



**ALVOPETRO ENERGY LTD.**

ANNUAL INFORMATION FORM  
FOR THE YEAR ENDED DECEMBER 31, 2017

DATED MARCH 20, 2018

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## DEFINITIONS AND ABBREVIATIONS

Unless the context indicates otherwise, the following terms shall have the meanings set out below when used in this Annual Information Form. Certain other terms and abbreviations used herein, but not defined herein, are defined in NI 51-101 or the COGE Handbook and, unless the context otherwise requires, shall have the same meanings herein as in NI 51-101 or the COGE Handbook.

“**ABCA**” means the *Business Corporations Act*, R.S.A. 2000, c. B-9;

“**AIF**” or “**Annual Information Form**” means this annual information form;

“**Alvopetro**” or “**the Corporation**” means Alvopetro Energy Ltd., a corporation existing under the laws of the Province of Alberta;

“**ANP**” means Agência Nacional do Petróleo, Gás Natural e Biocombustíveis, or National Agency of Petroleum, Natural Gas and Biofuels, an agency of the Brazilian government;

“**Arrangement**” means the arrangement pursuant to Section 193 of the ABCA involving Petrominerales, Pacific Rubiales Energy Corp., Alvopetro and the shareholders of Petrominerales;

“**Board**” or “**Board of Directors**” means the board of directors of Alvopetro as it may be comprised from time to time;

“**COGE Handbook**” means the Canadian Oil and Gas Evaluation Handbook prepared jointly by the Society of Petroleum Evaluation Engineers (Calgary chapter) and the Canadian Institute of Mining, Metallurgy & Petroleum;

“**Common Shares**” means the common shares in the capital of Alvopetro;

“**D&M**” means DeGolyer and MacNaughton, a firm of independent reserves evaluators;

“**D&M Report**” means D&M’s independent contingent resource report of Alvopetro’s conventional natural gas pool located on Blocks 197 and 198 in the Recôncavo Basin onshore Brazil, dated effective June 30, 2015;

“**NI 51-101**” means National Instrument 51-101 - *Standards of Disclosure for Oil and Gas Activities*;

“**Petrominerales**” means Petrominerales Ltd.;

“**Shareholders**” means the holders from time to time of Common Shares, collectively or individually, as the context requires;

“**Sproule Report**” means the independent engineering report dated March 6, 2018 and effective December 31, 2017 prepared by Sproule evaluating the oil, NGLs and natural gas reserves attributable to the Corporation;

“**Sproule**” means Sproule International Limited, independent oil and natural gas reservoir engineers;

“**Tax Act**” means the *Income Tax Act*, R.S.C. 1985, c.1 (5<sup>th</sup> Supp.) and the regulations made thereunder, as now in effect and as they may be promulgated or amended from time to time;

“**TSXV**” means the TSX Venture Exchange; and

“**United States**” or “**U.S.**” means the United States of America, its territories and possessions, any state of the United States, and the District of Columbia;

Words importing the singular number only include the plural, and vice versa, and words importing any gender include all genders. All dollar amounts set forth in this Annual Information Form are in Canadian dollars, except where otherwise indicated.

## ABBREVIATIONS AND CONVERSION

In this Annual Information Form, the abbreviations set forth below have the following meanings:

<b>Oil and Natural Gas Liquids</b>		<b>Natural Gas</b>	
Bbl	barrel	Mcf	thousand cubic feet
Bbls	barrels	MMcf	million cubic feet
Mbbls	thousand barrels	Mcf/d	thousand cubic feet per day
MMbbls	million barrels	MMcf/d	million cubic feet per day
Mstb	1,000 stock tank barrels	MMBTU	million British Thermal Units
Bbls/d	barrels per day	Bcf	billion cubic feet
BOPD	barrels of oil per day	GJ	gigajoule
NGL	natural gas liquids		

The following table sets forth certain standard conversions from Standard Imperial Units to the International System of Units (or metric units).

<b>To Convert From</b>	<b>To</b>	<b>Multiply By</b>
Mcf	Cubic metres	28.174
Cubic metres	Cubic feet	35.494
Bbls	Cubic metres	0.159
Cubic metres	Bbls	6.293
Feet	Metres	0.305
Metres	Feet	3.281
Miles	Kilometres	1.609
Kilometres	Miles	0.621
Acres	Hectares	0.405
Hectares	Acres	2.50
Gigajoules	MMbtu	0.950
MMbtu	Gigajoules	1.0526

### Other

°API	an indication of the specific gravity of crude oil measured on the API gravity scale. Liquid petroleum with a specified gravity of 28° API or higher is generally referred to as light crude oil
BOE	barrel of oil equivalent on the basis of 1 BOE to 6 Mcf of natural gas
BOE/d	barrel of oil equivalent per day
m <sup>3</sup>	cubic metres
MBOE	1,000 barrels of oil equivalent
\$	Canadian dollars
R\$	Brazilian real
US\$	U.S. or United States dollars

### NON-GAAP MEASURES

This AIF contains the term “netback” which is not defined by International Financial Reporting Standards (“IFRS”) and therefore may not be comparable to performance measures presented by others. In this AIF, “netback” is calculated by deducting royalties and production taxes paid and production costs, including transportation costs, from prices received, excluding the effects of hedging. Management believes that in addition to net income (loss), netbacks are a useful supplemental measure as they assist in the determination of the Corporation's operating performance. Readers should be cautioned, however, that this measure should not be construed as an alternative to either net income (loss) or net cash from (used in) operating activities, which are determined in accordance with IFRS, as indicators of the Corporation's performance.

## NOTES ON RESERVES DATA AND OTHER OIL AND NATURAL GAS INFORMATION

### Caution Respecting Reserves Information

The determination of oil and natural gas reserves involves the preparation of estimates that have an inherent degree of associated uncertainty. Categories of proved and probable reserves have been established to reflect the level of these uncertainties and to provide an indication of the probability of recovery. The estimation and classification of reserves requires the application of professional judgment combined with geological and engineering knowledge to assess whether or not specific reserves classification criteria have been satisfied. Knowledge of concepts including uncertainty and risk, probability and statistics, and deterministic and probabilistic estimation methods is required to properly use and apply reserves definitions.

**The recovery and reserve estimates of oil, NGL and natural gas reserves provided herein are estimates only. Actual reserves may be greater than or less than the estimates provided herein. The estimated future net revenue from the production of the Corporation's natural gas and petroleum reserves does not represent the fair market value of the Corporation's reserves.**

### Caution Respecting BOE

In this AIF, the abbreviation BOE means barrel of oil equivalent on the basis of 1 BOE to 6 Mcf of natural gas when converting natural gas to BOEs. **BOEs may be misleading, particularly if used in isolation. A BOE conversion ratio of 6 Mcf to 1 BOE is based on an energy equivalency conversion method primarily applicable at the burner tip and does not represent a value equivalency at the wellhead. Given that the value ratio of oil compared to natural gas based on currently prevailing prices is significantly different than the energy equivalency conversion ratio of 6 Mcf to 1 BOE, utilizing a conversion ratio of 6 Mcf to 1 BOE may be misleading as an indication of value.**

### Definitions

Certain terms used in this AIF in describing reserves and other oil and natural gas information are defined below. Certain other terms and abbreviations used in this AIF, but not defined or described, are defined in NI 51-101 or the COGE Handbook and, unless the context otherwise requires, shall have the same meanings herein as in NI 51-101 or the COGE Handbook.

#### *Reserves*

Reserves are estimated remaining quantities of oil and natural gas and related substances anticipated to be recoverable from known accumulations, from a given date forward, based on: (a) analysis of drilling, geological, geophysical and engineering data; (b) the use of established technology; and (c) specified economic conditions, which are generally accepted as being reasonable and shall be disclosed. Reserves are classified according to the degree of certainty associated with the estimates as follows:

**"proved reserves"** are those reserves that can be estimated with a high degree of certainty to be recoverable. It is likely that the actual remaining quantities recovered will exceed the estimated proved reserves.

**"probable reserves"** are those additional reserves that are less certain to be recovered than proved reserves. It is equally likely that the actual remaining quantities recovered will be greater or less than the sum of the estimated proved plus probable reserves.

The qualitative certainty levels referred to in the definitions above are applicable to "individual reserves entities" (which refers to the lowest level at which reserves calculations are performed) and to "reported reserves" (which refers to the highest-level sum of individual entity estimates for which reserves estimates are presented). Reported reserves should target the following levels of certainty under a specific set of economic conditions:

- at least a 90 percent probability that the quantities actually recovered will equal or exceed the estimated proved reserves; and
- at least a 50 percent probability that the quantities actually recovered will equal or exceed the sum of the estimated proved plus probable reserves.

Each of the reserves categories (proved and probable) may be divided into developed and undeveloped categories as follows:

**“developed reserves”** are those reserves that are expected to be recovered from existing wells and installed facilities or, if facilities have not been installed, that would involve a low expenditure (e.g., when compared to the cost of drilling a well) to put the reserves on production. The developed category may be subdivided into producing and non-producing as follows:

**“developed producing reserves”** are those reserves that are expected to be recovered from completion intervals open at the time of the estimate. These reserves may be currently producing or, if shut-in, they must have previously been on production, and the date of resumption of production must be known with reasonable certainty.

**“developed non-producing reserves”** are those reserves that either have not been on production, or have previously been on production, but are shut-in, and the date of resumption of production is unknown.

**“undeveloped reserves”** are those reserves expected to be recovered from known accumulations where a significant expenditure (e.g., when compared to the cost of drilling a well) is required to render them capable of production. They must fully meet the requirements of the reserves classification (proved, probable, possible) to which they are assigned.

In multi-well pools, it may be appropriate to allocate total pool reserves between the developed and undeveloped categories or to sub-divide the developed reserves for the pool between developed producing and developed non-producing. This allocation should be based on the estimator's assessment as to the reserves that will be recovered from specific wells, facilities and completion intervals in the pool and their respective development and production status.

#### *Interests in Reserves, Production, Wells and Properties*

**“gross”** means: (a) in relation to an issuer's interest in production or reserves, its "company gross reserves", which are its working interest (operating or non-operating) share before deduction of royalties and without including any royalty interests of the issuer; (b) in relation to wells, the total number of wells in which an issuer has an interest; and (c) in relation to properties, the total area of properties in which an issuer has an interest.

**“net”** means: (a) in relation to an issuer's interest in production or reserves its working interest (operating or non-operating) share after deduction of royalty obligations, plus its royalty interests in production or reserves; (b) in relation to an issuer's interest in wells, the number of wells obtained by aggregating the issuer's working interest in each of its gross wells; and (c) in relation to an issuer's interest in a property, the total area in which the issuer has an interest multiplied by the working interest owned by the issuer.

**“working interest”** means the percentage of undivided interest held by an issuer in the oil and/or natural gas or mineral lease granted by the mineral owner, which interest gives the issuer the right to "work" the property (lease) to explore for, develop, produce and market the leased substances.

#### *Description of Exploration and Development Wells and Costs*

**“development costs”** means costs incurred to obtain access to reserves and to provide facilities for extracting, treating, gathering and storing the crude oil and natural gas from the reserves. More specifically, development costs, including applicable operating costs of support equipment and facilities and other costs of development activities, are costs incurred to: (a) gain access to and prepare well locations for drilling, including surveying well locations for the purpose of determining specific development drilling sites, clearing ground, draining, road building, and relocating public roads, gas lines and power lines, to the extent necessary in developing the reserves; (b) drill and equip development wells, development type stratigraphic test wells and service wells, including the costs of platforms and of well equipment such as casing, tubing, pumping equipment and wellhead assembly; (c) acquire, construct and install production facilities such as flow lines, separators, treaters, heaters, manifolds, measuring devices and production storage tanks, natural gas cycling and processing plants, and central utility and waste disposal systems; and (d) provide improved recovery systems.

**“development well”** means a well drilled inside the established limits of an oil or gas reservoir, or in close proximity to the edge of the reservoir, to the depth of a stratigraphic horizon known to be productive.

**“exploration costs”** means costs incurred in identifying areas that may warrant examination and in examining specific areas that are considered to have prospects that may contain oil and natural gas reserves, including costs of drilling exploratory wells and exploratory type stratigraphic test wells. Exploration costs, which include applicable operating costs of support equipment and facilities and other costs of exploration activities, are: (a) costs of topographical, geochemical, geological and geophysical studies, rights of access to properties to conduct those studies, and salaries and other expenses of geologists, geophysical crews and others conducting those studies (collectively sometimes referred to as “geological and geophysical costs”); (b) costs of carrying and retaining unproved properties, such as delay rentals, taxes (other than income and capital taxes) on properties, legal costs for title defence, and the maintenance of land and lease records; (c) dry hole contributions and bottom hole contributions; (d) costs of drilling and equipping exploratory wells; and (e) costs of drilling exploratory type stratigraphic test wells.

**“exploration well”** means a well that is not a development well, a service well or a stratigraphic test well.

**“service well”** means a well drilled or completed for the purpose of supporting production in an existing field. Wells in this class are drilled for the following specific purposes: gas injection (natural gas, propane, butane or flue gas), water injection, steam injection, air injection, salt water disposal, water supply for injection, observation or injection for combustion.

**“stratigraphic test well”** means a drilling effort, geologically directed, to obtain information pertaining to a specific geologic condition. Ordinarily, such wells are drilled without the intention of being completed for hydrocarbon production. They include wells for the purpose of core tests and all types of expendable holes related to hydrocarbon exploration. Stratigraphic test wells are classified as: (a) “exploratory type” if not drilled into a proved property; or (b) “development type”, if drilled into a proved property. Development type stratigraphic wells are also referred to as “evaluation wells”.

## FORWARD-LOOKING STATEMENTS

Certain statements or disclosures contained in this Annual Information Form constitute forward-looking statements. The use of any of the words “anticipate”, “continue”, “estimate”, “expect”, “may”, “will”, “project”, “should”, “believe” and similar expressions are intended to identify forward-looking statements. These statements involve known and unknown risks, uncertainties and other factors that may cause actual results or events to differ materially from those anticipated in such forward-looking statements. The Corporation believes the expectations reflected in those forward-looking statements are reasonable, but no assurance can be given that these expectations will prove to be correct. Since forward-looking statements address future events and conditions, by their very nature they involve inherent risks and uncertainties. Such forward-looking statements included in this Annual Information Form should not be unduly relied upon. These statements speak only as of the date of this Annual Information Form.

In particular, this Annual Information Form may contain forward-looking statements and information pertaining to the following:

- the size of the oil and natural gas reserves and resources of the Corporation and anticipated future cash flows from such reserves and resources;
- the anticipated outcomes of regulatory determinations and completion of the unitization of certain fields;
- the performance characteristics of the Corporation’s oil and natural gas properties;
- oil and natural gas production levels;
- projections of market prices and costs;
- supply and demand for oil and natural gas;
- expectations regarding the ability to raise capital and to continually add to reserves through acquisitions and development;
- estimated abandonment and reclamation costs;
- the impact of governmental controls and regulations on Alvo Petro’s operations;
- Alvo Petro’s competitive advantages and ability to compete successfully;
- Alvo Petro’s expectations regarding the development and production potential of its properties;
- expectations with respect to the expiration of rights to explore, develop and exploit Alvo Petro’s properties;
- intentions with respect to compliance with environmental requirements;
- community initiatives and relationships of Alvo Petro;

- intentions with respect to the implementation of programs that support an environmental management system and attempts to manage and mitigate the environmental impact of Alvopetro's operations;
- treatment under governmental regulatory regimes and tax and royalty laws; and
- capital expenditure programs, the allocation of such capital and the timing thereof.

With respect to forward looking statements contained in this Annual Information Form, the Corporation has made assumptions regarding:

- oil and natural gas production levels;
- the success of the Corporation's operations and exploration and development activities and the unitization of discoveries, where required;
- prevailing weather conditions, commodity prices and exchange rates;
- the availability of capital to fund planned expenditures;
- the timing and amount of capital expenditures;
- the timing and receipt of government approvals and permits, where required;
- compliance with and liabilities under environmental laws and regulations;
- general economic and financial market conditions;
- the ability of the Corporation to secure necessary personnel, equipment and services;
- government regulation in the areas of taxation, royalty rates and environmental protection; and
- the success of exploration and development activities.

The actual results, performance or achievements of the Corporation may differ materially from those anticipated in these forward-looking statements as a result of the risk factors set forth below and elsewhere in this Annual Information Form:

- volatility in market prices for oil and natural gas;
- volatility in exchange rates;
- liabilities inherent in oil and natural gas operations;
- uncertainties associated with estimating oil and natural gas reserves and resources;
- inability to secure labour, services or equipment on a timely basis or on favourable terms;
- competition for, among other things, capital, acquisitions of reserves, undeveloped lands and skilled personnel;
- unfavourable weather conditions;
- failure to obtain required approvals and permits from regulatory authorities, including unitization of discoveries where required and approval of development plans where required;
- impacts relating to general economic conditions in Canada, Brazil, the United States, and global markets;
- failure to obtain industry partners and other third party consents and approvals when required;
- failure to commercialize discoveries;
- the impact of amendments to applicable tax legislation, including the Tax Act and Brazilian tax legislation, on Alvopetro;
- changes in or the introduction of new government regulations, in particular related to hydraulic fracturing and stimulation, relating to Alvopetro's business;
- the uncertainty of Alvopetro's ability to attract debt or equity capital when necessary;
- incorrect assessments of the value of acquisitions and exploration and development programs;
- geological, technical, drilling, completion and processing challenges;
- ability to manage expiries and other commitments and to successfully obtain extensions, suspensions or approvals from the ANP as may be needed to manage our assets;
- the outcome of litigation brought against the Corporation or other disputes involving the Corporation;
- changes in legislation, including changes in incentive programs relating to the oil and gas industry; and
- the other factors discussed under the heading "Risk Factors".

Statements relating to "reserves" or "resources" are deemed to be forward-looking statements, as they involve the implied assessment, based on certain estimates and assumptions that the resources and reserves described can be profitably produced in the future.



Readers are cautioned that the foregoing lists of factors are not exhaustive. The forward-looking statements contained in this Annual Information Form are expressly qualified by this cautionary statement. The Corporation does not undertake any obligation to publicly update or revise any forward-looking statements other than as required under applicable securities laws.

## ALVOPETRO ENERGY LTD.

### Introduction

Alvopetro is a resource company engaged in the exploration, development and production of hydrocarbons in Brazil. As of the date of this annual information form, Alvopetro currently carries on the exploration for, and the acquisition, development and production of, hydrocarbons in the Recôncavo and Camamu-Almada basins onshore Brazil. As at December 31, 2017, Alvopetro held interests in three producing fields and 13 exploration blocks comprising 127,539 gross (110,343 net) acres onshore Brazil. Subsequent to December 31, 2017, Alvopetro relinquished Block 177 and sold its 5% participating interest in Block 107 for a 5% gross overriding royalty, subject to ANP approval. As at the date of this annual information form, Alvopetro holds interests in three producing fields and 11 exploration blocks comprising 73,473 gross (63,460 net) acres onshore Brazil.

On December 4, 2013, Alvopetro was listed on the TSXV under the symbol “ALV” and on December 5, 2013, the Common Shares commenced trading.

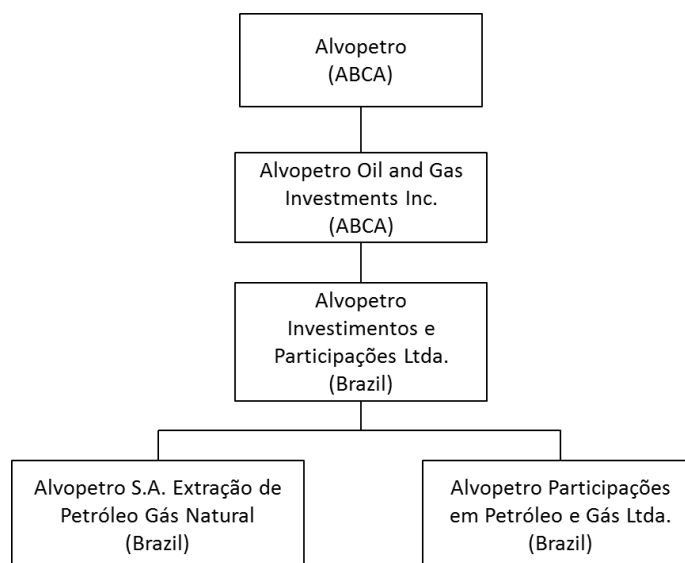
### Name, Address and Incorporation

Alvopetro was incorporated under the ABCA on September 25, 2013 as “1774501 Alberta Ltd.” On November 19, 2013, Alvopetro amended its articles to change its name to “Alvopetro Energy Ltd.” On January 1, 2014 the Corporation amalgamated with 1765823 Alberta Ltd., a wholly-owned subsidiary, by way of articles of amalgamation and continued under the name “Alvopetro Energy Ltd.”

The principal business office of Alvopetro is located at Suite 1700, 525 – 8<sup>th</sup> Avenue SW, Calgary, Alberta, T2P 1G1 and the registered office of Alvopetro is located at Suite 4000, 421 – 7<sup>th</sup> Avenue S.W., Calgary, Alberta, T2P 4K9.

### Intercorporate Relationships

The organizational structure of Alvopetro is as set out below. Alvopetro holds a 100% voting interest, either directly or indirectly, in each of its subsidiaries.



## GENERAL DEVELOPMENT OF THE BUSINESS

### History

Alvopetro was incorporated under the ABCA on September 25, 2013 as “1774501 Alberta Ltd.” for the sole purpose of participating in the Arrangement between Alvopetro, Pacific Rubiales Energy Corp., Petrominerales and the shareholders of Petrominerales. The Arrangement was completed on November 28, 2013. Under the terms of the Arrangement, Pacific Rubiales Energy Corp. acquired all of the outstanding shares of Petrominerales and the then shareholders of Petrominerales received, for each share of Petrominerales held, \$11.00 in cash and one Common Share. With the closing of the Arrangement, Alvopetro became a standalone resource company holding all of the Brazilian assets owned by Petrominerales prior to closing of the Arrangement.

## DESCRIPTION OF THE BUSINESS

### Business

As of the date of this annual information form, Alvopetro is engaged in the exploration for, and the acquisition, development and production of, hydrocarbons in the Recôncavo and Camamu-Almada basins onshore Brazil. Alvopetro holds interests in three producing fields and 11 exploration blocks comprising 73,473 gross (63,460 net) acres onshore Brazil.

### Strategy

Alvopetro’s vision is to become a leading independent oil and natural gas operator in Brazil. Our strategy is to unlock the on-shore natural gas potential in the state of Bahia in Brazil, building off the development of our Caburé natural gas field and the construction of strategic midstream infrastructure. Our efforts in the near-term are concentrated on concurrently finalizing a long-term natural gas sales contract and a mandatory unitization process.

### Competitive Conditions

The oil and gas industry is highly competitive. Competition is particularly intense in the acquisition of prospective oil and gas properties and reserves. Alvopetro's competitive position depends on its geoscience and engineering expertise, its financial resources and its ability to efficiently acquire and develop its properties’ reserves. Alvopetro competes with a substantial number of other companies having larger technical staffs and greater financial and operational resources.

In Brazil particularly, Petróleo Brasileiro SA (“Petrobras”) dominates the majority of the industry in Brazil, including all aspects of oil and gas exploration, development, transportation and sales. Petrobras, and many other companies in Brazil, not only engage in the acquisition, exploration, development and production of oil and gas reserves, but also carry on refining operations and market refined products. Alvopetro competes with Petrobras, 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. Due to Petrobras’ position in all aspects of Brazil’s energy market, Alvopetro may encounter challenges with respect to transporting and marketing crude oil and natural gas. Access to pipelines and other transportation infrastructure may be limited or the terms on which such access is provided may not be favourable.

Alvopetro also competes with other oil and gas companies in attempting to secure drilling rigs and other equipment necessary for drilling and completion of wells. Such equipment may be in short supply from time to time. In addition, equipment and other materials necessary to construct production and transmission facilities may be in short supply from time to time. Finally, companies not previously investing in the oil and gas industry may choose to acquire reserves providing additional competition for Alvopetro. Alvopetro believes it is well positioned to succeed in the current economic climate in which it operates.

### Specialized Skill and Knowledge

Exploration for and development of petroleum resources requires specialized skills and knowledge, including in the areas of petroleum engineering, geophysics, and geology. Alvopetro’s management team has the required specialized skills and knowledge to carry out Alvopetro’s operations.

## **Cycles**

Alvopetro's business is not seasonal, except to the extent that seasonality may determine the timing of operations and weather delays may affect the speed of completion of operations. Alvopetro's revenues are generally reliant on international commodity prices, which have fluctuated widely during recent years and are determined by worldwide supply and demand factors, including weather and general economic conditions.

## **Employees**

As of the date hereof, Alvopetro has three officers who are employed by Alvopetro. Alvopetro and its subsidiaries employ 34 employees, of which 26 employees are based in Brazil. Alvopetro may require additional employees and third party consultants and contractors based on future operational and administrative demands.

## **Foreign Operations**

All of Alvopetro's operations are in Brazil. International operations are subject to political, economic and other uncertainties, including but not limited to, risk of terrorist activities, corruption, revolution, border disputes, expropriation, nationalization of assets by the Brazilian government, renegotiations or modification of existing contracts, import, export and transportation regulations and tariffs, taxation policies, including royalty and tax increases and retroactive tax claims, exchange controls, limits on allowable levels of production, currency fluctuations, labour disputes and other uncertainties arising out of foreign government sovereignty over Alvopetro's international operations. Alvopetro's operations may also be adversely affected by applicable laws and policies of Brazil which could have a negative impact on Alvopetro.

## **Environment, Health and Safety Policies and Procedures**

Alvopetro's main environmental strategies include the preparation of comprehensive environmental impact assessments and assembling project-specific environmental management plans. Alvopetro encourages local community engagement in environmental planning in order to create a positive relationship between our business, our stakeholders and those who are impacted by our business.

Alvopetro is committed to meeting its responsibilities to protect the environment wherever it operates and will take such steps as required to ensure compliance with environmental legislation. Monitoring and reporting programs for environment, health and safety ("**EH&S**") performance in day-to-day operations, as well as inspections and assessments, are designed to provide assurance that environmental and regulatory standards are met. Alvopetro maintains an active comprehensive integrity monitoring and management program for surface piping, facilities, and storage tanks. Contingency plans are in place for a timely response to an environmental event and abandonment, remediation and reclamation programs are in place and utilized to restore the environment. Alvopetro performs a detailed due diligence review as part of acquisition processes to determine whether the acquired assets are in compliance with regulatory and environmental requirements and assesses any liabilities with respect thereto.

Management of Alvopetro are responsible for reviewing Alvopetro's strategies and policies regarding health, safety and the environment, including Alvopetro's emergency response plan. Management of Alvopetro reports to the Board on a quarterly basis with respect to EH&S matters, including: (i) compliance with all applicable laws, regulations and policies with respect to EH&S; (ii) emerging trends, issues and regulations related to EH&S that are relevant to Alvopetro; (iii) the findings of any significant reports by regulatory agencies, external EH&S consultants or auditors concerning performance in EH&S; (iv) any necessary corrective measures taken to address issues and risks with regards to performance in the areas of EH&S that have been identified by management, external auditors or by regulatory agencies; and (v) the results of any review with management, outside accountants, external consultants and legal advisors of the implications of major corporate undertakings such as the acquisition or expansion of facilities or decommissioning of facilities.

## **Trends in Environmental Regulation**

Alvopetro believes that it is reasonably likely that the trend towards stricter standards in environmental legislation and regulation will continue. Alvopetro anticipates increased capital and operating expenditures as a result of increasingly stringent laws relating to the protection of the environment. No assurance can be given that environmental laws will not result in a curtailment of production or a material increase in the costs of production, the development or exploration activities, or

otherwise adversely affect Alvopectro's financial condition, capital expenditures, results of operations, competitive position or prospects.

An injunction was issued by a Brazilian Federal Court in November 2014, as part of a legal proceeding filed by the Federal Prosecutor's Office against the ANP, the Federal Government and all operators of 12<sup>th</sup> Bid Round concession contracts, including Alvopectro. This injunction was aimed at preventing the ANP and operators from conducting unconventional operations on blocks acquired in ANP's 12th Bid Round until further studies are carried out by ANP of the possible environmental impact of drilling of unconventional resources. Alvopectro filed a successful petition with the Brazilian Federal Court, and as result, in January 2015, the Brazilian Federal Court clarified that Alvopectro 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. Alvopectro has work commitments outstanding on two 12<sup>th</sup> Bid Round Blocks (Block 169 and 255). Due to this ongoing injunction against unconventional activities, in December 2017 the Corporation filed a request with the ANP to cancel the Blocks 169 and 255 concession contracts, including the outstanding work commitments, and refund the bid round bonuses paid on each of these blocks.

## **Community Relations**

Alvopectro's community relations practices are focussed on ethics, communication and the respect of the rights and interests of all communities, individuals and stakeholders, in a manner consistent with our corporate Vision and Values. Our philosophy is to work to build trust, understanding and positive working relationships based on an open exchange of information to enable informed decision-making between Alvopectro and the communities in which we operate.

## **PRINCIPAL PROPERTIES**

As at December 31, 2017, Alvopectro held interests in three producing fields and 13 exploration blocks comprising 127,539 gross (110,343 net) acres onshore Brazil in three hydrocarbon basins: Recôncavo, Tucano, and Camamu-Almada.

### **Recôncavo Basin**

The Recôncavo Basin is a 10,200 square kilometre onshore basin, centred 85 kilometres north of the City of Salvador in northeast Brazil, in the province of Bahia. Oil production in Brazil first began in the Recôncavo Basin in 1939. To date, over 6,600 wells have been drilled in the Basin, with reported cumulative production exceeding 1.6 billion barrels of light oil. Current production is reported to be over 31,000 barrels of oil equivalent per day. The majority of the basin's production comes from the Sergi, Agua Grande, Candeias and Marfim Formations.

#### *Recôncavo Basin - Producing Fields*

Bom Lugar:

Alvopectro's mature Bom Lugar field, consisting of 2,238 gross acres, had average daily production for the year ended December 31, 2017 of 12 bbls/d. The field consists of one producing 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 battery is connected to the producing well and the injection well.

Mãe-da-lua:

The Company's Mãe-da-lua field consists of 432 gross acres. The producing well on this field was drilled to a total measured depth of 2,095 metres in 2015 and commenced production on December 19, 2015. For the year ended December 31, 2017, the well averaged production of 14 bbls/day. The field has a production battery which is equipped with testing, water separation and trucking facilities.

#### *Recôncavo Basin - Exploration Blocks*

As at December 31, 2017, the exploration assets in the Recôncavo Basin consist of the Caburé natural gas field and Blocks 182, 197, 183, 106, 107, 169, 198, 255, 57, 62, 71 and 145.

*Caburé Natural Gas Field:*

Alvopetro discovered its Caburé gas field with the 197(2) well which was drilled in 2014 and tested in 2015. The 197(2) well was previously part of Block 197, awarded in the 9th Brazil Bid Round. Alvopetro filed a declaration of commerciality for the 197(2) gas discovery commencing the Development and Production Phase, which extends to December 5, 2043, and “ring-fenced” the gas discovery from the remainder of Block 197. In early 2017, Alvopetro drilled and tested the 198(A1) well on Block 198, a 12th Brazil Bid Round Block, which is adjacent to the Caburé field and forms part of this gas discovery. Alvopetro also filed a declaration of commerciality with respect to this well and this portion of the field was named Caburé Leste. The Caburé Leste field is also in the Development and Production Phase with an expiry date of May 12, 2044. The remaining acreage of Block 198 was relinquished to the ANP in May 2017. The Caburé and Caburé Leste Fields are collectively referred to as the Caburé field or Caburé natural gas field throughout this annual information form.

The Caburé natural gas field also extends across two adjacent blocks owned by third parties. Under Brazilian legislation, petroleum accumulations straddling two or more licensed blocks must undergo unitization in order to promote efficient exploration and development. In 2017, the ANP was engaged to arbitrate the terms of the unitization. In January 2018, the ANP completed its review of all technical data and determined the initial working interest share for each resource owner as follows:

	<u>%</u>	<u>Gas in Place<sup>1</sup> mmboe (Bcf)</u>
Alvopetro	49.1%	10.40 (62.4)
Imetame Energia Ltda.	36.1%	7.65 (45.9)
Orteng Óleo & Gas S.A.	14.8%	<u>3.13 (18.8)</u>
		21.18 (127.1)

<sup>1</sup>Gas in place estimates published by the ANP following the review of all technical information submitted by Alvopetro and Imetame. Gas in place estimates represent ANP’s high resource in place estimate, have not been reviewed by Alvopetro’s external reserve evaluators and do not reflect recoverable reserves.

*9<sup>th</sup> Brazil Bid Round (Block 182, 183 and 197)*

Block 182:

Work completed to date on Block 182 includes 20.9 km<sup>2</sup> of 3D seismic and 5.9 km of 2D seismic and one exploration well that was drilled to 1,400 metres depth on the block boundary in November 2012. Block 182 is currently in the Development Assessment Plan (“PAD”) phase. In advance of the August 5, 2017 PAD expiry date, Alvopetro submitted a request to the ANP to suspend the PAD deadline due to the lack of an environmental permit. This suspension was approved by the ANP subsequent to December 31, 2017. Under the terms of the suspension the new PAD deadline will expire 278 days following receipt of the permit.

Block 183:

Block 183 was acquired through a farm-in agreement with a third party signed in May 2013. Alvopetro drilled one well, 183(1), on this block in October 2014. In June 2015, Alvopetro elected to continue to the second exploration phase of this block and, in June 2017, filed a request with the ANP to transfer the 183(1) well to the PAD phase with a firm commitment to test the 183(1) well and a contingent activity to perform a stimulation of the well. The remainder of the block would remain in the second exploration phase but under suspension due to the lack of an environmental permit to drill the well commitment associated with this phase. The ANP approved both of these requests and, in 2018, the Company tested three separate intervals of the 183(1) well.

Block 197:

On Block 197, Alvopetro discovered the Caburé natural gas field as discussed above. In addition, in April 2014, Alvopetro completed drilling the 197(1) well, targeting the Gomo formation. Prior to 2014, Alvopetro completed 5.9 km<sup>2</sup> of 3D seismic and 122.3 km of 2D seismic incurred. 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.

#### *11th Brazil Bid Round*

##### Block 106

Block 106 is adjacent to Alvo Petro's Bom Lugar oil field. In 2017, the ANP granted a suspension to the phase expiry of the Block due to the lack of an environmental permit; however, in January 2018, Alvo Petro requested that the suspension be lifted to begin preliminary work in satisfaction of a portion of the work commitment outstanding. The current phase expiry is now July 21, 2018.

##### Block 107

Block 107 is adjacent to Alvo Petro's Bom Lugar oil field. In 2016, Alvo Petro entered into a farmout agreement with an independent third party (the "Farmee") to transfer a 95% interest in Block 107. Pursuant to the terms of the agreement, the Farmee drilled a well in 2017, satisfying all outstanding work commitments on the block. In February 2018, Alvo Petro exchanged its remaining 5% participating interest in Block 107 for a 5% gross-overriding royalty on Block 107 and an adjacent block held by the Farmee.

#### *12th Brazil Bid Round - Blocks 169 & 255*

Blocks 169 and 255 were awarded to Alvo Petro in the 12th Brazil Bid Round and contracts were executed in May 2014. Given the current injunction against unconventional operations and the lack of regulations for hydraulic fracturing, in December 2017, Alvo Petro filed a request with the ANP to cancel these concession contracts and the associated work commitments and refund the original bid round bonuses paid.

#### *13th Brazil Bid Round (Blocks 57, 62, 71 and 145)*

Alvo Petro is operator and has a 65% participating interest in Blocks 57, 62, 71 and 145 awarded in the 13th Brazil Bid Round. All blocks have an initial phase expiry of January 24, 2019.

#### **Tucano Basin – Exploration Block**

The Tucano Basin, also in the state of Bahia, extends north and west of, and shares the same depositional history and stratigraphy as the Recôncavo Basin. The Tucano Basin is separated from the Recôncavo Basin by the Aporá high, where the sedimentary cover thins significantly or disappears entirely. Alvo Petro's interest in this basin was Block 177, a 46,505 acre block located on the southern edge of the Tucano Basin. In 2017, Alvo Petro drilled the 177(A1) well and performed additional work on the block, meeting the required work commitment. Block 177 was relinquished to the ANP in February 2018.

#### **Camamu-Almada Basin - Producing Field - Jiribatuba**

The 22,900 square kilometre Camamu-Almada Basin is located in the southern portion of the coast of Bahia State approximately 30 kilometres west-south-west of the city of Salvador. The basin is separated to the north from the Recôncavo Basin by the Itapoã and Barra transfer zone. The main reservoir unit are sandstones of the Morro do Barro formation which is also the mature source rock. Oil and gas has also been discovered in the Sergi and Rio de Contas formations. The Jiribatuba Field is within the Camamu-Almada Basin, which is located in the southern portion of Bahia State and consists of two sub-basins separated by the Itacare High. Four tectono-stratigraphic cycles can be distinguished in the Camamu-Almada Basin. The hydrocarbon accumulations are associated with the Morro do Barro-Sergi play, where structural traps occur within the pre- and syn-rift sedimentary section.

Alvo Petro holds an interest in the Camamu-Almada Basin in the Jiribatuba mature field of 563 gross acres. The Jiribatuba mature field produced from the Sergi formation, which consists of two shut-in wells and one active water disposal (injector) well. The shut-in well and injector are flow line connected to a production battery which is equipped with testing, water separation and trucking facilities. The Jiribatuba field had been shut-in since May 2016 and there was no production from the field in 2017.

## STATEMENT OF RESERVES DATA

In accordance with NI 51-101, Alvopetro engaged Sproule to prepare the Sproule Report. Sproule evaluated the oil reserves attributable to the Bom Lugar, Jiribatuba and Mãe-da-lua fields as of December 31, 2017. The Sproule Report is dated March 6, 2018.

Supplemental disclosure of Alvopetro's contingent resources data, prepared by D&M, has been included as Schedule A to this annual information Form. The D&M Report on contingent resources data in Form 51-101F2 and the report of management and directors on oil and gas disclosure in Form 51-101F3 are attached to this annual information form as appendices.

The Sproule Report was only an evaluation of our Bom Lugar, Jiribatuba and Mãe-da-lua fields properties, and did not include an evaluation of our Caburé natural gas field or our other exploration blocks. No proved or probable reserves were assigned to the Mãe-da-lua field as at December 31, 2017.

The tables below are a summary of the oil reserves attributable to the properties of the Corporation and the net present value of future net revenue attributable to such reserves as evaluated in the Sproule Report based on forecast price and cost assumptions. The tables summarize the data contained in the Sproule Report and, as a result, may contain slightly different numbers than such report due to rounding. Also, due to rounding, certain columns may not add exactly.

The net present value of future net revenue attributable to reserves is stated without provision for interest costs and general and administrative costs, but after providing for estimated royalties, production costs, development costs, other income, future capital expenditures, well abandonment and reclamation costs for only those wells assigned reserves and material dedicated gathering systems and facilities. It should not be assumed that the undiscounted or discounted net present value of future net revenue attributable to reserves estimated by Sproule represent the fair market value of those reserves. Other assumptions and qualifications relating to costs, prices for future production and other matters are summarized herein. The recovery and reserve estimates of oil reserves provided herein are estimates only. Actual reserves may be greater than or less than the estimates provided herein.

The Sproule Report is based on certain factual data supplied by the Corporation and Sproule's opinion of reasonable practice in the industry. The extent and character of ownership and all factual data pertaining to petroleum properties and contracts (except for certain information residing in the public domain) were supplied by the Corporation to Sproule. Sproule accepted this data as presented and neither title searches nor field inspections were conducted.

### Disclosure of Reserves Data

#### *Summary of Oil and Gas Reserves – Forecast Prices and Costs<sup>(1), (2), (6)</sup>*

	<b>Light and Medium Crude Oil</b>	<b>Light and Medium Crude Oil</b>
	Company Gross	Company Net
	(Mstb)	(Mstb)
<b>Total Proved</b>	-	-
Probable	697	659
<b>Total Proved plus Probable</b>	<b>697</b>	<b>659</b>

Summary of Before Tax Net Present Value of Future Net Revenue - MUS\$ <sup>(1), (2), (3), (4), (5)</sup>

	Undiscounted	5%	10%	15%	20%
<b>Total Proved</b>	-	-	-	-	-
Probable	23,829	16,389	11,648	8,509	6,356
<b>Total Proved plus Probable</b>	<b>23,829</b>	<b>16,389</b>	<b>11,648</b>	<b>8,509</b>	<b>6,356</b>

Summary of After Tax Net Present Value of Future Net Revenue – MUS\$ <sup>(1), (2), (3), (4) (5)</sup>

	Undiscounted	5%	10%	15%	20%
<b>Total Proved</b>	-	-	-	-	-
Probable	20,136	13,706	9,624	6,936	5,103
<b>Total Proved plus Probable</b>	<b>20,136</b>	<b>13,706</b>	<b>9,624</b>	<b>6,936</b>	<b>5,103</b>

**Notes:**

- (1) The tables above are a summary of the reserves of Alvo Petro and the net present value of future net revenue attributable to such reserves as evaluated in the Sproule Report based on forecast price and cost assumptions. The tables summarize the data contained in the Sproule Report and as a result may contain slightly different numbers than such report due to rounding. Also due to rounding, certain columns may not add exactly.
- (2) Company Gross reserves means the total working interest share of remaining recoverable reserves owned by Alvo Petro before deductions of royalties payable to others and without including any royalty interests owned by Alvo Petro. The Sproule Report assigned no proved reserves as at December 31, 2017 as the Company's existing production does not generate future net revenue.
- (3) Based on Sproule's December 31, 2017 escalated price forecast.
- (4) The net present value of future net revenue attributable to Alvo Petro's reserves is stated without provision for interest costs and general and administrative costs, but after providing for estimated royalties, production costs, development costs, other income, future capital expenditures, and well abandonment and reclamation costs for only those wells with assigned reserves and material, dedicated gathering systems and facilities. The net present values of future net revenue attributable to the Alvo Petro's reserves estimated by Sproule do not represent the fair market value of those reserves. Other assumptions and qualifications relating to costs, prices for future production and other matters are summarized herein. The recovery and reserve estimates of the Company's reserves provided herein are estimates only and there is no guarantee that the estimated reserves will be recovered. Actual reserves may be greater than or less than the estimates provided herein.
- (5) MUS\$ = 000's of U.S. dollars.
- (6) Mstb = thousand stock tank barrels

Summary of Before Tax Net Present Value of Future Net Revenue on a Unit Basis

**Unit Value Before Income Tax  
Discounted at 10%<sup>(1)</sup>  
(US\$/BOE)**

<b>Total Proved</b>	-
<b>Total Probable</b>	<b>17.68</b>
<b>Total Proved Plus Probable</b>	<b>17.68</b>

- (1) Unit values are based on net reserve numbers. Net oil reserve volumes include solution gas and associated by-products, net gas reserve volumes include associated by-products.

Net Present Value of Future Net Revenue— Forecast Prices and Costs

	<b>Future Net Revenue Before Income Taxes Discounted at 10%<sup>(1)</sup> (MUS\$)</b>	<b>Per Unit Future Net Revenue Before Income Taxes Discounted at 10%<sup>(2)</sup> (US\$/BOE)</b>
<b>Proved</b>		
Light and Medium Crude Oil <sup>(1)</sup>	-	-
<b>Proved plus Probable</b>		
Light and Medium Crude Oil <sup>(1)</sup>	11,648	17.68

**Notes:**

- (1) Based on net reserves volumes.
- (2) BOE Equivalent 6 Mcf = 1 BOE.



*Total Future Net Revenue (Undiscounted) – Forecast Prices and Costs*

(Undiscounted)	Revenue (MUS\$)	Royalties And Other Burdens (MUS\$)	Operating Costs (MUS\$)	Develop- ment Costs (MUS\$)	Well Abandon- ment and Other Costs (MUS\$)	Future Net Revenue Before Income Taxes (MUS\$)	Future Income Taxes (MUS\$)	Future Net Revenue After Income Taxes (MUS\$)
<b>Total Proved</b>	-	-	-	-	-	-	-	-
<b>Total Proved plus Probable</b>	54,704	6,513	17,256	6,468	639	23,828	3,693	20,136

*Pricing Assumptions – Forecast Prices and Costs*

Sproule employed the following pricing, exchange rate and inflation rate assumptions as of December 31, 2017 in the Sproule Report in estimating reserves data using forecast prices and costs.

Year	Sproule Forecast UK Brent Oil @ 38° API (US\$/Bbl)	Operating Cost Inflation (%/Yr)*	Capital Cost Inflation (%/Yr)*	Exchange rate (\$US/\$CAD)
2017 (Actual)	54.83	2.2	(3.4)	0.771
2018	58.00	0.0	0.0	0.790
2019	67.00	2.0	2.0	0.820
2020	72.00	2.0	2.0	0.850
2021	75.00	2.0	2.0	0.850
2022	76.50	2.0	2.0	0.850
2023	78.03	2.0	2.0	0.850
2024	79.59	2.0	2.0	0.850
2025	81.18	2.0	2.0	0.850
2026	82.81	2.0	2.0	0.850
2027	84.46	2.0	2.0	0.850
2028	86.15	2.0	2.0	0.850

\*Escalated at a rate of 2.0% per year thereafter.

Sproule's oil price forecast in effect on December 31, 2017 for Brent crude formed the basis for the prices used in its evaluation of the Corporation's reserves. For 2017, for the Bom Lugar Field, a negative price offset of US\$9.10 per barrel was applied to the Brent crude oil price forecast based on the oil sales contract that is in place, with the discount reduced by a gross up for certain taxes of approximately 9.25 percent of the sales price. For Jiribatuba production, a five percent discount from the Brent crude price forecast was applied based on the oil sales contract in place. Weighted Average Historical Price (Brent) of US\$54.83/Bbl was used for the year December 31, 2017. The December 31, 2017 exchange rate of 3.31 R\$/US\$ was used in the reserves evaluation. The Corporation's average sales price was US\$48.47/bbl for the year ended December 31, 2017.

### Reconciliation of Changes in Reserves

The following table summarized the changes in Gross Reserves from December 31, 2016 to December 31, 2017.

	Gross Proved (Mstb)	Gross Probable (Mstb)	Gross Proved Plus Probable (Mstb)
<b>December 31, 2016</b>	<b>12.3</b>	<b>699.3</b>	<b>711.6</b>
Technical Revisions	5.4	(13.9)	(8.5)
Discoveries	0.0	0.0	0.0
Economic Factors	(8.2)	11.9	3.7
Production	(9.5)	0.0	(9.5)
<b>December 31, 2017</b>	<b>0.0</b>	<b>697.3</b>	<b>697.3</b>

**Notes:**

- (1) Gross Reserves means the Corporation's working interest reserves before calculation of royalties.  
(2) Based on the Sproule price forecast effective December 31, 2017.

### Additional Information Relating to Reserves Data

#### Undeveloped Reserves

The following table sets forth the proved undeveloped reserves and the probable undeveloped reserves, each by product type, attributed to our assets:

	Light and Medium Crude Oil, Bbls	
	First Attributed Gross (Mbbbl)	Total Booked Gross (Mbbbl)
<b>Proved Undeveloped</b>		
December 31, 2015	-	-
December 31, 2016	-	-
December 31, 2017	-	-
<b>Probable Undeveloped</b>		
December 31, 2015	-	628.5
December 31, 2016	-	649.4
December 31, 2017	-	666.4

The Corporation's probable undeveloped reserves are attributable to new drilling locations on the Bom Lugar and Jiribatuba fields expected to be drilled in 2020.

### Significant Factors or Uncertainties Affecting Reserves Data

The process of estimating reserves is complex. It requires significant judgments and decisions based on available geological, geophysical, engineering, and economic data. These estimates may change substantially as additional data from ongoing development activities and production performance becomes available and as economic conditions impacting oil and gas prices and costs change. The reserve estimates contained herein are based on current production forecasts, prices and economic conditions.

As circumstances change or additional data becomes available, reserve estimates can change. Estimates made are reviewed and revised, either upward or downward, as warranted by the new information. Revisions are often required due to changes in well performance, prices, economic conditions and governmental restrictions.

Although every reasonable effort is made to ensure that reserve estimates are accurate, reserve estimation is an inferential process. As a result, subjective decisions, new geological or production information and a changing environment may impact these estimates. Revisions to reserve estimates can arise from changes in year-end oil and natural gas prices and reservoir performance. Such revisions can be either positive or negative.

### Future Development Costs

The table below sets out the total development costs deducted in the estimation in the Sproule Report of future net revenue attributable to proved reserves and proved plus probable reserves (using forecast prices and costs).

MUS\$( <sup>1</sup> )	Forecast Prices and Costs	
	Proved Reserves	Proved Plus Probable Reserves
2018	-	65
2019	-	-
2020	-	6,403
2021	-	-
2022	-	-
Remaining Years	-	-
<b>Total Undiscounted</b>	-	<b>6,468</b>
<b>Discounted at 10%</b>	-	<b>5,615</b>

**Notes:**

(1) MUS\$ = 000's of U.S. dollars.

Development of Alvopectro's probable undeveloped reserves at both the Bom Lugar and Jiribatuba fields has been planned for 2020. These activities have been deferred due to lower commodity prices and delays in commercializing our Caburé natural gas field. Alvopectro has prioritized activity on meeting near-term work commitments and on the Caburé natural gas field to establish a natural gas business and a strong base of cash flow that is expected to lead to expanded development and exploration drilling programs in the future. Alvopectro remains committed to the development of our Bom Lugar and Jiribatuba fields and we believe that after our Caburé field is on production we will be positioned to direct capital to these fields.

Alvopectro expects that financing will be required to execute the full development of our Caburé natural gas field which may be funded through project financing, vendor financing, other debt issuances, or equity issuances. Development of the Bom Lugar and Jiribatuba fields is expected to be funded from cash flow from the Caburé field; however, financing may also be required for this development to the extent Caburé production is delayed. The cost of the potential debt component for funding future development costs is expected to be minimal and to not materially impact the disclosed reserves or future net revenue.

### Other Oil and Gas Information

#### Oil and Gas Properties and Wells

The following table summarizes Alvopectro's gross and net wells as at December 31, 2017, which are shut-in or are producing, or which Alvopectro considers to be capable of production, and all of which are located onshore:

	Producing	Shut-in
Brazil		
Oil	2	3
<b>Total</b>	<b>2</b>	<b>3</b>

#### Properties with no Attributed Reserves

Effective December 31, 2017, Alvopectro had 124,306 gross and 107,110 net acres of unproved properties (exploration blocks) in Brazil. Subsequent to December 31, 2017, the Company relinquished Block 177 (a total of 46,505 gross and net acres) and exchanged its 5% working interest in Block 107 for a 5% gross-override royalty, subject to ANP approval. As of the date of this annual information form, Alvopectro has 70,240 gross (60,227 net) acres of properties with no attributed reserves or production.

Assuming Alvopectro is successful in obtaining the requests filed with the ANP as more particularly described in in the "Exploration Block Activities" below, none of Alvopectro's rights to explore, develop or exploit will, absent further action, expire within one year, as of December 31, 2017 other than those associated with Blocks 169 and 255.

For a description of Alvo Petro's contingent resources, including a discussion of the contingencies which prevent the Corporation's contingent resources from being classified as reserves, see Schedule A to this annual information form. See also "Risk Factors" in this annual information form.

### Exploration Block Activities

The chart below sets forth Alvo Petro's minimum work commitments with respect to its exploration blocks (unproved properties) in Brazil as of the date of this annual information form.

Block	Gross Acres	Working Interest	Current Phase Expiry	Estimated Commitment <sup>(1)</sup> (\$000's)
Caburé <sup>(2)</sup>	4,826	100%	December 5, 2043 and May 12, 2044	-
182	4,807	100%	Suspension in place	-
183	7,740	100%	October 1, 2018 <sup>(3)</sup>	1,008
197	3,484	100%	Suspension in place	-
106	7,759	100%	July 21, 2018	345
169	5,280	100%	Suspension in place <sup>(4)</sup>	1,149
255	7,734	100%	Suspension in place <sup>(4)</sup>	1,375
57	7,752	65%	January 24, 2019	45
62	7,715	65%	January 24, 2019	45
71	5,409	65%	January 24, 2019	38
145	7,734	65%	January 24, 2019	45
<b>Grand Total – work to be completed exploration assets</b>				<b>4,050</b>

(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 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) References to Caburé or the Caburé natural gas field throughout this AIF and in the table above 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) A portion of Block 183 is currently in the PAD phase with an expiry date of October 1, 2018. The remainder of the block is in exploration Phase II and is currently in suspension due to a lack of environmental permits.

(4) 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, and return the bid round bonuses paid. The blocks are in suspension as of the date of this annual information form, pending ANP's decision on this matter.

### Additional Information Concerning Abandonment and Reclamation Costs

Abandonment and reclamation costs were included in the Sproule report at the property level for all future wells with undeveloped reserves assigned and additional material, dedicated gathering systems and facilities required to enable production of these future wells. Abandonment and reclamation costs for existing wells with developed reserves assigned and existing material, dedicated gathering systems and facilities have been prepared by the Corporation and included in the Sproule report at the property level.

The estimated costs used to calculate total future net revenue from proved plus probable reserves in the Sproule Report include abandonment and reclamation costs associated with existing and future wells with reserves assigned and material, dedicated gathering systems and facilities required to enable production of these wells, but do not include abandonment and reclamation costs for existing wells with no assigned reserves which are included and set forth in the financial statements of Alvo Petro. The estimated abandonment and reclamation costs (with respect to wells included in the Sproule report) used to calculate total future net revenue from proved plus probable reserves is US\$0.6 million undiscounted, all of which is expected to be incurred in 2033 and later.

Using the exchange rate at December 31, 2017, well abandonment and reclamation costs estimated by the Corporation with respect to wells included in the Sproule report are approximately US\$39,000 per well and facility abandonment and reclamation costs are approximately US\$56,000.

### *Costs Incurred*

The following table summarizes capital expenditures and including capitalized general and administrative expenses related to Alvo Petro's activities for the year ended December 31, 2017:

<b>Year ended December 31, 2017 (MUS\$)</b>	
Property Acquisition Costs	-
Proved Properties	-
Unproved Properties	
Exploration Costs	5,355
Development Costs	77
<b>Total</b>	<b>5,432</b>

### *Exploration and Development Activities*

During the year ended December 31, 2017, the Corporation drilled and tested the 198(A1) well (1.0 net) and drilled and abandoned the 177(A1) well (1.0 net).

### *Production Estimates*

The following table discloses, for each product type, the total volume of production estimated by Sproule in the Sproule Report in the estimates of future net revenue from gross proved and gross proved plus probable reserves disclosed above for 2018.

	<b>Light and Medium Crude Oil</b>	
	<b>(Bbls/d)</b>	<b>%</b>
Bom Lugar	-	-
Jiribatuba	-	-
<b>Total Proved</b>	-	-
Bom Lugar	18	62%
Jiribatuba	11	38%
<b>Total Proved Plus Probable</b>	<b>29</b>	<b>100%</b>

As the Company does not generate net revenue from existing production at the Bom Lugar and Jiribatuba fields, no proved reserves were assigned and no production estimates were included in the Sproule Report. In addition, no proved or probable reserves were assigned by Sproule to the Company's Mae-da-lua field.

### *Tax Horizon*

The Sproule Report estimates that the Corporation will be taxable in 2020. Alvo Petro expects that current taxability may be delayed subsequent to 2020 given additional costs, including general and administrative costs, not included in the Sproule Report but included in the computations of Corporation's taxable income. As of December 31, 2017, the Corporation has total tax pools in Brazil of US\$82.8 million, which includes US\$30.4 million of tax loss carryforwards which carryforward indefinitely but are limited to annual utilization of up to 30% of taxable income in subsequent periods.

### *Production History*

The following tables disclose, on a quarterly basis for the year ended December 31, 2017, information in respect of production, product prices received, royalties paid, operating expenses and resulting netback.

*Average Daily Production Volume, Prices Received, Royalties Paid, Production Costs and Netback – Light & Medium Crude Oil:*

	Three Months Ended			
	Mar. 31, 2017	Jun. 30, 2017	Sept. 30, 2017	Dec. 31, 2017
Average Daily Production Volume	39	22	28	17
Sales price (US\$ per Bbl)	49.35	43.77	46.91	55.05
Transportation (US\$ per Bbl)	(2.60)	(2.04)	(2.35)	(2.59)
Net realized price (US\$ per Bbl)	46.75	41.73	44.56	52.46
Royalties and Production Taxes (US\$ per Bbl)	(4.91)	(6.11)	(4.69)	(6.48)
Production Expense (US\$ per Bbl)	(62.05)	(127.23)	(72.71)	(112.05)
<b>Operating Netback (US\$ per Bbl)<sup>(1)</sup></b>	<b>(20.21)</b>	<b>(91.61)</b>	<b>(32.84)</b>	<b>(66.07)</b>

**Notes:**

(1) Netback is calculated by deducting royalties paid and production costs, including transportation costs, from prices received, excluding the effects of hedging.

## INDUSTRY CONDITIONS

### Brazil

Brazil, located on the east coast of South America, is a federal republic characterized by its large and growing domestic market, diversified economy and oil industry. Brazil has a population of over 200 million people and is the world's ninth largest economy with proven oil reserves of approximately 12.6 billion Bbls and proven gas reserves of approximately 378 billion m<sup>3</sup> (as of 2016 as reported by the ANP) as a result of exploration success and a regulatory framework that allows for private investment.

Exploration in Brazil began in the 1930s and the first commercial discovery was made in 1939 in the Recôncavo Basin in the State of Bahia. However, production output did not experience substantial growth until the late 1970s when the state oil company, Petrobras, extended its operations offshore. In the Campos Basin, offshore Brazil, a series of deep-water discoveries were made in the 1980s and 1990s. The discovery of the "pre-salt" reserves (a group of reservoirs older than the salt layer) in the Santos Basin followed those in the Campos Basin, and have become the focal point of current hydrocarbon development in Brazil. The pre-salt discoveries are credited with being the potential catalyst for making Brazil an increasingly important oil exporter. However, there are also other opportunities that extend beyond the shallow and deep waters' conventional potential, including the mature coastal basins that have yet to undergo next generation exploration and development methodologies. The onshore basin opportunities include new exploration models for additional trapping opportunities, unconventional or tight oil and gas plays and enhanced recovery methods in existing hydrocarbon pools.

### Brazil - Hydrocarbon Law & Concessions Regime

Until 1995, Brazilian oil and gas activities were monopolized by state-owned Petrobras. Constitutional Amendment No. 09 (1995) adjusted this monopoly by allowing that the Brazilian government could contract with state-owned and private companies to conduct many oil and gas activities. Today, state-owned or private company participation in these oil activities is regulated in large part by Federal Law No. 9,478 (1997) (the "**Petroleum Law**"). Under the "concession" regime regulated by the Petroleum Law, the ANP has conducted 13 bidding rounds to grant concession contracts ("**Concession Contract**") for onshore and offshore petroleum exploration and production blocks to concessionaries, and to grant production contracts.

In addition to the existing concession regime, newer Brazilian laws have confirmed a "production sharing contract" to be applied for future licensing of the defined pre-salt area and certain other areas to be deemed strategic by the government.

The primary regulatory agencies charged with regulating oil and gas activities in Brazil are:

- (a) the Conselho Nacional de Política Energética, or National Council of Energy Policy, an agency of the Brazilian government, having the main purposes of fostering rational use of Brazil's energy resources, ensuring proper

functioning of the national fuels inventories system, reviewing energy matrixes for different regions of Brazil, and establishing guidelines; and

- (b) the ANP, being the national regulator of the oil, gas and biofuels industries, is generally charged with regulating, contracting and supervising activities related to oil and natural gas, and establishing technical standards for various related activities.

In addition to this regulatory framework, environmental regulations are applicable and some licences are required for the performance of oil and gas activities. Government environmental agencies are responsible for issuing such licences and federal or state rules may apply depending on the activity to be carried out. As mentioned above, there are two different regulatory frameworks for the granting of exploration and production rights in Brazil: the concession regime and the production sharing contract regime. The exploration and production rights to be held by Alvo Petro fall under the concession regime.

Under the concession regime, oil and gas blocks are awarded by means of bidding rounds carried out by the ANP. The ANP has the authority to define which oil and gas blocks shall be tendered and to release general terms and conditions comprised in the tender documents. Such tender documents establish all technical, financial and legal documents and requirements that the would be concessionaire must present or satisfy in order to be qualified to participate in the bidding round under various categories of participation. The ANP's bid evaluation criteria are signature bonus, minimum exploration program, and local content. Federal, state and local governments are recompensed through "government takes", which are defined as all payments to be made by a concessionaire as a result of the activities of exploration and production of oil and natural gas. Government takes consist of:

- Signature Bonus: a lump-sum payable in a single instalment upon execution of the concession agreement;
- Royalties: financial compensation to be paid monthly by the concessionaries;
- Special Participation: extraordinary financial compensation payable in the event that high volumes of oil or natural gas are produced or a certain field otherwise enjoys high profitability; and
- Payment for area occupation or retention: consists of a yearly sum to be paid for the occupation or retention of oil prospecting areas. ANP sets the amounts to be paid in the bidding documents and concession agreements, but there are minimum and maximum standards established by law.

There is no restriction on direct or indirect foreign participation in exploration and production rights, provided that the foreign investor incorporates a company under the Brazilian law with head office and management in Brazil and complies with all technical, legal and financial requirements established by the ANP. No preference rule is established.

Operations are generally divided into two phases: exploration and production. The exploration phase can be 5 years for mature blocks or 8 years for frontier blocks. The exploration terms are outlined in each bid round instruction and for Alvo Petro's blocks are 5 years, consisting of two phases of three and two years. The minimum exploration program of the first exploration phase is the work program bid to win the block, and for the second phase the minimum work program is typically one exploration well.

In the case of a discovery in the exploration phase, the company must notify ANP and, to assess the discovery, submit a "Discovery Assessment" that includes a specific request for a long-term production test, if required. Once the assessment is complete, the company submits a "Final Discovery Assessment Report" and then can declare "Commerciality". A Development Plan would then need to be submitted to the ANP within 6 months following commercial declaration. Once the ANP has accepted and approved the development plan (within 6 months of submission by the operator), the operator is granted the area for production purposes with the remaining land returned to the ANP. The development and production phase is for 27 years after the declaration of commerciality but may be extended if approved by the ANP. At the end of the development and production phase, any required abandonment and reclamation will be carried out and the field will be returned to the ANP.

### **Local Content**

All Concession Contracts have local content requirements, which are determined during the bidding process for each block and assessed at end of the expiry phase of each block. If the committed level of local content is not met, the operator will be

penalized. Penalties can be levied based on local content at the project level or at the expenditure level. Companies have to submit local content details as part of a regular quarterly report to the ANP. For the Concession Contracts held by Alvopectro, the local content requirement ranges between 70% to 85%, depending on the phase and the contract.

### Brazil – Royalties and Production Taxes

Royalties are chargeable on oil and gas production. The basic royalty payable under the Petroleum Law is 10%. This rate can be varied to a lower rate at the discretion of the ANP, but cannot be reduced below 5%. Reduced rates have occasionally been set during the initial licensing process. All of the Concession Contracts held by Alvopectro are subject to a base 10% royalty other than the Bom Lugar and Jiribatuba mature fields which are subject to a base 5% royalty.

Royalties and production taxes include Brazil’s Social Assistance Contribution (“COFINS”) and Social Integration Program (“PIS”) paid on revenues at a combined rate of 9.25%, offset by credits on available expenses. COFINS and PIS represent social contribution taxes.

In addition, landowners are entitled to a percentage of the production from their lands, which may vary from 0.5% to 1%, to be defined by the ANP according to the Petroleum Law. All of the Concession Contracts held by Alvopectro are subject to a 1% landowner royalty other than the Bom Lugar and Jiribatuba mature fields which are subject to a base 0.5% landowner royalty.

Certain third parties are entitled to a gross-override royalty on the Mãe-da-lua field, Block 182 and Block 197 (including the portion of the Caburé field attributable to Block 197). This gross-override royalty is 2.5% on gross revenues for these blocks, less Government royalties and taxes on revenue.

### Special Participation

The special participation, set forth in Item III, Article 45 of Brazil’s Law 9,478, of 1997, constitutes an extraordinary financial compensation owed by concessionaires of exploration and production of crude oil and natural gas, like Alvopectro, in the case of a large volume of production or high earnings, in accordance with the criteria established in this decree, and shall be paid in regard to each field of a determined concession area, from the quarter-year in which the respective start-up production date occurs.

The thresholds and rates set out below apply to onshore blocks in Brazil. Production up to these thresholds is exempt from the special participation.

	M <sup>3</sup> /Quarter	Bbls/D	Special Participation
Year 1	450,000	31,450	(RPL – RLP*450/VPF)*SP%
Year 2	350,000	24,461	(RPL – RLP*350/VPF)*SP%
Year 3	250,000	17,472	(RPL – RLP*250/VPF)*SP%
Year 4 and thereafter	150,000	10,483	(RPL – RLP*150/VPF)*SP%

**Where:**

- (1) RLP is Net profit per quarter
- (2) VPF is production per quarter, measured in thousands of cubic metres of equivalent oil for each field
- (3) SP% is the applicable special participation rate between 10% and 40% depending on the quarterly production volume, increasing at higher levels of production.

The net profit corresponding to each field of a given concession area equals the gross revenue from production from the field deducting the corresponding amount of the royalties, exploration investments, operational costs, depreciation and taxes directly related to the field operations, that have been actually disbursed during the concession agreement term, until it is assessed, and which have been determined according to the ANP rules, all divided by the volume of production produced. For the purposes of the calculations described under this “Special Participation” section, all amounts are computed in R\$.

When the net profit of a determined field is negative, it may be offset against the calculation of the special participation owed for that same field, for the following quarters.



In case of fields which extend over two or more concession areas, the assessment of the special participation shall be based on the net profit and the total production volume of the fields.

### **Brazil - Taxes**

The Corporation is under the actual tax regime in Brazil. The statutory tax rate applicable to corporate income is 34%. This is comprised of a basic 15% corporate income tax, plus 10% surtax and 9% social contribution tax. Tax losses may be carried forward indefinitely; however, any utilization of losses in a subsequent taxation year is limited to 30% of the taxable income in that period. As the Corporation is currently in an overall loss position, no current tax expense was realized in the 2017 taxation year.

There are also a number of other taxes and social contributions that are levied by federal, state and municipal authorities in Brazil on tangible and intangible investments made in connection with oil and gas projects. The two main forms of such levies are value-added (sales) taxes and import duties. The actual application of these levies is project and location specific.

### **RISK FACTORS**

An investment in Alvopetro should be considered highly speculative due to the nature of its activities and the stage of its development. Investors should carefully consider the following risk factors:

#### ***Substantial Capital Requirements; Liquidity; Financing***

Prior to commercial production from Alvopetro's properties, which is subject to the risks described in this section, Alvopetro anticipates making substantial capital expenditures for the acquisition, exploration, evaluation, delineation, development of and production from any potential project related to its properties. Significant capital expenditures will be required for the development of the Company's Caburé natural gas field, to meet outstanding exploration work commitments and for future development of the Company's Bom Lugar and Jiribatuba fields. These capital expenditures, along with the Company's ongoing general and administrative costs and operational expenditures are in excess of current cash balances. There can be no assurance that debt or equity financing, a bank loan facility or cash generated by operations will be available or sufficient to meet these and ongoing operational requirements or, if debt or equity financing is available, that it will be on terms acceptable to Alvopetro. 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, could result in the delay or indefinite postponement of further exploration, evaluation and development of Alvopetro's properties or the possible loss of its properties and could put at risk Alvopetro's ability to operate as a going concern.

Capital requirements are subject to normal capital market risks, primarily the availability and cost of capital. The extent to which Alvopetro will need to access additional funding will be subject to normal capital market risks, primarily the availability and cost of capital. Continuing improvement and sustainability of the global financial markets will be critical in determining the availability and cost of the debt and equity financing that may be required for development of Alvopetro's properties.

Expectations for the future price of oil and gas will be an important factor in determining Alvopetro's ability to access debt financing at the time that this may become necessary.

Neither Alvopetro's articles nor its by-laws limit the amount of indebtedness that Alvopetro may incur. Depending on the level of Alvopetro's indebtedness, this could from time to time impair Alvopetro's ability to obtain additional financing on a timely basis or take advantage of business opportunities as they arise.

#### ***Legal and Regulatory Systems***

Alvopetro's Caburé natural gas field requires unitization with the adjacent resource owner as well as government approval of the unitization agreement or agreements. Future discoveries may also require unitization. To the extent the Company is unable to negotiate a unitization agreement under acceptable terms or is unable to obtain government approval for the unitization, the Company may be unable to commercialize the discovery which may significantly impact the Company's ability to generate future cash flows and could result in a delay or indefinite postponement of the exploration, evaluation and development of Alvopetro's properties.

Brazil may have less of a developed legal system than jurisdictions with more established economies, which may result in risks such as: (i) effective legal redress in the courts of such jurisdictions, whether in respect of a breach of law or regulation or in an ownership dispute, being more difficult to obtain; (ii) a higher degree of discretion on the part of governmental authorities; (iii) the lack of judicial or administrative guidance on interpreting applicable rules and regulations; (iv) inconsistencies or conflicts between and within various laws, regulations, decrees, orders and resolutions; or (v) relative inexperience of the judiciary and courts in such matters. In certain jurisdictions, the commitment of local business people, government officials and agencies and the judicial system to abide by legal requirements and negotiated agreements may be more uncertain, creating particular concerns with respect to licences and agreements for business. These may be susceptible to revision or cancellation and legal redress may be uncertain or delayed. There can be no assurance that joint ventures, licences, licence applications or other legal arrangements will not be adversely affected by the actions of government authorities or others and the effectiveness of and enforcement of such arrangements in these jurisdictions cannot be assured.

### ***Commodity Price Fluctuations***

Commodity prices are unstable and are subject to fluctuation. Any material decline in prices could result in a reduction of Alvopectro's net production revenue and overall value and could result in impairment. The economics of producing from some wells may change as a result of lower prices, which could result in a reduction in the volumes of Alvopectro's reserves. Alvopectro might also elect not to produce from certain wells at lower prices. All of these factors could result in a sustained and material decrease in Alvopectro's net production revenue causing a reduction in its acquisition and development activities. A substantial material decline in prices from historical average prices could reduce Alvopectro's ability to borrow funds.

### ***Early Stage of Exploration and Development Activities***

The business of Alvopectro should be considered speculative due to its present stage of development. There can be no assurance that Alvopectro will be able to generate and sustain revenue or net income in the future. The long-term commercial success of Alvopectro depends on its ability to find, acquire, develop and commercially produce petroleum reserves. To date, the activities relating to the majority of Alvopectro's assets have been exploratory, which increases the degree of risk substantially as compared to projects in the production stage. The value of Alvopectro's assets will be dependent on discovering hydrocarbon deposits with commercial potential, and Alvopectro will have nominal earnings to support it should its properties prove not to be commercially viable.

The exploration and development of hydrocarbons involve a number of uncertainties that even thorough evaluation, experience and knowledge of the industry cannot eliminate. Alvopectro's exploration and possible development activities in Alvopectro's properties will depend in part on the evaluation of data obtained through geophysical testing and geological analysis. The results of such studies and tests are often subject to varying interpretations and no assurance can be given that such activities will produce hydrocarbons in commercial quantities. The exploration, evaluation and development activities that will be undertaken by Alvopectro are subject to greater risks than those normally associated with the acquisition and ownership of producing properties. Alvopectro's properties may fail to produce hydrocarbons in commercial quantities.

It is impossible to guarantee that the exploration programs on Alvopectro's properties will generate economically recoverable reserves. The commercial viability of a new hydrocarbon pool is dependent upon a number of factors which are inherent to reserves, such as hydrocarbon composition, associated non-hydrocarbon fluids and proximity of infrastructure, as well as commodity prices which are subject to considerable volatility, regulatory issues such as price regulation, taxes, royalties, land tax, import and export regulations, and environmental protection issues. The individual impact generated by these factors cannot be predicted with any certainty but, when combined, may result in non-economical reserves. Alvopectro will remain subject to normal risks inherent to the oil and gas industry such as unusual and unexpected geological changes in the parameters and variables of the petroleum system and operations.

Future exploration for hydrocarbons may involve unprofitable efforts. Environmental damage could greatly increase the cost of operations and various field operating conditions may adversely affect production. These conditions include delays in obtaining governmental approvals or consents, insufficient storage, transportation or processing capacity or other geological and mechanical conditions.

Alvopectro will be vulnerable to market prices and fixed costs, including costs associated with project development, exploration and delineation activities, operations, leases, labour costs and depreciation. If actual operating expenses are higher than

estimated, Alvopectro's profit margin will be lower than expected and Alvopectro's business and results of operations may be adversely affected.

### ***Brazil Regulatory Risk Relating to Unconventional Activities and Hydraulic Fracturing***

The expanded use of hydraulic fracturing as a recovery technique employed in oil and natural gas drilling has given rise to increased public scrutiny of its environmental aspects, particularly with respect to its potential impact on local aquifers. Alvopectro may need to utilize hydraulic fracturing in the wells it drills and completes. Alvopectro 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 in general and would not give rise to concerns raised respecting local aquifers. Alvopectro 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 Alvopectro's blocks acquired in the 12th Brazil Bid Round as a result of an injunction issued by a Brazilian Federal Court in November 2014. Alvopectro has two blocks for which has not yet fulfilled the required minimum work commitments and, as a result, may adversely be affected if the injunction continues and Alvopectro is unsuccessful with its request with the ANP to return these blocks, cancel the commitments outstanding and refund the bid bonuses paid.

### ***Marketability of Production***

The marketability and ultimate commerciality of oil and gas discovered or acquired is affected by numerous factors beyond the control of Alvopectro. These factors include reservoir characteristics, market fluctuations, the proximity, capacity and price of oil and gas pipelines and processing equipment and government regulation. Oil and gas operations (exploration, production, pricing, marketing and transportation) are subject to extensive controls and regulations imposed by various levels of government, which may be amended from time to time. Alvopectro's operations may also be subject to compliance with laws and regulations controlling the discharge of materials into the environment or otherwise relating to the protection of the environment. Although Alvopectro believes that its assets have been operated in material compliance with current applicable environmental regulations, changes to such regulations may have a material adverse effect on Alvopectro.

### ***Reservoir Performance***

The Sproule Report was, and all of Alvopectro's future reserve evaluations are expected to be, prepared in accordance with NI 51-101. There are numerous uncertainties inherent in estimating quantities of reserves and funds flow to be derived therefrom, including many factors that are beyond the control of Alvopectro. The reserves information set forth in this Annual Information Form represents estimates only. The reserves from Alvopectro's properties have been independently evaluated by Sproule in the Sproule Report. The Sproule Report includes a number inputs based on management's judgment and assumptions with respect to timing and execution of development plans. Additional factors affecting the ultimate recoveries from the evaluated 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 relevant evaluations were prepared and all are subject to change, some being beyond the control of Alvopectro. Actual production and funds flow derived therefrom will vary from these evaluations, and such variations could be material. These evaluations are based, in part, on the assumed success of exploitation activities intended to be undertaken in future years. The reserves and estimated funds flow to be derived therefrom contained in such evaluations will be reduced to the extent that such exploitation activities do not achieve the level of success assumed in the evaluations.

This annual information form contains estimates of the volumes of the Corporation's contingent resources, as well as the net present value of the future net revenue associated with the best estimate of development pending contingent resources. The same uncertainties inherent in estimating quantities of reserves apply to estimating quantities of contingent resources. The uncertainty in estimating prospective resources is even greater. Actual results may vary significantly from these estimates and such variances could be material. In addition, there are contingencies that prevent contingent resources from being classified as reserves. With respect to the Corporation's contingent resources, there is uncertainty that it will be commercially viable to produce any portion of the resources.

Under IFRS, impairment testing is performed at the cash generating unit level ("CGU"), with asset carrying values being compared to the recoverable amount which is the higher of the value-in-use and fair value less costs of disposal. Value in use

is defined as the amount equal to the present value of future cash flows expected to be derived from the asset. When the asset carrying value (including goodwill) is more than the recoverable amount an impairment loss is recorded. A decline in the proved and probable reserve values of the oil and natural gas properties could result in the carrying value of the assets exceeding the recoverable amount, resulting in an impairment loss. Impairment losses that were previously recognized may be reversed where circumstances change such that the impairment is reduced, however any impairment losses associated with goodwill are permanent and not reversible.

### ***Minimum Work Commitments on Exploration Blocks***

Alvopetro must fulfill certain minimum work commitments on projects in Brazil as outlined herein. There are no assurances that all of these commitments will be fulfilled within the time frames allowed. 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 it is expected that Alvopetro may request extensions or suspensions to the timeframe allotted for work commitments, there is no assurance that any such extensions or suspensions will be granted.

### ***Dilution and Further Sales***

Alvopetro may issue additional Common Shares or other securities to finance its capital expenditures with respect to its properties, certain of Alvopetro's other capital expenditures, or for other reasons. The constating documents of Alvopetro permit it to issue an unlimited number of additional Common Shares and an unlimited number of Preferred Shares (as defined below). The Board has discretion to determine the issue price and the terms of issue of Common Shares and Preferred Shares. Such future issuances may be dilutive to investors. Shareholders of Alvopetro have no pre-emptive rights under Alvopetro's constating documents to participate in any future offerings of securities.

### ***Reliance on Management***

Shareholders will be dependent on the management of Alvopetro in respect of the administration and management of all matters relating to Alvopetro and its properties and operations. Investors who are not willing to rely on the management of Alvopetro should not invest in Common Shares.

### ***Reliance on Third Party Operators and Key Personnel***

To the extent that Alvopetro is not the operator of its properties, it will be dependent upon third party operators for the timing of activities and will be largely unable to control the activities of such operators. In addition, Alvopetro's success depends, to a significant extent, upon management and key employees. The loss of any key employee could have a negative effect on Alvopetro. Attracting and retaining additional key personnel will assist in the expansion of Alvopetro's business. Alvopetro faces significant competition for skilled personnel. Should other oil and gas projects or expansions proceed in the same time frame as Alvopetro's projects, Alvopetro may compete with these other projects for experienced employees and contractors and such competition may result in increases to compensation paid to such personnel or to a lack of qualified personnel. There is no assurance that Alvopetro will successfully attract and retain personnel required to continue to expand its business and to successfully execute its business strategy.

### ***Competition***

The oil and gas industry is intensely competitive. Competition is particularly intense in the acquisition of prospective oil properties and oil and gas 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. 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, Petrobras dominates the majority of the industry, including all aspects of oil and gas exploration, development, transportation and sales. Petrobras, and many other companies in Brazil, not only engage in the acquisition, exploration, development and production of oil and gas reserves, but also carry on refining operations and market refined products. 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. Due to Petrobras' position in all aspects of Brazil's energy market, Alvopectro may encounter challenges with respect to transporting, marketing and monetizing crude oil and natural gas. Access to pipelines and other transportation infrastructure may be limited or the terms on which such access is provided may not be favourable.

Alvopectro will also compete with other oil companies in attempting to secure drilling rigs and other equipment necessary for drilling and completion of wells. Such equipment may be in short supply from time to time. In addition, equipment and other materials necessary to construct production and transmission facilities may be in short supply from time to time. Finally, companies not previously invested in oil may choose to acquire reserves to establish a firm supply or simply as an investment. Such companies may also provide competition for Alvopectro.

### ***Availability of Drilling Equipment and Access Restrictions***

Oil and gas exploration and development activities are dependent on the availability of drilling and related equipment in the particular areas where such activities will be conducted. Demand for such limited equipment or access restrictions may affect the availability of such equipment to Alvopectro and may delay exploration and development activities. There can be no assurance that sufficient drilling and completion equipment, services and supplies will be available when needed. Shortages could: (i) delay Alvopectro's exploration, development, and sales activities; (ii) have a material adverse effect on Alvopectro's financial condition; and (iii) cause Alvopectro to not meet the local content requirements of its concession contracts, incurring penalties. If the demand for qualified rig crews rise in the drilling industry, the oil and gas industry may experience shortages of qualified personnel to operate drilling rigs. This could delay Alvopectro's drilling operations and adversely affect Alvopectro's financial condition and results of operations. To the extent Alvopectro is not the operator of its oil and gas properties, Alvopectro will be dependent on such operators for the timing of activities related to such properties and will be largely unable to direct or control the activities of the operators.

### ***Permits, Licenses and Leases***

Alvopectro's properties are held in the form of permits, licenses and leases and working interests in permits, licenses and leases. If Alvopectro or the holder of the permit, license or lease fails to meet the specific requirement of a permit, license or lease, the permit, license or lease may terminate or expire. There can be no assurance that any of the obligations required to maintain each permit, license or lease will be met. The termination or expiration of Alvopectro's permits, licenses or leases or the working interests relating to a permit, license or lease may have a material adverse effect on Alvopectro's results of operations and business.

Furthermore, the development of Alvopectro's properties will require additional permits, licenses and regulatory approvals. If such permits, licenses or regulatory approvals are not obtained or if the conditions provided for in such permits, licenses and regulatory approvals are substantially different from the expectations of Alvopectro, it may have a material adverse effect on Alvopectro's results of operations and business.

### ***Price Volatility of Publicly Traded Securities***

In recent years, the securities markets in Canada and the United States have experienced a high level of price and volume volatility. The market price of securities of many companies, particularly those considered to be development stage companies, has experienced wide fluctuations in price which have not necessarily been related to the operating performance, underlying asset values or prospects of such companies. There can be no assurance that continual fluctuations in price will not occur. It is likely that the market price for the Common Shares will be subject to market trends generally, notwithstanding the financial and operational performance of Alvopectro.

### ***Reserve Acquisition and Replacement***

Alvopectro's future petroleum reserves, production, and funds flow to be derived therefrom are highly dependent on Alvopectro successfully discovering or acquiring new reserves. Without the continual addition of new reserves, any existing reserves Alvopectro may have at any particular time and the production therefrom will decline over time as such existing reserves are exploited. A future increase in Alvopectro's reserves will depend not only on Alvopectro's ability to develop any properties it may have from time to time, but also on its ability to select and acquire suitable producing properties or prospects. There can be no assurance that Alvopectro's future exploration and development efforts will result in the discovery and development of additional commercial accumulations of oil. Competition may also be presented by alternate fuel sources.

### ***Alvopetro Might Encounter Operating Hazards***

Oil and gas exploration, development and production operations are subject to all the risks and hazards typically associated with such operations, including hazards such as fire, explosion, blowouts and oil spills, each of which could result in substantial damage to oil wells, production facilities, other property and the environment or in personal injury. In accordance with industry practice, Alvopetro is not fully insured against all of these risks, nor are all such risks insurable. Although Alvopetro maintains liability insurance in an amount that it considers adequate and consistent with industry practice, the nature of these risks is such that liabilities could exceed policy limits, in which event Alvopetro could incur significant costs that could have a materially adverse effect upon its financial condition. Oil and gas production operations are also subject to all the risks typically associated with such operations, including premature decline of reservoirs and the invasion of water into producing formations.

### ***Environmental***

All phases of the oil and gas business present environmental risks and hazards and are subject to environmental regulation pursuant to a variety of international conventions and state and municipal laws and regulations. Environmental legislation provides for, among other things, restrictions and prohibitions on spills, releases or emissions of various substances produced in association with oil and gas operations. The legislation also requires that wells and facility sites be operated, maintained, abandoned and reclaimed to the satisfaction of applicable regulatory authorities.

Compliance with such legislation can require significant expenditures and a breach may result in the imposition of fines and penalties, some of which may be material. Environmental legislation is evolving in a manner expected to result in stricter standards and enforcement, larger fines and liability and potentially increased capital expenditures and operating costs. The discharge of oil, natural gas or other pollutants into the air, soil or water may give rise to liabilities to foreign governments and third parties and may require Alvopetro to incur costs to remedy such discharge. No assurance can be given that environmental laws will not result in a curtailment of production or a material increase in the costs of production, development or exploration activities or otherwise adversely affect Alvopetro's financial condition, results of operations or prospects. In addition, regulations relating to greenhouse gas emissions in Brazil or elsewhere in the world may have an effect on Alvopetro's costs or on levels of future demand for hydrocarbon-based products.

### ***Delay in Cash Receipts and Credit Worthiness of Counterparties***

In addition to the usual delays in payment by purchasers of oil and natural gas to the operators of Alvopetro's properties, and by an operator to Alvopetro, payments between any of such parties may also be delayed by restrictions imposed by lenders, delays in the sale or delivery of products, delays in the connection of wells to a gathering system, blowouts or other accidents, recovery by the operator of expenses incurred in the operation of Alvopetro's properties or the establishment by the operator of reserves for such expenses. In addition, the insolvency or financial impairment of any counterparty owing money to Alvopetro, including industry partners and marketing agents, could prevent Alvopetro from collecting such debts.

### ***Transportation Costs***

Disruption in or increased costs of transportation services could make oil and gas a less competitive source of energy or could make Alvopetro's oil and gas less competitive than other sources. The industry depends on rail, trucking, ocean-going vessel, pipeline facilities, and barge transportation to deliver shipments, and transportation costs are a significant component of the total cost of supplying crude oil and natural gas. Disruptions of these transportation services because of weather-related problems, strikes, lockouts, delays, mechanical problems or other events could temporarily impair the ability to supply crude oil to customers and may result in lost sales. In addition, increases in transportation costs, or changes in transportation costs for oil and gas produced by competitors, could adversely affect profitability. To the extent such increases are sustained, Alvopetro could experience losses and may decide to discontinue certain operations forcing Alvopetro to incur closure and/or care and maintenance costs, as the case may be. Additionally, lack of access to transportation may hinder production from Alvopetro's business and Alvopetro may be required to use more expensive transportation alternatives.

### ***Disruptions in Production***

Other factors affecting the production and sale of crude oil and natural gas that could result in decreases in profitability include: (i) expiration or termination of leases, permits or licences, or sales price redeterminations or suspension of deliveries; (ii) future

litigation; (iii) the timing and amount of insurance recoveries; (iv) work stoppages or other labour difficulties; (v) maintenance activities; (vi) limitations on access to pipeline capacity; and (vii) changes in the market and general economic conditions. Weather conditions, equipment replacement or repair, fires, amounts of rock and other natural materials and other geological conditions can have a significant impact on operating results. There can be no assurance that union issues or similar issues will not affect Alvo Petro's ability to produce or sell oil and gas in the future.

### ***Changes in Legislation***

It is possible that the Brazil or Canadian federal and provincial government or regulatory authorities could choose to change Brazil or Canadian federal income tax laws, royalty regimes, environmental laws or other laws applicable to oil and gas companies and that any such changes could materially adversely affect Alvo Petro, its shareholders and the market value of the Common Shares.

### ***Foreign Currency and Fiscal Matters***

A significant portion of Alvo Petro's operations and expenditures will be paid in foreign currencies. As a result, Alvo Petro may be exposed to market risks resulting from fluctuations in foreign currency exchange rates. A material change in the value of any such foreign currency could result in a material adverse effect on Alvo Petro's funds flow and revenues. Currently, there are no significant restrictions on the repatriation of capital and distribution of earnings from Brazil to foreign entities. There can be no assurance, however, that restrictions on repatriation of capital or distributions of earnings from Brazil will not be imposed in the future. Amendments to current taxation laws and regulations that alter tax rates and/or capital allowances could have a material adverse impact on Alvo Petro. Alvo Petro may have subsidiaries that operate in different tax jurisdictions.

To the extent that revenues and expenditures denominated in or strongly linked to the U.S. dollar are not equivalent, Alvo Petro is exposed to exchange rate risk. In addition, a significant portion of expenditures in Brazil are denominated in R\$, which are difficult to hedge.

### ***Political and Regulatory***

The oil and gas industry is subject to extensive government policies and regulations, which result in additional cost and risk for industry participants. Environmental concerns relating to the oil and gas industry's operating practices are expected to increasingly influence government regulation and consumption patterns. Alvo Petro is uncertain as to the amount of operating and capital expenses that will be required to comply with enhanced environmental regulation in the future.

Alvo Petro's projects are located in Brazil and consequently Alvo Petro will be subject to certain risks, including possible political or economic instability. Alvo Petro 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 government 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 instability and government regulations relating to the industry.

Alvo Petro's operations may also be adversely affected by laws and policies of Canada affecting foreign trade, taxation and investment. In the event of a dispute arising in connection with Alvo Petro's foreign operations, Alvo Petro may be subject to the exclusive jurisdiction of foreign courts or may not be successful in subjecting foreign persons to the jurisdictions of the courts of Canada or enforcing Canadian judgments in such other jurisdictions. Alvo Petro may also be hindered or prevented from enforcing its rights with respect to a governmental instrumentality because of the doctrine of sovereign immunity. Accordingly, Alvo Petro's exploration, development and production activities in the foreign jurisdictions in which it operates could be substantially affected by factors beyond Alvo Petro's control, any of which could have a material adverse effect on Alvo Petro.

### ***International Operations***

International operations are subject to political, economic and other uncertainties, including but not limited to, risk of terrorist activities, revolution, border disputes, expropriation, renegotiations or modification of existing contracts, import, export and transportation regulations and tariffs, taxation policies, including royalty and tax increases and retroactive tax claims, exchange controls, limits on allowable levels of production, currency fluctuations, labour disputes and other uncertainties arising out of

foreign government sovereignty over Alvopectro's international operations. Alvopectro's operations may also be adversely affected by changes in applicable laws and policies of Brazil, which could have a negative impact on Alvopectro.

### ***Failure to Maintain Listing of the Common Shares***

The Common Shares are currently listed for trading on the facilities of the TSXV. The failure of Alvopectro to meet the applicable listing or other requirements of the TSXV in the future may result in the Common Shares ceasing to be listed for trading on the TSXV, which would have a material adverse effect on the value of the Common Shares. There can be no assurance that the Common Shares will continue to be listed for trading on the TSXV.

### ***Failure to Realize Anticipated Benefits of Acquisitions and Dispositions***

Alvopectro will make acquisitions and dispositions of businesses and assets in the ordinary course of business. Achieving the benefits of acquisitions depends in part on successfully consolidating functions and integrating operations and procedures in a timely and efficient manner as well as Alvopectro's ability to realize the anticipated growth opportunities and synergies from combining the acquired businesses and operations with those of Alvopectro. The integration of acquired businesses, properties and operations may require substantial management effort, time and resources and may divert management's focus from other strategic opportunities and operational matters. Management of Alvopectro will continually assess the value and contribution of services provided and assets required to provide such services. In this regard, management expects that non-core assets will be periodically disposed of, so that Alvopectro can focus its efforts and resources more efficiently. Depending on the state of the market for such non-core assets, certain non-core assets of Alvopectro, if disposed of, could realize less than their carrying value on the financial statements of Alvopectro.

### ***Repatriation of Earnings***

Currently there are no restrictions on the repatriation from Brazil of earnings to foreign entities. However, there can be no assurance that restrictions on repatriation of earnings from Brazil will not be imposed in the future.

### ***Hedging Activities***

Alvopectro may evaluate the use of and may employ exchange-traded or over-the-counter derivative structures to hedge commodity prices, interest rate and foreign exchange risk. Risks associated with such products include, but are not limited to, counterparty risk, settlement risk, basis risk, liquidity risk and market risk which could impair or negate Alvopectro's hedging strategy and result in a negative impact on its earnings and funds flow.

Additionally, if oil and gas interest rates or exchange rates increase above or decrease below those levels specified in any future hedging agreements, such hedging arrangements may prevent Alvopectro from realizing the full benefit of such increases or decreases.

Due to the uncertain worldwide economic environment, there can be no assurance that Alvopectro will be able to engage credit worthy counterparties in hedging activities.

### ***Title Matters***

The acquisition of title to oil and gas properties in Brazil is a detailed and time-consuming process. Alvopectro's properties may be subject to unforeseen title claims. While Alvopectro will diligently investigate title to all property and will follow usual industry practice in obtaining satisfactory title and, to the best of Alvopectro's knowledge, title to all of Alvopectro's properties are in good standing, this should not be construed as a guarantee of title. Title to Alvopectro's properties may be affected by undisclosed and undetected defects.

### ***Structure of Alvopectro***

From time to time, Alvopectro may take steps to organize its affairs in a manner that minimizes taxes and other expenses payable with respect to the operation of Alvopectro and its subsidiaries. If the manner in which Alvopectro structures its affairs is successfully challenged by a taxation or other authority, Alvopectro and Shareholders may be adversely affected.



### ***Uninsurable Risks***

In the course of exploration, development and production of oil and gas properties, certain risks, and in particular, blow-outs, pollution, craterings, fires and oil spills and premature decline of reservoirs and invasion of water into producing formations may occur all of which could result in personal injuries, loss of life and damage to property of Alvopetro and others. Hazards such as unusual or unexpected geological formations, pressures or other conditions may be encountered in drilling and operating wells as Alvopetro will initially have interests in a limited number of properties, such risk is more significant than if spread over a number of properties. It is not always possible to fully insure against such risks and Alvopetro may decide not to take out insurance against such risks as a result of high premiums or other reasons. Should such liabilities arise, they could reduce or eliminate any future profitability and result in increasing costs and a decline in the value of the securities of Alvopetro.

### ***Net Asset Value***

Alvopetro's net asset value will vary depending upon a number of factors beyond the control of Alvopetro's management, including oil and natural gas prices. The trading price of the Common Shares is also determined by a number of factors which are beyond the control of management and such trading price may be greater than or less than the net asset value of Alvopetro.

### ***Management of Growth***

Alvopetro may be subject to growth-related risks including capacity constraints and pressure on its internal systems and controls. The ability of Alvopetro to manage growth effectively will require it to implement and improve its operations and financial systems and to expand, train and manage its employee base. The inability of Alvopetro to deal with this growth could have a material adverse impact on its business, operations and prospects.

### ***Corruption***

Alvopetro is governed by the laws of many jurisdictions, which prohibit bribery and other forms of corruption. It is possible that Alvopetro, or some of its employees or contractors, could be charged with bribery or corruption. Alvopetro has policies and procedures in place that prohibit activities such as these and will require all employees and contractors to read these policies and procedures and acknowledge their understanding and compliance on an annual basis. However, if Alvopetro is found guilty of such a violation, which could include a failure to take effective steps to prevent or address corruption by its employees or contractors, Alvopetro could be subject to onerous penalties. A mere investigation itself could lead to significant corporate disruption, high legal costs and forced settlements (such as the imposition of an internal monitor). In addition, bribery allegations or bribery or corruption convictions could impair Alvopetro's ability to work with governments or nongovernmental organizations. Such convictions or allegations could result in the formal exclusion of Alvopetro from a country or area, national or international lawsuits, government sanctions or fines, project suspension or delays, reduced market capitalization and increased investor concern.

### ***Forward-Looking Information May Prove Inaccurate***

Shareholders are cautioned not to place undue reliance on forward-looking information. By its nature, forward-looking information involves numerous assumptions, known and unknown risks and uncertainties, of both a general and specific nature, that could cause actual results to differ materially from those suggested by the forward-looking information or contribute to the possibility that predictions, forecasts or projections will prove to be materially inaccurate. Additional information on the risks, assumptions and uncertainties are found in this Annual Information Form under the heading "Forward Looking Statements".

## **DIVIDENDS**

Alvopetro has not declared or paid any dividends on the Common Shares since its incorporation. Any decision to pay dividends on the Common Shares will be made by the Board on the basis of Alvopetro's earnings, financial requirements and other conditions existing at such future time.

## DESCRIPTION OF CAPITAL STRUCTURE

### Common Shares

The Corporation is authorized to issue an unlimited number of Common Shares. Holders of Common Shares are entitled to one vote for each Common Share held on all votes taken at meetings of holders of Common Shares. The holders of Common Shares are entitled to receive such dividends as Alvo Petro’s directors may from time to time declare. Subject to certain terms and conditions, Alvo Petro may issue Common Shares as payment of all or any portion of dividends declared on the Common Shares for those Shareholders who elect to receive share dividends instead of cash dividends. In the event of the winding up or dissolution of Alvo Petro, whether voluntary or involuntary or for the purpose of a reorganization or otherwise or upon any distribution of capital, the holders of Common Shares are entitled to the surplus assets of Alvo Petro and generally will be entitled to enjoy all of the rights attaching to shares of Alvo Petro.

As at December 31, 2017, Alvo Petro had 85,166,871 common shares outstanding.

### Preferred Shares

The Corporation is authorized to issue preferred shares (“**Preferred Shares**”) in one or more series. The Board of Directors is authorized to fix the number of shares in each series and to determine the designation, rights, privileges, restrictions and conditions attached to the shares of each series. Preferred Shares are entitled to a priority over the Common Shares with respect to the payment of dividends and the distribution of assets upon the liquidation, dissolution or winding-up of the Corporation. Alvo Petro has no Preferred Shares outstanding as at December 31, 2017.

### Market for Securities

The Common Shares are listed and posted for trading on the TSXV under the trading symbol “ALV” and have traded on such stock exchange since December 5, 2013. The following table sets forth the reported market price ranges and the trading volumes for the Common Shares for the periods indicated, as reported by the TSXV for the year ended December 31, 2017.

Month (2017)	Price Range (\$)		Total Aggregate Monthly Trading Volume
	High	Low	
January	0.26	0.20	2,167,142
February	0.27	0.22	685,386
March	0.26	0.20	943,989
April	0.21	0.18	653,822
May	0.21	0.16	598,047
June	0.20	0.16	858,656
July	0.21	0.18	845,120
August	0.24	0.20	557,986
September	0.22	0.18	870,670
October	0.23	0.19	682,421
November	0.21	0.17	1,130,082
December	0.19	0.16	688,907

## DIRECTORS AND OFFICERS

The names, municipalities of residence, positions with Alvo Petro and its subsidiaries and the principal occupations of the persons who serve as directors and executive officers of Alvo Petro as of the date hereof are set out below.

Name and Municipality of Residence	Position Held <sup>(1)</sup>	Position Since	Principal Occupation During the Preceding Five Years
<b>John D. Wright</b> <sup>(3)(4)</sup> Calgary, Alberta	Chairman	September 25, 2013	Chairman of the Board of Alvo Petro since November 2013. From January to June 2017, Director, President and Chief Executive Officer of Ridgeback Resources Inc. Prior thereto, Director, President and Chief Executive Officer of Lightstream Resources Ltd. (formerly PetroBakken Energy Ltd.) since May 2011.
<b>Corey C. Ruttan</b> <sup>(3)</sup> Calgary, Alberta	Director, President and Chief Executive Officer	September 25, 2013	President and Chief Executive Officer of Alvo Petro since November 2013. Prior thereto, President and Chief Executive Officer of Petrominerales Ltd. (energy company) from May 2010 to November 2013.
<b>Kenneth R. McKinnon</b> <sup>(2)(4)</sup> Calgary, Alberta	Director	November 19, 2013	Partner at Citrus Capital Partners Ltd. (investment firm) since January 2014. Vice President Legal and General Counsel of Critical Mass Inc. (website design company) from March 2000 to December 2014.
<b>Geir Ytreland</b> <sup>(3)</sup> San Romano (LU), Italy	Director	November 19, 2013	Independent geologist. From 2012 to 2014, Principal Advisor at Gaffney, Cline & Associates, United Kingdom.
<b>Firoz Talakshi</b> <sup>(2)</sup> Calgary, Alberta	Director	November 19, 2013	Since October 2012, Senior Advisor, KPMG International Corporate Tax, Calgary.
<b>Roderick L. Fraser</b> <sup>(2)(4)</sup> New York City, NY and Salvador, Brazil	Director	December 16, 2013	From August 2014 to October 2017, Managing Director and Head of Oil and Gas for MUFG Union Bank. From June 2012 to August 2014, independent consultant acting as strategic advisor for large financial institutions. From 2004 to 2012, Managing Director and Global Head of Oil and Gas, Standard Bank of South Africa.
<b>Alison Howard</b> Calgary, Alberta	Chief Financial Officer	November 28, 2013	Chief Financial Officer of Alvo Petro since November 2013. From March 2013 to November 2013, Tax Director of Petrominerales. From July 2011 to March 2013, Tax Manager at Petrominerales.
<b>Andrea Hatzinikolas</b> Calgary, Alberta	Vice President, Legal and Corporate	November 28, 2013	Vice President, Corporate and Legal of Alvo Petro since November 2013. Prior thereto, Vice President, Business Development, General Counsel and Corporate Secretary of Petrominerales from May 2011 to November 2013.

### Notes:

- (1) Each Director will hold office until the next annual meeting of the shareholders of Alvo Petro.
- (2) Member of the Audit Committee of the Board of Directors.
- (3) Member of the Reserves Committee of the Board of Directors.
- (4) Member of the Compensation Committee of the Board of Directors.

As of the date hereof, the directors and executive officers of Alvo Petro, as a group, beneficially own, directly or indirectly, or exercise control or direction over 6,438,048 Common Shares or 7.6% of the number of Common Shares issued and outstanding.

### Corporate Cease Trade Orders

Until September 2011, Mr. John D. Wright was a director of Canadian Energy Exploration Inc. (“**CEE**”) (formerly TALON International Energy, Ltd.), a reporting issuer listed on the TSXV. A cease trade order (the “**ASC Order**”) was issued on May 7, 2008 against CEE by the Alberta Securities Commission (the “**ASC**”) for the delayed filing of CEE’s audited annual financial statements and management’s discussion and analysis for the year ended December 31, 2007 (“**Annual Filings**”). The Annual Filings were filed by CEE on SEDAR on May 8, 2008. As a result of the Order, the TSXV suspended trading in CEE’s shares on

May 7, 2008. In addition, on June 4, 2009 the British Columbia Securities Commission (“BCSC”) issued a cease trade order (the “BCSC Order”) against CEE for the failure of CEE to file its audited annual financial statements and management’s discussion and analysis for the year ended December 31, 2008 and its unaudited interim financial statements and management’s discussion and analysis for the three months ended March 31, 2009. CEE made application to the ASC and BCSC for revocation of the ASC Order and BCSC Order. The ASC and BCSC issued revocation orders dated October 14, 2009 and November 30, 2009, respectively, granting full revocation of compliance-related cease trade orders issued by the ASC and the BCSC in respect of CEE.

Except as otherwise disclosed herein, to the knowledge of the management of Alvopetro, no director or officer of Alvopetro is, or within the ten years before the date of this Annual Information Form has been, a director, chief executive officer or chief financial officer of any other issuer that:

- (a) was subject to an order that was issued while the director or officer was acting in the capacity as director, chief executive officer or chief financial officer; or
- (b) was subject to an order that was issued after the director or officer ceased to be a director, chief executive officer or chief financial officer and which resulted from an event that occurred while the director was acting in the capacity as director, chief executive officer or chief financial officer.

### **Bankruptcies**

Mr. John D. Wright was a director of Spyglass Resources Corp. (“Spyglass”), a reporting issuer listed on the Toronto Stock Exchange, until his resignation on November 26, 2015, when Spyglass was placed into receivership by the Court of Queen’s Bench of Alberta following an application by its creditors.

Mr. John D. Wright was the President and Chief Executive Officer and a director of Lightstream Resources Ltd. (“Lightstream”), Mr. Corey C. Ruttan and Mr. Kenneth R. McKinnon were directors of Lightstream, and Ms. Andrea Hatzinikolas was an officer of Lightstream when it obtained creditor protection under the Companies’ Creditors Arrangement Act (Canada) (“CCAA”) on September 26, 2016. On December 29, 2016, as a result of the CCAA sales process, substantially all of the assets and business of Lightstream were sold to Ridgeback Resources Inc. (“Ridgeback”), a new company owned by former holders of Lightstream’s secured notes. Mr. Ruttan and Mr. McKinnon resigned as directors and Ms. Hatzinikolas resigned as Corporate Secretary of Lightstream upon formation of the new company. Mr. Wright resigned as an officer and director of Lightstream and was concurrently appointed President and Chief Executive Officer and a director of Ridgeback upon closing of the sale transaction.

Except as otherwise disclosed herein, to the knowledge of the management of Alvopetro, no director or officer of Alvopetro:

- (a) is, at the date of this Annual Information Form or has been within the ten years before the date of this Annual Information Form, a director or executive officer of any company that, while that person was acting in that capacity or within a year of that person ceasing to act in that capacity, became bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold its assets; or
- (b) has, within the ten years before the date of this Annual Information Form, become bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency, or was subject to or instituted any proceedings, arrangement or compromise with creditors, or had a receiver, receiver manager or trustee appointed to hold the assets of the director, officer or shareholder.

### **Penalties or Sanctions**

Mr. Corey C. Ruttan entered into a settlement agreement with the ASC on May 3, 2002 in respect of an insider trading violation relating to trade made on May 17, 2000. Mr. Ruttan cooperated completely in resolving the matter with the regulators. The settlement resulted in Mr. Ruttan paying an administrative penalty of \$10,000, representing a return of profits, and the costs of the proceeding in the amount of \$3,925. For a period of one year, Mr. Ruttan agreed to cease trading in securities and to not act as a director or officer of a public company. These restrictions expired on May 3, 2003. Mr. Ruttan is a Chartered Professional Accountant in good standing.

Except as otherwise disclosed herein, to the knowledge of management of Alvopetro, no director or officer of Alvopetro has been subject to:

- (a) any penalties or sanctions imposed by a court relating to Canadian securities legislation or by a Canadian securities regulatory authority or has entered into a settlement agreement with the Canadian securities regulatory authority; or
- (b) any other penalties or sanctions imposed by a court or regulatory body that would likely be considered important to a reasonable security holder in making an investment decision.

### **CONFLICTS OF INTEREST**

Certain directors and officers of Alvopetro are associated with other reporting issuers or other corporations which may give rise to conflicts of interest. In accordance with corporate laws, directors who have a material interest or any person who is a party to a material contract or a proposed material contract with Alvopetro are required, subject to certain exceptions, to disclose that interest and generally abstain from voting on any resolution to approve the contract. In addition, the directors are required to act honestly and in good faith with a view to the best interests of Alvopetro. From time to time, Alvopetro may jointly participate in exploration and development activities with one or more corporations with which a director or officer of Alvopetro may be involved. Some of Alvopetro's directors and officers are engaged and will continue to be engaged in the search of oil and gas interests on their own behalf and on behalf of other corporations, and situations may arise where the directors and officers will be in direct competition with Alvopetro. Some of the directors of Alvopetro have either other employment or other business or time restrictions placed on them and accordingly, these directors of Alvopetro will only be able to devote part of their time to the affairs of Alvopetro. In particular, certain of the directors and officers are involved in managerial and/or director positions with other oil and gas companies whose operations may, from time to time, provide financing to, or make equity investments in, competitors of Alvopetro. Conflicts, if any, will be subject to the procedures and remedies available under the ABCA. The ABCA provides that in the event that a director has an interest in a contract or proposed contract or agreement, the director shall disclose his interest in such contract or agreement and shall refrain from voting on any matter in respect of such contract or agreement unless otherwise provided by the ABCA.

### **LEGAL PROCEEDINGS AND REGULATORY ACTIONS**

As of the date of this Annual Information Form, there are no material legal proceedings to which Alvopetro is a party or in respect of which any of the assets of Alvopetro are subject, which is or will be material to Alvopetro, and Alvopetro is not aware of any such proceedings that are contemplated.

As of the date of this Annual Information Form, there have been: (i) no penalties or sanctions imposed against Alvopetro by a court relating to Canadian securities legislation or by a Canadian securities regulatory authority; (ii) no other penalties or sanctions imposed by a court or regulatory body against Alvopetro; and (iii) no settlement agreements Alvopetro entered into before a court relating to Canadian securities legislation or with a Canadian securities regulatory authority.

### **AUDIT COMMITTEE**

#### **General**

The Audit Committee is governed by its mandate which is attached hereto in Schedule E. This mandate provides that the Committee be comprised of at least three members of the Board, all of whom are considered independent and financially literate within the meaning of Multilateral Instrument 52-110 – Audit Committees.

The Corporation has established an Audit Committee comprised of three members: Firoz Talakshi (Chair), Kenneth R. McKinnon and Roderick L. Fraser. The following is a brief summary of the education or experience of each member of the Audit Committee that is relevant to the performance of his mandated responsibilities:

Name of Audit Committee Member	Relevant Education and Experience
<b>Firoz Talakshi</b>	<p>Mr. Talakshi's positions as Senior Advisor and, prior thereto, Partner with KPMG International Corporate Tax, Calgary have both developed and required the skills to analyze financial statements, to understand accounting principles and application of such and to understand internal controls with respect to financial reporting. In his positions with KPMG he has gained a significant depth of understanding with respect to complex financial accounting and international tax issues. His employment with the firm provides the opportunity to remain informed of emerging and critical financial issues.</p> <p>Talakshi was qualified as a Chartered Accountant in England and Wales in 1973 and is currently a member of the Chartered Professional Accountants of Alberta.</p>
<b>Kenneth R. McKinnon</b>	<p>Mr. McKinnon's understanding of audit committee roles and responsibilities has been obtained through various audit committee appointments, since 2000, for several reporting issuers: Touchstone Exploration Inc. (formerly Petrobank Energy and Resources Ltd.); Lightstream Resources Ltd.; and Petrominerales Ltd. Mr. McKinnon also held the position Vice President Legal and General Counsel of Critical Mass Inc., a website design company from March 2000 to December 2014.</p> <p>Mr. McKinnon holds a Bachelor of Commerce degree from the University of Calgary and a Bachelor of Law degree from Queens University. His ICD.D designation as a certified corporate director has further enhanced his understanding of accounting principles, internal controls and analyzing financial statements.</p>
<b>Roderick L. Fraser</b>	<p>Mr. Fraser has a significant breadth of experience in the energy industry, ranging from positions in operations to investment banking. He has held various positions with major international banks including Managing Director and Head of Oil &amp; Gas for MUFG Union Bank and Managing Director and Global Head of Oil and Gas, Standard Bank of South Africa. Much of his banking career has been spent supporting junior exploration and production and services companies develop and implement growth initiatives in emerging markets. These positions have provided Mr. Fraser with an understanding of accounting principles and significant experience in analyzing and evaluating financial statements. Mr. Fraser has also been contracted as an independent consultant for large financial institutions.</p> <p>Mr. Fraser is a petroleum engineer with over 35 years of experience in the oil and gas sector.</p>

## External Auditor Fees

Deloitte LLP was appointed auditors of the Corporation on September 29, 2013. For the year ending December 31, 2017, the following external audit fees were paid.

Year ended	Audit Fees	Audit Related Fees	Tax Fees	All Other Fees
2017	78,645	1,789	Nil	Nil

The Audit Committee is required to pre-approve all non-audit services to be provided to the Corporation by the external auditors. The Audit Committee may delegate, to one or more members, the authority to pre-approve non-audit services, provided that the member(s) report to the Audit Committee at the next scheduled meeting and the member comply with such other procedures as may be established by the Audit Committee from time to time. In the most recent two years audit and audit related fees were paid for professional services rendered by the auditors for the audit of the annual financial statements and reviews of the quarterly financial statements.

At no time since the commencement of our most recently completed financial year, has a recommendation of the Audit Committee to nominate or compensate an external auditor not been adopted by the Board of Directors.

As a venture issuer within the meaning ascribed thereto in NI 52-110, the Corporation is relying upon the exemption in section 6.1 of NI 52-110.

## INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS

Except as disclosed in this Annual Information Form, none of the directors or executive officers of Alvo Petro or any person or company that owns directly or indirectly, or exercises control or direction over, more than ten percent of the Common Shares,

or any associate or affiliate of any of the foregoing persons or companies, has or has had any material interest, direct or indirect, in any past transaction or any proposed transaction that has materially affected or is reasonably expected to materially affect Alvopetro.

### **AUDITORS, TRANSFER AGENT AND REGISTRAR**

#### **Auditors**

The independent auditor of Alvopetro is Deloitte LLP, 700, 850 - 2nd Street S.W., Calgary, Alberta, T2P 0R8.

#### **Transfer Agent and Registrar**

TSX Trust Company, at its principal offices in Calgary, Alberta, is the registrar and transfer agent for the Common Shares.

### **INTERESTS OF EXPERTS**

Sproule prepared the Sproule Report, the results of which are summarized in this Annual Information Form. As at the date of the Sproule Report, Sproule is independent within the meaning of National Instrument 51-101. Sproule and the engineers and geologists responsible for the preparation of the report, individually or as a group, have no interest, direct or indirect, nor do they expect to receive any interest, direct or indirect, in the properties or in the of Alvopetro.

Deloitte LLP is the independent auditor of Alvopetro and has confirmed that it is independent with respect to Alvopetro within the meaning of the Rules of Professional Conduct of the Chartered Professional Accountants of Alberta.

### **ADDITIONAL INFORMATION**

Additional information concerning Alvopetro may be found under Alvopetro's profile on SEDAR at [www.sedar.com](http://www.sedar.com). Additional information, including information concerning directors' and officers' remuneration, principal holders of Alvopetro securities and securities authorized for issuance under equity compensation plans, will be contained in the information circular of Alvopetro in respect of the annual general and special meeting of holders of Common Shares which will be held later this year. Additional financial information is provided in Alvopetro's audited consolidated financial statements and management's discussion and analysis for the year ended December 31, 2017.

## SCHEDULE A - DISCLOSURE OF RESOURCES DATA

On October 8, 2015, Alvopectro announced that DeGolyer and MacNaughton ("D&M") completed an independent contingent resource report of Alvopectro's conventional natural gas pool located on Blocks 197 and 198 in the Recôncavo Basin onshore Brazil. The resource data is based upon an independent contingent resource assessment and evaluation prepared by D&M dated October 8, 2015 with an effective date of June 30, 2015 (the "D&M Report"). The D&M Report was prepared in accordance with the COGE Handbook and National Instrument 51-101 of the Canadian Securities Administrators ("NI 51-101"). The D&M Report is the only assessment of the conventional natural gas pool located on Blocks 197 and 198 completed to date.

The D&M Report quantified Alvopectro's contingent resources with a "best estimate" (2C) of 5.8 million barrels of oil equivalent (mmboe), 3.4 million mmboe "low estimate" (1C) and 8.1 mmboe "high estimate" (3C). The 10% discounted net present value (NPV10) estimated by the D&M Report is US\$91.3 million (2C), US\$61.9 million (1C), and US\$137.1 million (3C).

**Contingent Resources should not be confused with reserves and readers should review the section titled "Important Notes to the Disclosure of Contingent Resources Data in this Annual Information Form" and "Additional Information relating to Contingent Resources" set forth below. Actual natural gas resources may be greater than or less than the estimates provided herein. There is uncertainty that it will be commercially viable to produce any portion of the resources.**

Alvopectro holds a 100% interest in Blocks 197 and 198, and the contingent resources estimated in the D&M Report are assumed to be developed under unitization of Blocks 197, 198, 211 and 212. Under Brazilian and ANP regulation, petroleum accumulations straddling two or more licensed blocks must undergo unitization in order to promote efficient exploration and development of the accumulation. Participation interests, which represent the percentage share of ownership in each license block in the accumulation, have been assumed in the D&M Report for Blocks 197, 198, 211 and 212 in the 1C, 2C and 3C contingent resources classifications based on the discovered non-associated gas initially-in-place (DPIIP) associated with each block. These assumptions do not reflect actual participation interests to be agreed upon by all parties with interests in Blocks 197, 198, 211 and 212.

Development Pending Economic Contingent Resources	2C "Best"	1C "Low"	3C "High"
Natural gas sales (mmcf)	33,483	19,538	46,500
Condensate (mdbl)	234	138	326
Barrels of oil equivalent (mboe)	5,815	3,394	8,076

*An estimate of risked and unrisked net present value ("NPV") of future net revenues of the development pending contingent resources subclass only is preliminary in nature and is provided to assist the reader in reaching an opinion on the merit and likelihood of Alvopectro proceeding with the required investment. It includes contingent resources that are considered too uncertain with respect to the chance of development to be classified as reserves. There is uncertainty that the risked NPV of future net revenue will be realized. Subclasses of resources other than development pending are not included in the NPV values and therefore are not reflective of the value of the resource base.*

*Summary of Before Tax Net Present Value of Future Net Revenue of Contingent Resources- MUS\$ <sup>(1), (2), (3), (4), (5), (6), (7), (9), (11)</sup>*

	Undiscounted	5%	10%	15%	20%
2C "Best Estimate"	165,458	121,935	91,337	69,273	53,014
1C "Low Estimate"	109,113	81,672	61,859	47,318	36,490
3C "High Estimate"	245,736	182,425	137,096	104,013	79,450

*Summary of Discovered Non-Associated Gas Initially-in-Place (DPIIP) <sup>(1), (3), (5), (12), (13), (14)</sup>*

	2C "Best"	1C "Low"	3C "High"
Non-Associated Gas (mmcf)	45,187	28,145	59,957
Total Barrels of oil equivalent (mboe)	7,531	4,691	9,993

The table below sets out the project development costs assumed in the D&M Report in the estimation of future net revenue attributable to contingent resources and assumes first commercial production on January 1, 2017. The D&M Report assumes



capital deployment during 2016 for the construction of facilities, flowlines and development wells. There can be no certainty that the project will developed on the timelines discussed herein. Development of the project is dependent on a number of contingencies as further described in this annual information form. The information presented herein is based on company net project development costs.

*Assumed Project Development Costs* <sup>(3), (4), (11)</sup>

MUS\$	2C ("Best")	1C ("Low")	3C ("High")
2015	-	-	-
2016	24,088	13,330	35,082
2017	14	12	22
2018	14	12	22
2019	14	12	22
Remaining Years	2,098	1,144	3,063
Total Undiscounted	26,228	14,510	38,211

*D&M Report 10-Year Projected Production Profile of Company Gross Sales Gas* <sup>(1), (2), (3), (4), (5), (7), (9), (13)</sup>

mmcf	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
2C "Best Estimate"	-	-	4,461	4,461	4,455	3,956	3,183	2,585	2,116	1,749	1,449	1,215	1,025
1C "Low Estimate"	-	-	2,757	2,757	2,757	2,532	2,153	1,832	1,552	1,311	1,092	795	-
3C "High Estimate"	-	-	6,114	6,114	6,114	6,130	5,646	4,208	3,131	2,379	1,829	1,433	1,138

In accordance with NI 51-101 guidelines, volumes and potential net present value of development pending contingent resources is required to be adjusted for risk of development ("Development Risked"). The D&M report estimates the chance of development risk factor as the product of three commercial variables associated with the project development, being: 1) the probability of securing as gas sales agreement, which D&M estimates at 85%; 2) the probability of unitization, which D&M estimates at 100%; and 3) the probability of government approval of a plan of development, which D&M estimates at D&M at 85%. The product of these three commercial variables is 72.25%, which is the risk factor that has been applied to the Development Risked company gross contingent resources and the net present value figures reported below.

*Summary of Development Risked Company Gross Contingent Resources* <sup>(1), (2), (3), (7), (8), (12), (13), (14), (15)</sup>

	2C "Best"	1C "Low"	3C "High"
Natural gas sales (mmcf)	24,191	14,116	33,596
Condensate (mdbl)	169	100	236
Barrels of oil equivalent (mmboe)	4,201	2,452	5,835

*An estimate of risked and unrisked net present value ("NPV") of future net revenues of the development pending contingent resources subclass only is preliminary in nature and is provided to assist the reader in reaching an opinion on the merit and likelihood of Alvo Petro proceeding with the required investment. It includes contingent resources that are considered too uncertain with respect to the chance of development to be classified as reserves. There is uncertainty that the risked NPV of future net revenue will be realized. Subclasses of resources other than development pending are not included in the NPV values and therefore are not reflective of the value of the resource base.*

*Summary of Development Risked Before Tax Net Present Value of Future Net Revenue of Contingent Resources-*  
*MUS\$* <sup>(1), (2), (3), (4), (5), (6), (7), (8), (9), (11)</sup>

	Undiscounted	5%	10%	15%	20%
2C "Best Estimate"	119,543	88,098	65,991	50,050	38,303
1C "Low Estimate"	78,834	59,008	44,693	34,187	26,364
3C "High Estimate"	177,544	131,802	99,052	75,149	57,403

**Important Notes to the Disclosure of Contingent Resources Data in this Annual Information Form:**

- (1) Contingent Resources are defined in the COGE Handbook as those quantities of petroleum estimated, as of a given date, to be potentially recoverable from known accumulations using established technology or technology under development, but are not currently considered to be commercially recoverable due to one or more contingencies. Contingencies may include factors such as economic, legal, environmental, political and regulatory matters or a lack of markets. It is also appropriate to classify as contingent resources the estimated discovered recoverable quantities associated with a project in the early evaluation stage. For various reasons, including lack of unitization agreement, lack of internal and government approved plans for development, lack of defined infrastructure and lack of an approved gas sales contract, there is uncertainty of the commerciality of these contingent resources, and as such, the contingent resources estimated herein cannot be classified as reserves. The specific outstanding contingencies applicable to the contingent resources disclosed herein are lack of a gas sales agreement, lack of unitization agreement, and lack of government approval of a plan for development.
- (2) The Contingent Resources estimated in the D&M Report are classified as “economic contingent resources”, which are those contingent resources that are currently economically recoverable. All such resources are further sub-classified with a project status of “development pending”, meaning that resolution of the final conditions for development are being actively pursued.
- (3) “Low estimate” (C1) is considered to be a conservative estimate of the quantity of resources that will actually be recovered. It is likely that the actual remaining quantities recovered will exceed the low estimate. Those resources in the low estimate range have the highest degree of certainty - a 90% confidence level - that the actual quantities recovered will be equal or exceed the estimate. “Best estimate” (C2) is considered to be the best estimate of the quantity of resources that will actually be recovered. It is equally likely that the actual remaining quantities recovered will be greater or less than the best estimate. Those resources that fall within the best estimate have a 50% confidence level that the actual quantities recovered will be equal or exceed the estimate. “High estimate” (C3) is considered to be an optimistic estimate of the quantity of resources that will actually be recovered. It is unlikely that the actual remaining quantities of resources recovered will equal or exceed the high estimate. Those resources in the high estimate have a lower degree of certainty - a 10% confidence level - that the actual quantities recovered will equal or exceed the estimate.
- (4) The tables above are a summary of the contingent resources of Alvopetro and the net present value of future net revenue attributable to such contingent resources as evaluated in the D&M Report based on constant price and cost assumptions. The D&M Report uses a constant natural gas price of US\$8.53 per mcf and a constant condensate price of US\$52.00 per barrel, such prices based on the average publicly reported prices paid for natural gas in northeastern Brazil for the 12 month period ended April, 2015. Prices and costs were not adjusted for inflation. Alvopetro is currently in discussions with numerous counterparties with respect to securing our natural gas discovery. The sales price ultimately realized by Alvopetro may differ significantly from sales prices assumed in the D&M Report.
- (5) The DPIIP and contingent resources estimates set out herein are expressed as company gross contingent resources. Gross contingent resources are defined as the total estimated gas and condensate that is potentially recoverable from known accumulations after June 30, 2015. Company gross contingent resources are defined as that portion of the gross contingent resources potentially to be produced that are attributable to Alvopetro’s assumed unitized interest before deduction of any royalty burden. The Company gross working interest share of resources was estimated based on DPIIP and ultimately will be subject to the terms agreed to in the unitization required with adjacent resource owners.
- (6) The net present value of future net revenue attributable to Alvopetro’s contingent resources is stated without provision for interest costs and general and administrative costs, but after providing for estimated royalties, production costs, development costs, other income, future capital expenditures, and well abandonment costs. The royalty burdens set out in the D&M Report include a Brazilian government royalty of 11% and an overriding royalty on Block 197 of 2.5%, both such royalty obligations are paid in cash. The net present values of future net revenue attributable to the Alvopetro’s contingent resources estimated by D&M do not represent the fair market value of those resources. Other assumptions and qualifications relating to project development costs, pricing and other matters are summarized herein.
- (7) The recovery estimates of the Company's contingent resources provided herein are estimates only and there is no guarantee that the estimated resources will be recovered. There is uncertainty that it will be commercially viable to

produce any portion of the resources. Actual recovered resource may be greater than or less than the estimates provided herein.

- (8) An estimate of Development Risked net present value of future net revenue of contingent resources is preliminary in nature and is provided to assist the reader in reaching an opinion on the merit and likelihood of the company proceeding with the required investment. It includes contingent resources that are considered too uncertain with respect to the chance of development to be classified as reserves. There is uncertainty that the Development Risked net present value of future net revenue will be realized.
- (9) The tables in this annual information form summarize the data contained in the D&M Report and as a result may contain slightly different numbers than such report due to rounding. Also, due to rounding, certain columns may not add exactly.
- (10) The D&M report quantifies the DPIIP and the contingent resources for Alvopetro's Blocks 197 and 198. There are no reserves, prospective resources, unrecoverable or recoverable undiscovered petroleum initially-in-place, nor any unrecoverable discovered petroleum initially-in-place associated with Blocks 197 and 198 in the D&M Report or this annual information form.
- (11) MUS\$ = 000's of U.S. dollars
- (12) Mcf = thousand cubic feet
- (13) mmcf = million cubic feet
- (14) mbbl = thousand barrels
- (15) mboe = thousand barrels of oil equivalent

#### **Additional Information relating to Contingent Resources**

##### *Discovered and Commercial Status and Risks Associated with Resource Estimates*

###### Discovery Status

Total petroleum initially in place is first subdivided based on the discovery status of a petroleum accumulation. Discovered PIIP, production, reserves, and contingent resources are associated with known accumulations. Recognition as a known accumulation requires that the accumulation be penetrated by a well and have evidence of the existence of petroleum. COGEH Volume 2, Sections 5.3 and 5.4, provides additional clarification regarding drilling and testing requirements relating to recognition of known accumulations.

###### Commercial Status

Commercial status differentiates reserves from contingent resources. The following outlines the criteria that should be considered in determining commerciality:

- economic viability of the related development project;
- a reasonable expectation that there will be a market for the expected sales quantities of production required to justify development;
- evidence that the necessary production and transportation facilities are available or can be made available;
- evidence that legal, contractual, environmental, governmental, and other social and economic concerns will allow for the actual implementation of the recovery project being evaluated;
- a reasonable expectation that all required internal and external approvals will be forthcoming. Evidence of this may include items such as signed contracts, budget approvals, and approvals for expenditures, etc.;
- evidence to support a reasonable timetable for development. A reasonable time frame for the initiation of development depends on the specific circumstances and varies according to the scope of the project. While five years is recommended as a maximum time frame for classification of a project as commercial, a longer time frame could be applied where, for example, development of economic projects are deferred at the option of the producer for, among other things, market-related reasons or to meet contractual or strategic objectives.

### *Commercial Risk Applicable to Resource Estimates*

Estimates of recoverable quantities are stated in terms of the sales products derived from a development program, assuming commercial development. It must be recognized that reserves and contingent resources involve different risks associated with achieving commerciality. The likelihood that a project will achieve commerciality is referred to as the “chance of commerciality.” The chance of commerciality varies in different categories of recoverable resources as follows:

**Reserves:** To be classified as reserves, estimated recoverable quantities must be associated with a project(s) that has demonstrated commercial viability. Under the fiscal conditions applied in the estimation of reserves, the chance of commerciality is effectively 100 percent.

**Contingent Resources:** Not all technically feasible development plans will be commercial. The commercial viability of a development project is dependent on the forecast of fiscal conditions over the life of the project. For contingent resources the risk component relating to the likelihood that an accumulation will be commercially developed is referred to as the “chance of development.” For contingent resources the chance of commerciality is equal to the chance of development.

### *Economic Status of Resource Estimates*

By definition, reserves are commercially (and hence economically) recoverable. A portion of contingent resources may also be associated with projects that are economically viable but have not yet satisfied all requirements of commerciality. Accordingly, it may be a desirable option to subclassify contingent resources by economic status:

Economic Contingent Resources are those contingent resources that are currently economically recoverable. The Contingent Resources sub-classes included are Development Pending Contingent Resources, Development on Hold Contingent Resources, and Development Unclarified Contingent Resources. Sub-Economic Contingent Resources are those contingent resources that are not currently economically recoverable. The Contingent Resources sub-class included is Development Not Viable.

Where evaluations are incomplete such that it is premature to identify the economic viability of a project, it is acceptable to note that project economic status is “undetermined” (i.e., “contingent resources – economic status undetermined”). In examining economic viability, the same fiscal conditions should be applied as in the estimation of reserves, i.e., specified economic conditions, which are generally accepted as being reasonable (refer to COGEH Volume 2, Section 5.8).

### *Project Maturity Sub-Classes for Contingent Resources*

**Development Pending:** Where resolution of the final conditions for development is being actively pursued (high chance of development).

**Development on Hold:** Where there is a reasonable chance of development but there are major non-technical contingencies to be resolved that are usually beyond the control of the operator.

**Development Unclarified:** When the evaluation is incomplete and there is ongoing activity to resolve any risks or uncertainties.

**Development Not Viable:** Where no further data acquisition or evaluation is currently planned and hence there is a low chance of development.

**SCHEDULE B - FORM 51-101F2 REPORT ON CONTINGENT RESOURCES DATA BY INDEPENDENT QUALIFIED RESERVES EVALUATOR**

To the Board of Directors of Alvo Petro Energy Ltd. (the "Company"):

1. We have evaluated the Company's June 30, 2015, contingent resources data as at June 30, 2015. The contingent resources data are risked estimates of volume of contingent resources and related risked net present value of future net revenue as at June 30, 2015, estimated using forecast prices and costs.
2. The contingent resources data are the responsibility of the Company's management. Our responsibility is to express an opinion on the contingent resources data based on our evaluation.
3. We carried out our evaluation in accordance with standards set out in the Canadian Oil and Gas Evaluation Handbook (the "COGE Handbook") maintained by the Society of Petroleum Evaluation Engineers (Calgary Chapter).
4. Those standards require that we plan and perform an evaluation to obtain reasonable assurance as to whether the reserves data are free of material misstatement. An evaluation also includes assessing whether the reserves data are in accordance with principles and definitions presented in the COGE Handbook.
5. The following table sets forth the risked volume and risked net present value of future net revenue of contingent resources (before deduction of income taxes) attributed to contingent resources, estimated using forecast prices and costs and calculated using a discount rate of 10 percent, included in the Company's statement prepared in accordance with Form 51-101F1 and identifies the respective portions of the contingent resources data that we have evaluated and reported on to the Company's management.

Classification	Independent Qualified Reserves Evaluator	Description and Effective Date of Evaluation	Location of Resources (County)	Company Net Risked Volume		Net Present Value of Future Net Revenue (Before Canadian Income Tax, Discounted at 10%)		
				Gas (MMcf)	Condensate (Mbbbl)	Audited (M\$)	Evaluated (M\$)	Total (M\$)
Development Pending Contingent Resources (2C)	DeGoyler and MacNaughton	June 30, 2015	Brazil	24,191	169	Not applicable	65,991	65,991
								-

6. In our opinion, the contingent resources data respectively evaluated by us have, in all material respects, been determined and are in accordance with the COGE Handbook, consistently applied. We express no opinion on the contingent resources data that we reviewed but did not audit or evaluate.
7. We have no responsibility to update our report referred to in paragraph 5 for events and circumstances occurring after the effective date of our report.
8. Because the contingent resources data are based on judgements regarding future events, actual results will vary and the variations may be material.

Executed as to our report referred to above:

DeGoyler and MacNaughton, Dallas, Texas USA, dated October 8, 2015.

Signed "***DeGoyler and MacNaughton***"

DeGoyler and MacNaughton

Texas Registered Engineering Firm F-176

Signed "***R.M. Shuck, P.E.***"

Senior Vice President

DeGolyer and MacNaughton

**SCHEDULE C - FORM 51-101F2 REPORT ON RESERVES DATA BY INDEPENDENT QUALIFIED RESERVES EVALUATOR**

To the Board of Directors of Alvopetro Energy Ltd. (the “Company”):

1. We have evaluated the Company’s reserves data as at December 31, 2017. The reserves data are estimates of proved reserves and probable reserves and related future net revenue as at December 31, 2017, estimated using forecast prices and costs.
2. The reserves data are the responsibility of the Company’s management. Our responsibility is to express an opinion on the reserves data based on our evaluation.
3. We carried out our evaluation in accordance with standards set out in the Canadian Oil and Gas Evaluation Handbook as amended from time to time (the “COGE Handbook”), maintained by the Society of Petroleum Evaluation Engineers (Calgary Chapter).
4. Those standards require that we plan and perform an evaluation to obtain reasonable assurance as to whether the reserves data are free of material misstatement. An evaluation also includes assessing whether the reserves data are in accordance with principles and definitions presented in the COGE Handbook.
5. The following table shows the net present value of future net revenue (before deduction of income taxes) attributed to proved plus probable reserves, estimated using forecast prices and costs and calculated using a discount rate of 10 percent, included in the reserves data of the Company evaluated for the year ended December 31, 2017, and identifies the respective portions thereof that we have audited, evaluated and reviewed and reported on to the Company’s management and Board of Directors:

Independent Qualified Reserves Evaluator or Auditor	Effective Date	Location of Reserves (County)	Net Present Value of Future Net Revenue Before Income Taxes (10% Discount Rate)			
			Audited (M\$US)	Evaluated (M\$US)	Reviewed (M\$US)	Total (M\$US)
Sproule	December 31, 2017	Brazil				
<b>Total</b>			<b>Nil</b>	<b>11,648</b>	<b>Nil</b>	<b>11,648</b>

6. In our opinion, the reserves data respectively evaluated by us have, in all material respects, been determined and are in accordance with the COGE Handbook, consistently applied. We express no opinion on the reserves data that we reviewed but did not audit or evaluate.
7. We have no responsibility to update our report referred to in paragraph 5 for events and circumstances occurring after the effective date of our report, entitled “Evaluation of the P&NG Reserves of Alvopetro Energy Ltd. (As of December 31, 2017)”.
8. Because the reserves data are based on judgments regarding future events, actual results will vary and the variations may be material.

Executed as to our report referred to above:

Sroule International Limited  
Calgary, Alberta  
March 6, 2018

Original Signed by Scott W. Pennell, P. Eng.  
Scott W. Pennell, P. Eng.  
Senior VP, Engineering and Director

Original Signed by Alec Kovaltchouk, P. Geo.  
Alec Kovaltchouk, P. Geo.  
VP, Geoscience

Original Signed by Cameron P. Six, P. Eng.  
on behalf of Nora T. Stewart, P. Eng.  
Nora T. Stewart, P. Eng.  
Senior VP, Reserves Certification and Director



**SCHEDULE D – FORM 51-101F3 REPORT OF MANAGEMENT AND DIRECTORS  
ON OIL AND GAS DISCLOSURE**

*Terms to which a meaning is ascribed in National Instrument 51-101 - Standards of Disclosure for Oil and Gas Activities have the same meaning herein.*

Management of Alvo Petro Energy Ltd. (the “**Corporation**”) is responsible for the preparation and disclosure of information with respect to the Corporation’s oil and gas activities in accordance with securities regulatory requirements. This information includes reserves data, which are estimates of proved reserves and probable reserves and related future net revenue as at December 31, 2017, estimated using forecast prices and costs.

An independent qualified reserves evaluator has evaluated and reviewed the Corporation’s reserves data. The report of the independent qualified reserves evaluator is presented in Schedule “C” to the Annual Information Form of the Corporation for the year ended December 31, 2017 (the “**AIF**”).

The Reserves Committee of the Board of Directors of the Corporation has:

- (a) reviewed the Corporation’s procedures for providing information to the independent qualified reserves evaluator, Sproule International Limited (“**Sproule**”);
- (b) met with Sproule to determine whether any restrictions affected the ability of Sproule to report without reservation; and
- (c) reviewed the reserves data with management and with Sproule.

The Reserves Committee of the Board of Directors has reviewed the Corporation’s procedures for assembling and reporting other information associated with oil and gas activities and has reviewed that information with management. The Board of Directors has, on the recommendation of the Reserves Committee, approved:

- (a) the content and filing with securities regulatory authorities of Form 51-101F1, incorporated into the AIF, containing reserves data and other oil and gas information;
- (b) the filing of Form 51-101F2, which is the report of Sproule on the reserves data; and
- (c) the content and filing of this report.

Because the reserves data are based on judgements regarding future events, actual results will vary and the variations may be material. However, any variations should be consistent with the fact that reserves are categorized according to the probability of their recovery.

*(signed) "Corey C. Ruttan"*

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Corey C. Ruttan, President & Chief Executive Officer

*(signed) "Alison Howard"*

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Alison Howard, Chief Financial Officer

*(signed) "John D. Wright"*

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John D. Wright, Chairman and Director

*(signed) "Geir Ytreland"*

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Geir Ytreland, Director & Chairman of the Reserves Committee

March 20, 2018

**SCHEDULE E – ALVOPETRO ENERGY LTD. AUDIT COMMITTEE MANDATE****Role and Objective**

The Audit Committee is a committee of the Board of Directors of Alvopetro Energy Ltd. (the “Corporation”) to which the Board has delegated its responsibility for oversight of the nature and scope of the annual audit, management’s reporting on internal accounting standards and practices, financial information and accounting systems and procedures, financial reporting and statements and recommending, for Board approval, the audited consolidated financial statements and other mandatory disclosure releases containing financial information of the Corporation.

The objectives of the Audit Committee are as follows:

1. to assist directors in fulfilling their legal and fiduciary obligations (especially for accountability) in respect of the preparation and disclosure of the financial statements of the Corporation and related matters;
2. to oversee the audit efforts of the external auditors of the Corporation;
3. to maintain free and open means of communication among the directors, the external auditors, the financial and senior management of the Corporation;
4. to satisfy itself that the external auditors are independent of the Corporation; and
5. to strengthen the role of the outside directors by facilitating in depth discussions between directors on the Committee, management and external auditors.

The function of the Committee is one of oversight of management and the external auditors in the execution of their responsibilities. Management is responsible for the preparation, presentation and integrity of the financial statements of the Corporation, maintaining appropriate accounting and financial reporting principles and policies and implementing appropriate internal controls and procedures. The external auditors are responsible for planning and carrying out a proper audit of the annual financial statements of the Corporation and reviewing the financial statements of the Corporation prior to their filing with securities regulatory authorities and other procedures.

**Composition of the Committee**

1. The Audit Committee shall consist of at least three directors. The Board shall appoint one member of the Audit Committee to be the Chair of the Audit Committee.
2. Each director appointed to the Audit Committee by the Board must be independent. A director is independent if the director has no direct or indirect material relationship with the Corporation. A material relationship means a relationship which could, in the view of the Board, reasonably interfere with the exercise of the director’s independent judgment. In determining whether a director is independent of management, the Board shall make reference to National Instrument 52-110 – *Audit Committees* or the then current legislation, rules, policies and instruments of applicable regulatory authorities.
3. Each member of the Audit Committee shall be “financially literate”. In order to be financially literate, a director must be, at a minimum, able to read and understand financial statements that present a breadth and complexity of accounting issues generally comparable to the breadth and complexity of issues expected to be raised by the Corporation’s financial statements.
4. A director appointed by the Board to the Audit Committee shall be a member of the Audit Committee until replaced by the Board or until his or her resignation.

**Meetings of the Committee**

1. The Audit Committee shall convene a minimum of four times each year at such times and places as may be designated by the Chair of the Audit Committee and whenever a meeting is requested by the Board, a member of the Audit Committee, the auditors, or a senior officer of the Corporation. Meetings of the Audit Committee shall

correspond with the review of the quarterly financial statements and management discussion and analysis of the Corporation.

2. Notice of each meeting of the Audit Committee shall be given to each member of the Audit Committee. The auditors shall be given notice of each meeting of the Audit Committee at which financial statements of the Corporation are to be considered and such other meetings as determined by the Chair and shall be entitled to attend each such meeting of the Audit Committee.
3. Notice of a meeting of the Audit Committee shall:
  - (a) be given orally, or in writing, including by email;
  - (b) state the nature of the business to be transacted at the meeting in reasonable detail;
  - (c) to the extent practicable, be accompanied by copies of documentation to be considered at the meeting; and
  - (d) be given at least two days prior to the time stipulated for the meeting.
  - (a) A member may in any manner waive notice of the meeting. Attendance of a member at a meeting shall constitute waiver of notice of the meeting.
4. A quorum for the transaction of business at a meeting of the Audit Committee shall consist of a majority of the members of the Audit Committee.
5. A member or members of the Audit Committee may participate in a meeting of the Audit Committee by means of such telephonic, electronic or other communication facilities, as permits all persons participating in the meeting to communicate adequately with each other. A member participating in such a meeting by any such means is deemed to be present at the meeting.
6. In the absence of the Chair of the Audit Committee, the members of the Audit Committee shall choose one of the members present to be Chair of the meeting. In addition, the members of the Audit Committee shall choose one of the persons present to be the Secretary of the meeting.
7. The Chairman of the Board, senior management of the Corporation and other parties may attend meetings of the Audit Committee; however the Audit Committee (i) shall meet *in camera* with the external auditors independent of management as necessary, in the sole discretion of the Committee, but in any event, not less than quarterly; and (ii) may meet separately with management.
8. Minutes shall be kept of all meetings of the Audit Committee and shall be signed by the Chair and the Secretary of the meeting.

#### **Duties and Responsibilities of the Committee**

1. It is the responsibility of the Audit Committee to oversee the work of the external auditors, including resolution of disagreements between management and the external auditors regarding financial reporting. The external auditors shall report directly to the Audit Committee.
2. The Audit Committee shall, in the exercise of its powers, authorities and discretion so authorized, conform to any regulations or restrictions that may from time to time be made or imposed upon it by the Board or the legislation, policies or regulations governing the Corporation and its business.

3. It is the responsibility of the Audit Committee to satisfy itself on behalf of the Board that the Corporation's system of internal controls over financial reporting and disclosure controls and procedures are satisfactory for the purpose of:
- (a) identifying, monitoring and mitigating the principal risks intended to be addressed by such controls and procedures;
  - (b) complying with the legal and regulatory requirements related to such controls and procedures;
- and to review with the external auditors their assessment of the internal controls over financial reporting and the disclosure controls of the Corporation, their written reports containing recommendations for improvement, and management's response and any follow-up to any identified weaknesses.
4. It is the responsibility of the Audit Committee to review the annual financial statements of the Corporation and, if deemed appropriate, recommend the financial statements to the Board for approval. This process should include but be not to be limited to:
- (a) reviewing and accepting/approving, if appropriate, the annual audit plan of the external auditors of the Corporation, including the scope of audit activities, and monitor such plan's progress and results during the year;
  - (b) reviewing changes in accounting principles, or in their application, which may have a material impact on the current or future years' financial statements;
  - (c) reviewing significant accruals, reserves or other estimates such as the ceiling test calculation;
  - (d) reviewing the methods used to account for significant unusual or non-recurring transactions;
  - (e) reviewing compliance with covenants under loan agreements;
  - (f) reviewing disclosure requirements for commitments and contingencies;
  - (g) reviewing adjustments raised by the external auditors, whether or not included in the financial statements;
  - (h) reviewing unresolved differences between management and the external auditors;
  - (i) obtain explanations of significant variances with comparative reporting periods;
  - (j) review of business systems changes and implications;
  - (k) review of authority and approval limits;
  - (l) review the adequacy and effectiveness of the accounting and internal control policies of the Corporation and procedures through inquiry and discussions with the external auditors and management;
  - (m) confirm through private discussion with the external auditors and the management that no management restrictions are being placed on the scope of the external auditors' work;
  - (n) review of tax policy issues; and
  - (o) review of emerging accounting issues that could have an impact on the Corporation.
5. It is the responsibility of the Audit Committee to review the interim financial statements of the Corporation and, if deemed appropriate, to recommend the financial statements to the Board for approval and to review all prospectuses, management discussion and analysis, annual information forms and all other public disclosure containing significant audited or unaudited financial information. The Audit Committee must be satisfied that

adequate procedures are in place for the review of the Corporation's disclosure of all other financial information and shall periodically assess the accuracy of those procedures.

6. The Audit Committee shall have the authority to:
  - (a) inspect any and all of the books and records of the Corporation, its subsidiaries and affiliates;
  - (b) discuss with the management and senior staff of the Corporation, its subsidiaries and affiliates, any affected party and the external auditors, such accounts, records and other matters as any member of the Audit Committee considers necessary and appropriate;
  - (c) engage independent counsel and other advisors as it determines necessary to carry out its duties; and
  - (d) to set and pay the compensation for any advisors employed by the Audit Committee.
7. With respect to the appointment of external auditors by the Board, the Audit Committee shall:
  - (a) recommend to the Board the appointment of the external auditors;
  - (b) review the performance of the external auditors and make recommendations to the Board regarding the replacement or termination of the external auditors when circumstances warrant;
  - (c) oversee the independence of the external auditors by, among other things, if determined necessary, requiring the external auditors to deliver to the Audit Committee, on a periodic basis, a formal written statement delineating all relationships between the external auditors and the Corporation and its subsidiaries;
  - (d) recommend to the Board the terms of engagement of the external auditor, including the compensation of the auditors and that the external auditors shall report directly to the Committee; and
  - (e) when there is to be a change in auditors, review the issues related to the change and the information to be included in the required notice to securities regulators of such change.
8. The Audit Committee shall review annually with the external auditors their plan for their audit and, upon completion of the audit, their reports upon the financial statements of the Corporation and its subsidiaries.
9. The Audit Committee must pre-approve all non-audit services to be provided to the Corporation or its subsidiaries by external auditors. The Audit Committee may delegate, to one or more members, the authority to pre-approve non-audit services, provided that the member report to the Audit Committee at the next scheduled meeting and such pre-approval and the member comply with such other procedures as may be established by the Audit Committee from time to time.
10. The Audit Committee shall review adherence to the risk management policies and procedures of the Corporation (i.e. hedging, litigation and insurance), including an annual review of insurance coverage, and make appropriate recommendations to the Board with respect thereto.
11. The Audit Committee shall establish and maintain procedures for:
  - (a) the receipt, retention and treatment of complaints received by the Corporation regarding accounting controls, or auditing matters; and
  - (b) the confidential, anonymous submission by employees of the Corporation of concerns regarding questionable accounting or auditing matters.

12. The Audit Committee shall review and approve the Corporation's hiring policies regarding employees and former employees of the present and former external auditors or auditing matters.
13. The Audit Committee shall periodically report the results of reviews undertaken and any associated recommendations to the Board.
14. The Audit Committee shall review and assess, on an annual basis, the adequacy of this Mandate.