - | 0 | 342 |
| Adanac Oil & Gas Limited | 100.0% | 0.0% | - | 342 | - | 258 | - | 274 | 1,803 | 1,209 | 0 | 342 |
| Mato Inc. | 100.0% | 0.4% | - | 342 | - | 258 | - | 274 | 412 | 1,223 | 0 | 342 |
| Cote Resources Ltd. | 0.0% | 0.0% | - | 342 | - | 258 | - | 274 | - | - | 0 | 342 |
| Vital Energy Inc. | 100.0% | 0.0% | - | 342 | - | 258 | - | 274 | 1,090 | 3 | 0 | 342 |
| Mooncor Energy Inc. | 0.0% | 0.0% | - | 342 | - | 258 | - | 274 | - | - | 0 | 342 |
| Check Energy Ltd. | 0.0% | 0.0% | - | 342 | - | 258 | - | 274 | - | - | 0 | 342 |
| Centennial Petroleum Company Ltd. | 100.0% | 0.0% | - | 342 | - | 258 | - | 274 | 328 | 1,315 | 0 | 342 |
| Sabre Energy Ltd. | 0.0% | N/A | - | 342 | - | 258 | - | 274 | - | - | 0 | 342 |
| Berlinger Energy Inc. | 0.0% | -95.1% | - | 342 | - | 258 | - | 274 | - | - | 0 | 342 |
| Shoreline Energy Corp. | 0.0% | -91.7% | - | 342 | - | 258 | - | 274 | - | - | 0 | 342 |
| Sarg Oils Ltd. | 0.0% | 0.0% | - | 342 | - | 258 | - | 274 | - | - | 0 | 342 |
| 385417 Alberta Ltd. | 0.0% | -58.5% | - | 342 | - | 258 | - | 274 | - | - | 0 | 342 |
| Bay Trail Resources Ltd. | 0.0% | N/A | - | 342 | - | 258 | - | 274 | - | - | 0 | 342 |
| Gunnarr Resources Inc. | 100.0% | 3.8% | - | 342 | - | 258 | - | 274 | 842 | 25 | 0 | 342 |
| Land Petroleum International Inc. | 0.0% | 0.0% | - | 342 | - | 258 | - | 274 | 214 | - | 0 | 342 |
| Halo Exploration Ltd. | 0.0% | 0.0% | - | 342 | - | 258 | - | 274 | - | - | 0 | 342 |
| Richbar Energy Ltd. | 0.0% | -99.5% | - | 342 | - | 258 | - | 274 | - | - | 0 | 342 |
| WLA Investment Ltd. | 100.0% | 0.0% | - | 342 | - | 258 | - | 274 | 1,031 | 420 | 0 | 342 |
| Laricina Energy Ltd. | 0.0% | -57.5% | - | 342 | - | 258 | - | 274 | - | - | 0 | 342 |
| Birchwood Resources Inc. | 0.0% | N/A | - | 342 | - | 258 | - | 274 | - | - | 0 | 342 |
| Tanager Energy Inc. | 0.0% | 0.0% | - | 342 | - | 258 | - | 274 | - | - | 0 | 342 |
| Painted Pony Petroleum Ltd. | 0.0% | 0.0% | - | 342 | - | 258 | - | 274 | - | - | 0 | 342 |
| Frontier Energy Inc. | 0.0% | 0.0% | - | 342 | - | 258 | - | 274 | - | - | 0 | 342 |
| Seven Generations Energy Ltd. | 100.0% | 0.0% | - | 342 | - | 258 | - | 274 | 603 | 233 | 0 | 342 |
| Canyon Oil & Gas Corporation | 100.0% | 0.0% | - | 342 | - | 258 | - | 274 | 69 | 556 | 0 | 342 |
| Camino Industries Inc. | 100.0% | 0.0% | - | 342 | - | 258 | - | 274 | 22 | 13 | 0 | 342 |
| Crimson Oil & Gas Ltd. | 100.0% | 28.2% | - | 342 | - | 258 | - | 274 | 4,409 | 253 | 0 | 342 |
| Canadian Coyote Energy Ltd. | 100.0% | 3.9% | - | 342 | - | 258 | - | 274 | 5 | 12 | 0 | 342 |
| Provincial Totals | 96.8% | | 616,636 | | 376,144 | | 240,502 | | 106,695,750 | 19,491,936 | 4,450,116 | |

¹ Caution is required when comparing with last year's report due to corporate mergers, acquisitions, and divestments.

Field Centre Ranking of Operators – 2016 Flared + Vented Volume¹
Bonnyville Crude Oil and Crude Bitumen Batteries for Alberta
Run Date: Apr. 17, 2017

| Company | Gas cons | Gas flared + vented (1000 m³) | Gas flared + vented rank | Gas flared (1000 m³) | Flare rank | Gas vented (1000 m³) | Vent rank | Oil prod (m³) | Sol'n gas prod (1000 m³) |
|---------------------------------------|-----------------|---|---|--|-----------------------|--|----------------------|-------------------------------------|--|
| Canadian Natural Resources Limited | 90.3% | 70,047 | 1 | 7,366 | 2 | 62,682 | 1 | 13,896,732 | 722,125 |
| Husky Oil Operations Limited | 89.2% | 14,612 | 2 | 413 | 9 | 14,199 | 2 | 3,114,887 | 135,827 |
| Devon Canada | 89.8% | 13,041 | 3 | 70 | 14 | 12,971 | 3 | 7,587,932 | 128,084 |
| Cenovus FCCL Ltd. | 96.3% | 8,950 | 4 | 8,491 | 1 | 459 | 9 | 17,407,549 | 244,185 |
| Twin Butte Energy Ltd. | 45.1% | 6,926 | 5 | - | 23 | 6,926 | 4 | 95,971 | 12,608 |
| Nexen Energy ULC | 82.7% | 4,935 | 6 | 4,935 | 3 | - | 26 | 1,265,750 | 28,475 |
| Cenovus Energy Inc. | 79.3% | 3,325 | 7 | 244 | 12 | 3,080 | 5 | 1,243,376 | 16,041 |
| Imperial Oil Resources | 99.6% | 1,787 | 8 | 1,395 | 4 | 391 | 11 | 9,385,581 | 444,925 |
| Gear Energy Ltd. | 79.5% | 1,443 | 9 | 15 | 22 | 1,428 | 6 | 22,765 | 7,031 |
| Blackpearl Resources Inc. | 37.9% | 1,238 | 10 | 482 | 7 | 756 | 7 | 88,430 | 1,993 |
| ConocoPhillips Canada Resources Corp. | 98.3% | 575 | 11 | 575 | 5 | - | 26 | 4,085,718 | 34,074 |
| Osum Production Corp. | 95.3% | 575 | 12 | 575 | 6 | - | 26 | 422,223 | 12,345 |
| Kasten Energy Inc. | 37.6% | 518 | 13 | - | 23 | 518 | 8 | 13,342 | 831 |
| Bernum Petroleum Ltd. | 86.2% | 433 | 14 | 422 | 8 | 11 | 19 | 8,163 | 3,141 |
| Suncor Energy Inc. | 98.2% | 418 | 15 | 316 | 10 | 102 | 12 | 12,107,843 | 22,905 |
| Baytex Energy Ltd. | 86.0% | 408 | 16 | - | 23 | 408 | 10 | 27,620 | 2,911 |
| Connacher Oil And Gas Limited | 97.9% | 258 | 17 | 258 | 11 | - | 26 | 499,986 | 12,534 |
| Enercapita Energy Ltd. | 27.9% | 130 | 18 | 29 | 18 | 100 | 13 | 582 | 180 |
| Athabasca Oil Corporation | 90.2% | 114 | 19 | 105 | 13 | 9 | 20 | 429,621 | 1,162 |
| Rife Resources Ltd. | 98.5% | 63 | 20 | - | 23 | 63 | 14 | 39,658 | 4,351 |
| Pengrowth Energy Corporation | 99.8% | 62 | 21 | 62 | 15 | - | 26 | 891,263 | 25,050 |
| MEG Energy Corp. | 100.0% | 59 | 22 | 59 | 16 | - | 26 | 4,711,951 | 200,737 |
| Statoil Canada Ltd. | 99.6% | 56 | 23 | 56 | 17 | - | 26 | 1,188,197 | 12,447 |
| Bellatrix Exploration Ltd. | 0.0% | 45 | 24 | - | 23 | 45 | 15 | 1,153 | 45 |
| Windtalker Energy Corp. | 93.5% | 40 | 25 | - | 23 | 40 | 16 | 25,425 | 620 |
| Sunshine Oilsands Ltd. | 0.0% | 24 | 26 | 24 | 19 | - | 26 | 8,024 | 24 |
| Crescent Point Energy Corp. | 61.8% | 23 | 27 | 23 | 20 | - | 26 | 316 | 61 |
| Deltastream Energy Corporation | 80.3% | 23 | 28 | - | 23 | 23 | 17 | 21,175 | 115 |
| Japan Canada Oil Sands Limited | 98.7% | 16 | 29 | 16 | 21 | - | 26 | 90,752 | 1,243 |
| Harvest Operations Corp. | 99.0% | 13 | 30 | - | 23 | 13 | 18 | 9,978 | 1,281 |
| Sequoia Resources Corp. | 0.0% | 7 | 31 | - | 23 | 7 | 21 | 60 | 7 |
| Incipient Exploration Ltd. | 18.5% | 5 | 32 | - | 23 | 5 | 22 | 1,391 | 7 |
| Spur Resources Ltd. | 99.7% | 2 | 33 | - | 23 | 2 | 23 | 21,201 | 956 |
| Petromin Resources Ltd. | 0.0% | 1 | 34 | - | 23 | 1 | 24 | 121 | 1 |
| Petrocapita GP I Ltd. | 95.4% | - | 35 | - | 23 | - | 25 | 97 | 9 |
| XTO Energy Canada | 100.0% | - | 36 | - | 23 | - | 26 | 282 | 582 |
| Laricina Energy Ltd. | 0.0% | - | 36 | - | 23 | - | 26 | - | - |
| Questfire Energy Corp. | 0.0% | - | 36 | - | 23 | - | 26 | - | - |
| Cote Resources Ltd. | 0.0% | - | 36 | - | 23 | - | 26 | - | - |
| Birchwood Resources Inc. | 0.0% | - | 36 | - | 23 | - | 26 | - | - |

¹ Caution is required when comparing with last year's report due to corporate mergers, acquisitions, and divestments.

| Company | Gas cons | Gas flared + vented (1000 m ³) | Gas flared + vented rank | Gas flared (1000 m ³) | Flare rank | Gas vented (1000 m ³) | Vent rank | Oil prod (m ³) | Sol'n gas prod (1000 m ³) |
|------------------------------|--------------|--|--------------------------------|---|---------------|---|--------------|-------------------------------|---|
| Check Energy Ltd. | 0.0% | - | 36 | - | 23 | - | 26 | - | - |
| Brion Energy Corporation | 0.0% | - | 36 | - | 23 | - | 26 | - | - |
| Totals for Bonnyville | 93.7% | 130,172 | | 25,931 | | 104,239 | | 78,715,115 | 2,078,913 |

¹ Caution is required when comparing with last year's report due to corporate mergers, acquisitions, and divestments.

Field Centre Ranking of Operators – 2016 Flared + Vented Volume¹
Drayton Valley Crude Oil and Crude Bitumen Batteries for Alberta
Run Date: Apr. 17, 2017

| Company | Gas cons | Gas flared + vented (1000 m³) | Gas flared + vented rank | Gas flared (1000 m³) | Flare rank | Gas vented (1000 m³) | Vent rank | Oil prod (m³) | Sol'n gas prod (1000 m³) |
|---|-----------------|---|---|--|-----------------------|--|----------------------|-------------------------------------|--|
| Bonterra Energy Corp. | 98.5% | 3,160 | 1 | 1,881 | 2 | 1,279 | 3 | 449,019 | 215,654 |
| Penn West Petroleum Ltd. | 98.0% | 3,093 | 2 | 737 | 7 | 2,355 | 1 | 433,835 | 157,047 |
| ARC Resources Ltd. | 98.3% | 2,995 | 3 | 1,458 | 3 | 1,536 | 2 | 509,158 | 173,258 |
| Point Loma Resources Ltd. | 57.8% | 2,957 | 4 | 2,957 | 1 | - | 73 | 7,527 | 7,007 |
| Whitecap Resources Inc. | 98.5% | 2,138 | 5 | 953 | 6 | 1,186 | 4 | 273,951 | 145,117 |
| TORC Oil & Gas Ltd. | 97.9% | 1,545 | 6 | 373 | 14 | 1,172 | 5 | 88,544 | 74,858 |
| Boulder Energy Ltd. | 98.5% | 1,533 | 7 | 1,417 | 4 | 116 | 23 | 173,454 | 102,031 |
| Lightstream Resources Ltd. | 99.4% | 1,482 | 8 | 690 | 8 | 791 | 6 | 307,157 | 260,624 |
| Sinopec Daylight Energy Ltd. | 98.7% | 1,256 | 9 | 615 | 9 | 641 | 9 | 222,613 | 96,282 |
| InPlay Oil Corp. | 96.6% | 1,212 | 10 | 546 | 10 | 666 | 8 | 85,904 | 35,370 |
| Changhua Energy Canada Ltd. | 0.0% | 1,112 | 11 | 1,112 | 5 | - | 73 | 2,556 | 1,112 |
| Tamarack Acquisition Corp. | 99.5% | 1,087 | 12 | 377 | 13 | 710 | 7 | 162,931 | 198,224 |
| Journey Energy Inc. | 99.4% | 928 | 13 | 295 | 17 | 633 | 10 | 56,456 | 146,281 |
| Baccalieu Energy Inc. | 98.6% | 839 | 14 | 380 | 12 | 459 | 12 | 106,999 | 59,534 |
| Vermilion Energy Inc. | 99.6% | 653 | 15 | 119 | 27 | 534 | 11 | 274,353 | 150,183 |
| New Star Energy Ltd. | 99.5% | 632 | 16 | 326 | 16 | 306 | 13 | 60,581 | 125,779 |
| Long Run Exploration Ltd. | 99.6% | 568 | 17 | 464 | 11 | 104 | 26 | 15,415 | 133,232 |
| ConocoPhillips Canada (BRC) Partnership | 99.4% | 486 | 18 | 354 | 15 | 131 | 22 | 43,541 | 77,289 |
| TAQA North Ltd. | 99.2% | 419 | 19 | 120 | 26 | 299 | 14 | 31,265 | 49,477 |
| Westbrick Energy Ltd. | 99.5% | 290 | 20 | 39 | 34 | 251 | 16 | 33,803 | 64,167 |
| Bonavista Energy Corporation | 98.9% | 263 | 21 | - | 50 | 263 | 15 | 15,621 | 23,219 |
| Freehold Royalties Ltd. | 95.5% | 232 | 22 | - | 50 | 232 | 17 | 9,131 | 5,156 |
| SanLing Energy Ltd. | 5.2% | 217 | 23 | 215 | 18 | 2 | 61 | 1,370 | 229 |
| Insch Commodity Ltd. | 91.2% | 217 | 24 | 28 | 35 | 189 | 19 | 3,145 | 2,464 |
| Mancal Energy Inc. | 97.8% | 204 | 25 | 200 | 19 | 5 | 59 | 7,141 | 9,102 |
| Joli Fou Petroleums Ltd | 19.0% | 198 | 26 | 193 | 20 | 6 | 54 | 2,251 | 245 |
| Owl River Resources Ltd. | 6.1% | 197 | 27 | - | 50 | 197 | 18 | 200 | 210 |
| Bellatrix Exploration Ltd. | 99.9% | 179 | 28 | 66 | 30 | 113 | 24 | 23,995 | 131,419 |
| Tangle Creek Energy Ltd. | 99.4% | 177 | 29 | 172 | 21 | 5 | 57 | 19,071 | 30,615 |
| Velvet Energy Ltd. | 99.6% | 175 | 30 | 92 | 28 | 84 | 27 | 13,866 | 48,757 |
| Surge Energy Inc. | 95.8% | 170 | 31 | 170 | 22 | - | 73 | 15,521 | 4,019 |
| Baytex Energy Ltd. | 97.5% | 170 | 32 | 155 | 24 | 15 | 42 | 11,607 | 6,680 |
| Spry2 Energy Inc. | 95.0% | 159 | 33 | 159 | 23 | - | 73 | 10,195 | 3,187 |
| Sifton Petroleum Inc. | 98.6% | 146 | 34 | 66 | 29 | 79 | 29 | 11,081 | 10,045 |
| Iberdrola Canada Energy Services Ltd. | 99.8% | 144 | 35 | - | 50 | 144 | 20 | 3,381 | 80,268 |
| Highvale Operating Corp. | 51.3% | 143 | 36 | 3 | 43 | 140 | 21 | 1,361 | 294 |
| 97837 Resources Ltd. | 20.6% | 134 | 37 | 134 | 25 | - | 73 | 355 | 168 |
| Notine Holdings Inc. | 98.0% | 108 | 38 | - | 50 | 108 | 25 | 1,201 | 5,378 |
| Derrick Petroleum Ltd. | 74.0% | 82 | 39 | - | 50 | 82 | 28 | 821 | 314 |
| Repsol Oil & Gas Canada Inc. | 98.5% | 74 | 40 | 60 | 31 | 14 | 43 | 4,482 | 4,803 |

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| Company | Gas cons | Gas flared + vented (1000 m ³) | Gas flared + vented rank | Gas flared (1000 m ³) | Flare rank | Gas vented (1000 m ³) | Vent rank | Oil prod (m ³) | Sol'n gas prod (1000 m ³) |
|---|----------|--|--------------------------------|--------------------------------------|---------------|---|--------------|-------------------------------|---|
| C Group Energy Inc. | 95.5% | 62 | 41 | 49 | 33 | 13 | 45 | 3,688 | 1,369 |
| Superman Resources Inc. | 98.6% | 56 | 42 | - | 50 | 56 | 30 | 2,423 | 4,014 |
| Keyera Energy Ltd. | 100.0% | 50 | 43 | 50 | 32 | - | 73 | 41,181 | 189,491 |
| Crazy Hill Resources Ltd. | 55.3% | 41 | 44 | - | 50 | 41 | 31 | 458 | 91 |
| Questfire Energy Corp. | 96.9% | 37 | 45 | - | 50 | 37 | 32 | 4,258 | 1,220 |
| ConocoPhillips Western Canada Partnership | 99.7% | 35 | 46 | 2 | 45 | 33 | 34 | 24,702 | 12,604 |
| Pine Cliff Energy Ltd. | 40.7% | 34 | 47 | - | 50 | 34 | 33 | 271 | 57 |
| Wilcox Energy Corp. | 12.5% | 27 | 48 | 27 | 36 | - | 73 | 393 | 30 |
| Petrus Resources Corp. | 100.0% | 26 | 49 | - | 50 | 26 | 35 | 36,634 | 61,400 |
| Pismo Energy Ltd. | 96.8% | 21 | 50 | - | 50 | 21 | 36 | 2,248 | 665 |
| Shiningstar Energy Ltd. | 72.6% | 20 | 51 | - | 50 | 20 | 37 | 84 | 74 |
| Range 3 Inc. | 24.7% | 17 | 52 | - | 50 | 17 | 38 | 46 | 23 |
| XTO Energy Canada | 0.0% | 17 | 53 | 17 | 37 | - | 73 | 60 | 17 |
| Omers Energy Inc. | 99.9% | 15 | 54 | - | 50 | 15 | 39 | 17,176 | 12,272 |
| ORLEN Upstream Canada Ltd. | 99.9% | 15 | 55 | - | 50 | 15 | 40 | 4,467 | 13,737 |
| NAL Resources Limited | 99.3% | 15 | 56 | - | 50 | 15 | 41 | 2,753 | 2,073 |
| ConocoPhillips Canada Energy Partnership | 100.0% | 15 | 57 | 1 | 47 | 14 | 43 | 26,655 | 54,107 |
| Harvest Operations Corp. | 99.9% | 14 | 58 | 2 | 46 | 13 | 46 | 4,801 | 11,790 |
| Anterra Energy Inc. | 97.2% | 14 | 59 | 14 | 38 | - | 73 | 1,311 | 501 |
| Houston Oil & Gas Ltd. | 99.8% | 10 | 60 | - | 50 | 10 | 47 | 2,468 | 5,494 |
| Eclipse Resources Ltd. | 99.7% | 10 | 61 | 3 | 44 | 7 | 53 | 9,763 | 3,459 |
| Pengrowth Energy Corporation | 100.0% | 9 | 62 | - | 50 | 9 | 48 | 3,694 | 19,266 |
| HBC Energy Ltd. | 0.0% | 9 | 63 | - | 50 | 9 | 49 | 517 | 9 |
| Blaze Energy Ltd. | 99.9% | 9 | 64 | 9 | 39 | - | 73 | 5,275 | 16,422 |
| Anderson Energy Inc. | 89.6% | 9 | 65 | 7 | 41 | 2 | 62 | 359 | 86 |
| Mosaic Energy Ltd. | 99.6% | 9 | 66 | - | 50 | 9 | 50 | 10,151 | 1,933 |
| Gamet Resources Ltd. | 99.4% | 8 | 67 | 8 | 40 | - | 69 | 775 | 1,301 |
| Successor Resources Ltd. | 99.5% | 8 | 68 | - | 50 | 8 | 51 | 444 | 1,547 |
| Gear Energy Ltd. | 100.0% | 8 | 69 | - | 48 | 8 | 52 | 32,836 | 31,445 |
| Signalta Resources Limited | 99.4% | 5 | 70 | - | 50 | 5 | 55 | 1,089 | 944 |
| ConocoPhillips Canada Resources Corp. | 99.9% | 5 | 71 | - | 50 | 5 | 56 | 5,272 | 5,056 |
| Rife Resources Ltd. | 98.9% | 5 | 72 | - | 50 | 5 | 57 | 555 | 470 |
| Lockwood Resources Ltd. | 0.0% | 3 | 73 | 3 | 42 | - | 73 | 23 | 3 |
| Canadian Oil & Gas International Inc. | 99.1% | 3 | 74 | - | 50 | 3 | 60 | 185 | 354 |
| Apache Canada Ltd. | 99.8% | 2 | 75 | - | 50 | 2 | 62 | 379 | 750 |
| Arrow Point Oil & Gas Ltd. | 95.2% | 2 | 76 | - | 50 | 2 | 64 | 498 | 31 |
| Murelle Enterprises Inc. | 99.6% | 1 | 77 | - | 50 | 1 | 65 | 369 | 250 |
| Trilogy Resources Ltd. | 100.0% | 1 | 78 | - | 50 | 1 | 66 | 156 | 1,580 |
| Mount Dakota Energy Corp. | 93.9% | - | 79 | - | 50 | - | 67 | 31 | 7 |
| Steppe Petroleum Inc. | 0.0% | - | 80 | - | 50 | - | 68 | 17 | - |
| Zargon Oil & Gas Ltd. | 99.4% | - | 81 | - | 50 | - | 69 | 374 | 31 |
| Craft Oil Inc. | 99.9% | - | 82 | - | 50 | - | 71 | 218 | 154 |
| Benjaka Exploration Inc. | 97.4% | - | 82 | - | 50 | - | 71 | 256 | 4 |
| Perpetual Operating Corp. | 100.0% | - | 82 | - | 48 | - | 73 | 1,126 | 4,756 |
| Sino-Western Petroleum Inc. | 100.0% | - | 85 | - | 50 | - | 73 | 24 | - |

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| Company | Gas cons | Gas flared + vented (1000 m ³) | Gas flared + vented rank | Gas flared (1000 m ³) | Flare rank | Gas vented (1000 m ³) | Vent rank | Oil prod (m ³) | Sol'n gas prod (1000 m ³) |
|---|--------------|--|--------------------------------|--------------------------------------|---------------|---|--------------|-------------------------------|---|
| Canamax Energy Ltd. | 100.0% | - | 85 | - | 50 | - | 73 | 638 | 4,837 |
| Canadian Natural Resources Limited | 100.0% | - | 85 | - | 50 | - | 73 | 112 | 1,030 |
| Prairie Provident Resources Canada Ltd. | 0.0% | - | 85 | - | 50 | - | 73 | - | - |
| Husky Oil Operations Limited | 100.0% | - | 85 | - | 50 | - | 73 | 6 | 10 |
| Procyon Energy Corp. | 100.0% | - | 85 | - | 50 | - | 73 | 924 | 725 |
| CQ Energy Canada Resources Partnership | 100.0% | - | 85 | - | 50 | - | 73 | 3,209 | 3,579 |
| Incipient Exploration Ltd. | 100.0% | - | 85 | - | 50 | - | 73 | 1,182 | 2,159 |
| Enercapita Energy Ltd. | 0.0% | - | 85 | - | 50 | - | 73 | - | - |
| Petro Buyers Inc. | 100.0% | - | 85 | - | 50 | - | 73 | 1,958 | 401 |
| NuVista Energy Ltd. | 0.0% | - | 85 | - | 50 | - | 73 | - | - |
| Regent Resources Ltd. | 100.0% | - | 85 | - | 50 | - | 73 | 8,294 | 4,285 |
| KinMerc Oil & Gas Inc. | 100.0% | - | 85 | - | 50 | - | 73 | 311 | 2 |
| Beringer Energy Inc. | 0.0% | - | 85 | - | 50 | - | 73 | - | - |
| Land Petroleum International Inc. | 0.0% | - | 85 | - | 50 | - | 73 | 205 | - |
| Ish Energy Ltd. | 100.0% | - | 85 | - | 50 | - | 73 | 16 | 237 |
| Striker Exploration Corp. | 100.0% | - | 85 | - | 50 | - | 73 | 145 | 13 |
| Executive Adventures 2008 Inc. | 100.0% | - | 85 | - | 50 | - | 73 | 14 | 27 |
| 385417 Alberta Ltd. | 0.0% | - | 85 | - | 50 | - | 73 | - | - |
| TimberRock Energy Corp. | 0.0% | - | 85 | - | 50 | - | 73 | - | - |
| Inception Exploration Ltd. | 100.0% | - | 85 | - | 50 | - | 73 | 705 | 2,329 |
| Tourmaline Oil Corp. | 100.0% | - | 85 | - | 50 | - | 73 | 4,545 | 8,844 |
| Ferrybank Resources Ltd. | 100.0% | - | 85 | - | 50 | - | 73 | 518 | 71 |
| Paramount Resources Ltd. | 100.0% | - | 85 | - | 50 | - | 73 | 723 | 583 |
| Adanac Oil & Gas Limited | 100.0% | - | 85 | - | 50 | - | 73 | 1,803 | 1,209 |
| New North Resources Ltd. | 100.0% | - | 85 | - | 50 | - | 73 | 194 | 446 |
| Hitic Energy Ltd. | 100.0% | - | 85 | - | 50 | - | 73 | 22,768 | 9,489 |
| G. Herman Group Inc. | 100.0% | - | 85 | - | 50 | - | 73 | 43 | 286 |
| Rimfire Energy Inc. | 100.0% | - | 85 | - | 50 | - | 73 | 589 | 721 |
| Waldron Energy Corporation | 0.0% | - | 85 | - | 50 | - | 73 | - | - |
| Sabre Energy Ltd. | 0.0% | - | 85 | - | 50 | - | 73 | - | - |
| Nordegg Resources Inc. | 100.0% | - | 85 | - | 50 | - | 73 | 1,379 | 6,866 |
| Crimson Oil & Gas Ltd. | 100.0% | - | 85 | - | 50 | - | 73 | 66 | 55 |
| WLA Investment Ltd. | 100.0% | - | 85 | - | 50 | - | 73 | 1,031 | 420 |
| Delphi Energy Corp. | 0.0% | - | 85 | - | 50 | - | 73 | - | - |
| Yangarra Resources Corp. | 0.0% | - | 85 | - | 50 | - | 73 | - | - |
| Kaiser Exploration Ltd. | 0.0% | - | 85 | - | 50 | - | 73 | - | - |
| Blackspur Oil Corp. | 100.0% | - | 85 | - | 50 | - | 73 | 11,238 | 27,763 |
| Canadian Coyote Energy Ltd. | 0.0% | - | 85 | - | 50 | - | 73 | - | - |
| Totals for Drayton Valley | 99.0% | 32,421 | | 17,118 | | 15,303 | | 3,807,937 | 3,176,372 |

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Field Centre Ranking of Operators – 2016 Flared + Vented Volume¹
Edmonton (St. Albert) Crude Oil and Crude Bitumen Batteries for Alberta
Run Date: Apr. 17, 2017

| Company | Gas cons | Gas flared + vented (1000 m³) | Gas flared + vented rank | Gas flared (1000 m³) | Flare rank | Gas vented (1000 m³) | Vent rank | Oil prod (m³) | Sol'n gas prod (1000 m³) |
|---|-----------------|---|---|--|-----------------------|--|----------------------|-------------------------------------|--|
| Crescent Point Energy Corp. | 63.1% | 19,684 | 1 | 19,031 | 1 | 653 | 9 | 268,822 | 53,402 |
| Penn West Petroleum Ltd. | 71.0% | 18,786 | 2 | 18,485 | 2 | 301 | 14 | 313,509 | 64,839 |
| Canadian Natural Resources Limited | 81.0% | 17,096 | 3 | 16,421 | 3 | 675 | 8 | 430,718 | 90,163 |
| Aspenleaf Energy Limited | 70.2% | 7,793 | 4 | 7,633 | 4 | 160 | 23 | 184,118 | 26,176 |
| Lightstream Resources Ltd. | 56.3% | 5,581 | 5 | 5,363 | 5 | 218 | 18 | 38,261 | 12,779 |
| Murphy Oil Company Ltd. | 89.4% | 4,396 | 6 | 4,197 | 6 | 199 | 21 | 160,734 | 41,321 |
| Tamarack Acquisition Corp. | 70.1% | 3,893 | 7 | 865 | 20 | 3,029 | 1 | 63,348 | 13,036 |
| Harvest Operations Corp. | 81.6% | 3,371 | 8 | 2,188 | 7 | 1,183 | 3 | 156,736 | 18,330 |
| Predator Oil Ltd. | 31.9% | 2,752 | 9 | 1,746 | 13 | 1,006 | 4 | 73,189 | 4,039 |
| Surge Energy Inc. | 81.5% | 2,635 | 10 | 359 | 25 | 2,276 | 2 | 52,928 | 14,272 |
| ARC Resources Ltd. | 88.1% | 2,262 | 11 | 1,964 | 10 | 298 | 15 | 187,248 | 18,972 |
| Mancal Energy Inc. | 74.9% | 2,200 | 12 | 2,131 | 8 | 69 | 32 | 81,150 | 8,765 |
| Shell Canada Energy | 98.6% | 2,078 | 13 | 2,064 | 9 | 15 | 46 | 439,346 | 146,216 |
| Baytex Energy Ltd. | 87.0% | 2,023 | 14 | 1,960 | 11 | 63 | 33 | 123,345 | 15,503 |
| InPlay Oil Corp. | 0.0% | 1,825 | 15 | 1,825 | 12 | - | 84 | 5,979 | 1,825 |
| Trilogy Resources Ltd. | 99.1% | 1,748 | 16 | 1,630 | 14 | 118 | 26 | 214,203 | 203,480 |
| Pengrowth Energy Corporation | 98.8% | 1,652 | 17 | 966 | 18 | 686 | 7 | 328,013 | 142,756 |
| Summerland Energy Inc. | 71.1% | 1,342 | 18 | 1,235 | 16 | 107 | 27 | 82,896 | 4,646 |
| Shackleton Exploration Ltd. | 95.0% | 1,247 | 19 | 1,235 | 15 | 12 | 50 | 11,732 | 24,711 |
| NEP Canada ULC | 99.1% | 1,159 | 20 | 1,159 | 17 | - | 84 | 309,351 | 124,188 |
| Mount Bastion Oil & Gas Corp. | 94.3% | 1,015 | 21 | 241 | 31 | 774 | 6 | 223,447 | 17,805 |
| Apache Canada Ltd. | 98.0% | 913 | 22 | 870 | 19 | 43 | 38 | 234,153 | 45,203 |
| TORC Oil & Gas Ltd. | 95.9% | 910 | 23 | 489 | 22 | 421 | 12 | 78,514 | 22,385 |
| Prairie Provident Resources Canada Ltd. | 88.0% | 828 | 24 | - | 80 | 828 | 5 | 77,604 | 6,903 |
| Long Run Exploration Ltd. | 98.6% | 717 | 25 | 267 | 30 | 450 | 10 | 113,913 | 51,058 |
| Tangle Creek Energy Ltd. | 99.0% | 662 | 26 | 374 | 24 | 288 | 16 | 120,616 | 66,087 |
| Arsenal Energy Inc. | 44.4% | 593 | 27 | 593 | 21 | 1 | 81 | 19,030 | 1,067 |
| Response Energy Corporation | 76.5% | 483 | 28 | 267 | 29 | 216 | 19 | 6,396 | 2,061 |
| Cedar Creek Energy Ltd. | 98.1% | 480 | 29 | 477 | 23 | 4 | 67 | 38,370 | 25,086 |
| Rifle Shot Oil Corp. | 94.2% | 432 | 30 | 6 | 68 | 426 | 11 | 60,204 | 7,430 |
| Virginia Hills Oil Corp. | 91.1% | 377 | 31 | - | 80 | 377 | 13 | 77,670 | 4,238 |
| Journey Energy Inc. | 98.3% | 334 | 32 | 206 | 33 | 128 | 24 | 58,542 | 19,857 |
| C Group Energy Inc. | 9.4% | 300 | 33 | 300 | 26 | - | 84 | 5,556 | 331 |
| Zargon Oil & Gas Ltd. | 4.0% | 294 | 34 | 284 | 28 | 11 | 52 | 2,083 | 306 |
| Anterra Energy Inc. | 86.2% | 285 | 35 | 285 | 27 | - | 84 | 16,292 | 2,062 |
| Questfire Energy Corp. | 48.8% | 261 | 36 | - | 80 | 261 | 17 | 3,676 | 509 |
| Quattro Exploration and Production Ltd. | 0.0% | 235 | 37 | 235 | 32 | - | 84 | 376 | 235 |
| Cardinal Energy Ltd. | 99.5% | 216 | 38 | 158 | 38 | 57 | 34 | 141,556 | 40,799 |
| Vermilion Energy Inc. | 92.4% | 214 | 39 | 165 | 36 | 49 | 35 | 45,909 | 2,807 |
| Spur Resources Ltd. | 59.3% | 207 | 40 | - | 80 | 207 | 20 | 10,021 | 509 |

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| Company | Gas cons | Gas flared + vented (1000 m ³) | Gas flared + vented rank | Gas flared (1000 m ³) | Flare rank | Gas vented (1000 m ³) | Vent rank | Oil prod (m ³) | Sol'n gas prod (1000 m ³) |
|---|----------|--|--------------------------------|--------------------------------------|---------------|---|--------------|-------------------------------|---|
| Westhill Resources Limited | 93.7% | 170 | 44 | 170 | 35 | - | 84 | 239 | 2,711 |
| Novus Energy Inc. | 22.9% | 162 | 45 | 162 | 37 | - | 84 | 1,020 | 210 |
| Hitic Energy Ltd. | 79.3% | 150 | 47 | 150 | 39 | - | 84 | 3,283 | 725 |
| Trident Exploration (wx) Corp. | 97.1% | 129 | 48 | 124 | 41 | 5 | 63 | 5,211 | 4,482 |
| Repsol Oil & Gas Canada Inc. | 60.7% | 122 | 49 | 118 | 42 | 4 | 66 | 1,318 | 310 |
| Athabasca Oil Corporation | 99.9% | 112 | 50 | 112 | 43 | - | 84 | 36,119 | 87,774 |
| Petrus Resources Corp. | 0.0% | 103 | 51 | 103 | 44 | - | 84 | 1,511 | 103 |
| Enercapita Energy Ltd. | 92.6% | 100 | 52 | 6 | 69 | 95 | 28 | 2,542 | 1,346 |
| Goldenkey Oil Inc. | 45.0% | 94 | 53 | 94 | 45 | - | 84 | 4,271 | 171 |
| Prosper Petroleum Ltd. | 0.0% | 88 | 54 | - | 80 | 88 | 29 | 4,756 | 88 |
| Aeneid Exploration Inc. | 93.5% | 84 | 55 | 60 | 49 | 24 | 42 | 30,181 | 1,292 |
| Enerplus Corporation | 99.2% | 73 | 56 | - | 77 | 73 | 30 | 21,667 | 9,387 |
| Point Loma Resources Ltd. | 0.0% | 72 | 57 | - | 80 | 72 | 31 | 177 | 72 |
| Gryphon Petroleum Corp. | 3.9% | 72 | 58 | 67 | 48 | 5 | 62 | 5,156 | 75 |
| Barnwell of Canada Limited | 0.0% | 69 | 59 | 69 | 47 | - | 84 | 206 | 69 |
| ORLEN Upstream Canada Ltd. | 99.8% | 68 | 60 | 60 | 49 | 8 | 59 | 41,234 | 32,339 |
| Second Wave Petroleum Inc. | 99.4% | 67 | 61 | 30 | 57 | 37 | 39 | 6,667 | 11,728 |
| ConocoPhillips Canada (BRC) Partnership | 99.1% | 61 | 62 | 57 | 52 | 4 | 65 | 3,864 | 6,708 |
| Forge Oil & Gas Limited | 0.0% | 57 | 63 | 57 | 51 | - | 84 | 302 | 57 |
| Beaver Lake Resources Corporation | 0.0% | 51 | 64 | 51 | 53 | - | 84 | 453 | 51 |
| TAQA North Ltd. | 99.5% | 45 | 65 | - | 80 | 45 | 36 | 3,226 | 8,774 |
| Border Petroleum Limited | 0.0% | 43 | 66 | - | 80 | 43 | 37 | 216 | 43 |
| Ohana Resources Inc. | 97.2% | 41 | 67 | 41 | 54 | - | 84 | 10,745 | 1,465 |
| Surat Energy Inc. | 0.0% | 40 | 68 | 34 | 55 | 6 | 60 | 838 | 40 |
| Persta Resources Inc. | 66.1% | 32 | 69 | 32 | 56 | - | 84 | 3,545 | 93 |
| New North Resources Ltd. | 8.2% | 28 | 70 | - | 80 | 28 | 40 | 449 | 31 |
| Whitehall Energy Ltd. | 89.4% | 26 | 71 | - | 80 | 26 | 41 | 3,314 | 247 |
| Axiom Oil and Gas Inc. | 99.7% | 24 | 72 | 14 | 62 | 10 | 54 | 8,001 | 8,244 |
| Primrose Drilling Ventures Ltd. | 16.8% | 22 | 73 | - | 80 | 22 | 43 | 557 | 26 |
| Bonavista Energy Corporation | 99.9% | 19 | 74 | 7 | 67 | 12 | 49 | 32,314 | 20,043 |
| Redwater Energy Corp. | 97.5% | 19 | 74 | 19 | 58 | - | 84 | 2,571 | 762 |
| N7 Energy Ltd. | 0.0% | 19 | 74 | 19 | 58 | - | 84 | 376 | 19 |
| Vesta Energy Ltd. | 98.7% | 17 | 77 | 17 | 60 | - | 84 | 1,257 | 1,380 |
| Scollard Energy Ltd. | 69.7% | 17 | 78 | - | 80 | 17 | 44 | 41 | 56 |
| CQ Energy Canada Resources Partnership | 98.4% | 16 | 79 | 15 | 61 | 1 | 74 | 4,285 | 1,025 |
| Outlier Resources Ltd. | 95.4% | 16 | 80 | 1 | 75 | 15 | 45 | 254 | 348 |
| Bernum Petroleum Ltd. | 99.6% | 15 | 81 | - | 80 | 15 | 47 | 9,750 | 3,902 |
| Owl River Resources Ltd. | 0.0% | 13 | 82 | 13 | 63 | - | 84 | 10 | 13 |
| Andora Energy Corporation | 4.5% | 13 | 83 | 13 | 64 | - | 84 | 5,953 | 13 |
| Ember Resources Inc. | 94.0% | 12 | 84 | - | 80 | 12 | 48 | 142 | 204 |
| Rustum Petroleums Limited | 4.4% | 11 | 85 | - | 80 | 11 | 51 | 1,757 | 11 |
| Velvet Energy Ltd. | 99.6% | 10 | 86 | 1 | 74 | 9 | 57 | 1,642 | 2,162 |
| XTO Energy Canada | 99.8% | 10 | 86 | - | 80 | 10 | 53 | 2,217 | 5,159 |
| Norwegian Petroleum Inc. | 94.0% | 10 | 88 | - | 80 | 10 | 54 | 243 | 160 |
| Vulture Energy Ltd. | 74.5% | 8 | 89 | 8 | 65 | 1 | 79 | 627 | 33 |

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| Company | Gas cons | Gas flared + vented (1000 m ³) | Gas flared + vented rank | Gas flared (1000 m ³) | Flare rank | Gas vented (1000 m ³) | Vent rank | Oil prod (m ³) | Sol'n gas prod (1000 m ³) |
|---|----------|--|--------------------------------|--------------------------------------|---------------|---|--------------|-------------------------------|---|
| SanLing Energy Ltd. | 17.6% | 8 | 89 | - | 77 | 8 | 58 | 90 | 10 |
| RMP Energy Inc. | 99.9% | 8 | 91 | 8 | 66 | - | 84 | 2,958 | 5,616 |
| Indra Oil & Gas Ltd. | 0.0% | 6 | 92 | 6 | 69 | - | 84 | 156 | 6 |
| Shiningstar Energy Ltd. | 87.8% | 4 | 93 | - | 80 | 4 | 64 | 34 | 34 |
| Rally Canada Resources Ltd. | 99.7% | 4 | 94 | 4 | 71 | - | 84 | 9,410 | 1,284 |
| Mosaic Energy Ltd. | 99.8% | 4 | 95 | - | 80 | 4 | 68 | 404 | 1,877 |
| ConocoPhillips Canada Energy Partnership | 99.9% | 3 | 96 | 1 | 73 | 2 | 71 | 9,183 | 2,110 |
| Ish Energy Ltd. | 50.0% | 3 | 96 | - | 80 | 3 | 69 | 39 | 6 |
| Whitecap Resources Inc. | 8.0% | 2 | 98 | - | 80 | 2 | 70 | 1,016 | 3 |
| Kelt Exploration Ltd. | 99.9% | 2 | 99 | 2 | 72 | - | 84 | 15,481 | 1,761 |
| KinMerc Oil & Gas Inc. | 98.5% | 2 | 100 | - | 76 | 1 | 73 | 8,617 | 113 |
| Mistahiya Resources Ltd. | 93.5% | 2 | 101 | - | 80 | 2 | 72 | 302 | 23 |
| Sun Century Petroleum Corporation | 0.0% | 1 | 102 | - | 80 | 1 | 74 | 376 | 1 |
| Eastnell Resources Ltd. | 0.0% | 1 | 103 | - | 80 | 1 | 76 | 81 | 1 |
| Nexstep Resources Ltd. | 99.2% | 1 | 103 | - | 80 | 1 | 76 | 112 | 138 |
| Husky Oil Operations Limited | 100.0% | 1 | 105 | - | 80 | 1 | 78 | 7,394 | 7,639 |
| Hillsdale Drilling Ltd. | 0.0% | 1 | 106 | - | 80 | 1 | 79 | 354 | 1 |
| Dire Resources Ltd. | 98.5% | - | 107 | - | 80 | - | 82 | 642 | 26 |
| Long Lake Energy Ltd. | 99.6% | - | 108 | - | 77 | - | 84 | 172 | 25 |
| Deltastream Energy Corporation | 99.9% | - | 108 | - | 80 | - | 83 | 632 | 104 |
| Tidewater Midstream and Infrastructure Ltd. | 0.0% | - | 110 | - | 80 | - | 84 | - | - |
| Success Energy Ltd. | 0.0% | - | 110 | - | 80 | - | 84 | - | - |
| Chinook Energy Inc. | 0.0% | - | 110 | - | 80 | - | 84 | - | - |
| Clearbrook Resources Inc. | 100.0% | - | 110 | - | 80 | - | 84 | 4,509 | 433 |
| Lockwood Resources Ltd. | 0.0% | - | 110 | - | 80 | - | 84 | - | - |
| Canuck North Resources Ltd. | 0.0% | - | 110 | - | 80 | - | 84 | - | - |
| Anderson Energy Inc. | 0.0% | - | 110 | - | 80 | - | 84 | - | - |
| Regco Petroleums Ltd. | 0.0% | - | 110 | - | 80 | - | 84 | - | - |
| NAL Resources Limited | 100.0% | - | 110 | - | 80 | - | 84 | 63 | 1,301 |
| Craft Oil Inc. | 0.0% | - | 110 | - | 80 | - | 84 | - | - |
| ConocoPhillips Canada Resources Corp. | 0.0% | - | 110 | - | 80 | - | 84 | - | - |
| Ironhorse Oil & Gas Inc. | 0.0% | - | 110 | - | 80 | - | 84 | - | - |
| Crimson Oil & Gas Ltd. | 100.0% | - | 110 | - | 80 | - | 84 | 4,343 | 198 |
| Cenovus Energy Inc. | 0.0% | - | 110 | - | 80 | - | 84 | - | - |
| Tori Resources Inc. | 100.0% | - | 110 | - | 80 | - | 84 | - | 114 |
| Enhance Energy Inc. | 0.0% | - | 110 | - | 80 | - | 84 | - | - |
| Twin Butte Energy Ltd. | 100.0% | - | 110 | - | 80 | - | 84 | 1,444 | 448 |
| Cequence Energy Ltd. | 0.0% | - | 110 | - | 80 | - | 84 | - | - |
| Delphi Energy Corp. | 100.0% | - | 110 | - | 80 | - | 84 | 371 | 50 |
| Extra Energy Inc. | 100.0% | - | 110 | - | 80 | - | 84 | 49 | 87 |
| Stout Energy Inc. | 0.0% | - | 110 | - | 80 | - | 84 | - | - |
| Painted Pony Petroleum Ltd. | 0.0% | - | 110 | - | 80 | - | 84 | - | - |
| Land Petroleum International Inc. | 0.0% | - | 110 | - | 80 | - | 84 | 9 | - |
| Nordegg Resources Inc. | 100.0% | - | 110 | - | 80 | - | 84 | 7,026 | 1,927 |
| Artisan Energy Corporation | 100.0% | - | 110 | - | 80 | - | 84 | - | 4 |

¹ Caution is required when comparing with last year's report due to corporate mergers, acquisitions, and divestments.

| Company | Gas cons | Gas flared + vented (1000 m ³) | Gas flared + vented rank | Gas flared (1000 m ³) | Flare rank | Gas vented (1000 m ³) | Vent rank | Oil prod (m ³) | Sol'n gas prod (1000 m ³) |
|---|--------------|--|--------------------------------|--------------------------------------|---------------|---|--------------|-------------------------------|---|
| Centennial Petroleum Company Ltd. | 100.0% | - | 110 | - | 80 | - | 84 | 328 | 1,315 |
| Imperial Oil Resources | 0.0% | - | 110 | - | 80 | - | 84 | - | - |
| Blackpearl Resources Inc. | 100.0% | - | 110 | - | 80 | - | 84 | 43,979 | 10,503 |
| Accurate Energy Solutions Ltd. | 0.0% | - | 110 | - | 80 | - | 84 | - | - |
| Blaze Energy Ltd. | 0.0% | - | 110 | - | 80 | - | 84 | - | - |
| Broadview Energy Ltd. | 0.0% | - | 110 | - | 80 | - | 84 | - | - |
| G. Herman Group Inc. | 100.0% | - | 110 | - | 80 | - | 84 | 43 | - |
| Tourmaline Oil Corp. | 100.0% | - | 110 | - | 80 | - | 84 | 472 | 1,626 |
| Shoreline Energy Corp. | 0.0% | - | 110 | - | 80 | - | 84 | - | - |
| ConocoPhillips Western Canada Partnership | 100.0% | - | 110 | - | 80 | - | 84 | 8,033 | 2,220 |
| Sinopec Daylight Energy Ltd. | 0.0% | - | 110 | - | 80 | - | 84 | - | - |
| Altura Energy Inc. | 100.0% | - | 110 | - | 80 | - | 84 | 1,226 | 93 |
| Sino-Western Petroleum Inc. | 100.0% | - | 110 | - | 80 | - | 84 | 411 | 30 |
| Dark Warrior Resources Ltd. | 0.0% | - | 110 | - | 80 | - | 84 | - | - |
| Hawk Exploration Ltd. | 0.0% | - | 110 | - | 80 | - | 84 | - | - |
| Bering Exploration Company ULC | 100.0% | - | 110 | - | 80 | - | 84 | 558 | 14 |
| HESC Energy Corporation | 100.0% | - | 110 | - | 80 | - | 84 | 3,601 | 4,117 |
| Qwest Diversified Capital Corporation | 100.0% | - | 110 | - | 80 | - | 84 | 763 | 522 |
| Koch Oil Sands Operating ULC | 0.0% | - | 110 | - | 80 | - | 84 | 1 | - |
| Spartan Energy Corp. | 100.0% | - | 110 | - | 80 | - | 84 | 13,942 | 2,680 |
| Spry2 Energy Inc. | 100.0% | - | 110 | - | 80 | - | 84 | 1,140 | 872 |
| Sequoia Resources Corp. | 0.0% | - | 110 | - | 80 | - | 84 | - | - |
| Malak Energy Inc. | 100.0% | - | 110 | - | 80 | - | 84 | 421 | 79 |
| Totals for Edmonton | 92.8% | 116,499 | | 99,826 | | 16,679 | | 5,287,558 | 1,610,890 |

¹ Caution is required when comparing with last year's report due to corporate mergers, acquisitions, and divestments.

Field Centre Ranking of Operators – 2016 Flared + Vented Volume¹
Grande Prairie Crude Oil and Crude Bitumen Batteries for Alberta
Run Date: Apr. 17, 2017

| Company | Gas cons | Gas flared + vented (1000 m³) | Gas flared + vented rank | Gas flared (1000 m³) | Flare rank | Gas vented (1000 m³) | Vent rank | Oil prod (m³) | Sol'n gas prod (1000 m³) |
|--|-----------------|---|---|--|-----------------------|--|----------------------|-------------------------------------|--|
| Penn West Petroleum Ltd. | 28.2% | 41,593 | 1 | 41,562 | 1 | 31 | 26 | 334,611 | 57,907 |
| Baytex Energy Ltd. | 85.5% | 26,059 | 2 | 26,059 | 2 | - | 62 | 717,535 | 179,644 |
| Canadian International Oil Operating Corp. | 96.7% | 13,123 | 3 | 12,954 | 3 | 169 | 14 | 220,645 | 396,667 |
| Canadian Natural Resources Limited | 99.4% | 5,802 | 4 | 4,894 | 4 | 907 | 2 | 1,012,229 | 920,481 |
| Velvet Energy Ltd. | 2.8% | 3,966 | 5 | 3,966 | 5 | - | 62 | 4,314 | 4,080 |
| TAQA North Ltd. | 93.1% | 2,856 | 6 | 1,198 | 12 | 1,658 | 1 | 34,514 | 41,466 |
| Apache Canada Ltd. | 87.2% | 2,791 | 7 | 2,681 | 6 | 110 | 17 | 27,896 | 21,816 |
| Murphy Oil Company Ltd. | 60.6% | 2,352 | 8 | 2,333 | 7 | 18 | 36 | 22,939 | 5,963 |
| Long Run Exploration Ltd. | 98.4% | 2,224 | 9 | 1,979 | 8 | 245 | 11 | 181,450 | 140,191 |
| Kelt Exploration Ltd. | 99.3% | 1,996 | 10 | 1,961 | 9 | 35 | 25 | 239,993 | 272,290 |
| ARC Resources Ltd. | 99.7% | 1,765 | 11 | 1,081 | 13 | 684 | 5 | 324,919 | 549,072 |
| Surge Energy Inc. | 98.7% | 1,754 | 12 | 1,730 | 10 | 24 | 30 | 128,077 | 138,120 |
| Omers Energy Inc. | 97.6% | 1,285 | 13 | 1,284 | 11 | 1 | 53 | 25,825 | 53,221 |
| Whitecap Resources Inc. | 98.9% | 1,220 | 14 | 695 | 19 | 525 | 6 | 180,162 | 110,054 |
| Husky Oil Operations Limited | 99.5% | 1,108 | 15 | 423 | 29 | 685 | 4 | 89,355 | 223,735 |
| Mosaic Energy Ltd. | 97.5% | 1,080 | 16 | 364 | 32 | 716 | 3 | 19,228 | 42,790 |
| Enercapita Energy Ltd. | 96.6% | 962 | 17 | 714 | 17 | 247 | 10 | 73,681 | 28,587 |
| Insignia Energy Ltd. | 96.3% | 829 | 18 | 829 | 14 | - | 62 | 19,655 | 22,469 |
| Mancal Energy Inc. | 98.4% | 799 | 19 | 726 | 16 | 73 | 19 | 62,664 | 50,137 |
| Trilogy Resources Ltd. | 98.0% | 783 | 20 | 490 | 26 | 293 | 8 | 57,209 | 38,457 |
| Venturion Oil Limited | 85.1% | 758 | 21 | 758 | 15 | - | 62 | 14,223 | 5,068 |
| Craft Oil Inc. | 98.0% | 748 | 22 | 569 | 23 | 179 | 13 | 43,426 | 37,792 |
| Flow-Back Oil & Gas Ltd. | 24.9% | 700 | 23 | 700 | 18 | - | 62 | 456 | 931 |
| Birchcliff Energy Ltd. | 99.9% | 653 | 24 | 636 | 21 | 17 | 37 | 332,117 | 809,854 |
| ConocoPhillips Canada Energy Partnership | 90.1% | 649 | 25 | 649 | 20 | - | 58 | 4,333 | 6,590 |
| Georox Resources Inc. | 15.6% | 597 | 26 | 597 | 22 | - | 62 | 638 | 707 |
| Shield Energy Ltd. | 94.4% | 590 | 27 | 536 | 24 | 54 | 21 | 18,677 | 10,570 |
| N7 Energy Ltd. | 0.0% | 537 | 28 | 535 | 25 | 3 | 50 | 5,082 | 537 |
| Progress Energy Canada Ltd. | 99.6% | 488 | 29 | 176 | 40 | 312 | 7 | 99,028 | 119,548 |
| Harvest Operations Corp. | 98.1% | 488 | 30 | 371 | 30 | 117 | 16 | 78,921 | 25,894 |
| Ikkuma Resources Corp. | 1.3% | 455 | 31 | 455 | 27 | - | 62 | 1,049 | 461 |
| Paramount Resources Ltd. | 92.7% | 452 | 32 | 448 | 28 | 5 | 47 | 5,874 | 6,219 |
| ConocoPhillips Canada (BRC) Partnership | 99.5% | 449 | 33 | 167 | 42 | 282 | 9 | 72,946 | 96,495 |
| Exshaw Oil Corp. | 99.9% | 367 | 34 | 367 | 31 | - | 62 | 289,786 | 395,608 |
| Bernum Petroleum Ltd. | 43.4% | 349 | 35 | 349 | 33 | - | 62 | 12,002 | 616 |
| Firenze Energy Ltd. | 43.0% | 259 | 36 | 248 | 34 | 12 | 39 | 7,859 | 455 |
| Longshore Resources Ltd. | 99.1% | 253 | 37 | 233 | 36 | 19 | 35 | 39,132 | 27,726 |
| Grizzly Resources Ltd. | 0.0% | 242 | 38 | - | 80 | 242 | 12 | 26,157 | 242 |
| Panam Energy Services Ltd. | 39.9% | 238 | 39 | 238 | 35 | - | 62 | 648 | 396 |
| Bering Exploration Company ULC | 0.0% | 232 | 40 | 66 | 52 | 166 | 15 | 4,054 | 232 |

¹ Caution is required when comparing with last year's report due to corporate mergers, acquisitions, and divestments.

| Company | Gas cons | Gas flared + vented (1000 m ³) | Gas flared + vented rank | Gas flared (1000 m ³) | Flare rank | Gas vented (1000 m ³) | Vent rank | Oil prod (m ³) | Sol'n gas prod (1000 m ³) |
|---------------------------------------|----------|--|--------------------------------|--------------------------------------|---------------|---|--------------|-------------------------------|---|
| Canamax Energy Ltd. | 99.1% | 223 | 41 | 214 | 37 | 10 | 41 | 54,999 | 23,870 |
| High North Resources Ltd. | 8.0% | 207 | 42 | 207 | 38 | - | 62 | 394 | 225 |
| Rising Star Resources Ltd. | 99.5% | 195 | 43 | 195 | 39 | - | 62 | 45,398 | 36,095 |
| XTO Energy Canada | 98.7% | 187 | 44 | 164 | 43 | 23 | 31 | 18,213 | 14,851 |
| Clampett Energy Ltd. | 19.1% | 183 | 45 | 117 | 45 | 66 | 20 | 2,206 | 226 |
| Shell Canada Energy | 99.6% | 176 | 46 | 176 | 41 | - | 62 | 378,990 | 39,442 |
| Polar Star Canadian Oil And Gas Inc. | 95.8% | 134 | 47 | 133 | 44 | 1 | 51 | 9,221 | 3,214 |
| Executive Adventures 2008 Inc. | 14.0% | 125 | 48 | 116 | 46 | 9 | 43 | 670 | 145 |
| Cequence Energy Ltd. | 99.5% | 120 | 49 | 84 | 49 | 36 | 24 | 15,119 | 23,353 |
| Procyon Energy Corp. | 0.0% | 114 | 50 | 114 | 47 | - | 60 | 18 | 114 |
| SanLing Energy Ltd. | 72.9% | 108 | 51 | 26 | 58 | 81 | 18 | 1,823 | 397 |
| Pengrowth Energy Corporation | 93.6% | 102 | 52 | 94 | 48 | 8 | 44 | 8,682 | 1,595 |
| BDJ Energy Inc. | 93.7% | 82 | 53 | 35 | 57 | 47 | 22 | 9,996 | 1,309 |
| Goldenkey Oil Inc. | 32.2% | 76 | 54 | 76 | 50 | - | 62 | 1,119 | 112 |
| Barnwell of Canada Limited | 78.3% | 76 | 54 | 76 | 50 | - | 62 | 1,173 | 350 |
| Tourmaline Oil Corp. | 99.9% | 61 | 56 | 61 | 53 | - | 62 | 85,815 | 88,673 |
| Sydco Energy Inc. | 99.1% | 57 | 57 | 41 | 55 | 17 | 38 | 10,768 | 6,337 |
| ORLEN Upstream Canada Ltd. | 93.1% | 54 | 58 | 44 | 54 | 11 | 40 | 6,441 | 783 |
| Canadian Oil & Gas International Inc. | 96.1% | 54 | 59 | 11 | 69 | 43 | 23 | 2,286 | 1,368 |
| Ribbon Creek Resources Inc. | 98.4% | 46 | 60 | 25 | 59 | 21 | 33 | 3,186 | 2,903 |
| Inception Exploration Ltd. | 99.3% | 41 | 61 | 21 | 62 | 20 | 34 | 2,500 | 5,783 |
| Huron Resources Corp. | 0.0% | 38 | 62 | 38 | 56 | - | 62 | 187 | 38 |
| Rife Resources Ltd. | 99.7% | 33 | 63 | 4 | 74 | 29 | 27 | 1,656 | 13,060 |
| Ascent Energy Ltd. | 93.2% | 28 | 64 | - | 80 | 28 | 28 | 625 | 406 |
| Shiningstar Energy Ltd. | 99.9% | 28 | 65 | 24 | 60 | 4 | 48 | 19,114 | 34,806 |
| RMP Energy Inc. | 100.0% | 26 | 66 | - | 80 | 26 | 29 | 180,129 | 241,324 |
| Taku Gas Limited | 0.0% | 24 | 67 | 24 | 61 | - | 60 | 435 | 24 |
| Modern Resources Inc. | 100.0% | 23 | 68 | - | 80 | 23 | 32 | 65,039 | 46,404 |
| Eagle Energy Inc. | 99.2% | 20 | 69 | 12 | 68 | 8 | 45 | 117,239 | 2,408 |
| Sinopec Daylight Energy Ltd. | 99.9% | 20 | 70 | 16 | 66 | 4 | 48 | 17,663 | 23,908 |
| Border Petroleum Limited | 0.0% | 19 | 71 | 19 | 63 | - | 62 | 34 | 19 |
| Jupiter Resources Inc. | 100.0% | 17 | 72 | 17 | 64 | - | 62 | 32,529 | 38,083 |
| Encana Corporation | 99.9% | 17 | 73 | 17 | 65 | - | 62 | 5,538 | 11,947 |
| Chinook Energy Inc. | 99.9% | 15 | 74 | 15 | 67 | - | 62 | 4,154 | 12,258 |
| Tallahassee Resources Inc. | 0.0% | 9 | 75 | - | 80 | 9 | 42 | 244 | 9 |
| NAL Resources Limited | 100.0% | 8 | 76 | 8 | 70 | - | 62 | 57,508 | 129,579 |
| Summerland Energy Inc. | 99.8% | 7 | 77 | 6 | 71 | 1 | 52 | 5,625 | 4,321 |
| Sequoia Resources Corp. | 99.5% | 7 | 78 | - | 80 | 7 | 46 | 429 | 1,445 |
| Glenogle Energy Inc. | 100.0% | 6 | 79 | 6 | 72 | - | 62 | 40,452 | 54,061 |
| Scavenger Energy Gp Inc. | 83.1% | 5 | 80 | 5 | 73 | - | 58 | 264 | 30 |
| Winslow Resources Inc. | 99.9% | 4 | 81 | 3 | 75 | 1 | 55 | 2,320 | 4,977 |
| Terra Energy Corp. | 17.4% | 2 | 82 | 2 | 76 | - | 62 | 108 | 2 |
| Crescent Point Energy Corp. | 100.0% | 1 | 83 | - | 80 | 1 | 53 | 34,794 | 58,397 |
| Bashaw Oil Corp. | 0.0% | 1 | 84 | - | 80 | 1 | 55 | 224 | 1 |
| Hutton Energy Ltd. | 0.0% | 1 | 85 | - | 80 | 1 | 57 | 215 | 1 |

¹ Caution is required when comparing with last year's report due to corporate mergers, acquisitions, and divestments.

| Company | Gas cons | Gas flared + vented (1000 m ³) | Gas flared + vented rank | Gas flared (1000 m ³) | Flare rank | Gas vented (1000 m ³) | Vent rank | Oil prod (m ³) | Sol'n gas prod (1000 m ³) |
|---|--------------|--|--------------------------------|--------------------------------------|---------------|---|--------------|-------------------------------|---|
| Tidewater Midstream and Infrastructure Ltd. | 99.9% | 1 | 86 | 1 | 77 | - | 62 | 162 | 486 |
| Toro Oil & Gas Ltd. | 0.0% | 1 | 87 | 1 | 78 | - | 62 | 50 | 1 |
| Dirham Oil (2000) Inc. | 0.0% | - | 88 | - | 79 | - | 62 | 41 | - |
| Athabasca Oil Corporation | 100.0% | - | 89 | - | 80 | - | 62 | 1,493 | 2,102 |
| Novus Energy Inc. | 100.0% | - | 89 | - | 80 | - | 62 | 492 | 702 |
| Enerplus Corporation | 0.0% | - | 89 | - | 80 | - | 62 | - | - |
| Kelt Exploration (LNG) Ltd. | 0.0% | - | 89 | - | 80 | - | 62 | - | - |
| Coastal Resources Limited | 0.0% | - | 89 | - | 80 | - | 62 | - | - |
| Seven Generations Energy Ltd. | 100.0% | - | 89 | - | 80 | - | 62 | 603 | 233 |
| Spyglass Resources Corp. | 0.0% | - | 89 | - | 80 | - | 62 | - | - |
| Delphi Energy Corp. | 100.0% | - | 89 | - | 80 | - | 62 | - | 48 |
| Sun Star Energy Inc. | 100.0% | - | 89 | - | 80 | - | 62 | 83 | 162 |
| Perpetual Energy Inc. | 0.0% | - | 89 | - | 80 | - | 62 | - | - |
| Petrus Resources Corp. | 0.0% | - | 89 | - | 80 | - | 62 | - | - |
| Peyto Exploration & Development Corp. | 100.0% | - | 89 | - | 80 | - | 62 | 626 | 1,136 |
| Rimfire Energy Inc. | 100.0% | - | 89 | - | 80 | - | 62 | 676 | 482 |
| Bay Trail Resources Ltd. | 0.0% | - | 89 | - | 80 | - | 62 | - | - |
| Drakkar Energy Ltd. | 0.0% | - | 89 | - | 80 | - | 62 | - | - |
| Glencoe Resources Ltd. | 0.0% | - | 89 | - | 80 | - | 62 | - | - |
| Winstar Resources Ltd. | 0.0% | - | 89 | - | 80 | - | 62 | - | - |
| Halo Exploration Ltd. | 0.0% | - | 89 | - | 80 | - | 62 | - | - |
| ConocoPhillips Canada Resources Corp. | 0.0% | - | 89 | - | 80 | - | 62 | - | - |
| Canstone Energy Ltd. | 0.0% | - | 89 | - | 80 | - | 62 | - | - |
| Shoreline Energy Corp. | 0.0% | - | 89 | - | 80 | - | 62 | - | - |
| Response Energy Corporation | 0.0% | - | 89 | - | 80 | - | 62 | - | - |
| Corex Resources Ltd. | 0.0% | - | 89 | - | 80 | - | 62 | - | - |
| Reber Exploration Ltd. | 100.0% | - | 89 | - | 80 | - | 62 | 110 | 1 |
| Relentless Resources Ltd. | 100.0% | - | 89 | - | 80 | - | 62 | 352 | 1,564 |
| Lexin Resources Ltd. | 0.0% | - | 89 | - | 80 | - | 62 | - | - |
| Lightstream Resources Ltd. | 100.0% | - | 89 | - | 80 | - | 62 | 110 | 572 |
| Totals for Grande Prairie | 97.8% | 126,633 | | 118,269 | | 8,365 | | 6,083,649 | 5,779,230 |

¹ Caution is required when comparing with last year's report due to corporate mergers, acquisitions, and divestments.

Field Centre Ranking of Operators – 2016 Flared + Vented Volume¹
High Level Crude Oil and Crude Bitumen Batteries for Alberta
Run Date: Apr. 17, 2017

| Company | Gas cons | Gas flared + vented (1000 m³) | Gas flared + vented rank | Gas flared (1000 m³) | Flare rank | Gas vented (1000 m³) | Vent rank | Oil prod (m³) | Sol'n gas prod (1000 m³) |
|---------------------------------------|-----------------|---|---|--|-----------------------|--|----------------------|-------------------------------------|--|
| Apache Canada Ltd. | 98.5% | 1,904 | 1 | 1,904 | 1 | - | 7 | 30,129 | 123,163 |
| Husky Oil Operations Limited | 99.9% | 1,442 | 2 | 1,418 | 2 | 24 | 2 | 385,822 | 1,002,376 |
| Ouro Preto Resources Inc. | 19.8% | 1,282 | 3 | 1,281 | 3 | - | 6 | 16,284 | 1,598 |
| Strategic Oil & Gas Ltd. | 97.2% | 1,048 | 4 | 1,048 | 4 | - | 7 | 78,867 | 37,249 |
| SanLing Energy Ltd. | 3.5% | 980 | 5 | 936 | 5 | 44 | 1 | 6,658 | 1,015 |
| BLZ Energy Ltd. | 0.0% | 481 | 6 | 481 | 6 | - | 7 | 675 | 481 |
| ARC Resources Ltd. | 86.2% | 373 | 7 | 357 | 7 | 16 | 3 | 13,334 | 2,707 |
| Barnwell of Canada Limited | 0.0% | 24 | 8 | 22 | 8 | 2 | 5 | 1,036 | 24 |
| Polar Star Canadian Oil And Gas Inc. | 0.0% | 14 | 9 | 14 | 9 | - | 7 | 361 | 14 |
| Canadian Natural Resources Limited | 100.0% | 7 | 10 | - | 10 | 6 | 4 | 31,413 | 23,197 |
| NuVista Energy Ltd. | 0.0% | - | 11 | - | 11 | - | 7 | - | - |
| ConocoPhillips Canada Resources Corp. | 0.0% | - | 11 | - | 11 | - | 7 | - | - |
| Surge Energy Inc. | 0.0% | - | 11 | - | 11 | - | 7 | - | - |
| Duel Energy Inc. | 0.0% | - | 11 | - | 11 | - | 7 | - | - |
| Totals for High Level | 99.4% | 7,555 | | 7,461 | | 92 | | 564,579 | 1,191,824 |

¹ Caution is required when comparing with last year's report due to corporate mergers, acquisitions, and divestments.

Field Centre Ranking of Operators – 2016 Flared + Vented Volume¹
Medicine Hat Crude Oil and Crude Bitumen Batteries for Alberta
Run Date: Apr. 17, 2017

| Company | Gas cons | Gas flared + vented (1000 m³) | Gas flared + vented rank | Gas flared (1000 m³) | Flare rank | Gas vented (1000 m³) | Vent rank | Oil prod (m³) | Sol'n gas prod (1000 m³) |
|------------------------------------|-----------------|---|---|--|-----------------------|--|----------------------|-------------------------------------|--|
| Cardinal Energy Ltd. | 92.7% | 5,292 | 1 | 4,357 | 1 | 935 | 2 | 258,951 | 72,605 |
| Canadian Natural Resources Limited | 96.5% | 4,620 | 2 | 4,080 | 2 | 540 | 3 | 724,488 | 131,675 |
| Granite Oil Corp. | 95.5% | 3,961 | 3 | 3,961 | 3 | - | 54 | 163,675 | 87,402 |
| TORC Oil & Gas Ltd. | 0.0% | 3,034 | 4 | 3,034 | 4 | - | 54 | 27,062 | 3,034 |
| Cenovus Energy Inc. | 97.7% | 2,867 | 5 | 942 | 14 | 1,925 | 1 | 768,701 | 126,584 |
| Rokeast Energy Corp. | 0.0% | 2,626 | 6 | 2,626 | 5 | - | 54 | 5,874 | 2,626 |
| Imaginea Energy Corp. | 94.6% | 2,403 | 7 | 2,393 | 6 | 10 | 32 | 232,295 | 44,510 |
| SanLing Energy Ltd. | 80.3% | 2,246 | 8 | 2,185 | 7 | 60 | 14 | 31,354 | 11,408 |
| Gryphon Petroleum Corp. | 0.0% | 1,522 | 9 | 1,522 | 8 | - | 54 | 14,263 | 1,522 |
| Raging River Exploration Inc. | 97.3% | 1,472 | 10 | 1,063 | 11 | 409 | 4 | 61,809 | 55,454 |
| ARC Resources Ltd. | 53.3% | 1,404 | 11 | 1,395 | 9 | 9 | 35 | 26,446 | 3,006 |
| Little Rock Resources Ltd. | 0.0% | 1,345 | 12 | 1,345 | 10 | - | 54 | 9,416 | 1,345 |
| Ascensun Oil And Gas Ltd. | 9.9% | 980 | 13 | 980 | 12 | - | 54 | 12,224 | 1,087 |
| Penn West Petroleum Ltd. | 89.6% | 971 | 14 | 814 | 15 | 158 | 9 | 26,582 | 9,321 |
| LGX Oil + Gas Inc. | 30.2% | 950 | 15 | 949 | 13 | - | 51 | 11,278 | 1,360 |
| Enerplus Corporation | 98.8% | 811 | 16 | 801 | 16 | 10 | 33 | 401,209 | 69,144 |
| Crescent Point Energy Corp. | 22.4% | 695 | 17 | 695 | 17 | - | 53 | 8,310 | 896 |
| Hemisphere Energy Corporation | 88.2% | 685 | 18 | 685 | 18 | 1 | 50 | 27,201 | 5,802 |
| Journey Energy Inc. | 98.7% | 571 | 19 | 391 | 22 | 180 | 7 | 69,606 | 44,094 |
| City Of Medicine Hat | 24.6% | 556 | 20 | 184 | 29 | 372 | 5 | 16,125 | 736 |
| Toro Oil & Gas Ltd. | 0.1% | 553 | 21 | 550 | 19 | 3 | 44 | 1,281 | 554 |
| Traverse Energy Ltd. | 94.7% | 493 | 22 | 439 | 21 | 55 | 16 | 12,609 | 9,392 |
| Kainai Energy Corp. | 0.0% | 479 | 23 | 479 | 20 | - | 54 | 4,899 | 479 |
| TAQA North Ltd. | 92.9% | 390 | 24 | 297 | 23 | 93 | 12 | 46,907 | 5,491 |
| Avalon Energy Ltd. | 47.0% | 292 | 25 | 291 | 24 | 1 | 48 | 4,758 | 551 |
| Spur Resources Ltd. | 98.1% | 277 | 26 | - | 55 | 277 | 6 | 19,537 | 14,703 |
| Zargon Oil & Gas Ltd. | 69.8% | 273 | 27 | 273 | 25 | - | 54 | 26,585 | 902 |
| Houston Oil & Gas Ltd. | 6.8% | 253 | 28 | 212 | 28 | 41 | 19 | 1,233 | 271 |
| Blackspur Oil Corp. | 96.0% | 247 | 29 | 247 | 26 | - | 54 | 33,186 | 6,187 |
| Arsenal Energy Inc. | 96.6% | 235 | 30 | 235 | 27 | - | 54 | 26,123 | 6,947 |
| Marquee Energy Ltd. | 99.3% | 221 | 31 | 53 | 40 | 169 | 8 | 56,607 | 33,952 |
| Tamarack Acquisition Corp. | 96.6% | 173 | 32 | 19 | 46 | 154 | 10 | 47,653 | 5,090 |
| Arrow Point Oil & Gas Ltd. | 23.7% | 144 | 33 | 129 | 30 | 15 | 28 | 4,940 | 188 |
| Corinthian Oil Corp. | 91.5% | 130 | 34 | 44 | 43 | 86 | 13 | 2,335 | 1,535 |
| Husky Oil Operations Limited | 98.6% | 130 | 35 | 11 | 47 | 119 | 11 | 36,528 | 9,427 |
| New North Resources Ltd. | 18.6% | 121 | 36 | 121 | 31 | - | 54 | 1,963 | 148 |
| Alberta Petroleum Energy Limited | 18.5% | 103 | 37 | 103 | 32 | - | 54 | 2,470 | 126 |
| Broadview Energy Ltd. | 89.4% | 95 | 38 | 80 | 34 | 15 | 27 | 2,894 | 902 |
| Baytex Energy Ltd. | 96.7% | 95 | 39 | 40 | 44 | 56 | 15 | 8,850 | 2,876 |
| Strategic Oil & Gas Ltd. | 64.6% | 88 | 40 | 58 | 39 | 30 | 21 | 1,179 | 248 |

¹ Caution is required when comparing with last year's report due to corporate mergers, acquisitions, and divestments.

| Company | Gas cons | Gas flared + vented (1000 m ³) | Gas flared + vented rank | Gas flared (1000 m ³) | Flare rank | Gas vented (1000 m ³) | Vent rank | Oil prod (m ³) | Sol'n gas prod (1000 m ³) |
|--|----------|--|--------------------------------|--------------------------------------|---------------|---|--------------|-------------------------------|---|
| Canadian Oil & Gas International Inc. | 29.5% | 87 | 41 | 67 | 37 | 20 | 23 | 894 | 123 |
| Lance Exploration Corp. | 15.3% | 86 | 42 | 86 | 33 | - | 54 | 211 | 102 |
| Novus Energy Inc. | 75.0% | 78 | 43 | 72 | 36 | 6 | 41 | 741 | 313 |
| Standard Exploration Ltd. | 33.5% | 75 | 44 | 75 | 35 | - | 54 | 3,119 | 112 |
| Craft Oil Inc. | 57.5% | 72 | 45 | 63 | 38 | 8 | 36 | 2,338 | 168 |
| NuVista Energy Ltd. | 86.4% | 51 | 46 | 49 | 41 | 1 | 47 | 326 | 374 |
| Convega Energy Ltd. | 96.8% | 49 | 47 | 49 | 42 | - | 54 | 2,407 | 1,520 |
| Harvest Operations Corp. | 99.4% | 45 | 48 | 3 | 49 | 42 | 17 | 92,202 | 7,118 |
| Tykwes Limited | 72.2% | 41 | 49 | - | 55 | 41 | 18 | 1,945 | 149 |
| Sanford Petroleum Ltd. | 95.4% | 37 | 50 | - | 55 | 37 | 20 | 1,466 | 810 |
| Raimount Oil and Gas Inc. | 0.0% | 31 | 51 | 31 | 45 | - | 54 | 62 | 31 |
| Enercapita Energy Ltd. | 2.4% | 24 | 52 | - | 55 | 24 | 22 | 467 | 25 |
| Successor Resources Ltd. | 90.0% | 20 | 53 | 1 | 50 | 19 | 25 | 1,025 | 200 |
| Deckland Inc. | 87.6% | 20 | 54 | - | 55 | 20 | 24 | 461 | 158 |
| Pengrowth Energy Corporation | 96.9% | 18 | 55 | 4 | 48 | 14 | 29 | 3,160 | 589 |
| Ridal Resource Ltd. | 0.0% | 16 | 56 | - | 55 | 16 | 26 | 165 | 16 |
| 935821 Alberta Ltd. | 0.0% | 12 | 57 | - | 55 | 12 | 30 | 1,403 | 12 |
| Tower Ridge Enterprises Corp. | 73.4% | 12 | 58 | - | 55 | 12 | 31 | 470 | 44 |
| Taber Water Disposal Inc. | 0.0% | 10 | 59 | - | 55 | 10 | 34 | 667 | 10 |
| Indra Oil & Gas Ltd. | 0.0% | 9 | 60 | 1 | 51 | 8 | 37 | 285 | 9 |
| Writers Oil & Gas Limited | 0.0% | 8 | 61 | - | 55 | 8 | 38 | 253 | 8 |
| Edalis Energy Inc. | 0.0% | 8 | 62 | 1 | 53 | 7 | 40 | 824 | 8 |
| Aeneid Exploration Inc. | 0.0% | 7 | 63 | - | 55 | 7 | 39 | 678 | 7 |
| Signalta Resources Limited | 98.6% | 6 | 64 | - | 55 | 6 | 42 | 679 | 432 |
| Questerre Energy Corporation | 0.0% | 4 | 65 | - | 55 | 4 | 43 | 372 | 4 |
| Ascent Energy Ltd. | 96.4% | 2 | 66 | - | 55 | 2 | 45 | 211 | 59 |
| Band Energy Resources Ltd. | 60.0% | 2 | 67 | - | 55 | 2 | 46 | 282 | 5 |
| Anterra Energy Inc. | 0.0% | 1 | 68 | - | 55 | 1 | 48 | 564 | 1 |
| Success Resources Ltd. | 100.0% | 1 | 69 | 1 | 52 | - | 54 | 2,361 | 3,607 |
| Optimus Energy Limited | 95.4% | - | 70 | - | 55 | - | 51 | 316 | 7 |
| Luxur Resources Inc. | 0.0% | - | 71 | - | 54 | - | 54 | 65 | - |
| Frontier Energy Inc. | 0.0% | - | 72 | - | 55 | - | 54 | - | - |
| Response Energy Corporation | 100.0% | - | 72 | - | 55 | - | 54 | 138 | 12 |
| Sarg Oils Ltd. | 0.0% | - | 72 | - | 55 | - | 54 | - | - |
| ConocoPhillips Canada Energy Partnership | 0.0% | - | 72 | - | 55 | - | 54 | - | - |
| Incipient Exploration Ltd. | 0.0% | - | 72 | - | 55 | - | 54 | - | - |
| 1288131 Alberta Ltd. | 100.0% | - | 72 | - | 55 | - | 54 | 730 | 341 |
| Canadian Coyote Energy Ltd. | 0.0% | - | 72 | - | 55 | - | 54 | - | - |
| Surge Energy Inc. | 0.0% | - | 72 | - | 55 | - | 54 | - | - |
| Corval Energy Ltd. | 100.0% | - | 72 | - | 55 | - | 54 | 222 | 60 |
| Logic Energy Ltd. | 100.0% | - | 72 | - | 55 | - | 54 | 119 | 93 |
| Ruger Energy Inc. | 0.0% | - | 72 | - | 55 | - | 54 | - | - |
| Canamax Energy Ltd. | 100.0% | - | 72 | - | 55 | - | 54 | 272 | 30 |
| International Frontier Resources Corporation | 100.0% | - | 72 | - | 55 | - | 54 | 1,637 | 65 |
| 1506928 Alberta Ltd. | 100.0% | - | 72 | - | 55 | - | 54 | 835 | 16 |

¹ Caution is required when comparing with last year's report due to corporate mergers, acquisitions, and divestments.

| Company | Gas cons | Gas flared + vented (1000 m³) | Gas flared + vented rank | Gas flared (1000 m³) | Flare rank | Gas vented (1000 m³) | Vent rank | Oil prod (m³) | Sol'n gas prod (1000 m³) |
|--------------------------------|-----------------|---|---|--|-----------------------|--|----------------------|-------------------------------------|--|
| Richbar Energy Ltd. | 0.0% | - | 72 | - | 55 | - | 54 | - | - |
| Whitecap Resources Inc. | 0.0% | - | 72 | - | 55 | - | 54 | - | - |
| Spyglass Resources Corp. | 0.0% | - | 72 | - | 55 | - | 54 | - | - |
| Relentless Resources Ltd. | 100.0% | - | 72 | - | 55 | - | 54 | 3,409 | 1,193 |
| Petrocapita GP I Ltd. | 0.0% | - | 72 | - | 55 | - | 54 | - | - |
| Lightstream Resources Ltd. | 0.0% | - | 72 | - | 55 | - | 54 | - | - |
| Silver Bay Resources Ltd. | 0.0% | - | 72 | - | 55 | - | 54 | - | - |
| Totals for Medicine Hat | 94.4% | 44,635 | | 38,586 | | 6,050 | | 3,367,187 | 791,411 |

¹ Caution is required when comparing with last year's report due to corporate mergers, acquisitions, and divestments.

Field Centre Ranking of Operators – 2016 Flared + Vented Volume¹
Midnapore Crude Oil and Crude Bitumen Batteries for Alberta
Run Date: Apr. 17, 2017

| Company | Gas cons | Gas flared + vented (1000 m³) | Gas flared + vented rank | Gas flared (1000 m³) | Flare rank | Gas vented (1000 m³) | Vent rank | Oil prod (m³) | Sol'n gas prod (1000 m³) |
|------------------------------------|-----------------|---|---|--|-----------------------|--|----------------------|-------------------------------------|--|
| Kainai Energy Corp. | 0.0% | 2,913 | 1 | 2,913 | 1 | - | 53 | 5,155 | 2,913 |
| SanLing Energy Ltd. | 86.5% | 2,265 | 2 | 2,206 | 2 | 59 | 21 | 47,971 | 16,716 |
| Cenovus Energy Inc. | 99.2% | 2,083 | 3 | 43 | 24 | 2,040 | 1 | 322,602 | 249,286 |
| Canadian Natural Resources Limited | 98.3% | 1,645 | 4 | 920 | 7 | 725 | 2 | 228,223 | 95,893 |
| Bearspaw Petroleum Ltd. | 24.6% | 1,517 | 5 | 1,515 | 3 | 2 | 44 | 8,521 | 2,012 |
| TORC Oil & Gas Ltd. | 3.5% | 1,234 | 6 | 1,221 | 4 | 13 | 32 | 5,073 | 1,278 |
| Cuda Energy Inc. | 0.0% | 1,145 | 7 | 1,145 | 5 | - | 53 | 1,867 | 1,146 |
| ORLEN Upstream Canada Ltd. | 88.4% | 1,087 | 8 | 1,085 | 6 | 2 | 45 | 4,943 | 9,356 |
| Crescent Point Energy Corp. | 98.0% | 1,032 | 9 | 846 | 8 | 185 | 7 | 148,496 | 51,058 |
| Manitok Energy Inc. | 99.2% | 797 | 10 | 702 | 9 | 94 | 19 | 56,306 | 97,976 |
| TAQA North Ltd. | 98.8% | 413 | 11 | 4 | 32 | 409 | 3 | 44,007 | 33,647 |
| Long Term Asset Management Inc. | 77.5% | 374 | 12 | 223 | 11 | 151 | 9 | 2,543 | 1,659 |
| Bonavista Energy Corporation | 99.5% | 371 | 13 | 68 | 21 | 303 | 5 | 43,393 | 73,798 |
| Pengrowth Energy Corporation | 99.8% | 352 | 14 | 342 | 10 | 10 | 33 | 98,749 | 158,802 |
| Cortona Energy Ltd. | 75.3% | 331 | 15 | 4 | 33 | 327 | 4 | 16,974 | 1,340 |
| Journey Energy Inc. | 99.3% | 305 | 16 | 114 | 15 | 191 | 6 | 36,946 | 46,681 |
| Bernum Petroleum Ltd. | 30.3% | 220 | 17 | 220 | 12 | - | 53 | 537 | 315 |
| Lexin Resources Ltd. | 97.2% | 206 | 18 | 70 | 20 | 136 | 12 | 4,078 | 7,369 |
| Firenze Energy Ltd. | 76.8% | 196 | 19 | 78 | 19 | 118 | 15 | 17,224 | 845 |
| Husky Oil Operations Limited | 99.6% | 184 | 20 | 141 | 13 | 43 | 24 | 37,360 | 47,690 |
| Tamarack Acquisition Corp. | 97.7% | 154 | 21 | - | 42 | 154 | 8 | 5,223 | 6,743 |
| Kaiser Exploration Ltd. | 0.0% | 148 | 22 | - | 42 | 148 | 10 | 23 | 148 |
| Thoroughbred Energy Ltd. | 15.9% | 146 | 23 | - | 42 | 146 | 11 | 2,836 | 173 |
| Sphere Energy Corp. | 95.2% | 143 | 24 | 17 | 27 | 126 | 13 | 4,803 | 2,955 |
| Ridal Resource Ltd. | 26.6% | 122 | 25 | - | 42 | 122 | 14 | 1,168 | 167 |
| Zargon Oil & Gas Ltd. | 98.8% | 117 | 26 | 117 | 14 | - | 53 | 40,731 | 9,999 |
| Marquee Energy Ltd. | 98.3% | 111 | 27 | 80 | 18 | 31 | 26 | 13,843 | 6,619 |
| Wolf Coulee Resources Inc. | 98.9% | 111 | 28 | 109 | 16 | 3 | 42 | 8,583 | 9,929 |
| Traverse Energy Ltd. | 99.0% | 108 | 29 | 52 | 23 | 57 | 22 | 4,628 | 10,455 |
| Canamax Energy Ltd. | 94.7% | 107 | 30 | 107 | 17 | - | 53 | 1,911 | 2,014 |
| Cardinal Energy Ltd. | 98.1% | 107 | 31 | 1 | 37 | 105 | 16 | 24,547 | 5,672 |
| Blackspur Oil Corp. | 99.4% | 106 | 32 | 8 | 28 | 98 | 18 | 23,058 | 17,448 |
| Triaxon Oil Operations Ltd. | 8.7% | 99 | 33 | - | 42 | 99 | 17 | 755 | 109 |
| Little Rock Resources Ltd. | 98.1% | 86 | 34 | 63 | 22 | 24 | 28 | 15,874 | 4,503 |
| Signalta Resources Limited | 58.6% | 81 | 35 | - | 42 | 81 | 20 | 2,628 | 196 |
| Standard Exploration Ltd. | 53.8% | 53 | 36 | - | 42 | 53 | 23 | 589 | 115 |
| Huron Resources Corp. | 0.5% | 37 | 37 | 37 | 25 | - | 53 | 125 | 37 |
| Silver Blaze Energy Ltd. | 80.1% | 34 | 38 | - | 42 | 34 | 25 | 231 | 169 |
| Houston Oil & Gas Ltd. | 99.3% | 25 | 39 | 2 | 36 | 23 | 30 | 2,489 | 3,449 |
| 545279 Alberta Limited | 0.0% | 25 | 40 | - | 42 | 25 | 27 | 160 | 25 |

¹ Caution is required when comparing with last year's report due to corporate mergers, acquisitions, and divestments.

| Company | Gas cons | Gas flared + vented (1000 m ³) | Gas flared + vented rank | Gas flared (1000 m ³) | Flare rank | Gas vented (1000 m ³) | Vent rank | Oil prod (m ³) | Sol'n gas prod (1000 m ³) |
|---|----------|--|--------------------------------|--------------------------------------|---------------|---|--------------|-------------------------------|---|
| LGX Oil + Gas Inc. | 98.5% | 23 | 41 | - | 42 | 23 | 29 | 449 | 1,534 |
| Surge Energy Inc. | 86.2% | 21 | 42 | 21 | 26 | - | 53 | 1,801 | 152 |
| Wilcox Energy Corp. | 49.6% | 19 | 43 | - | 42 | 19 | 31 | 419 | 39 |
| Questfire Energy Corp. | 99.3% | 10 | 44 | - | 42 | 10 | 34 | 272 | 1,518 |
| Bellatrix Exploration Ltd. | 99.4% | 8 | 45 | 7 | 29 | 1 | 49 | 77 | 1,222 |
| Hard Rock Resources Ltd. | 10.7% | 7 | 46 | - | 42 | 7 | 35 | 509 | 8 |
| Harvest Operations Corp. | 99.9% | 7 | 47 | - | 40 | 6 | 36 | 5,114 | 6,762 |
| Enercapita Energy Ltd. | 0.0% | 5 | 48 | - | 42 | 5 | 37 | 133 | 5 |
| HESC Energy Corporation | 95.7% | 5 | 49 | 5 | 30 | - | 53 | 1,125 | 107 |
| Concerto Resources Ltd. | 49.4% | 4 | 50 | 4 | 31 | - | 53 | 36 | 9 |
| Forent Energy Ltd. | 99.2% | 4 | 51 | - | 42 | 4 | 38 | 1,173 | 492 |
| Coastal Resources Limited | 99.6% | 3 | 52 | - | 42 | 3 | 39 | 846 | 929 |
| Jast Energy Ltd. | 87.2% | 3 | 52 | - | 42 | 3 | 39 | 271 | 26 |
| Indra Oil & Gas Ltd. | 0.0% | 3 | 54 | 3 | 34 | - | 53 | 64 | 3 |
| Edalis Energy Inc. | 99.6% | 3 | 55 | - | 42 | 3 | 41 | 2,025 | 809 |
| TimberRock Energy Corp. | 99.0% | 3 | 56 | - | 41 | 2 | 43 | 726 | 254 |
| Rampart Oil Inc. | 100.0% | 2 | 57 | 2 | 35 | - | 53 | 88,939 | 6,012 |
| Anterra Energy Inc. | 98.4% | 2 | 58 | 1 | 39 | 1 | 47 | 122 | 103 |
| The Locke Stock & Barrel Company Ltd. | 0.0% | 2 | 59 | - | 42 | 2 | 46 | 354 | 2 |
| NEO Exploration Inc. | 0.0% | 1 | 60 | 1 | 38 | - | 53 | 90 | 1 |
| Second Wave Petroleum Inc. | 0.0% | 1 | 61 | - | 42 | 1 | 48 | 62 | 1 |
| Caltex Resources Ltd. | 0.0% | 1 | 62 | - | 42 | 1 | 49 | 167 | 1 |
| Shanpet Resources Ltd. | 0.0% | - | 63 | - | 42 | - | 51 | 944 | - |
| Encana Corporation | 100.0% | - | 64 | - | 42 | - | 52 | 543 | 1,614 |
| 979968 Alberta Ltd. | 100.0% | - | 65 | - | 42 | - | 53 | 1,523 | 1,563 |
| AltaGas Ltd. | 100.0% | - | 65 | - | 42 | - | 53 | 1,043 | 1,967 |
| Baytex Energy Ltd. | 100.0% | - | 65 | - | 42 | - | 53 | 7,803 | 2,210 |
| Penn West Petroleum Ltd. | 0.0% | - | 65 | - | 42 | - | 53 | - | - |
| Rockbridge Energy Alberta Inc. | 100.0% | - | 65 | - | 42 | - | 53 | 89 | 98 |
| Pine Cliff Energy Ltd. | 100.0% | - | 65 | - | 42 | - | 53 | 122 | 592 |
| Lightstream Resources Ltd. | 0.0% | - | 65 | - | 42 | - | 53 | - | - |
| Pocahontas Petroleum Ltd. | 0.0% | - | 65 | - | 42 | - | 53 | - | - |
| Avalon Energy Ltd. | 100.0% | - | 65 | - | 42 | - | 53 | 196 | 215 |
| Corval Energy Ltd. | 100.0% | - | 65 | - | 42 | - | 53 | 1,818 | 317 |
| Topanga Resources Ltd. | 0.0% | - | 65 | - | 42 | - | 53 | - | - |
| Steppe Petroleum Inc. | 100.0% | - | 65 | - | 42 | - | 53 | 154 | 26 |
| ConocoPhillips Canada (BRC) Partnership | 0.0% | - | 65 | - | 42 | - | 53 | - | - |
| Prairie Provident Resources Canada Ltd. | 100.0% | - | 65 | - | 42 | - | 53 | 21,622 | 59,153 |
| Westdrum Energy Ltd. | 100.0% | - | 65 | - | 42 | - | 53 | 241 | 149 |
| Goldenkey Oil Inc. | 0.0% | - | 65 | - | 42 | - | 53 | - | - |

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| Company | Gas cons | Gas flared + vented (1000 m³) | Gas flared + vented rank | Gas flared (1000 m³) | Flare rank | Gas vented (1000 m³) | Vent rank | Oil prod (m³) | Sol'n gas prod (1000 m³) |
|-----------------------------|-----------------|---|---|--|-----------------------|--|----------------------|-------------------------------------|--|
| Rockeast Energy Corp. | 100.0% | - | 65 | - | 42 | - | 53 | 135 | 17 |
| Rolling Hills Energy Ltd. | 0.0% | - | 65 | - | 42 | - | 53 | - | - |
| Logic Energy Ltd. | 100.0% | - | 65 | - | 42 | - | 53 | 6,935 | 7,414 |
| City Of Medicine Hat | 0.0% | - | 65 | - | 42 | - | 53 | - | - |
| Totals for Midnapore | 98.1% | 20,727 | | 14,497 | | 6,228 | | 1,433,115 | 1,076,029 |

¹ Caution is required when comparing with last year's report due to corporate mergers, acquisitions, and divestments.

Field Centre Ranking of Operators – 2016 Flared + Vented Volume¹
Red Deer Crude Oil and Crude Bitumen Batteries for Alberta
Run Date: Apr. 17, 2017

| Company | Gas cons | Gas flared + vented (1000 m³) | Gas flared + vented rank | Gas flared (1000 m³) | Flare rank | Gas vented (1000 m³) | Vent rank | Oil prod (m³) | Sol'n gas prod (1000 m³) |
|---|-----------------|---|---|--|-----------------------|--|----------------------|-------------------------------------|--|
| Bearspaw Petroleum Ltd. | 38.6% | 3,702 | 1 | 3,699 | 1 | 4 | 60 | 39,546 | 6,033 |
| Pengrowth Energy Corporation | 98.7% | 3,701 | 2 | 3,512 | 2 | 189 | 14 | 195,850 | 275,680 |
| Whitecap Resources Inc. | 99.2% | 2,283 | 3 | 1,875 | 4 | 408 | 6 | 444,444 | 291,372 |
| Apache Canada Ltd. | 97.1% | 2,136 | 4 | 2,093 | 3 | 43 | 34 | 23,560 | 73,227 |
| CQ Energy Canada Resources Partnership | 93.0% | 1,573 | 5 | 1,328 | 5 | 245 | 13 | 85,789 | 22,418 |
| Crescent Point Energy Corp. | 81.0% | 1,118 | 6 | 1,113 | 6 | 5 | 57 | 12,280 | 5,868 |
| NAL Resources Limited | 99.3% | 1,076 | 7 | 623 | 10 | 452 | 3 | 140,992 | 156,021 |
| TAQA North Ltd. | 99.2% | 1,044 | 8 | 582 | 11 | 462 | 2 | 129,336 | 129,611 |
| Mancal Energy Inc. | 1.0% | 922 | 9 | 907 | 7 | 14 | 44 | 14,131 | 931 |
| Canadian Natural Resources Limited | 99.6% | 897 | 10 | 725 | 8 | 172 | 15 | 125,138 | 223,561 |
| Bellatrix Exploration Ltd. | 99.7% | 852 | 11 | 435 | 14 | 418 | 5 | 78,304 | 323,378 |
| ExxonMobil Canada Energy | 99.2% | 692 | 12 | 641 | 9 | 51 | 32 | 86,155 | 84,812 |
| Quattro Exploration and Production Ltd. | 81.3% | 551 | 13 | 551 | 12 | - | 74 | 6,633 | 2,938 |
| ConocoPhillips Western Canada Partnership | 99.5% | 522 | 14 | 491 | 13 | 31 | 37 | 110,355 | 104,566 |
| Vesta Energy Ltd. | 95.6% | 522 | 15 | 411 | 15 | 111 | 21 | 66,030 | 11,781 |
| Bonavista Energy Corporation | 99.3% | 509 | 16 | 168 | 24 | 341 | 9 | 36,988 | 75,574 |
| Surge Energy Inc. | 97.5% | 491 | 17 | 25 | 46 | 465 | 1 | 18,658 | 19,736 |
| Husky Oil Operations Limited | 99.1% | 489 | 18 | 84 | 31 | 405 | 7 | 50,828 | 54,705 |
| Ember Resources Inc. | 83.7% | 465 | 19 | 20 | 48 | 445 | 4 | 13,416 | 2,855 |
| Yangarra Resources Corp. | 99.4% | 453 | 20 | 323 | 16 | 131 | 18 | 43,717 | 76,826 |
| Penn West Petroleum Ltd. | 99.8% | 381 | 21 | 299 | 17 | 82 | 24 | 261,437 | 198,940 |
| Anderson Energy Inc. | 99.2% | 355 | 22 | 4 | 58 | 351 | 8 | 33,134 | 44,758 |
| Prairie Storm Energy Corp. | 99.4% | 335 | 23 | 77 | 33 | 258 | 12 | 31,916 | 55,525 |
| Tamarack Acquisition Corp. | 98.5% | 331 | 24 | 21 | 47 | 310 | 11 | 33,062 | 21,632 |
| Entrada Resources Inc. | 99.0% | 325 | 25 | - | 63 | 325 | 10 | 29,884 | 34,025 |
| Grandview Exploration Inc. | 54.0% | 317 | 26 | 292 | 18 | 25 | 41 | 4,261 | 688 |
| Signalta Resources Limited | 85.7% | 313 | 27 | 196 | 22 | 117 | 20 | 2,598 | 2,182 |
| Canadian Oil & Gas International Inc. | 96.5% | 282 | 28 | 222 | 20 | 60 | 28 | 27,691 | 8,015 |
| Hard Rock Resources Ltd. | 1.5% | 281 | 29 | 269 | 19 | 11 | 49 | 1,183 | 285 |
| Omers Energy Inc. | 99.9% | 269 | 30 | 143 | 28 | 126 | 19 | 41,152 | 221,494 |
| Eagle Energy Inc. | 98.7% | 220 | 31 | 147 | 26 | 73 | 25 | 25,371 | 17,290 |
| Relentless Resources Ltd. | 80.9% | 207 | 32 | 207 | 21 | - | 74 | 1,164 | 1,085 |
| Enhance Energy Inc. | 98.5% | 172 | 33 | 172 | 23 | - | 74 | 42,860 | 11,126 |
| Sitka Exploration Ltd. | 99.6% | 154 | 34 | - | 59 | 154 | 16 | 33,991 | 40,024 |
| Triaxon Oil Operations Ltd. | 98.8% | 151 | 35 | 105 | 29 | 47 | 33 | 31,794 | 12,613 |
| Shackleton Exploration Ltd. | 75.3% | 148 | 36 | 147 | 25 | 1 | 70 | 736 | 599 |
| Harvest Operations Corp. | 99.6% | 144 | 37 | - | 63 | 144 | 17 | 17,478 | 38,229 |
| Alexander Oilfield Services Ltd. | 66.3% | 143 | 38 | 143 | 27 | - | 74 | 936 | 424 |
| Craft Oil Inc. | 99.9% | 111 | 39 | 80 | 32 | 31 | 36 | 18,344 | 84,520 |
| Bonterra Energy Corp. | 99.5% | 107 | 40 | 46 | 38 | 61 | 27 | 3,248 | 23,017 |

¹ Caution is required when comparing with last year's report due to corporate mergers, acquisitions, and divestments.

| Company | Gas cons | Gas flared + vented (1000 m ³) | Gas flared + vented rank | Gas flared (1000 m ³) | Flare rank | Gas vented (1000 m ³) | Vent rank | Oil prod (m ³) | Sol'n gas prod (1000 m ³) |
|--|----------|--|--------------------------------|--------------------------------------|---------------|---|--------------|-------------------------------|---|
| Questfire Energy Corp. | 99.5% | 105 | 41 | 102 | 30 | 3 | 61 | 8,157 | 20,616 |
| Lightstream Resources Ltd. | 99.5% | 95 | 42 | - | 63 | 95 | 22 | 5,782 | 20,391 |
| Forge Oil & Gas Limited | 32.7% | 91 | 43 | - | 63 | 91 | 23 | 1,055 | 136 |
| Manitok Energy Inc. | 99.8% | 91 | 44 | 32 | 44 | 59 | 29 | 73,894 | 58,933 |
| ConocoPhillips Canada Energy Partnership | 99.6% | 70 | 45 | 65 | 34 | 4 | 59 | 27,881 | 17,773 |
| Waldron Energy Corporation | 98.2% | 69 | 46 | 58 | 36 | 12 | 48 | 4,357 | 3,827 |
| Velvet Energy Ltd. | 96.5% | 69 | 47 | - | 63 | 69 | 26 | 1,720 | 1,994 |
| Westdrum Energy Ltd. | 84.7% | 67 | 48 | 9 | 52 | 58 | 31 | 849 | 439 |
| Baccalieu Energy Inc. | 99.8% | 64 | 49 | 5 | 57 | 59 | 30 | 14,865 | 25,645 |
| Firenze Energy Ltd. | 97.2% | 58 | 50 | 58 | 35 | - | 74 | 2,553 | 2,061 |
| Clearbrook Resources Inc. | 99.0% | 57 | 51 | 54 | 37 | 2 | 63 | 13,466 | 5,566 |
| Artis Exploration Ltd. | 88.4% | 44 | 52 | 44 | 39 | - | 74 | 7,305 | 381 |
| Huron Resources Corp. | 0.7% | 44 | 53 | 44 | 40 | - | 74 | 196 | 44 |
| Shale Petroleum Ltd. | 90.5% | 42 | 54 | 42 | 41 | - | 74 | 536 | 446 |
| Gamet Resources Ltd. | 58.8% | 35 | 55 | 35 | 42 | - | 73 | 515 | 84 |
| Golden Spike Energy Inc. | 34.3% | 33 | 56 | - | 63 | 33 | 35 | 312 | 51 |
| South Ridge Management Ltd. | 0.0% | 33 | 57 | 33 | 43 | - | 74 | 212 | 33 |
| Regent Resources Ltd. | 97.8% | 27 | 58 | 27 | 45 | - | 74 | 1,191 | 1,243 |
| TimberRock Energy Corp. | 60.8% | 27 | 59 | - | 63 | 27 | 38 | 107 | 68 |
| Gear Energy Ltd. | 99.4% | 26 | 60 | 15 | 50 | 11 | 50 | 16,171 | 4,654 |
| ORLEN Upstream Canada Ltd. | 100.0% | 26 | 61 | - | 63 | 26 | 39 | 25,087 | 81,194 |
| Pine Cliff Energy Ltd. | 99.5% | 26 | 62 | - | 63 | 26 | 40 | 2,699 | 5,347 |
| Paramount Resources Ltd. | 99.7% | 20 | 63 | 20 | 49 | - | 74 | 7,761 | 6,299 |
| ConocoPhillips Canada (BRC) Partnership | 99.9% | 19 | 64 | 5 | 56 | 14 | 45 | 9,615 | 32,667 |
| Vermilion Energy Inc. | 98.8% | 19 | 65 | - | 63 | 19 | 42 | 1,069 | 1,572 |
| Sogar Resources Ltd. | 99.0% | 19 | 66 | - | 63 | 19 | 43 | 771 | 1,959 |
| Forent Energy Ltd. | 98.7% | 18 | 67 | 7 | 53 | 10 | 52 | 3,036 | 1,357 |
| Baytex Energy Ltd. | 99.4% | 13 | 68 | - | 63 | 13 | 46 | 2,836 | 2,054 |
| Enerplus Corporation | 99.4% | 12 | 69 | - | 63 | 12 | 47 | 2,042 | 2,169 |
| Journey Energy Inc. | 99.9% | 10 | 70 | - | 63 | 10 | 51 | 12,253 | 8,023 |
| C Group Energy Inc. | 99.4% | 10 | 71 | - | 63 | 10 | 53 | 1,380 | 1,706 |
| Predator Oil Ltd. | 0.0% | 10 | 72 | - | 61 | 10 | 54 | 683 | 10 |
| Rally Canada Resources Ltd. | 99.9% | 10 | 73 | 10 | 51 | - | 74 | 24,492 | 8,713 |
| Tykewest Limited | 89.8% | 9 | 74 | - | 63 | 9 | 55 | 403 | 89 |
| Long Run Exploration Ltd. | 99.6% | 7 | 75 | - | 63 | 7 | 56 | 1,151 | 1,726 |
| Summerland Energy Inc. | 99.8% | 7 | 76 | 7 | 54 | - | 74 | 6,530 | 3,730 |
| Striker Exploration Corp. | 96.3% | 6 | 77 | 6 | 55 | - | 74 | 595 | 158 |
| Scollard Energy Ltd. | 100.0% | 4 | 78 | - | 63 | 4 | 58 | 3,579 | 12,402 |
| Tri-Ment Corporation Ltd. | 37.8% | 3 | 79 | - | 63 | 3 | 62 | 20 | 5 |
| Silver Blaze Energy Ltd. | 61.8% | 2 | 80 | - | 63 | 2 | 64 | 17 | 6 |
| Raging River Exploration Inc. | 99.9% | 2 | 81 | - | 63 | 2 | 65 | 685 | 2,353 |
| Point Loma Resources Ltd. | 99.0% | 2 | 82 | - | 63 | 2 | 66 | 206 | 165 |
| Arrow Point Oil & Gas Ltd. | 99.1% | 1 | 83 | - | 63 | 1 | 67 | 361 | 149 |
| New North Resources Ltd. | 99.8% | 1 | 84 | - | 63 | 1 | 68 | 503 | 489 |
| Sun Century Petroleum Corporation | 96.6% | 1 | 85 | - | 63 | 1 | 69 | 317 | 21 |

¹ Caution is required when comparing with last year's report due to corporate mergers, acquisitions, and divestments.

| Company | Gas cons | Gas flared + vented (1000 m ³) | Gas flared + vented rank | Gas flared (1000 m ³) | Flare rank | Gas vented (1000 m ³) | Vent rank | Oil prod (m ³) | Sol'n gas prod (1000 m ³) |
|-------------------------------------|--------------|--|--------------------------------|--------------------------------------|---------------|---|--------------|-------------------------------|---|
| Trident Exploration (Alberta) Corp. | 100.0% | - | 86 | - | 63 | - | 71 | 1,243 | 1,964 |
| Milen's Oilfield Enterprises Ltd. | 100.0% | - | 87 | - | 63 | - | 72 | 78 | 2,501 |
| Coastal Resources Limited | 98.4% | - | 88 | - | 60 | - | 74 | 458 | 13 |
| Terra Energy Corp. | 0.0% | - | 89 | - | 61 | - | 74 | 31 | - |
| Canstone Energy Ltd. | 100.0% | - | 90 | - | 63 | - | 74 | 1 | 268 |
| Redwater Energy Corp. | 0.0% | - | 90 | - | 63 | - | 74 | - | - |
| Arsenal Energy Inc. | 100.0% | - | 90 | - | 63 | - | 74 | 334 | 363 |
| Petromin Resources Ltd. | 0.0% | - | 90 | - | 63 | - | 74 | - | - |
| Logic Energy Ltd. | 100.0% | - | 90 | - | 63 | - | 74 | 4,539 | 766 |
| Bashaw Oil Corp. | 100.0% | - | 90 | - | 63 | - | 74 | 822 | 192 |
| Response Energy Corporation | 0.0% | - | 90 | - | 63 | - | 74 | - | - |
| Tanager Energy Inc. | 0.0% | - | 90 | - | 63 | - | 74 | - | - |
| RMP Energy Inc. | 100.0% | - | 90 | - | 63 | - | 74 | 294 | 1,293 |
| TORC Oil & Gas Ltd. | 0.0% | - | 90 | - | 63 | - | 74 | - | - |
| Rockbridge Energy Alberta Inc. | 100.0% | - | 90 | - | 63 | - | 74 | 53 | 1 |
| Plains Environmental Inc. | 0.0% | - | 90 | - | 63 | - | 74 | - | - |
| Freehold Royalties Ltd. | 0.0% | - | 90 | - | 63 | - | 74 | - | - |
| Canyon Oil & Gas Corporation | 100.0% | - | 90 | - | 63 | - | 74 | 69 | 556 |
| Camino Industries Inc. | 100.0% | - | 90 | - | 63 | - | 74 | 22 | 13 |
| Kaiser Exploration Ltd. | 100.0% | - | 90 | - | 63 | - | 74 | 169 | 372 |
| Superman Resources Inc. | 100.0% | - | 90 | - | 63 | - | 74 | 1 | 54 |
| Butte Energy Inc. | 0.0% | - | 90 | - | 63 | - | 74 | - | - |
| Owl River Resources Ltd. | 100.0% | - | 90 | - | 63 | - | 74 | 213 | 668 |
| Shanpet Resources Ltd. | 0.0% | - | 90 | - | 63 | - | 74 | 144 | - |
| Gulf Canada Limited | 0.0% | - | 90 | - | 63 | - | 74 | - | - |
| Marquee Energy Ltd. | 100.0% | - | 90 | - | 63 | - | 74 | 643 | 658 |
| Artisan Energy Corporation | 100.0% | - | 90 | - | 63 | - | 74 | 52 | 4 |
| Mato Inc. | 100.0% | - | 90 | - | 63 | - | 74 | 412 | 1,223 |
| Caltex Resources Ltd. | 100.0% | - | 90 | - | 63 | - | 74 | 1,099 | 1,221 |
| ZNX Energy Ltd. | 100.0% | - | 90 | - | 63 | - | 74 | 1,813 | 2,055 |
| Corse Energy Corp. | 100.0% | - | 90 | - | 63 | - | 74 | 438 | 949 |
| Gibson Energy ULC | 0.0% | - | 90 | - | 63 | - | 74 | - | - |
| Ferrybank Resources Ltd. | 100.0% | - | 90 | - | 63 | - | 74 | 1,132 | 725 |
| Glencoe Resources Ltd. | 100.0% | - | 90 | - | 63 | - | 74 | 9 | 375 |
| Incipient Exploration Ltd. | 0.0% | - | 90 | - | 63 | - | 74 | - | - |
| Spry2 Energy Inc. | 100.0% | - | 90 | - | 63 | - | 74 | 654 | 1,714 |
| Just Freehold Energy Corp. | 100.0% | - | 90 | - | 63 | - | 74 | 1,112 | 925 |
| Canadian Coyote Energy Ltd. | 0.0% | - | 90 | - | 63 | - | 74 | 5 | - |
| Wolf Coulee Resources Inc. | 0.0% | - | 90 | - | 63 | - | 74 | - | - |
| Nytis Exploration Company Inc. | 100.0% | - | 90 | - | 63 | - | 74 | 176 | 45 |
| KinMerc Oil & Gas Inc. | 100.0% | - | 90 | - | 63 | - | 74 | 279 | 1 |
| Goldenkey Oil Inc. | 100.0% | - | 90 | - | 63 | - | 74 | 3,034 | 2,986 |
| Mosaic Energy Ltd. | 100.0% | - | 90 | - | 63 | - | 74 | 1,299 | 1,558 |
| Totals for Red Deer | 99.0% | 30,148 | | 22,854 | | 7,292 | | 2,674,233 | 3,120,575 |

¹ Caution is required when comparing with last year's report due to corporate mergers, acquisitions, and divestments.

Field Centre Ranking of Operators – 2016 Flared + Vented Volume¹
Wainwright Crude Oil and Crude Bitumen Batteries for Alberta
Run Date: Apr. 17, 2017

| Company | Gas cons | Gas flared + vented (1000 m³) | Gas flared + vented rank | Gas flared (1000 m³) | Flare rank | Gas vented (1000 m³) | Vent rank | Oil prod (m³) | Sol'n gas prod (1000 m³) |
|---|-----------------|---|---|--|-----------------------|--|----------------------|-------------------------------------|--|
| Husky Oil Operations Limited | 63.3% | 34,952 | 1 | 1,892 | 5 | 33,060 | 1 | 1,086,524 | 95,332 |
| Canadian Natural Resources Limited | 83.2% | 9,722 | 2 | 35 | 35 | 9,686 | 2 | 250,674 | 57,961 |
| Twin Butte Energy Ltd. | 86.1% | 7,713 | 3 | 5,809 | 1 | 1,904 | 7 | 416,752 | 55,431 |
| Gear Energy Ltd. | 78.7% | 7,059 | 4 | - | 50 | 7,059 | 3 | 172,124 | 33,173 |
| Cardinal Energy Ltd. | 65.3% | 6,533 | 5 | 1,484 | 9 | 5,049 | 5 | 325,768 | 18,833 |
| Devon Canada | 73.8% | 6,272 | 6 | - | 50 | 6,272 | 4 | 146,369 | 23,935 |
| Repsol Oil & Gas Canada Inc. | 81.8% | 5,327 | 7 | 2,879 | 2 | 2,449 | 6 | 528,810 | 29,192 |
| Apache Canada Ltd. | 92.8% | 4,003 | 8 | 2,313 | 3 | 1,690 | 8 | 157,769 | 55,913 |
| Toro Oil & Gas Ltd. | 68.4% | 2,319 | 9 | 2,019 | 4 | 300 | 20 | 21,794 | 7,346 |
| Crescent Point Energy Corp. | 94.7% | 1,819 | 10 | 1,665 | 7 | 154 | 29 | 113,053 | 34,310 |
| Rifle Shot Oil Corp. | 1.8% | 1,794 | 11 | 1,794 | 6 | - | 69 | 31,267 | 1,827 |
| Cleo Energy Corp. | 74.8% | 1,572 | 12 | 1,509 | 8 | 63 | 36 | 63,039 | 6,227 |
| Harvest Operations Corp. | 94.7% | 1,500 | 13 | 925 | 12 | 575 | 12 | 177,516 | 28,369 |
| Surge Energy Inc. | 93.0% | 1,167 | 14 | 1,101 | 10 | 66 | 35 | 167,578 | 16,570 |
| Long Run Exploration Ltd. | 72.2% | 1,075 | 15 | 605 | 15 | 471 | 14 | 9,138 | 3,862 |
| Deltastream Energy Corporation | 62.6% | 1,053 | 16 | 246 | 27 | 808 | 10 | 21,953 | 2,814 |
| Caltex Resources Ltd. | 91.9% | 984 | 17 | 597 | 16 | 387 | 17 | 126,861 | 12,071 |
| Novus Energy Inc. | 87.2% | 936 | 18 | 928 | 11 | 8 | 51 | 4,339 | 7,328 |
| Spur Resources Ltd. | 97.3% | 912 | 19 | 333 | 21 | 580 | 11 | 72,944 | 34,336 |
| Perpetual Operating Corp. | 95.4% | 908 | 20 | - | 50 | 908 | 9 | 61,176 | 19,601 |
| Raging River Exploration Inc. | 76.1% | 870 | 21 | 670 | 14 | 200 | 26 | 6,086 | 3,640 |
| Arsenal Energy Inc. | 60.7% | 772 | 22 | 758 | 13 | 14 | 49 | 24,851 | 1,967 |
| Karve Energy Inc. | 84.1% | 722 | 23 | 378 | 19 | 344 | 18 | 23,665 | 4,550 |
| Verity Energy Ltd. | 0.0% | 553 | 24 | 553 | 17 | - | 69 | 846 | 553 |
| Fort Calgary Resources Ltd. | 73.1% | 533 | 25 | 127 | 30 | 406 | 16 | 6,973 | 1,982 |
| Bow River Energy Ltd. | 40.5% | 521 | 26 | 521 | 18 | - | 69 | 20,533 | 876 |
| Petrocapita GP I Ltd. | 67.3% | 477 | 27 | - | 50 | 477 | 13 | 14,094 | 1,456 |
| Goldenkey Oil Inc. | 34.7% | 462 | 28 | 339 | 20 | 123 | 31 | 817 | 709 |
| Prairie Provident Resources Canada Ltd. | 82.3% | 429 | 29 | - | 50 | 429 | 15 | 6,197 | 2,424 |
| Rolling Hills Energy Ltd. | 97.8% | 392 | 30 | 265 | 23 | 127 | 30 | 20,475 | 17,507 |
| Penn West Petroleum Ltd. | 93.9% | 358 | 31 | 265 | 24 | 93 | 33 | 9,686 | 5,853 |
| Crew Energy Inc. | 92.1% | 349 | 32 | 16 | 40 | 333 | 19 | 63,230 | 4,418 |
| SanLing Energy Ltd. | 94.7% | 346 | 33 | 309 | 22 | 37 | 42 | 11,673 | 6,583 |
| Bering Exploration Company ULC | 89.4% | 288 | 34 | 264 | 25 | 24 | 45 | 18,578 | 2,724 |
| Taku Gas Limited | 42.7% | 281 | 35 | 2 | 48 | 279 | 21 | 4,124 | 491 |
| Rockeast Energy Corp. | 14.8% | 246 | 36 | 246 | 26 | - | 69 | 34,141 | 289 |
| Ener T Corporation | 0.0% | 242 | 37 | 1 | 49 | 241 | 22 | 4,950 | 242 |
| Canuck North Resources Ltd. | 0.0% | 241 | 38 | - | 50 | 241 | 23 | 1,175 | 241 |
| Dark Warrior Resources Ltd. | 0.0% | 209 | 39 | - | 50 | 209 | 24 | 2,738 | 209 |
| Aeraden Energy Corp. | 65.9% | 205 | 40 | - | 50 | 205 | 25 | 7,955 | 600 |

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| Company | Gas cons | Gas flared + vented (1000 m ³) | Gas flared + vented rank | Gas flared (1000 m ³) | Flare rank | Gas vented (1000 m ³) | Vent rank | Oil prod (m ³) | Sol'n gas prod (1000 m ³) |
|---------------------------------------|----------|--|--------------------------------|--------------------------------------|---------------|---|--------------|-------------------------------|---|
| Pismo Energy Ltd. | 88.3% | 177 | 41 | - | 50 | 177 | 27 | 20,901 | 1,507 |
| Copper Island Resources Ltd. | 89.9% | 176 | 42 | 13 | 41 | 164 | 28 | 2,203 | 1,744 |
| Westdrum Energy Ltd. | 29.3% | 166 | 43 | 158 | 28 | 8 | 50 | 537 | 235 |
| Enerplus Corporation | 97.1% | 143 | 44 | 114 | 31 | 29 | 44 | 135,096 | 4,876 |
| Rally Canada Resources Ltd. | 72.1% | 138 | 45 | 138 | 29 | - | 69 | 2,775 | 495 |
| Top Oil Production Ltd. | 89.3% | 121 | 46 | - | 50 | 121 | 32 | 3,357 | 1,124 |
| Venturion Oil Limited | 95.7% | 120 | 47 | 58 | 33 | 62 | 37 | 152,838 | 2,808 |
| Topanga Resources Ltd. | 60.4% | 85 | 48 | 3 | 47 | 81 | 34 | 3,718 | 214 |
| Hawk Exploration Ltd. | 95.6% | 64 | 49 | 64 | 32 | - | 69 | 10,043 | 1,445 |
| High Ground Energy Inc. | 99.6% | 63 | 50 | 6 | 46 | 57 | 39 | 17,239 | 14,579 |
| Kairos Resources (2011) Ltd. | 25.4% | 58 | 51 | - | 50 | 58 | 38 | 481 | 78 |
| Response Energy Corporation | 61.6% | 50 | 52 | - | 50 | 50 | 40 | 1,906 | 130 |
| Zeal Energy Inc. | 94.6% | 48 | 53 | - | 50 | 48 | 41 | 8,737 | 880 |
| Elcano Exploration Inc. | 0.0% | 42 | 54 | 42 | 34 | - | 69 | 888 | 42 |
| Forent Energy Ltd. | 25.0% | 41 | 55 | 23 | 39 | 18 | 47 | 1,999 | 55 |
| RON Resources Ltd. | 71.4% | 35 | 56 | 35 | 36 | - | 66 | 149 | 123 |
| Zargon Oil & Gas Ltd. | 98.6% | 35 | 57 | 34 | 37 | 1 | 64 | 25,763 | 2,519 |
| Barcomp Petroleum Ltd. | 0.0% | 33 | 58 | - | 50 | 33 | 43 | 6,407 | 33 |
| Altura Energy Inc. | 99.6% | 31 | 59 | 26 | 38 | 6 | 54 | 30,657 | 7,363 |
| 611890 Alberta Inc. | 0.0% | 23 | 60 | - | 50 | 23 | 46 | 2,526 | 23 |
| Croverro Energy Ltd. | 0.0% | 16 | 61 | - | 50 | 16 | 48 | 681 | 16 |
| Canadian Oil & Gas International Inc. | 0.0% | 13 | 62 | 13 | 41 | - | 69 | 280 | 13 |
| Broadview Energy Ltd. | 99.8% | 12 | 63 | 12 | 43 | - | 69 | 17,497 | 5,107 |
| Rife Resources Ltd. | 99.5% | 11 | 64 | 9 | 44 | 2 | 59 | 29,061 | 2,136 |
| Jast Energy Ltd. | 80.2% | 8 | 65 | 8 | 45 | - | 69 | 1,462 | 38 |
| Omers Energy Inc. | 99.7% | 7 | 66 | - | 50 | 7 | 52 | 766 | 2,354 |
| Brahma Resources Ltd. | 94.4% | 7 | 67 | - | 50 | 7 | 53 | 1,280 | 118 |
| Pennine Petroleum Corporation | 98.1% | 4 | 68 | - | 50 | 4 | 55 | 544 | 232 |
| Wildcat Rentals Ltd. | 92.7% | 4 | 69 | - | 50 | 4 | 56 | 1,329 | 49 |
| Five O Oil & Gas Ltd. | 77.6% | 2 | 70 | - | 50 | 2 | 57 | 117 | 10 |
| Tuscany Energy Ltd. | 0.0% | 2 | 71 | - | 50 | 2 | 58 | 545 | 2 |
| Roswell Petroleum Corporation | 0.0% | 2 | 72 | - | 50 | 2 | 60 | 316 | 2 |
| TAQA North Ltd. | 99.2% | 1 | 73 | - | 50 | 1 | 61 | 2,808 | 175 |
| Canstone Energy Ltd. | 93.9% | 1 | 73 | - | 50 | 1 | 61 | 255 | 23 |
| Sun Century Petroleum Corporation | 99.8% | 1 | 75 | - | 50 | 1 | 63 | 7,139 | 554 |
| Signa Oilfield Canada Inc. | 0.0% | 1 | 76 | - | 50 | 1 | 65 | 160 | 1 |
| Innes Oilfield Services Ltd. | 0.0% | - | 77 | - | 50 | - | 67 | 88 | - |
| Sahara Energy Ltd. | 0.0% | - | 78 | - | 50 | - | 68 | 37 | - |
| Unit 18 Corp. | 100.0% | - | 79 | - | 50 | - | 69 | 12,004 | 245 |
| Questfire Energy Corp. | 0.0% | - | 79 | - | 50 | - | 69 | - | - |
| Goodland Energy Ltd. | 0.0% | - | 79 | - | 50 | - | 69 | 20 | - |
| Predator Oil Ltd. | 0.0% | - | 79 | - | 50 | - | 69 | - | - |
| Mooncor Energy Inc. | 0.0% | - | 79 | - | 50 | - | 69 | - | - |
| Baytex Energy Ltd. | 100.0% | - | 79 | - | 50 | - | 69 | 2,134 | 36 |
| Grand Rapids Petroleum Ltd. | 0.0% | - | 79 | - | 50 | - | 69 | - | - |

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| Company | Gas cons | Gas flared + vented (1000 m ³) | Gas flared + vented rank | Gas flared (1000 m ³) | Flare rank | Gas vented (1000 m ³) | Vent rank | Oil prod (m ³) | Sol'n gas prod (1000 m ³) |
|---------------------------------|--------------|--|--------------------------------|--------------------------------------|---------------|---|--------------|-------------------------------|---|
| Capital Oil Ltd. | 0.0% | - | 79 | - | 50 | - | 69 | - | - |
| Sequoia Resources Corp. | 0.0% | - | 79 | - | 50 | - | 69 | - | - |
| Big Lake Energy Ltd. | 0.0% | - | 79 | - | 50 | - | 69 | - | - |
| Enercapita Energy Ltd. | 0.0% | - | 79 | - | 50 | - | 69 | - | - |
| Marquee Energy Ltd. | 0.0% | - | 79 | - | 50 | - | 69 | - | - |
| Incipient Exploration Ltd. | 0.0% | - | 79 | - | 50 | - | 69 | - | - |
| Northern Utilities (sask.) Ltd. | 100.0% | - | 79 | - | 50 | - | 69 | 162 | 1 |
| Spry2 Energy Inc. | 100.0% | - | 79 | - | 50 | - | 69 | 5,324 | 8,892 |
| Canadian Coyote Energy Ltd. | 100.0% | - | 79 | - | 50 | - | 69 | - | 12 |
| Kasten Energy Inc. | 100.0% | - | 79 | - | 50 | - | 69 | 1,083 | 197 |
| Gunnarr Resources Inc. | 100.0% | - | 79 | - | 50 | - | 69 | 842 | 25 |
| Redwater Energy Corp. | 0.0% | - | 79 | - | 50 | - | 69 | - | - |
| Vital Energy Inc. | 100.0% | - | 79 | - | 50 | - | 69 | 1,090 | 3 |
| Waldron Energy Corporation | 100.0% | - | 79 | - | 50 | - | 69 | 22 | 8 |
| Wescan Energy Corp. | 100.0% | - | 79 | - | 50 | - | 69 | 5,122 | 1,725 |
| Palliser Oil & Gas Corporation | 0.0% | - | 79 | - | 50 | - | 69 | - | - |
| 1316751 Alberta Ltd. | 0.0% | - | 79 | - | 50 | - | 69 | - | - |
| Pengrowth Energy Corporation | 0.0% | - | 79 | - | 50 | - | 69 | - | - |
| Tamarack Acquisition Corp. | 0.0% | - | 79 | - | 50 | - | 69 | - | - |
| InPlay Oil Corp. | 100.0% | - | 79 | - | 50 | - | 69 | 3,765 | 2,711 |
| Sojourn Energy Inc. | 0.0% | - | 79 | - | 50 | - | 69 | - | - |
| Totals for Wainwright | 83.8% | 107,857 | | 31,604 | | 76,257 | | 4,762,388 | 666,703 |

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