The following Management's Discussion and Analysis ("MD&A") is dated March 21, 2019 and should be read in conjunction with the audited consolidated financial statements and accompanying notes of Alvopetro Energy Ltd. ("Alvopetro" or the "Company") as at and for the years ended December 31, 2018 and 2017. Additional information for the Company, including the Annual Information Form ("AIF"), can be found on SEDAR at www.sedar.com or at www.alvopetro.com. This MD&A contains financial terms that are not considered measures under International Financial Reporting Standards ("IFRS") and forward-looking statements. As such, the MD&A should be used in conjunction with Alvopetro's disclosure under the headings "*Non-GAAP Measures*" and "*Forward Looking Information*" at the end of this MD&A.

All amounts contained in this MD&A are in United States dollars ("USD"), unless otherwise stated and all tabular amounts are in thousands of United States dollars, except as otherwise noted.

MANAGEMENT'S DISCUSSION AND ANALYSIS

OVERVIEW

Description of Business

Alvopetro Energy Ltd. ("Alvopetro" or "the Company") is engaged in the exploration for and the acquisition, development and production of, hydrocarbons in the Recôncavo basin onshore Brazil. Alvopetro holds interests in the Caburé and Gomo natural gas assets, two oil fields and four other exploration blocks comprising 44,293 gross acres (41,580 net acres) onshore Brazil.

Strategy

Alvopetro's strategy is to unlock the on-shore natural gas potential in the state of Bahia, building off the development of our Caburé and Gomo natural gas assets and the construction of strategic midstream infrastructure. We are creating an upstream/midstream hybrid corporate vehicle to provide sustainable returns to our shareholders while reinvesting in a disciplined manner in our high impact upstream assets. Our plan is to create a disciplined reinvestment and long-term stakeholder return model where approximately half of our net cashflows are distributed to stakeholders as dividends to our shareholders and interest and principle repayments to capital providers.

SELECTED QUARTERLY RESULTS

	Three months ended December 31,		Twelve months ended December 31,	
	2018	**2017**	**2018**	**2017**
Financial				
($000s, except where noted)				
Oil sales	**62**	85	**519**	462
Net loss	**(1,445)**	(2,079)	**(4,340)**	(7,117)
Per share – basic and diluted ($)(1)	**(0.02)**	(0.02)	**(0.05)**	(0.08)
Funds flow from operations (2)	**(821)**	(775)	**(3,266)**	(3,254)
Per share – basic and diluted ($)(1)	**(0.01)**	(0.01)	**(0.04)**	(0.04)
Capital expenditures(3)	**1,249**	434	**5,344**	5,432
Total assets	**65,372**	68,715	**65,372**	68,715
Long-term liabilities	**2,348**	-	**2,348**	-
Net working capital surplus (2) (4)	**6,729**	8,762	**6,729**	8,762
Common shares outstanding, end of year (000s)				
Basic	**96,671**	85,167	**96,671**	85,167
Diluted (1)	**107,528**	91,706	**107,528**	91,706
Operations				
Operating netback ($/bbl) (2)				
Brent benchmark price	**68.08**	61.53	**71.53**	54.83
Discount	**(8.23)**	(6.48)	**(4.36)**	(6.36)
Sales price	**59.85**	55.05	**67.17**	48.47
Transportation expenses	**(0.97)**	(2.59)	**(1.68)**	(2.41)
Realized sales price	**58.88**	52.46	**65.49**	46.06
Royalties and production taxes	**(9.65)**	(6.48)	**(7.12)**	(5.35)
Production expenses	**(229.73)**	(112.05)	**(108.71)**	(86.45)
Operating netback	**(180.50)**	(66.07)	**(50.34)**	(45.74)
Average daily crude oil production (bopd)	**11**	17	**21**	26

Notes:

(1) Consists of outstanding common shares, stock options, and warrants of the Company.

(2) Non-GAAP measure. See "*Non-GAAP Measures*" section within this MD&A.

(3) Includes non-cash capital expenditures of $0.6 million in the three months ended December 31, 2018 (December 31, 2017 - $nil) and $2.7 million in the year ended December 31, 2018 (December 31, 2017 - $0.4 million).

(4) Includes current restricted cash of $0.1 million (December 31, 2017 - $0.1 million), assets held for sale of $0.2 million (December 31, 2017 - $0.2 million) and current portion of decommissioning liabilities of $0.07 million (December 31, 2017 - $0.02 million).

HIGHLIGHTS AND SIGNIFICANT TRANSACTIONS FOR THE FOURTH QUARTER OF 2018

- In October 2018, we completed a private placement (the "Private Placement") for net proceeds of $3.8 million, issuing 11,504,000 common shares and 3,676,000 warrants, with each warrant entitling the holder to acquire one common share at an exercise price of $0.50 per share (CAD$0.64 per share). Three insiders of the Company participated in the Private Placement, subscribing for 860,000 common shares and 215,000 warrants.
- Our production decreased to 11 bopd in the fourth quarter, a 42% decrease from the third quarter as our Bom Lugar well was offline for much of the quarter due to a workover and other maintenance. Production expenses of $0.2 million included $0.1 million in workover and maintenance costs on this well, contributing to higher production expenses per barrel in the quarter. Due to continuing wellbore problems, this well was shut-in and will be abandoned in 2019.
- We reported a net loss of $1.4 million in the fourth quarter, which included total impairment charges of $0.6 million as a result of impairments booked on our E&E assets. Negative funds flow from operations decreased to $0.8 million in the fourth quarter due to reduced oil sales and increased G&A and production expenses.
- Capital expenditures in the fourth quarter of $1.2 million include $0.6 million in respect of Alvopetro's 49.1% share of Caburé joint unit development costs, Caburé midstream expenditures of $0.3 million and capitalized G&A of $0.3 million.
- Our cash, restricted cash and working capital resources total $6.7 million, including cash and cash equivalents of $7.1 million. Long-term liabilities of $2.3 million at December 31, 2018 relate to our share of Caburé unit development costs. Under the terms of the Unit Operating Agreement ("UOA"), these costs are initially funded by our partner and are to be repaid by Alvopetro no later than 30 days after the earlier of when we commence production allocations, or March 31 2020.

ADDITIONAL HIGHLIGHTS AND SIGNIFICANT TRANSACTIONS FOR 2018

- In 2018, we made considerable progress in the commercialization of our natural gas assets within Brazil through the completion of the unitization process for the Caburé natural gas field with the finalization of the UOA and the unit development plan in April 2018, the execution of the long-term gas sales agreement ("GSA") with Bahiagás, the Bahia state natural gas distribution company, in May 2018, and the execution of the facility construction and operating agreement ("Gas Treatment Agreement") with Enerflex Ltd. ("Enerflex") in September 2018.
- Capital expenditures of $5.3 million in 2018 included Caburé joint unit development costs of $2.7 million, expenditures of $0.8 million for testing the 183(1) well, and midstream expenditures on pipeline and permitting of $0.5 million, along with capitalized G&A of $1.1 million.
- The net loss for the year ended December 31, 2018 improved to $4.3 million compared to $7.1 million in 2017, largely due to reduced impairment charges of $0.8 million in 2018 compared to $3.7 million in 2017.

RECENT HIGHLIGHTS

- On January 15, 2019 Alvopetro's common shares commenced trading on the OTCQX® Best Market, a U.S. market operated by OTC Markets Group (OTCQX: OTCM), under the symbol "ALVOF".

PETROLEUM AND NATURAL GAS PROPERTIES AND OUTLOOK

As at December 31, 2018, Alvopetro held interests in the Caburé and Gomo natural gas assets, two oil fields (Bom Lugar and Mãe-da-lua) and seven other exploration assets (Blocks 182, 169, 255, 57, 62, 71, and 145) comprising 65,151 gross (55,138 net) acres in the Recôncavo basin onshore Brazil. Subsequent to December 31, 2018, Alvopetro relinquished Blocks 62, 71 and 145, reducing its acreage to 44,293 gross acres (41,580 net).

Property, plant and equipment ("PP&E") Assets

Field	Gross Acres	Working Interest	Current Phase Expiry	PP&E balance December 31, 2018 ($000's)	Commitment ($000's)(1)
Caburé(2)	4,826	100%	December 5, 2043 and May 12, 2044	18,498	-
Bom Lugar	2,238	100%	July 10, 2023	3,262	90
Mãe-da-lua	432	100%	February 22, 2044	-	-
GRAND TOTAL – ALL PP&E FIELDS(3)				**21,760**	**90**

(1) The Company is required to post abandonment guarantees with respect to the producing fields. The Company has not yet been required to post an abandonment guarantee for the Mãe-da-lua field. The abandonment guarantees are posted locally in Brazil. There is a total of $0.1 million of restricted cash with respect to these abandonment guarantees as at December 31, 2018, half of which relates to the Jiribatuba field which was sold in the third quarter of 2018, subject to the approval of the National Agency of Petroleum, Natural Gas and Biofuels of Brazil ("ANP"). Upon approval of the transfer by the ANP, this portion of the restricted cash will be released.

(2) References to Caburé or the Caburé natural gas field throughout this MD&A refer collectively to the Caburé field (our 197(2) well) and Caburé Leste field (our 198(A1) well). Both fields are in the Development and Production Phase with expiry dates of December 5, 2043 and May 12, 2044 respectively.

(3) The total PP&E balance reflected in the table above excludes $0.3 million of corporate assets, including office furniture and fixtures, computer equipment, and operational equipment for use on future exploration and development projects.

Exploration and evaluation ("E&E") assets

Block	Gross Acres	Working Interest	Current Phase Expiry	E&E balance December 31, 2018 ($000's)	Estimated Commitment(1) ($000's)	Letter of Credit Support(2) ($000's)
182	4,807	100%	Suspension in place	723	-	
183	7,740	100%	December 31, 2019 & suspension(3)	12,397	861	1,233
197	3,484	100%	Suspension in place	19,891	-	-
169	5,280	100%	Suspension in place	-	981	1,543
255	7,734	100%	Suspension in place	-	1,174	1,847
57	7,752	65%	Extension requested to May 2019	131	38	279
Subtotal – work to be completed on E&E assets				**33,142**	**3,054**	**4,902**
62	-	-	-	-	31	279
71	-	-	-	-	22	191
145	-	-	-	-	31	279
Subtotal – work completed/farmed out on E&E assets				**-**	**84**	**749**
GRAND TOTAL – ALL EXPLORATION BLOCKS(4)				**33,142**	**3,138**	**5,651**

(1) The estimated commitments expressed above are based on costs to complete work units ("UTs") which represent the minimum work to be carried out under the terms of the existing exploration phase of the concession contracts. UTs may be satisfied through, among other things, drilling exploration wells and shooting or reprocessing seismic. UTs are not applicable in the Development Assessment Plan ("PAD") phase; however, the Company must notify the ANP of its work plan to be completed during this phase. Blocks 182, 197 and a portion of Block 183 are currently in the PAD phase, as discussed in further detail below.

(2) Letters of Credit ("LCs") posted in satisfaction of work units may be in excess of USD equivalent amounts for the associated commitments due to foreign exchange fluctuations and foreign exchange margin requirements. Total LCs outstanding at December 31, 2018 include an additional $0.5 million in respect of Block 106 not reflected in the table above. Block 106 was relinquished in July 2018 and the work commitment was approved by the ANP in 2018, however the related LC was not released by all banks until February 2019.

(3) A portion of Block 183 is currently in the PAD phase with an expiry date of December 31, 2019. The remainder of the block is in exploration Phase II and is currently in suspension due to the lack of an environmental permit.

(4) The total E&E balance reflected in the table above excludes $2.2 million of other assets classified as E&E as at December 31, 2018, largely relating to equipment inventory.

NATURAL GAS ASSETS:

Alvopetro holds interests in two main natural gas assets within Brazil: the Caburé natural gas field and our Gomo natural gas project.

Caburé natural gas field:

Alvopetro's Caburé natural gas field and Caburé Leste natural gas field (the 197(2) and 198(A1) wells), collectively referred to as the Caburé natural gas field throughout this MD&A, extend across four blocks in the Recôncavo basin in Bahia state in Brazil, two of which are held by Alvopetro (Blocks 197 and 198) and two of which are held by our partner (Blocks 211 and 212), with Alvopetro's share of the unitized area being 49.1% and our partner's share being 50.9% In April 2018, we finalized the terms of the UOA, the unit development plan and all related agreements. The unit has four existing wells and the development plan includes the construction of low and high-pressure production facilities, completion and tie-in of existing wells, and drilling of up to four new development wells. As of December 31, 2018, all low-pressure facilities have been constructed and two of the four existing wells have been completed, tied-in and placed on early production. All remaining development is to be completed by the end of 2019 with a planned gross field production plateau rate of 15.9 mmcfpd (450,000 m3/d) when Alvopetro commences production allocations.

Under the terms of the UOA, each party will be entitled to nominate for its working interest share of field production and for any natural gas not nominated by the other party. Once a party produces its share of proved and probable ("2P") reserves, they will no longer be entitled to further production. Our partner is entitled to 100% of the early field production (allocated against their share of 2P reserves). In the third quarter of 2018, the field commenced production at the maximum early field production rate of 5.3 mmcfpd (150,000 m3/d), all of which is attributable to our partner. Since the field commenced production in September 2018, a total of 350 mmcf of gas has been produced to March 18, 2019 against our partner's share of 2P reserves. In exchange for entitlement to the early field production, our partner has agreed to initially fund virtually all of the unit development capital. Alvopetro will pay for its share of the initial unit capital within 30 days of when we commence production or March 31 2020, whatever comes first. Alvopetro's share of the unit development capital incurred to December 31, 2018 is $2.3 million (net of inventory and equipment transferred by Alvopetro to the unit) and the resulting liability has been reflected as non-current in the consolidated statement of financial position.

In addition to costs associated with drilling and testing the 197(2) and 198(A1) wells, costs incurred to date on the Caburé field include a portion of historical costs for bid round bonuses and seismic work along with 2018 costs with respect to Alvopetro's share of joint unit development costs and initial pipeline and permitting costs associated with midstream infrastructure to be built for this field. Based on the independent reserves evaluation by GLJ Petroleum Consultants ("GLJ"), total 2P reserves of 4.6 mmboe were assigned to Alvopetro's share of this field as at December 31, 2018 (the "GLJ Report") with a before tax value discounted at 10% of $119.5 million. The full carrying value of this asset was transferred to PP&E as at May 31, 2018 when the initial reserves were assigned in the GLJ report prepared as of May 31, 2018.

Gomo natural gas project:

Alvopetro's Gomo gas project extends across Blocks 183 and 197 and includes the 183(1) well (which was drilled in 2014 and tested in the first quarter of 2018) and the 197(1) well (which was drilled and tested in 2014). The GLJ Report assigned 2P reserves to the drainage areas around these wells with 1.2 mmboe of assigned reserves and a before tax value discounted at 10% of $19.3 million.

Block 183 is a 9th Brazil Bid Round Block and was acquired through a farm-in agreement signed in May 2013. Alvopetro drilled one well, 183(1), on this block in October 2014 and tested the well in 2018. The portion of Block 183 attributable to 183(1) is currently in the PAD phase which extends to December 31, 2019 and the remainder of the block is in the second exploration phase (with a commitment to drill one well) but in suspension due to lack of an environmental permit. Following receipt of the permit, Alvopetro will have 517 days prior to phase expiry to drill the well.

On Block 197, Alvopetro discovered the Caburé natural gas field as discussed above. Costs to date on the remainder of the block include drilling and testing the 197(1) well in 2014, as well as a portion of historical costs on the block including seismic costs associated with 5.9 km^2 of 3D seismic and 122.3 km of 2D seismic incurred prior to 2014 and prior acquisition costs including bid round bonuses. This block is currently in the PAD phase. Work outstanding under the PAD includes a stimulation of the 197(1) well. In 2017, the ANP approved the suspension of the PAD due to the lack of an environmental permit for stimulation of the 197(1) well.

To further evaluate the Company's Gomo natural gas asset, Alvopetro plans to complete a stimulation of the 183(1) well in the second quarter of 2019 with an 8-kilometre transfer pipeline to be installed in early 2020 to tie the well into our 11-kilometre pipeline to be built from the Caburé unit facilities. As the Company is still evaluating this asset the carrying value remains in E&E until additional information is obtained from the stimulation and production testing results.

Gas commercialization strategy and planned natural gas development:

In May 2018, Alvopetro entered into the GSA with Bahiagás. The reserves values assigned to both the Caburé and Gomo natural gas assets are based on the terms of this GSA. The GSA provides for the sale of 5.3 mmcfpd (150,000 m3/d) on a firm basis and up to 12.4 mmcfpd (350,000 m3/d) on an interruptible basis, adjustable by Alvopetro annually. The natural gas price to be received under the GSA is set semi-annually (in February and August) using a trailing weighted average basket of benchmark prices including US Henry Hub and UK National Balancing Point gas prices and Brent crude oil prices, with a floor of $5.00/mmbtu and a ceiling of $8.50/mmbtu (both subject to United States inflation). The forecasted 2020 price from the GLJ Report is $7.93/mmbtu ($8.96/mcfe). The GSA has take-or-pay provisions and supply failure penalties to ensure performance by both parties. Firm gas deliveries under the GSA (the "Firm Start Date") will be established following receipt of all regulatory permits by both Alvopetro and Bahiagás. The original Firm Start Date of January 1, 2020 has been extended since neither Alvopetro or Bahiagás had the required permits by December 1, 2018. However, the GSA allows for interruptible volumes to commence in advance of the Firm Start Date upon mutual consent by both parties. Alvopetro expects to be in a position to deliver and sell first gas, on an interruptible basis, in January 2020 and expects Bahiagás to have all infrastructure in place to accept first gas at this same time. Alvopetro has secured the land for the natural gas processing facility, completed all field permitting work and we expect to receive necessary regulatory approvals to allow construction to commence early in the second quarter of 2019.

As part of Alvopetro's midstream development, Alvopetro executed the Gas Treatment Agreement with Enerflex in September 2018. Under the terms of the Gas Treatment Agreement, Enerflex will construct, own and operate a natural gas processing facility (the "Facility") for Alvopetro and will provide all operations and maintenance of the Facility, warrantying the delivery schedule and on-stream performance of the Facility. Alvopetro will pay an integrated service fee of $2.9 million over the 10-year-term of the agreement once the Facility is operational. Commissioning of the Facility is contractually scheduled for January 1, 2020; however, Enerflex has indicated they intend to target commissioning in the fourth quarter of 2019 such that full commercial gas deliveries can commence in January 2020. In addition to the Facility, Alvopetro will construct an 11-kilometre pipeline from the Caburé unit facilities to the Facility. The pipe was ordered in 2018 and delivered to the field staging area in February 2019. In November 2018, we awarded the pipeline construction contract and our pipeline contractor is ready to commence installation upon receipt of regulatory approvals. The Gomo natural gas asset will connect to the midstream development via an 8-kilometre transfer pipeline to be built in 2020.

OIL ASSETS:

Bom Lugar field:

The Bom Lugar oil field had average daily production for the year ended December 31, 2018 of 10 bopd (December 31, 2017 – 12 bopd). Production in 2018 continued to be impacted by downtime for workovers required for downhole pump failures and other maintenance. Following a workover and subsequent maintenance in the fourth quarter of 2018, the Company shut-in the one producing well on this field and plans to abandon the well in 2019 due to wellbore problems. The field consists of one shut-in well, one suspended well, and one active water disposal (injector) well. The field has a production battery which is equipped with testing, water separation and trucking facilities. The Company is currently in the Development and Production Phase on this field which extends to 2023. The Company has two oil development prospects on this field, the first of which is expected to be drilled in 2020. The first of these development wells was assigned total 2P reserves of 0.3 mmboe in the December 31, 2018 GLJ Report with a before tax value discounted at 10% of $5.7 million. We expect the phase expiry date of July 10, 2023 can be extended with this development and the anticipated future production.

Mãe-da-lua field:

The 182(B1) well on the Mãe-da-lua field averaged 9 bopd for the year ended December 31, 2018 (December 31, 2017 – 14 bopd). Production in 2018 reduced due to natural declines. The field has a production battery which is equipped with testing, water separation and trucking facilities. The battery is located at the producing well. In 2017, no proved or probable reserve volumes were assigned to this field and the Company recorded an impairment of $0.5 million in 2017 to reduce the carrying value to $nil. The Company has plans to stimulate this well to improve overall production. Based on the expected results of this planned stimulation program, GLJ assigned 2P reserves in the GLJ Report with a before-tax value discounted at 10% of $0.4 million. The Company is currently in the Development and Production Phase on this field which extends to 2044.

EXPLORATION BLOCKS:

Block 182:

Block 182 was awarded in the 9th Brazil Bid Round and is currently in the PAD phase. Under the terms of the PAD, Alvopetro plans to drill one of two identified natural gas prospects on the block. Due to the lack of an environmental permit for one of these prospects, Block 182 is currently in suspension. Upon receipt of the environmental permit, Alvopetro will have 278 days to complete any work prior to the new PAD expiry date.

Blocks 169 and 255:

Blocks 169 and 255 were awarded to Alvopetro in the 12th Brazil Bid Round in 2014. In November 2014, an injunction was issued by a Brazilian Federal Court as part of a legal proceeding filed by the Federal Prosecutor's Office against the ANP, the Federal Government and all operators of 12th Bid Round concession contracts, including Alvopetro. This injunction was aimed at preventing the ANP and operators from conducting unconventional operations on blocks acquired in ANP´s 12th Brazil Bid Round until further studies are carried out by the ANP of the possible environmental impact of drilling of unconventional resources. Alvopetro filed a successful petition with the Brazilian Federal Court, and as result, in January 2015, the Brazilian Federal Court clarified that Alvopetro could carry out all conventional activities relating to its 12th Brazil Bid Round Blocks. However, any unconventional operations continue to be prohibited on these blocks.

Given the current injunction against unconventional operations, in December 2017, Alvopetro filed a request with the ANP to cancel these concession contracts and the associated work commitments and refund the original bid round bonuses paid. As a result of this request, Alvopetro impaired the majority of costs incurred to date in the three months ended December 31, 2017. As the Company is still awaiting ANP's decision on this matter, the remaining costs were written off in the three months ended December 31, 2018, reducing the carrying values of these blocks to $nil as of December 31, 2018.

Block 57:

Block 57 was awarded in the 13th Brazil Bid Round. Alvopetro is the operator and holds a 65% working interest. Costs incurred to date include seismic reprocessing and permitting costs. Alvopetro has one identified prospect on this block (the 57(A1) location). As a result of delays in obtaining the environmental permit, in November 2018 Alvopetro applied for an extension to the phase expiry. Alvopetro received the environmental permit in February 2019 and expects to receive an extension to May 2019. Alvopetro is currently sourcing civil and drilling rig contractors and expects to drill the well in the second quarter of 2019.

Blocks 62, 71, and 145:

Alvopetro held a 65% participating interest in Blocks 62, 71 and 145 as at December 31, 2018. In 2018, Alvopetro satisfied the work commitments outstanding on these blocks, subject to ANP approval, and in January 2019 the blocks were relinquished. The full carrying value of these blocks was written off as of December 31, 2018.

FINANCIAL AND OPERATING REVIEW

Average Daily Production

	Three Months Ended December 31,		Year Ended December 31,	
	2018	2017	**2018**	2017
Total production (bbls)	**1,036**	1,544	**7,727**	9,532
Daily production (bopd)	**11**	17	**21**	26

Average daily production decreased to 11 bopd in the fourth quarter of 2018, a 35% decrease from prior year due to reductions from the Bom Lugar well which was offline for much of the quarter for a workover and other maintenance. Due to the ongoing repairs combined with marginal production rates from this well, and in an effort to reduce ongoing costs, the well has now been permanently shut-in and will be abandoned in 2019. Production declines for the year-ended December 31, 2018 were also impacted by natural declines on the Company's Mãe -da-lua field.

Oil Sales

	Three months ended December 31,		Year ended December 31,	
	2018	2017	**2018**	2017
Brent ($/bbl)	**68.08**	61.53	**71.53**	54.83
Discount ($/bbl)	**(8.23)**	(6.48)	**(4.36)**	(6.36)
Sales Price ($/bbl)	**59.85**	55.05	**67.17**	48.47
Sales price discount as a % of Brent	**12%**	11%	**6%**	12%
Oil Sales	**62**	85	**519**	462
Transportation	**(1)**	(4)	**(13)**	(23)
Total sales, net of transportation expense	**61**	81	**506**	439
Realized price ($/bbl)	**58.88**	52.46	**65.49**	46.06

Pursuant to the terms of Alvopetro's oil sales contracts, a discount is applied to the average Brent price as both a fixed cost per barrel and a fixed percentage of Brent. Contract adjustments reduced the discount per barrel under the Bom Lugar contract and, as a result, the overall discount relative to Brent declined in the year-ended December 31, 2018. In the second half of 2018, the terms of the Company's oil sales contract for the Mãe-da-lua field were amended and delivery is now taken at the field, with all transportation costs covered by the purchaser. As a result, additional discounts are applied to the oil sales offset by reduced transportation expenses. This contributed to higher discounts as a percentage of Brent in the fourth quarter of 2018 with higher proportionate sales from the Mãe-da-lua field.

Oil sales declined in the fourth quarter due to the 35% decrease in daily production, partially offset by the 12% increase in the realized price per barrel. For the year ended December 31, 2018, despite the 19% reduction in daily production volumes, oil sales increased 12% due to improved Brent prices and lower discounts.

Royalties and Production Taxes

	Three months ended December 31,		Year ended December 31,	
	2018	2017	**2018**	2017
Royalties and production taxes	**10**	10	**55**	51
Percentage of sales (%)	**16.1**	11.8	**10.6**	11.0

The Bom Lugar field is subject to a base 5% government royalty plus an additional 0.5% royalty paid to landowners according to applicable Brazil petroleum laws. The Mãe-da-lua field, the Caburé natural gas field and all exploration blocks held by Alvopetro are subject to a base 10% government royalty plus a 1% landowner royalty. There is an additional 2.5% gross-overriding royalty on the Mãe-da-lua field, Block 182 and the portion of the Caburé and Gomo natural gas assets that were previously Block 197.

All royalties are paid based on production volumes at the greater of the sales price and an ANP minimum reference price. Due to higher production volumes relative to sales volumes in the fourth quarter of 2018 and higher proportionate sales from the Mãe-da-lua field (which has a higher overall royalty rate), royalties as a percentage of sales increased in the fourth quarter of 2018.

Royalties and production taxes include all Social Integration Program ("PIS") taxes and Social Assistance Contribution ("COFINS") paid on oil sales at a combined rate of 9.25%, offset by credits on available expenses. The Company currently has sufficient PIS and COFINS credits to offset any amounts owing.

Production Expenses

	Three months ended December 31,		Year ended December 31,	
	2018	2017	**2018**	2017
Production expenses by type:				
Personnel costs	**84**	85	**325**	359
Other fixed costs	**100**	52	**292**	230
Variable costs	**10**	20	**116**	111
Workover costs	**44**	16	**107**	124
Total production expenses	**238**	173	**840**	824
Production expenses per barrel:				
Personnel costs	**81.08**	55.06	**42.06**	37.67
Other fixed costs	**96.53**	33.68	**37.79**	24.13
Variable costs	**9.65**	12.95	**15.01**	11.64
Workover costs	**42.47**	10.36	**13.85**	13.01
Total production expenses per bbl ($)	**229.73**	112.05	**108.71**	86.45

Production expenses for the fourth quarter of 2018 increased relative to 2017 due to workover costs and maintenance costs (classified as other fixed costs above) on the Company's Bom Lugar well. Due to recurring mechanical issues on this well and to reduce ongoing costs associated with this field, the Company has permanently shut-in this well and expects to achieve production expense savings in 2019 through personnel, workover and maintenance cost reductions.

General and Administrative ("G&A") Expenses

	Three months ended December 31,		Year ended December 31,	
G&A Expenses, by type:	**2018**	2017	**2018**	2017
Personnel	**579**	534	**2,410**	2,493
Travel	**29**	16	**93**	104
Office and IT costs	**65**	89	**312**	368
Professional fees	**141**	125	**657**	522
General corporate costs	**116**	79	**348**	214
Gross G&A	**930**	843	**3,820**	3,701
Capitalized G&A	**(265)**	(207)	**(1,058)**	(1,094)
G&A expenses	**665**	636	**2,762**	2,607

The majority of the Company's G&A expenses relate to personnel costs. General corporate costs include public company costs, directors' fees and insurance. The Company's G&A expenses have increased in the fourth quarter of 2018 and for the year ended December 31, 2018 compared to 2017 due to increased professional fees and general corporate costs. Professional fees for the year ended December 31, 2018 included additional reserve report fees relating to the Company's interim reserve report dated May 31, 2018. General corporate costs were higher in 2018 compared to 2017 which had included a recovery of $0.1 million for a previously unrecognized receivable.

Funds Flow from Operations

	Three Months Ended December 31,		Year Ended December 31,	
	2018	2017	**2018**	2017
Funds flow from operations	**(821)**	(775)	**(3,266)**	(3,254)

As a result of increased G&A and production expenses and reduced oil sales, the Company's funds flow from operations declined in the fourth quarter of 2018.

Foreign Exchange

The Company's reporting currency is the USD and its functional currencies are the USD and the Brazilian real ("BRL"). Substantially all costs incurred in Brazil are in BRLs and the Company incurs head office costs in both USD and Canadian dollars ("CAD"). In each reporting period, the change in the values of the BRL and the CAD relative to the Company's reporting currency are recognized. The period end rates used to translate the Company's BRL and CAD denominated financial statement items for the reporting periods as specified are as follows:

	As at			% Change in Period	
	December 31, 2018	September 30, 2018	December 31, 2017	**Q4 2018**	**YTD 2018**
Rate at end of period:					
$1 USD = BRL	**3.875**	4.004	3.308	**(3.2)**	**17.1**
$1 USD = CAD	**1.364**	1.294	1.255	**5.4**	**8.7**

	Three Months Ended December 31,		Twelve Months Ended December 31,		% Change in Period	
	2018	2017	**2018**	2017	**Q4**	**YTD**
Average rate in the period:						
$1 USD = BRL	**3.808**	3.247	**3.656**	3.193	**17.3**	**14.5**
$1 USD = CAD	**1.320**	1.271	**1.295**	1.297	**3.9**	**(0.2)**

Head office transactions in CAD are recognized at the rates of exchange prevailing at the date of the transactions. At the end of each reporting period, monetary assets and liabilities are translated at the exchange rate in effect at the reporting period date. Non-monetary assets, liabilities, revenues and expenses are translated at transaction date exchange rates. Exchange gains or losses are included in the determination of net loss as foreign exchange gains or losses.

The assets and liabilities of Alvopetro's Brazilian subsidiaries are translated to USD at the exchange rate on the reporting period date. The income and expenses of our Brazil operations are translated to USD at the exchange rates on the date of the relevant transactions. All resulting foreign currency differences are recorded in exchange loss on translation of foreign operations in our consolidated statements of operations and comprehensive loss. In the three months ended December 31, 2018, the BRL appreciated 3%, contributing to an exchange gain of $1.0 million; however, on a year-to-date basis, the BRL depreciated 17% resulting in a year-to-date exchange loss of $5.2 million.

As a significant portion of the Company's expenditures are denominated in CAD and BRL, the Company is exposed to fluctuations in these currencies relative to the USD which may have a material impact on costs in the future. In the three and twelve months ended December 31, 2018, the average BRL rate depreciated 17% and 15%, respectively, resulting in lower USD equivalent expenses. The CAD depreciated 4% on average in the fourth quarter of 2018 compared to 2017, resulting in reduced USD costs; however, on a year-to-date basis, the CAD appreciated marginally.

Share-Based Compensation Expense

	Three months ended December 31,		Year ended December 31,	
	2018	2017	**2018**	2017
Share based compensation expense	**41**	19	**95**	85

Share-based compensation expense is a non-cash expense that is based on the fair value of stock options granted and amortized over the vesting period of the options. Under Alvopetro's Stock Option Plan there were 7.2 million stocks options outstanding at December 31, 2018 compared to 6.5 million stock options at December 31, 2017. Due to the increased stock options outstanding along with higher exercise prices as a result of Alvopetro's improving share price in 2018, shared based compensation expense increased in both the fourth quarter and for the year ended December 31, 2018.

Depletion, Depreciation and Accretion

	Three months ended December 31,		Year ended December 31,	
	2018	2017	**2018**	**2017**
Depletion and depreciation (DD&A)	**24**	22	**144**	**205**
Accretion on decommissioning liabilities	**10**	9	**41**	**37**
Total	**34**	31	**185**	**242**

Included in the depletion computation for our producing assets was $6.0 million (December 31, 2017 - $6.5 million) of estimated future development costs for undeveloped proved plus probable reserves. The decrease in depletion expense in the twelve months ended December 31, 2018 is due to the decrease in production in 2018.

Impairment

	Three months ended December 31,		Year ended December 31,	
	2018	2017	**2018**	2017
Impairment losses – PP&E				
Mãe-da-lua	**-**	472	**-**	472
Total PP&E impairment loss	**-**	472	**-**	472
Impairment losses – E&E				
Block 62	**129**	-	**129**	-
Block 71	**122**	-	**122**	-
Block 106	**-**	-	**196**	-
Block 145	**105**	-	**105**	-
Block 169	**101**	269	**101**	269
Block 255	**71**	337	**71**	337
Block 177	**-**	-	**-**	2,384
Other	**41**	199	**41**	199
Total E&E impairment loss	**569**	805	**765**	3,189
Total Impairment loss	**569**	1,277	**765**	3,661

The Company recognized a $0.6 million impairment loss in the fourth quarter of 2018, including $0.4 million total on Blocks 62, 71 and 145 and $0.2 million total on Blocks 169 and 255. With respect to Blocks 62, 71 and 145, upon satisfaction of all outstanding work commitments, the Company relinquished these blocks to the ANP in January 2019. On Blocks 169 and 255, due to December 2017 request filed with the ANP, the Company had recognized an impairment to reduce the carrying value of these blocks to include only the bid round bonuses requested to be returned. As the Company has not yet received a response from the ANP on this matter, the remaining carrying value of these blocks was written off in the fourth quarter of 2018.

In the second quarter of 2018, the Company recorded an impairment to Block 106 of $0.2 million following the Company's decision to relinquish the block. The impairment reduced the carrying value of the block to $nil.

Impairment charges in 2017 included $0.5 million on the Mãe-da-lua field, $2.4 million on Block 177 following the Company's decision to relinquish the block, $0.3 million on Block 169, $0.3 million on Block 255 and other charges of $0.2 million primarily due to inventory write-downs.

Determining the recognition and the amount of any impairment requires significant judgment with respect to various factors including, but not limited to, forecasted commodity prices, future development costs, future production rates, future operating costs, timing of future expenditures, capital constraints and development plans. Changes in these judgments, estimates and assumptions may result in a material change in the impairment recognized.

Taxes

The statutory corporate tax rate in Brazil is 34%. This is comprised of a basic 15% corporate income tax, plus 10% surtax and a 9% social contribution tax. As the Company recognized a net loss in all periods, no current tax expense was recognized in 2017 or 2018. In 2018, the Company submitted an application to tax authorities within Brazil for Supertintendência de Desenvolvimento do Nordeste ("SUDENE"), a regional tax incentive offered for qualifying projects in Bahia State. This reduces the corporate income tax rate on income for eligible projects by 75%, resulting in an effective tax rate of 15.25% on eligible activities for a period of ten years. The Company expects the SUDENE rate to be applicable for its natural gas projects in Brazil as well as future development on existing oil fields. As a result, the Company's expected future tax rate within Brazil is reduced to 15.25%. The Company currently has a deferred tax asset, the benefit of which has not been recognized for accounting purposes at December 31, 2018 or December 31, 2017, resulting in no deferred tax expense or recovery in 2018 or 2017. As a result of the expected reduction in the Company's future tax rate, the unrecognized deferred tax asset decreased from $11.6 million to December 31, 2017 to $5.2 million at December 31, 2018.

Net Loss

	Three Months Ended December 31,		Year Ended December 31,	
	2018	**2017**	**2018**	**2017**
Net loss	**(1,445)**	(2,079)	**(4,340)**	(7,117)

Net loss in both the three and twelve months ended December 31, 2018 improved relative to 2017 largely due to reduced impairment charges.

Long-Term Liabilities

	As at	
	December 31, 2018	December 31, 2017
Balance, beginning of year	**-**	-
Alvopetro's share of expenditures incurred (including inflation)	**2,721**	-
Partner's share of equipment contributed by Alvopetro	**(405)**	-
Foreign currency translation	**32**	-
Balance, end of year	**2,348**	-

The Company's long-term liabilities at December 31, 2018 represent the accrued payable related to Alvopetro's share (49.1%) of costs incurred to date for the joint upstream development of the Caburé natural gas field. Under the terms of the UOA, Alvopetro will reimburse the operating partner for its share of the development costs within 30 days of the earlier of March 31, 2020 or commencement of production allocations to Alvopetro, which is anticipated to be January 2020.

Capital Expenditures

Capital Expenditures by Type	Three months ended December 31, 2018	2017	Year ended December 31, 2018	2017
E&E				
Drilling and completions	**2**	55	**822**	3,757
Inventory purchases	**31**	14	**31**	72
Facility & equipment	**-**	3	**519**	50
Land, lease, and similar payments	**21**	108	**112**	349
Capitalized G&A	**74**	207	**632**	1,062
Other	**41**	11	**101**	65
Total E&E(1)	**169**	398	**2,217**	5,355
PP&E				
Drilling and completions	**6**	-	**91**	-
Facility & equipment	**847**	33	**2,546**	40
Land, lease, and similar payments	**36**	-	**62**	-
Furniture, fixtures, and equipment	**-**	-	**-**	8
Capitalized G&A	**191**	-	**426**	32
Other	**-**	3	**2**	(3)
Total PP&E(2)	**1,080**	36	**3,127**	77
Total capital expenditures by type	**1,249**	434	**5,344**	5,432

Capital Expenditures by Property	Three months ended December 31, 2018	2017	Year ended December 31, 2018	2017
E&E				
Caburé	**-**	120	**773**	3,124
9th Brazil Bid Round blocks (Blocks 182, 183, 197)	**88**	150	**1,269**	330
11th Brazil Bid Round blocks (Block 106, 107, 177)	**4**	46	**27**	1,636
12th Brazil Bid Round blocks (Blocks 169, 255)	**-**	64	**-**	157
13th Brazil Bid Round blocks (Blocks 57, 62, 71, 145)	**46**	4	**117**	36
Inventory	**31**	14	**31**	72
Total E&E(1)	**169**	398	**2,217**	5,355
PP&E				
Caburé and associated midstream assets	**1,063**	-	**3,093**	-
Bom Lugar	**17**	-	**28**	14
Jiribatuba	**-**	3	**3**	10
Mãe-da-lua	**-**	33	**-**	45
Corporate	**-**	-	**3**	8
Total PP&E(2)	**1,080**	36	**3,127**	77
Total capital expenditures by property	**1,249**	434	**5,344**	5,432

(1)Includes non-cash capital expenditures of $0.3 million in the year ended December 31, 2018 (December 31, 2017 - $0.4 million).
(2) Includes non-cash capital expenditures of $0.6 million in the three months ended December 31, 2018 (December 31, 2017 - $nil) and $2.4 million in the year ended December 31, 2018 (December 31, 2017 - $nil).

The carrying value of the Caburé natural gas field was transferred to PP&E as of May 31, 2018. Capital expenditures incurred on this field from June 1, 2018 onwards have been included in PP&E. Capital expenditures in the fourth quarter include $0.6 million in respect of Alvopetro's 49.1% share of Caburé joint unit development costs, midstream expenditures on the Caburé pipeline and related permitting costs of $0.3 million, and capitalized G&A of $0.3 million. For the year-ended December 31, 2018, capital expenditures were largely attributable to Caburé joint unit development costs of $2.7 million, expenditures of $0.8 million for testing the 183(1) well, and $0.5 million in midstream expenditures for advancing pipeline and permitting work, along with capitalized G&A of $1.1 million.

Summary of Annual Results

	2018	2017	2016
Financial			
Oil sales	**519**	462	561
Net loss	**(4,340)**	(7,117)	(12,578)
Per share – basic & diluted ($)	**(0.05)**	(0.08)	(0.15)
Funds flow from operations [(1)]	**(3,266)**	(3,254)	(4,695)
Per share – basic & diluted ($)	**(0.04)**	(0.04)	(0.06)
Total assets	**65,372**	68,715	77,052
Total liabilities	**4,800**	2,575	3,277
Average daily crude oil production (bopd)	**21**	26	42

(1) Non-GAAP measure. See "*Non-GAAP Measures*" section within this MD&A.

The Company's oil sales improved in 2018 despite declining production levels largely due to increasing commodity prices. Brent averaged $71.53 per barrel in 2018 compared to $54.83 per barrel in 2017 and $45.04 per barrel in 2016. The decline in production in 2018 was due to reduced production from the Bom Lugar field due to downtime for workovers required for downhole pump failures as well as reduced production from the Mãe-da-lua field due to natural declines. The net loss improved in 2018 relative to both 2017 and 2016 largely due to reduced impairment charges on the Company's PP&E and E&E assets (2016 - $7.8 million, 2017 - $3.7 million, 2018 - $0.8 million). The Company generated negative funds flow from operations in all three years due to minimal cash flows from oil sales relative to production expenses and G&A expenses.

Total assets have decreased 15% since 2016 due to impairments on both E&E and PP&E as well as decreases in USD equivalent balances of BRL denominated assets as the BRL depreciated relative to the USD from a rate of 3.259 at December 31, 2016 to 3.308 at December 31, 2017 and 3.875 at December 31, 2018.

In October 2018 the Company completed the Private Placement, raising net proceeds of $3.8 million. In conjunction with this transaction, 11,504,000 common shares and 3,676,000 warrants were issued

The Company does not have any debt outstanding in any year; however, in 2018, the Company recognized long-term liabilities of $2.3 million which represents the accrued payable related to Alvopetro's share (49.1%) of costs incurred to date with respect to the joint upstream development of the Caburé natural gas field. The recognition of this liability in 2018 increased the overall liabilities in 2018 relative to prior years.

Summary of Quarterly Results

	Q4 2018	Q3 2018	Q2 2018	Q1 2018	Q4 2017	Q3 2017	Q2 2017	Q1 2017
Financial								
Oil sales	**62**	125	216	116	85	120	86	171
Net loss	**(1,445)**	(878)	(1,128)	(889)	(2,079)	(3,331)	(814)	(893)
Per share – basic & diluted ($)	**(0.02)**	(0.01)	(0.01)	(0.01)	(0.02)	(0.04)	(0.01)	(0.01)
Funds flow from operations (1)	**(821)**	(759)	(844)	(842)	(775)	(959)	(723)	(797)
Per share – basic & diluted ($)	**(0.01)**	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Capital and other asset expenditures(2)	**1,249**	1,889	930	1,276	434	1,663	566	2,769
Operations								
Operating netback ($/bbl) (1)								
Brent benchmark price	**68.08**	75.85	74.91	67.18	61.53	52.18	50.92	54.67
Sales price	**59.85**	70.15	71.10	62.00	55.05	46.91	43.77	49.35
Transportation expenses	**(0.97)**	(1.68)	(1.65)	(2.14)	(2.59)	(2.35)	(2.04)	(2.60)
Realized sales price	**58.88**	68.47	69.45	59.86	52.46	44.56	41.73	46.75
Royalties and production taxes	**(9.65)**	(7.30)	(6.25)	(6.95)	(6.48)	(4.69)	(6.11)	(4.91)
Production expenses	**(229.73)**	(104.94)	(58.92)	(126.14)	(112.05)	(72.71)	(127.23)	(62.05)
Operating netback	**(180.50)**	(43.77)	4.28	(73.23)	(66.07)	(32.84)	(91.61)	(20.21)
Average daily crude oil production (bopd)	**11**	19	33	21	17	28	22	39

Notes:
(1) Non-GAAP measure. See "Non-GAAP Measures" section within this MD&A.
(2) Includes non-cash capital expenditures of $0.6 million in Q4 2018, $1.5 million in Q3 2018, $0.6 million in Q2 2018, $0.05 million in Q3 2017 and $0.4 million in Q1 2017.

Q4 2018 – Capital expenditures included $0.5 million for Alvopetro's share of Caburé joint unit development, $0.3 million for pipeline and permitting costs and capitalized G&A of $0.3 million. The Company's average daily production decreased to 11 bopd, largely due to mechanical problems at the Company's Bom Lugar well which also contributed to higher production expenses in the quarter for both workover costs and maintenance costs. The well has now been shut-in. Total impairment charges of $0.6 million were recognized in the period on the Company's E&E assets, contributing to a higher net loss in the quarter. The Company's Private Placement contributed net proceeds of $3.8 million upon the issuance of 11,504,000 common shares and 3,676,000 warrants.

Q3 2018 – Total capital expenditures of $1.9 million in the quarter included $1.5 million in respect of Alvopetro's share of Caburé unit development costs and capitalized G&A of $0.2 million. Average daily production decreased to 19 bopd in the quarter due to declines from our Bom Lugar well which was offline for much of the quarter awaiting a pump repair. The resulting production decline contributed to higher per barrel production costs and reduced operating netbacks per barrel. The Company entered into the Gas Treatment Agreement with Enerflex wherein Enerflex will construct, operate and maintain the natural gas processing facility on behalf of Alvopetro and in exchange Alvopetro will pay a monthly integrated service fee equivalent to $2.9 million per annum, commencing when the facility is operational in late 2019.

Q2 2018 – During the quarter, the Company finalized the terms of the unitization agreement and the unit development plan for our Caburé natural gas field, executed a long-term natural gas sales agreement and was assigned proved and probable reserves on both the Caburé and Gomo natural gas assets. Capital expenditures in the quarter included $0.6 million relating to Alvopetro's share of Caburé unit development costs and capitalized G&A of $0.3 million. The Company achieved an operating netback of $4.28 per barrel in the quarter due to a 57% increase in daily production volumes, lower production expenses and improving realized sales prices as a result of increasing Brent benchmark prices and reduced sales price discounts.

Q1 2018 – The Company tested the 183(1) well in the quarter, incurring costs of $0.8 million. Additional capital expenditures in the quarter included $0.1 million with respect to permitting for our Caburé natural gas field and $0.3 million of capitalized G&A. The Company's average daily production increased to 21 bopd as the Bom Lugar field recommenced production in March after a pump failure in November 2017. The production increase as well as increasing Brent benchmark prices resulted in a 36% increase in oil sales. Despite higher oil sales, funds flow from operations decreased to $0.8 million due to increased G&A and production expenses.

Q4 2017 – The Company's average daily production decreased 39% to 17 bopd due to reduced production from the Bom Lugar well which was impacted by downhole pump problems and other maintenance. The Company recognized total impairment charges of $1.3 million in the quarter on Block 169 ($0.3 million), Block 255 ($0.3 million), equipment inventory ($0.2 million) as well as on the Mãe-da-lua field ($0.5 million). Funds flow from operations improved $0.2 million due to reduced G&A and E&E expenses in the quarter. Capital expenditures of $0.4 million were primarily attributable to recurring costs, including capitalized G&A of $0.2 million.

Q3 2017 – The Company drilled the 177(A1) well on Block 177 in the quarter, incurring costs of $1.1 million. The Company recognized an impairment loss on this block of $2.4 million and additional exploration and evaluation expenditures of $0.1 million for costs to complete the remaining commitments. Due to the $2.4 million impairment to Block 177 and $1.0 million in negative funds flow from operations, the Company realized a net loss of $3.3 million. Average daily production increased 27% in the quarter due to reduced workover activities compared to the second quarter of 2017. As a result of the increased production and the 7% increase in realized sales prices, oil sales increased 40%.

Q2 2017 – Average daily production decreased 44% in the quarter as the Bom Lugar producing well was offline in April and May awaiting a pump repair. As a result of the production decline and the 7% decline in Brent, oil sales decreased 50% compared to the first quarter of 2017. Increased production expenses for workover costs on the Bom Lugar well and the reduced production volumes contributed to higher production expenses per barrel and decreased operating netbacks. Funds flow from operations and net loss both improved compared to the first quarter of 2017 despite reduced oil sales and increased production expenses, largely due to a $0.1 million decrease in general and administrative expenses. Total capital expenditures of $0.6 million included capitalized G&A, LC fees on block extensions and suspensions approved by the ANP, preliminary surveying and planning for our upcoming Caburé development, and initial site construction costs for the 177(A1) well to be drilled in the third quarter of 2017.

Q1 2017 – The Company completed drilling and testing the 198(A1) well on Block 198 in the quarter. This well is part of our Caburé gas field. Total capital expenditures of $2.8 million in the quarter included $2.4 million on this well and capitalized G&A of $0.3 million. The Company's cash expenditures on its capital projects were reduced by $0.4 million due to equipment inventory exchanged for drilling services on the 198(A1) well. Average daily production decreased 26%, primarily due to a workover on the producing well on the Bom Lugar field in January and additional pump issues on this well in March as well as natural declines on the 182(B1) well on the Mãe-da-lua field. Despite a 7% increase in Brent, due to the reduced production volumes, oil sales declined 18%. A net loss of $0.9 million was realized in the quarter primarily due to the negative funds flow from operations of $0.8 million.

Commitments and Contingencies

The following is a summary of Alvopetro's contractual commitments as at December 31, 2018:

Commitments	**< 1 Year**	**1-3 Years**	**Thereafter**	**Total**
Minimum work commitments[1]				
Minimum work commitments to be completed				
Block 183[2]	-	861	-	861
Block 169[3]	981	-	-	981
Block 255[3]	1,174	-	-	1,174
Block 57[4]	38	-	-	38
Bom Lugar	-	-	90	90
Minimum work commitments to be completed	**2,193**	**861**	**90**	**3,144**
Minimum work commitments completed				
Block 62[5]	31	-	-	31
Block 71[5]	22	-	-	22
Block 145[5]	31	-	-	31
Minimum work commitments completed	**84**	**-**	**-**	**84**
Gas Treatment Agreement	**-**	**5,810**	**23,239**	**29,049**
Office leases[6]	**103**	**4**	**-**	**107**
Total commitments	**2,380**	**6,675**	**23,329**	**32,384**

Notes:

(1) Under the terms of the ANP concession contracts for each of our exploration blocks, the Company has commitments which must be completed prior to the applicable phase expiry date. The Company is required to post a performance guarantee with the ANP for all commitments in the table above.

(2) In February 2018, the ANP approved a suspension to the portion of Block 183 currently in the second exploration phase to which the above commitment is applicable. The Company will have 517 days from receipt of the environmental permit for the well to be drilled to meet the required work commitment.

(3) Due to an ongoing injunction against unconventional activities on all 12th Brazil Bid Round Blocks, in December 2017 the Company filed a request with the ANP to cancel the Block 169 and 255 concession contracts, including the commitment noted in the table above.

(4) Alvopetro holds a 65% working interest in Block 57 and the amount provided in the table above represents Alvopetro's share of the related work commitment.

(5) As at December 31, 2018 the Company had incurred all costs to fulfill the commitments related to Alvopetro's 65% interest in these blocks. In early 2019 these blocks were relinquished to the ANP.

(6) The Company is committed to future minimum payments for office space in Canada and Brazil.

In May 2018, Alvopetro entered into the long-term GSA which provides for the sale of 5.3 mmcfpd (150,000 m3/d) on a firm basis and 12.4 million mmcfpd (350,000 m3/d) on an interruptible basis and applies penalties to Alvopetro for supply failure in respect of the firm volumes and also take or pay penalties applicable to Bahiagás should it be unable to accept the firm volumes specified in the contract. The Company believes it can meet the firm sales commitments under the GSA solely with our production from the Caburé natural gas field, however supply failure penalties may arise where construction of the Facility or pipeline is delayed (other than due to permitting delays), unit development is delayed, where there are unplanned production interruptions, or to the extent reservoir performance is below expected production rates. Supply failure penalties are a function of the shortfall of firm volumes and the prevailing natural gas price under the GSA at the time. Alvopetro can mitigate these risks by meeting sales commitments under the GSA with third-party gas supplies, through development of existing gas resources, or through new gas discoveries from our prospect inventory. Firm gas deliveries under the GSA were originally set to commence on January 1, 2020 (the Firm Start Date) with interruptible deliveries commencing earlier with mutual consent. As neither Alvopetro nor Bahiagás had regulatory permits in place by December 1, 2018, the Firm Start Date has been automatically extended and will be set following receipt of all permits by both parties (based on an equivalent number of days from December 1, 2018 to the date both parties are in receipt of the required permits). The Company expects to commence gas deliveries on an interruptible basis in January 2020 and expects Bahiagás to accept these interruptible volumes; however firm sales volumes (and the applicable potential penalties to both parties) will not commence until the adjusted Firm Start Date.

In September 2018, Alvopetro entered into the 10-year Gas Treatment Agreement with Enerflex. Under the terms of the Gas Treatment Agreement, Alvopetro is committed to integrated service fees totaling approximately $2.9 million per year once the Facility is operational. Alvopetro anticipates that the Facility will be operational in January 2020 and has reflected the associated commitment in the table above based on this start date. A portion of the payments are in BRL and therefore exposed to foreign exchange fluctuations. Management has assessed that this agreement contains a lease component under IFRS 16 which will affect the presentation of these fees in future consolidated financial statements of the Company. The Gas Treatment Agreement includes customary penalties and standby charges to the extent Alvopetro is unable to receive the services on the start date. In addition, the Gas Treatment Agreement includes early termination penalty provisions which vary depending on timing of the termination. While the Gas Treatment Agreement also includes strict availability requirements and downtime credits, such credits may not fully offset ship or penalties incurred by Alvopetro under the GSA to the extent processing in the Facility is limited due to unplanned or longer than scheduled maintenance or repair.

The Company has a credit support facility with a Canadian bank which allows for the issuance of LCs and letters of guarantee in support of the financial guarantees required by the ANP for Alvopetro's work commitments under the terms of its concession contracts associated with its exploration blocks. Letters of credit and letters of guarantee issued may be supported by either cash collateral posted by Alvopetro or through an Account Performance Security Guarantee from Export Development Canada ("EDC"). As at December 31, 2018, the total amount of LCs issued under the credit support facility was $6.1 million (December 31, 2017 - $12.1 million), the full balance of which was satisfied by EDC. Total LCs outstanding at December 31, 2018 include $0.5 million in respect of Block 106, the work commitment for which was approved by the ANP in 2018 (but the LC was not released by all involved banks until 2019) and $0.7 million for work commitments on Blocks 62, 71 and 145, the work commitments for which were met by Alvopetro in 2018 subject to the approval of the ANP. Work commitments for the Bom Lugar field relate to an abandonment guarantee which is supported by cash collateral posted by Alvopetro and classified as current restricted cash. Half of the current restricted cash balance at December 31, 2018 also relates to cash collateral posted by Alvopetro in respect of an abandonment guarantee on the Jiribatuba field (which has been sold as of September 30, 2018). Upon approval by the ANP of the transfer of this field, the abandonment guarantee and associated restricted cash will be released.

As is customary in the oil and gas industry, we may at times have work plans in place to reserve or earn certain acreage positions or wells. If we do not complete such work plans in a timely manner, the acreage positions or wells may be lost, or penalties may be applied.

The Company currently has no contingent liabilities recorded; however, in the normal course of operations, we may have disputes with industry participants for which we currently cannot determine the ultimate results. The Company has a policy to record contingent liabilities as they become determinable and the probability of loss is more likely than not.

Alvopetro's activities in Brazil are subject to minimum local content requirements with respect to materials and supplies utilized. The specific local content requirements for the exploration phase were determined during the bidding process for each particular block and are assessed at the phase expiry date. Management undertakes considerable effort to adhere to these requirements; however, there may be circumstances when it is not advantageous or reasonably practical for the Company to do so. If the Company does not meet the local content requirements for a particular phase as specified according to the respective concession contract, a penalty, which varies by concession depending on exploration phase and type of cost, will be incurred. In 2018, the ANP introduced revised local content regulations which reduced the local content requirements and, as a result, the Company's estimated local content penalties decreased from $0.3 million at December 31, 2017 to $0.1 million at December 31, 2018, the full balance of which is included in accounts payable and accrued liabilities.

LIQUIDITY AND CAPITAL RESOURCES

At December 31, 2018, Alvopetro's cash and cash equivalents of $7.1 million and its restricted cash of $0.1 million were held as follows:

	Total	U.S. Dollar	CAD Dollar(1)	Brazil Real(1)
Cash held in Canada	**3,546**	3,228	318	-
Cash held in Brazil	**3,524**	-	-	3,524
Restricted cash - current	**135**	-	-	135
Total	**7,205**	**3,228**	**318**	**3,659**

Notes:

(1) Amounts in the table above denote the USD equivalent as at December 31, 2018.

In the fourth quarter of 2018, Alvopetro completed the Private Placement, raising $3.8 million in net proceeds. Funds from the Private Placement will be used towards funding the development of our Caburé natural gas field and for ongoing general corporate purposes.

The Company has cash of $7.1 million and total financial resources of $6.7 million at December 31, 2018. Positive cash flows are expected upon commencement of production from the Caburé natural gas field in January 2020, however the Company does not currently have sufficient financial resources to complete the infrastructure required to develop this asset to the sales point. Furthermore, any production delays or production volumes falling short of forecasts may impact the Company's ability to meet these obligations. Alvopetro is actively seeking financing to fund its share of the remaining future development costs associated with the Caburé natural gas field, including our 49.1% share of joint unit development costs and 100% owned pipeline construction costs, as well as costs associated with the Gomo development. The Company anticipates $10.7 million in payments for the Caburé development throughout 2019 and early 2020, with an additional $0.8 million in 2019 for the planned stimulation of the 183(1) well and $0.7 million for the Company's share of the 57(A1) well to be drilled in 2019. Financing alternatives include project financing, vendor financing, strategic partnerships, other debt issuances or additional equity issuances. The Company may also explore asset sales or farmouts to assist with funding. Given these factors and the Company's history of losses and as discussed further in Note 2 to the financial statements, if we are unable to execute a financing arrangement or a financing arrangement on terms acceptable to Alvopetro, the Company's current cash balances will be insufficient to fund the Caburé and Gomo development and the Company's plans and commitments on its other exploration blocks and oil fields.

Exploration work commitments to be met in Brazil are supported by total LCs of $4.9 million as at December 31, 2018, with $0.07 million expected to be incurred within one year.

The liability for decommissioning obligations of Alvopetro was $1.2 million as at December 31, 2018. The liability is adjusted each reporting period to reflect the passage of time, with the accretion charged to earnings, and for revisions to the estimated future cash flows, if applicable.

At December 31, 2018 the Company had $1.9 million of equipment inventory to be utilized for future operations which is included in exploration and evaluation assets in the consolidated statement of financial position.

OUTSTANDING SHARE DATA

The Company is authorized to issue an unlimited number of common shares and preferred shares in one or more series. The aggregate number of Alvopetro common shares and stock options outstanding at March 21, 2019 was 107,527,621 (common shares – 96,670,871, stock options – 7,180,750, warrants – 3,676,000). There are no preferred shares outstanding.

NON-GAAP MEASURES

This MD&A or documents referred to in this MD&A make reference to certain measures which are not recognized measures under GAAP and do not have a standardized meaning prescribed by IFRS. This MD&A contains four non-GAAP measures: 1) funds flow from operations; 2) funds flow from operations per share; 3) net working capital surplus; and 4) operating netback per barrel. These are complementary measures that are used by management in assessing the Company's financial performance, efficiency and liquidity and they may be used by investors or other users of this document for the same purpose. The non-GAAP measures do not have standardized meanings under IFRS and therefore are unlikely to be comparable to similar measures presented by other issuers. While these measures may be common in the oil and gas industry, the Company's use of these terms may not be comparable to similarly defined measures presented by other companies. The non-GAAP measures referred to in this report should not be considered an alternative to, or more meaningful than measures prescribed by IFRS and they are not meant to enhance the Company's reported financial performance or position.

Funds Flow from Operations and Funds Flow From Operations Per Share

The most comparable GAAP measure to funds flow from operations is cash flows from operating activities. Management considers both funds flow from operations and funds flow per share important as they help evaluate financial performance and demonstrate the Company's ability to generate sufficient cash to fund future growth opportunities. Funds flow from operations should not be considered an alternative to, or more meaningful than, cash flows from operating activities however management finds that the impact of working capital items on the cash flows reduces the comparability of the metric from period to period. A reconciliation of funds flow from operations to cash flows from operating activities is as follows:

	Three months ended December 31,		Year ended December 31,	
	2018	2017	**2018**	2017
Cash flows from operating activities	**(705)**	(1,213)	**(3,258)**	(3,817)
Add back changes in non-cash working capital	**(116)**	438	**(8)**	563
Funds flow from operations	**(821)**	(775)	**(3,266)**	(3,254)

The Company also refers to funds flow per share, which is funds flow from operations divided by the weighted average shares outstanding for the respective period. For the periods reported in this document there was no difference between cash flow from operating activities per share and funds flow from operations per share:

	Three months ended December 31,		Year ended December 31,	
$ per share	**2018**	2017	**2018**	2017
Cash flows from operating activities per share	**(0.01)**	(0.01)	**(0.04)**	(0.04)
Funds flow from operations per share	**(0.01)**	(0.01)	**(0.04)**	(0.04)

Net Working Capital Surplus

Net working capital surplus is computed as current assets less current liabilities. The current assets include cash and cash equivalents, restricted cash, accounts receivable, prepaid expenditures and assets held for sale and the current liabilities are comprised of accounts payable and accrued liabilities and the current portion of decommissioning liabilities from the Company's consolidated statements of financial position. Net working capital is a measure of liquidity, is used to evaluate financial resources, and is calculated as follows:

	As at December 31,	
	2018	2017
Total current assets	**8,021**	9,892
Total current liabilities	**(1,292)**	(1,130)
Working capital surplus	**6,729**	8,762

Operating Netback per Barrel

Operating netback is calculated on a per unit basis, which is currently per barrel of oil as the Company has only oil production in 2017 and 2018. It is a common non-GAAP measure used in the oil and gas industry and management believes this measurement assists in evaluating the operating performance of the company at the lease level. It is a measure of the economic quality of the Company's producing assets and is useful for evaluating variable costs as it provides a reliable measure regardless of fluctuations in production. Operating netback is calculated as oil sales less royalties and production taxes and production and transportation costs on a per unit (barrel) basis. This calculation per unit is provided in the Selected Quarterly Results Section of this MD&A and is illustrated using our IFRS measures as follows:

	Three months ended December 31,		Year ended December 31,	
	2018	2017	**2018**	2017
Oil sales	**62**	85	**519**	462
Royalties and production taxes	**(10)**	(10)	**(55)**	(51)
Production expenses	**(238)**	(173)	**(840)**	(824)
Transportation	**(1)**	(4)	**(13)**	(23)
Operating Netback	**(187)**	(102)	**(389)**	(436)
Operating Netback per Barrel ($)	**(180.50)**	(66.07)	**(50.34)**	(45.74)

RISKS AND UNCERTAINTIES

Alvopetro is exposed to a variety of risks including, but not limited to: a) liquidity and financing risks; b) legal and regulatory risks; c) market risk; d) operational risks; e) reservoir performance risk; f) exploration risk; g) competitive risks within the oil and gas industry; and h) foreign operations risk.

This section presents information about the Company's exposure to each of the above risks, the Company's objectives, policies and processes for measuring and managing risk, and the Company's management of capital. Further quantitative disclosures are included throughout the consolidated financial statements. Investors should carefully consider the following risk factors and the risk factors set forth under the heading "Risk Factors" in our Annual Information Form that can be found on SEDAR at www.sedar.com.

A. Liquidity and Financing Risk

The Company has funded all capital and operational expenditures to date with cash balances on hand. The Company's existing properties have not had significant production and the Company has a history of operating losses. Significant capital expenditures are required for the development of the Company's Caburé natural gas field, development of the Company's Gomo assets, to meet outstanding exploration work commitments and for future development of the Company's oil fields. These capital expenditures along with the Company's ongoing general and administrative costs and operational expenditures are in excess of current cash balances. Moreover, to the extent EDC coverage were limited in the future, existing cash balances may be required in support of LCs for current or future work commitments.

The financial statements have been prepared on a going concern basis as discussed in Note 2 to the financial statements. The Company is actively pursuing financing; however, the inability of Alvopetro to access sufficient capital for its operations could have a material adverse effect on Alvopetro's business, financial condition, results of operations and prospects, and could result in the delay or postponement of further exploration, evaluation and development of Alvopetro's properties.

B. Legal and Regulatory Risks

The Company is subject to extensive governmental and environmental approvals and regulations Brazil. Delays in obtaining regulatory approvals could result in project delays and our inability to meet contractual obligations and commitments. Changes to these regulations could increase the costs of conducting business. The Company is currently awaiting final installation permits for the pipeline and facility construction associated with its Caburé natural gas field. In addition, Bahiagas is also awaiting necessary permits for the construction of the new city gate and distribution pipeline to be built for receipt of natural gas from Alvopetro under the terms of the long-term GSA entered into in May 2018. Delays in receipt of permits by Alvopetro or Bahiagas may result in delays in gas sales under the GSA which may delay cash flows to Alvopetro and may result in standby charges under the Enerflex Gas Treatment Agreement should Alvopetro be unable to deliver gas upon commencement of the Enerflex agreement in 2020.

Environmental risks inherent in the oil and gas industry are subject to increasingly stringent legislation and regulation. The Company operates in accordance with all relevant environmental legislation and strives to minimize the environmental impact of its operations by providing for safety and environmental issues in all of its business plans. The expanded use of hydraulic fracturing as a recovery technique employed in oil and natural gas drilling has given rise to increased public scrutiny over potential environmental impacts, particularly with respect to the potential impact on local aquifers. Alvopetro may need to utilize hydraulic fracturing in the wells it drills and completes. Alvopetro believes that the hydraulic fracturing that we may conduct, given the depth and location of the wells and our consistent utilization of good oilfield practices, will be environmentally sound and would not give rise to concerns raised respecting local aquifers. Alvopetro anticipates that there will be a trend towards changing and increased regulatory requirements concerning hydraulic fracturing in the future, in Brazil and internationally. Changes to, and the increase of, regulatory requirements may impact our business. Specifically, unconventional activities are currently prohibited on Alvopetro's blocks acquired in the 12th Brazil Bid Round as a result of an injunction issued by a Brazilian Federal Court in November 2014. Alvopetro has two blocks for which it has not yet fulfilled the required minimum work commitments and, as a result, may adversely be affected if the injunction continues and Alvopetro is unsuccessful with its request with the ANP to return these blocks, cancel the commitments outstanding and refund the bid bonuses paid.

Alvopetro must fulfill certain minimum work commitments on projects in Brazil. There are no assurances that all of these commitments will be fulfilled within the time frames permitted. As such, Alvopetro may lose certain exploration rights on the blocks affected and may be subject to certain financial penalties that would be levied by the applicable governmental authority. From time to time Alvopetro may request extensions or suspensions to the timeframe allotted for work commitments. Alvopetro has requested extensions on certain blocks and has requested the cancellation of certain contracts without financial penalties applied. There is no assurance that these requests will be granted. To the extent these requests are not approved, acreage positions may be lost, and fines or penalties may be applied.

C. Market Risk

The Company is exposed to normal financial risks inherent within the oil and gas industry, including commodity price risk, exchange rate risk, interest rate risk and credit risk. Crude oil and natural gas prices are influenced by global supply and demand and worldwide political events. Fluctuations in crude oil and natural gas prices not only affect the Company's cash flows but may also affect the ability and capacity of future financings for the Company. Management believes it is neither appropriate nor possible to eliminate 100 percent of the Company's exposure to fluctuations in crude oil and natural gas prices. The Company monitors market conditions and may selectively use derivative instruments to reduce exposure to commodity price movements.

The Company has entered into a long-term GSA with one counterparty. If this gas sales contract were terminated for any reason, Alvopetro may be unable to enter into a relationship with another purchaser for such gas on a timely basis or on similar terms. Alvopetro's results of operations and future cash flows are dependent on its ability to market its gas production and any change to price or volumes under its gas sales contract may impact future earnings.

Cash and cash equivalents consist of balances on deposit at banks and short-term deposits maturing in less than 90 days. Restricted cash consists of cash and cash equivalents and short-term deposits maturing in one year or less. Alvopetro manages credit risk related to short term deposits by investing only in term deposits of investment grade credit rating, and therefore the Company considers these assets to have negligible credit risk.

All of Alvopetro's expenditures are subject to the effects of inflation and foreign currency fluctuations. Alvopetro is exposed to exchange rate risk as a significant portion of the Company's expenditures will be paid in foreign currencies. Should such foreign currencies strengthen relative to the USD or should the inflation rates increase within Canada or Brazil, Alvopetro may experience higher capital, G&A and production expenditures, resulting in a material decrease in its funds flow.

D. Operational Risk

Alvopetro's Caburé natural gas field is operated by Alvopetro's partner on this field. As Alvopetro is not the operator of this property, it is dependent on its partner for the timing and execution of key activities required on this field to ensure Alvopetro is able to meet production requirements under its GSA and generate future cash flows. Alvopetro is also dependent on its partner, to varying extents, to exercise best practices in terms of safety, employment law and insurance protection. To manage these risks, Alvopetro entered into a comprehensive unitization agreement which governs the responsibilities of the operator and non-operators in a fair and balanced approach.

All of Alvopetro's natural gas is expected to be processed through the Facility owned by Enerflex under the terms of the Gas Treatment Agreement. As the Facility is owned and operated by Enerflex, although Alvopetro has full control over the gas processed within the Facility, Alvopetro does not have full control over all operational matters. From time to time, the Facility may discontinue or decrease operations either as a result of normal servicing requirements or as a result of unexpected events. While the GSA allows for scheduled downtime and routine maintenance, should such downtime be unplanned or extend for longer than anticipated, this could have a material adverse impact on the Company's operations and could give rise to ship or pay penalties under the GSA if the Company is unable to meet its firm production requirements. The terms of the Gas Treatment Agreement include strict availability requirements and downtime credits to minimize Alvopetro's costs associated with reduced processing; however, such credits may not fully offset costs incurred by Alvopetro due to ship or pay obligations under the GSA.

Alvopetro is exposed to a number of operational risks inherent in the industry including accidents, well blowouts, uncontrolled flows, labour strikes and environmental risks. Operational risks are managed using prudent field operating procedures. The Company has an emergency response plan to deal with potential incidents and maintains a comprehensive insurance program to reduce the risk of significant economic loss; however, not all risks can be eliminated. Losses resulting from the occurrence of these risks could have a material adverse impact on the Company's operations. Should operational problems reduce or limit Alvopetro's future gas production, future cash flows may be less than expected and Alvopetro may be subject to ship or pay penalties under its long-term GSA.

E. Reservoir Performance Risk

Lower than projected reservoir performance on the Company's assets could have a material adverse impact on the Company's future results of operations, cash flows, and overall financial condition. Estimates of future cash flows from Alvopetro's properties are based on management's judgment and assumptions with respect to timing and evaluation of development plans. Additional factors affecting the ultimate recoveries from the Alvopetro's properties include initial production rates, production decline rates, future commodity prices, marketability of production, and operating costs, royalties and other government levies that may be imposed over the producing life of the reserves. All judgments and assumptions were based on the best information available at the date the forecasts were prepared and all are subject to change, some being beyond the control of Alvopetro. Actual production and funds flow derived therefrom will vary from these forecasts, and such variations could have a material impact.

F. Exploration Risk

The Company is exposed to a high level of exploration risk. The business of exploring for, developing or acquiring reserves is capital intensive and is subject to numerous estimates and interpretations of geological and geophysical data. There can be no assurance that Alvopetro will be able to generate and sustain revenue or net income in the future or that the Company's future exploration, development and acquisition activities will result in proved reserves. To manage this risk, Alvopetro employs highly experienced geoscientists, uses technology and 3D seismic as primary exploration tools and focuses exploration efforts in known hydrocarbon producing basins. The long-term commercial success of Alvopetro depends on its ability to find, acquire, develop and commercially produce and sell petroleum reserves. To date, the activities relating to the majority of Alvopetro's assets have been exploratory only, which increases the degree of risk substantially as compared to projects in the production stage. The value of Alvopetro's assets will be dependent on discovering hydrocarbon deposits with commercial potential and the ability to market its discoveries. Alvopetro may have nominal earnings to support its ongoing operations and future exploration and development should its properties prove not to be commercially viable or if it is unable to negotiate sales contracts or unable to negotiate sale contracts on terms that are acceptable to Alvopetro.

G. Competitive Risks within the Oil and Gas Industry

The oil and gas industry is highly competitive, both with respect to the acquisition of prospective oil and gas properties and reserves as well as in attracting financing sources for the acquisition of new reserves or the development of existing reserves. Alvopetro's competitive position depends on its geoscience and engineering expertise, its financial resources, its ability to develop its properties and its ability to select, acquire and develop proved reserves. Alvopetro will compete with a substantial number of other companies having larger technical staff and greater financial and operational resources and access to capital. Many such companies not only engage in the acquisition, exploration, development and production of petroleum reserves, but also carry on refining operations and market refined products. In Brazil particularly, Petróleo Brasileiro SA ("Petrobras") dominates the majority of the industry, including all aspects of oil and gas exploration, development, transportation and sales. Alvopetro competes with Petrobras and other major and independent oil companies and other industries supplying energy and fuel in the marketing and sale of oil and gas to transporters, distributors and end users, including industrial, commercial and individual consumers. Access to pipelines and other transportation infrastructure may be limited and/or the terms on which such access is provided may not be favourable to the Company.

Alvopetro also competes with other oil and gas companies in attempting to secure equipment necessary for drilling and completion of wells. Such equipment may be in short supply from time to time or may not meet the technical specifications required by Alvopetro in its operations. In addition, equipment and other materials necessary to construct production and transmission facilities may be in short supply. Local content requirements in Brazil may reduce the control the Company has with respect to choice of service providers for its exploration and development activities. Finally, companies not previously investing in the oil and gas industry may choose to acquire reserves providing additional competition for Alvopetro.

H. Foreign Operations Risk

Alvopetro currently has operations in Brazil and from time to time may evaluate additional projects internationally, consequently Alvopetro will be subject to certain risks, including currency fluctuations and possible political or economic instability. Alvopetro believes that the state and federal governments in Brazil support the exploration and development of its oil and gas properties by foreign companies. Nevertheless, there is no assurance that future political conditions will not result in the state or federal governments adopting different policies respecting foreign development and ownership of oil and gas, environmental protection and labour relations. Exploration and production activities may be affected in varying degrees by political stability and government regulations relating to the industry.

To help mitigate the risks associated with operating in foreign jurisdictions, the Company seeks to operate in regions where the petroleum industry is a key component of the economy. Alvopetro believes that management's experience operating in other international jurisdictions helps reduce these risks. Brazil has a long history of democracy and an established legal framework that, in Alvopetro's opinion, minimizes political risks.

CHANGES IN ACCOUNTING POLICIES INCLUDING INITIAL ADOPTION

New and revised accounting standards

On January 1, 2018, the Company retrospectively adopted IFRS 15 Revenue from Contracts with Customers which replaced existing revenue guidance to require entities recognize revenue to reflect the transfer of goods and services for the amount it expects to receive when control is transferred to the purchaser. Adoption of this standard did not have any adjustments to the Company's consolidated financial statements with the exception of expanded note disclosure.

Effective January 1, 2018, the Company adopted IFRS 9 Financial Instruments. IFRS 9 introduced new models for the classification and measurement of financial instruments, hedge accounting and impairment of financial assets. The Corporation elected to apply the standard on a retrospective method whereby all prior year statements are restated. Financial assets previously classified as loans and receivables (trade and other receivables) as well as financial liabilities previously classified as other financial liabilities (accounts payable and accrued liabilities) have been reclassified to amortized cost. The carrying value and measurement of all financial instruments remains unchanged and there were no impacts to the consolidated financial statements upon the adoption of the new standard.

The amendments to IFRS 2, Share-based Payment were adopted January 1, 2018 with no effect on the consolidated financial statements. The amendments clarify the classification and measurement of certain types of share-based payment transactions.

Standards issued but not yet effective

IFRS 16, Leases was issued in January 2016 and replaces IAS 17 Leases and IFRIC 4 Determining Whether an Arrangement Contains a Lease. Under the current guidance, finance leases are recognized on the balance sheet while operating leases are recognized in the consolidated statements of income when the expense is incurred. Under IFRS 16, substantially all lease contracts, with the exception of those that qualify for certain exemptions as provided by the guidance, require recognition of a lease liability and a corresponding right-of-use asset. The recognition of the present value of minimum lease payments for certain of the Company's contracts currently classified as operating leases will result in an increase in assets, liabilities, depletion, depreciation and amortization and finance expense. Consequently G&A expenses will be reduced. Although cash movement will be unchanged, presentation in the statement of cash flows will be different under this new standard. The Company continues to assess and quantify the effect of this standard on the consolidated financial statements.

The Company will adopt IFRS 16 on the effective date of January 1, 2019 under the modified retrospective transition approach. Optional exemptions to not recognize certain short-term leases or leases of low value will be applied by the Company. In addition, the Company has elected to separate non-lease components from lease components for all underlying asset classes as at January 1, 2019.

Management's Report on Internal Control over Financial Reporting. In connection with National Instrument 52-109 - Certification of Disclosure in Issuer's Annual and Interim Filings ("NI 52-109"), the Chief Executive Officer and Chief Financial Officer of the Company are required to file a Venture Issuer Basic Certificate with respect to the financial information contained in the unaudited interim financial statements and the audited annual financial statements and respective accompanying Management's Discussion and Analysis. The Venture Issuer Basic Certificate does not include representations relating to the establishment and maintenance of disclosure controls and procedures and internal control over financial reporting, as defined in NI 52-109.

Forward-Looking Statements. Certain information provided in this MD&A constitutes forward-looking statements. Specifically, this MD&A contains forward-looking statements relating to reserves, financing requirements, the anticipated timing and outcomes of regulatory determinations, the anticipated use of proceeds from the private placement, future results from operations, projected financial results, future capital and operating costs, future production rates, proposed exploration and development activities and the timing for such activities, sources and availability of capital, and capital spending levels. Forward-looking statements are necessarily based upon assumptions and judgments with respect to the future including, but not limited to, the timing of regulatory licenses and approvals, the success of future drilling, completion, recompletion and development activities, the outlook for commodity markets and ability to access capital markets, the performance of producing wells and reservoirs, well development and operating performance, general economic and business conditions, weather and access to drilling locations, the availability and cost of labour and services, environmental regulation, including regulation relating to hydraulic fracturing and stimulation, the ability to monetize hydrocarbons discovered, the regulatory and legal environment and other risks associated with oil and gas operations. Although we believe that the expectations and assumptions on which the forward-looking statements are based are reasonable, undue reliance should not be placed on the forward-looking statements because we can give no assurance that they will prove to be correct. Since forward looking statements address future events and conditions, by their very nature they involve inherent risks and uncertainties. Actual results could differ materially from those currently anticipated due to a number of factors and risks. These include, but are not limited to, risks associated with the oil and gas industry in general (e.g., operational risks in development, exploration and production; delays or changes in plans with respect to exploration or development projects or capital expenditures; the uncertainty of reserve estimates; the uncertainty of estimates and projections relating to production, costs and expenses, reliance on industry partners, availability of equipment and personnel, uncertainty surrounding timing for drilling and completion activities resulting from weather and other factors, changes in applicable regulatory regimes and health, safety and environmental risks), commodity price and exchange rate fluctuations and general economic conditions. Certain of these risks are set out in more detail in our 2018 Annual Information Form which has been filed on SEDAR and can be accessed at www.sedar.com. Except as may be required by applicable securities laws, Alvopetro assumes no obligation to publicly update or revise any forward-looking statements made herein or otherwise, whether as a result of new information, future events or otherwise.

Oil and Natural Gas Reserves. All net present values in this MD&A are based on estimates of future operating and capital costs and GLJ's forecast prices as of December 31, 2018. The reserves definitions used in this evaluation are the standards defined in the Canadian Oil and Gas Evaluation Handbook reserve definitions and consistent with NI 51-101 and used by GLJ. The disclosure in the MD&A summarizes certain information contained in the GLJ Report but represents only a portion of the disclosure required under NI 51-101. Full disclosure with respect to the Company's reserves as at December 31, 2018 is contained in the Company's 2018 Annual Information Form which has been filed on SEDAR and can be accessed at www.sedar.com.

Abbreviations:

m3/d	=	cubic metre per day
mcf	=	thousand cubic feet
mcfe	=	thousand cubic feet of gas equivalent
mcfpd	=	thousand cubic feet per day
mmboe	=	million barrels of oil equivalent
mmbtu	=	million British Thermal Units
mmcf	=	million cubic feet
mmcfpd	=	million cubic feet per day
bopd	=	barrels of oil per day

BOE Disclosure. The term barrels of oil equivalent ("boe") may be misleading, particularly if used in isolation. A boe conversion ratio of six thousand cubic feet per barrel (6 mcf/bbl) of natural gas to barrels of oil equivalence is based on an energy equivalency conversion method primarily applicable at the burner tip and does not represent a value equivalency at the wellhead. All boe conversions in this MD&A are derived from converting gas to oil in the ratio mix of six thousand cubic feet of gas to one barrel of oil.