

# CENTAURUS

**Annual Information Form** 

Year Ended December 31, 2019

April 29, 2020





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#### DEFINITIONS

In this AIF, the following words and phrases have the following meanings:

"**2006** Arrangement" means the plan of arrangement whereby the mineral exploration assets and marketable securities related to the mineral exploration assets of the Corporation were transferred to Great Bear Resources Inc., which was formerly a wholly-owned subsidiary of Centaurus, with each Shareholder receiving one common share of Great Bear Resources Inc. for every fifteen (15) Common Shares held;

"ABCA" means the Alberta Business Corporations Act;

"AIF" means this annual information form of the Corporation dated April 9, 2019;

"Apco" means Apco Oil & Gas International Inc. (Sucursal Argentina), a subsidiary of Vista Oil & Gas;

"**ARS**" means Argentine peso;

"Board" or "Board of Directors" means the board of directors of the Corporation;

"CAD" means Canadian dollars;

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

"Coirón Amargo Block" means the Coirón Amargo block in the province of Neuquén, Argentina;

"Coirón Amargo Norte" means the exploitation concession in the northern portion of the Coirón Amargo Block, which Centaurus holds through MEA;

"**Coirón Amargo Sur**" means the southern portion of Coirón Amargo Block, which was divided into two evaluation lots – Coirón Amargo Sur Este and Coirón Amargo Sur Oeste in 2016;

"Coirón Amargo Sur Este" or "CASE" means the south eastern portion of Coirón Amargo Sur, which Centaurus holds through MEA;

"**Coirón Amargo Sur Oeste** " or "**CASO**" means the south western portion of Coirón Amargo Sur, which Centaurus held through MASA and was disposed of in 2016;

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

"**Convertible Debentures**" means the 12% convertible secured debentures of the Corporation, which were issued in denominations of CAD \$1,000, mature on June 30, 2019 and are convertible at the option of the holder, any time after January 13, 2017, at a conversion price of CAD \$0.25 per Common Share;

"Corporation" or "Centaurus" means Centaurus Energy Inc.;

"Curamhuele Block" means the Curamhuele exploration and evaluation block in the province of Neuquén, Argentina, which Centaurus holds through MEA;

"CSA 51-324" means Staff Notice 51-324 – Glossary to NI 51-101 Standards of Disclosure for Oil and Gas Activities of the Canadian Securities Administrators;

"GLJ" means GLJ Petroleum Consultants Ltd.;

"**GLJ Report**" means the report of GLJ dated February 22, 2019 evaluating the crude oil, NGLs and natural gas reserves of the Corporation as at December 31, 2018;

"Gran Tierra" means Gran Tierra Energy Inc.;

"GTE Acquisition" means the acquisition of the Argentine business unit of Gran Tierra which closed on June 25, 2014;

"GyP" means Gas y Petroleo del Neuquén S.A., the provincial hydrocarbon company of the Province of Neuquén;

"IFRS" means International Financial Reporting Standards;

"Loma Montosa" means the Loma Montosa tight dolomite formation;

"Lower Agrio Shale" means the Lower Agrio tight oil and shale gas reservoir;

"MASA" means Madalena Austral S.A., a former subsidiary of the Corporation which amalgamated with MEA, and continued under name "Madalena Energy Argentina S.R.L", effective January 1, 2017;



"MEA" means Madalena Energy Argentina S.R.L (formerly "Gran Tierra Energy Argentina S.R.L."), an entity existing pursuant to the laws of Argentina and a subsidiary of the Corporation;

"**MPAL**" means Madalena Petroleum Americas Limited (formerly "Petrolifera Petroleum Americas Limited"), an entity existing pursuant to the laws of Barbados and a wholly owned subsidiary of MPHL;

"**MPHL**" means Madalena Petroleum Holdings Limited (formerly "Petrolifera Petroleum Holdings Limited"), an entity existing pursuant to the laws of Barbados and a wholly owned subsidiary of MPL;

"**MPL**" means Madalena Petroleum Ltd. (formerly "Petrolifera Petroleum Ltd."), an entity existing pursuant to the laws of Canada and a wholly owned subsidiary of the Corporation;

"**MVI**" means Madalena Ventures International Inc., an entity existing pursuant to the laws of Barbados and a wholly owned subsidiary of MVIH;

"MVIH" means Madalena Ventures International Holding Company Inc., an entity dissolved on March 28, 2018;

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

"OTCQX" means the OTCQX Best Market marketplace of the OTC Markets Group;

"PAE" means Pan American Energy SL, Sucursal Argentina;

"**PETJA**" means Pet Ja S.A., an entity which amalgamated with MEA, and continued under name "Madalena Energy Argentina S.R.L", effective January 1, 2018;

"Point Loma" means Point Loma Resources Ltd.;

"Puesto Morales Block" means the Rinconada- Puesto Morales exploitation block in the province of Neuquén, Argentina;

"REFSA" means Recursos y Energia Formosa SA, an oil company owned by the Province of Formosa;

"SEDAR" means the System for Electronic Document Analysis and Retrieval at www.sedar.com;

"Shareholders" means the holders of Common Shares;

"Shell" means Royal Dutch Shell plc;

"Surubi Block" means the Surubi exploitation block in the province of Neuquén, Argentina;

"TSXV" means the TSX Venture Exchange, Inc.;

"USD" means United States dollars;

"Vaca Muerta Shale" means the Vaca Muerta tight oil and shale gas reservoir;

"**YPF**" means YPF S.A.;

"Hispania" means Hispania Petroleum S.A.; and

"KD Energy" means KD Energy International Capital Limited.

<u>Unless stated otherwise, references to "dollars" or "\$" reflect USD currency.</u>

#### Selected Defined Oil & Gas Terms

Certain terms used in this AIF in describing reserves and other oil and natural gas information are defined below. Certain other terms and abbreviations used in this AIF, but not defined or described, are defined in NI 51-101, CSA 51-324 or the COGE Handbook and, unless the context otherwise requires, shall have the same meanings herein as in NI 51-101, CSA 51-324 or the COGE Handbook.

"**conventional natural gas**" means natural gas that has been generated elsewhere and has migrated as a result of hydrodynamic forces and is trapped in discrete accumulations by seals that may be formed by localized structural, depositional or erosional geological features.

"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.



"**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 (for example, 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.

"**development costs**" means costs incurred to obtain access to reserves and to provide facilities for extracting, treating, gathering and storing the oil and gas from 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 gas reserves, including costs of drilling exploratory wells and exploratory type stratigraphic test wells. Exploration costs may be incurred both before acquiring the related property (sometimes referred to as "prospecting costs") and after acquiring the property. 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 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.

"forecast prices and costs" means future prices and costs that are:

- (a) generally accepted as being a reasonable outlook of the future; or
- (b) if, and only to the extent that, there are fixed or presently determinable future prices or costs to which the Corporation is legally bound by a contractual or other obligation to supply a physical product, including those for an extension period of a contract that is likely to be extended, those prices or costs rather than the prices and costs referred to in subparagraph (a).

"future net revenue" means a forecast of revenue, estimated using forecast prices and costs, arising from the anticipated development and production of resources, net of the associated royalties, operating costs, development costs, and abandonment and reclamation costs.

"gross" means:

- (a) in relation to an entity's interest in production and reserves, its "company gross reserves", which are such entity's working interest (operating or non-operating) share before deduction of royalties and without including any royalty interest of such entity;
- (b) in relation to wells, the total number of wells in which an entity has an interest; and



(c) in relation to properties, the total area of properties in which an entity has an interest.

"heavy crude oil" means crude oil with a relative density greater than ten degrees API gravity and less than or equal to 22.3 degrees API gravity.

"hydrocarbon" means a compound consisting of hydrogen and carbon, which, when naturally occurring, may also contain other elements such as sulphur.

"light crude oil" means crude oil with a relative density greater than 31.1 degrees API gravity.

"**medium crude oil**" means crude oil with a relative density greater than 22.3 degrees API gravity and less than or equal to 31.1 degrees API gravity.

"natural gas" means a naturally occurring mixture of hydrocarbon gases and other gases.

"**natural gas liquids**" means those hydrocarbon components that can be recovered from natural gas as a liquid including, but not limited to, ethane, propane, butanes, pentanes plus, and condensates.

"net" means:

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

"**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.

"property" includes:

- (a) fee ownership or a lease, concession, agreement, permit, licence or other interest representing the right to extract oil or gas subject to such terms as may be imposed by the conveyance of that interest;
- (b) royalty interests, production payments payable in oil or gas, and other non-operating interests in properties operated by others; and
- (c) an agreement with a foreign government or authority under which a reporting issuer participates in the operation of properties or otherwise serves as "producer" of the underlying reserves (in contrast to being an independent purchaser, broker, dealer or importer). A property does not include supply agreements, or contracts that represent a right to purchase, rather than extract, oil or gas.

"**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.

"**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.

"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. Reserves are classified according to the degree of certainty associated with the estimates.

"**resource play**" refers to drilling programs targeted at regionally distributed crude oil or natural gas accumulations; successful exploitation of these reservoirs is dependent upon technologies such as horizontal drilling and multi-stage fracture stimulation to access large rock volumes in order to produce economic quantities of oil or natural gas.

"**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.



"shale gas" means natural gas:

- (a) contained in dense organic-rich rocks, including low-permeability shales, siltstones and carbonates, in which the natural gas is primarily adsorbed on the kerogen or clay minerals; and
- (b) that usually requires the use of hydraulic fracturing to achieve economic production rates.

"**tight oil**" means crude oil: (a) contained in dense organic-rich rocks, including low-permeability shales, siltstones and carbonates, in which the crude oil is primarily contained in microscopic pore spaces that are poorly connected to one another; and (b) that typically requires the use of hydraulic fracturing to achieve economic production rates.

"**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) 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.

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

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

Oil and Na	atural Gas Liquids	Natural (	Gas
bbl	barrel	Mcf	thousand cubic feet
bbls	barrels	MMcf	million cubic feet
bbls/d	barrels per day	Mcf/d	thousand cubic feet per day
Mbbl	thousand barrels	mmbtu	million British Thermal Units
Mstb	1,000 stock tank barrels	mbtu	thousand British Thermal Units
bopd	barrels of oil per day	Bcf	billion cubic feet
NGLs	natural gas liquids	Tcf	trillion cubic feet
STB	stock tank barrels	Gj	gigajoule

## ABBREVIATIONS

# Other

API	American Petroleum Institute
°API	an indication of the specific gravity of crude oil measured on the API gravity scale
BOE, Boe or boe	barrel of oil equivalent of natural gas and crude oil on the basis of 1 BOE for 6 Mcf of natural gas
BOE/d	BOE per day
Brent or Brent	a blended crude stream produced in the North Sea region which serves as a reference or
Crude	"marker" for pricing a number of other crude streams
m <sup>3</sup>	cubic metres
Mboe	1,000 barrels of oil equivalent
Medanito	the Argentina in-country crude oil benchmark price
Mstboe	1,000 stock tank barrels of oil equivalent
\$000's or M\$	Thousands of dollars
\$MM	Millions of dollars
WTI	West Texas Intermediate, the reference price paid in USD at Cushing, Oklahoma for crude oil of
	standard grade
psi	pounds per square inch



#### CONVERSIONS

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

<b>To Convert From</b>	То	Multiply By		
Mcf	cubic metres	28.174		
cubic metres	cubic feet	35.494		
bbls	cubic metres	0.159		
cubic metres	bbls oil	6.293		
Feet	Metres	0.305		
Metres	Feet	3.281		
Miles	kilometres	1.609		
kilometres	Miles	0.621		
Acres	Hectares	0.405		
hectares	Acres	2.471		
gigajoules	mmbtu	0.950		

#### CAUTION RESPECTING RESERVES INFORMATION

The determination of oil and natural gas reserves involves the preparation of estimates that have an inherent degree of associated uncertainty. Categories of proved reserves, probable reserves and possible 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. Reported reserves should target the following levels of certainty under a specific set of economic conditions:

- at least a 90% probability that the quantities actually recovered will equal or exceed the estimated proved reserves;
- at least a 50% probability that the quantities actually recovered will equal or exceed the sum of the estimated proved plus probable reserves; and
- at least a 10% probability that the quantities actually recovered will equal or exceed the sum of the estimated proved plus probable plus possible reserves.

Where any disclosure of reserves data is made in this Annual Information Form or the documents incorporated by reference herein that does not reflect all of the reserves of Centaurus, the reader should note that the estimates of reserves and future net revenue for individual properties or groups of properties may not reflect the same confidence level as estimates of the reserves and future net revenue for revenue for all properties, due to the effects of aggregation.

The recovery and reserve estimates of oil, NGLs 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 Centaurus' natural gas and petroleum reserves does not represent the fair market value of Centaurus' reserves.

#### **CAUTION RESPECTING BOE**

In this AIF, the abbreviation BOE means barrel of oil equivalent on the basis of 1 bbl 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 bbl 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 the value ratio based on the current price of crude oil as compared to natural gas is significantly different from the energy equivalency of 6 Mcf to 1 bbl, utilizing a conversion ratio at 6 Mcf: 1 bbl may be misleading as an indication of value.** 



#### FORWARD-LOOKING STATEMENTS

Certain of the statements contained herein including, without limitation, Centaurus' financial and business prospects and outlook, reserve and production estimates, budgeted capital commitments and the method of funding thereof, the anticipated timing of expenditures by Centaurus to satisfy Centaurus' asset retirement obligations, including its abandonment and reclamation obligations, the anticipated impact of environmental laws and regulations on Centaurus, Centaurus' plans for the development of Centaurus' proved, probable, and possible undeveloped reserves, Centaurus' anticipated land expiries, realizable future net revenues from Centaurus' current properties, Centaurus' plans for funding future development costs, drilling, completion and tie-in plans, Centaurus' expectations as to the means of funding Centaurus' ongoing environmental obligations, Centaurus' tax horizon, the Argentine business climate, including, but not limited to, the social stability of the country and government determination of future royalty rates, Centaurus' corporate strategy, Centaurus' planned capital expenditures and drilling activity in 2019 and beyond, the belief of management that the Corporation will be able to compete successfully with local and foreign competitors in Argentina, Centaurus' seasonal access-to-market delays, potential conflicts of interest of Centaurus' Board and management and the anticipated impact of the factors discussed under the heading "Industry Conditions" on Centaurus may be forward-looking statements. Words such as "may", "will", "should", "could", "anticipate", "believe", "expect", "intend", "plan", "potential", "continue" and similar expressions may be used to identify these forward-looking statements. These statements reflect management's current beliefs and are based on information currently available to management. In addition, statements relating to "reserves" 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.

Forward-looking statements involve significant risk and uncertainties. A number of factors could cause actual results to differ materially from the results discussed in the forward-looking statements including, but not limited to, risks associated with oil and gas exploration, development, exploitation, production, marketing and transportation, loss of markets, volatility of commodity prices, currency fluctuations, imprecision of reserve estimates and estimated production rates, risks associated with Centaurus' substantial capital requirements, changes in royalty rates and expenses, environmental risks, partner risk and competition from other producers, inability to retain drilling rigs and other services, incorrect assessment of the value of acquisitions, failure to realize the anticipated benefits of acquisitions, changes in energy policies or personnel administering them, and other changes to the regulatory and taxation environment, risk of nationalization of Argentine oil and gas assets, risks associated with Argentina sovereign debt issues, risks associated with alternatives to and changing demand for petroleum products, delays resulting from Centaurus' inability to obtain required regulatory approvals and ability to access sufficient capital from internal and external sources and the risk factors outlined under "*Risk Factors*" and elsewhere herein. The recovery and reserve estimates of Centaurus' reserves provided herein are estimates only and there is no guarantee that the estimated reserves will be recovered. As a consequence, actual results may differ materially from those anticipated in the forward-looking statements.

Forward-looking statements or information are based on a number of factors and assumptions which have been used to develop such statements and information but which may prove to be incorrect. Although Centaurus believes that the expectations reflected in such forward-looking statements or information are reasonable, undue reliance should not be placed on forward-looking statements because Centaurus can give no assurance that such expectations will prove to be correct. In addition to other factors and assumptions which may be identified in this document, assumptions have been made regarding, among other things: the impact (and duration thereof) that the COVID-19 pandemic will have on (i) global and domestic demand for oil and gas, and (ii) the Corporation's ability to continue to access equipment and services required to operate its business; the impact of increasing competition; the general stability of the economic and political environment in which Centaurus operates; the timely receipt of any required regulatory approvals; the ability of Centaurus to obtain additional financing on acceptable terms; field production rates and decline rates; the ability to replace and expand oil and natural gas reserves through acquisition, development of exploration; the timing and costs of pipeline, storage and facility construction and expansion and the ability of Centaurus to secure adequate product transportation; future oil and natural gas prices; currency, exchange and interest rates; the regulatory framework regarding royalties, taxes and environmental matters in the jurisdictions in which Centaurus operates; and the ability of Centaurus to successfully market its oil and natural gas products.

Readers are cautioned that the foregoing list of factors is not exhaustive. Additional information on these and other factors that could affect Centaurus' operations and financial results are included in reports on file with Canadian securities regulatory authorities and may be accessed through SEDAR and Centaurus' website (www.ctaurus.com). Although the forward-looking statements contained herein are based upon what management believes to be reasonable assumptions, management cannot assure that actual results will be consistent with these forward-looking statements. Investors should not place undue reliance on forward-looking statements. These forward-looking statements are made as of the date hereof and the Corporation assumes no obligation to update or review them to reflect new events or circumstances except as required by applicable securities laws.



Forward-looking statements and other information contained herein concerning the oil and gas industry and management's general expectations concerning this industry is based on estimates prepared by management using data from publicly available industry sources as well as from reserve reports, market research and industry analysis and on assumptions based on data and knowledge of this industry which management believes to be reasonable. However, this data is inherently imprecise, although generally indicative of relative market positions, market shares and performance characteristics. While the Corporation is not aware of any misstatements regarding any industry data presented herein, the industry involves risks and uncertainties and is subject to change based on various factors.

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#### **NON-IFRS MEASURES**

Certain financial measures in this document do not have a standardized meaning as prescribed by IFRS, such as netbacks, and therefore are considered non-IFRS measures. These measures may not be comparable to similar measures presented by other issuers. These measures have been described and presented in order to provide readers with additional measures for analyzing Centaurus' ability to generate funds to finance operations and information regarding liquidity. The additional information should not be considered in isolation or as a substitute for measures prepared in accordance with IFRS.

#### ANALOGOUS INFORMATION

Certain information in this document may constitute "analogous information" as defined in NI 51-101, including, but not limited to, information relating to the areas in geographical proximity to prospective exploratory lands held or to be held by Centaurus. Management of Centaurus believes the information is relevant as it helps to define the lands characteristics in which Centaurus may hold an interest. Centaurus is unable to confirm that the analogous information was prepared by a qualified reserves evaluator or auditor. Such information is not an estimate of the reserves or resources attributable to lands held or to be held by Centaurus and there is no certainty that the reserves data and economics information for the lands held or to be held by Centaurus will be similar to the information presented herein. The reader is cautioned that the data relied upon by Centaurus may be in error and/or may not be analogous to such lands to be held by Centaurus.

#### **CORPORATE STRUCTURE**

#### General

Centaurus was created under the laws of the Province of British Columbia on September 14, 2001. On September 30, 2004 Centaurus amalgamated with its wholly-owned subsidiary, RMS Medical Systems Research (B.C.) Ltd. On August 22, 2006, the Corporation completed the 2006 Arrangement. On September 26, 2006, the Corporation was continued from the Province of British Columbia to the Province of Alberta. On April 1, 2013, Centaurus amalgamated with one of its wholly-owned subsidiaries, Online Energy Inc. On July 30, 2013, the Shareholders approved the change in the Corporate reorganization, MASA and PETJA amalgamated with MEA effective January 1, 2017 and January 1, 2018 respectively, and the Argentine business units of MPAL and MPL were transferred to MEA effective April 1, 2018. See "*Description of the Business and Operations – Corporate Reorganization*". On September 20, 2019, the Shareholders approved the change in the Corporation's name to Centaurus Energy Inc. The name change was effected on October 25, 2019.

The Common Shares are listed on the TSXV under the symbol "CTA" and on the OTCQX under the symbol "CTARF". The Corporation's registered office is located at Suite 1600, 333 - 7<sup>th</sup> Avenue S.W., Calgary, Alberta T2P 2Z1.



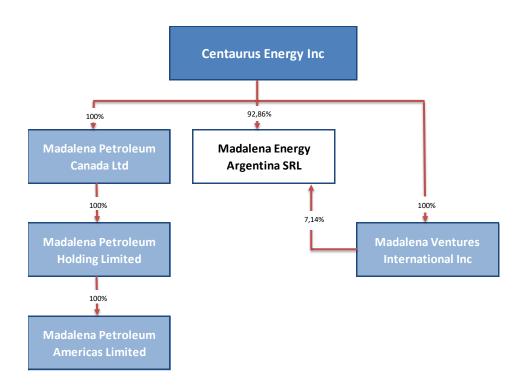
## Inter-corporate Relationships

Centaurus is involved in the exploration, development and production of oil and natural gas in Argentina. The subsidiaries or branches of Centaurus, as at the date of this AIF, consist of the following:

# Canada

	<ul><li>Centaurus</li><li>MPL</li></ul>	Centaurus Energy Inc. Madalena Petroleum Ltd. (Canada)
Argentina	• MEA	Madalena Energy Argentina S.R.L
Barbados	<ul><li>MPHL</li><li>MPAL</li><li>MVI</li></ul>	Madalena Petroleum Holdings Limited Madalena Petroleum Americas Limited Madalena Ventures International Inc.

The Corporate Structure diagram is as follows:





## GENERAL DEVELOPMENT OF THE BUSINESS

The following is a summary of the history, corporate and business activity of the Corporation over the last three completed financial years.

# Year-Ended December 31, 2017

## Coirón Amargo - Sur Este (CASE) Transaction

On January 11, 2017, Centaurus announced that the previously announced transaction with PAE relating to Centaurus' 90% WI at CASE closed on January 10, 2017, and that Centaurus received the balance of the \$10 million consideration owed. As a result of the transactions, PAE holds a 55% WI in, and operatorship of, CASE. Centaurus retains a 35% non-operated WI in CASE, with the remaining 10% ownership of CASE held by Gas y Petroleo del Neuquén, the provincial oil and gas company in the Province of Neuquén, Argentina. Concurrently, PAE has agreed, subject to certain conditions, to provide Centaurus with a loan of up to \$40 million, on a limited recourse basis, to be drawn-down as required to fund certain capital expenditures. This limited recourse loan will bear interest at 7% per annum and is repayable in five years from the net revenue generated from the capital expenditure program. The 2017 work program at CASE described in the Corporation's December 7, 2016 news release, comprised of, among other things, two well re-entries undertaken by PAE as the new operator of CASE, with a net benefit to Centaurus of up to \$5.6 million in carried capital costs.

On July 17, 2017, Centaurus announced that PAE successfully re-entered the CAS.x-15 well and drilled horizontally for approximately 1,000 metres in the Vaca Muerta Shale formation at a vertical depth of approximately 3,200 metres. The well was completed rig-less at the end of May, 2017, with 37 hydraulic frac stages with approximately 6,500 klb of proppant and 90,000 barrels of total fluid. The well tested an average of 430 barrels of oil per day through 3mm choke during the first four weeks, and recovered approximately 18% of fracture fluid during the first week. No water production has been reported since that time. The well CAS.x-15(ST) tested the Vaca Muerta shale structured concept, offering new insights into the play extension within the fracture trend. The total gross estimated cost of this re-entry is \$8.72 million, which includes the costs of drilling, completing and equipping the well.

On October 30, 2017 Centaurus announced that PAE successfully started operations on the spudding of a second horizontal multifrac well (CAS.x-14) in the Vaca Muerta Shale formation at CASE. The program includes drilling horizontally for approximately 1,500 metres in the Vaca Muerta unconventional oil resource play at a vertical depth of approximately 3,100 metres and performing approximately 60 hydraulic fracs with approximately 10,800 klb of proppant. The total gross estimated cost of this re-entry is \$8.3 million, which includes the costs of drilling, completing and equipping the well.

## Argentina Credit Facilities repayment

In February, 2017, Centaurus repaid its \$1.6 million Argentine debt facility in full.

## Sale of Point Loma Shares

On April 24, 2017, Centaurus announced that pursuant to a purchase and sale agreement dated April 21, 2017 with an arms-length third party, the Corporation sold 4,683,611 escrowed common shares in the capital of Point Loma for gross cash proceeds of \$0.8 million (CAD\$1.1 million). These common shares were acquired by Centaurus pursuant to the sale of the Corporation's Canadian oil and gas assets in June 2016 and are releasable from escrow in 20% increments in six month intervals commencing July 2017. Closing of sale of the Point Loma common shares took place in two equal tranches, the first being completed on April 24, 2017 and the second on May 25, 2017. In addition, during the first quarter of 2017, Centaurus sold approximately 1.6 million free-trading common shares of Point Loma for net proceeds of \$0.5 million.

## Strategic Alternatives process – Hispania Transactions

As a result of Centaurus' expanded strategic review process commenced in June 2016, Centaurus entered into a series of agreements on May 8, 2017 with Hispania Petroleum S.A. ("Hispania"), a private, family-owned Spanish energy company which has operated in multiple countries, including Argentina, for three generations (the "Hispania Transactions"). Pursuant to the terms of the investment agreement dated May 8, 2017 (the "Investment Agreement"), Hispania, among other things, agreed to provide the Corporation a package of debt and mezzanine financing, including a working capital loan to resolve Centaurus' liquidity challenges (the "Working Capital Loan") and a capital expenditure loan to provide the Corporation access to growth capital for drilling and investment activities (the "Capex Loan"). In connection with the execution of the agreements, Mr. Jose David Penafiel, Hispania's Chief Executive Officer, was appointed as Chief Executive Officer of Centaurus, and he and Mr. Alejandro Augusto Penafiel were appointed to Centaurus' Board of Directors. In order for new management to successfully transition and streamline operations, Hispania and Centaurus entered into a services agreement (the "Services Agreement"), pursuant to which Hispania's personnel, in



Argentina and elsewhere, are made available to Centaurus on an as-needed basis. The Hispania Transactions provided Centaurus with a sophisticated leadership team who are financially aligned with shareholders of the Corporation and who have experience working in the oil and gas industry in Argentina, and as well provided Centaurus with committed growth capital. With management and leadership concentrated in Argentina, the Corporation has implemented cost controls and can achieve meaningful efficiencies.

Pursuant to the terms of the agreements governing the Working Capital Loan (the "Working Capital Loan Agreement") and the Capex Loan (the "Capex Loan Agreement"), each entered into concurrently with the execution of the Investment Agreement on May 8, 2017, the Corporation obtained two credit facilities from Hispania with a total of \$23 million available, which the Corporation will use on an as-needed basis. The Working Capital Loan was a multi-drawdown facility of up to \$6.5 million, to be used for general working capital purposes. Principal and interest (accruing at a rate of 7% per annum) on each drawdown are repayable thirty-six months after an advance of funds. The Capex Loan was a multi-drawdown convertible loan of up to \$16.5 million, with interest accruing at a rate of 7% per annum, with each drawdown and accrued interest repayable thirty-six months after each drawdown. Each of the Capex Loan and Working Capital Lian thad an expiry date of May 8, 2020. On August 11, 2017, the Capex Loan was assigned to KD Energy International Capital Limited ("KD Energy"), a British Virgin Islands company wholly-owned by Mr. Jose David Penafiel and Mr. Alejandro Penafiel. At the Corporation's annual and special meeting of shareholders, held on September 13, 2017, the shareholders of the Corporation, by ordinary resolution, approved KD Energy as a new "Control Person" (as such term is defined in the TSXV's Corporate Finance Manual) of the Corporation. On April 7, 2019, the Capex Loan Agreement was replaced by the Amended and Restated Convertible Loan Agreement (as defined below), and Centaurus and Hispania entered into the Working Capital Loan Amending Agreement (as defined below).

The Capex Loan is convertible into units of the Corporation ("Units") with each Unit comprised of one Common Share and 0.22 of a Common Share purchase warrant, with each whole warrant ("Warrant") entitling the holder to purchase an additional Common Share. The Capex Loan is convertible based on a conversion price equal to a 5% premium to the 20-day volume weighted average price ("VWAP") of the Common Shares on the last trading date prior to a particular drawdown ("Conversion Price") in respect of the Common Shares comprising the Units. The Warrants issued upon conversion will have an exercise price at a 5% premium to that 20-day VWAP, and expire 18 months after the date of issuance. Hispania (now KD Energy, as successor in interest) and Centaurus each have the right, subject to certain conditions and limitations contained in the Capex Loan Agreement, to convert the whole or part of the principal and interest owing under the Capex Loan into Units on or before repayment. On August 11, 2017, the Capex Loan was assigned to KD Energy International Capital Limited ("KD Energy"), a British Virgin Islands company wholly-owned by Mr. Jose David Penafiel and Mr. Alejandro Penafiel. At the Corporation's annual and special meeting of shareholders, held on September 13, 2017, the shareholders of the Corporation, by ordinary resolution, approved KD Energy as a new "Control Person" (as such term is defined in the TSXV's Corporate Finance Manual) of the Corporation.

The Services Agreement had an initial term of one year, but was extended in accordance with its terms. Pursuant to the Services Agreement, Hispania's personnel provided technical, operational, strategic and financial advice, direction and assistance in relation to the operation of Centaurus' oil and natural gas properties, advice to Centaurus' officers and the Board of Directors regarding the business of Centaurus, and such other services as may be requested by Centaurus from time to time. Pursuant to the terms of the Services Agreement, Hispania received (i) a monthly service fee that was no less than \$75,000 (subject to adjustment pursuant to the terms of the Capex Loan agreement), and no more than \$150,000; and (ii) Warrants, with an exercise price equal to the market price on the date of issuance, in six consecutive monthly tranches each consisting of 4,758,333 Warrants. Centaurus has issued to Hispania all six tranches of the Warrants, with the last tranche having been issued on November 8, 2017. The Warrants were exercisable for a period of 18 months following the date of their issuance, and all Warrants have expired unexercised.

Copies of the Investment Agreement, Capex Loan Agreement, Services Agreement and Working Capital Loan Agreement are available for review on the Corporations SEDAR profile at <u>www.sedar.com</u>.

## **Management and Board Changes**

On May 8, 2017, following completion of the Hispania Transactions, Mr. Steven Sharpe, Chairman and Interim Chief Executive Officer of the Corporation and Mr. Steve Dabner, Vice President, Exploration and New Ventures, departed the Corporation, and Mr. Jose David Penafiel was appointed Chief Executive Officer of the Corporation. On May 31, 2017, Mr. Thomas Love, Vice President, Finance and Chief Financial Officer, departed the corporation and Alejandro Augusto Penafiel was appointed Interim Chief Financial Officer. On June 28, 2017, Centaurus announced the appointment of Mr. Ezequiel Martinez Ariet as permanent Chief Financial Officer of the Corporation, effective as of July 1, 2017, replacing Mr. Alejandro Augusto Penafiel as Interim Chief Financial Officer.

On September 13, 2017, Messrs. Ruben Etcheverry, Ralph Gillcrist and Leonardo Madcur were elected to the Board at the Corporation's annual and special meeting of the shareholders. The aforementioned directors replaced Messrs. Keith MacDonald,



Jay Reid and Ving Woo who each elected not to stand for reelection to the Board. On May 8, 2017, following completion of the Hispania Transactions, Mr. Steven Sharpe resigned from his position as a director of the Corporation.

## **Change of Auditor**

The Corporation changed its auditor from KPMG LLP to Ernst & Young LLP effective as of September 27, 2017.

#### Year-Ended December 31, 2018

#### **Coirón Amargo Sur Este**

The operating partner of the Corporation's CASE block, PAE, holds a 55% stake. Centaurus and GyP hold stakes of 35% and 10% respectively. On April 24, 2018, the Corporation announced that PAE successfully re-entered the CAS.x-14 well and drilled horizontally for approximately 1,500 metres in the Vaca Muerta unconventional oil resource play at a vertical depth of approximately 3,100 metres. The well was completed rig-less with 25 hydraulic frac stages and reached a peak production of 880 barrels of oil per day through 3mm choke with 5235 psi and a 30 day average production of 600 barrels of oil per day.

The Corporation announced on September 18, 2018, that after successfully completing the evaluation phase, an unconventional exploitation concession with a 35 year term was awarded to the Corporation, pursuant to which the Corporation has agreed, together with its partners, to invest \$74 million (approximately \$25.9 million net to Centaurus) to carry out a pilot plan (the "Pilot Plan"). The Pilot Plan includes two phases:

- Phase I includes the drilling of five horizontal multifrac wells targeting the Vaca Muerta, the construction of early production facilities, investment for infrastructure improvement and social responsibility commitments.
- Phase II is contingent on the results of Phase I, and includes three additional wells expected to be drilled over the two-year period following the completion of Phase I for an estimated amount of \$50 million (approximately \$17.5 million net to Centaurus). Centaurus' portion of the Pilot Plan investment will be funded by drawing on its existing credit facilities.

#### Palmar Largo Concession

In 1992, YPF as title holder entered into a Joint Venture Agreement with Pluspetrol SA, Norcen International Limited, CGC SA and Dong Won Co Ltd. with the purpose of exploring, exploiting and developing the Area Palmar Largo. In 2005, Gran Tierra Energy (whose Argentine operations were acquired by Centaurus Energy Argentina SA in 2014) acquired a 14% participation interest in the Joint Venture from Dong Won. Palmar Largo's 25 year concession expired in December, 2017. No agreement on the extension of the concession was reached between the operator, High Luck Group Ltd., and the Province of Formosa, and as a result the Province issued Provincial Decree 301 dated November 5, 2018 which established that (i) the 25 year Palmar Largo concession awarded to YPF expired; (ii) the Concession area was transferred to the Province of Formosa and (iii) the concession was awarded to REFSA. Centaurus' three areas in the Province (Palmar Largo, Surubí and Chivíl) cover a surface of 422,960 acres.

The Corporation announced on November 27, 2018, that it had entered into an operation agreement with REFSA over the Palmar Largo concession in Formosa, Argentina, effective December 1, 2018 (the "Operation Agreement"). The Operation Agreement has an initial term of two years and provides for a potential extension of one year provided that Centaurus fulfils its investment commitment of \$2 million. Key terms of the Operation Agreement are as follows:

- The investment commitment consists of two workovers in two wells in order to increase production and certain facility improvements.
- Centaurus will operate 100% of the Palmar Largo concession and will be required to pay the existing 12% royalty on production revenues to the Province of Formosa as well as an additional 5.32% of production revenues to be paid to REFSA under the Operation Agreement.
- Centaurus will receive 82.68% of production revenues under the agreement and will be responsible for the operation costs of the field.

In addition to the Palmar Largo concession, Centaurus operates two adjacent areas (El Chivíl and Surubí) which will allow the realization of significant synergies among the three areas. The average daily production of the Corporation's Palmar Largo interests was approximately 640 bbls from 8 producing wells during the third financial quarter of 2018. The associated gas is used in the field as fuel gas and for the gas lift system. Centaurus' management anticipates an increase in production resulting from the two workovers planned in Palmar Largo.



#### **Non-Core Assets**

# Assignment of El Vinalar Concession Interests Reduces Near-Term Abandonment Liabilities

In December, 2018, the Corporation signed an agreement assigning Centaurus' entire interest in the non-core and non-producing El Vinalar concession to a private Argentine oil and gas company. As a result, Centaurus will be able to write off liabilities related to decommissioning obligations.

Centaurus obtained a 10-year extension pursuant to Decree 1468/18 issued by the Province of Salta on December 18, 2018, and defined, in co-operation with a private Argentine company, an investment plan to be fulfilled entirely by the same private company. Centaurus has assigned all rights and is released from all obligations related to the concession and any environmental liabilities.

## **Corporate Restructuring**

As part of the Corporation's ongoing corporate reorganization, MASA and PETJA amalgamated with MEA effective January 1, 2018, and the Argentine business units of MPAL and MPL were transferred to MEA effective April 1, 2018. See "*Description of the Business and Operations – Corporate Reorganization*".

# Year-Ended December 31, 2019

# Coirón Amargo Sur Este

PAE, Centaurus' partner in CASE, successfully completed and tested the CASE-501h and completed the CASE-401h horizontal multi-frac wells in the Vaca Muerta Shale Formation at the CASE block in Argentina. These are the second and third of a five well program.

Both wells were drilled with an approximate horizontal lateral length of 2,000 meters at a vertical depth of approximately 3,100 meters. The CASE-501h and CASE-401h wells were connected to early production facilities on November 9, 2019 and January 7, 2020 respectively. CASE-501h achieved a 30 day average initial production ("IP30") rate of 970 barrels of oil per day with significant higher well head pressure than CASE-101h.

The CASE-101h achieved a 90-day average initial production ("IP90") rate of 720 barrels of oil per day.

The third well, CASE-401h was connected to early production facilities on January 7, 2020 and achieved an IP30 rate of 950 bbls/d with an average wellhead pressure of 4,885 psi.

CASE-301(h), the fourth horizontal multi-frac well of the program, was completed and connected to early production facilities on February 3, 2020.

The CASE-102(h), the fifth horizontal multi-frac well of the five well program, which was drilled in replacement of the CASE201(h) well that was temporarily abandoned due to drilling technical problems, is currently awaiting completion. These 5 wells drilled in 2019 are part of the Pilot Program covered by the Loan Facility that Centaurus has with PAE which will be repaid with the net production proceeds from 100% of Centaurus' interest in the CASE block. Centaurus holds a 35% working interest in the CASE block. As previously described, well locations have been selected to confirm and improve on the results obtained from two previously drilled and completed wells, as well as to further delineate the continuity of productive potential in the Vaca Muerta across specific targeted areas of the CASE block.

## Listing on the Buenos Aires Stock Exchange

On November 6, 2019, the Argentine National Securities Commission ("Comisión Nacional de Valores", or "CNV") authorized the listing of the Corporation's shares in Argentina, through a listing on the Buenos Aires stock exchange, Bolsas y Mercados Argentinos S.A. ("BYMA"). Listing will be subject to submission of the final version of the non-offering prospectus to CNV for approval and compliance with any additional requirements of the CNV. The Corporation does not intend to complete an offering of the



Corporation's shares in connection with the BYMA listing. The Corporation will announce the expected listing date after receipt of the CNV's final approval.

## Name Change

On September 20, 2019, holders of common shares of the Corporation approved a special resolution to change the name of the Corporation from "Madalena Energy Inc." to "Centaurus Energy Inc." (the "Name Change"). On October 25, 2019, the Corporation implemented the Name Change and the Corporation's Common Shares commenced trading on the TSXV under the new corporate name under the stock symbol "CTA".

## **Board and Management Changes**

Effective April 1, 2019, Alejandro Penafiel was appointed to the office of Vice President, Growth and Capital.

On July 19, 2019, the Corporation announced that Dr. Nossonal (Nate) Kleinfeldt was appointed director of Centaurus. Dr. Kleinfeldt replaced Mr. Eric Mark, who resigned from the Board. In addition, on July 19, 2019, the Board appointed Dr. Ralph Gillcrist as non-executive Chairman to replace Mr. Gus Halas, who had stepped down from that role.

At the annual meeting of shareholder of Centaurus held on November 22, 2019, James K. Wilson was elected to the Board.

## **Termination of Hispania Services Agreement**

The Services Agreement entered into between the Corporation and Hispania on May 8, 2017 (the "Services Agreement") terminated on March 31, 2019. The Services Agreement was initially extended in accordance with its terms following its expiration, and then for a further period to allow it be phased out with minimal impact to the Corporation's operations.

# Amendments to Capex Loan Agreement and Working Capital Loan Agreement

On April 7, 2019 the Corporation entered into an amended and restated convertible loan agreement with KD Energy and Hispania (the "Amended and Restated Convertible Loan Agreement") as well as an amending agreement to extend the term of the working capital loan agreement (the "Working Capital Loan Amending Agreement"). Principal amendments and changes include an extension of the expiry dates of both loans from May 8, 2020 to May 8, 2023, a change in the conversion price of the Amended and Restated Convertible Loan Agreement to CAD 0.225 (subject to adjustment), the right of KD Energy to designate Jose David Penafiel and one additional representative to the board of directors during the term of the Amended and Restated Convertible Loan Agreement, and an expansion to the purposes for which the Corporation can draw on the loan to include acquisitions of oil and gas assets, subject to consent of KD Energy as lender. As the Working Capital Loan Amending Agreement and the Amended and Restated Convertible Loan Agreement constituted "related party transactions" for the purposes of Multilateral Instrument 61-101 *Protection of Minority Shareholders in Special Transactions* ("MI 61-101"), and an exemption to the disinterested shareholder approval requirement under that instrument was not available for the Amended and Restated Convertible Loan Agreement, the Corporation obtained disinterested shareholder approval in accordance with the requirements of MI 61-101 and the Policies of the TSXV on June 5, 2019.

On March 27, the Corporation announced that it received a notice of default and reservation of rights from KD Energy and Hispania, alleging that the Corporation is in default of the terms of the Working Capital Loan Agreement and Amended and Restated Convertible Loan Agreement. See "*Recent Developments*".

## Palmar Largo and El Surubí

A workover was completed on the Proa-3 light oil well (Surubí, 85% operated interest) during the first quarter of 2019. The Corporation evaluated synergies with the recently acquired adjacent Palmar Largo block (100% operated) and completed a workover in this block using the same rig.

# **RECENT DEVELOPMENTS**

## Rinconada – Puesto Morales Re-Schedule Commitments

In June 2015, Centaurus was granted a new 10-year exploitation concession for the Puesto Morales area. As part of the terms and conditions of the extension, the Corporation had agreed to firm commitments of \$49.3 million in activities on the block over a tenyear period.



\$32.4 million remained outstanding as of December 31, 2019. In order to keep the concession in good standing and to remain in compliance with the commitments, the Corporation held negotiations with the Province of Rio Negro during both 2017 and 2018 with respect to extending the commitments. On January 4, 2019, the Secretary of Energy approved a re-schedule and conversion of the remaining commitments and updated the exploration and development plan. The Corporation expects to drill a vertical exploratory well with an approximate cost of \$2 million during 2020. The remaining commitments have been re-scheduled for 2020 and 2021.

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# Maglan Agreement to Finance

On March 25, 2020, the Corporation announced that it had entered into a binding term sheet with respect to a debt financing agreement with Maglan Distressed Master Fund LP (the "Maglan Financing Agreement"), pursuant to the terms of which the parties will enter into agreements providing the Corporation with access of up to \$23 million, accruing interest on draws at the rate of 7% per annum, in the form of convertible and non-convertible facilities (the "Maglan Facilities"). Proceeds from the convertible loan facility shall be used by the Corporation to fund capital expenditures while proceeds under the non-convertible loan facility shall be used for the ongoing working capital requirements of the Corporation. The Maglan Facilities will have substantially similar terms as the Corporation's existing credit facilities, being the Working Capital Loan Agreement (as amended by the Working Capital Loan Amending Agreement) and the Amended and Restated Convertible Loan Agreement. On April 8, 2020, the Corporation and Maglan Distressed Master Fund LP entered into an amending agreement to extend the term of the binding term sheet to June 30, 2020. As of the date hereof, the Corporation has not entered into definitive agreements respecting the Maglan Facilities.

## **Management and Board Changes**

Effective February 18, 2020, Leonardo Madcur resigned from the Board.

On March 25, 2020, the Corporation announced the termination of employment of Jose Penafiel as President and Chief Executive Officer, the employment of Alejandro Penafiel as Vice President, Growth and Capital and the employment of Ezequiel Martinez Ariet as Chief Financial Officer. In addition, the Corporation announced that David D. Tawil and Steven Azarbad had been appointed to the Board, and that David D. Tawil had been appointed interim Chief Executive Officer.

On March 27, 2020, the Corporation announced that Jose Penafiel and Alejandro Penafiel had ceased to be directors of the Corporation, in accordance with the terms of their employment agreements.

In addition, on April 8, 2020, Ralph Gillcrist, Barry Larson, Nossonol Kleinfeldt, Gus Halas and James K. Wilson resigned from the Board, and Steven Balsam was appointed.

On March 27, 2020, the Corporation announced that it received a notice of default and reservation of rights from KD Energy and Hispania, alleging that the Corporation is in default of the terms of the Amended and Restated Loan Agreement and the Working Capital Loan Agreement, as amended. The Corporation disputes the allegations of default, some of which are alleged to occur while Alejandro Penafiel and Jose Penafiel were employed as officers of the Corporation.

## **Significant Acquisitions**

Centaurus did not complete any acquisitions during the financial year ended December 31, 2019 that are significant acquisitions for the purposes of Part 8 of National Instrument 51-102 *Continuous Disclosure Obligations*.



## DESCRIPTION OF THE BUSINESS AND OPERATIONS

#### Overview

Centaurus is an independent, Argentine focused Canadian upstream oil and gas company with operations in four provinces of Argentina where it is primarily focused on the delineation of unconventional oil and gas resources. The Corporation is implementing horizontal drilling and completions technology to develop both its conventional and unconventional resource plays. As Centaurus' oil and gas operations are located in Argentina the Corporation is therefore subject to foreign political, economic and regulatory risks. See "*Risk Factors*".





## CURAMHUELE RINCON DE LA PAMPA OS SAUCES MENDOZA 25 DE MAYO RIO NEGRO CATRIEL NEUQUEN PUESTO COIRON MORALES AMARGO RINCONADA COIRON AMARGO PUESTO SURESTE MORALES OPERATED NON OPERATED ESTE 50 Km 25

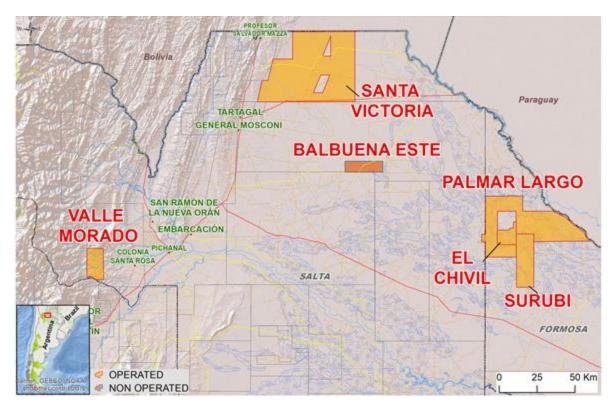
Argentine Operations – Neuquén basin

The Neuquén basin is a roughly triangular shaped back-arc basin of approximately 137,000 square kilometres, located on the eastern front of the Andes mountains, as set forth on the map above, in central-western Argentina. The basin stretches over a distance of 650 kilometres from north to south and has a maximum width of over 275 kilometres. The basin is situated entirely onshore and is part of the Sub Andean trend which extends the entire length of South America. Oil and natural gas are produced from multiple horizons ranging from Jurassic carbonates and sands to Cretaceous sands.

The Corporation's Neuquén basin properties are comprised of producing and exploration opportunities including significant exposure to unconventional shale and tight oil and gas resources. The portfolio consists of five blocks, three in the Neuquén Province and two in the Rio Negro Province. The properties have extensive 2D and 3D seismic coverage complemented by well data. The Neuquén basin is a highly prolific oil and gas producing basin that has extensive pipeline and facility infrastructure and a highly developed service industry. Major investments have been made by industry participants in the Neuquén basin on unconventional resource plays targeting the Vaca Muerta Shale and Lower Agrio Shale. Centaurus holds acreage positions in the Vaca Muerta Shale, Lower Agrio Shale and other resource plays including the Loma Montosa. In addition, Centaurus produces conventional oil and gas reserves from multiple formations which have potential development upside.



#### **Argentine Operations – Noroeste basin**



The Corporation's Noroeste basin portfolio of assets, located in the northern part of Argentina, consists of five exploitation/development blocks and one exploration block. The Corporation has extensive 2D and 3D seismic coverage and well data on these assets. The Noroeste basin can have highly prolific oil and gas wells. There is gas infrastructure on the western edge of the basin. The central and eastern portions do not have gas infrastructure and consequently solution gas is used to generate power or for gas lift. All of the Corporation's oil produced in this area is trucked to market. The service industry in this region is generally less developed than Neuquén resulting in longer lead times to arrange services. The basin remains relatively underexplored and has the potential for large conventional pools and unconventional resource plays.

Centaurus' oil and gas operations are located in Argentina and therefore the Corporation is subject to foreign political, economic and regulatory risks. See "*Risk Factors*".

## Specialized Skill and Knowledge

Operations in the oil and natural gas industry require professionals with skills and knowledge in diverse fields of expertise. In the course of its exploration, development and production activities, the Corporation requires the expertise of drilling engineers, exploration geophysicists and geologists and petroleum engineers. The Corporation has not to date experienced any difficulties in hiring and retaining the professionals and experts it requires for its operations.

#### **Competitive Conditions**

There is considerable competition in Argentina for land positions and the necessary drilling equipment and expertise used to explore for and develop those lands. There are also other, more established companies operating in Argentina with access to broader technical skills, larger amounts of capital and other resources. This represents a significant risk for the Corporation, as it relies on limited resources and has less access to capital markets or strategic financial partnerships to fund of its activities compared to its ore established competitors. See "*Risk Factors*".

#### Seasonality

The level of activity in the oil and gas industry in certain areas of Argentina may be influenced by seasonal weather patterns; however, in general, most areas can be accessed year round. Certain localized areas may have restricted access during parts of the year for drilling and completion activity resulting from winter conditions and the presence of high winds. Seasonal factors and unexpected



weather patterns may lead to delays in the Corporation's exploration, development and production plans. In addition, the demand for oil and natural gas in Argentina fluctuates throughout the year, which affects the prices the Corporation receives for its oil and natural gas production.

## **Contracts and Availability of Services**

There is a high utilization rate in Argentina for drilling rigs and other equipment. Drilling or completion campaigns must be planned well in advance of the actual field activities taking place given the lengthy lead times required for the procurement of services. There has also been considerable interest in Argentina's shale oil and shale gas potential which in order to be explored and developed in a timely manner will require oil and gas service companies operating in the country to develop or procure additional specialized equipment and expertise. The Corporation believes that the build out and modernization of the Argentina oil and gas service industry is continuing with new drilling rigs and specialized high rate and high pressure hydraulic fracturing equipment becoming more available on a regular basis.

## **Marketing and Future Commitments**

All oil production is currently sold on a spot basis to the domestic market. The price received for crude oil sales is calculated based on the Medanito light marker crude blend, less any quality and transportation adjustments. In 2019, Centaurus received an average of approximately \$47.04 per barrel of oil.

Produced crude oil is treated at the Corporation's oil treatment plants and delivered directly to local refineries through pipelines or by trucking. Natural gas is produced in the Neuquén basin and sold into the local market. The Corporation utilizes third party plants for processing the natural gas. See *"Industry Conditions – Pricing and Marketing"*.

Oil and gas companies are awarded assigned blocks based on agreed to exploration, exploitation/development or evaluation phase type contracts whereby the partners on the block agree to certain commitments or work programs over a certain period of time.

#### **Corporate Reorganization**

Management believes that the Corporation's corporate structure was more complex than is required to efficiently operate the Corporation's current business. During these last two years management reduced the structure to 6 companies from 11, reducing costs and taxes and allowing for more efficient administration.

During 2017/2018 the companies liquidated, eliminated or amalgamated were:

٠	MASA	Madalena Austral S.A.
٠	MVIH	Madalena Ventures International Holding Company Inc.
٠	PETJA	Pet-Ja S.A.
٠	MPL	Madalena Petroleum Limited (Sucursal Argentina)
٠	MPAL	Madalena Petroleum Americas Limited (Sucursal Argentina)

#### **Environmental Protection**

The oil and natural gas industry is subject to environmental laws and regulations under varied governmental legislation. Compliance with such obligations and requirements can mean significant expenditures and may constrain the Corporation's operations. A breach of environmental obligations could lead to suspension or revocation of requisite environmental licenses and permits, civil liability for damages caused and possible fines and penalties, all of which may significantly and negatively impact the Corporation's position and competitiveness. See "Industry Conditions" and "Risk Factors".

#### **Social or Environmental Policies**

The Corporation is actively engaged in Corporate Social Responsibility ("CSR") projects in all of its operated areas in Argentina. Centaurus has employees assigned full time to CSR and also works alongside various Non-Government Organizations providing resources, educational support and training. In the Northern areas the focus is on basic needs working predominately with indigenous people. In the central area the focus is more institution based. The Corporation works alongside and supports institutions like schools and local training centers. The Corporation's main environmental strategies include the preparation of comprehensive environmental impact assessments and assembling project-specific environmental management plans. The Corporation's practice is to do all that it reasonably can to ensure that it remains in material compliance with environmental protection legislation. The Corporation 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. The Corporation also performs a detailed due diligence review as part



of its acquisition process to determine whether the assets to be acquired are in regulatory and environmental compliance. The Corporation expects to incur abandonment and site reclamation costs as existing oil and gas properties are abandoned and reclaimed. In 2019, expenditures for normal compliance with environmental regulations as well as expenditures beyond normal compliance were not material. Management is responsible for reviewing the Corporation's Environment, Health and Safety ("EH&S") strategies and policies, including the Corporation's emergency response plan. Management reports to the Board of Directors as necessary and 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 matters, including: (i) compliance with all applicable laws, regulations and policies with respect to EH&S; (ii) on emerging trends, issues and regulations that are relevant to the Corporation's concerning performance in EH&S; (iv) any necessary corrective measures taken to address issues and risks with regards to the Corporation's performance in the areas of EH&S that have been identified by management, external auditors or by regulatory agencies; (v) the results of any review with management, outside accountants, external consultants and/or legal advisors of the implications of major corporate undertakings such as the acquisition or expansion of facilities or ongoing drilling and testing operations, or decommissioning of facilities; and (vi) all incidents and near misses with respect to the Corporation's operation's operation's operation's operations, including corrective actions taken as a result thereof.

## **Foreign Operations**

All of the Corporation's oil and gas activities are located in Argentina. See "Industry Conditions" and "Risk Factors".

## Human Resources

The Corporation currently employs 21 office employees and 72 field employees in Argentina. The Corporation also utilizes the services of several professionals on a part-time contract or consulting basis. The Corporation intends to optimize all areas where efficiencies can be realized.

# REPORT ON RESERVES DATA BY INDEPENDENT QUALIFIED RESERVES EVALUATOR OR AUDITOR

The statement of reserves data and other oil and gas information (the "Statement") set forth below is dated January 24, 2020. The effective date of the Statement is December 31, 2019.

## **Disclosure of Reserves Data**

The Corporation engaged GLJ to provide an evaluation, as at December 31, 2019, of the Corporation's oil and natural gas reserves attributable to all of Centaurus' properties, which are located exclusively in Argentina. The GLJ Report also presents the estimated net present value of future net revenue of Centaurus' properties before and after taxes, at various discount rates.

The reserves data set forth below (the "Reserves Data") is based upon the GLJ Report. The GLJ Report has been prepared in accordance with the standards contained in the COGE Handbook and the reserves definitions contained in NI 51-101 and the COGE Handbook. The Reserves Data conforms to the requirements of NI 51-101. The report in the form of Form 51-101F2 *Report on Reserves Data by Independent Qualified Reserves Evaluator or Auditor* as provided by GLJ is attached as Schedule "A" hereto. The report in the form of Form 51-101F3 *Report of Management and Directors on Oil and Gas Disclosure* as provided by the management of the Corporation is attached hereto as Schedule "B".

The GLJ Report is based on certain factual data supplied by the Corporation and the opinion of GLJ based on reasonable practices in the industry. The extent and character of ownership and all factual data pertaining to the Corporation's petroleum properties and contracts (except for certain information residing in the public domain) were supplied by the Corporation to GLJ and accepted without any further investigation. GLJ accepted this data as presented and neither title searches nor field inspections were conducted.

The evaluation of future revenue is stated after royalties, development costs, production costs and well abandonment costs but before consideration of the deduction of future income tax expenses (unless otherwise noted in the tables), indirect costs such as administrative, overhead and other miscellaneous expenses. The estimated future net revenue contained in the following tables does not necessarily represent the fair market value of the reserves associated with Centaurus' assets and properties. There is no assurance that the forecast price and cost assumptions will be attained and variances could be material. Other assumptions and qualifications relating to costs and other matters are summarized in the notes to the following tables. The recovery and reserves estimates for Centaurus' assets and properties described herein are estimates only and there is no guarantee that the estimated reserves will be recovered. The actual reserves for Centaurus' assets and properties may be greater or inferior than those calculated herein. See "*Forward-Looking Statements*".



#### **Reserves Data (Forecast Prices and Costs)**

The following tables provide a summary of the Corporation's oil and gas reserves and net present value of future net revenue at December 31, 2019 using forecast prices and costs. Amounts shown are in USD.

## Summary of Oil and Gas Reserves and Net Present Values of Future Net Revenue at December 31, 2019

#### **Forecast Prices and Costs USD**

					Reser	ves				
	0	Light/Medium Crude Oil		nt Oil <sup>(1)</sup>	Conventional Natural Gas		Shale Gas <sup>(1)</sup>		Total Reserves	
	Gross (Mbbl)	Net (Mbbl)	Gross (Mbbl)	Net (Mbbl)	Gross (MMcf)	Net (MMcf)	Gross (MMcf)	Net (MMcf)	Gross (Mboe)	Net (Mboe)
Proved										
Developed Producing	1,141	943	425	362	2,059	1,673	0	0	1,909	1,583
Developed Non-Producing	759	635	0	0	166	139	0	0	787	658
Undeveloped	654	540	2,186	1,858	710	600	35	31	2,964	2,504
Total Proved	2,554	2,118	2,612	2,220	2,936	2,412	35	31	5,660	4,744
Probable	2,731	2,278	7,720	6,562	3,311	2,736	1,296	1,141	11,219	9,486
Total Proved Plus Probable	5,285	4,396	10,331	8,782	6,247	5,147	1,331	1,171	16,880	14,230
Possible <sup>(3)</sup>	1,657	1,375	7,553	6,420	1,724	1,430	1,798	1,583	9,798	8,297
Total Proved Plus Probable Plus Possible <sup>(3)</sup>	6,942	5,771	17,885	15,202	7,971	6,578	3,129	2,754	26,677	22,528

			Net	t Present V	Values of 1	Future Ne	t Revenue	USD			
	Before Income Taxes Discounted at (%/year)						After Income Taxes Discounted at (%/year)				
Reserves Category	0% MM	5% MM	10% MM	15% MM	20% MM	0% MM	5% MM	10% MM	15% MM	20% MM	\$/BOE
Proved											
Developed Producing	6.6	10.1	11.6	12.3	12.4	6.6	10.1	11.6	12.3	12.4	7.35
Developed Non-Producing	10.4	9.6	8.5	7.6	6.8	10.4	9.6	8.5	7.6	6.8	12.99
Undeveloped	28.3	13.8	4.8	(0.9)	(4.6)	27.5	13.0	4.2	(1.5)	(5.2)	1.93
Total Proved	45.3	33.4	25.0	19.0	14.6	44.6	32.7	24.3	18.4	14.0	5.27
Probable	283.9	165.3	104.9	70.8	50.0	202.8	112.0	65.7	40.0	24.6	11.06
Total Proved Plus Probable	329.3	198.7	129.9	89.8	64.7	247.4	144.6	90.1	58.4	38.7	9.13
Possible <sup>(3)</sup>	411.2	227.9	148.1	106.1	80.7	287.6	156.8	99.9	70.0	52.1	17.85
Total Proved Plus Probable Plus Possible <sup>(3)</sup>	740.4	426.7	278.0	195.9	145.4	535.0	301.4	189.9	128.4	90.8	12.34

Notes:

These are unconventional Vaca Muerta Shale reserves at CASE and the costs incurred to December 31, 2019 are included in Property, plant and (1) equipment in the Corporation's consolidated financial statements.

(2) Unit values are based on Corporation Net Reserves.

Possible reserves are those additional reserves that are less certain to be recovered than probable reserves. There is a 10% probability that the quantities (3) actually recovered will equal or exceed the sum of proved plus probable plus possible reserves.



## Total Future Net Revenue (Undiscounted) at December 31, 2019

#### **Forecast Prices and Costs USD**

Reserves Category	Revenue MM	Royalties MM	Operating Costs MM	Developmen t Costs MM	Well Abandonment and Reclamation Costs MM	Future Net Revenue Before Income Taxes MM	Income Taxes MM	Future Net Revenue After Income Taxes MM
Total Proved Reserves	324.5	52.2	130.4	79.6	16.9	45.4	0.8	44.6
Total Proved Plus Probable Reserves	1,054.1	164.7	293.8	245.6	20.8	329.3	81.8	247.4
Total Proved Plus Probable Plus Possible Reserves <sup>(1)</sup>	1,721.0	266.8	385.8	305.9	22.2	740.4	205.4	535.0

Note:

(1) 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.

#### **Pricing Assumptions**

The forecast cost and price assumptions relating to the Argentine reserves assume increases in wellhead selling prices and take into account inflation with respect to future operating and capital costs.

GLJ employed the following pricing, exchange rate and inflation rate assumptions as of December 31, 2019 in the GLJ Report in estimating reserves data using forecast prices and costs. GLJ is independent of the Corporation.

#### Summary of Pricing and Inflation Rate Assumptions at December 31, 2019 Forecast Prices and Costs

	World	Argentina Domestic		
Year	Brent Price USD/bbl	Gas Price USD/ Mmbtu		
2020	65.25	3.68		
2021	67.28	3.68		
2022	69.98	3.68		
2023	71.52	3.75		
2024	73.08	3.83		
2025	74.42	3.91		
2026	76.03	3.98		
2027	77.61	4.06		
2028	79.15	4.14		
2029	80.71	4.23		
2030	82.32	4.31		
2031	83.97	4.40		
2032	85.65	4.49		
2033	87.36	4.58		
2034	89.11	4.67		
2035+	+2.0%/yr	+2.0%/yr		

#### Notes:

(1) The price forecast used for this evaluation is based on industry consensus pricing for January 1, 2020. Industry consensus pricing is based on the average price forecasts from the three largest reserves evaluation companies in Canada – GLJ Petroleum Consultants, McDaniel and Associates and Sproule Associates Limited.

(2) GLJ has assumed that the Argentine crude oil and condensate price will be correlated to Brent prices, with adjustments for quality and transportation.

(3) Commodity prices escalation at 2% per year after 2035.

(4) All costs escalate at 2% per year from 2020.

(5) Gas price represents industrial contract prices received. Weighted average historical prices realized by the Corporation for year ended December 31, 2019 from its oil and gas properties was \$47.04/bbl for crude oil and \$3.51/Mcf for natural gas.

(6) Well abandonment and reclamation costs for all existing wells and future wells associated with properties to which reserves have been assigned have been



included at the property level. Additional abandonment and reclamation costs associated with wells associated with properties not assigned reserves have not been included in this analysis.

(7) The extent and character of all factual data supplied to GLJ were accepted by GLJ as represented. No field inspection was conducted.

# **Reconciliation of Changes in Reserves**

The following tables set out the reconciliation of the Corporation's gross reserves as at December 31, 2019 compared to December 31, 2018 based on forecast prices and costs by principal product type.

FACTORS	Lig	ht and Medium Cru	Tight Crude Oil			
	Proved (Mbbl)	Probable (Mbbl)	Proved Plus Probable (Mbbl)	Proved (Mbbl)	Probable (Mbbl)	Proved Plus Probable (Mbbl)
December 31, 2018	3,250	2,635	5,885	962	2,751	3,714
Discoveries	-	-	-	-	-	-
Extensions <sup>(1)</sup>	271	76	347	1,719	4,945	6,664
Infill Drilling <sup>(1)</sup>	-	-	-	-	-	-
Improved Recovery <sup>(1)</sup>	15	4	19	-	-	-
Technical Revisions	(410)	16	(394)	-	24	29
Acquisitions	-	-	-	-	-	-
Dispositions	-	-	-	-	-	-
Economic Factors	15	-	-	-	-	-
Production	(572)	-	(572)	(76)	-	(76)
December 31, 2019	2,554	2,731	5,285	2,612	7,720	10,331

FACTORS		NGLs		Conventional Natural Gas			
	Proved (Mbbl)	Probable (Mbbl)	Proved Plus Probable (Mbbl)	Proved (MMcf)	Probable (MMcf)	Proved Plus Probable (MMcf)	
December 31, 2018	-	-	-	3,864	2,511	6,376	
Discoveries	-	-	-	-	-	-	
Extensions <sup>(1)</sup>	-	-	-	115	32	147	
Infill Drilling <sup>(1)</sup>	-	-	-	-	-	-	
Improved Recovery <sup>(1)</sup>	-	-	-	-	-	-	
Technical Revisions	-	-	-	(1,043)	768	(275)	
Acquisitions	-	-	-	-	-	-	
Dispositions	-	-	-	-	-	-	
Economic Factors	-	-	-	-	-	-	
Production	-	-	-	-	-	-	
December 31, 2019	-	-	-	2,936	3,311	6,247	

FACTORS	Shale Gas					
	Proved (MMcf)	Probable (MMcf)	Proved Plus Probable (MMcf)			
December 31, 2018	127	370	498			
Discoveries	-	-	-			
Extensions <sup>(1)</sup>	21	853	874			
Infill Drilling <sup>(1)</sup>	-	-	-			
Improved Recovery <sup>(1)</sup>	-	-	-			
Technical Revisions	(114)	73	(41)			
Acquisitions	-	-	-			



Dispositions	-	-	-	
Economic Factors	-	-	-	
Production	-			
December 31, 2019	35	1,296	1,331	

Notes:

(1) The above change categories correspond to standards set out in the Canadian Oil and Gas Evaluation Handbook. For reporting under NI 51-101, reserves additions under Infill Drilling, Improved Recovery and Extensions should be combined and reported as "Extensions and Improved Recovery".

#### **Undeveloped Reserves**

Undeveloped reserves are attributed by GLJ in accordance with standards and procedures contained in the COGE Handbook. Proved undeveloped reserves are generally those reserves related to infill wells that have not yet been drilled or wells further away from gathering systems requiring relatively high capital to bring on production. Probable undeveloped reserves are generally those reserves tested or indicated by analogy to be productive, infill drilling locations and lands contiguous to production. This also includes the probable undeveloped wedge from the proved undeveloped locations.

The Corporation currently plans to pursue the development of its proved and probable undeveloped reserves within the next two years through ordinary course capital expenditures. In some cases, it may take longer than two years to develop these reserves. There are a number of factors that could result in delayed or cancelled development, including the following: (i) existence of higher priority expenditures; (ii) changing economic conditions (due to pricing, operating and capital expenditure fluctuations); (iii) changing technical conditions (including production anomalies, such as water breakthrough or accelerated depletion); (iv) multi-zone developments (for instance, a prospective formation completion may be delayed until the initial completion is no longer economic); (v) a larger development program may need to be spread out over several years to optimize capital allocation and facility utilization; and (vi) surface access issues (including those relating to land owners, weather conditions and regulatory approvals).

Proved undeveloped reserves have been assigned in areas where the reserves can be estimated with a high degree of certainty. In most instances, proved undeveloped reserves will be assigned on lands immediately offsetting existing producing wells within the same accumulation or pool.

Probable undeveloped reserves have been assigned in areas where the reserves can be estimated with less certainty. It is equally likely that the actual remaining quantities recovered will be greater or less than the proved plus probable reserves. In most instances probable undeveloped reserves have been assigned on lands in the area with existing producing wells but there is some uncertainty as to whether they are directly analogous to the producing accumulation or pool.

Possible undeveloped reserves have been assigned in areas where the reserves can be estimated with less certainty. It is unlikely that the actual quantities recovered will exceed the sum of the estimated proved plus probable plus possible reserves. In most instances possible undeveloped reserves have been assigned on lands in the area with existing producing wells but there is some uncertainty as to whether they are directly analogous to the producing accumulation or pool.

For more information, see "Risk Factors".

The following tables set forth the remaining proved undeveloped reserves, the remaining probable undeveloped reserves and the remaining possible undeveloped reserves, each by product type, attributed to the Corporation's assets for the years ended December 31, 2019, 2018 and 2017 and, in the aggregate, before that time based on forecast prices and costs.

See "Other Oil and Gas Information - Principal Properties" and "Report on Reserves Data by Independent Qualified Reserves Evaluator or Auditor – Future Development Costs" for a description of the Corporation's exploration and development plans and expenditures.

Year	Light and Me	edium Oil (Mbbl) <sup>(1)</sup>	Tight	Oil (Mbbl)
	First Attributed	Cumulative at Year End	First Attributed	Cumulative at Year End
2017	-	878	-	-
2018	-	766	777	777
2019	133	654	1,372	2,186
Year	Conventional N	Natural Gas (MMcf)	Shale	Gas(MMcf)
	First Attributed	Cumulative at Year End	First Attributed	Cumulative at Year End
2017	-	779	-	-
2018	498	1,391	106	127
2019	116	710	19	35

#### Proved Undeveloped Reserves

Note:

(1) Includes NGLs.

Proved undeveloped reserves have been assigned in areas where the reserves can be estimated with a high degree of certainty. In most instances, proved undeveloped reserves will be assigned on lands immediately offsetting existing producing wells within the same accumulation or pool. This is the case for eleven (3.85 net) proved undeveloped horizontal Vaca Muerta wells at CASE and four proved undeveloped horizontal wells at Puesto Morales. GLJ has assigned 2.5 MMboe of proved undeveloped reserves in the GLJ Report with \$43.5 million of associated undiscounted capital to be spent in the first two years.

Year	Light and Me	edium Oil (Mbbl) <sup>(1)</sup>	Tight	Oil (Mbbl)
	First Attributed	Cumulative at Year End	First Attributed	Cumulative at Year End
2017	107	2,011	778	1,274
2018	184	2,072	1,520	2,673
2019	33	2,337	5,370	7,236
Year	Conventional N	Natural Gas (MMcf)	Shale	Gas(MMcf)
	First Attributed	Cumulative at Year End	First Attributed	Cumulative at Year End
2017	107	1,782	604	1,010
2018	-	1,250	205	370
2019	32	1,997	913	1,296

## Probable Undeveloped Reserves

Note:

(1) Includes NGLs.

Probable undeveloped reserves have been assigned in areas where the reserves can be estimated with less certainty. It is equally likely that the actual remaining quantities will be greater or less that the proved plus probable reserves. In most instances, probable undeveloped reserves will be assigned on lands offsetting existing producing wells within the same accumulation or pool but there is some uncertainty as to whether they are directly analogous. In the GLJ Report, this is the case for twenty-one (7.4 net) additional probable undeveloped horizontal Vaca Muerta wells at CASE, nine additional probable undeveloped horizontal wells and one additional probable undeveloped vertical well at the Puesto Morales Block, three (1.0 net) additional probable undeveloped horizontal Sierra Blancas wells at Coirón Amargo Norte, and one additional probable undeveloped Palmar Largo well at the Surubi Block. GLJ has assigned 10.1 MMboe of probable undeveloped reserves in the GLJ Report with \$164.1 million of associated undiscounted capital, of which \$12.8 million is forecast to be spent in the first two years.



Year	Light and Me	dium Oil (Mbbl) <sup>(1)</sup>	Tight	Oil (Mbbl)
	First Attributed	Cumulative at Year End	First Attributed	Cumulative at Year End
2017	-	2040	-	1,589
2018	-	2,062	-	4,920
2019	29	1,298	2,778	7,168
Year	Conventional N	Vatural Gas (MMcf)	Shale	Gas(MMcf)
	First Attributed	Cumulative at Year End	First Attributed	Cumulative at Year End
2017	-	1,236	-	1,289
2018	-	1,717	-	673
2019	24	1.248	853	1.798

#### **Possible Undeveloped Reserves**

Note:

(1) Includes NGLs.

Possible undeveloped reserves have been assigned in areas where the reserves can be estimated with less certainty. It is unlikely that the actual quantities recovered will exceed the sum of the estimated proved plus probable plus possible reserves. In most instances, possible undeveloped reserves will be assigned on lands offsetting existing producing wells within the same accumulation or pool but there is some uncertainty as to whether they are directly analogous. In the GLJ Report, this is the case for eight (2.8 net) additional possible undeveloped horizontal Vaca Muerta wells at CASE, four additional possible undeveloped horizontal wells and one additional possible undeveloped vertical well at Puesto Morales and one (0.3 net) additional possible undeveloped horizontal Sierra Blancas well at Coirón Amargo Norte. GLJ has assigned 9.0 MMboe of possible undeveloped reserves in the GLJ Report with \$60.3 million of associated undiscounted capital, of which \$40.8 million is forecast to be spent in the first three years.

# Significant Factors or Uncertainties

The oil and gas properties of the Corporation have no material extraordinary risks or uncertainties beyond those which are inherent of an oil and gas producing company.

The GLJ report has assumed the successful ten year contract extension for certain leases in Argentina. The National Hydrocarbon Law ("NH Law"), amended in 2014 (see "*Industry Conditions – Argentina - Oil and Gas Industry Regulations*"), has provided some clarification to the calculation of the renewal bonus. The GLJ report has included these assumptions for contract renewal terms on the El Chivil and Palmar Largo properties. Notwithstanding this, there can be no certainty to a successful contract renewal for these properties and hence, the Corporation may not realize the future net revenues from these properties beyond their initial expiry date.

## General

The process of estimating reserves is complex. It requires significant judgments and decisions based on available geological, geophysical, engineering or economic data. These estimates may change substantially as additional data from ongoing development activities and production performance become 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 and additional data become available, reserve estimates also 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 science. As a result, the 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 gas prices, and reservoir performance. Such revisions can either be positive or negative.

## Abandonment and Reclamation Costs

Abandonment and reclamation costs have been estimated by GLJ in the GLJ Report, attributed to all properties that have been assigned reserves in the GLJ Report and have been taken into account by GLJ in determining reserves that should be attributed to a property and in determining the aggregated future net revenue thereform. No allowances were made, however, for the abandonment



and reclamation of any pipelines. In addition, the Corporation does not recognize abandonment and reclamation obligations on facilities in Argentina where it has determined that there is no legal or constructive obligation to perform such activities.

Centaurus will be liable for its share of ongoing environmental obligations and for the ultimate reclamation of the surface leases, wells, facilities and pipelines held by it upon abandonment. Ongoing environmental obligations are expected to be funded out of cash flow.

Centaurus estimates well abandonment costs on a well-by-well basis using historical costs supplemented by current industry costs and changes in regulatory requirements. Estimated costs of well site abandonment and reclamation were included in the GLJ Report and applied as a deduction in determining future net revenue. The Corporation uses industry historical costs to estimate its abandonment costs when available. The costs are estimated on well-by-well basis. The industry's historical costs are used when available. If representative comparisons are not readily available, an estimate is prepared based on the various regulatory abandonment requirements.

The abandonment and reclamation obligation included in the Corporation's financial statements differs from the amount deducted in the reserves evaluation. The financial statements include abandonment and reclamation obligations for wells that were not assigned year-end reserves, neither of which are included in the GLJ Report.

The Corporation has estimated the net cost to abandon and reclaim all existing wells to be \$13.1 million (undiscounted and uninflated) as at December 31, 2019. These costs relate to wells on properties that may or may not have reserves attributed to them. As included in the estimate of future net revenue from proved plus probable reserves, GLJ has used a net cost to abandon and reclaim wells of \$20.8 million (undiscounted) as at December 31, 2019. This estimate includes the cost to abandon and reclaim all future undrilled wells that have been attributed reserves but it excludes such costs where reserves have not been assigned.

The Corporation has 189 gross (146 net) wells for which it expects to incur abandonment and reclamation costs.

## Future Development Costs

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

		Future Development Costs (USD M)	
Year	Total Proved Reserves	Total Proved Plus Probable Reserves	Total Proved Plus Probable Plus Possible Reserves
2020	21,924	21,983	21,983
2021	26,659	41,079	51,315
2022	9,429	75,142	105,700
2023	15,038	51,437	65,031
Total (Undiscounted)	79,631	245,602	305,857
Total (Discounted at 10%)	66,402	188,576	234,981

Future development costs are capital expenditures which will be required in the future for Centaurus to convert Proved Undeveloped Reserves, Probable Reserves and Possible Reserves to Proved Producing Reserves.

Centaurus intends to use existing working capital, internally generated cash flow from operations, the Maglan Facilities (when available), or other debt (if available on favourable terms), new equity issues (if available on favourable terms), farm outs or similar arrangements and strategic financial partnerships to finance its capital expenditure program. The cost of funding could negatively affect disclosed reserves or future net revenue depending on the source and nature of the funding but the impact cannot readily be determined at this time. See "*Risk Factors*".

## Oil and Natural Gas Wells

The following table sets forth the number and status of oil and natural gas wells in which Centaurus has a WI and which are producing or mechanically capable of producing and the wells which are not producing or mechanically capable of production as of December



31	2019.
51,	2017.

	Oil V	Vells	Natural (	Gas Wells	Non-produ	icing Wells	Тс	otal
Location	Gross	Net	Gross	Net	Gross	Net	Gross	Net
Argentina	75	63.95	11	11.0	99	91.87	185	166.82

#### **Properties with No Attributed Reserves**

The following table sets forth Centaurus' land position as at December 31, 2019.

	Gra	DSS		Net
Location	Acres	Sections	Acres	Sections
Argentina	1,229,023	n/a	1,120,004	n/a

The Corporation does not separate out the portion of a block that is undeveloped. As of the date of this report, Centaurus has seven leases in Argentina with attributable reserves totalling 567,057 Gross Acres or 499.551 Net Acres. The remaining work commitments relating to the Corporation's concessions in Argentina are described under "*Other Oil and Gas Information - Principal Properties.*"

#### Forward Contracts and Marketing

As of the date hereof, the Corporation has no physical or financial commodity contracts in place, the prices are discussed each month.

#### Tax Horizon

#### Argentina

In Argentina, due to the tax reform approved in 2018 the income tax rate in 2018 & 2019 is 30% and in 2020 will be 25%. This reform also incorporated a tax over dividends of 7% in 2018 and 2019 and 13% in 2020. Current income tax expense for the year ended December 31, 2019 was nil (2018 – \$0.6 million).

#### Canada

As at December 31, 2019, the Corporation has, subject to confirmation by income tax authorities, cumulative income tax deductions of approximately CAD 92.3 million (2018 – CAD 78.8 million). Accordingly, the Corporation does not anticipate being taxable in the foreseeable future.

## **Capital Expenditures**

The following table summarizes capital expenditures in Argentina (net of asset retirement costs, and capitalized stock based compensation) related to the Corporation's activities for the year ended December 31, 2019.

	Argentina \$USD MM
Exploration costs	0.1
Development costs	24.9
Total	25

#### **Exploration and Development Activities**

In 2019, the Corporation completed two (0.7 net) horizontal multi-frac well in the Vaca Muerta Shale Formation at the non-operated CASE block (operated by PAE).

#### **Production Estimates**

The following table sets out the volume of the Corporation's gross working interest production estimated for the year ended December 31, 2020 as evaluated by the Reserve Engineer which is reflected in the estimate of future net revenue disclosed in the tables contained under "*Report on reserves data by independent qualified reserves evaluator or auditor*".



	Light and Medium Oil <i>(bopd)</i>	Tight Oil (bopd)	Conventional Natural Gas <i>(Mcf/d)</i>	Shale Natural Gas ( <i>Mcf/d</i> )	BOE (BOE/d)
Proved	1,848	534	1,155	0	2,574
Probable	135	284	104	0	437
Proved Plus Probable	1,982	819	1,259	0	3,011
Possible	113	205	58	0	328
Proved Plus Probable Plus Possible	2,095	1024	1,317	0	3,338

#### **Production History**

The following tables summarize certain information in respect of average sales, product prices received, royalties paid, operating expenses and resulting netback for the periods indicated below.

USD	Q4 2019	Q3 2019	Q2 2019	Q1 2019
Average Daily Sales Volumes				
Light and medium oil – bopd	1,838	1,903	1,734	1,585
Conventional Natural gas - Mcf/d	1,488	1,433	1,655	1,547
Combined (BOE/d)	2,086	2,142	2,010	1,843
Average Price Received				
Light and medium oil – \$/bbl	45.34	42.24	52.85	48.35
Conventional Natural gas - \$/Mcf	2.12	3.44	4.24	4.31
Combined (\$/BOE)	41.47	39.83	49.09	45.21
Royalties Paid				
Combined (\$/BOE)	(6.58)	(6.15)	(9.44)	(8.01)
Operating Costs				
Combined (\$/BOE)	(29.42)	(30.02)	(29.79)	(33.55)
Netback Received – (\$/BOE)	5.46	3.66	9.86	3.65



#### Sales Volume by Field

The following table discloses for each important field, and in total, as a percentage of the Corporation's sales volumes for the financial year ended December 31, 2019 for each product type.

Field	Light and Medium Natural Gas Crude Oil (bbls/d) (Mcf/d)		BOE (BOE/D)	% (Corporation's consolidated production)	
Puesto Morales	477	1,462	721	35%	
Palmar Largo	542	-	542	26%	
Surubi	323	-	323	16%	
Coirón Amargo Sur Este	215	-	215	10%	
Coirón Amargo Norte	145	68	156	8%	
Other minor	95	_	95	5%	
Total	1,797	1,530	2,052	100%	

## OTHER OIL AND GAS INFORMATION

## **Principal Properties**

The following is a description of Centaurus' principal oil and natural gas properties as at December 31, 2019. Unless otherwise indicated, production stated is average daily production for the year ended December 31, 2019 received by the Corporation in respect of its working interest share before deduction of royalties and without including any royalty interest.

As a result of the disposition of the Canadian oil and gas assets during the year-ended December 31, 2016, the Corporation now only holds Argentine oil and gas assets which are located in the Noroeste Basin in northern Argentina and the Neuquén Basin in central Argentina.

Centaurus' primary producing concessions are at Puesto Morales, Palmar Largo, Surubí and Coirón Amargo Sur Este. During the quarter ended December 31, 2019, these blocks averaged 1,802 BOE/d or 88% of the Corporation's consolidated Argentine production. The Puesto Morales Block is the largest at 721 BOE /d (approximately 35%), Palmar Largo Block averaged 542 bbls/d (approximately 26%), Surubi Block averaged 323 bbls/d (approximately 16%), while Coirón Amargo Sur Este Block was at 215 BOE/d (approximately 10%). Other producing concessions include Coirón Amargo Norte and El Chivil. All concessions produce oil and Puesto Morales and Coirón Amargo Norte also produce natural gas. Curamhuele, Santa Victoria and Valle Morado are non-producing properties. In addition, effective December 1, 2018, the Corporation entered into the Operating Agreement pursuant to which it increased its WI in the Palmar Largo concession from 14% to 100%.

Oil production in northern Argentina is trucked to market; therefore, sales of oil in the Noroeste Basin may be seasonally delayed by adverse weather and road conditions, particularly during the months of November through February when the area is subject to periods of heavy rain and flooding. While storage facilities are designed to accommodate ordinary disruptions without curtailing production, delayed sales will delay revenues and may adversely impact Centaurus' working capital position in Argentina.

Royalties in Argentina are based on a provincial royalty plus an additional provincial turnover tax. The provincial royalty rate is 12% on most of the blocks in Argentina. Under the new National Hydrocarbon law, the Provinces may increase the royalty to 15% for longer-term exploitation/development concessions which enter a ten year exploitation extension period. The provincial turnover tax ranges from 1.5% to 3% on the Corporation's blocks.

For all of Centaurus' blocks in Argentina, upon expiry of the block rights (if concessions are not renegotiated for extension or renewal by way of entering into revised exploration, exploitation/development or evaluation phase type contracts), ownership of producing assets will revert to the provincial governments. For exploitation/development concessions, the Corporation can request a ten to twenty-five year production concession with ten years being the typical extension period on an already existing exploitation contract. Entering into a new exploitation contract or extending an already existing production contract generally involves a combination of a bonus payment and/or a future work commitment. The Corporation enters into formal negotiations and discussions on a regular basis to extend existing exploitation concessions or convert exploration concessions into new exploitation concessions. The Corporation also must enter into a negotiation or an application and approval process to move certain exploration blocks or concessions from a first exploration period into a second or third exploration period. In addition, exploration blocks focused on unconventional shales or tight sand resources are eligible to enter into evaluation phase type contracts to appraise the unconventional resources. Typical evaluation phase type contracts are in the three to five year range. After evaluation phase contracts are completed,



blocks focused on unconventional resources are eligible to enter exploitation/development concessions spanning up to 35 years under the NH law.

## Puesto Morales Block (100% WI)

The Corporation acquired its interest in the 59,671 acre block in the Neuquén Basin as part of the GTE Acquisition. The block produces oil and natural gas from the Sierras Blancas formation and Loma Montosa. In the fourth quarter of 2019 production from this block averaged 686 BOE/d (approximately 32% of Centaurus' production). Sierras Blancas wells are generally in the advanced stages of decline producing large volumes of fluid at high water cuts. The Corporation continues to optimize the property and implement projects to stabilize the decline.

Centaurus is the operator and holds a 100% WI pursuant to a ten year exploitation concession agreement with the Province of Rio Negro that has received the requisite government approvals. As part of the terms and conditions of the ten year extension, the Corporation has agreed to capital commitments of \$40.2 million on the block over the next ten year period, which includes the drilling of new wells, facility maintenance and re-entry activities. Capital expenditures in 2015 and 2016 were approximately \$7.8 million, which qualified towards part of the capital commitments of \$40.2 million.

As at December 31, 2019, \$32.4 million of the total capital commitments remained outstanding. In order to keep the concession in good standing and to remain in compliance with the commitments, the Corporation held negotiations with the Province of Rio Negro throughout the course of 2017 and 2018 with respect to extending the commitments. On January 4, 2019, the Secretary of Energy approved a re-schedule and conversion of the remaining commitments and updated the exploration and development plan. For 2020, a vertical exploratory well with an approximate cost of \$2 million is to be drilled. The remaining commitments have been re-schedule for 2020 and 2021.

#### Palmar Largo Block (100% WI)

Centaurus has signed an operation agreement with Recursos y Energía Formosa SA ("REFSA"), an oil company belonging to the Province of Formosa (the "Province"), over the Palmar Largo Concession in Formosa, Argentina, effective December 1, 2018 (the "Operation Agreement"). The block covers an area of approximately 301,740 acres.

The Operation Agreement has an initial term of two years and provides for a potential extension of one year-provided that Centaurus fulfils its investment commitment of \$2 million. The Investment Commitment consists of 2 workovers in 2 wells in order to increase production and certain facility improvements. Centaurus will operate 100% of the Palmar Largo Concession and will be required to pay the existing 12% royalty on production revenues to the Province and an additional 5.32% of production revenues is to be paid to REFSA under the agreement.

#### Surubi Block (85% WI)

The Corporation acquired its interest in the Surubi Block, which covers 90,824 (77,200 net) acres, through the GTE Acquisition in June 2014. In the Surubi Block, Centaurus is the operator and is in a partnership with the Formosa provincial oil company REFSA. There are two producing wells on the block, which collectively averaged 306 BOE/d (approximately 14% of Centaurus' production) in the last quarter of 2019. Centaurus has no work obligations on this block.

#### Coirón Amargo Sur Este Block (35% WI)

The Coirón Amargo Sur Este Block covers an area of approximately 56,298 (19,704 net) acres and is situated approximately 650 miles southwest of Buenos Aires in the Argentine province of Neuquén. The block was initially divided into two regions called Coirón Amargo Norte and Coirón Amargo Sur. The Coirón Amargo Norte exploitation concession consists of 26,598 gross acres (9,309 net) and the Coirón Amargo Sur evaluation concession consists of 72,738 gross acres (25,458 net). Pursuant to the Coirón Amargo Sur Agreements, Coirón Amargo Sur was divided into two evaluation lots – CASE and CASO. Centaurus assigned its interest in CASO (5,754 net acres) and, in return, increased its CASE WI to 90%.

In the fourth quarter of 2019 production from the Coirón Amargo Sur Este block averaged 399 BOE/d (approximately 19% of Centaurus' production).

Historically, Centaurus and its partners at the Coirón Amargo concession in the province of Neuquén were responsible for paying 100% of GyP's share of the costs during the evaluation phase of a concession. Accordingly, at Coirón Amargo Sur Este, Centaurus paid 38.89% to maintain its 35% WI. The additional 3.89% is Centaurus' proportionate share of GyP's 10% WI. In an exploitation phase, GyP is responsible for its 10% interest of the incurred capital costs through an assignment of a percentage of GyP's 10% interest in future production revenue streams to Centaurus and its partners.



On September 18, 2018, the CASE Block was converted in an unconventional exploitation concession with a 35-year term. The concession was awarded after the CASE Block successfully completed the evaluation phase.

As part of the terms and conditions for the award of the unconventional exploitation concession, Centaurus work commitments at the CASE Block were amended as follows:

- Phase I, \$27.2 million, includes the drilling of five horizontal multifrac wells targeting the Vaca Muerta, the construction of early production facilities, investment for infrastructure improvement and social responsibility commitments.
- Phase II, \$19.5 million, subject to the results on Phase I in 2019, three additional wells will be drilled over the following two-year period.

Pan American Energy ("PAE"), Centaurus' Partner, successfully completed and tested the CASE-101h and CASE-501h and completed the CASE-401h horizontal multi-frac wells in the Vaca Muerta Shale Formation at the Coiron Amargo Sur Este ("CASE") block in Argentina. The CASE-301h well was successfully drilled and is currently being completed. The CASE-201h was suspended due to operational issues. The Operator is evaluating different options for that well.

## Curamhuele Block (90% WI)

The Curamhuele Block is operated by Centaurus and covers an area of approximately 56,237 (50,613 net) acres. The block is situated along the east side of the north south trending Andean thrust belt in the middle portion of the Province of Neuquén, approximately 650 miles south and west of Buenos Aires.

Centaurus is responsible for paying 100% of the costs during the exploration or evaluation phase. If reserves are discovered in commercial quantities, the Corporation may convert certain areas of the block into an exploitation (development) concession. Production will be subject to a 12% royalty payable to the province of Neuquén. GyP is responsible for its 10% share of the costs incurred in the exploitation phase.

In December 2015, Centaurus ratified an extension of its second exploration term with the Province of Neuquén to September 9, 2016, and subsequent thereto, the Corporation put forward a proposal to the Province to enter into a four year evaluation period to further appraise the Curamhuele Block with a work commitment of \$8.2 million to be incurred by March 9, 2019.

In 2016, the remaining work commitment relating to the existing Curamhuele Block concession agreement were fulfilled by completing the Yapai.x 1001 well in the Mulichinco formation and Lower Agrio Shale.

The Corporation received approval for a 2 year extension on the Curamhuele concession based on its proposal to drill one vertical well in a new location to vertically test the Vaca Muerta and Lower Agrio formations. The extension was initially applied for in December, 2018.

On May 13, 2019 the extension was approved by the Ministry of Energy and Natural Resources for the province of Neuquen (the "Ministry"), which granted an additional twenty-four months expiring March 9, 2021 for the exploratory period of the concession.

On November 14, 2019 the Corporation was notified by the Ministry that the milestones for the vertical test that were agreed as part of the two year extension were not being met. The Corporation entered discussions with the Ministry and GyP with respect to adjusting the milestones schedule. On January 10, 2020, the Corporation received a letter proposal from the Ministry which allowed the Corporation until April 30, 2020 to determine financing to comply with the schedule, conditional upon the Corporation securing a performance bond for a value equal to three thousand two hundred and thirty (3,230) technical units, being \$16,150,000, which shall be executed if (i) the Corporation fails to comply with the terms of the extension, including submission of contracts, invoices or other evidence that the Corporation has contracted a drilling rig and has secured the wellhead and all casing necessary; or (ii) the March 9, 2021 deadline for completing the commitments. The Corporation accepted the Ministry's proposal on January 20, 2020 and subsequently secured the performance bond.

The Corporation continues to pursue a potential farm out of Curamhuele.

## **DIVIDEND POLICY**

The Corporation has not paid any dividends or distributions on the Common Shares. The Board will determine the timing, payment and amount of future dividends, if any, that may be paid by the Corporation from time to time based upon, among other things, the cash flow, results of operations and financial condition of the Corporation, the need for funds to finance ongoing operations and other business considerations as the Board considers relevant.



#### DESCRIPTION OF CAPITAL STRUCTURE

The Corporation is authorized to issue an unlimited number of Common Shares without nominal or par value. As at April 29, 2020, there were 544,059,237 Common Shares issued and outstanding. In addition, as at such date, there were an aggregate of approximately 54.4 million Common Shares reserved for issuance upon the exercise of stock options ("Options") and Warrants to purchase Common Shares, of which, as at the date of this AIF, 14,800,000 Options are issued and outstanding.

Each Common Share entitles its holder to receive notice of and to attend all meetings of the Shareholders and to one vote at such meetings. The holders of Common Shares are, at the discretion of the Board and subject to applicable legal restrictions, entitled to receive any dividends declared by the Board of Directors on the Common Shares, subject to prior satisfaction of all preferential rights attached to all shares of other classes of the Corporation ranking in priority to the Common Shares. The holders of Common Shares are entitled to share equally in any distribution of the assets of the Corporation upon the liquidation, dissolution, bankruptcy or winding-up of the Corporation or other distribution of its assets among its Shareholders for the purpose of winding-up its affairs, subject to prior satisfaction of all preferential rights attached to all shares of other classes of the Corporation ranking in priority to the Corporation rankin

#### MARKET FOR SECURITIES

The Common Shares trade on the TSXV exchange under the symbol "CTA" and on the OTCQX under the symbol "CTARF".

The following table sets forth the price range in CAD and volume of the Common Shares traded as reported by the TSXV and the price range in USD and volume of the Common Shares traded on the OTCQX during the year-ended December 31, 2019 and the first quarter of 2020:

Period	High (CAD)	Low (CAD)	Volume
2019			
January	0.190	0.140	1,846,700
February	0.180	0.140	1,846,600
March	0.160	0.130	1,177,400
April	0.150	0.120	1,383,940
May	0.150	0.110	2,541,490
June	0.135	0.105	2,698,770
July	0.185	0.110	2,205,650
August	0.185	0.130	1,783,380
September	0.150	0.090	5,622,430
October	0.105	0.075	1,522,280
November	0.115	0.075	2,821,850
December	0.085	0.065	1,743,190
2020			
January	0.095	0.075	793,310
February	0.135	0.080	2,229,000
March	0.105	0.035	100,700

#### **OTCQX TRADING - USD**

Period	High (USD)	Low (USD)	Volume
2019			
January	0.140	0.105	3,064,602
February	0.139	0.102	3,563,724
March	0.120	0.097	3,949,622
April	0.112	0.090	4,259,180
May	0.113	0.085	6,335,046
June	0.102	0.080	3,247,735
July	0.143	0.080	3,253,397
August	0.145	0.090	5,389,166
September	0.115	0.070	8,586,515
October	0.105	0.044	5,031,578
November	0.091	0.056	4,640,987
December	0.078	0.050	5,647,693



2020			
January	0.080	0.050	2,153,500
February	0.110	0.060	4,584,500
March	0.090	0.020	9,187,900

# ESCROWED SECURITIES AND SECURITIES SUBJECT TO CONTRACTUAL RESTRICTIONS ON TRANSFER

As of the date hereof, no securities of the Corporation are subject to escrow or contractual restrictions on transfer.

#### PRIOR SALES

Other than securities issuable under the terms of the Amended and Restated Convertible Loan Agreement, there were no securities convertible into Common Shares issued during the year-ended December 31, 2019.

#### **DIRECTORS AND OFFICERS**

The names, province and country of residence, positions with the Corporation, and principal occupation of the directors and officers of the Corporation are set out below and in the case of directors, the period each has served as a director of the Corporation.

Name, Address and Position	Director Since	Number of Common Shares beneficially owned or over which control is exercised	Principal Occupation for the Previous 5 Years
David D. Tawil New York City, NY Interim Chief Executive Officer and Director	March 24, 2020	106,871,573(1)	Mr. Tawil is a co-founder of Maglan Capital, an event- driven fund, and has served as President since its founding in 2009. Prior to founding Maglan Capital, Mr. Tawil was an investment banker with Credit Suisse, where he served as Director of Leveraged Finance. Before joining Credit Suisse, Mr. Tawil was an attorney with Davis Polk & Wardwell, specializing in corporate restructuring. He began his legal career as an associate at Skadden, Arps. Mr. Tawil earned a BS degree in Business Management, graduating magna cum laude, from Yeshiva University, and he earned a JD degree from the University of Michigan Law School.
Steven Azarbad New York City, NY Director <sup>(1)</sup>	March 24, 2020	106,871,573 <sup>(1)</sup>	Steven Azarbad is a Co-Founder of Maglan Capital and has served as Chief Investment Officer since its founding in 2009. Prior to founding Maglan Capital, he was an investment banker with Credit Suisse, where he served as Director of Leveraged Finance. Before joining Credit Suisse, Mr. Azarbad was an attorney with Weil, Gotshal & Manges, specializing in bankruptcy and restructuring. Before joining Weil, Gotshal & Manges, he clerked for The Honorable Mary F. Walrath, in the United States Bankruptcy Court for the District of Delaware. He began his legal career as an associate at Skadden, Arps. Mr. Azarbad earned a BS in Accounting from Brooklyn College of the City University of New York, and he earned a JD from Brooklyn Law School.
Ruben Etcheverry Neuquén, Argentina Director	September 13, 2017	None	Mr. Etcheverry is currently Oil & Gas Advisor of iFlow SA (Integrated Logistics Flow SA) and is an Advisor on Energy Issues to the municipal government of Neuquen, Argentina and Secretary of Modernization of the city. Previously Mr. Etcheverry served as Secretary of the board of directors of the Alexandria Foundation from March 2010 until June 2013. Mr. Etcheverry was Chief Executive Officer of Gas y Petroleo del Neuquen SA and Chairman of the Board from January 2009 until May 2013. Mr. Etcheverry was Operations and New Business Manager for Energy Argentina S.A. from March 2005 until January 2009 and Secretary of Energy of the Neuquen province from December 1995 to December 1999.



Name, Address and Position	Director Since	Number of Common Shares beneficially owned or over which control is exercised	Principal Occupation for the Previous 5 Years		
Steven Balsam Toronto, Ontario Director	April 8, 2020	None	Mr. Balsam is Vice President and Chief Compliance Officer at Ber Tov Capital Corporation, an exempt market dealer based in Toronto that advises high net worth clients regarding tax-efficient structured flow- through investments in resource companies. At Ber Tov, Mr. Balsam oversees the firm's compliance with securities laws and regulatory requirements and leads due diligence efforts for the firm's investments. Before joining Ber Tov, Mr. Balsam served as a portfolio manager at Manitou Investment Management where he comanaged Manitou's North American equities portfolio. Prior thereto, Steven worked as an attorney in New York for four years, specializing in taxation and litigation. Mr. Balsam received his law degree from Harvard Law School in 1998 and his bachelor's degree from Yeshiva University in 1995. He attained the Chartered Financial Analyst (CFA) designation in 2006.		

Notes:

(1) Steven Azarbad and David D. Tawil are principals of Maglan Capital LP, which is an affiliate of Maglan Distressed Master Fund LP. Maglan Capital LP and Maglan Distressed Master Fund LP own 26,349,700 and 80,521,873 Common Shares respectively.

The directors and officers of the Corporation as a group own, directly or indirectly, or control or exercise direction over 106,871,573 Common Shares, representing 19.65% of the issued and outstanding Common Shares (on a non-diluted basis).

### Cease Trade Orders, Bankruptcies, Penalties or Sanctions

To the knowledge of the Corporation, no director or executive officer of the Corporation: (i) is, or has been in the last ten years, a director, chief executive officer or chief financial officer of an issuer that, while that person was acting in that capacity, (a) was the subject of a cease trade order or similar order or an order that denied the issuer access to any exemptions under securities legislation, for a period of more than 30 consecutive days, (b) was subject to a cease trade or similar order or an order that denied the issuer access to any exemption under securities legislation, for a period of more than 30 consecutive days, (b) was subject to a cease trade or similar order or an order that denied the issuer access to any exemption under securities legislation, for a period of more than 30 consecutive days, that was issued after the director of executive officer ceased to be a director of officer and which resulted from an event that occurred while that person was acting in the capacity as director, chief executive officer or chief financial officer, or (c) 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; (ii) has, within the last ten years, become bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency, or become subject to or instituted any proceedings, arrangements or compromises with creditors, or any penalties or sanctions imposed by a court relating to securities legislation or by a securities regulatory authority or has entered into a settlement agreement with a securities regulatory authority, or (b) any other penalties or sanctions imposed by a court or regulatory body.

To the knowledge of the Corporation, no director or officer of the Corporation, or a shareholder holding a sufficient number of securities of the Corporation to affect materially the control of the Corporation, has been subject to any penalties or sanctions imposed by a court relating to securities legislation or by a securities regulatory authority or has entered into a settlement agreement with a securities regulatory authority or any other penalties or sanctions imposed by a court or regulatory body that would likely be considered important to a reasonable investor in making an investment decision.

# **Conflicts of Interest**

There are potential conflicts of interest to which the directors and officers of the Corporation will be subject in connection with the operations of the Corporation. In particular, Messrs. David D. Tawil and Steven Azarbad, through Maglan, have material interests in the Maglan Financing Agreement, and will have material interests in the Maglan Facilities once entered into. As well, certain other directors and officers of the Corporation are involved in managerial and/or director positions with other oil and gas companies whose operations may, from time to time, be in direct competition with those of the Corporation or with entities which may, from time to time, provide financing to, or make equity investments in, competitors of the Corporation. See "Interests of Management and Others in Material Transactions" and "Directors and Officers". 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. See "*Risk Factors*".

## LEGAL PROCEEDINGS AND REGULATORY ACTIONS

As of the date of this AIF, there are no legal proceedings material to the Corporation to which the Corporation is a party or in respect of which any of its properties are subject, nor are there any such proceedings known to be contemplated.

In addition, there were no penalties or sanctions imposed against the Corporation by a court relating to securities legislation or by a securities regulatory authority during the 2019 financial year, no other penalties or sanctions imposed by a court or regulatory body against the Corporation that would likely be considered important to a reasonable investor in making an investment decision, and no settlement agreements entered into by the Corporation with a court relating to securities legislation or with a securities regulatory authority during the 2019 financial year.

## TRANSFER AGENT AND REGISTRAR

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

## **INDUSTRY CONDITIONS**

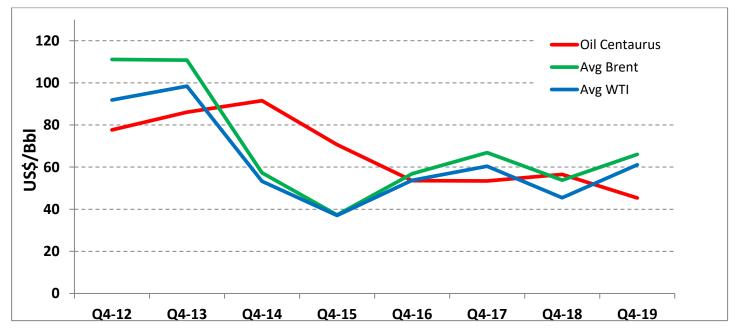
Companies operating in the oil and natural gas industry are subject to extensive regulation and control of operations (including land tenure, exploration, development, production, refining and upgrading, transportation, and marketing) as a result of legislation enacted by various levels of government and with respect to the pricing and taxation of oil and natural gas through agreements among the governments of jurisdictions in which the Corporation operates and/or owns properties, all of which should be carefully considered by investors in the oil and gas industry. It is not expected that any of these regulations or controls will affect the Corporation's operations in a manner materially different than they will affect other oil and natural gas companies of similar size with operations in Argentina. All current legislation is a matter of public record and the Corporation is unable to predict what additional legislation or amendments may be enacted. Outlined below are some of the principal aspects of legislation, regulations and agreements governing the oil and gas industry in Argentina.

# Argentina

#### Pricing and Marketing

Argentina is a net importer of oil.

The chart below shows the historical relationship between Centaurus, WTI and Brent prices.





Gas prices in Argentina are subject to seasonal demand and are negotiated between the producer and the buyer. Summer pricing for October 2019 to April 2020 was set at \$2/mmbtu (October 2018 to April 2019: \$4.10/mmbtu). Winter pricing for May 2019 to September 2019 has been set at \$3.70/mmbtu (May 2018 to September 2018: \$5.30/mmbtu).

During the end of 2017 and the beginning of 2018 management entered in discussion with new buyers for south oil production in order to diversify and improve buyer's quality. As a result of this discussion Centaurus started to sell its Medanito production to Shell, Trafigura and Pan American Energy and stop selling to Oil Combustibles, today in bankruptcy.

On March 2, 2017, the Federal Ministry of Energy and Mines issued Resolution 46-E / 2017 which verified a price to be paid for new gas of 7.50 US\$/mmbtu for companies that add incremental supplies of natural gas until December 31, 2018. In the Resolution's Annex "Bases and Conditions of the Stimulation Program to Investments in the Development of Natural Gas Production from Non-Conventional Reservoirs", it states a minimum price of: (i) 7.50 US \$ /mmbtu for calendar year 2018, (ii) US\$ 7.00 /mmbtu for calendar year 2019, (iii) US\$ 6.50 /mmbtu for calendar year 2020, and (iv) US\$ 6.00 /mmbtu for calendar year 2021. Currently, Centaurus does not have any production that qualifies. If the Corporation is successful with new gas discoveries it may be eligible for the incentive price.

In January 2017, Centaurus was advised that a majority of producers and refiners in Argentina, at the request of the government, have signed a 2017 Medanito crude oil pricing agreement (the "Pricing Agreement") allowing for convergence with international Brent pricing over the coming months. The Pricing Agreement stated that in case international Brent pricing reached and remained above the monthly Medanito floor price for 10 consecutive days, the Pricing Agreement would be suspended. And, in case international Brent pricing fell below \$45.00 for 10 consecutive days, the Agreement would be reviewed. On September 13, 2017 the above suspension condition was reached and the agreement finalized in October, 2017. As from October, market prices were agreed upon between refiners and producers considering the international Brent price as a reference. Since August 2018, due to the ARS devaluation, domestic price is agreed upon between refiners and producers. Such a price considers the impact of the export withholding imposed by the government during this quarter and the possibility to increase the fuel to the final consumers.

In August 2019, the Argentinian government issued a decree pursuant to which oil prices in USD were affected as a result of the exchange rate being frozen at 49.30 Argentinian pesos per USD until November 15, 2019, affecting oil prices denominated in USD. As a result of the decree, prices in USD decreased due to the Argentinian peso devaluation of 35.6%.

# Current Government

On October 27, 2019, Alberto Fernandez, won the presidential election and took office on December 10, 2019. At the beginning of his term, Mr. Fernandez established that the main axes of his government would be the fight against the increase in hunger that threatened 17% of the population, the renegotiation of the external debt with the International Monetary Fund, and the recovery of economic growth after a fall of about 10% of PBI per capita during the last two years, through a plan of "solidarity in the emergency" that has as its primary objectives the inclusion of the most disadvantaged, as well as access to credit at reasonable rates and the reduction of inflation after reaching 53.8% in 2019. In international matters, it gave priority to the strengthening of Mercosur and Latin American unity, as well as compliance with the Paris Agreement to face climate change. As regards the energy sector, Sergio Lanzani took office as Secretary of Energy and Guillermo Nielsen was appointed as President of YPF (state controlled hydrocarbons company).

In response to the COVID-19 global pandemic, also referred to as the novel coronavirus, the government has closed Argentina's borders to non-residents and established a national mandatory quarantine period. During this time, economic activity has slowed and inflation rates remain high. The Corporation is unable to predict what additional measures, if any, may be implemented and how any such measure may impact the Corporation.

# Pipeline Capacity

Argentina's three major oil pipelines originate at Puesto Hernandez, in the Neuquén basin. Two pipelines are domestic, transporting oil north via the YPF operated 50,000 bopd pipeline to the Lujan de Cuyo refinery near Mendoza and east via the Oldelval pipeline system moving crude over 1,200 kilometres to Puerto Rosales on the Atlantic. The 430 km, 115,000 bopd Transandino pipeline is Argentina's only international oil pipeline, climbing over the Andes Mountains to a refinery in Chile. This pipeline discontinued transportation of oil in 2006 but is capable of being re-commissioned. The exponential growth of non-conventional oil production in Argentina motivates the study of transportation systems to identify and resolve possible bottlenecks and to create adequate infrastructure planning.



# Downstream

YPF accounts for approximately half of the country's total refining capacity. Other companies with significant refining capacity include Shell CAPSA Limited and Axion Energy.

Due to increasing demand for natural gas, Argentina has been importing increased quantities of liquefied natural gas ("LNG") through the Bahia Blanca LNG terminal located approximately 600 km southwest of Buenos Aires. A second import terminal (Puerto Escobar) came on stream in June 2011 which more than doubled import capacity to 900 MMcf/d.

### **Relationships with Unions**

Oil and gas activity in Argentina is largely unionized and drilling, completions and workover operations may be conducted by drilling operators employing unionized personnel. Accordingly, the Corporation is exposed to union activity including strikes, shut-downs, labour negotiations and other actions outside of the Corporation's control, which may have a material adverse effect on the operations of the Corporation.

## Royalties, Turnover Taxes & Value Added Tax

Royalty determinations in Argentina are paid monthly to provincial authorities and must be submitted by field and concession. Production used by the concession holder for exploration or production operations is not subject to royalty. Royalties are deductible for income tax purposes. The standard royalty rate on production is 12 percent of the wellhead price for both oil and natural gas less deductions for transportation, treatment and commercialization costs between the wellhead and point of sale. A rate of 15 percent applies to pre-commercial production from an exploration concession until such time as it is converted to an exploitation concession. In some provincial bid rounds, companies have been given the option of bidding a higher royalty than prescribed by the national and provincial laws, but this is a voluntary decision which is applicable to the concession under bid only.

Additionally, the provinces levy a turnover tax varying between one point five and three percent of gross revenue less certain deductions. A value added tax ("VAT") at a rate of 21 percent is added to domestic sales and is payable by the buyers of production. The VAT collected by the Corporation on sales is used to recover VAT paid on incurred costs. Stamp taxes are levied on transactions by way of contract at one percent to four percent depending on the jurisdiction in which the transaction takes place.

#### Income Taxes

A tax treaty exists between Argentina and Canada. Oil companies are subject to a generally applicable corporate tax regime. All successful exploration and field development costs, including intangible costs may be depreciated on a unit-of-production basis. Tax payers in Argentina pay either income tax at a rate of thirty-five (35%) percent on corporate net profits or a minimum tax, based on net assets, whichever is the greater. Minimum tax was reinstated effective January, 1999 and is levied on cumulative capital less accumulated depreciation plus an inflation adjustment at a rate of one percent. In April 1992, the tax base for locally incorporated companies was changed from Argentine source income to worldwide income.

On December 29, 2017 the previous Government put into effect Decree 1112/2017, a tax reform sanctioned by Argentina's Senate on December 27, 2017. Under Decree 1112/2017, the income tax rate would be reduced gradually over a period of four years, going from 35% today to 25% in 2020. The reduction of the rate is complemented by the application of an additional tax on dividends or profits distributed to individuals in Argentina and abroad and to legal entities abroad.

On December 23, 2019 the new Government passed Law 27.541 whereby further reductions are suspended and income tax rate kept on 30% as of 2020.

fiscal period beginning	Income tax rate	Retention of the shareholder / partner			
01/01/2017	35%	N/A			
01/01/2018	30%	7%			
01/01/2019	30%	7%			
01/01/2020 onwards	30%	7%			
01/01/2020 onwards	30%	7%			



## Oil and Gas Industry Regulations

The oil and natural gas industries in Argentina are subject to extensive regulation governing operations, including land tenure, exploration, development, production, refining, transportation and marketing, imposed by legislation enacted by various levels of government and with respect to pricing and taxation of oil and natural gas by agreements among the federal and provincial governments, all of which are subject to change and could have a material impact on the Corporation's business, financial condition and results of operations. Any change to these government imposed restrictions could have a material impact on Centaurus' business, financial condition and results of operations.

The hydrocarbons law 17.319, enacted in June, 1967 (the "Hydrocarbons Law"), established the basic legal framework for the current regulation of exploration and production of hydrocarbons in Argentina. The Hydrocarbons Law empowers the National Executive to establish a national policy for development of Argentina's hydrocarbon reserves, with the main purpose of satisfying domestic demand. However, on January 5, 2007, Hydrocarbon Law 26.197 was passed by the Government of Argentina. This new legal framework replaces article one of the Hydrocarbons Law 17.319 and provides for the provinces to assume complete ownership, authority and administration of the oil and natural gas reserves located within their territories, including offshore areas up to twelve (12) marine miles from the coast line. This includes all exploration, exploitation and transportation concessions. This has led to the posting of large tracts of exploration acreage in "bidding rounds" through which the lands are granted to successful bidding companies. The change of hydrocarbons administration has required producing companies to deal more extensively with the provincial governments who are now more directly involved in the day to day affairs of operations within their jurisdictions.

On October 31, 2014 Argentina amended its NH Law to create incentives for foreign investment and to boost the country's conventional and unconventional hydrocarbons exploration and production (the "Hydrocarbons Reform Law"). The Hydrocarbons Reform Law implements substantial changes to the previous regime. Some of those changes are highlighted below:

- 1. Amendment to Section 27 of the NH Law and incorporation of new articles in order to grant title holders the right to request an "Unconventional Exploitation Concession" that shall have a term of 35 years (versus the 25 year period granted under prior regime to regular exploitation concessions). Unconventional exploitation is defined by Law 27007 as the extraction of hydrocarbons using unconventional stimulation techniques applied in geological formations of shale gas, shale oil, tight sands, tight gas, tight oil, coal bed methane or geological formations characterized by low permeability rocks.
- 2. In all cases, 10-year extension periods are provided in favour of the concessionaires. The prior regime granted only one extension period, while Law 27007 allows for several extension periods to be granted in addition to the original concession extension period. Extensions are provided even in instances where the concession was already extended.
- 3. Provinces are allowed to request an "extension bonus payment", equal to the amount resulting from multiplying proved reserves remaining at the end of the concession term by 2% of the basin average price during the previous two years.
- 4. Amendment to Section 23 of the NH Law to set new maximum exploration period terms as follows:
  - a. Conventional target exploration:
    1st Period up to 3 years; 2<sup>nd</sup> Period up to 3 years; (previously 4); and Extension phase up to 5 years.
  - b. Unconventional target exploration or off-shore exploration:
    1st Period up to 4 years; 2<sup>nd</sup> Period up to 4 years; and Extension phase up to 5 years.
- 5. Amendment to Section 26 of the Hydrocarbons Law, which allows the owner of an exploration permit, who access the 2nd exploration period, to keep 100% of the surface. The prior regime required relinquishment of 50% of the surface when moving to the following exploration period. In case of exercise of the extension phase, the owner would have to relinquish up 50% of the surface. The bill considers the extension phase as an option granted in favor of the companies.
- 6. Standardizes certain aspects of hydrocarbons regulation across the provinces, preventing the establishment of different surface fees, royalties, or procedures. Specifically, it: (i) establishes the exploration permits and exploitation concessions surface fee; (ii) determines that production concessionaires must pay a 12% royalty for the first term of the concession, and up to an 18% royalty in the following extensions; (iii) allow the federal and provincial executives to reduce royalties down to 25% of the applicable royalty to promote unconventional production; and (iv) establishes a unified competitive bidding procedure that the federal government and the provinces must follow when awarding exploration permits and exploitation concessions.
- 7. Restricts the federal government and the provinces of Argentina from assigning new areas to national or provincial oil companies, and mandates those companies to associate with third parties for the effective exploration or exploitation of the areas currently under their control.
- 8. Establishes additional contributions to be paid to hydrocarbon-producing provinces by private companies which invest in projects, not less than \$250 million calculated at the time of the presentation of the "Investment Project for the Exploitation"



of Hydrocarbons", for Corporate Social Responsibility (amounting to 2.5% of the initial investment), and by the federal government to finance local infrastructure projects.

- 9. Amendments to Sections 25 and 34 of the NH Law, which eliminate restrictions prohibiting a single entity to hold more than five permits and concessions.
- 10. Lowers the limit of foreign investments to USD 250 million over a three year period in a project (to be approved by the Federal Commission) prior to benefiting from the Investment Promotion Regime established by Decree 929/13. The portion of hydrocarbons subject to the benefits of the Investment Promotion Regime would be of 20% for onshore exploitation and 60% of offshore exploitation. This allows qualifying companies to export oil up to 20% of production without export duties.
- 11. Import benefits: Special equipment and machinery may be imported at reduced or zero rates.

On December 22, 2015, the National Government issued Decree 231/2015 that created the Ministry of Energy and Mining, replacing the subordinate position of the Secretary of Energy.

# Land Tenure

Exploration permits in Argentina grant exclusive subsurface rights to the concession holder in order to perform all types of exploration work and obtain an exploitation concession and a transportation concession after the declaration of a commercial discovery. The period under an exploration permit is divided into several phases. Work commitments are negotiated and specified separately for each individual phase of the exploration period. Commitments may be expressed in work units with each activity equating to a different number of units. An evaluation concession allows a short term extension for a company to further evaluate the commercial potential of its exploration activities.

Exploitation concessions grant exclusive rights to the concession holder to produce hydrocarbons in areas of up to 250 km<sup>2</sup>. The period for development and production is 25 years, although an extension of up to ten years may be granted under terms and conditions to be established at the time of the extension. If a discovery is declared commercial before the end of the exploration period, the remaining portion of the exploration period is added on to the exploitation concession period.

#### Environmental Regulations

The oil and natural gas industry in Argentina is currently subject to environmental regulations pursuant to a variety of legislation, all of which is subject to governmental review and revision from time to time. Such legislation provides for restrictions and prohibitions on the release or emission of various substances produced in association with certain oil and gas industry operations, such as sulphur dioxide and nitrous oxide. In addition, such legislation requires that wells be abandoned and reclaimed to the satisfaction of government authorities. Compliance with such legislation can require significant expenditures and a breach of such requirements may result in suspension or revocation of necessary licenses and authorizations, civil liability for pollution damage, and the imposition of material fines and penalties.

Specifically, Argentina has environmental standards for the industry, including surface maintenance and restoration, air quality and emission standards, operational safety standards and regular environmental audits. The implementation of environmental procedures is effected increasingly at the provincial level. A number of provinces have issued regulations relating to environmental impact assessments of activities within their boundaries.

Centaurus conducted a thorough baseline environmental study of its acreage prior to commencing operations. Environmental reviews are completed and environmental permits are obtained from the provincial authorities prior to undertaking any operations.

# Climate Change Regulation

On December 12, 2015, the United Nations Framework Convention on Climate Change (the "UNFCCC") adopted the Paris Agreement, to which Argentina is a participant. The Paris Agreement mandates that all countries must work together to limit global temperature rise resulting from GHG emissions to a goal of less than 2° Celsius and to pursue efforts to limit below 1.5° Celsius, through implementing successive nationally determined contributions. The Corporation's business and operations may ultimately be subject, directly or indirectly, to future regional, provincial and/or federal climate change regulations to manage GHG emissions. See "*Risk Factors – Climate Change*".



# Legal & Political

Argentina is governed by a tripartite system of government made up of an Executive Power, a Legislative Power, and a Judicial Power established by a written Constitution passed in 1853 and amended in 1994. The Head of Government and Chief of State is a President elected by popular vote for a term of four years. The Argentine Republic comprises 23 provinces and the City of Buenos Aires. Each province has its own constitution, which must state its administration of justice and municipal autonomy and the scope and content of its institutional, political, administrative and financial orders.

#### Market Conditions

The oil and natural gas industry in Argentina is mature, having been established more than 100 years ago on December 13, 1907 when oil was discovered in Comodoro Rivadavia. While Argentina is a significant South American energy producer and consumer, in recent years it has become a net importer of refined products and NGLs.

In 2018, the former government worked towards a transition to free market pricing.

However, in August 2019, the former government issued a decree pursuant to which oil prices in USD were affected as a result of the exchange rate being frozen at 49.30 ARS per USD until November 15, 2019, affecting oil prices denominated in USD. The Government authorized certain increases in both the exchange rate and final consumers prices during the three months the Decree was in force.

Since taking office, the new government has not changed the existing status nor taken any significant measures in the Energy Sector.

Various events (including the COVID-19 pandemic and the actions of Russia and OPEC, led by the Kingdom of Saudi Arabia) have resulted in a material downward movement in the current oil price and, if current oil prices remain low and the long term oil price outlook is revised downward, it may have a material impact on the Corporation's reserves and operations.

## **Exploration & Production**

Two onshore basins represent the vast majority of Argentina's oil production: the Neuquén basin, located in western-central Argentina, and the Gulf of San Jorge, in the southeast part of the country. Outside the established onshore basins, there has been some limited interest in exploring offshore oil resources. The Neuquén, Salta, Tierra del Fuego, and Santa Cruz regions contain most of Argentina's natural gas production, with the Neuquén region accounting for over half of the country's total production.

#### Availability of Services

There is a high utilization rate in the country for drilling rigs and other equipment. Recently, there has also been considerable interest in Argentina's shale oil and shale gas potential which in order to be developed will require oil and gas service companies operating in the country to develop or procure additional specialized equipment and expertise.

### **RISK FACTORS**

Investors should carefully consider the risk factors set out below and consider all other information contained in, and incorporated be reference into, this AIF, together with the Corporation's other public filings on SEDAR before making an investment decision. An investment in securities of Centaurus should only be made by persons who can afford a significant or total loss of their investment. The risks set out below are not an exhaustive list and should not be taken as a complete summary or description of all the risks associated with the Corporation's business and the oil and natural gas business generally.

#### **Argentine Risk Factors**

#### **Risks of Argentine Operations**

All of the Corporation's oil and gas properties and operations are located in Argentina where the Corporation is subject to political, economic, and other uncertainties that are specific to entities with Argentine operations, including, but not limited to, changes in energy policies or the personnel administering them, nationalization, currency fluctuations, exchange controls, and royalty and tax increases. The Corporation's business, financial condition, results of operations, and the value of the Common Shares could also be materially adversely affected by social instability in Argentina and other factors which are not within the control of the Corporation including, among other things, the risks of terrorism, civil strikes, abduction, renegotiation or nullification of existing concessions and contracts, economic sanctions, the imposition of specific drilling obligations, and the development and abandonment of fields.



The Corporation'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 the Corporation's operations in Argentina, the Corporation 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. The Corporation may also be hindered or prevented from enforcing its rights with respect to a governmental instrumentality because of the doctrine of sovereign immunity. Accordingly, the Corporation's exploration, development and production activities in Argentina could be substantially affected by factors beyond the Corporation's control, any of which could have a material adverse effect on the Corporation's business, financial condition, results of operations, and the value of the Common Shares.

In November 2012, the Argentine government increased wellhead natural gas prices from approximately \$5/mmbtu to \$7.50/mmbtu for new discoveries or new development projects. This increase is aimed at incentivizing further investment related to gas exploration and development in Argentina, and in particular for unconventional shale gas. In order to qualify for the higher gas prices, operators are required to submit details for any planned development projects along with forecasted volumes for production. As the Corporation's Argentine gas projects become better defined in the future and move into a development phase, the Corporation may further evaluate the merits of applying for these higher prices. At this time the Corporation does not have any committed gas volumes under the \$7.50/mmbtu pricing arrangement.

In response to declining oil and gas production volumes in Argentina, the federal and various provincial governments in Argentina are calling for oil and gas companies operating in the country to increase investment. In 2012, certain provinces revoked select blocks citing lack of investment, some of which were subsequently given back to the operators later in the year after reaching new agreements on go-forward work plans and commitments. While the Corporation believes that it has met or is in the process of meeting all of its investment commitments to date with respect to its participation in its blocks in the four provinces in Argentina in which it operates, any future changes to the licensing regimes in these provinces where the Corporation's acreage is located could have a material adverse effect on the Corporation.

The Government of Argentina announced in 2012 that it had put forward to Congress a bill seeking to expropriate a controlling 51% interest in the shares of the country's largest oil company, Repsol YPF S.A. The Corporation is subject to certain political, economic, and other uncertainties related to the nationalization of Repsol YPF S.A., including, but not limited to, expropriation of property without fair compensation, changes in energy policies or the personnel administering them, a change in oil or natural gas pricing policy, currency fluctuations and devaluations, renegotiation or nullification of existing concessions and contracts, and potential royalty and tax increases.

Using the expropriation of YPF as an example, the Corporation's business, financial condition, results of operations, and the value of the Common Shares could be materially adversely affected by actions taken by Congress in Argentina.

On December 10, 2019 Alberto Fernandez assumed the presidency and within days of taking office, confirmed that the top priority of his administration was to make urgent decisions required to stabilize the economy and to lay the basis for growth. By December 21, 2019 his administration was able to push the Economic Emergency Law, which gave the Executive a broad range of powers normally exercised by the Argentine National Congress, through both houses of the legislature.

Significant economic policy decisions so far have included: (i) increased export taxes on key agricultural commodities; (ii) a 30 percent tax on foreign exchange purchases including travel expenses (this effectively has set up a two-tiered exchange rate aimed at protecting the country's scarce foreign currency reserves); (iii) the freezing of utility prices for six months; (iv) double indemnification for those laid off or fired from employment for a period of six months; (v) a 180-day freeze on automatic adjustments to pensions and social security payments (the measure with the most significant fiscal impact given that pensions make up more than 50 percent of the federal budget); (vi) payment of special year-end "bonuses" for those receiving the lowest salaries and pensions; (vii) higher income and asset taxes on those earning and owning the most; and (viii) limited payment on debt due, with initial indications that Fernández's administration intends to honor all pending debt and avoid default while reprograming the schedule of payments for at least several years until the country began to grow again.

# Economic and Political Developments in Argentina, Including Export Controls

One of the stated goals of the President is to keep control on the country's payment balance and avoid the leak of hard currency out of the country.

On this regard, the Argentinean government has restricted the possibility of making payments (DNU N° 609/2019,) from MEA to the Corporation, until December 31, 2019. Moreover, prospective dividends to shareholders could also be affected because of other factors such as income taxes changes.



### Argentina Sovereign Debt Issues

In 2001, Argentina defaulted on approximately US\$93 billion of outstanding sovereign bond debt. The default had significant and long-term adverse effects on Argentina and its economy. Over the ensuing 15 years, Argentina negotiated settlements with certain bond holders and engaged in litigation with others. In April 2016, Argentina sold \$16.5 billion of sovereign bond debt, which represented its first international sovereign bond debt issue since the default. The proceeds of the issue was used, among other things, to settle outstanding debt and claims arising from the default. Any future default on Argentina's sovereign debt may have significant and long-term adverse effects on Argentina and its economy and materially adversely affect companies operating in Argentina, including the Corporation.

The new government made clear that a centerpiece of the economic program is the restructuring of Argentina's \$105 billion of debt to foreign bondholders (which does not include debt to the IMF). This is to be carried out by the economy minister, Martín Guzmán.

## Risk of Nationalization of Argentina Oil and Gas Assets

Although the Corporation has not received any notice that the federal government or any provincial government of Argentina has any intention of expropriating or nationalizing any of the Corporation's assets or properties, if such expropriation or nationalization were to occur there is no certainty that the Corporation would receive the fair market value of such properties or assets from such government body. If any government body were to expropriate or nationalize any of the properties or assets of the Corporation, it would have a material adverse effect on the Corporation.

## The Oil and Gas Industry in Argentina

The crude oil and natural gas industry in Argentina is subject to extensive regulation, including land tenure, exploration, development, production, refining, transportation and marketing, imposed by legislation enacted by various levels of government and with respect to pricing and taxation of crude oil and natural gas by agreements among the federal and provincial governments, all of which are subject to change and could have a material impact on the Corporation's business in Argentina. The Federal Government of Argentina has implemented controls for domestic fuel prices and has placed a tax on crude oil and natural gas exports. Any future regulations that limit the amount of oil and gas that the Corporation could sell or any regulations that limit price increases in Argentina and elsewhere could severely limit the amount of the Corporation's revenue and affect its results of operations.

# Fluctuations in Foreign Currency Exchange Rates

Crude oil sales in Argentina are denominated in USD but collected in ARS, natural gas sales are denominated in ARS and operating and capital costs are generally incurred in ARS and USD. Fluctuations in the USD, ARS and exchange rates may cause a negative impact on revenue and costs and could have a material adverse impact on the Corporation's operations. During Mauricio Macri's administration the exchange restrictions were removed, however, some of them were imposed again in October, 2019.

# Effects of Inflation on Results of Operations

Argentina has experienced relatively high rates of inflation. Since the Corporation is unable to control the market price at which it sells the crude oil it produces, it is possible that significantly higher inflation in the future in Argentina, without a concurrent devaluation of the local currency against the USD or an increase in the price of crude oil, could have a material adverse effect on the Corporation's results of operations and financial condition.

# Foreign Subsidiaries

The Corporation conducts all of its operations in Argentina through foreign subsidiaries. Therefore, to the extent of these holdings, the Corporation will be dependent on the cash flows of these subsidiaries to meet its obligations excluding any additional equity the Corporation may issue from time to time. The ability of its subsidiaries to make payments to the Corporation may be constrained by, among other things, the level of taxation, particularly corporate profits and withholding taxes, in the jurisdiction in which it operates and the introduction of foreign exchange and/or currency controls or repatriation restrictions or the availability of hard currency to be repatriated.

#### Legal Systems

There can be no assurance, that licenses, license applications or other legal arrangements will not be adversely affected by changes in governments or in the actions of government authorities or others, or the effectiveness and enforcement of such arrangements.



# Risks related with Argentina

# 2019

The Argentinian economy has been under social and politics pressure during 2019, which impacted price stability, business growth potential, and investor trust and appetite for the Argentine capital markets.

The following factors which are currently present could limit economic growth in Argentina:

- Low investment in the private sector, representing approximately 16% of the GIP;
- High inflation (compared to other Latin American countries inflation rate);
- Limited access to long term loans in the private sector;
- High deficit;
- Circumstances impacting Argentina's agricultural sector, including decreased commodity prices; and
- External social, political, and economic events.

# Current Risks

It is uncertain as to how Alberto Fernández will approach the political and economic crisis which is taking place in Argentina. As at now, the following measures have been made: (i) increased export taxes on key agricultural commodities; (ii) a 30 percent tax on foreign exchange purchases including travel expenses (this effectively has set up a two-tiered exchange rate aimed at protecting the country's scarce foreign currency reserves); (iii) the freezing of utility prices for six months; (iv) double indemnification for those laid off or fired from employment for a period of six months; (v) a 180-day freeze on automatic adjustments to pensions and social security payments (the measure with the most significant fiscal impact given that pensions make up more than 50 percent of the federal budget); (vi) payment of special year-end "bonuses" for those receiving the lowest salaries and pensions; (vii) higher income and asset taxes on those earning and owning the most; and (viii) limited payment on debt due, with initial indications that Fernández's administration intends to honor all pending debt and avoid default while reprograming the schedule of payments for at least several years until the country began to grow again.

These measures are focused on reducing the risk of social unrest, nevertheless they may harm the economic growth of Argentina and the relative stability. If the measures have an adverse effect on the Argentinean economy, it could affect the Corporation's performance. Further, the extent to which COVID-19 and current and future measures implemented to combat the pandemic may impact the Corporation and its operations.

# General Risk Factors

# **Going Concern**

The Corporation's business is capital intensive and additional capital is required on a periodic basis. Specifically, continuing operations, as intended, are dependent on management's ability to raise required funding through future equity issuances, credit facilities, asset sales or a combination thereof, which is not assured, especially in the current uncertain financial and commodity price environment. The current world-wide economic environment relating to the oil and gas industry has made access to capital challenging for many companies. More recent events including the COVID-19 pandemic and the sharply decreased demand for crude oil resulting from it have created further volatility in the market and may negatively impact the Corporation's ability to access capital. Accordingly, the recent events have introduced significant market uncertainty and future commodity prices and the world-wide economic environment relating to the oil and gas industry in general, may remain volatile for an extended period of time.

Due to significant commodity price volatility due to the COVID-19 pandemic and potential increased production supply from OPEC and Russia, future significant decreases to commodity prices may occur which could impact future cash flows and cause uncertainty as to whether the Corporation has sufficient liquidity throughout 2020. Furthermore, subsequent to year end the Corporation received a notice of default and reservation of rights from KD Energy and Hispania, alleging that the Corporation is in default of the terms of the Working Capital Loan Agreement and Amended and Restated Convertible Loan Agreement. Subsequent to year end the Company and Maglan Distressed Master Fund LP entered into the Maglan Financing Agreement, pursuant to the terms of which the parties will enter into agreements providing the Corporation are ongoing there is no guarantee of agreement on the final terms of the financing. As such, there is a material uncertainty that casts significant doubt on the Corporation's ability to continue as a going concern. The Corporation's consolidated financial statements for the year ended December 31, 2019 do not include adjustments in



the carrying values of the assets and liabilities that would be necessary if the going concern assumption were not appropriate. Such adjustments could be material

# Exploration, Development and Production Risks

Oil and natural gas operations involve many risks that even a combination of experience, knowledge and careful evaluation may not be able to overcome. The risks associated with successfully developing non-producing oil and gas properties such oil and gas properties are even greater than those associated with successfully continuing development of producing oil and gas properties, since the existence and extent of commercial quantities of oil and gas in unevaluated properties has not been fully established.

The long-term commercial success of the Corporation depends on its ability to find, acquire, develop and commercially produce oil and natural gas reserves. Without the continual addition of new reserves, the Corporation's existing reserves, and the production from them, will decline over time as the Corporation produces from such reserves. A future increase in the Corporation's reserves will depend on both the ability of the Corporation to explore and develop its existing properties and its ability to select and acquire suitable producing properties or prospects. There is no assurance that the Corporation may determine that current markets, terms of acquisition, participation or pricing conditions make potential acquisitions or participation uneconomic. There is also no assurance that the Corporation uneconomic. There is also no assurance that the Corporation uneconomic.

Future oil and natural gas exploration may involve unprofitable efforts from dry wells as well as from wells that are productive but do not produce sufficient petroleum substances to return a profit after drilling, completing (including hydraulic fracturing), operating and other costs. Completion of a well does not ensure a profit on the investment or recovery of drilling, completion and operating costs.

Drilling hazards, environmental damage and various field operating conditions could greatly increase the cost of operations and adversely affect the production from successful wells. Field operating conditions include, but are not limited to, delays in obtaining governmental approvals or consents, shut-ins of wells resulting from extreme weather conditions, insufficient storage or transportation capacity or geological and mechanical conditions. While diligent well supervision and effective maintenance operations can contribute to maximizing production rates over time, it is not possible to eliminate production delays and declines from normal field operating conditions, which can negatively affect revenue and cash flow levels to varying degrees.

Oil and natural gas exploration, development and production operations are subject to all the risks and hazards typically associated with such operations, including, but not limited to, fire, explosion, blowouts, sour gas releases, spills and other environmental hazards. These typical risks and hazards could result in substantial damage to oil and natural gas wells, production facilities, other property, the environment and personal injury. Particularly, the Corporation may explore for and produce sour natural gas in certain areas. An unintentional leak of sour natural gas could result in personal injury, loss of life or damage to property and may necessitate an evacuation of populated areas, all of which could result in liability to the Corporation.

Oil and natural gas production operations are also subject to all the risks typically associated with such operations, including encountering unexpected formations or pressures, premature decline of reservoirs and the invasion of water into producing formations. Losses resulting from the occurrence of any of these risks may have a material adverse effect on the Corporation's business, financial condition, results of operations and prospects.

As is standard industry practice, the Corporation is not fully insured against all risks, nor are all risks insurable. Although the Corporation maintains liability insurance in an amount that it considers consistent with industry practice, liabilities associated with certain risks could exceed policy limits or not be covered. In either event the Corporation could incur significant costs.

# Prices, Markets and Marketing

Numerous factors beyond the Corporation's control do, and will continue to, affect the marketability and price of oil and natural gas acquired, produced, or discovered by the Corporation. The Corporation's ability to market its oil and natural gas may depend upon its ability to acquire capacity on pipelines that deliver natural gas to commercial markets or contract for the delivery of crude oil by rail. Deliverability uncertainties related to the distance the Corporation's reserves are from pipelines, railway lines, processing and storage facilities; operational problems affecting pipelines, railway lines and facilities; and government regulation relating to prices, taxes, royalties, land tenure, allowable production, the export of oil and natural gas and many other aspects of the oil and natural gas business may also affect the Corporation.

Prices for oil and natural gas are subject to large fluctuations in response to relatively minor changes in the supply of and demand for oil and natural gas, market uncertainty and a variety of additional factors beyond the control of the Corporation. These factors include economic and political conditions in the United States, Canada, Europe, China and emerging markets, the actions of



Organization of the Petroleum Exporting Countries ("OPEC"), governmental regulation, political stability in the Middle East, Northern Africa and elsewhere, the foreign supply and demand of oil and natural gas, risks of supply disruption, the price of foreign imports and the availability of alternative fuel sources. Prices for oil and natural gas are also subject to the availability of foreign markets and the Corporation's ability to access such markets. Oil prices are expected to remain volatile as a result of global excess supply due to the increased growth of shale oil production in the United States, the decline in global demand for exported crude oil commodities, OPEC's recent decisions pertaining to the oil production of OPEC member countries, and non-OPEC member countries' decisions on production levels, among other factors. A material decline in prices could result in a reduction of the Corporation's net production revenue. The economics of producing from some wells may change because of lower prices, which could result in reduced production of oil or natural gas and a reduction in the volumes and the value of the Corporation's reserves. The Corporation might also elect not to produce from certain wells at lower prices.

All these factors could result in a material decrease in the Corporation's expected net production revenue and a reduction in its oil and natural gas production, development and exploration activities. Any substantial and extended decline in the price of oil and natural gas would have an adverse effect on the Corporation's carrying value of its reserves, borrowing capacity, revenues, profitability and cash flows from operations and may have a material adverse effect on the Corporation's business, financial condition, results of operations and prospects.

Oil and natural gas prices are expected to remain volatile for the near future because of market uncertainties over the supply and the demand of these commodities due to the current state of the world economies, COVID-19, OPEC actions, political uncertainties, sanctions imposed on certain oil producing nations by other countries and ongoing credit and liquidity concerns. Volatile oil and natural gas prices make it difficult to estimate the value of producing properties for acquisitions and often cause disruption in the market for oil and natural gas producing properties, as buyers and sellers have difficulty agreeing on such value. Price volatility also makes it difficult to budget for, and project the return on, acquisitions and development and exploitation projects.

# Market Price of Common Shares

The trading price of securities of oil and natural gas issuers is subject to substantial volatility often based on factors related and unrelated to the financial performance or prospects of the issuers involved. Factors unrelated to the Corporation's performance could include macroeconomic developments nationally, within North America, South America or globally, domestic and global commodity prices or current perceptions of the oil and gas market. Similarly, the market price of the Common Shares could be subject to significant fluctuations in response to variations in the Corporation's operating results, financial condition, liquidity and other internal factors. The price at which the Common Shares will trade cannot be accurately predicted.

# Failure to Realize Anticipated Benefits of Acquisitions and Dispositions

The Corporation considers acquisitions and dispositions of businesses and assets in the ordinary course of business. Achieving the benefits of acquisitions depends on successfully consolidating functions and integrating operations and procedures in a timely and efficient manner and the Corporation's ability to realize the anticipated growth opportunities and synergies from combining the acquired businesses and operations with those of the Corporation. The integration of acquired businesses may require substantial management effort, time and resources diverting management's focus from other strategic opportunities and operational matters. Management continually assesses the value and contribution of services provided by third parties and assets required to provide such services. In this regard, non-core assets may be periodically disposed of so the Corporation 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 the Corporation may realize less on disposition than their carrying value on the financial statements of the Corporation.

# **Operational Dependence**

Other companies operate some of the assets in which the Corporation has an interest. The Corporation has limited ability to exercise influence over the operation of those assets or their associated costs, which could adversely affect the Corporation's financial performance. The Corporation's return on assets operated by others depends upon a number of factors that may be outside of the Corporation's control, including, but not limited to, the timing and amount of capital expenditures, the operator's expertise and financial resources, the approval of other participants, the selection of technology and risk management practices.

# Work Disruption and Labour Unrest

The Corporation's drilling, completions and workover operations in Argentina are conducted by drilling operators employing unionized personnel. The Corporation is thus exposed to union activity including strikes, shut-downs, labour negotiations and other actions outside of the Corporation's direct control, which may have a material adverse effect on the operations of the Corporation.



The Corporation employs staff experienced in the area of union relations in order to mitigate these potential risks. Although the Corporation has not had any recent issues with material work disruptions resulting from labour activity, any future disruptions in production as a result of labour activity could have a significant effect on the Corporation's operations and revenues.

# Political Uncertainty

In the last several years, the United States and certain European countries have experienced significant political events that have cast uncertainty on global financial and economic markets. During the 2016 United States presidential campaign a number of election promises were made and the new American administration has begun taking steps to implement certain of these promises. Included in the actions that the administration has discussed are the renegotiation of the terms of the North American Free Trade Agreement, withdrawal of the United States from the Trans-Pacific Partnership, imposition of a tax on the importation of goods into the United States, reduction of regulation and taxation in the United States, and introduction of laws to reduce immigration and restrict access into the United States for citizens of certain countries. It remains unclear exactly what actions (or additional actions) the administration in the United States will implement, and if implemented, how these actions may impact Argentina and in particular the oil and gas industry. Any actions taken by the new United States administration may have a negative impact on the Argentine economy and on the businesses, financial conditions, results of operations and the valuation of Argentine-based oil and gas companies, including the Corporation.

To the extent that certain political actions taken in North America, South American, Europe and elsewhere in the world result in a marked decrease in free trade, access to personnel and freedom of movement, it could have an adverse effect on the Corporation's ability to market its products internationally, increase costs for goods and services required for the Corporation's operations, reduce access to skilled labour and negatively impact the Corporation's business, operations, financial conditions and the market value of its Common Shares.

# Acquisition Risks

Centaurus evaluates potential acquisitions of petroleum, natural gas and other energy-related assets and/or companies as part of its ongoing acquisition program. If the Corporation decides to proceed with an acquisition, and to the extent such acquisition is completed, the Corporation may have to revise its capital expenditure program as the funds spent on the acquisition will not be available for capital expenditures and the Corporation may redeploy a portion of its capital towards making expenditures on assets acquired pursuant to such acquisition. As a result of proceeding with any acquisition, the Corporation may require additional financing to proceed with planned capital expenditures on its current properties and on any properties acquired pursuant to such acquisition. Although the Corporation expects that it would perform an industry standard review of any properties proposed to be acquired, such reviews are inherently incomplete. It is generally not feasible to review in depth every individual property involved in each acquisition. Generally, the Corporation will focus its due diligence efforts on higher value properties and will sample the remainder. However, even an in-depth review of all properties and records may not necessarily reveal existing or potential problems, nor will it permit a buyer to become sufficiently familiar with the properties to assess fully their deficiencies and capabilities. The Corporation may be required to assume pre-closing liabilities, including environmental liabilities, and may acquire interests in properties on an "as is" basis.

# Project Risks

The Corporation manages a variety of small and large projects in the conduct of its business. Project delays may delay expected revenues from operations. Significant project cost over-runs could make a project uneconomic. The Corporation's ability to execute projects and market oil and natural gas depends upon numerous factors beyond the Corporation's control, including:

- the availability of processing capacity;
- the availability and proximity of pipeline capacity;
- the availability of storage capacity;
- the availability of, and the ability to acquire, water supplies needed for drilling, hydraulic fracturing and water floods or the Corporation's ability to dispose of water used or removed from strata at a reasonable cost in accordance with applicable environmental regulations;
- the supply of and demand for oil and natural gas;
- the availability of alternative fuel sources;
- the effects of inclement weather;
- the availability of drilling and related equipment;
- unexpected cost increases;
- accidental events;
- currency fluctuations;



- regulatory changes;
- the availability and productivity of skilled labour; and
- the regulation of the oil and natural gas industry by various levels of government and governmental agencies.

Because of these factors, the Corporation could be unable to execute projects on time, on budget or at all and may be unable to market the oil and natural gas that it produces effectively.

# Licensing and Title Risks

The Corporation's properties are generally held in the form of licences, concessions, permits and regulatory consents ("**Concessions**"). The Corporation's activities are dependent upon the grant and maintenance of appropriate Concessions, which may not be granted or extended upon expiry; may be made subject to limitations which, if not met, will result in the termination or withdrawal of the Concession; or may be otherwise withdrawn. Also, in some instances, the Corporation is a joint interest-holder with another third party over which it has no control. A Concession may be revoked by the relevant regulatory authority as a result of actions or inactions of the other interest holder. There can be no assurance that any of the obligations required to maintain each Concession will be met. Although the Corporation believes that the Concessions will be renewed following expiry or grant (as the case may be), there can be no assurance that such Concessions will be renewed or as to the terms of such renewals or grants. The termination or expiration of the Corporation's Concessions may have a material adverse effect on the Corporation's results of operations and business. In addition, the terms of any extension may impose terms that are unacceptable to the Corporation or which may adversely affect the Corporation's operations on or revenue generated from such Concessions.

In addition, the areas covered by the Concessions are or may be subject to agreements with the proprietors of the land. If such agreements are terminated, found void or otherwise challenged, the Corporation may suffer significant damage through the loss of opportunity to identify and extract oil or gas.

Although title reviews may be conducted prior to the purchase of oil and natural gas producing properties or the commencement of drilling wells, such reviews do not guarantee or certify that a defect in the chain of title will not arise. As a result, the Corporation's actual title to and interest in its properties, and its right to produce and sell the oil and natural gas therefrom, may vary from the Corporation's records. In addition, there may be valid legal challenges or legislative changes that affect the Corporation's title to and right to produce from its oil and natural gas properties, which could impair the Corporation's activities and result in a reduction of the revenue received by the Corporation.

If a defect exists in the chain of title or in the Corporation's right to produce, or a legal challenge or legislative change arises, it is possible that the Corporation may lose all, or a portion of, the properties to which the title defect relates and/or its right to produce from such properties. This may have a material adverse effect on the Corporation's business, financial condition, results of operations and prospects.

# Negative Cash Flow from Operating Activities

The Corporation has historically experienced periods of negative cash flow from operating activities. If the Corporation has negative cash flow from operating activities in future periods, it may need to seek debt financing or additional equity financing in order to complete its capital expenditure program as currently planned; in the alternative, if the Corporation cannot obtain debt or equity financing on terms acceptable to it or at all, the Corporation may be forced to reduce its capital expenditure program. There can be no assurance that debt or equity financing will be available to the Corporation or, if available, will be on terms acceptable to the Corporation has negative cash flow from operating activities in future periods, it may be required to deploy a portion of its existing working capital to fund such negative cash flow from operating activities.

# Minimum Work Commitments on Concessions

In some cases, the Corporation must fulfill minimum work commitments on certain Concessions. The Corporation may also depend on its industry partners to fulfill the applicable minimum work commitments on certain Concessions operated by such industry partners in Argentina. There are no assurances that all of these commitments will be fulfilled within the time frames allowed. As such, the Corporation may lose certain exploration or exploitation rights on the Concessions affected and may be subject to certain financial penalties that would be levied by the respective government agencies, as applicable.

# Gathering and Processing Facilities, Pipeline Systems

The Corporation delivers its products through gathering and processing facilities and pipeline systems some of which it does not own. The amount of oil and natural gas that the Corporation can produce and sell is subject to the accessibility, availability, proximity and capacity of these gathering, processing and pipeline systems. The lack of availability of capacity in any of the gathering and



processing facilities and pipeline systems, and in particular the processing facilities, could result in the Corporation's inability to realize the full economic potential of its production or in a reduction of the price offered for the Corporation's production. Although pipeline expansions are ongoing, the lack of firm pipeline capacity continues to affect the oil and natural gas industry and limit the ability to produce and market oil and natural gas production. In addition, the pro-rationing of capacity on inter-provincial pipeline systems continues to affect the ability to export oil and natural gas. Any significant change in market factors or other conditions affecting these infrastructure systems and facilities, as well as any delays in constructing new infrastructure systems and facilities could harm the Corporation's business and, in turn, the Corporation's financial condition, results of operations and cash flows.

# Delays in Business Operations

In addition to the usual delays in payments by purchasers of oil and natural gas to the Corporation or to the operator, and the delays by operators in remitting payment to the Corporation, payments between these parties may be delayed due to restrictions imposed by lenders, accounting delays, delays in the sale or delivery of products, delays in the connections of wells to a gathering system, adjustment for prior periods, or recovery by the operator of expenses incurred in the operation of the properties. Any of these delays could reduce the amount of cash flow available for the business of the Corporation in a given period and expose the Corporation to additional third party credit risks.

# Competition

The petroleum industry is competitive in all of its phases. The Corporation competes with numerous other entities in the exploration, development, production and marketing of oil and natural gas. The Corporation's competitors include oil and natural gas companies that have substantially greater financial resources, staff and facilities than those of the Corporation. Some of these companies not only explore for, develop and produce oil and natural gas, but also carry on refining operations and market oil and natural gas on an international basis. As a result of these complementary activities, some of these competitors may have greater and more diverse competitive resources to draw on than the Corporation. The Corporation's ability to increase its reserves in the future will depend not only on its ability to explore and develop its present properties, but also on its ability to select and acquire other suitable producing properties or prospects for exploratory drilling. Competitive factors in the distribution and marketing of oil and natural gas include price, process, and reliability of delivery and storage.

# Cost of New Technologies

The petroleum industry is characterized by rapid and significant technological advancements and introductions of new products and services utilizing new technologies. Other oil companies may have greater financial, technical and personnel resources that allow them to enjoy technological advantages and may in the future allow them to implement new technologies before the Corporation. There can be no assurance that the Corporation will be able to respond to such competitive pressures and implement such technologies on a timely basis or at an acceptable cost. If the Corporation does implement such technologies, there is no assurance that the Corporation will do so successfully. One or more of the technologies currently utilized by the Corporation or implemented in the future may become obsolete. In such case, the Corporation's business, financial condition and results of operations could be affected adversely and materially. If the Corporation is unable to utilize the most advanced commercially available technology, or is unsuccessful in implementing certain technologies, its business, financial condition and results of operations could also be adversely affected in a material way.

# Alternatives to and Changing Demand for Petroleum Products

Fuel conservation measures, alternative fuel requirements, increasing consumer demand for alternatives to oil and natural gas and technological advances in fuel economy and energy generation devices could reduce the demand for oil, natural gas and liquid hydrocarbons. The Corporation cannot predict the impact of changing demand for oil and natural gas products, and any major changes may have a material adverse effect on the Corporation's business, financial condition, results of operations and cash flows.

# Regulatory

Various levels of governments impose extensive controls and regulations on oil and natural gas operations (including exploration, development, production, pricing, marketing and transportation). Governments may regulate or intervene with respect to exploration and production activities, prices, taxes, royalties and the exportation of oil and natural gas. Amendments to these controls and regulations may occur from time to time in response to economic or political conditions. See "*Industry Conditions*". The implementation of new regulations or the modification of existing regulations affecting the oil and natural gas industry could reduce demand for crude oil and natural gas and increase the Corporation's costs, either of which may have a material adverse effect on the Corporation's business, financial condition, results of operations and prospects. In order to conduct oil and natural gas operations, the Corporation will require regulatory permits, licenses, registrations, approvals and authorizations from various governmental



authorities. There can be no assurance that the Corporation will be able to obtain all of the permits, licenses, registrations, approvals and authorizations that may be required to conduct operations that it may wish to undertake. In addition certain federal legislation such as the *Competition Act* and the *Investment Canada Act* could negatively affect the Corporation's business, financial condition and the market value of its Common Shares or its assets, particularly when undertaking, or attempting to undertake, acquisition or disposition activity.

# Royalty and/or Tax Regimes

There can be no assurance that the federal government and the provincial governments of jurisdictions in which the Corporation operates will not adopt a new or modify the royalty and/or tax regime which may have an impact on the economics of the Corporation's projects. An increase in royalties would reduce the Corporation's earnings and could make future capital investments, or the Corporation's operations, less economic.

# Hydraulic Fracturing

Hydraulic fracturing involves the injection of water, sand and additives under pressure into rock formations to stimulate the production of oil and natural gas. Specifically, hydraulic fracturing enables the production of commercial quantities of oil and natural gas from reservoirs that were previously unproductive. Any new laws, regulations or permitting requirements regarding hydraulic fracturing could lead to operational delays, increased operating costs, third party or governmental claims, and could increase the Corporation's costs of compliance and doing business as well as delay the development of oil and natural gas resources from shale formations, which are not commercial without the use of hydraulic fracturing. Restrictions on hydraulic fracturing could also reduce the amount of oil and natural gas that the Corporation is ultimately able to produce from its reserves.

# Environmental

All phases of the oil and natural gas business present environmental risks and hazards and are subject to environmental regulation pursuant to a variety of federal, provincial and local laws and regulations. Environmental legislation provides for, among other things, restrictions and prohibitions on the spill, release or emission of various substances produced in association with certain oil and gas industry operations. In addition, such sets out the requirements with respect to oilfield waste handling and storage, habitat protection and the satisfactory operation, maintenance, abandonment and reclamation of well and facility sites.

Compliance with environmental legislation can require significant expenditures and a breach of applicable environmental legislation 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 governments and third parties and may require the Corporation to incur costs to remedy such discharge. Although the Corporation believes that it will be in material compliance with current applicable environmental regulations, no assurance can be given that environmental compliance requirements will not result in a curtailment of production or a material increase in the costs of production, development or exploration activities or otherwise have a material adverse effect on the Corporation's business, financial condition, results of operations and prospects. See "*Industry Conditions – Climate Change Regulation*".

# Climate Change

The Corporation's exploration and production facilities and other operations and activities emit GHGs which may require the Corporation to comply with GHG emissions legislation at the provincial or federal level in Argentina. Climate change policy is evolving at regional, national and international levels, and political and economic events may significantly affect the scope and timing of climate change measures that are ultimately put in place. Argentina ratified the Kyoto Protocol, which required a reduction in GHG emissions by certain signatory countries between 2008 and 2012. Argentina is also a signatory to the *United Nations Framework Convention on Climate Change* (the "**UNFCCC**") and a participant to the Copenhagen Agreement (a non-binding agreement created by the UNFCCC), which reinforces the commitment to reducing GHG emissions contained in the Kyoto Protocol and promises funding to help developing countries mitigate and adapt to climate change. Argentina representatives have participated in a number of additional international meetings or conferences on climate change and GHG emissions since the meetings resulting in the Copenhagen Agreement; however, no binding GHG emission reduction targets resulted from these meeting or conferences. On December 12, 2015, the UNFCCC adopted the Paris Agreement, to which Argentina is a participant. The Paris Agreement mandates that all countries must work together to limit global temperature rise resulting from GHG emissions to a goal of less than 2° Celsius and to pursue efforts to limit temperature rise below 1.5° Celsius, through implementing successive nationally determined contributions. In anticipation of the UNFCCC adopting the Paris Agreement, Argentina submitted its climate action plan to the UNFCCC in October 2015.



The direct or indirect costs of compliance with GHG-related regulations may have a material adverse effect on the Corporation's business, financial condition, results of operations and prospects. Some of the Corporation's significant facilities may ultimately be subject to future regional, provincial and/or federal climate change regulations to manage GHG emissions.

Concerns about climate change have resulted in a number of environmental activists and members of the public opposing the continued exploitation and development of fossil fuels. Historically, political and legal opposition to the fossil fuel industry focused on public opinion and the regulatory process. More recently, however, there has been a movement to more directly hold governments and oil and natural gas companies responsible for climate change through climate litigation.

Given the evolving nature of the debate related to climate change and the control of GHGs and resulting requirements, it is expected that current and future climate change regulations will have the effect of increasing the Corporation's operating expenses and in the long-term reducing the demand for oil and natural gas production, resulting in a decrease in the Corporation's profitability and a reduction in the value of its assets or asset write-offs.

In addition, there has been public discussion that climate change may be associated with extreme weather conditions and increased volatility in seasonal temperatures. Extreme weather could interfere with the Corporation's production and increase the Corporation's costs. At this time, the Corporation is unable to determine the extent to which climate change may lead to increased storm or weather hazards affecting its operations.

# Variations in Foreign Exchange Rates and Interest Rates

World oil and natural gas prices are quoted in USD. Crude oil and natural gas sales in Argentina are denominated in USD but collected in Argentine Pesos, natural gas sales are denominated in ARS and operating and capital costs are generally incurred in USD and ARS. Fluctuations in the United States dollar, ARS and exchange rates may cause a negative impact on revenue and costs and could have a material adverse impact on the Corporation's operations.

To the extent that the Corporation engages in risk management activities related to foreign exchange rates, there is a credit risk associated with counterparties with which the Corporation may contract.

An increase in interest rates could result in an increase in the amount the Corporation pays to service debt, resulting in a reduced amount available to fund its exploration and development activities, and if applicable, the cash available for dividends and could negatively impact the market price of the Common Shares.

# Substantial Capital Requirements

The Corporation anticipates making substantial capital expenditures for the acquisition, exploration, development and production of oil and natural gas reserves in the future. As future capital expenditures will be financed out of cash generated from operations, borrowings and possible future equity sales, the Corporation's ability to do so is dependent on, among other factors:

- the overall state of the capital markets;
- the Corporation's credit rating (if applicable);
- interest rates;
- royalty rates;
- tax burden due to current and future tax laws; and
- investor appetite for investments in the energy industry and the Corporation's securities in particular.

There can be no assurance that debt or equity financing, or cash generated by operations will be available or sufficient to meet the Corporation's capital requirements, or for other corporate purposes or, if additional debt or equity financing is required and available, that it will be on terms acceptable to the Corporation. The inability of the Corporation to access sufficient capital for its operations could have a material adverse effect on the Corporation's business financial condition, results of operations and prospects.

# Additional Funding Requirements

The Corporation's cash flow from its reserves may not be sufficient to fund its ongoing activities at all times and from time to time, the Corporation may require additional financing in order to carry out its oil and natural gas acquisition, exploration and development activities. There is risk that if the economy and banking industry experienced unexpected and/or prolonged deterioration, the Corporation's access to additional financing may be affected.

Due to the conditions in the oil and gas industry and/ or global economic and political volatility, the Corporation may from time to time have restricted access to capital and increased borrowing costs. Failure to obtain such financing on a timely basis could cause the Corporation to forfeit its interest in certain properties, miss certain acquisition opportunities and reduce or terminate its operations. If the Corporation's revenues from its reserves decrease as a result of lower oil and natural gas prices or otherwise, it



will affect the Corporation's ability to expend the necessary capital to replace its reserves or to maintain its production. To the extent that external sources of capital become limited, unavailable, or available on onerous terms, the Corporation's ability to make capital investments and maintain existing assets may be impaired, and its assets, liabilities, business, financial condition and results of operations may be affected materially and adversely as a result. In addition, the future development of the Corporation's petroleum properties may require additional financing and there are no assurances that such financing will be available or, if available, will be available upon acceptable terms. Failure to obtain any financing necessary for the Corporation's capital expenditure plans may result in a delay in development or production on the Corporation's properties. Further, any available financing may be highly dilutive to existing shareholders.

# Issuance of Debt

From time to time, the Corporation may enter into transactions to acquire assets or shares of other entities. These transactions may be financed in whole or in part with debt, which may increase the Corporation's debt levels above industry standards for oil and natural gas companies of similar size. Depending on future exploration and development plans, the Corporation may require additional debt financing that may not be available or, if available, may not be available on favourable terms. Neither the Corporation's articles nor its by-laws limit the amount of indebtedness that the Corporation may incur. The level of the Corporation's indebtedness could impair the Corporation's ability to obtain additional financing on a timely basis to take advantage of business opportunities that may arise.

# Hedging

From time to time, the Corporation may enter into agreements to receive fixed prices on its oil and natural gas production to offset the risk of revenue losses if commodity prices decline. However, to the extent that the Corporation engages in price risk management activities to protect itself from commodity price declines, it may also be prevented from realizing the full benefits of price increases above the levels of the derivative instruments used to manage price risk. In addition, the Corporation's hedging arrangements may expose it to the risk of financial loss in certain circumstances, including instances in which:

- production falls short of the hedged volumes;
- there is a widening of price-basis differentials between delivery points for production and the delivery point assumed in the hedge arrangement;
- the counterparties to the hedging arrangements or other price risk management contracts fail to perform under those arrangements; or
- a sudden unexpected event materially impacts oil and natural gas prices.

The Corporation currently does not hold any commodity contracts nor any other hedging arrangements.

# Availability of Drilling Equipment and Access

Oil and natural gas exploration and development activities are dependent on the availability of drilling and related equipment (typically leased from third parties) as well as skilled personnel trained to use such equipment in the areas where such activities will be conducted. Demand for such limited equipment and skilled personnel, or access restrictions may affect the availability of such equipment and skilled personnel to the Corporation and may delay exploration and development activities.

# Title to Assets

Although title reviews may be conducted prior to the purchase of oil and natural gas producing properties or the commencement of drilling wells, such reviews do not guarantee or certify that a defect in the chain of title will not arise. The actual interest of the Corporation in properties may accordingly vary from the Corporation's records. If a title defect does exist, it is possible that the Corporation may lose all or a portion of the properties to which the title defect relates, which may have a material adverse effect on the Corporation's business, financial condition, results of operations and prospects. There may be valid challenges to title or legislative changes, which affect the Corporation's title to the oil and natural gas properties the Corporation controls that could impair the Corporation's activities on them and result in a reduction of the revenue received by the Corporation.

# **Reserve Estimates**

There are numerous uncertainties inherent in estimating quantities of oil, natural gas and NGL reserves and the future cash flows attributed to such reserves. The reserve and associated cash flow information set forth in this document are estimates only. Generally, estimates of economically recoverable oil and natural gas reserves and the future net cash flows from such estimated reserves are based upon a number of variable factors and assumptions, such as:



- historical production from the properties;
- production rates;
- ultimate reserve recovery;
- timing and amount of capital expenditures;
- marketability of oil and natural gas;
- royalty rates; and
- the assumed effects of regulation by governmental agencies and future operating costs (all of which may vary materially from actual results).

For those reasons, estimates of the economically recoverable oil and natural gas reserves attributable to any particular group of properties, classification of such reserves based on risk of recovery and estimates of future net revenues associated with reserves prepared by different engineers, or by the same engineers at different times may vary. The Corporation's actual production, revenues, taxes and development and operating expenditures with respect to its reserves will vary from estimates and such variations could be material.

The estimation of proved reserves that may be developed and produced in the future is often based upon volumetric calculations and upon analogy to similar types of reserves rather than actual production history. Recovery factors and drainage areas are often estimated by experience and analogy to similar producing pools. Estimates based on these methods are generally less reliable than those based on actual production history. Subsequent evaluation of the same reserves based upon production history and production practices will result in variations in the estimated reserves. Such variations could be material.

In accordance with applicable securities laws, the Corporation's independent reserves evaluator has used forecast prices and costs in estimating the reserves and future net cash flows as summarized herein. Actual future net cash flows will be affected by other factors, such as actual production levels, supply and demand for oil and natural gas, curtailments or increases in consumption by oil and natural gas purchasers, changes in governmental regulation or taxation and the impact of inflation on costs.

Actual production and cash flows derived from the Corporation's oil and natural gas reserves will vary from the estimates contained in the reserve evaluation, and such variations could be material. The reserve evaluation is based in part on the assumed success of activities the Corporation intends to undertake in future years. The reserves and estimated cash flows to be derived therefrom and contained in the reserve evaluation will be reduced to the extent that such activities do not achieve the level of success assumed in the reserve evaluation. The reserve evaluation is effective as of a specific effective date and, except as may be specifically stated, has not been updated and therefore does not reflect changes in the Corporation's reserves since that date.

# Insurance

The Corporation's involvement in the exploration for and development of oil and natural gas properties may result in the Corporation becoming subject to liability for pollution, blow outs, leaks of sour natural gas, property damage, personal injury or other hazards. Although the Corporation maintains insurance in accordance with industry standards to address certain of these risks, such insurance has limitations on liability and may not be sufficient to cover the full extent of such liabilities. In addition, certain risks are not, in all circumstances, insurable or, in certain circumstances, the Corporation may elect not to obtain insurance to deal with specific risks due to the high premiums associated with such insurance or other reasons. The payment of any uninsured liabilities would reduce the funds available to the Corporation. The occurrence of a significant event that the Corporation is not fully insured against, or the insolvency of the insurer of such event, may have a material adverse effect on the Corporation's business, financial condition, results of operations and prospects.

# Geopolitical Risks

Political events throughout the world that cause disruptions in the supply of oil continuously to affect the marketability and price of oil and natural gas acquired or discovered by the Corporation. Conflicts, or conversely peaceful developments, including changes in political regimes or the parties in power, have a significant impact on the price of oil and natural gas. Any particular event could result in a material decline in prices and result in a reduction of the Corporation's net production revenue.

In addition, the Corporation's oil and natural gas properties, wells and facilities could be the subject of a terrorist attack. If any of the Corporation's properties, wells or facilities are the subject of terrorist attack it may have a material adverse effect on the Corporation's business, financial condition, results of operations and prospects. The Corporation does not have insurance to protect against the risk from terrorism.

# Carbon Pricing Risk

The majority of countries across the globe have agreed to reduce their carbon emissions in accordance with the Paris Agreement. As a result, some national and provincial / state governments throughout the world have implemented legislation aimed at incentivizing



the use of alternative fuels and in turn reducing carbon emissions. If Argentina were to implement taxes on carbon emissions, they might have the effect of decreasing the demand for oil and natural gas products and at the same time, increasing the Corporation's operating expenses, each of which might.

## Global Financial Market Volatility

Global financial conditions are subject to volatility, which may impact the Corporation's ability to obtain equity, debt or bank financing on terms commercially reasonable to the Corporation, if at all. Continued volatility and market turmoil, caused by a variety of issues that are outside of the Corporation's control, including the outbreak of public health crises, epidemics, pandemics or outbreaks of new infectious diseases or viruses, such as the recent global outbreak of a novel coronavirus (COVID-19), may adversely impact the price of and demand for oil and gas, which could have a material adverse effect on the Corporation's business, financial condition, results of operations and cash flow.

## Dilution

The Corporation may make future acquisitions or enter into financings or other transactions involving the issuance of securities of the Corporation which may be dilutive.

# Management of Growth

The Corporation may be subject to growth related risks including capacity constraints and pressure on its internal systems and controls. The ability of the Corporation to manage growth effectively will require it to continue to implement and improve its operational and financial systems and to expand, train and manage its employee base. The inability of the Corporation to deal with this growth may have a material adverse effect on the Corporation's business, financial condition, results of operations and prospects.

## **Expiration of Licences and Leases**

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

Further information is disclosed under Other Oil and Gas Information.

# Dividends

The Corporation has not paid any dividends on its outstanding shares. Payment of dividends in the future will be dependent on, among other things, the cash flow, results of operations and financial condition of the Corporation, the need for funds to finance ongoing operations and other considerations, as the Board of Directors of the Corporation considers relevant.

#### Litigation

In the normal course of the Corporation's operations, it may become involved in, named as a party to, or be the subject of, various legal proceedings, including regulatory proceedings, tax proceedings and legal actions, relating to personal injuries, including resulting from exposure to hazardous substances, property damage, property taxes, land and access rights, environmental issues, including claims relating to contamination or natural resource damages and contract disputes. The outcome with respect to outstanding, pending or future proceedings cannot be predicted with certainty and may be determined adversely to the Corporation, and as a result, could have a material adverse effect on the Corporation's assets, liabilities, business, financial condition and results of operations. Even if the Corporation prevails in any such legal proceedings, the proceedings could be costly and time-consuming and may divert the attention of management and key personnel from business operations, which could have an adverse effect on the Corporation's financial condition.

# Breach of Confidentiality

While discussing potential business relationships or other transactions with third parties, the Corporation may disclose confidential information relating to the business, operations or affairs of this Corporation. Although confidentiality agreements are generally signed by third parties prior to the disclosure of any confidential information, a breach could put the Corporation at competitive risk and may cause significant damage to its business. The harm to the Corporation's business from a breach of confidentiality cannot presently be quantified, but may be material and may not be compensable in damages. There is no assurance that, in the event of a breach of confidentiality, the Corporation will be able to obtain equitable remedies, such as injunctive relief, from a court of



competent jurisdiction in a timely manner, if at all, in order to prevent or mitigate any damage to its business that such a breach of confidentiality may cause.

# Income Taxes

The Corporation files all required income tax returns and believes that it is in full compliance with the provisions of the *Income Tax Act* (Canada) and all other applicable provincial tax legislation. However, such returns are subject to reassessment by the applicable taxation authority. In the event of a successful reassessment of the Corporation, whether by re-characterization of exploration and development expenditures or otherwise, such reassessment may have an impact on current and future taxes payable.

A tax treaty exists between Argentina and Canada. Oil companies are subject to a generally applicable corporate tax regime. All successful exploration and field development costs, including intangible costs may be depreciated on a unit-of-production basis. Tax payers in Argentina pay either income tax at a rate of 30 percent on corporate net profits or a minimum tax, based on net assets, whichever is the greater. Minimum tax was reinstated effective January 1999 and is levied on cumulative capital less accumulated depreciation plus an inflation adjustment at a rate of one percent. In April 1992, the tax base for locally incorporated companies was changed from Argentine source income to worldwide income.

Income tax laws relating to the oil and natural gas industry, such as the treatment of resource taxation or dividends, may in the future be changed or interpreted in a manner that adversely affects the Corporation. Furthermore, tax authorities having jurisdiction over the Corporation may disagree with how the Corporation calculates its income for tax purposes or could change administrative practices to the Corporation's detriment.

# Seasonality

Seasonal delays can arise in northern Argentina where heavy rain and flooding from November to February can impair access to the Corporation's properties.

Consequently, municipalities and provincial transportation departments enforce road bans that restrict the movement of rigs and other heavy equipment, thereby reducing activity levels. Seasonal factors and unexpected weather patterns may lead to declines in exploration and production activity and corresponding declines in the demand for the goods and services of the Corporation as the demand for natural gas rises during cold winter months and hot summer months.

# Third Party Credit Risk

The Corporation may be exposed to third party credit risk through its contractual arrangements with its current or future working interest partners, marketers of its petroleum and natural gas production and other parties. In the event such entities fail to meet their contractual obligations to the Corporation, such failures may have a material adverse effect on the Corporation's business, financial condition, results of operations and prospects. In addition, poor credit conditions in the industry may affect a working partner's willingness to participate in the Corporation's ongoing capital program, potentially delaying the program and the results of such program until the Corporation finds a suitable alternative partner.

Additionally, as certain of the Corporation's lenders are oil and gas operating companies, there is the specific risk that these lenders may be unable to advance funds drawn on by the Corporation in a timely manner, or at all. The ability of these lenders to advance funds may be subject to the geopolitical, regulatory, environmental, political and other risks applicable to companies in the oil and gas industry in general and in particular, to companies operating in the regions where these lenders operate, all of which are outside of the Corporation's control.

# **Conflicts of Interest**

Certain directors or officers of the Corporation may also be directors or officers of other oil and natural gas companies, and as such may, in certain circumstances, have a conflict of interest. Conflicts of interest, if any, will be subject to and governed by procedures prescribed by the ABCA which require a director of officer of a corporation who is a party to, or is a director or an officer of, or has a material interest in any person who is a party to, a material contract or proposed material contract with the Corporation disclose his or her interest and, in the case of directors, to refrain from voting on any matter in respect of such contract unless otherwise permitted under the ABCA. See "*Directors and Officers – Conflicts of Interest*" and "*Interests of Management and Others in Material Transactions*".



## **Enforcement of Civil Liabilities**

Substantially all of the assets of the Corporation are located outside of Canada and certain of the directors and officers of the Corporation are resident outside of Canada. As a result, it may be difficult or impossible to enforce judgments granted by a court in Canada against the assets of the Corporation or the directors and officers of the Corporation residing outside of Canada.

## Reliance on Key Personnel

The Corporation's success depends in large measure on certain key personnel. The loss of the services of such key personnel may have a material adverse effect on the Corporation's business, financial condition, results of operations and prospects. The contributions of the existing management team to the immediate and near term operations of the Corporation are likely to be of central importance. In addition, the competition for qualified personnel in the oil and natural gas industry is intense and there can be no assurance that the Corporation will be able to continue to attract and retain all personnel necessary for the development and operation of its business. Investors must rely upon the ability, expertise, judgment, discretion, integrity and good faith of the management of the Corporation.

## Initial Well Rates Are Not Determinative of Future or Continuing Production Rates

Any references in this AIF to test rates, flow rates, initial and/or final raw test or production rates, early production and/or "flush" production rates are useful in confirming the presence of hydrocarbons, however, such rates are not necessarily indicative of long-term performance or of ultimate recovery. Well-flow test result data should be considered to be preliminary until a pressure transient analysis and/or well-test interpretation has been carried out. Such rates may also include recovered "load" fluids used in well completion stimulation. Readers are cautioned not to place reliance on such rates in calculating the aggregate production for the Corporation. In addition, the Vaca Muerta Shale is an unconventional resource play, which may be subject to high initial decline rates.

## Expansion into New Activities

The operations and expertise of the Corporation's management are currently focused primarily on oil and gas production, exploration and development in Argentina in the areas discussed in this AIF. In the future the Corporation may acquire or move into new industry related activities or new geographical areas, may acquire different energy related assets, and as a result may face unexpected risks or alternatively, significantly increase the Corporation's exposure to one or more existing risk factors, which may in turn result in the Corporation's future operational and financial conditions being adversely affected.

# Information Technology Systems and Cyber-Security

The Corporation has become increasingly dependent upon the availability, capacity, reliability and security of our information technology infrastructure and our ability to expand and continually update this infrastructure, to conduct daily operations. The Corporation depends on various information technology systems to estimate reserve quantities, process and record financial data, manage our land base, analyze seismic information, administer our contracts with our operators and lessees and communicate with employees and third-party partners.

Further, the Corporation is 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 Corporation'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, fiduciary or proprietary information, interruption to communications or operations or disruption to our business activities or our competitive position. Further, disruption of critical information technology services, or breaches of information security, could have a negative effect on our performance and earnings, as well as on our reputation. The Corporation applies technical and process controls in line with industry-accepted standards to protect our information assets and systems; however, these controls may not adequately prevent cyber-security breaches. 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 Corporation's business, financial condition and results of operations.

#### Social Media

Increasingly, social media is used as a vehicle to carry out cyber phishing attacks. Information posted on social media sites, for business or personal purposes, may be used by attackers to gain entry into the Corporation's systems and obtain confidential information. As social media continues to grow in influence and access to social media platforms becomes increasingly prevalent, there are significant risks that the Corporation may not be able to properly regulate social media use and preserve adequate records of business activities and client communications conducted through the use of social media platforms.



## **Changing Investor Sentiment**

A number of factors, including the concerns of the effects of the use of fossil fuels on climate change, the impact of oil and natural gas operations on the environment, environmental damage relating to spills of petroleum products during transportation and indigenous rights, have affected certain investors' sentiments towards investing in the oil and natural gas industry. As a result of these concerns, some institutional, retail and public investors have announced that they no longer are willing to fund or invest in oil and natural gas properties or companies, or are reducing the amount thereof over time. In addition, certain institutional investors are requesting that issuers develop and implement more robust social, environmental and governance policies and practices. Developing and implementing such policies and practices can involve significant costs and require a significant time commitment from the Board, management and employees of the Corporation. Failing to implement the policies and practices, as requested by institutional investors, may result in such investors reducing their investment in the Corporation, or not investing in the Corporation, may result in limiting the Corporation's access to capital, increasing the cost of capital, and decreasing the price and liquidity of the Corporation's securities even if the Corporation's operating results, underlying asset values or prospects have not changed. Additionally, these factors, as well as other related factors, may cause a decrease in the value of the Corporation's asset which may result in an impairment charge.

### Non-Governmental Organizations and Eco-Terrorism Risks

The oil and natural gas exploration, development and operating activities conducted by the Corporation may, at times, be subject to public opposition. Such public opposition could expose the Corporation to the risk of higher costs, delays or even project cancellations due to increased pressure on governments and regulators by special interest groups including landowners, environmental interest groups (including those opposed to oil and natural gas production operations) and other non-governmental organizations, blockades, legal or regulatory actions or challenges, increased regulatory oversight, reduced support of the federal, provincial or municipal governments, delays in, challenges to, or the revocation of regulatory approvals, concessions, permits and/or licenses, and direct legal challenges, including the possibility of climate-related litigation. There is no guarantee that the Corporation will be able to satisfy the concerns of the special interest groups and non-governmental organizations and attempting to address such concerns may require the Corporation to incur significant and unanticipated capital and operating expenditures.

In addition, the Corporation's oil and natural gas properties, wells and facilities could be the subject of a terrorist attack. If any of the Corporation's properties, wells or facilities are the subject of a terrorist attack it may have a material adverse effect on the Corporation's business, financial condition, results of operations and prospects. The Corporation does not have insurance to protect against the risk from terrorism.

# Reputational Risk Associated with the Corporation's Operations

The Corporation's business, operations or financial condition may be negatively impacted as a result of any negative public opinion towards the Corporation or as a result of any negative sentiment toward, or in respect of, the Corporation's reputation with stakeholders, special interest groups, political leadership, the media or other entities.

Public opinion may be influenced by certain media and special interest groups' negative portrayal of the industry in which the Corporation operates as well as their opposition to certain oil and natural gas projects. Potential impacts of negative public opinion or reputational issues may include delays or interruptions in operations, legal or regulatory actions or challenges, blockades, increased regulatory oversight, reduced support for, delays in, challenges to, or the revocation of regulatory approvals, concessions, permits and/or licenses and increased costs and/or cost overruns. The Corporation's reputation and public opinion could also be impacted by the actions and activities of other companies operating in the oil and natural gas industry, particularly other producers, over which the Corporation has no control. Similarly, the Corporation's reputation could be impacted by negative publicity related to loss of life, injury or damage to property and environmental damage caused by the Corporation's operations. In addition, if the Corporation develops a reputation of having an unsafe work site, it may impact the ability of the Corporation to attract and retain the necessary skilled employees and consultants to operate its business. Opposition from special interest groups opposed to oil and natural gas development and the possibility of climate related litigation against governments and fossil fuel companies may impact the Corporation's reputation.

Reputational risk cannot be managed in isolation from other forms of risk. Credit, market, operational, insurance, regulatory and legal risks, among others, must all be managed effectively to safeguard the Corporation's reputation. Damage to the Corporation's reputation could result in negative investor sentiment towards the Corporation, which may result in limiting the Corporation's access to capital, increasing the cost of capital, and decreasing the price and liquidity of the Corporation's securities.

# Forward-Looking Information May Prove Inaccurate

Shareholders and prospective investors are cautioned not to place undue reliance on the Corporation's 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, assumption and uncertainties are found under the heading "Forward-Looking Statements" of this AIF.

# INTERESTS OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS

There were no material interests, direct or indirect, of directors and senior officers of the Corporation, any shareholder who beneficially owns more than 10% of the outstanding Common Shares, or any known associate or affiliate of such persons, in any transactions since the beginning of the Corporation's last completed financial year or in any proposed transaction which has materially affected or will materially affect the Corporation or any of its subsidiaries, except as described herein.

Upon completion of the Maglan Facilities, Maglan Capital Distressed Master Fund LP will have the ability to acquire more than 20% of the Common Shares, and thereby become a "Control Person" of the Corporation. Shareholder approval for the creation of Maglan Capital Distressed Master Fund LP will likely be required to be obtained in order for the Corporation to obtain TSXV approval for the convertible facility. In addition, as the Maglan Facilities are related party transactions and will subject to the requirements of MI 61-101.

### MATERIAL CONTRACTS

Except for contracts entered into by the Corporation in the ordinary course of business or otherwise disclosed herein, the Corporation has no contracts which can reasonably be regarded as material.

# **INTERESTS OF EXPERTS**

There is no person or company whose profession or business gives authority to a statement made by such person or company and who is named as having prepared or certified a statement, report or valuation described or included in a filing, or referred to in a filing, made under National Instrument 51-102 – *Continuous Disclosure Obligations* by the Corporation during, or related to, the Corporation's most recently completed financial year other than GLJ, the Corporation's independent engineering evaluator and Ernst & Young LLP, the Corporation's auditors.

To the knowledge of the Corporation, GLJ, or principals thereof, did not have any registered or beneficial interests, direct or indirect, in any securities or other property of the Corporation or of the Corporation's associates or affiliates either at the time they prepared the statement, report or valuation prepared by them, at any time thereafter or to be received by them.

Ernst & Young LLP are the auditors of the Corporation and have confirmed that they are independent with respect to the Corporation within the meaning of the relevant rules and related interpretations prescribed by the relevant professional bodies in Canada and any applicable legislation or regulations.

In addition, none of the aforementioned persons or companies, nor any director, officer or employee of any of the aforementioned persons or companies is, or is expected to be elected, appointed or employed as a director, officer or employee of the Corporation or of any associate or affiliate of the Corporation.

## ADDITIONAL INFORMATION

Additional information, including directors' and officers' remuneration and indebtedness, principal holders of the Corporation's securities and securities authorized for issuance under equity compensation plans, is contained in the Corporation's Information Circular for the most recent annual meeting of Shareholders that involved the election of directors. Additional financial information is provided in the Corporation's financial statements and management's discussion and analysis for the most recently completed financial year. Documents affecting the rights of security holders, along with other information relating to the Corporation, may be found on SEDAR at <u>www.sedar.com</u>.



## SCHEDULE "A"

## FORM 51-101F2

## **REPORT ON RESERVES DATA BY**

## INDEPENDENT QUALIFIED RESERVES EVALUATOR OR AUDITOR

To the board of directors of Centaurus Energy Inc. (the "Company"):

- 1. We have evaluated the Company's reserves data as at December 31, 2019. The reserves data are estimates of proved reserves and probable reserves and related future net revenue as at December 31, 2019, estimated using forecast prices and costs.
- 2. The reserves data are the responsibility of the Company's management. Our responsibility is to express an opinion on the reserves data based on our evaluation.
- 3. We carried out our evaluation in accordance with standards set out in the Canadian Oil and Gas Evaluation Handbook as amended from time to time (the "COGE Handbook") maintained by the Society of Petroleum Evaluation Engineers (Calgary Chapter).
- 4. Those standards require that we plan and perform an evaluation to obtain reasonable assurance as to whether the reserves data are free of material misstatement. An evaluation also includes assessing whether the reserves data are in accordance with principles and definitions presented in the COGE Handbook.
- 5. The following table shows the net present value of future net revenue (before deduction of income taxes) attributed to proved plus probable reserves, estimated using forecast prices and costs and calculated using a discount rate of 10 percent, included in the reserves data of the Company evaluated for the year ended December 31, 2019, and identifies the respective portions thereof that we have evaluated and reported on to the Company's board of directors:

Independent Qualified Reserves	Effective Date of	Location of Reserves (Country	Net Present Value of Future Net Revenue (before income taxes, 10% discount rate – US M\$)			
Evaluator or Auditor	Evaluation Report	or Foreign Geographic Area)	Audited	Evaluated	Reviewed	<u>Total</u>
GLJ Petroleum Consultants	Dec. 31, 2019	Argentina	-	129,899	-	129,899

- 6. In our opinion, the reserves data evaluated by us have, in all material respects, been determined and are in accordance with the COGE Handbook, consistently applied. We express no opinion on the reserves data that we reviewed but did not audit or evaluate.
- 7. We have no responsibility to update our reports referred to in paragraph 5 for events and circumstances occurring after the effective date of our reports.
- 8. Because the reserves 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 Petroleum Consultants Ltd., Calgary, Alberta, Canada, January 24, 2020

*"Originally Signed by"* Leonard L. Herchen, P. Eng. Vice President



# SCHEDULE "B"

#### FORM 51-101 F3 REPORT OF MANAGEMENT AND DIRECTORS ON RESERVES DATA AND OTHER INFORMATION

## **Report of Management and Directors on Reserves Data and Other Information**

Management of Centaurus Energy Inc. (the "**Corporation**") is responsible for the preparation and disclosure of information with respect to the Corporation's oil and gas activities in accordance with securities regulatory requirements. This information includes reserves data.

Independent qualified reserves evaluators have evaluated the Corporation's reserves data. The report of the independent qualified reserves evaluators will be filed with the securities regulatory authorities concurrently with this report.

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 evaluators;
- met with the independent qualified reserves evaluators to determine whether any restrictions affected the ability of the independent qualified reserves evaluators to report without reservation; and
- reviewed the reserves data with management and the independent qualified reserves evaluators.

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:

- the content and filing with securities regulatory authorities of Form 51-101F1 containing the reserves data and other oil and gas information;
- the filing of Form 51-102F2 which is the reports of the independent qualified reserves evaluators on the reserves data, contingent resources data or prospective resources data; and
- the content and filing of this report.

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

Dated at Calgary, Alberta, this 29th day of April, 2020.

(signed) "David Tawil" David Tawil, Interim Chief Executive Officer and Director (signed) "Steven Azarbad "

Steven Azarbad Interim Chief Executive Officer and Director

(signed) "Steven Balsam" Steven Balsam Director (signed) "Ruben Etcheverry"

Ruben Etcheverry Director

