

# **ALVOPETRO ENERGY LTD.**

RESTATED ANNUAL INFORMATION FORM FOR THE YEAR ENDED DECEMBER 31, 2021

DATED AUGUST 11, 2022

# **NOTICE TO READER**

This Notice accompanies this restated Annual Information Form of Alvopetro Energy Ltd (the "Corporation") dated August 11, 2022 for the year ended December 31, 2021, which was filed on SEDAR on August 11, 2022 (the "Revised AIF"). This Revised AIF supersedes and replaces the original Annual Information Form of the Corporation dated Mach 17, 2022 for the year ended December 31, 2021, which was filed on SEDAR on March 17, 2022 (the "Original AIF"). The Corporation has restated certain financial information of the Corporation for the years ended December 31, 2021 and 2020 following an identification of an error with respect to the foreign currency translation of certain assets acquired by the Company in 2012 which resulted in adjustments to net income for the years ended December 31, 2021 and 2020 as disclosed in the Original AIF under the heading "Three Year History" in the section entitled "General Development of the Business". In connection with the foregoing, this Revised AIF reflects the restated net income for the years ended December 31, 2021 and 2020 under the heading "Three Year History" in the section entitled "General Development of the Business". Other than as expressly set forth above, this Revised AIF does not, and does not purport to, update or restate the information in the Original AIF or reflect any events that occurred after the date of the Original AIF.

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# **SCHEDULES**

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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", "the Corporation" or "the Company" 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 maintained by the Society of Petroleum Evaluation Engineers (Calgary chapter) as amended from time to time;

"Common Shares" means the common shares in the capital of Alvopetro;

"Credit Facility" means the \$15 million credit and guarantee agreement entered into on September 20, 2019 and amended on March 2, 2021 and April 30, 2021 by the Company and Alvopetro S.A. Extração de Petróleo e Gás Natural, its wholly-owned subsidiary as Borrowers, the Company's other wholly-owned subsidiaries as Guarantors (Alvopetro Oil and Gas Investments Inc., Alvopetro Investimentos e Participações Ltda. and Alvopetro Participações em Petróleo E Gás Ltda.), Cordiant Emerging Lund Fund IV and Allianz Em Loans S.C.S (as Lenders) and Cordiant Luxembourg S.A. (as Administrative Agent and Collateral Agent);

"GLJ" means GLJ Ltd., independent oil and natural gas reservoir engineers;

"GLJ Reserves and Resources Report" means the independent reserves and resources assessment and evaluation dated March 7, 2022 and effective December 31, 2021 prepared by GLJ evaluating the oil, NGLs and natural gas reserves attributable to the Corporation as well as the contingent and prospective resources of the Corporation's Murucututu project;

"GLJ July 31, 2020 Prospective Resource Report" means the independent prospective resource assessment and evaluation prepared by GLJ dated September 4, 2020 with an effective date of July 31, 2020;

"GSA" means the long-term gas sales agreement entered into on April 18, 2018 and amended effective May 1, 2020, February 2, 2021 and December 23, 2021 by and Alvopetro S.A. Extração de Petróleo e Gás Natural, the Company's wholly-owned subsidiary and Bahiagás, the natural gas distribution company in Bahia State;

"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;

"**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. Except as otherwise indicated, all dollar amounts set forth in this Annual Information Form are in United States dollars and references to \$ are to United States dollars. References to C\$ are to Canadian dollars

#### ABBREVIATIONS AND CONVERSION

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

Oil and Natural Gas Liquids		Natural Gas
bbl barrel bbls barrels bbl/d barrels per day Mbbls one thousand barrels MMbbls one million barrels bopd barrels of oil and natural gas liquids per day NGL natural gas liquids	Mcf MMcf/d Mcfpd MMcfpd MMBtu boe boepd Mboe MMboe Bcf	thousand cubic feet million cubic feet thousand cubic feet per day thousand cubic feet per day million cubic feet per day million British Thermal Units barrels of oil equivalent barrels of oil equivalent per day thousands of barrels of oil equivalent millions of barrels of oil equivalent billion cubic feet

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

To Convert From	То	Multiply By
Mcf	Cubic metres	28.174
Cubic metres	Mcf	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 American Petroleum Institute

°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 or boe barrel of oil equivalent on the basis of 1 boe to 6 Mcf of natural gas

Mcfe thousand cubic feet of gas equivalent on the basis of 6 Mcfe to 1 barrel of oil

m³ cubic metre C\$ Canadian dollars

M\$ Thousands of U.S. or United States dollars

R\$ Brazilian real USD U.S. dollars

\$ U.S. or United States dollars

# **NON-GAAP AND OTHER FINANCIAL MEASURES**

This AIF makes reference to various non-GAAP financial measures, non-GAAP ratios, capital management measures and supplementary financial measures as such terms are defined in National Instrument 52-112 Non-GAAP and Other Financial Measures Disclosure. Such measures are not recognized measures under GAAP and do not have a standardized meaning

prescribed by IFRS and therefore might not be comparable to similar financial measures disclosed by other issuers. While these measures may be common in the oil and gas industry, the Company's use of these terms may not be comparable to similarly defined measures presented by other companies. The non-GAAP and other financial measures referred to in this report should not be considered an alternative to, or more meaningful than measures prescribed by IFRS and they are not meant to enhance the Company's reported financial performance or position. These are complementary measures that are used by management in assessing the Company's financial performance, efficiency and liquidity and they may be used by investors or other users of this document for the same purpose. For more information with respect to financial measures which have not been defined by GAAP, including reconciliations to the closest comparable GAAP measure, see the "Non-GAAP and Other Financial Measures" section of the Corporation's management discussion and analysis accompanying its most recent audited annual financial statements which are available on SEDAR.

Below is a description of the non-GAAP financial measures, non-GAAP ratios, capital management measures and supplementary financial measures used in this AIF.

#### **Non-GAAP Financial Measures**

# **Operating netback**

Operating netback is calculated as natural gas, oil and condensate sales revenues less royalties and production expenses. Operating netback is a common metric used in the oil and gas industry to demonstrate profitability from operations. For a computation of operating netback, see the table entitled "Average Daily Production Volume, Prices Received, Royalties Paid, Production Costs and Netback –Natural Gas, Light & Medium Crude Oil and Natural Gas Liquids (NGLs)" in the section entitled Statement of Reserves and Other Oil and Gas Information.

#### **Non-GAAP Financial Ratios**

## Operating netback per boe

Operating netback is calculated on a per unit basis, which is per barrel of oil equivalent ("boe"). It is a common non-GAAP measure used in the oil and gas industry and management believes this measurement assists in evaluating the operating performance of the Company. It is a measure of the economic quality of the Company's producing assets and is useful for evaluating variable costs as it provides a reliable measure regardless of fluctuations in production. Alvopetro calculated operating netback per boe as operating netback divided by total sales volumes (barrels of oil equivalent). For a computation of operating netback and operating netback per boe, see the table entitled "Average Daily Production Volume, Prices Received, Royalties Paid, Production Costs and Netback —Natural Gas, Light & Medium Crude Oil and Natural Gas Liquids (NGLs)" in the section entitled *Statement of Reserves and Other Oil and Gas Information*.

#### **Supplementary Financial Measures**

"Average realized natural gas price - \$/Mcf" is comprised of natural gas sales as determined in accordance with IFRS, divided by the Company's natural gas sales volumes.

"Average realized NGL – condensate price - \$/bbl" is comprised of condensate sales as determined in accordance with IFRS, divided by the Company's NGL sales volumes from condensate.

"Average realized oil price - \$/bbl" is comprised of oil sales as determined in accordance with IFRS, divided by the Company's oil sales volumes.

"Averaged realized price - \$/boe" is comprised of natural gas, condensate and oil sales as determined in accordance with IFRS, divided by the Company's total natural gas, condensate and oil sales volumes (barrels of oil equivalent).

"Royalties per boe" is comprised of royalties, as determined in accordance with IFRS, divided by the total natural gas, condensate and oil sales volumes (barrels of oil equivalent).

"Production expenses per boe" is comprised of production expenses, as determined in accordance with IFRS, divided by the total natural gas, condensate and oil sales volumes (barrels of oil equivalent).

#### 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 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 resources 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, as of a given date, 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.

"possible reserves" are those additional reserves that are less certain to be recovered than probable reserves. It is unlikely that the actual remaining quantities recovered will exceed the sum of the estimated proved plus probable plus possible 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;
- at least a 50 percent probability that the quantities actually recovered will equal or exceed the sum of the estimated proved plus probable reserves; and
- a least a 10% probability that the quantities actually recovered will equal or exceed the sum of the estimated proved plus probable plus possible reserves.

Each of the reserves categories (proved, probable and possible) 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 (for example, 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".

# Resources

# **Definitions**

"Total Petroleum Initially-In-Place (PIIP)" is that quantity of petroleum that is estimated to exist originally in naturally occurring accumulations. It includes that quantity of petroleum that is estimated, as of a given date, to be contained in known accumulations, prior to production, plus those estimated quantities in accumulations yet to be discovered (equivalent to "total resources").

"Discovered Petroleum Initially-In-Place" (equivalent to discovered resources) is that quantity of petroleum that is estimated, as of a given date, to be contained in known accumulations prior to production. The recoverable portion of discovered petroleum initially in place includes production, reserves, and contingent resources; the remainder is unrecoverable.

"Reserves" are estimated remaining quantities of oil and natural gas and related substances anticipated to be recoverable from known accumulations, as of a given date, based on the analysis of drilling, geological, geophysical, and engineering data; the use of established technology; and specified economic conditions, which are generally accepted as being reasonable. Reserves are further classified according to the level of certainty associated with the estimates and may be subclassified based on development and production status. Reserves are further defined above in "Reserves" section.

"Contingent Resources" are 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 which 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. Contingent Resources are further classified in accordance with the level of certainty associated with the estimates and may be subclassified based on project maturity and/or characterized by their economic status.

"Undiscovered Petroleum Initially-In-Place" (equivalent to undiscovered resources) is that quantity of petroleum that is estimated, on a given date, to be contained in accumulations yet to be discovered. The recoverable portion of undiscovered petroleum initially in place is referred to as "prospective resources," the remainder as "unrecoverable."

"Prospective Resources" are those quantities of petroleum estimated, as of a given date, to be potentially recoverable from undiscovered accumulations by application of future development projects. Prospective resources have both an associated chance of discovery and a chance of development. Prospective Resources are further subdivided in accordance with the level of certainty associated with recoverable estimates assuming their discovery and development and may be subclassified based on project maturity.

# Uncertainty Categories for Resources Estimates

The range of uncertainty of estimated recoverable volumes may be represented by either deterministic scenarios or by a probability distribution. Resources should be provided as low, best, and high estimates as follows:

**Low Estimate**: This is considered to be a conservative estimate of the quantity that will actually be recovered. It is likely that the actual remaining quantities recovered will exceed the low estimate. If probabilistic methods are used, there should be at least a 90 percent probability (P90) that the quantities actually recovered will equal or exceed the low estimate.

**Best Estimate:** This is considered to be the best estimate of the quantity that will actually be recovered. It is equally likely that the actual remaining quantities recovered will be greater or less than the best estimate. If probabilistic methods are used, there should be at least a 50 percent probability (P50) that the quantities actually recovered will equal or exceed the best estimate.

**High Estimate:** This is considered to be an optimistic estimate of the quantity that will actually be recovered. It is unlikely that the actual remaining quantities recovered will exceed the high estimate. If probabilistic methods are used, there should be at least a 10 percent probability (P10) that the quantities actually recovered will equal or exceed the high estimate.

This approach to describing uncertainty may be applied to reserves, contingent resources, and prospective resources. There may be significant risk that sub-commercial and undiscovered accumulations will not achieve commercial production.

Discovered and Commercial Status and Risks Associated with Resources 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.

# **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 Resources 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, contingent resources, and prospective 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 classes 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.

Prospective Resources: Not all exploration projects will result in discoveries. The chance that an exploration project will result in the discovery of petroleum is referred to as the "chance of discovery." Thus, for an undiscovered accumulation the chance of commerciality is the product of two risk components — the chance of discovery and the chance of development.

# Economic Status of Resources 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.

Sub-Economic Contingent Resources are those contingent resources that are not currently economically recoverable.

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 Section 1.3.7).

#### 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.

# **Use of Unrisked Estimates**

The unrisked estimates of prospective resources referred to in this Annual Information Form and the schedules attached hereto have not been risked for either the chance of discovery or the chance of development. There is no certainty that any portion of the prospective resources will be discovered and even if discovered, there is no certainty that it will be commercially viable to produce any portion. The unrisked estimates of contingent resources referred to in this Annual Information Form have not been risked for the chance of development. There is no guarantee that the estimated resources will be recovered and there is uncertainty that it will be commercially viable to produce any portion of the resources. See "Resources" above for further details, Schedule B - Disclosure of Contingent and Prospective Resource Data Effective December 31, 2021 and Schedule C - Disclosure of Contingent and Prospective Resource Data Effective July 31, 2020 for details regarding risked estimates.

#### 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", "believe", "continue", "estimate", "expect", "forecast", "intend", "may", "will", "plan", "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, and future net revenues from natural gas, oil, NGLs and reserves and resources of the Corporation;
- the performance characteristics of the Corporation's properties and projected/future oil, NGL and natural gas production and sales levels;
- planned capital expenditures, including the timing thereof, costs and the method of funding;
- projections of commodity prices and costs;
- the anticipated outcomes of regulatory determinations and timing of receipt of regulatory approvals;
- expectations regarding the ability to fund planned expenditures and raise capital;
- supply and demand for oil and natural gas;
- timing of development of undeveloped reserves;
- activities to be undertaken in various areas, including the fulfillment of exploration work commitments;
- payment of dividends;
- tax horizon and future tax rates enacted in the Company's areas of operations;
- estimated abandonment and reclamation costs;
- Alvopetro's expectations regarding the development and production potential of its properties including the Corporation's working interest of such properties;
- expectations with respect to the expiration of rights to explore, develop and exploit Alvopetro's properties and the Corporation's ability to obtain contract extensions or fulfill the required contractual obligations to retain such rights;
- expected trends in environmental regulation, including the anticipated impact the trends may have on operations and compliance costs;
- 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; and
- treatment under governmental regulatory regimes and tax and royalty laws and anticipated impact of amendments to existing royalty rates;

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

- estimated future natural gas, NGL and oil production and sales levels;
- the success of the Corporation's operations and exploration and development activities;
- prevailing commodity prices and foreign exchange rates;
- 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 Company to secure additional financing sources to fund planned expenditures if required;
- the ability of the Corporation to secure necessary personnel, equipment and services;
- the outcomes of any negotiations, legal actions or disputes involving the Corporation; and
- government regulation in the areas of taxation, royalty rates and environmental protection.

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 natural gas, NGLs and oil;
- volatility in foreign exchange rates;
- economic dependence on one counterparty for the sale of natural gas;
- reliance on third party operators and personnel;
- exploration, development and production risks;
- local supply and demand conditions for natural gas;
- failure to implement projects on schedule;
- inability to secure labour, services or equipment on a timely basis or on favourable terms;
- the outcome and duration of the COVID-19 pandemic or future unforeseen circumstances with a global impact;
- unfavourable weather conditions (including climate change) and trends;
- uncertainties associated with estimating natural gas, NGL and oil reserves and resources;
- the uncertainty of Alvopetro's ability to secure debt or equity financing as needed;
- failure to obtain required approvals and permits from regulatory authorities, or failure to obtain such permits in a timely manner;
- competition for, among other things, capital, acquisitions of reserves, undeveloped lands and skilled personnel and equipment;
- impacts relating to general economic conditions in Canada, Brazil, the United States, and global markets;
- failure to commercialize discoveries;
- the impact of amendments to applicable tax legislation, including the Tax Act and Brazilian tax legislation, including regional tax incentives, on Alvopetro;
- changes in or the introduction of new government regulations, in particular related to hydraulic fracturing and stimulation in Brazil;
- 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 the Company's assets;
- changes in legislation, including changes in incentive programs relating to the oil and gas industry; and
- the outcome of negotiations, legal actions or disputes involving the Corporation or litigation brought against the Corporation; and
- 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.

On December 4, 2013, Alvopetro was listed on the TSXV under the symbol "ALV" and on December 5, 2013, the Common Shares commenced trading. On January 15, 2019 Alvopetro's common shares commenced trading on the OTCQX® Best Market, a U.S. market operated by OTC Markets Group (OTCQX: OTCM), under the symbol "ALVOF".

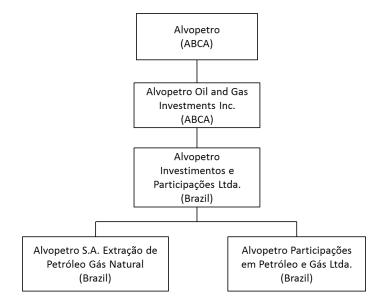
# Name, Address and Incorporation

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 1920,  $215 - 9^{th}$  Avenue SW, Calgary, Alberta, T2P 1K3 and the registered office of Alvopetro is located at Suite 4000,  $421 - 7^{th}$  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 which was completed on November 28, 2013.

# **Three Year History**

The following is a summary of significant events in the general development of the business of Alvopetro during the last three financial years ending December 31, 2019, December 31, 2020 and December 31, 2021.

#### Financial year ending December 31, 2019

In 2019, the Company focused on development of the Caburé natural gas field and related midstream infrastructure, including joint unit upstream development activities (drilling development wells, tie-in of existing and new wells, and construction of high-pressure production facilities) and construction of the 11-kilometre transfer pipeline and gas treatment facility. Late in 2019, the Company commenced a stimulation and production test on the 183(1) well on the Company's Gomo gas project.

On September 20, 2019, the Company entered into the \$15 million Credit Facility, subject to registrations of security and other funding conditions, all of which were met on October 8, 2019 (the "Funding Date"). In connection with the financing, Alvopetro incurred cash transaction costs of \$1.1 million and issued a total of 2,685,956 share purchase warrants to the lenders ("Lender Warrants") and 125,000 share purchase warrants to financial advisors acting on behalf of Alvopetro ("Advisor Warrants"). Each of the Lender Warrants and Advisor Warrants entitles the holder to purchase one common share of Alvopetro at an exercise price of \$1.80 per common share. The number of Lender Warrants and Advisor Warrants and exercise prices have been adjusted to reflect the Share Restructuring (as defined below). The warrants were issued on the Funding Date and expire on September 20, 2022. As of December 31, 2019 Alvopetro, had drawn \$5.0 million on the Credit Facility.

# Key Operational Highlights:

- annual average oil and NGL sales of 11 bopd;
- net loss of \$5.0 million and funds outflow from operations of \$2.8 million; and
- capital expenditures of \$12.7 million.

#### Financial year ending December 31, 2020

In 2020, the Company completed all remaining construction of the Caburé natural gas field and related midstream infrastructure. The transfer pipeline and the gas treatment facility were commissioned in the second quarter and on July 5, 2020, the Company commenced natural gas deliveries to Bahiagás. The Company also installed a plunger lift system to recover fluids from the 183(1) well and commenced production testing on the well.

As of December 31, 2020, Alvopetro had drawn the available balance of \$15.0 million under the Credit Facility, with an aggregate \$15.4 million outstanding, including the 3% payment in kind (PIK) interest.

# Key Operational Highlights:

- annual average natural gas, oil and NGL sales of 940 boepd;
- realized natural gas sales price of \$5.36/Mcf, an overall realized sales price of \$32.88 per boe and an operating netback of \$26.85 per boe;
- net income of \$9.6 million, cash flows from operating activities of \$3.1 million and funds flow from operations of \$6.2 million; and
- capital expenditures of \$3.8 million.

#### Financial year ending December 31, 2021

In 2021, the Company had a full year of operations from the Caburé natural gas field and activities focused on maintaining and optimizing operations from the field. Development activities in 2021 were focused on the Murucututu project including installation of a pipeline to connect the 183(1) well to the Caburé transfer pipeline. Additional capital activities related to preliminary costs and long-lead purchases for exploration wells planned to be drilled in 2022.

The terms of the Credit Facility were amended on March 2, 2021 to clarify certain covenant calculations and again on April 15, 2021 to eliminate the PIK interest, extend the maturity date to October 8, 2023 and relax certain covenants on dividend payments. Throughout 2021 Alvopetro repaid total advances of \$9.0 million under the Credit Facility, with an aggregate \$6.5 million outstanding as of December 31, 2021.

On September 7, 2021, the articles of the Corporation were amended to undertake a 2,100 to 1 share consolidation followed immediately by a 1 to 700 share split (the "Share Restructuring"), for an effective 3 to 1 share consolidation. Shareholders who held less than 2,100 Common Shares immediately prior to the Share Restructuring and received less than one Common Share following the share consolidation were entitled to receive a cash payment in exchange for their Common Shares and

did not participate in the share split. All references to Common Shares and share repurchase warrants in this AIF have been adjusted to reflect the impact of the Share Restructuring.

On September 21, 2021, the Company declared its first quarterly dividend of \$0.06 per Common Share to shareholders of record on September 28, 2021; paid on October 14, 2021. The second quarterly dividend of \$0.06 per Common Share was declared on December 15, 2021 to shareholders of record on December 30, 2021 and was paid on January 14, 2022.

## Key Operational Highlights:

- annual average natural gas, oil and NGL sales of 2,358 boepd;
- realized natural gas sales price of \$6.50/Mcf, an overall realized sales price of \$40.64 per boe and an operating netback of \$33.39 per boe;
- net income of \$5.6 million, cash flows from operations of \$24.3 million and funds flow from operations of \$24.6 million; and
- capital expenditures of \$4.5 million.

# **Significant Acquisitions**

Alvopetro did not complete any significant acquisitions during any of the years ended December 31, 2019, 2020 or 2021.

# **DESCRIPTION OF THE BUSINESS**

#### **Business**

Alvopetro is engaged in the exploration for and the acquisition, development and production of hydrocarbons in Brazil. Alvopetro is a pioneer in the development of Brazil's independent onshore natural gas industry anchored by the Company's core Caburé upstream and midstream project. As at December 31, 2021, Alvopetro held interests in the Caburé natural gas field and the Murucututu natural gas field (previously referred to as the Gomo natural gas field), two other exploration assets (Block 182 and the western portion of Block 183) and two oil fields (Bom Lugar and Mãe-da-lua), comprising 22,166 acres (gross and net).

# Strategy

Alvopetro's strategy is to unlock the on-shore natural gas potential in the state of Bahia, building off the development of our Caburé and Murucututu natural gas assets and our strategic midstream infrastructure. Our objective is to create a balanced reinvestment and long-term stakeholder return model where approximately half of our cashflows are reinvested in organic growth opportunities and the other half is distributed to stakeholders as dividends, share repurchases, and interest and principal repayments to debt capital providers.

# Specialized Skill and Knowledge

Exploration for and development of petroleum resources require specialized skills and knowledge, including in the areas of petroleum engineering, geophysics, and geology. The Corporation may face challenges in attracting and retaining employees, consultants and advisors to meet these needs. See "Risk Factors".

# **Competitive Conditions**

The oil and gas industry is highly competitive, with respect to the acquisition of prospective oil and gas properties and reserves, in attracting financing sources for the acquisition of new reserves or the development of existing reserves, and in marketing production from existing reserves. Alvopetro's competitive position depends on its geoscience and engineering expertise, its financial resources, its ability to develop its properties and its ability to select, acquire and develop proved reserves. Alvopetro will compete with a substantial number of other companies having larger technical staff and greater financial and operational resources and access to capital. Many such companies not only engage in the acquisition, exploration, development and production of petroleum reserves, but also carry on refining operations and market refined products.

# **Cycles**

Alvopetro's revenues are 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. Although Alvopetro's business itself is not seasonal, seasonality may impact demand for natural gas and may also impact the timing of operations as weather delays may affect the speed of completion of operations.

# **Economic Dependence**

The Company sells all natural gas from the Company's Caburé natural gas field to one counterparty. If the GSA was terminated for any reason or if Bahiagás was unable to accept all or a portion of natural gas production from Alvopetro, Alvopetro may be unable to enter into a relationship with another purchaser for such natural gas on a timely basis or on similar terms. See "Risk Factors" in this AIF for further information.

# **Employees**

As of the date hereof, Alvopetro has three officers. Alvopetro and its subsidiaries employ 29 employees, of which 22 employees are based in Brazil with the remainder in Calgary, Canada. 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 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. The Corporation's international operations may also be adversely affected by laws and policies of Canada as they pertain to oil and gas development, foreign trade, taxation and investment. See "Risk Factors" in this Annual Information Form for further details.

#### Reorganizations

There have been no material reorganizations of the Company or any of its subsidiaries within the three most recently completed financial years or proposed for the current financial year.

# **SUSTAINABILITY OF THE BUSINESS**

Alvopetro is committed to having a positive impact on the communities impacted by its operations and on its employees. Alvopetro commenced natural gas production in 2020, the first step in the Company's long-term strategy to unlock the natural gas potential in the state of Bahia in Brazil. With over 18 months of production, the Company is now generating cash flows and is committed to ensuring sustainability of the business over the long-term. Sustainability implies consistent economic returns that enable the Company to pursue its long-term strategy while ensuring adherence to its code of conduct and corporate values. Alvopetro's current focus on natural gas uniquely positions it to contribute to reductions in emissions to the extent it is able to achieve its long-term strategy to increase the overall natural gas production in Bahia state, as end users can switch to natural gas from fuel oil.

Alvopetro recognizes the inherent responsibilities in upstream and midstream operations and acknowledges that sustainable economic performance must go hand in hand with environmental stewardship, with due regard for social responsibility including safe operations, and maintaining high standards of corporate governance.

With 2021 being the first full year of commercial production operations for Alvopetro, the Company regards its performance in the year as a baseline for reporting purposes. With ongoing monitoring on several key environmental, social and governance metrics, the Company intends to report future performance as compared to 2021, in accordance with internationally-recognized reporting standards. Alvopetro strives to continuously improve the transparency of its efforts to ensure the ongoing sustainability of its business.

# **Environmental, Health and Safety Policies and Social Responsibility**

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 its business, its stakeholders and those who are impacted by its 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 all of its production infrastructure including wells, process and storage facilities and associated pipelines. Contingency plans are in place for a timely response to an environmental event and abandonment and remediation and reclamation programs are in place and utilized to restore the environment. Alvopetro has abandoned and reclaimed several wells and sites to date, all of which have met the applicable industry and government standards.

Management of Alvopetro are responsible for reviewing Alvopetro's EH&S strategies and policies, 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.

Alvopetro believes that its operations comply in all material respects with applicable environmental laws and is not aware of any proposed environmental legislation or regulations with which it would not be in compliance. However, the oil and gas industry may in the future become subject to more stringent environmental protection rules. This could increase the cost of doing business and have a negative impact on net earnings and cash flows in the future. See "Risk Factors" in this AIF for further information.

In 2021, Alvopetro commenced a formal voluntary social contribution program targeting the long-term sustainability of seven communities within its direct and indirect areas of influence and completed a comprehensive community assessment visiting over 190 families in its areas of operations. In 2022, the Company expects to allocate up to \$0.20 per boe produced to voluntary social investments to contribute to the long-term sustainability of these communities. Early initiatives include a music and arts program for 200 underprivileged students and a program working with 192 farmers to boost small plot farming productivity through circular water systems and collective cooperation in productive systems and techniques.

# **Environmental Protection**

All phases of the oil and natural gas business present environmental risks and hazards and are subject to environmental regulation pursuant to various levels of governmental and regulatory bodies and agencies in Brazil. Environmental regulations set forth numerous prohibitions and requirements with respect to planning and approval processes related to environmental protection including land use, water use, sustainable resource management, waste management, responsibility for the release of presumed hazardous materials, protection of wildlife and flora and fauna, and the health and safety of workers. Legislation provides for restrictions and prohibitions on the transport of dangerous goods and the release or emission of various substances, including substances used and produced in association with certain oil and gas industry operations. The legislation addresses various permits, including for drilling, well completion, installation of surface equipment, air monitoring, surface and ground water monitoring in connection with these activities, waste management and access to remote or environmentally sensitive areas. Certain types of operations may require the submission and approval of environmental impact assessments.

Historically, environmental protection requirements have not had a significant financial or operational effect on the Company's capital expenditures or net earnings. However, environmental legislation and policy are periodically amended and such amendments may result in stricter standards and enforcement, larger fines and liability, and potentially increased capital

expenditures and operating costs. Furthermore, there may be additional costs incurred in the future associated with compliance with increasingly complex environmental protection requirements, including with respect to greenhouse gas ("GHG") emissions or otherwise, some of which may require the installation of emissions monitoring and measuring devices, the verification and reporting of emissions data and additional financial expenditures to comply with GHG emissions reduction requirements. This could increase the cost of doing business and may have a negative impact on net earnings in the future. See "Risk Factors" in this AIF for further information.

Alvopetro's business supports a reduction in GHGs by enabling end users to switch from fuel oil to natural gas. While Alvopetro is pleased to provide a positive contribution to mitigating climate change and, as part of the Company's long-term strategy is focused on increasing natural gas supply overall in Bahia state, to further support GHG reductions, Alvopetro recognizes there is an opportunity to reduce its own footprint. To continuously improve efficiency of operations the Company is working with local regulators, both ANP and INEMA (the local environmental regulator in Bahia state), on reporting specific metrics, and will consolidate this information to report on its environmental impact at a corporate level.

The Company intends to establish key performance indicators (KPIs) for future performance on these metrics and will seek to enhance transparency by publicly reporting on performance.

# **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 Alvopetro's financial condition, capital expenditures, results of operations, competitive position or prospects.

#### **Governance Priorities**

Alvopetro has established core values which guide all Company decisions and interacts with a focus on continuous improvement, respect for individuals, communities and cultures, acting in the best interest of shareholders and all stakeholders. Alvopetro's core values are guided by four main principles:

#### 1. Create Value

- Create long-term per-share growth;
- Always act as owners;
- Focus on long-term profitability and recognize the interest of all our stakeholders; and
- Look for best value when making spending decisions.

# 2. Build Trust

- Treat our people and all our stakeholders with respect;
- Act with honesty and integrity;
- Be 100% committed to safety;
- Minimize our environmental footprint; and
- Meet or exceed regulations using international best practices.

#### 3. Be Accountable

- Work collaboratively;
- Share ideas across groups and locations;
- Objectively measure our performance;
- Learn from both our successes and failures and celebrate our successes; and
- Take responsibility and accountability in everything we do.

# 4. Innovate

- Take initiative and tackle challenges creatively;
- Manage risks and find innovative solutions;
- Challenge ourselves and each other; and
- Focus on continuous improvement.

The Company's pursuit of its long-term strategy is governed by a firm commitment to business ethics. Alvopetro has established a code of conduct which applies to all employees, officers and directors and sets out the Company's core values and requirements for compliance with respect to various policies of the Company. Topics addressed in the code of conduct include matters concerning anti-corruption, confidentiality, conflicts of interest, insider trading, business conduct and ethics, whistleblower reporting and the Company's human rights policy which is also included by reference in the Company's code of conduct. Alvopetro's human rights policy is guided by the International Bill of Human Rights, the United Nations Guiding Principles on Business and Human Rights, the OECD Guidelines for Multinational Enterprise and the International Labour Organization Declaration on Fundamental Principles and Rights at Work. All employees, officers, and directors are required to certify annually that they understand the code of conduct (including the human rights policy) and provide confirmation of compliance, along with confirmation that any non-compliance has been reported appropriately as provided for under the code of conduct and related policies. A copy of the code of conduct and the human rights policy is available on the Company's website at <a href="https://www.alvopetro.com">www.alvopetro.com</a>.

#### **PRINCIPAL PROPERTIES**

As at December 31, 2021 and as of the date hereof, Alvopetro held interests in the Caburé and Murucututu natural gas assets, two exploration assets (Blocks 182 and the western portion of Block 183) and two oil fields (Bom Lugar and Mãe-da-lua), comprising 22,166 acres (gross and net) in the Recôncavo basin onshore Brazil.

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 State of Bahia. Oil production in Brazil first began in the Recôncavo Basin in 1939. To date, over 6,750 wells have been drilled in the Basin, with cumulative production to date exceeding 1.8 billion barrels of oil and 2.9 trillion cubic feet (485 million boe) of natural gas. Basin-wide production is reported to be over 34,000 boe/d, with over 20,000 bopd day of oil and over 82 MMcfpd of natural gas. The majority of the basin's production comes from the Sergi, Agua Grande, Candeias and Marfim Formations.

#### **Natural Gas Assets**

Caburé natural gas field:

Alvopetro discovered its Caburé gas field with the 197(2) well, 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 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 and comprise 4,814 acres.

The Caburé natural gas discovery also extends across two adjacent blocks owned by a third party (Blocks 211 and 212). Under Brazilian legislation, petroleum accumulations straddling two or more licensed blocks must undergo unitization (pooling) in order to promote efficient and fair exploration and development. In April 2018, Alvopetro and the adjacent resource owner finalized the terms of the Unit Operating Agreement ("UOA"), the unit development plan and all related agreements, with Alvopetro's initial share being 49.1% and Alvopetro's 50.9% partner being named initial operator. Under the terms of the UOA, the working interest split is subject to redeterminations which may impact Alvopetro's working interest in the future. The first redetermination occurs 18 months after Alvopetro commenced production allocations and is expected to be finalized in 2022. The second redetermination will occur once 40% of the proved and probable reserves of the unit have been produced.

The agreed unit development plan included the construction of low and high-pressure production facilities, tie-in of existing wells, and drilling of up to four development wells. In 2019, three development wells were drilled, one of which was an exploration commitment well drilled by the operator at their cost. Six of the seven existing wells in the unit are tied-in. Construction of the low-pressure production facilities was completed in 2018 and construction of the high-pressure production facilities was completed in January 2020.

Under the terms of the UOA, each party is entitled to nominate for its working interest share of field production and for any natural gas not nominated by the other party. Each party receives 100% of the revenues associated with their natural gas nominations/deliveries representing a portion of that party's share of proved and probable ("2P") reserves. Once a party produces its share of 2P reserves, it will no longer be entitled to further production allocations. Natural gas liquids production from the unit is split based on working interest.

Costs incurred to date on the Caburé field include drilling and testing Alvopetro's original wells on this field (the 197(2) and 198(A1) wells), Alvopetro's share of joint upstream unit development costs undertaken from 2018 to 2020, costs associated with Alvopetro's midstream infrastructure as part of its gas commercialization strategy (including construction of the transfer pipeline and natural gas processing infrastructure, discussed in further detail below), along with historical costs for bid round bonuses and seismic work.

# Murucututu natural gas field:

Alvopetro's Murucututu natural gas field (previously referred to as the Gomo gas project or Gomo gas field) is 6,988 acres (gross and net) extends across Blocks 183 and 197 and includes the 183(1) and the 197(1) wells, both of which were drilled in 2014.

Block 183 is a 9th Brazil Bid Round Block and was acquired through a farm-in agreement signed in May 2013. Alvopetro drilled one well, the 183(1) well, on this block in October 2014 and conducted an initial test on the well in 2018. In 2019, Alvopetro commenced the stimulation and initial production test of the 183(1) well and in late 2020 installed a plunger lift system to recover remaining fluids from the stimulation and undertake another production test, which was completed in 2021. In 2021, Alvopetro declared commerciality on this portion of the block, renaming it to Murucututu, and it is now in the Development and Production Phase with an expiry date of April 18, 2048. The remainder of Block 183 is in the second exploration phase as discussed in "Exploration Assets" below. In 2021, the Company commenced installation of 9-kilometre transfer pipeline to tie the 183(1) well into the Caburé pipeline. In early 2022, installation was completed and the pipeline was tested. The Company is constructing field production facilities and will then tie-in the 183(1) well and commence production.

A portion of Block 197 is now part of the Caburé natural gas field as discussed above. The remainder of the block is attributable to the Murucututu project and costs to date include drilling and testing the 197(1) well in 2014, as well as historical costs for 5.9 km<sup>2</sup> of 3D seismic, 122.3 km of 2D seismic, and prior acquisition costs including bid round bonuses. In 2021, the Company declared commerciality on this portion of the block, renaming it Murucututu Sul and it is now in the Development and Production Phase with an expiry date of November 8, 2048.

The Murucututu and Murucututu Sul fields are collectively referred to as the Murucututu field or the Murucututu natural gas field or project throughout this annual information form.

#### Gas commercialization:

In May 2018, Alvopetro entered into the GSA with Bahiagás. Natural gas deliveries under the GSA commenced July 5, 2020. The natural gas price received according to the GSA is set semi-annually (in February and August) using a trailing weighted average basket of benchmark prices including US Henry Hub and UK National Balancing Point gas prices and Brent crude oil prices, with a floor and ceiling prices as of December 31, 2021 of \$5.52/MMbtu and a ceiling of \$9.38/MMbtu, respectively. Both the floor and ceiling prices are adjusted based on United States inflation. The natural gas price is then converted to a Brazilian real ("R\$") denominated natural gas price based on a historical average foreign exchange rate and is billed at that R\$ denominated price until the next price reset. As of December 31, 2021, the contracted priced under the GSA was R\$1.31/m³ and increased to R\$1.94/m³ on the February 1, 2022 price reset, which is based on the ceiling price of \$9.61/MMBtu as of February 1, 2022.

Alvopetro executed the Gas Treatment Agreement with Enerflex in September 2018. Under the terms of the Gas Treatment Agreement, Enerflex constructed and owns and operates a natural gas processing facility (the "Facility") for Alvopetro and will provide all operations and maintenance of the Facility, warrantying the delivery schedule and on-stream performance of the Facility. Services from Enerflex commenced in July 2020, upon commencement of natural gas deliveries. In addition to the Facility, Alvopetro constructed an 11-kilometre pipeline from the Caburé unit facilities to the Facility. In 2021 Alvopetro notified Enerflex to increase the operational capacity of the Facility to 500,000 m³/d (17.7 MMcfpd) under the terms of the existing Gas Treatment Agreement. The additional firm capacity is expected to be available by June 1, 2022.

#### Oil Fields

The Company has two oil fields (Bom Lugar and Mãe-da-lua). The Bom Lugar oil field (2,240 gross acres), consists of one producing well, one shut-in well and one active water disposal (injector) well. The field has a production battery equipped with testing, water separation and trucking facilities. The Mãe-da-lua field (431 gross acres) has one producing well and a production battery which is equipped with testing, water separation and trucking facilities. Total oil sales from these two fields averaged 2 bopd in 2021 (5 bopd in 2020).

# Exploration Assets (Block 182 & Block 183)

Work completed to date on Block 182 (4,747 acres) includes 20.9 km<sup>2</sup> of 3D seismic and 5.9 km of 2D seismic. Block 182 is currently in the Development and Assessment Plan ("PAD") phase with an expiry date of June 3, 2022. In March 2022, Alvopetro spud the 182-C1 well on this block.

A portion of Block 183 is part of Alvopetro's Murucututu natural gas field, as discussed above. The western portion Block 183 comprising 2,946 acres is in the second exploration phase with an expiry date of July 27, 2022. Alvopetro has a commitment to drill one well, at an estimated minimum commitment cost of \$0.6 million (based on costs complete to complete the required work units). Alvopetro plans to drill the 183-B1 well in advance of the phase expiry date following completion of the 182-C1 well.

# STATEMENT OF RESERVES DATA AND OTHER OIL AND GAS INFORMATION

In accordance with NI 51-101, Alvopetro engaged GLJ to prepare the GLJ Reserves and Resources Report. The GLJ Reserves and Resources Report included an evaluation of all reserves of Alvopetro as at December 31, 2021, including its Caburé natural gas field, the Murucututu natural gas field, as well as its Bom Lugar and Mãe-da-lua oil fields. The GLJ Reserves and Resources Report is dated March 7, 2022 with an effective date of December 31, 2021. All of Alvopetro's reserves are located in Brazil. The GLJ Reserves and Resources Report also included an evaluation of the Corporation's Murucututu natural gas resources as of December 31, 2021, including contingent and prospective resources. For further details on the contingent and prospective resources evaluated as of December 31, 2021, see Schedule B - Disclosure of Contingent and Prospective Resource Data Effective December 31, 2021.

The tables below are a summary of the 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 GLJ Reserves and Resources Report based on forecast price and cost assumptions. The tables summarize the data contained in the GLJ Reserves and Resources 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 GLJ 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 GLI Reserves and Resources Report is based on certain factual data supplied by the Corporation and GLI'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 GLI. GLI accepted this data as presented and neither title searches nor field inspections were conducted.

# Summary of Oil and Gas Reserves – Forecast Prices and Costs<sup>(1), (2),(3)</sup>

By Product

	Light & Medium Oil		Conventional Natural Gas		Natural Gas Liquids		Oil Equivalent	
	Company Gross	Company Net	Company Gross	Company Net	Company Gross	Company Net	Company Gross	Company Net
	(Mbbl)	(Mbbl)	(MMcf)	(MMcf)	(Mbbl)	(Mbbl)	(Mboe)	(Mboe)
Proved								
Producing	-	-	18,267	17,287	180	171	3,224	3,052
Developed Non-Producing	26	23	2,095	1,953	52	48	427	397
Undeveloped	147	138	3,254	3,012	80	74	770	714
Total Proved	173	161	23,616	22,252	312	294	4,421	4,163
Probable	137	128	22,731	21,331	390	365	4,316	4,048
Total Proved plus Probable	310	289	46,347	43,583	702	659	8,737	8,212
Possible	296	277	23,401	21,866	443	413	4,639	4,334
Total Proved plus Probable plus Possible	606	565	69,748	65,448	1,146	1,072	13,376	12,545

# By Field

	Cab	uré	Muru	cututu	Bom	Lugar	Mãe-d	da-lua	To	tal
	Natural 0	as Field	Natural Gas Field		Oil Field		Oil Field			
	Company Gross	Company Net	Company Gross	Company Net	Company Gross	Company Net	Company Gross	Company Net	Company Gross	Company Net
	(Mboe)	(Mboe)	(Mboe)	(Mboe)	(Mboe)	(Mboe)	(Mboe)	(Mboe)	(Mboe)	(Mboe)
Proved										
Producing	3,224	3,052	-	-	-	-	-	-	3,224	3,052
Developed Non-Producing	-	-	401	374	-	-	26	23	427	397
Undeveloped	-	-	623	577	147	138	-	-	770	714
Total Proved	3,224	3,052	1,024	950	147	138	26	23	4,421	4,163
Probable	1,917	1,815	2,262	2,106	121	113	16	15	4,316	4,048
Total Proved plus Probable	5,141	4,867	3,286	3,056	268	251	42	38	8,737	8,212
Possible	1,655	1,566	2,688	2,491	275	258	21	19	4,639	4,334
Total Proved plus Probable										
plus Possible	6,796	6,433	5,974	5,547	543	509	63	57	13,376	12,545

# Summary of Before Tax Net Present Value of Future Net Revenue $^{(1),\,(2),\,(3),\,(4)}$

# By Reserves Category

M\$	Undiscounted	5%	10%	15%	20%
Proved					
Producing	175,800	162,812	150,414	139,568	130,152
Developed Non-Producing	13,952	10,341	7,977	6,411	5,327
Undeveloped	35,028	22,103	15,369	11,298	8,559
Total Proved	224,780	195,256	173,759	157,277	144,037
Probable	267,646	168,096	123,240	96,623	78,449
Total Proved plus Probable	492,425	363,352	297,000	253,900	222,486
Possible	316,880	175,731	119,723	89,422	70,217
Total Proved plus Probable plus Possible	809,305	539,083	416,723	343,322	292,703

By Field

M\$	Undiscounted	5%	10%	15%	20%
Proved					
Caburé Natural Gas Field	175,800	162,812	150,414	139,568	130,152
Murucututu Natural Gas Field	44,265	28,637	20,239	15,150	11,761
Bom Lugar Oil Field	4,364	3,482	2,806	2,280	1,867
Mãe-da-lua Oil Field	350	325	301	278	257
Total Proved	224,780	195,256	173,759	157,277	144,037
Proved Plus Probable					
Caburé Natural Gas Field	279,912	245,787	216,859	193,481	174,394
Murucututu Natural Gas Field	200,939	108,126	72,307	53,820	42,461
Bom Lugar Oil Field	10,468	8,423	6,899	5,738	4,837
Mãe-da-lua Oil Field	1,106	1,016	934	860	794
Total Proved Plus Probable	492,425	363,352	297,000	253,900	222,486
Proved Plus Probable Plus Possible					
Caburé Natural Gas Field	373,908	312,611	265,483	229,494	201,469
Murucututu Natural Gas Field	411,250	207,394	135,821	101,130	80,612
Bom Lugar Oil Field	22,301	17,409	13,907	11,326	9,373
Mãe-da-lua Oil Field	1,846	1,669	1,511	1,372	1,250
Total Proved Plus Probable Plus Possible	809,305	539,083	416,723	343,322	292,703

# Summary of After Tax Net Present Value of Future Net Revenue(1), (2), (3), (4)

M\$	Undiscounted	5%	10%	15%	20%
Proved					
Producing	158,208	146,984	136,050	126,439	118,078
Developed Non-Producing	11,493	8,683	6,730	5,402	4,469
Undeveloped	26,984	17,474	12,283	9,039	6,802
Total Proved	196,686	173,141	155,064	140,880	129,349
Probable	207,798	135,466	100,859	79,563	64,708
Total Proved plus Probable	404,484	308,607	255,923	220,443	194,057
Possible	241,128	139,526	97,153	73,331	57,863
Total Proved plus Probable plus Possible	645,612	448,133	353,076	293,774	251,919

#### Notes

- (1) The tables above are a summary of the reserves of Alvopetro and the net present value of future net revenue attributable to such reserves as evaluated in the GLJ Reserves and Resources Report based on forecast price and cost assumptions. The tables summarize the data contained in the GLJ Reserves and Resources 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 Alvopetro before deductions of royalties payable to others and without including any royalty interests owned by Alvopetro.
- (3) Possible reserves are those additional reserves that are less certain to be recovered than probable reserves. There is a 10% probability that the quantities actually recovered will equal or exceed the sum of proved plus probable plus possible reserves
- (4) The net present value of future net revenue attributable to Alvopetro's reserves is stated without provision for interest costs and general and administrative costs, but after providing for estimated royalties and production taxes, 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. The net present values of future net revenue attributable to the Alvopetro's reserves estimated by GLJ 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.

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

	Unit Value(1) Before Income Tax Discounted at 10%/year		
	\$/boe	\$/Mcfe	
Proved			
Producing	49.28	8.21	
Developed Non-Producing	20.10	3.35	
Undeveloped	21.52	3.59	
Total Proved	41.74	6.96	
Probable	30.44	5.07	
Total Proved plus Probable	36.17	6.03	
Possible	27.62	4.60	
Total Proved plus Probable plus Possible	33.22	5.54	

<sup>(1)</sup> Unit values are based on Company Net Reserves.

# Net Present Value of Future Net Revenue by Product Type – Forecast Prices and Costs

	Future Net Revenue Before Income Taxes <sup>(3)</sup> (Discounted at 10% per year)			
	M\$	\$/boe	\$/Mcfe	
Proved Producing				
Light and Medium Crude Oil(1)	-	-	-	
Conventional Natural Gas <sup>(2)</sup>	150,414	49.28	8.21	
Total: Proved Producing	150,414	49.28	8.21	
Total Proved				
Light and Medium Crude Oil(1)	3,868	23.85	3.97	
Conventional Natural Gas <sup>(2)</sup>	169,891	42.46	7.08	
Total: Total Proved	173,759	41.74	6.96	
Total Proved Plus Probable				
Light and Medium Crude Oil(1)	8,479	29.20	4.87	
Conventional Natural Gas <sup>(2)</sup>	288,521	36.42	6.07	
Total: Total Proved Plus Probable	297,000	36.17	6.03	
Total Proved Plus Probable Plus Possible				
Light and Medium Crude Oil(1)	15,988	28.14	4.69	
Conventional Natural Gas <sup>(2)</sup>	400,734	33.46	5.58	
Total: Total Proved Plus Probable Plus Possible	416,723	33.22	5.54	

# Notes:

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

	Revenue	Royalties	Operating Costs	Capital Develop- ment I	Abandon- ment and Reclamation	Future Net Revenue Before Income	Income R	Future Net Revenue After
(M\$, Undiscounted)				Costs	Costs	Taxes	Tax	Income Taxes
Proved								_
Producing	213,277	11,377	10,022	13,286	2,793	175,800	17,592	158,208
Developed Non-Producing	32,795	2,300	12,072	3,063	1,408	13,952	2,458	11,493
Undeveloped	59,247	4,234	7,576	11,904	504	35,028	8,044	26,984
Total Proved	305,319	17,912	29,670	28,253	4,705	224,780	28,094	196,686
Probable	327,004	20,655	27,377	9,825	1,501	267,646	59,848	207,798
Total Proved plus Probable	632,323	38,567	57,048	38,078	6,206	492,425	87,942	404,484
Possible	367,906	24,591	20,267	6,022	145	316,880	75,751	241,128
Total Proved plus Probable plus Possible	1,000,229	63,158	77,315	44,101	6,351	809,305	163,693	645,612

<sup>(1)</sup> Includes solution gas and other by-products

<sup>(2)</sup> Including by-products but excluding solution gas.

<sup>(3)</sup> Other company revenue and costs not related to a specific production group have been allocated proportionately to production groups. Unit values are based on Company Net Reserves.

# **Pricing Assumptions – Forecast Prices and Costs**

GLJ employed the following pricing and inflation rate assumptions as of December 31, 2021 in the GLJ Reserves and Resources Report in estimating reserves data using forecast prices and costs.

Year	Inflation %	Brent Blend Crude Oil FOB North Sea (\$/bbl)	National Balancing Point (UK) (\$/MMBtu)	NYMEX Henry Hub Near Month Contract (\$/MMBtu)	Alvopetro-Bahiagas Gas Contract (\$/MMBtu)
2022	0.0	76.00	20.75	3.80	9.51
2023	3.0	72.51	12.00	3.50	10.09
2024	2.0	71.24	8.50	3.15	9.86
2025	2.0	72.66	8.67	3.21	9.00
2026	2.0	74.12	8.84	3.28	8.89
2027	2.0	75.59	9.02	3.34	8.99
2028	2.0	77.11	9.20	3.41	9.15
2029	2.0	78.66	9.39	3.48	9.33
2030	2.0	80.22	9.57	3.55	9.52
2031	2.0	81.83	9.76	3.62	9.71
2032+*	2.0	2.0%/yr	2.0%/yr	2.0%/yr	2.0/yr

<sup>\*</sup>Escalated at a rate of 2.0% per year thereafter.

GLJ's oil price forecast in effect on January 1, 2022 for Brent crude formed the basis for the prices used in its evaluation of the Corporation's oil and natural gas liquids reserves. With respect to the Company's natural gas reserves, GLJ utilized price forecasts for Brent, National Balancing Point and Henry Hub to forecast the specific forecast gas price under Alvopetro's GSA.

# **Reconciliation of Changes in Reserves**

The following table summarizes the changes in Gross Reserves from December 31, 2020 to December 31, 2021.

	Proved (Mboe)	Probable (Mboe)	Proved Plus Probable (Mboe)	Possible (Mboe)	Proved plus Probable plus Possible (Mboe)
December 31, 2020	5,108	4,485	9,593	4,615	14,209
Discoveries	-	-	-	-	-
Extensions	176	(176)	-	-	-
Improved Recovery	-	-	-	-	-
Technical Revisions	(12)	11	(1)	24	23
Disposition	-	-	-	-	-
Economic Factors	9	(4)	5	-	5
Production	(861)	-	(861)	-	(861)
December 31, 2021	4,421	4,316	8,737	4,639	13,376

#### Notes:

The key change in reserves is due to production in 2021 from the Company's Caburé natural gas field. The change in reserves between proved and probable due to extensions relates to a reclassification of volumes attributable to the 197(1) well for a previously tested zone from probable volumes to proved volumes. The change in reserves due to technical revisions reflect minor adjustments for NGL yields and natural gas shrinkage that were adjusted based on operational values.

<sup>(1)</sup> Based on the GLJ price forecast effective January 1, 2022.

# **Additional Information Relating to Reserves Data**

# **Undeveloped Reserves**

The following table sets forth the Company's Gross Reserves for proved undeveloped reserves and probable undeveloped reserves, each by product type, attributed to the Company's assets:

	Light and Medium Oil (Mbbl)			Natural Gas (MMcf)		Natural Gas Liquids (Mbbl)		Oil Equivalent (Mboe)	
	First	Total at	First	Total at	First	Total at	First	Total at	
	Attributed	Year-end	Attributed	Year-end	Attributed	Year-end	Attributed	Year-end	
Proved Undeveloped									
2019	-	147	-	1,971	-	84	-	560	
2020	-	145	2,197	2,302	54	57	420	586	
2021	-	147	922	3,254	23	80	176	770	
Probable Undeveloped									
2019	-	121	-	4,521	-	193	-	1,067	
2020	-	121	8,220	9,657	203	239	1,573	1,969	
2021	-	121	-	8,790	-	217	-	1,803	

The Corporation's proved and probable undeveloped natural gas reserves and natural gas liquids reserves at December 31, 2021 are attributable to the Murucututu natural gas project. The majority of the reserves associated with this project are classified as Proved Undeveloped or Probable Undeveloped due to new drilling locations and field facility development required. The Company commenced construction on the Murucututu pipeline extension (which was completed in early 2022) and drilling of additional locations are planned subsequent to that. The Corporation's proved and probable undeveloped oil reserves are attributable to a new drilling location on the Bom Lugar field expected to be drilled in 2023.

A number of factors could result in a delay or cancellation of the Company's planned development plans, including changing economic conditions due to natural gas and oil price fluctuations, financial capability of the Company and other risk factors as described within this AIF.

# 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 based on information available at that time. 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 GLI Reserves and Resources Report of future net revenue attributable to proved reserves, proved plus probable reserves and proved plus probable plus possible reserves (using forecast prices and costs).

# Company Total

	Forecast Prices and Costs					
M\$ <sup>(1)</sup> , Undiscounted	Proved Producing	Proved	Proved Plus Probable	Proved Plus Probable Plus Possible		
2022	3,000	13,883	19,683	19,683		
2023	1,730	5,373	7,149	11,146		
2024	1,730	2,171	2,171	2,171		
2025	1,730	1,730	2,180	2,180		
2026	5,096	5,096	2,189	2,189		
Remaining Years	-	-	4,705	6,732		
Total Undiscounted	13,286	28,253	38,078	44,101		

#### Notes:

(1) Based on forecast prices and costs.

# By Field

M\$ <sup>(1)</sup> , Undiscounted	2022	2023	2024	2025	2026	Remaining	Total
Proved							
Caburé Natural Gas Field	3,000	1,730	1,730	1,730	5,096	-	13,286
Murucututu Natural Gas Field	10,550	433	441	-	-	-	11,424
Bom Lugar Oil Field	333	2,771	-	-	-	-	3,104
Mãe-da-lua Oil Field	-	439	-	-	-	-	439
Total Proved	13,883	5,373	2,171	1,730	5,096	-	28,253
Proved Plus Probable							
Caburé Natural Gas Field	3,000	1,730	1,730	1,730	1,730	4,237	14,157
Murucututu Natural Gas Field	16,350	1,463	441	450	459	468	19,631
Bom Lugar Oil Field	333	3,517	-	-	-	-	3,850
Mãe-da-lua Oil Field	-	439	-	-	-	-	439
Total Proved Plus Probable	19,683	7,149	2,171	2,180	2,189	4,705	38,078
Proved Plus Probable Plus Possible							
Caburé Natural Gas Field	3,000	1,730	1,730	1,730	1,730	5,786	15,706
Murucututu Natural Gas Field	16,350	1,463	441	450	459	946	20,109
Bom Lugar Oil Field	333	7,514	-	-	-	-	7,847
Mãe-da-lua Oil Field	-	439	-	-	-	-	439
Total Proved Plus Probable Plus							
Possible	19,683	11,146	2,171	2,180	2,189	6,732	44,101

#### Notes:

(1) Based on forecast prices and costs.

Under each reserve category, Alvopetro has elected to reflect 100% of the contractual obligations pursuant to its Gas Treatment Agreement with Enerflex, including all operating, equipment rental, and related financing costs for the full duration of the agreement. These costs are primarily attributable to the Caburé field and also represent the majority of the future development costs for the Caburé field in the table above. The future costs associated with equipment rental are reflected in the future development costs in the table above and are also reflected as a capital lease obligation on the Company's financial statements (other than future anticipated equipment rental costs associated with the facility expansion, which will be reflected on the financial statements once completed).

The future development costs for the Murucututu field in the proved category are for the remaining costs anticipated for the pipeline, field facility development to tie-in the 183(1) well to Alvopetro's midstream assets, the stimulation and tie-in of the 197(1) well, as well as costs to drill a development location. In the probable and possible categories, there are future development costs for an additional development location. Also included in the Murucututu future development costs for all reserve categories are a portion of the anticipated contractual obligations associated with the expansion of the gas treatment facility. The future development costs for Bom Lugar in the proved category include costs for a directional wellbore and

facilities upgrade. A second directional well is included in the future development costs for the possible category for Bom Lugar. Future development costs at the Mãe-da-lua field relate to a stimulation of the existing producing well.

The Company expects that all future development costs in each reserve category above as well as work commitments and other capital plans on its exploration blocks can be funded primarily from cash flows from the Caburé natural gas field and future cash flows from the Murucututu natural gas field. However, additional financing may be required for these projects to the extent future revenues are less than anticipated. Financing alternatives include project financing, vendor financing, strategic partnerships, other debt issuances or additional equity issuances. The Company may also explore asset sales or farmouts to assist with funding. The cost of the 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 Alvopetro's gross and net wells as at December 31, 2021, which are shut-in or are producing, or which Alvopetro considers to be capable of production, and all of which are located onshore:

	Gros	S	Net	
	Producing	Non-Producing	Producing	Non-Producing
Brazil				
Oil	2.0	-	2.0	-
Gas	6.0	3.0	2.9	2.5
Total	8.0	3.0	4.9	2.5

#### Properties with no Attributed Reserves

As of December 31, 2021, Alvopetro held 7,693 (gross and net) acres of unproved properties with no attributed reserves or production in Brazil, related to Block 182 and the portion of Block 183 that is not part of the Murucututu natural gas field. Block 182 is currently in the PAD phase and does not have minimum work units ("UTs"), and therefore an associated minimum work commitment on the block, as UTs are not applicable in the PAD phase. In the PAD phase, the Company must notify the ANP of its work plan to be completed, which for Block 182, includes drilling an exploration well. The Company spud the 182-C1 well in March 2022.

The portion of Block 183 which is not part of the Company's Murucututu natural gas project is currently in the second exploration phase which expires on July 27, 2022, with a commitment to drill one exploration well. Alvopetro is planning to drill the 183-B1 well in satisfaction of this work commitment following the 182-C1 well. It is not expected that Alvopetro's rights to explore, develop or exploit will, absent further action, expire within one year, as of December 31, 2021. See also "Risk Factors" in this annual information form.

For a description of Alvopetro's prospective resources and contingent resources, see Schedules B and C to this annual information form and also "Risk Factors" in this annual information form.

# Additional Information Concerning Abandonment and Reclamation Costs

The estimated costs used to calculate total future net revenue from proved plus probable reserves in the GLI Reserves and Resources 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. The estimated abandonment and reclamation costs (with respect to wells and facilities included in the GLI Reserves and Resources Report) used to calculate total future net revenue from proved plus probable reserves is \$6.2 million undiscounted, with all expected costs to be incurred in 2028 or later. The GLI Reserves and Resources Report does not include abandonment and reclamation costs for existing wells and facilities with no assigned reserves which are included and set forth in the financial statements of Alvopetro. See Note 10 of the Company's audited consolidated financial statements as at December 31, 2021 for further information.

# Costs Incurred

The following table summarizes capital expenditures including capitalized general and administrative and finance expenses related to Alvopetro's activities for the year ended December 31, 2021:

# Year ended December 31, 2021 (M\$)

Property Acquisition Costs	
Proved Properties	-
Unproved Properties	-
Exploration Costs	1,528
Development Costs	2,985
Total	4,513

# **Exploration and Development Activities**

Exploration costs in 2021 included preliminary costs and long-lead purchases associated with the two exploration wells to be drilled in 2022 (the 182-C1 well and the 183-B1 well). Development costs in the year were primarily attributable to construction of the of the 9-kilometre pipeline to connect the 183(1) well on the Murucututu natural gas field to the Company's Caburé pipeline.

# **Production Estimates**

The following table discloses, for each product type, the average daily production estimated in the GLJ Reserves and Resources Report in the estimates of future net revenue from gross proved and gross proved plus probable reserves disclosed above for 2022. The 2022 production estimate is primarily attributable to the Caburé natural gas field.

	Light & Medium Oil (bbl/d)	Conventional Natural Gas (Mcf/d)	Natural Gas Liquids (bbl/d)	Oil Equivalent (boepd)
Proved Producing				
Caburé	-	13,818	109	2,412
Other Properties	-	-	-	-
Total: Proved Producing	-	13,818	109	2,412
Proved Developed Non-Producing				
Caburé	-	-	-	-
Other Properties	6	446	11	91
Total: Proved Developed Non-Producing	6	446	11	91
Proved Undeveloped				
Caburé	-	-	-	-
Other Properties	-	503	12	96
Total: Proved Undeveloped	-	503	12	96
Total Proved				
Caburé	-	13,818	109	2,412
Other Properties	6	949	23	187
Total: Total Proved	6	14,767	133	2,600
Total Probable				
Caburé	-	-	-	-
Other properties	-	866	21	166
Total: Total Probable	-	866	21	166
Total Proved plus Probable				
Caburé	-	13,818	109	2,412
Other properties	6	1,815	45	353
Total: Total Proved Plus Probable	6	15,633	154	2,765

#### Tax Horizon

The GLI Reserves and Resources Report estimates that the Corporation will be taxable in 2022 and future years which is consistent with the Company's expectations The GLI Reserves and Resources Report estimates income tax of \$3.4 and \$4.4 million, respectively, in the total proved and total proved plus probable categories in 2022. Ultimately, future taxability will depend on future activity levels and may change from that estimated in the GLI Reserves and Resources Report due to additional capital spending and other additional costs such as general and administrative costs not included in the GLI Reserves and Resources Report but included in the computation of the Corporation's taxable income. As of December 31, 2021, the Corporation has total tax pools in Brazil of \$69.6 million, which includes \$20.4 million of tax loss carryforwards which carryforward indefinitely but are limited to annual utilization of up to 30% of taxable income in subsequent periods.

# **Forward Contracts**

As of December 31, 2021, Alvopetro had no risk management contracts in place to hedge its exposure to commodity price fluctuations.

# **Production History**

The following tables disclose, on a quarterly basis for the year ended December 31, 2021, information in respect of production, product prices received, royalties, production expenses and the resulting operating netback.

Average Daily Production Volume, Prices Received, Royalties Paid, Production Costs and Netback –Natural Gas, Light & Medium Crude Oil and Natural Gas Liquids (NGLs):

	Three Months Ended			
	Mar. 31, 2021	Jun. 30, 2021	Sept. 30, 2021	Dec. 31, 2021
Average Daily Production Volume				
Natural gas (Mcfpd)	12,464	13,512	14,102	13,966
NGLs (bopd)	98	105	107	103
Crude oil (bopd)	-	5	2	2
Company total - boepd	2,175	2,361	2,459	2,432
Averaged realized prices:				
Natural gas (\$/Mcf)	5.68	6.06	7.07	7.07
NGLs (\$/bbl)	64.41	74.47	79.36	84.36
Crude oil (\$/bbl)	-	59.63	61.11	76.47
Company total (\$/boe)	35.45	38.08	44.04	44.22
Operating netback <sup>(1)</sup>				
Natural gas, oil and condensate revenues	6,939	8,182	9,963	9,896
Royalties	(645)	(607)	(910)	(945)
Production expenses	(710)	(791)	(824)	(809)
Operating netback <sup>(1)</sup>	5,584	6,784	8,229	8,142
Operating netback per boe <sup>(1)</sup>				
Realized sales price (\$/boe) (1)	34.45	38.08	44.04	44.22
Royalties (\$ per boe) (1)	(3.30)	(2.82)	(4.02)	(4.22)
Production Expense (\$ per boe) (1)	(3.63)	(3.68)	(3.64)	(3.62)
Operating Netback (\$ per boe)(1)	28.52	31.58	36.38	36.38

#### Notes

<sup>(1)</sup> See "Non-GAAP and Other Financial Measures" in this AIF.

#### **CONTINGENT AND PROSPECTIVE RESOURCES**

Alvopetro engaged GLJ to prepare the GLJ Reserves and Resources Report and the GLJ July 31, 2020 Prospective Resource Report. Supplemental disclosure of the contingent and prospective resources evaluated by GLJ in the GLJ Reserves and Resources Report as of December 31, 2021 is included as Schedule B. Supplemental disclosure of the prospective resources evaluated by GLJ in the GLJ July 31, 2020 Prospective Resource Report is included as Schedule C, with Form 51-101F2 included as Schedule D. The report of management and directors on oil and gas disclosure in Form 51-101F3 is included as Schedule E.

#### **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 213 million people and is the world's ninth largest economy with proven oil reserves of approximately 12 billion Bbls and proven gas reserves of approximately 12 trillion cubic feet (as of 2020 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, Petróleo Brasileiro SA ("Petrobras"), extended its operations offshore. In the Campos Basin, 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 17 bidding rounds and open acreage auctions 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;
- (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; and
- (c) the Ministério de Minas e Energia, or Ministry of Mines and Energy, a Brazilian government ministry fostering investments in mining and energy related activities funding research and establishing government policies.

In addition to this regulatory framework, environmental regulations are applicable and certain licences and permits are required for the performance of oil and gas activities. Government environmental agencies are responsible for issuing such licences and permits 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 held by Alvopetro fall under the concession regime.

Under the concession regime, oil and gas blocks are awarded by means of bidding rounds or open acreage auctions 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 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 Alvopetro'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 "Development Assessment" as part of the PAD phase that may include 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, 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.

# **Brazilian Government Initiatives**

The Brazilian government has initiatives in place to encourage investment and ultimately natural gas production in the country, including "The New Gas Market" program, the Revitalization of Exploration and Production Activity of Oil and Natural Gas Onshore ("REATE") and the Revitalization and Incentive Program for the Production of Maritime Fields ("PROMAR").

## The New Gas Market

The goal of the New Gas Market program is to create a new natural gas market comprised of numerous suppliers and operators of pipelines, as well as distribution companies. The program aims to boost production and demand by improving the regulatory framework and providing third party access for essential gas infrastructure.

#### Reate 2020

The new version of this program, Reate 2020, seeks to expand the national policy of promoting oil and natural gas activities, providing synergies between producers, suppliers financiers, and regulatory agencies, in order to increase exploration and production, on land, of oil, and especially, of natural gas, in favor of a strong and competitive industry, with increasing efficiency and with increased operators and providers of goods and services, contributing greatly to regional development.

#### Promar

The goal of the Promar is to create conditions for the revitalization of mature oil and natural gas fields located offshore in the national territory, with the objective of extending their useful life, increasing the recovery factor, generating jobs and maintaining the local goods and services industry.

#### **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 bock. 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. In 2018, the ANP introduced revised local content regulations which reduced the local content requirements for all blocks and fields held by Alvopetro to 50%. As at December 31, 2020, the Corporation does not have any local content penalties estimated or accrued.

# **Brazil – Royalties and Sales 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. In addition, in 2018, the ANP published new legislation allowing companies to apply to reduce the royalty rate for mature fields to as low as 5% on incremental production, subject to the approval of the ANP. All of the Concession Contracts held by Alvopetro are subject to a base 10% royalty other than the Bom Lugar oil field which is subject to a base 5% royalty. Royalties are computed based on production volumes of the raw natural gas or crude oil produced at either a reference price determined and published by the ANP for each field within Brazil or at the sales price.

In 2021, the ANP introduced legislation to reduce the government royalty rate for medium and small producers from the rate of 10% to 7.5% and 5.0%, respectively. Alvopetro has applied for the rate reduction and expects to qualify as a medium producer which would reduce the government royalty rate to 7.5% once approved by the ANP.

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 Alvopetro are subject to a 1% landowner royalty other than the Bom Lugar oil mature field which is subject to a base 0.5% landowner royalty.

Certain third parties are entitled to a gross-overriding royalty on the portion of the Caburé natural gas field and Murucututu natural gas field that were attributable to Block 197, on the Mãe-da-lua field, and on Block 182. This gross-overriding royalty is 2.5% on gross revenues for these blocks, less Government royalties and taxes on revenue.

Sales taxes are due on all oil, condensate and natural gas revenues. All revenues are subject to Assistance Contribution ("COFINS") and Social Integration Program ("PIS") paid on revenues at a combined rate of 9.25%, offset by credits on available expenditures. Natural gas revenues are also subject to ICMS, which is levied by states within Brazil on the movement of goods. In Bahia state, where Alvopetro operates, the rate is 12%. Under the terms of Alvopetro's GSA, the natural gas price paid to Alvopetro is grossed up for all PIS, COFINS and ICMS applicable.

# 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 Alvopetro, 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. The Special Participation is not forecasted to apply to the future net revenues from any of Alvopetro's reserves in the GLJ Reserves and Resources Report.

M <sup>3</sup> /Quarter
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	(in equivalent oil cubic metres)	boe/d	Special Participation
Year 1	450,000	31,450	(RLP – RLP*450/VPF)*SP%
Year 2	350,000	24,461	(RLP – RLP*350/VPF)*SP%
Year 3	250,000	17,472	(RLP – RLP*250/VPF)*SP%
Year 4 and thereafter	150,000	10,483	(RLP – 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. In 2021, the Company received approval from tax authorities in Brazil for Supertintendência de Desenvolvimento do Nordeste ("SUDENE"), a regional tax incentive offered in Bahia State. Under the incentive, special deductions reduce the inherent current tax payable on qualifying projects to an effective rate of 15.25% (through a 75% reduction in each of the corporate income tax and surtax rates). The effective rate is a corresponding 15.25% where profits for SUDENE profits align with taxable income under the actual profit regime. The SUDENE incentive applies to natural gas profits Alvopetro earns for a period of ten taxation years, commencing January 1, 2021 and ending December 31, 2030. The Company expects the SUDENE rate to be applicable for its natural gas projects in Brazil up to the initial designed facility capacity of 180,000,000 m³ per annum (493,150 m³/d or 17.4 MMcfpd). The benefit of the SUDENE incentive was recognized by the Corporation in the 2021 taxation year, reducing current tax expense to \$0.5 million after recognition of the SUDENE benefit. The Company expects to be taxable in 2022 and future years.

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 risk factors described below, together with all of the other information contained herein before making an investment decision with respect to the Company's Common Shares. If any of the following risks develop into actual events, its business, financial condition or results of operations could be materially adversely affected and investors could lose all or a portion of their investment.

# **Commodity Price Fluctuations**

Commodity prices are unstable and are subject to wide fluctuations in response to relatively minor changes in the supply and demand for oil and natural gas, market uncertainty and a variety of additional factors beyond the control of the Company. These factors include, but are not limited to, expectations regarding global supply and demand, government regulations, actions of Organization of Petroleum Exporting Countries ("OPEC") and other oil and gas exporting countries, international conflicts, weather conditions, risks of supply disruption, availability of alternative fuel sources, political conditions, actions of governmental authorities, and the impacts of other worldwide pandemics or other events. Alvopetro's GSA includes both a USD floor and ceiling price, limiting the Company's exposure to commodity price risk.

Any material decline in prices will result in a reduction of Alvopetro's future revenue and cash flows from operations. 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 Alvopetro's reserves. Alvopetro 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 Alvopetro's future net production revenue which would have an adverse effect on the carrying value of the Company's reserves, its borrowing capacity, profitability and cash flows from operations, and may have a material adverse effect on the Company's business, financial condition, results or operations, and its acquisition and development activities.

The Company monitors market conditions and may selectively utilize derivative instruments to reduce exposure to commodity price movements. However, the Company is of the view that it is neither appropriate nor possible to eliminate 100 percent of its exposure to commodity price volatility.

# Foreign Currency and Fiscal Matters

Alvopetro is exposed to market risks resulting from fluctuations in foreign exchange rates, particularly with respect to crude oil, natural gas and condensate revenues. Although the revenues are linked to USD benchmark prices, actual invoices for such sales are denominated in foreign currency, exposing the Company to foreign currency risk. This is especially significant with respect to natural gas sales under the Company's long-term GSA as the natural gas price is determined semi-annually based on historical USD benchmark prices and converted to a fixed R\$ denominated price in m³ based on historical exchange rates. The Company receives the fixed R\$/m³ until the next price determination date. As a result, fluctuations in the actual USD to R\$ exchange rate from the average historical rate used to determine the R\$ denominated natural gas price will result in USD realized prices which differ from the USD natural gas price at the price determination. Should the R\$ depreciate from the average historical rate used in determining the R\$ denominated natural gas price, the Company will realize lower equivalent USD until the next price reset which may result in a material decrease in funds flow. With respect to crude oil and condensate revenues, commodity prices received are based on USD benchmark prices on the date of sale, converted to R\$ at the foreign exchange rate applicable on that date. A material devaluation of the R\$ relative to the USD could result in a material adverse effect on Alvopetro's funds flow, revenues and net asset value.

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 Alvopetro.

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

# Marketability of Production and Economic Dependence

The Company has entered into a long-term GSA with one counterparty. If this gas sales contract were terminated for any reason, Alvopetro may be unable to enter into a relationship with another purchaser for such gas on a timely basis or on similar terms. Even if a new counterparty were identified, additional infrastructure development may be required to enter into a new gas sales contract with a new counterparty which may result in additional capital expenditures and delays in future cash flows and any new contract may not be on similar terms to the Company's existing GSA. Alvopetro's results of operations and future cash flows are dependent on its ability to market its gas production and any change to price or volumes under its gas sales contract may impact future earnings.

In addition, the marketability and ultimate commerciality of oil and gas discovered or acquired is affected by numerous factors beyond the control of Alvopetro. These factors include local demand, reservoir characteristics, market fluctuations, the proximity, capacity and price of oil and gas pipelines and processing equipment and government regulation.

# Reliance on Third Party Operators and Key Personnel

To the extent that Alvopetro is not the operator of its properties, it may be unable to fully control the activities of such operators. Alvopetro's Caburé natural gas field is operated by Alvopetro's partner on this field. Alvopetro is dependent on its partner to ensure Alvopetro is able to meet production requirements under its GSA and generate future cash flows. Alvopetro is also dependent on its partner, to varying extents, to exercise best practices in terms of safety and employment law. To manage these risks, Alvopetro entered into a comprehensive unitization agreement which governs the responsibilities of the operator and non-operators in a fair and balanced approach. Alvopetro has comprehensive insurance coverage with respect to its working interest in the field.

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

Alvopetro'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. 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.

### Reservoir Performance

The GLI Reserves and Resources Report was, and all of Alvopetro'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 Alvopetro. The reserves information set forth in this AIF represents estimates only. The reserves from Alvopetro's properties have been independently evaluated by GLJ in the GLI Reserves and Resources Report. The GLI Reserves and Resources Report includes a number of 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 production 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 Alvopetro. 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. Although management is of the opinion that Alvopetro can meet the firm sales commitments under the GSA solely with production from the Caburé natural gas field, in the event that actual production volumes are less than anticipated, the Company may be subject to ship-or-pay penalties.

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.

# Exploration and Development Activities and Reserve Acquisition and Replacement

The exploration for, and production of, hydrocarbons is a highly speculative activity which involves a high degree of risk. The Company's current reserves will decline as reserves are produced unless the Company is able to discover and develop new reserves which involves exploration risk. The long-term commercial success of Alvopetro depends on its ability to find, acquire, develop and commercially produce hydrocarbon reserves. There can be no assurance that Alvopetro's future exploration activities will result in material additions to reserves or that such activities will lead to future cash flows.

The exploration and development of hydrocarbons involve a number of uncertainties that even thorough evaluation, experience and knowledge of the industry cannot eliminate. Alvopetro's exploration and possible development activities in Alvopetro'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 Alvopetro are subject to greater risks than those normally associated with the acquisition and ownership of producing properties. Alvopetro's properties may fail to produce hydrocarbons in commercial quantities.

It is impossible to guarantee that the exploration programs on Alvopetro'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 and availability 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. Alvopetro 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.

This annual information form includes estimates of the volumes of the Corporation's prospective resources and contingent resources. The resource estimates from GLJ are estimates only. 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. There is no certainty that any portion of the prospective resources will be discovered and even if discovered, there is no certainty that it will be commercially viable to produce any portion. With respect to the Corporation's contingent resources, there is uncertainty that it will be commercially viable to produce any portion of the resources. In addition, in respect of contingent resources, this annual information includes estimates of the net present value of the future net revenue associated with the best estimate of development pending contingent resources. 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. Estimates of prospective and contingent resources involve additional risks beyond estimates of reserves. The accuracy of any resources estimate is a function of the quality and quantity of available data and of engineering interpretation and judgment. While resources presented herein are considered reasonable, the estimates should be accepted with the understanding that reservoir performance subsequent to the date of the estimate may justify revision, either upward or downward.

# **International Operations**

International operations are subject to political, economic and other uncertainties, including but not limited to, risk of social instability, border disputes, expropriation or properties without fair compensation or marketable compensation, renegotiations or modification of existing concessions and contracts, changes in energy and environmental policies or the personnel administering them, changes in oil and natural gas pricing policies, import, export and transportation regulations and tariffs, taxation policies, including royalty and tax increases and retroactive tax claims, currency exchange controls, economic sanctions, limits on allowable levels of production, currency fluctuations, actions of national labour unions and 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 changes in applicable laws and policies of Brazil, which could have a negative impact on Alvopetro.

In 2022, there will be a national election in Brazil and changes in government may alter the level of support for oil and gas activities, potentially resulting in changes to existing oil and gas regulations in Brazil or to tax or other laws that could

adversely affect the Corporation. There can be no certainty as to the outcome of the election and any resulting change in regulations or laws within Brazil.

Income tax laws or incentives affecting the Company may change in the future or be interpreted in a manner that adversely affects the Company. In addition, changes in foreign exchange regulations or restrictions on repatriation of funds from Brazil may adversely affect the Company's ability to obtain cash from its Brazil subsidiaries to meet obligations within Canada, including the payment of dividends and repayment of the Credit Facility.

The majority of Alvopetro's operations are conducted in Portuguese and the Company may enter into significant contracts in Portuguese which may give rise to uncertainties. The Company manages this risk through the employment and involvement of qualified personnel within Brazil in all local operations.

#### **Pandemic Risk**

Alvopetro's business, financial condition or liquidity may be materially and adversely impacted by pandemics, epidemics or outbreaks of an infectious disease in Canada, Brazil or worldwide, including COVID-19. The COVID-19 pandemic and the responses by governments and health authorities around the world to reduce the spread of the virus gave rise to a significant reduction in global economic activity and reduced demand for crude oil and natural gas, resulting in a sharp decline in current and forecasted commodity prices in 2020. Alvopetro's natural gas price under the GSA with Bahiagás was based on the floor price as of August 1, 2020 and February 1, 2021 as a result of the reduced commodity prices. Commodity prices have now recovered but future demand is uncertain and newly emerging variants or other pandemics may impact such demand and commodity prices well into the future, impacting the financial health of the Company.

The extent to which the COVID-19 pandemic or any other future pandemic, epidemic or other such infectious disease may impact the Company's operations, financial condition and future financial performance is currently unknown and pandemic risk may increase other risks including: 1) market risk due to volatility in commodity prices as a result of reduced oil and natural gas demand and due to volatility in foreign exchange markets; 2) operational risks due to workforce disruption or shut down orders which may restrict current operations and cash flows or future capital projects; 3) financing risk to the extent additional capital is required as financing alternatives may be limited or only available with terms unacceptable to Alvopetro a result of reduced commodity prices and continued volatility in the financial markets; and 4) foreign operations risk given the Company's operations are undertaken in Brazil which has been particularly hard hit by the impact of the COVID-19 pandemic. To date the Company has not experienced any downtime-related delays as a result of this risk.

The direct and indirect effects of COVID-19 could have unforeseen implications that may be material. The extent to which the COVID-19 pandemic may impact the Company's operations, financial condition and future financial performance is currently unknown. Even

### Credit Facility

The Company owed a total of \$6.5 million under the Credit Facility as of December 31, 2021. The Company's ability to make payments of principal and interest will depend on its future operating performance and cash flows from operations, which are subject to prevailing economic conditions, prevailing commodity price levels, and financial, competitive, business and other factors, many of which are beyond its control. The Company's cash flow from operations will be in part dedicated to the payment of the principal and interest and no assurance can be given that the Company will be able to repay the Credit Facility.

The Credit Facility imposes certain restrictions on the Company, including on incurring of additional indebtedness, acquisition and dispositions of assets, entering into amalgamations, mergers, among other restrictions. In addition, the Credit Facility includes certain financial covenants with which the Company must comply. Financial covenants are tested as at all quarter ends of the Company. A breach of any of the terms of the Credit Facility could result in some or all of the amounts borrowed becoming immediately due and payable, which could adversely affect the Company's financial condition. Pursuant to the terms of the Credit Facility, the lender has been provided with security over all of the assets of the Company. A failure to comply with the obligations in the Credit Facility and related agreements could result in an event of default which, if not cured or waived, could permit acceleration of future amounts owing under the Credit Facility which may adversely affect the Corporation.

# Access to Capital and Future Financing Requirements

The Company may seek to raise additional funds in the future to fund future capital expenditures on Alvopetro's properties or other potential business development activities. There can be no assurance that debt or equity financing will be available or sufficient to meet these 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 planned operations could have a material adverse effect on Alvopetro's business, financial condition, results of operations and prospects, and could result in the delay or indefinite postponement of further exploration, evaluation and development of Alvopetro's properties.

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. 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.

# **Legal and Regulatory**

The Company is subject to extensive governmental and environmental approvals and regulations in Brazil. 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. Delays in obtaining regulatory approvals could result in project delays and an inability to meet contractual obligations and commitments. Changes to these regulations could increase the costs of conducting business. Environmental concerns relating to the oil and gas industry's operating practices are in the global spotlight and this may result in more stringent government regulation. Alvopetro is uncertain as to the amount of operating and capital expenses that will be required to comply with enhanced environmental regulation in the future as discussed in further detail in the Risk Factor entitled "Environmental Regulation".

Alvopetro'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 Alvopetro's foreign operations, Alvopetro 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. Alvopetro may also be hindered or prevented from enforcing its rights with respect to a governmental instrumentality because of the doctrine of sovereign immunity. Accordingly, Alvopetro's exploration, development and production activities in the foreign jurisdictions in which it operates could be substantially affected by factors beyond Alvopetro's control, any of which could have a material adverse effect on Alvopetro.

### **Environmental Regulation**

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 and 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.

There has also been increasing focus from investors and potential investors on the impact of oil and gas operations on the environment and communities in which oil and gas companies operate. As a result, certain investors may divest of any interest in oil and gas companies or the industry as a whole. This may further limit Alvopetro's ability to access sources of financing in the future should it be required. Furthermore, even where capital is available, such investors may require the implementation of more stringent policies and practices concerning environmental matters, including with respect to GHG emissions or

otherwise, some of which may require the installation of emissions monitoring and measuring devices, the verification and reporting of emissions data and additional financial expenditures to comply with GHG emissions reduction requirements. More stringent policies and monitoring requirements may come at a significant cost and time commitment of management, which may increase the overall cost of capital and have a negative impact on future cash flows from operations and earnings. In addition to new and stricter standards in environmental legislation, there may be additional costs to comply with sustainability disclosure standards. Emissions, carbon and other regulations impacting climate and climate related matters are constantly evolving. The newly established International Sustainability Standards Board (ISSB) is developing sustainability disclosure standards that are globally consistent, comparable and reliable. The cost to comply with this standard or any other similar disclosure standard has not yet been quantified and may be material to the Corporation.

# Competition

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

# **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 Alvopetro 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 Alvopetro's exploration, development, and sales activities; (ii) have a material adverse effect on Alvopetro's financial condition; and (iii) cause Alvopetro to not meet the local content requirements of its concession contracts, incurring penalties.

# 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 over potential environmental impacts. Alvopetro completed a hydraulic fracture stimulation of its 183(1) well on Block 183 in 2019 and expects to complete a hydraulic fracture stimulation on the 197(1) well and additional development wells planned for the Murucututu field and is awaiting the necessary regulatory approvals for the upcoming stimulations. Delays in obtaining these approvals may result in delays in the Company's operational plans which may impact its business and future cash flows. In addition, Alvopetro anticipates that there will be a trend towards changing and increased regulatory requirements concerning hydraulic fracturing in the future, in Brazil and internationally. Changes to these regulatory requirements may impact Alvopetro's business requiring it to expend additional costs to comply with future regulatory requirements or, in the future, resulting in it being unable to carry out hydraulic fracturing operations, which may lessen the volume of oil and gas that could otherwise be produced which could have a material impact on the Company.

### Climate Change – Physical Risk

Extreme climate conditions including floods, forest fires, earthquakes, hurricanes, drought and other weather related events may impact Alvopetro's operations or that of its major customers or suppliers. Climate change may increase the frequency and severity of such events and future events may have a material adverse effect on Alvopetro. The Company's financial results for 2021 were not directly impacted from a climate event and the Company did not have any weather related damages to its properties from any climate related events. The Company maintains insurance coverage that provides a level of insurance for certain events that may arise due to climate change factors, however, the Company's insurance program is

subject to limits and various restrictions. No claims were made under the Company's insurance policies in 2021 with respect to climate related matters.

#### **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) and such future issuances may be dilutive to shareholders.

#### **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.

### Permits, Licenses and Leases

Alvopetro's properties and activities on such properties are held in the form of permits, licenses and leases and working interests in permits, licenses and leases. If Alvopetro 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 Alvopetro's permits, licenses or leases or the working interests relating to a permit, license or lease may have a material adverse effect on Alvopetro's results of operations and business.

Furthermore, the development of Alvopetro'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 Alvopetro, it may have a material adverse effect on Alvopetro'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 Alvopetro. In addition, Alvopetro's trading volumes have historically been low. All of these factors may impact investor decisions as they may make it difficult for a shareholder to sell Common Shares at a price equal to or above the price at which the shares were purchased.

#### **Operating Hazards and Uninsurable Risks**

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 injuries or loss of life. Hazards such as unusual or unexpected geological formations, pressures or other conditions may be encountered in drilling and operating wells. As Alvopetro has interests in a limited number of properties, such risk is more significant than if spread over a greater number of properties. 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, resulting in a decline in the value of the securities of Alvopetro. 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.

# Delay in Cash Receipts and Credit Worthiness of Counterparties

Payment by purchasers of oil, natural gas and natural gas liquids to Alvopetro (and, by an operator to Alvopetro) may 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 the insolvency or financial impairment of any counterparty owing money to Alvopetro. Delays in collections or the inability to collect amounts owed to Alvopetro could have a material adverse effect on Alvopetro's financial position, liquidity and the ability to meet its financial obligations.

#### **Disruptions in Production**

Other factors affecting the production and sale of natural gas, oil and condensate 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 or community 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 labour, community or similar issues will not affect Alvopetro'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 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 Alvopetro, its shareholders and the market value of the Common Shares.

# **Cyber Security**

The Company is dependent upon the availability, capacity, reliability and security of its information technology infrastructure. In the event the Company is unable to effectively utilize its software and hardware, upgrade systems and network infrastructure as required, and take other steps to maintain or improve the efficiency of systems, the operation of such systems could be interrupted or result in the loss, corruption, or release of data. In addition, information systems could be interrupted by natural disasters, force majeure events, telecommunications failures, power loss, acts of war or terrorism, computer viruses, malicious code, physical or electronic security breaches, intentional or inadvertent user misuse or error, or similar events or disruptions. Any of these or other events could cause interruptions, delays, loss of critical or sensitive data or similar effects, which could have a material adverse impact on the protection of intellectual property, confidential and proprietary information, and on the Company's business, financial condition, results of operations and cash flows from operations.

The Company is also subject to a variety of information technology and system risks as a part of its normal course operations, including potential breakdown, invasion, virus, cyber-attack, cyber-fraud, security breach, and destruction or interruption of the Company's information technology systems by third parties or insiders. Unauthorized access to these systems by employees or third parties could lead to corruption or exposure of confidential or proprietary information, interruption to communications or operations or disruption to the Company's business activities or its competitive position. In addition, cyber phishing attempts, in which a malicious party attempts to obtain sensitive information such as usernames, passwords, credit card detail and money by disguising as a trustworthy entity in an electronic communication, have become more widespread and sophisticated in recent years. If the Company becomes a victim to a cyber phishing attack it could result in a loss or theft of the Company's financial resources or critical data and information or could result in a loss of control of the Company's technological infrastructure or financial resources. Although the Company has measures and controls in place that are designed to mitigate these risks, a breach of its security measures and/or a loss of information or financial resources could occur and result in a loss of material and confidential information and reputation, breach of privacy, disruption to its business activities and/or a financial loss. The significance of any such event is difficult to quantify but may in certain circumstances be material and could have a material adverse effect on the Company's business, financial condition and results of operations.

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

Alvopetro 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 Alvopetro's ability to realize the anticipated growth opportunities and synergies from combining the acquired businesses and operations with those of Alvopetro. 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 Alvopetro 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 Alvopetro 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 Alvopetro, if disposed of, could realize less than their carrying value on the financial statements of Alvopetro.

# **Risk Management and Hedging Activities**

Alvopetro 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. Alvopetro has entered into forward contracts to manage its exposure to fluctuations in the R\$ relative to USD. Risks associated with such products include, but are not limited to, counterparty risk, settlement risk, liquidity risk and market risk which could impair or negate Alvopetro's hedging strategy and result in a negative impact on its earnings and funds flow.

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

Additionally, due to the uncertain worldwide economic environment, there can be no assurance that Alvopetro 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. Alvopetro's properties may be subject to unforeseen title claims. While Alvopetro will diligently investigate title to all property and will follow usual industry practice in obtaining satisfactory title and, to the best of Alvopetro's knowledge, title to all of Alvopetro's properties are in good standing, this should not be construed as a guarantee of title. Title to Alvopetro's properties may be affected by undisclosed and undetected defects.

#### Structure of Alvopetro

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

#### **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 strict 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 demand on financial and personnel resources 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.

# 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 Alvopetro 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. While management makes every effort, there can be no assurance that the Common Shares will continue to be listed for trading on the TSXV.

#### **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 pipelines, trucking, ocean-going vessels, 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, pandemic-related lockdowns, strikes, lockouts, delays, mechanical problems or other events could temporarily impair the ability to supply natural gas and 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.

# 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 AND DISTRIBUTIONS**

In 2021 the Corporation established a dividend policy pursuant to which the Company expects to pay a regular quarterly dividend. The implementation of the dividend policy is part of the long-standing objective of the Corporation to provide shareholders with a sustainable return while retaining cash flow within the Corporation to fund reinvestment and development opportunities for future growth. If declared by the Board, quarterly dividends are expected to be paid to shareholders of record on or about the last business day of the month in each quarter of March, June, September and December with such dividends paid on or about the 15<sup>th</sup> day of the following month. It is intended that dividends declared and paid will qualify as "eligible dividends" for the purposes of the Tax Act. No assurances can be given that all dividends will qualify as "eligible dividends" and the designation of dividends as "eligible dividends" will be subject to the discretion of the Board of Directors.

The amount of cash dividends to be paid on the Common Shares, if any, will be subject to the discretion of the Board of Directors and may vary depending on a variety of factors, including, without limitation, results of operations, fluctuations in commodity prices, business performance, foreign exchange rates, production levels, expected capital expenditure requirements, debt and working capital levels, the taxability of Alvopetro, ability to raise capital, and the satisfaction of liquidity and solvency tests imposed by the *Business Corporations Act* (Alberta) for the declaration and payment of dividends. There can be no guarantee that Alvopetro will maintain its dividend policy and, even where dividends continue that such

dividends will continue at the current rate. The Credit Facility provides that dividends are not permitted if the Corporation is in default, the payment of such distribution would cause an event of default or the payment of such dividend would reduce the Corporation's cash balance below \$2.5 million.

The following table sets forth the amount of cash dividends declared per Common Share for the periods indicated. No amounts were declared in the years ended December 31, 2020 or December 31, 2019. All dividends declared and paid are in U.S. dollars. The dividend declared in Q3 2021 was paid in October 2021. The dividend declared in Q4 2021 was paid in January 2022.

\$ per share	Q1	Q2	Q3	Q4	Annual Total
2021	-	-	0.06	0.06	0.12

#### **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 Alvopetro's directors may from time to time declare. Subject to certain terms and conditions, Alvopetro 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 Alvopetro, 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 Alvopetro and generally will be entitled to enjoy all of the rights attaching to shares of Alvopetro.

As at December 31, 2021 and the date of this AIF, Alvopetro had 33,903,629 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. Alvopetro has no Preferred Shares outstanding as at December 31, 2021.

# **Credit Facility**

In 2019 the Company entered into the Credit Facility, subject to registrations of security and other funding conditions, all of which were met on October 8, 2019 (the "Funding Date"). Amounts under the Credit Facility were available to be drawn from the Funding Date to October 8, 2020. Any undrawn amounts were to be cancelled as of October 8, 2020. The Credit Facility is subject to cash interest of 9.5% per annum, payable monthly, and was originally subject to an additional interest payable upon repayment of any Credit Facility amounts at a rate of 3.0% per annum. The Credit Facility was also subject to a 1.0% per annum commitment fee on the unused available balance during the first year. Amounts drawn under the Credit Facility are repayable at maturity, however from October 8, 2020, amounts drawn may be repaid in part or full at Alvopetro's option without penalty. The Credit Facility is secured by all of Alvopetro's assets.

The Credit Facility was amended on March 2, 2021 and on April 15, 2021. The March 2, 2021 amendment clarified certain financial covenant calculations. The April 15, 2021 amendment eliminated the 3.0% additional interest amount, extended the maturity date from October 8, 2022 to October 8, 2023, and relaxed covenants pertaining to the payment of dividends.

As of December 31, 2021, a total of \$6.5 million was outstanding under the Credit Facility, including interest payable in kind upon repayment of the Credit Facility. Subsequent to December 31, 2021 Alvopetro repaid a total of \$1.5 million of principal amounts outstanding bringing the Credit Facility balance to \$5.0 million as of the date of this AIF.

The Credit Facility contains certain customary financial and non-financial covenants, standard representations and warrants and events of default as discussed further in "Risk Factors".

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

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, 2021. All volumes and prices have been adjusted to reflect the September 7, 2021 Share Restructuring discussed above in "Description of Capital Structure".

	Price Ra	nge (C\$)	
Month (2021)	High	Low	<b>Total Aggregate Monthly Trading Volume</b>
January	2.31	2.13	40,852
February	2.82	2.16	213,875
March	3.33	2.28	362,660
April	3.09	2.64	125,936
May	3.09	2.58	175,596
June	3.09	2.73	142,131
July	3.30	2.88	97,288
August	3.42	3.00	198,436
September	4.75	3.36	175,636
October	5.26	4.36	373,097
November	5.08	4.25	155,591
December	4.88	3.84	272,151

### **DIRECTORS AND OFFICERS**

The names, municipalities of residence, positions with Alvopetro and its subsidiaries and the principal occupations of the persons who serve as directors and executive officers of Alvopetro 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
John D. Wright <sup>(3)(4)</sup> Calgary, Alberta	Chairman	September 25, 2013	President, Analogy Capital Advisors Inc. since March 2017. From January 2017 to June 2017, Director, President and Chief Executive Officer of Ridgeback Resources Inc. (energy company). President, Chief Executive Officer and Director of Lightstream Resources Ltd. (energy company) from May 2011 to December 2016.
Corey C. Ruttan <sup>(3)</sup> Calgary, Alberta	Director, President and Chief Executive Officer	September 25, 2013	President and Chief Executive Officer of Alvopetro since November 2013.
Kenneth R.  McKinnon <sup>(2)(4)</sup> Calgary, Alberta	Director	November 19, 2013	Independent consultant. Partner at Citrus Capital Partners Ltd. (advisory and consulting firm) from January 2014 to June 2020.
<b>Geir Ytreland<sup>(3)</sup></b> Drobak, Norway	Director	November 19, 2013	Independent geologist.
Firoz Talakshi <sup>(2)</sup> Calgary, Alberta	Director	November 19, 2013	From October 2012 to December 2018, Senior Advisor, KPMG International Corporate Tax, Calgary.
Roderick L. Fraser <sup>(2)(4)</sup> New York City, NY and Salvador, Brazil	Director	December 16, 2013	From October 2017 to May 2020, non-executive Chairman of Dommo Energía S.A. From August 2014 to October 2017, Managing Director and Head of Oil and Gas for MUFG Union Bank.
Alison Howard Calgary, Alberta	Chief Financial Officer	November 28, 2013	Chief Financial Officer of Alvopetro since November 2013.
Adrian Audet Calgary, Alberta	Vice President, Asset Management	August 12, 2020	Vice President, Asset Management since August 2020. Prior thereto Operations Director and other operational positions at Alvopetro since November 2013.

# Notes:

- (1) Each Director will hold office until the next annual meeting of the shareholders of Alvopetro.
- (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 Alvopetro, as a group, beneficially own, directly or indirectly, or exercise control or direction over 3,617,521 Common Shares or 10.7% of the number of Common Shares issued and outstanding.

### **Corporate Cease Trade Orders**

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 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 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:

- 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 F. 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
Firoz Talakshi	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 gained a significant depth of understanding with respect to complex financial accounting and international tax issues.
	Mr. Talakshi was qualified as a Chartered Accountant in England and Wales in 1973 and is a member of the Chartered Professional Accountants of Alberta.
Kenneth R. McKinnon	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.); Supreme Cannabis Company, Inc.; 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.  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.

#### Roderick L. Fraser

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 & 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.

Mr. Fraser is a petroleum engineer with over 42 years of experience in the oil and gas sector.

#### **External Auditor Fees**

The auditor of the Corporation is KPMG LLP was first appointed auditors of the Corporation effective May 3, 2021 and approved in the annual general and special meeting on August 12, 2021. The following table sets forth the aggregate fees billed by KPMG LLP for the year-ended December 31, 2021. In 2020 the Corporation's auditor was Deloitte LLP. The aggregate fees billed by Deloitte LLP for the year-ended December 31, 2020 are shown as comparatives.

Year ended	Audit Fees	Audit Related Fees	Tax Fees	All Other Fees
2021	C\$166,300	C\$42,800	C\$35,166	Nil
2020	C\$171,154	Nil	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 the 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 Alvopetro 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 KPMG LLP, 3100, 205 5 Avenue S.W., Calgary, Alberta, T2P 4B9. KPMG LLP was first appointed as the Corporation's auditor effective May 3, 2021 by the Board and approved in the annual general and special meeting held by the Corporation on August 12, 2021.

### **Transfer Agent and Registrar**

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

#### **MATERIAL CONTRACTS**

In 2019, Alvopetro entered into the Credit Facility agreement (see "Description of Capital Structure"). The Credit Facility agreement was amended effective March 2, 2021 and effective April 15, 2021. The agreement, related documents, including the amendments, were filed by the Company and may be accessed through the Company's SEDAR profile (<a href="www.sedar.com">www.sedar.com</a>).

In 2018, the Company entered into the GSA to outline the terms of the supply of natural gas to Bahiagás, the natural gas distribution company in the state of Bahia. In 2020 and 2021, the agreement was amended as discussed above (see "General Development of the Business – Three Year History"). The agreement and the amendments have been filed by the Company and may be accessed through the Company's SEDAR profile (<a href="www.sedar.com">www.sedar.com</a>).

#### **INTERESTS OF EXPERTS**

GLJ prepared the GLJ Reserves and Resources Report, the results of which are summarized in this Annual Information Form. As at the date of the GLJ Reserves and Resources Report, GLJ is independent within the meaning of National Instrument 51-101. GLJ 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.

KPMG 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. 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, 2021.

# **SCHEDULE A**

# REPORT ON RESERVES DATA, CONTINGENT RESOURCES DATA AND PROSPECTIVE RESOURCES DATA BY INDEPENDENT QUALIFIED RESERVES EVALUATOR OR AUDITOR (FORM 51-101F2)

Effective date: December 31, 2021

(attached)

# FORM 51-101F2 REPORT ON RESERVES DATA, CONTINGENT RESOURCES DATA AND PROSPECTIVE RESOURCES DATA BY INDEPENDENT QUALIFIED RESERVES EVALUATOR OR AUDITOR

To the board of directors of Alvopetro Energy Ltd. (the "Company"):

- 1. We have evaluated the Company's reserves data, contingent resources data and prospective resources data as at December 31, 2021. The reserves data are estimates of proved reserves and probable reserves and related future net revenue as at December 31, 2021, estimated using forecast prices and costs. The contingent resources data and prospective resources data are risked estimates of volume of contingent resources and prospective resources and related risked net present value of future net revenue as at December 31, 2021, estimated using forecast prices and costs.
- 2. The reserves data, contingent resources data and prospective resources data are the responsibility of the Company's management. Our responsibility is to express an opinion on the reserves data, contingent resources data and prospective 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 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, contingent resources data and prospective resources data are free of material misstatement. An evaluation also includes assessing whether the reserves data, contingent resources data and prospective resources 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, 2021, and identifies the respective portions thereof that we have evaluated and reported on to the Company's board of directors:

Independent Qualified	Effective	Location of Reserves (Country			of Future Net F 0% discount rat	
Reserves Evaluator or Auditor	Date of Evaluation <u>Report</u>	or Foreign Geographic Area)	Audited	<u>Evaluated</u>	Reviewed	Total
GLJ Ltd.	Dec. 31, 2021	Brazil	_	297,000	-	297,000

6. The following tables set forth the risked volume and risked net present value of future net revenue of contingent resources and prospective resources (before deduction of income taxes) attributed to contingent resources and prospective 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 and prospective resources data that we have evaluated and reported on to the Company's board of directors:

	Independent Qualified	Effective	Location of Resources Other than Reserves (Country		of I	ed Net Pres Future Net lefore incom discount rat	Revenue
Classification	Reserves Evaluator or Auditor	Date of Evaluation Report	or Foreign Geographic Area)	Risked Volum (Mboe	e	Evaluated	<u>1 Total</u>
Development Pending Contingent Resources (2C)	GLJ Ltd.	Dec 31, 2021	Brazil	3,465	-	60,669	60,669
Classification		Independent Qualified Reserves Evaluator or Auditor	Effectiv Date of Evaluatio Repor	f on (	Location of Resources Of than Reservation from the Country or Formula (Geographic Association)	other wes oreign	Risked Volume (Mboe)
Prospective R	esources	GLJ Ltd.	Dec 31, 20	021	Brazil		12,127

- 7. In our opinion, the reserves data, contingent resources data and prospective 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 reserves data, contingent resources data and prospective resources data that we reviewed but did not audit or evaluate.
- 8. We have no responsibility to update our reports referred to in paragraphs 5 and 6 for events and circumstances occurring after the effective date of our reports.
- 9. Because the reserves data, contingent resources data and prospective 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:

GLJ Ltd., Calgary, Alberta, Canada, March 7, 2022

"Originally Signed by"

Patrick A. Olenick, P. Eng. Vice President



#### **SCHEDULE B**

### DISCLOSURE OF CONTINGENT AND PROSPECTIVE RESOURCE DATA EFFECTIVE DECEMBER 31, 2021

Capitalized terms not specifically defined in this Schedule B have the meaning ascribed to them in the Annual Information Form to which this schedule is attached.

Contingent and prospective resources should not be confused with reserves and readers should review the section titled "Resources" within the section "Notes on Reserves Data and Other Oil and Natural Gas Information" included within this AIF for additional information including risks associated with resource estimates. 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 Actual natural gas resources may be greater than or less than the estimates provided herein. There is no certainty that any portion of the prospective resources will be discovered and even if discovered, there is no certainty that it will be commercially viable to produce any portion. Readers should also review the "Risk Factors" section in this AIF for a broader discussion of the risks and uncertainties facing the Company.

The GLI Reserves and Resources Report includes Contingent and Prospective Resources and has been prepared in accordance with the standards contained in the COGE Handbook that are consistent with the standards of NI 51-101. GLI is a qualified reserves evaluator as defined in NI 51-101. The GLI Reserves and Resources Report included an evaluation of the natural gas resources of the Murucututu natural gas field (previously referred to as Gomo). Reserves were assigned to the Company's two existing Murucututu wells (197-1 and 183-1) and two additional development locations in the Company's December 31, 2021 reserves as evaluated by GLI as described within this Annual Information Form to which this schedule is attached. Contingent resource was assigned to the area in proximity to the Company's existing Murucututu reserves, deemed to be discovered. The area mapped by 3D seismic west and north of the area defined as contingent was assigned prospective resource.

#### December 31, 2021 Murucututu Contingent Resource

Summary of Unrisked Company Gross Contingent Resources (2)(3) (4)(5) (6)(7)(8)

<b>Development Pending Economic Contingent Resources</b>	Low Estimate	Best Estimate	High Estimate
Residue gas (MMcf)	15,719	20,061	32,984
Natural gas liquids (Mbbl)	389	496	815
Barrels of oil equivalent (Mboe)	3,008	3,839	6,313

See 'Footnotes' section

Summary of Before Tax Net Present Value of Future Net Revenue of Unrisked Contingent Resources- M\$ (2)(3) (4)(5)

	Undiscounted	5%	10%	15%	20%
Low Estimate	158,700	84,965	53,745	37,370	27,487
Best Estimate	222,759	109,139	67,223	46,563	34,432
High Estimate	415,317	193,940	119,715	84,746	64,509

See 'Footnotes' section

The table below sets out the project development costs assumed in the GLJ Reserves and Resources Report in the estimation of future net revenue attributable to contingent resources and assumes first commercial production in 2023. The GLJ Reserves and Resources Report assumes capital deployment during 2023 for the drilling of wells and expansion of facilities. There can be no certainty that the project will be developed on the timelines discussed herein. Development of the project is dependent on several contingencies as further described herein. The information presented herein is based on company net project development costs.

Assumed Project Development Costs for Unrisked Contingent Resources (2)(3) (4)(5)

MUS	Low Estimate	Best Estimate	High Estimate
2022	-	-	-
2023	23,896	23,896	23,896
2024	-	-	-
2025	-	-	-
2026	-	-	-
Remaining Years	-	-	=
Total Undiscounted	23,896	23,896	23,896

See 'Footnotes' section

Projected 10 Year Production Profile of Company Gross Sales Gas for Contingent Resources (2)(3) (4)(5)

Mcf/d	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Low Estimate	-	2,719	4,041	3,231	2,716	2,354	2,089	1,873	1,705	1,567
Best Estimate	-	3,025	4,531	3,665	3,112	2,721	2,433	2,197	2,012	1,860
High Estimate	-	4,731	7,011	5,627	4,770	4,174	3,740	3,385	3,108	2,881

See 'Footnotes' section

The GLI Reserves and Resources Report estimates the Chance of Development as the product of two main contingencies associated with the project development, which are: 1) the probability of corporate sanctioning, which GLI estimates at 95%; 2) the probability finalization of a development plan, which GLI estimates at 95%. The product of these two contingencies is 90%. As there is no risk related to discovery, the Chance of Commerciality for the contingent resource is therefore 90% 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 Pending Risked Company Gross Contingent Resources (2)(3) (4)(5) (6)(7)(8)

	Low Estimate	Best Estimate	High Estimate
Residue gas (MMcf)	14,187	18,105	29,768
Natural Gas Liquids (Mbbl)	351	448	736
Barrels of oil equivalent (Mboe)	2,715	3,465	5,697

See 'Footnotes' section

Summary of Development Pending Risked Before Tax Net Present Value of Future Net Revenue of Contingent Resources- $M^{(2)(3)(4)(5)}$ 

	Undiscounted	5%	10%	15%	20%
Low Estimate	143,226	76,681	48,505	33,726	24,807
Best Estimate	201,040	98,498	60,669	42,023	31,074
High Estimate	374,824	175,031	108,043	76,483	58,219

See 'Footnotes' section .

### December 31, 2021 Murucututu Prospective Resource

Summary of Unrisked Company Gross Prospective Resources (1)(3)(6)(7)(8)

Prospective Resources	Low Estimate	Best Estimate	High Estimate
Residue gas (MMcf)	42,228	78,126	115,553
Natural gas liquids (Mbbl)	1,044	1,931	2,856
Barrels of oil equivalent (Mboe)	8,082	14,952	22,115

See 'Footnotes' section

Summary of Before Tax Net Present Value of Future Net Revenue of Unrisked Prospective Resources- M\$ (1)(3)

	Undiscounted	5%	10%	15%	20%
Low Estimate	474,489	220,405	123,722	77,245	51,350
Best Estimate	1,005,490	449,220	257,284	167,675	117,555
High Estimate	1,584,857	678,025	384,741	252,103	178,690

See 'Footnotes' section

The table below sets out the project development costs assumed in the GLJ Reserves and Resources Report in the estimation of future net revenue attributable to prospective resources and assumes first commercial production in 2024. The GLJ Reserves and Resources Report assumes capital deployment starting 2024 for the drilling of wells, expansion of field facilities, and additional pipeline capacity. There can be no certainty that the project will developed on the timelines discussed herein. Development of the project is dependent on several contingencies as further described herein. The information presented herein is based on company project development costs.

Assumed Project Development Costs for Unrisked Prospective Resources (1)(3)

M\$	Low Estimate	Best Estimate	High Estimate
2022	-	-	-
2023	-	-	-
2024	28,576	28,576	28,576
2025	24,861	24,861	24,861
2026	12,679	12,679	12,679
Remaining Years	-	=	-
Total Undiscounted	66,117	66,117	66,117

See 'Footnotes' section

Projected 10 Year Production Profile of Company Gross Sales Gas for Prospective Resources (1)(3))(6)(7)(8)

Mcf/d	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Low Estimate	-	-	2,756	6,828	9,191	8,280	7,063	6,157	5,487	4,961
Best Estimate	-	-	4,858	11,933	15,933	14,214	12,066	10,505	9,368	8,481
High Estimate	-	-	6,753	16,528	22,007	19,587	16,642	14,529	12,998	11,808

See 'Footnotes' section

The GLI Reserves and Resources Report estimates the Chance of Commerciality as the product between the Chance of Discovery and the Chance of Development. The Chance of Discovery of the prospective resources has been assessed at 90%, while the Chance of Development has been assessed as the same as for the Contingent Resources described above at 90%. The resulting Chance of Commerciality is 81%, which has been applied to the company gross unrisked prospective resources and the net present value figures reported below.

Summary of Development Risked Company Gross Prospective Resources<sup>(1)(3))(6)(7)(8)</sup>

	Low Estimate	Best Estimate	High Estimate
Residue gas (MMcf)	34,250	63,366	93,723
Natural gas liquids (Mbbl)	847	1,566	2,317
Barrels of oil equivalent (Mboe)	6,555	12,127	17,937

See 'Footnotes' section

Summary of Development Risked Before Tax Net Present Value of Future Net Revenue of Prospective Resources-  $M^{(1)(3)}$ 

	Undiscounted	5%	10%	15%	20%
Low Estimate	384,847	178,765	100,348	62,652	41,649
Best Estimate	815,529	364,352	208,677	135,997	95,346
High Estimate	1,285,440	549,930	312,055	204,475	144,931

See 'Footnotes' section

#### Footnotes:

- (1) Prospective Resources Prospective Resources are defined in the COGE Handbook as those quantities of petroleum estimated, as of a given date, to be potentially recoverable from undiscovered accumulations by application of future development projects. Prospective resources have both an associated chance of discovery and a chance of development. There is no certainty that any portion of the prospective resources will be discovered and even if discovered, there is no certainty that it will be commercially viable to produce any portion. Prospective Resources are further subdivided in accordance with the level of certainty associated with recoverable estimates assuming their discovery as described in footnote (3).
- (2) 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.
- (3) Low Estimate: This is considered to be a conservative estimate of the quantity that will actually be recovered. It is likely that the actual remaining quantities recovered will exceed the low estimate. If probabilistic methods are used, there should be at least a 90 percent probability (P90) that the quantities actually recovered will equal or exceed the low estimate.
  - Best Estimate: This is considered to be the best estimate of the quantity that will actually be recovered. It is equally likely that the actual remaining quantities recovered will be greater or less than the best estimate. If probabilistic methods are used, there should be at least a 50 percent probability (P50) that the quantities actually recovered will equal or exceed the best estimate.
  - High Estimate: This is considered to be an optimistic estimate of the quantity that will actually be recovered. It is unlikely that the actual remaining quantities recovered will exceed the high estimate. If probabilistic methods are used, there should be at least a 10 percent probability (P10) that the quantities actually recovered will equal or exceed the high estimate.
- (4) The Contingent Resources estimated in the GLI Reserves and Resources 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.
- (5) 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.
- (6) MMcf = million cubic feet
- (7) Mbbl thousands of barrels
- (8) Mboe thousands of barrels of oil equivalent

# **Pricing Assumptions – Forecast Prices and Costs**

GLJ employed the following pricing and inflation rate assumptions as of December 31, 2021 in the GLJ Reserves and Resources Report in estimating resources.

Year	Inflation %	Brent Blend Crude Oil FOB North Sea (\$/bbl)	National Balancing Point (UK) (\$/MMbtu)	NYMEX Henry Hub Near Month Contract (\$/MMbtu)	Alvopetro-Bahiagas Gas Contract (\$/MMbtu)
2022	0.0	76.00	20.75	3.80	9.51
2023	3.0	72.51	12.00	3.50	10.09
2024	2.0	71.24	8.50	3.15	9.86
2025	2.0	72.66	8.67	3.21	9.00
2026	2.0	74.12	8.84	3.28	8.89
2027	2.0	75.59	9.02	3.34	8.99
2028	2.0	77.11	9.20	3.41	9.15
2029	2.0	78.66	9.39	3.48	9.33
2030	2.0	80.22	9.57	3.55	9.52
2031	2.0	81.83	9.76	3.62	9.71
2032+*	2.0	2.0%/yr	2.0%/yr	2.0%/yr	2.0/yr

<sup>\*</sup>Escalated at a rate of 2.0% per year thereafter.

### **SCHEDULE C**

# DISCLOSURE OF PROSPECTIVE RESOURCE DATA EFFECTIVE JULY 31, 2020

Capitalized terms not specifically defined in this Schedule D have the meaning ascribed to them in the Annual Information Form to which this schedule is attached.

On September 8, 2020, Alvopetro announced that GLJ had completed an independent prospective resource assessment and evaluation dated September 4, 2020 with an effective date of July 31, 2020 (the "GLJ July 31, 2020 Prospective Resource Report") of two natural gas prospects of Alvopetro (being the 183-B1 prospect on Block 183 and the 182-C1 prospect on Block 182). The GLJ July 31, 2020 Prospective Resource Report was prepared in accordance with the COGE Handbook and NI 51-101. Alvopetro spud the 182-C1 well on March 2, 2022 and expects to drill the 183-B1 well thereafter. Both prospects target the Agua Grande Formation as the primary target and the Sergi Formation as the secondary target. Nearly 60% of the production in the Recôncavo Basin comes from these two formations.

Prospective Resources should not be confused with reserves and readers should review the section titled "Resources" within the section "Notes on Reserves Data and Other Oil and Natural Gas Information" included within this AIF for additional information including risks associated with resource estimates. Actual natural gas resources may be greater than or less than the estimates provided herein. There is no certainty that any portion of the prospective resources will be discovered and even if discovered, there is no certainty that it will be commercially viable to produce any portion. Readers should also review the "Risk Factors" section in this AIF for a broader discussion of the risks and uncertainties facing the Company.

# Summary of Company Gross Lease Prospective Resources<sup>(1), (2), (3), (4), (5), (6), (7)</sup>

Not all exploration projects will result in discoveries. The chance that an exploration project will result in the discovery of petroleum is referred to as the "chance of discovery." Thus, for an undiscovered accumulation the chance of commerciality is the product of two risk components — the chance of discovery and the chance of development.

		oss Lea isked U (BCF)		Gross Lease Unrisked Prospective Gas Resources (BCF – Sales) Chance of:				Chance of:			Gross Lease Risked Prospective Gas Resources (BCF – Sales)	
Prospect	Low Est.	Best Est.	High Est.	Low Est.	Best Est.	High Est.	Discovery	Development	Commerciality	Low Est.	Best Est.	High Est.
Total Block 183 – 183-B1 Prospect	15.4	43.7	100.2	11.7	33.3	75.7	44%	100%	44%	5.1	14.5	33.0
Total Block 182 – 182-C1 Prospect	8.0	33.5	123.0	6.6	26.1	94.5	48%	98%	47%	3.1	12.2	44.1

See 'Footnotes' below.

	Prospective	Gross Lease Unrisked Prospective NGL Resources (MBBL)				Gross Lease Risked Prospective NGL Resources (MBBL)		
Prospect	Low Est.	Low Est. Best Est. High Est.			Best Est.	High Est.		
Total Block 183 – 182-B1 Prospect	119	348	807	52	152	352		
Total Block 182 – 182-C1 Prospect	68	68 273 1,005		32	128	469		

See 'Footnotes' below.

		Gross Lease Unrisked Prospective Resources (MBOE) Low Est. Best Est. High Est.			Gross Lease Risked Prospective Resources (MBOE)		
Prospect	Low Est.				Best Est.	High Est.	
Total Block 183 – 182-B1 Prospect	2,065	5,901	13,429	901	2,574	5,859	
Total Block 182 – 183-C1 Prospect	1,168	1,168 4,618 16,757		545	2,157	7,825	

See 'Footnotes' below.

See 'Footnotes' below.

- (1) Prospective Resources Prospective Resources are defined in the COGE Handbook as those quantities of petroleum estimated, as of a given date, to be potentially recoverable from undiscovered accumulations by application of future development projects. Prospective resources have both an associated chance of discovery and a chance of development. Prospective Resources are further subdivided in accordance of with the level of certainty associated with recoverable estimates assuming their discovery.
  - i. Low Estimate: This is considered to be a conservative estimate of the quantity that will actually be recovered. It is likely that the actual remaining quantities recovered will exceed the low estimate. If probabilistic methods are used, there should be at least a 90 percent probability (P90) that the quantities actually recovered will equal or exceed the low estimate.
  - ii. Best Estimate: This is considered to be the best estimate of the quantity that will actually be recovered. It is equally likely that the actual remaining quantities recovered will be greater or less than the best estimate. If probabilistic methods are used, there should be at least a 50 percent probability (P50) that the quantities actually recovered will equal or exceed the best estimate.
  - iii. High Estimate: This is considered to be an optimistic estimate of the quantity that will actually be recovered. It is unlikely that the actual remaining quantities recovered will exceed the high estimate. If probabilistic methods are used, there should be at least a 10 percent probability (P10) that the quantities actually recovered will equal or exceed the high estimate.
- (2) UPIIP Undiscovered Petroleum Initially in Place. UPIIP values do not include an implied truncation for minimum economic field size. Prospective resources have been truncated for minimum economic field size of 2.2 BCF.
- (3) Minimum Economic Field Size Prospective resources have both a chance of discovery and a chance of development, which combined represent for any undiscovered accumulation its chance of commerciality. The numerical chance of development has been determined based on the estimation of a minimum economic field size as provided by management of Alvopetro.
- (4) BCF = billion cubic feet
- (5) MBBL thousands of barrels
- (6) MBOE thousands of barrels of oil equivalent

# **SCHEDULE D**

# REPORT ON PROSPECTIVE RESOURCES DATA BY INDEPENDENT QUALIFIED RESERVES EVALUATOR OR AUDITOR (FORM 51-101F2)

Effective date: July 31, 2020

(attached)

# FORM 51-101F2 REPORT ON PROSPECTIVE RESOURCES DATA BY INDEPENDENT QUALIFIED RESERVES EVALUATOR OR AUDITOR

To the board of directors of Alvopetro Energy Ltd. (the "Company"):

- 1. We have evaluated the Company's prospective resources data as at July 31, 2020. The prospective resources data are risked estimates of volume of prospective resources.
- 2. The prospective resources data are the responsibility of the Company's management. Our responsibility is to express an opinion on the prospective 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 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 prospective resources data are free of material misstatement. An evaluation also includes assessing whether the prospective resources data are in accordance with principles and definitions presented in the COGE Handbook.
- 5. The following table sets forth the risked volume attributed to prospective resources included in the Company's statement prepared in accordance with Form 51-101F1 and identifies the respective portions of the prospective resources data that we have evaluated and reported on to the Company's management/board of directors:

<u>Classification</u>	Independent Qualified Reserves Evaluator or Auditor	Effective Date of Evaluation Report	Location of Resources Other than Reserves (Country or Foreign Geographic Area)	Risked Volume (Mboe)
Prospect Prospective Resources	GLJ Ltd.	July 31, 2020	Brazil	4,731

- 6. In our opinion, the prospective 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 prospective resources data that we reviewed but did not audit or evaluate.
- 7. We have no responsibility to update our reports referred to in paragraph 5 for events and circumstances occurring after the effective date of our reports.



8.	Because the prospective resources data are based on judgements regarding future events, actual results will vary and the variations may be material.
Execu	uted as to our report referred to above:
GLJ I	Ltd., Calgary, Alberta, Canada, September 4, 2020
"Orig	ginally Signed By"
	ck A. Olenick, P. Eng. President

### **SCHEDULE E**

# REPORT OF MANAGEMENT AND DIRECTORS ON OIL AND GAS DISCLOSURE (FORM 51-101F3)

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 Alvopetro Energy Ltd. (the "Corporation") are 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 and includes other information such as contingent resources data and prospective resources data.

An independent qualified reserves evaluator has evaluated and reviewed the Corporation's reserves data and contingent and prospective resources data. The reports of the independent qualified reserves evaluator is presented in Schedules "A" and "D" to the Annual Information Form of the Corporation for the year ended December 31, 2021 (the "AIF").

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

- reviewed the Corporation's procedures for providing information to the independent qualified reserves evaluator, GLJ Ltd. ("GLJ");
- (b) met with GLJ to determine whether any restrictions affected the ability of GLJ to report without reservation; and
- (c) reviewed the reserves data, contingent resources data and prospective resources data with management and with GLI.

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, contingent resources data, prospective resources data and other oil and gas information;
- (b) the filing of Form 51-101F2, which is the report of GLJ on the reserves data, the contingent resources data or the prospective resources data; and
- (c) the content and filing of this report.

Because the reserves data, the contingent resources data and the prospective resources data are based on judgements regarding future events, actual results will vary and the variations may be material.

(signed) "Corey C. Ruttan"		
Corey C. Ruttan, President & Chief Executive Officer		
(signed) "Adrian Audet"		
Adrian Audet, Vice President, Asset Management		
(signed) "John D. Wright"		
John D. Wright, Chairman and Director		
(signed) "Geir Ytreland"		
Geir Ytreland, Director & Chairman of the Reserves Committee		

#### **SCHEDULE F**

#### **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**

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.

- 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, 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**

- 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;
  - (I) 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.