SUPPLEMENTAL UNAUDITED DISCLOSURES
ABOUT OIL AND GAS PRODUCING ACTIVITIES REQUIRED UNDER UNITED STATES GENERALLY ACCEPTED ACCOUNTING PRINCIPLES

SUPPLEMENTAL INFORMATION — OIL AND GAS PRODUCING ACTIVITIES (unaudited)

The following are supplementary oil and gas disclosures required as a result of Pengrowth Energy Corporation ("**Pengrowth**") being an SEC registrant. All amounts pertain to Pengrowth's audited annual consolidated financial statements prepared in accordance with International Financial Reporting Standards ("**IFRS**"). All amounts are in millions of Canadian dollars unless otherwise noted.

OIL AND GAS RESERVES

Users of this information should be aware that the process of estimating quantities of "proved" and "proved developed" crude oil and natural gas reserves is very complex, requiring significant subjective decisions in the evaluation of all available geological, engineering and economic data for each reservoir. The data for a given reservoir may also change substantially over time as a result of numerous factors including, but not limited to, additional development activity, evolving production history, and continual reassessment of the viability of production under varying economic conditions. Consequently, material revisions to existing reserve estimates occur from time to time. Although every reasonable effort is made to ensure that reserve estimates reported represent the most accurate assessments possible, the significance of the subjective decisions required and variances in available data for various reservoirs make these estimates generally less precise than other estimates presented in connection with financial statement disclosures.

Proved oil and gas reserves are those quantities of oil and gas, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible from a given date forward, from known reservoirs, and under existing economic conditions, operating methods and government regulations.

Proved developed oil and gas reserves are reserves that can be expected to be recovered through existing wells with existing equipment and operating methods.

Canadian provincial royalties are determined based on a graduated percentage scale which varies with prices and production volumes. Canadian reserves, as presented on a net basis, assume royalty rates in existence at the time the estimates were made, Pengrowth's estimated future production volumes and SEC Modernization of Oil and Gas Reporting rules, using the average of the first-day-of-the-month prices for the prior 12 month period. This same 12 month average price is also used in calculating the aggregate amount of (and changes in) future cash inflows related to the standardized measure of discounted future net cash flows. The unaudited supplemental information on oil and gas exploration and production activities for 2018 and 2017 has been presented in accordance with the SEC Modernization of Oil and Gas Reporting reserve estimation and disclosure rules. Future fluctuations in prices, production rates, or changes in political or regulatory environments could cause Pengrowth's share of future production from Canadian reserves to be materially different from that presented.

Subsequent to December 31, 2018, no major discovery or other favorable or adverse event is believed to have caused a material change in the estimates of proved or proved developed reserves as of that date.

RESULTS OF OPERATIONS

(millions of dollars)		2018		2017
Oil and gas sales to external customers, net of royalties	$	515.2	$	627.6
Oil and gas sales used in internal operations		(7.2)		—
		508.0		627.6
Less:				
Operating costs, diluent and other purchases, and transportation		(331.7)		(408.1)
Depreciation, depletion, amortization and accretion		(169.3)		(219.0)
Impairment		(91.0)		(634.4)
Results of operations	$	(84.0)	$	(633.9)

COSTS INCURRED IN OIL AND GAS PROPERTY ACQUISITION, EXPLORATION AND DEVELOPMENT ACTIVITIES

Costs incurred in oil and gas producing activities for the years ended December 31 are as follows:

(millions of dollars)		2018		2017
Property acquisition costs				
- Proved	$	0.2	$	0.1
- Unproved		—		—
Exploration costs		(0.2)		(0.3)
Development costs		88.1		(289.9)
	$	88.1	$	(290.1)

Acquisition costs include costs incurred to purchase, lease, or otherwise acquire oil and gas properties.

Development and exploration costs include the costs for drilling and equipping development and exploratory wells, constructing facilities to extract, treat, gather and store oil and gas, and land rights purchases. These costs also include capitalized amounts associated with asset retirement obligations and capitalized interest.

Pengrowth capitalizes a portion of general and administrative costs associated with exploration and development activities.

Approximately $70.9 million (2017 – $237.8 million) of capitalized costs to acquire and evaluate unproven and development properties has been excluded from depletion.

CAPITALIZED COSTS RELATING TO OIL AND GAS PRODUCING ACTIVITIES

The capitalized costs and related accumulated depreciation, depletion and amortization, including impairments, relating to Pengrowth's oil and gas exploration, development and producing activities at December 31 consist of:

(millions of dollars)	**2018**	**2017**
Cost or deemed cost	$ 3,965.1	$ 3,817.7
Less: Accumulated depletion, amortization and impairment losses	(2,880.7)	(2,720.3)
Oil and natural gas assets	1,084.4	1,097.4
Add: Exploration and evaluation assets	82.6	232.0
	$ 1,167.0	$ 1,329.4

Unproved oil and gas properties		
Unproven properties included in oil and natural gas assets	$ 247.6	$ 154.9
Exploration and evaluation assets	82.6	232.0
	$ 330.2	$ 386.9

Proved oil & gas properties	836.8	942.5
Total capitalized costs	$ 1,167.0	$ 1,329.4

OIL AND GAS RESERVE INFORMATION

All of Pengrowth's proved oil, natural gas liquids, and natural gas reserves are located in Canada, in the provinces of Alberta, British Columbia, Saskatchewan and Nova Scotia. Pengrowth's proved developed and undeveloped reserves after deductions of royalties are summarized below:

Net Proved Developed and Undeveloped Reserves After Royalties	**Crude Oil**	**Bitumen**	**NGLs**	**Natural Gas**
	MMbbls	**MMbbls**	**MMbbls**	**Bcf**
End of year 2016	**30.3**	**141.9**	**14.2**	**311.8**
Revisions of previous estimates (including infill drilling & improved recovery)	0.2	1.9 [a]	0.2	9.9 [b]
Purchase of reserves in place	—	—	—	4.5 [c]
Sale of reserves in place	(26.4) [d]	—	(12.7) [d]	(179.1) [d]
Discoveries and extensions	—	5.4 [e]	—	28.6 [f]
Production	(2.5)	(5.0)	(1.7)	(33.4)
End of Year 2017	**1.6**	**144.2**	**—**	**142.3**
Revisions of previous estimates (including infill drilling & improved recovery)	(0.2)	(2.1)	—	(7.2) [g]
Sale of reserves in place	(0.4)	—	—	(0.3)
Discoveries and extensions	—	—	—	28.9 [h]
Production	(0.2)	(5.5)	—	(9.8)
End of Year 2018	**0.8**	**136.6**	**—**	**153.9**

Notes Re Significant Changes:

(a) Primarily due to infill drilling and technical revisions due to digitized mapping at Lindbergh.

(b) Primarily due to improved constant pricing resulting in recovery of late life reserves.

(c) Acquisition of a small partner working interest in the Groundbirch area resulting in an increase of Total Proved Plus Probable Reserves.

(d) Primarily due to our non-core asset disposition program as described under "Acquisitions and Divestitures" on Page 24 of Pengrowth's 2017 Annual Information Form, to our Form 40-F dated February 28, 2018.

(e) Proved reserve additions booked in Lindbergh for a previously cyclic steam stimulated ("CSS") area as described under the "Statement of Oil and Gas Reserves and Reserves data" on Page 11 of Pengrowth's 2017 Annual Information Form, to our Form 40-F dated February 28, 2018.

(f) Proved Reserves booked at Groundbirch due to offsetting competitor activity.

(g) Primarily due to lower constant gas pricing used in the evaluation at December 31, 2018 resulting in gas reserves being removed due to economic factors across all gas properties.

(h) Due to reserve additions at Groundbirch related to 2017 drilling activity.

Net Proved Developed and Undeveloped Reserves After Royalties	**Crude Oil**	**Bitumen**	**NGLs**	**Natural Gas**
	MMbbls	**MMbbls**	**MMbbls**	**Bcf**
Net Proved Developed Reserves After Royalty				
End of year 2016	26.5	13.9	11.7	207.6
End of year 2017	1.6	22.4	—	31.2
End of year 2018	0.8	17.1	—	38.4
Net Proved Undeveloped Reserves After Royalty				
End of year 2016	3.8	128.0	2.5	104.2
End of year 2017	—	121.8	—	111.1
End of year 2018	—	119.5	—	115.5

Notes:

1. Net after royalty reserves are Pengrowth's lessor royalty, overriding royalty, and working interest share of the gross remaining reserves, after deduction of any crown, freehold and overriding royalties. Crown royalties are subject to change by legislation or regulation and vary depending on production rates, selling prices and potential timing of initial production.
2. Reserves are the estimated quantities of crude oil, natural gas and related substances anticipated from geological and engineering data to be recoverable from known accumulations, from a given date forward, by known technology, under existing operating conditions and the average of the commodity prices on the first day of each month for the years ended December 31, 2018 and 2017.
3. Proved oil and gas reserves are the estimated quantities of crude oil, natural gas and natural gas liquids which geological and engineering data demonstrate with reasonable certainty to be recoverable in future years from known reservoirs under existing economic and operating conditions.
4. Proved developed oil and gas reserves are reserves that can be expected to be recovered through existing wells with existing equipment and operating methods. Proved undeveloped reserves are reserves that are expected to be recovered from known accumulations where a significant expenditure is required.

STANDARDIZED MEASURE OF DISCOUNTED FUTURE NET CASH FLOWS RELATING TO PROVED OIL AND GAS RESERVES

The following information is based on crude oil and natural gas reserve and production volumes estimated by the independent engineering consultants of Pengrowth. It may be useful for certain comparison purposes, but should not be solely relied upon in evaluating Pengrowth or its performance. Further, information contained in the following table should not be considered as representative of realistic assessments of future cash flows, nor should the Standardized Measure of Discounted Future Net Cash Flows be viewed as representative of the current value of Pengrowth's reserves.

The future cash flows presented below are based on cost rates, and statutory income tax rates in existence as of the date of the projections and the average of commodity prices in effect on the first day of each month for the year ended December 31, 2018 and December 31, 2017. It is expected that revisions to some estimates of crude oil and natural gas reserves may occur in the future, due to development and production of the reserves that may occur in periods other than those assumed, and actual prices realized and costs incurred may vary significantly from those used.

Management does not rely upon the following information in making investment and operating decisions. Such decisions are based upon a wide range of factors, including estimates of probable as well as proved reserves, and varying price and cost assumptions considered more representative of a range of possible economic conditions that may be anticipated.

The computation of the standardized measure of discounted future net cash flows relating to proved oil and gas reserves at December 31, 2018 was based on the following average of the first-day-of-the-month benchmark prices for the twelve-month period before the end of the year: Edmonton par crude oil price of $70.07/bbl (2017 - $63.43/bbl) and AECO natural gas price of $1.46/MMBtu (2017 - $2.35/MMBtu).

STANDARDIZED MEASURE OF DISCOUNTED FUTURE CASH FLOW RELATING TO PROVED OIL AND GAS RESERVES

The following table sets forth the standardized measure of discounted future net cash flows at 10% from projected production of Pengrowth's crude oil and natural gas reserves at December 31, for the years presented.

(millions of dollars)	2018	2017
Future cash inflows	$ 4,920	$ 6,109
Future costs		
- Future production costs	(2,134)	(2,659)
- Future developments costs	(1,486)	(1,919)
- Future income taxes	—	(12)
Future net cash flows	$ 1,300	$ 1,519
Deduct: 10% annual discount factor	(740)	(777)
Standardized measure of discounted future net cash flows	$ 560	$ 742

CHANGES IN STANDARDIZED MEASURE OF DISCOUNTED FUTURE CASH FLOW RELATING TO PROVED OIL AND GAS RESERVES

At December 31, for the years presented, the following table sets forth the changes in the standardized measure of discounted future net cash flows at 10%.

(millions of dollars)	**2018**	**2017**
Future discounted net cash flow at beginning of year	$ 742	$ 541
Sales and transfers of oil and gas, net of production costs, produced during the period	(178)	(219)
Net change in sales & transfer prices related to future production	(227)	484
Changes in estimated future development costs	34	(41)
Net change due to extensions, discoveries, and improved recovery	17	45
Change due to revisions (including infill drilling & improved recovery)	(11)	17
Accretion of discount	75	54
Net sales of reserves in place	(3)	(153)
Net change in income taxes	—	(4)
Other - unspecified	111	18
Future discounted net cash flow at end of year	$ 560	$ 742

Note:

1. The schedules above are calculated using year-end costs, statutory tax rates and proved oil and gas reserves and the average of the commodity prices on the first day of each month for the years ended December 31, 2018 and 2017. The value of exploration properties and probable reserves, future exploration costs, future changes in oil and gas prices and in production and development costs are excluded because they are not individually significant.

OTHER OIL AND GAS INFORMATION

Exploration and Development Activities

The following table summarizes the number of wells drilled during the financial year ended December 31, 2018.

	Development		Exploration		Total	
Wells	**Gross**	**Net**	**Gross**	**Net**	**Gross**	**Net**
Natural Gas	—	—	—	—	—	—
Crude Oil	—	—	—	—	—	—
Bitumen	8.0	8.0	—	—	8.0	8.0
Service	—	—	—	—	—	—
Stratigraphic Test	—	—	—	—	—	—
Dry	—	—	—	—	—	—
Total	**8.0**	**8.0**	**—**	**—**	**8.0**	**8.0**

The following table summarizes the number of wells drilled during the financial year ended December 31, 2017.

	Development		Exploration		Total	
Wells	**Gross**	**Net**	**Gross**	**Net**	**Gross**	**Net**
Natural Gas	5.0	4.0	—	—	5.0	4.0
Crude Oil	—	—	—	—	—	—
Bitumen	12.0	12.0	—	—	12.0	12.0
Service	10.0	10.0	—	—	10.0	10.0
Stratigraphic Test	2.0	2.0	—	—	2.0	2.0
Dry	—	—	—	—	—	—
Total	**29.0**	**28.0**	**—**	**—**	**29.0**	**28.0**

The following table summarizes the number of wells drilled during the financial year ended December 31, 2016.

	Development		Exploration		Total	
Wells	**Gross**	**Net**	**Gross**	**Net**	**Gross**	**Net**
Natural Gas	1.0	0.2	—	—	1.0	0.2
Crude Oil	—	—	—	—	—	—
Bitumen	—	—	—	—	—	—
Service	—	—	—	—	—	—
Stratigraphic Test	—	—	—	—	—	—
Dry	—	—	—	—	—	—
Total	**1.0**	**0.2**	**0.0**	**0.0**	**1.0**	**0.2**

Oil and Gas Wells

As at December 31, 2018, we had an interest in 451 gross (258 net) producing oil and natural gas wells and 950 gross (597 net) non-producing wells. All wells are onshore except for wells in Nova Scotia which are all offshore.

	Producing		Non-Producing		Total	
	Gross	Net	Gross	Net	Gross	Net
Crude Oil Wells						
Alberta	38	30	87	76	125	106
British Columbia	37	23	191	119	228	142
Saskatchewan	3	1	16	6	19	7
Bitumen Wells						
Alberta	42	42	2	1	44	43
Natural Gas Wells						
Alberta	206	105	72	47	278	152
British Columbia	105	54	248	136	353	190
Saskatchewan	1	1	10	4	11	5
Nova Scotia	19	2	3	—	22	2
Service Wells (1)						
Alberta	—	—	118	90	118	90
British Columbia	—	—	173	112	173	112
Saskatchewan	—	—	9	4	9	4
Nova Scotia	—	—	17	1	17	1
Other (2)						
Alberta	—	—	4	1	4	1
British Columbia	—	—	—	—	—	—
Saskatchewan	—	—	—	—	—	—
Total	**451**	**258**	**950**	**597**	**1,401**	**855**

Note:

(1) Service Wells include disposal, injector, water source and observation wells.

(2) Other includes standing, zonally abandoned and suspended wellbores with undefined zones.