



阳光油砂  
SUNSHINE OILSANDS LTD.

# **SUNSHINE OILSANDS LTD.**

Annual Information Form

For the Year Ended December 31, 2018

**Dated March 18, 2019**

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## FORWARD-LOOKING STATEMENTS

Certain statements in this Annual Information Form (the “AIF”) are forward-looking statements that are, by their nature, subject to significant risks and uncertainties. Readers are hereby cautioned about important factors that could cause Sunshine’s actual results to differ materially from those projected in forward-looking statements. Any statements that express, or involve discussions as to expectations, beliefs, plans, objectives, assumptions or future events or performance (often, but not always, through the use of words or phrases such as “will”, “expect”, “anticipate”, “estimate”, “believe”, “may”, “seek”, “should”, “intend”, “plan”, “projection”, “could”, “objective”, “target”, and “schedule”) are not historical facts, are forward-looking and may involve estimates and assumptions and are subject to risks (including the risk factors detailed in this AIF), uncertainties and other factors some of which are beyond our control and which are difficult to predict. Accordingly, these factors could cause actual results or outcomes to differ materially from those expressed in the forward-looking statements.

In particular, this AIF contains forward-looking statements pertaining to, but not limited to, the following:

- the timing of the construction of West Ells Phase two, the amounts of time and capital that will be required;
- the Corporation’s ability to raise capital;
- the timing of receipt of regulatory approvals and the Corporation’s plans to submit additional regulatory approval applications;
- the business strategy and objectives and business strengths of the Corporation;
- the resource potential of the Corporation’s assets;
- the Corporation’s growth strategy and opportunities;
- the potential for joint ventures, sales, or other arrangements involving the Corporation’s assets;
- the Corporation’s capital expenditure programs;
- the estimated quantity of the Corporation’s proved, probable and possible reserves and contingent resources;
- projections of commodity prices, costs and netbacks;
- the timing of certain of the Corporation’s operations and projects, including the commencement of its planned bitumen development projects and the levels and timing of anticipated production;
- the commercial development potential of the Corporation’s assets;
- public perception of Canada’s oil sands;
- supply and demand fundamentals for crude oil, bitumen blend, natural gas, and condensate and other diluents and volatility in prices;
- the Corporation’s ability to attract, retain and train key personnel;
- the Corporation’s access to third-party infrastructure;
- industry conditions that affect project development;
- the construction of the Corporation’s facilities and the capacity thereof;
- the Corporation’s general and administrative expenses;
- the Corporation’s drilling plans;
- the Corporation’s plans for, and results of, exploration and development activities;
- realization of the anticipated benefits of acquisitions and dispositions; and
- the Corporation’s treatment under governmental regulatory regimes and tax laws.

With respect to forward looking statements and forward looking information contained in this AIF, assumptions have been made regarding, among other things:

- the Corporation’s ability to operate as a going concern;

- the Corporation's ability to raise capital;
- future prices of crude oil, bitumen blend, natural gas, condensate and other diluent;
- the Corporation's ability to obtain qualified staff and equipment in a timely and cost efficient manner;
- the regulatory framework governing royalties, taxes and environmental matters in the jurisdictions in which the Corporation conducts and will conduct its business;
- the Corporation's ability to transport and market production of bitumen blend successfully to customers;
- the Corporation's production levels;
- the applicability of technologies for the recovery and production of the Corporation's reserves and resources;
- the recoverability and methodology of evaluation of the Corporation's reserves and resources;
- operating costs;
- performance of third party contractors;
- capital expenditures to be made by the Corporation;
- sources of funding for the Corporation's capital programs and the Corporation's ability to obtain financing on acceptable terms;
- the Corporation's debt levels;
- success rates of well drilling;
- well drainage areas;
- well production rates;
- geological and engineering estimates in respect of the Corporation's reserves and resources;
- the geography of the areas in which the Corporation is conducting exploration and development activities; and
- the impact of increasing competition on the Corporation.

Our forward-looking statements have been based on assumptions and factors concerning future events that may prove to be inaccurate. Those assumptions and factors are based on information currently available to us about our businesses and industry. No assurance can be given that these expectations will prove to be correct and such forward-looking statements included in this AIF should not be unduly relied upon. In addition, this AIF may contain forward-looking statements attributed to third party industry sources. Accordingly, any such statements are qualified in their entirety by reference to, and are accompanied by, the information and factors discussed throughout this AIF. The risks, uncertainties and other factors, many of which are beyond our control, that could influence actual results include, but are not limited to:

- the Corporation's ability to complete projects currently in development within expected time frames, within budget, or at all;
- the Corporation's level of profitability;
- the performance and characteristics of our oil sands properties and the size of our oil sands resources and reserves;
- supply and demand fundamentals for crude oil, bitumen blend, condensate and other diluents;
- fluctuations in market prices and costs;
- the bitumen production and production capacity of our assets;
- our growth strategy and opportunities;
- our substantial capital expenditure programs and future capital requirements;
- our estimates of future interest and foreign exchange rates;
- the timing and size of certain of our operations and phases, including our planned bitumen development;
- our projects, and the levels of anticipated production;

- our future general and administrative expenses;
- the majority of our total reserves and contingent resources are non-producing and undeveloped and are subject to changes in guidelines used to evaluate economic volumes notwithstanding assessments for uncertainty and risk;
- sale, farming in, farming out or development of certain oil sands properties using third party resources;
- operational hazards;
- competition for, among other things, capital, the acquisition of reserves and resources, pipeline capacity and skilled personnel;
- risks inherent in our operations, including those related to exploration, development and production of oil sands reserves and resources, including the production of oil sands reserves and resources using SAGD, CSS or other *in-situ* technologies;
- our ability to meet specific requirements in respect of our Oil Sands Leases;
- First Nations' claims and our relationships with local and regional stakeholders;
- risks relating to infringement of oil and gas development rights and litigation in the ordinary course of business;
- unforeseen title defects;
- risks arising from future disposal activities;
- failure to accurately estimate abandonment and reclamation costs;
- the need to obtain regulatory approvals and maintain compliance with regulatory requirements and the extent of, and cost of compliance with, laws and regulations and the effect of changes in such laws and regulations from time to time;
- the cost and availability of capital, including access to capital markets at acceptable rates;
- the substantial capital requirements of the Corporation's projects;
- general economic, market and business conditions in Canada, the United States and globally;
- failure to meet development schedules and potential cost overruns;
- risks related to the Corporation's filings with taxation authorities, including the risk of reassessments;
- risks arising from future acquisition and joint venture activities;
- global financial uncertainty;
- the Corporation's status and stage of development;
- expiration of leases and permits;
- risks related to gathering and processing facilities and pipeline systems;
- availability of drilling and related equipment and limitations on access to the Corporation's assets;
- increases in operating costs;
- the effect of diluent and natural gas supply constraints and increases in the costs thereof;
- gas over bitumen issues affecting operational results;
- environmental risks and hazards and the cost of compliance with environmental regulations, including greenhouse gas regulations and potential Canadian and U.S. climate change legislation;
- changes to royalty regimes;
- political risks, both domestic and international;
- the potential for management estimates and assumptions to be inaccurate;
- long term reliance on third parties, including reliance on third party infrastructure for project facilities, pipeline and other modes of transportation;
- failure by counterparties to make payments or perform their operational or other obligations to the Corporation in compliance with the terms of contractual arrangements;

- seasonality and adverse weather conditions;
- hedging risks;
- risks associated with establishing and maintaining systems of internal controls;
- insurance risks;
- claims made in respect of the Corporation's operations, properties or assets;
- the failure of the Corporation to meet specific requirements of licenses or leases; and
- all other risks and uncertainties described in the section in this Annual Information Form titled "*Risk Factors*".

**Readers are cautioned that the risks and uncertainties described in this section and in the section titled "*Risk Factors*" are not exhaustive.**

Since actual results or outcomes could differ materially from those expressed in forward-looking statements, we strongly caution readers against placing undue reliance on forward-looking statements. Statements relating to "reserves" or "resources" are deemed to be forward-looking statements, as they involve the implied assessment, based on certain estimates and assumptions that the resources and reserves described can be profitably produced in the future. Further, any forward-looking statement speaks only as of the date on which such statement is made, and, except as required by law, we undertake no obligation to update any forward-looking statement or statements to reflect events or circumstances after the date on which such statement is made or to reflect the occurrence of unanticipated events.

**All forward-looking statements in this Annual Information Form are expressly qualified by reference to these cautionary statements.**

#### **NOTICE REGARDING PRESENTATION OF RESERVES AND RESOURCES DATA**

The determination of reserves and resources involves the preparation of estimates that have an inherent degree of associated uncertainty. The estimation and classification of reserves and resources requires the application of professional judgment combined with geological and engineering knowledge to assess whether or not specific reserve classification criteria have been satisfied. Knowledge of concepts including uncertainty and risk, probability, statistics, and deterministic and probabilistic estimation methods is required to properly use and apply reserve and resource definitions.

Disclosure in this AIF of production and reserves and resources quantities is presented in accordance with NI 51-101 and the "Canadian Oil and Gas Evaluation Handbook" (the "COGE Handbook") maintained by the Society of Petroleum Evaluation Engineers (Calgary Chapter), as amended from time to time. Certain terms used in this AIF in describing reserves and other oil and natural gas information are defined below. Certain other terms and abbreviations used in this AIF, but not defined or described, are defined in NI 51-101 or the COGE Handbook and, unless the context otherwise requires, shall have the same meanings herein as in NI 51-101 or the COGE Handbook.

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

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

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

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

### **Note Regarding Disclosure of Reserves and Resources**

Unless otherwise stated, all disclosure of our reserves in this AIF is made in respect of our gross reserves and all disclosure of our resources is made in respect of our company interest resources.

#### **Reserve Categories**

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:

- analysis of drilling, geological, geophysical and engineering data;
- the use of established technology; and
- specified economic conditions, which are generally accepted as being reasonable.

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

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

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

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

Other criteria that must also be met for the categorization of reserves are provided in the COGE Handbook.

Each of the reserve categories (proved, probable and possible) may be divided into developed and undeveloped categories:

- 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 reserves.
- Developed producing reserves are those reserves that are expected to be recovered from completion intervals open at the time of the estimate. These reserves may be currently producing or, if shut-in, they must have previously been on production, and the date of resumption of production must be known with reasonable certainty.
- Developed non-producing reserves are those reserves that either have not been on production, or have previously been on production, but are shut-in and the date of resumption of production is unknown.
- Undeveloped reserves are those reserves expected to be recovered from known accumulations where a significant expenditure (for example, when compared to the cost of drilling a well) is required to render them capable of production. They must fully meet the requirements of the reserves classification (proved, probable or possible) to which they are assigned.

In multi-well pools it may be appropriate to allocate total pool reserves between the developed and undeveloped categories or to subdivide 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.

### **Levels of Certainty for Reported Reserves**

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

- at least a 90% 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.

A qualitative measure of the certainty levels pertaining to estimates prepared for the various reserves categories is desirable to provide a clearer understanding of the associated risks and uncertainties. However, the majority of reserves estimates are prepared using deterministic methods that do not provide a mathematically derived quantitative measure of probability. In principle, there should be no difference between estimates prepared using probabilistic or deterministic methods. Additional clarification of certainty levels associated with reserve estimates and the effect of aggregation is provided in the COGE Handbook.

### **Resources Categories**

While we have established proved, probable and possible reserves, certain of our properties also have resources, which are quantities of petroleum that cannot be classified as reserves. The portion classified as resources has not been classified as reserves at this time, pending further delineation drilling, development planning, project design and receipt of regulatory approvals. The resource values should be considered indicative in nature only, pending further planning and design work to confirm timing and capital estimates.

Criteria other than economics may require classification as resources rather than reserves. Contingencies affecting the classification as reserves versus resources relate to the following issues as detailed in COGE Handbook: ownership considerations, drilling requirements, testing requirements, regulatory considerations, infrastructure and market considerations, timing of production and development, and economic requirements. Based on these considerations, an adjustment factor is applied to the volumes and values of the contingent resources to reflect the chance of maturity and commerciality of these projects.

In this AIF, we refer to contingent resources, which are defined in the COGE Handbook as those quantities of petroleum estimated, as of a given date, to be potentially recoverable from known accumulations using established technology or technology under development, but which are not currently considered to be commercially recoverable due to one or more contingencies. Not all technically feasible development plans will be commercial. The commercial viability of a development project is dependent on the forecast of fiscal conditions over the life of the project including, without limitation, capital costs, operating costs, product pricing, royalty rate, production capability and corporate capability to finance development. For contingent resources, the risk component relating to the likelihood that an accumulation will be commercially developed is referred to as the "chance of development." For contingent resources, the chance of commerciality is equal to the chance of development. Contingent resources were assigned in regions with lower core-hole drilling density than the reserve regions and are outside current areas of application for development. These resource estimates are not classified as reserves at this time, pending further reservoir delineation, project application,

facility and reservoir design work. There is no certainty that it will be commercially viable to produce any portion of the contingent resources.

When evaluating resources the following mutually exclusive categories are recommended in the COGE Handbook:

- low estimate: This is considered to be a conservative estimate of the quantity that will actually be recovered. It is likely that the actual remaining quantities recovered will exceed the low estimate. If probabilistic methods are used, there should be at least 90 percent probability that the quantities actually recovered will equal or exceed the low estimate.
- best estimate: This is considered to be the best estimate of the quantity that will actually be recovered. It is equally likely that the actual remaining quantities recovered will be greater or less than the best estimate. If probabilistic methods are used, there should be at least a 50 percent probability that the quantity actually recovered will equal or exceed the best estimate.
- high estimate: This is considered to be an optimistic estimate of the quantity that will actually be recovered. It is unlikely that the actual remaining quantities recovered will exceed the high estimate. If probabilistic methods are used, there should be at least a 10 percent probability that the quantities actually recovered will equal or exceed the high estimate.

The resource categories are further sub-classified as Development Pending, Development on Hold, Development Unclassified and Development Not Viable, depending on the applicable contingencies and level of maturity of the project. Another factor, Chance of Commerciality, is applied to the recoverable quantities and estimated values of the assets to further quantify the probability of these resources achieving commerciality.

Future net revenues associated with reserves and resources disclosed herein do not represent fair market value.

## GLOSSARY OF TECHNICAL AND GENERAL TERMS

This glossary contains definitions of certain technical terms used in this AIF in connection with the Corporation's business. These terms and their given meanings may not correspond to industry standard definitions or usage of these terms.

### *Abbreviations*

In this AIF, the abbreviations set forth below have the following meanings:

Oil and Natural Gas Liquids		Natural Gas	
bbbl	barrel	Mcf	thousand cubic feet
bbls	barrels	MMcf	million cubic feet
bbl/d	barrels per day	Mcf/d	thousand cubic feet per day
Mbbl	thousand barrels	MMcf/d	million cubic feet per day
Mbbl/d	thousand barrels per day	MMBTU	million British Thermal Units
MMbbl	million barrels	Bcf	billion cubic feet
MMbbl/d	million barrels per day	GJ	Gigajoule
NGLs	natural gas liquids		
<b>Other</b>			
boe	barrel of oil equivalent of natural gas and crude oil on the basis of 1 boe for 6 (unless otherwise stated) Mcf of natural gas (this conversion factor is an industry accepted norm and is an approximation of energy content but not current prices)		
boe/d	barrel of oil equivalent per day		
m <sup>3</sup>	cubic metres		
m <sup>3</sup> /d	cubic metres per day		
Mboe	thousand barrels of oil equivalent		
MMboe	million barrels of oil equivalent		

The measure “boe” may be misleading as an indication of value, particularly if used in isolation. A boe conversion ratio of 6 Mcf: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. As the value ratio between natural gas and crude oil based on the current prices of natural gas and crude oil is significantly different from the energy equivalency of 6:1, utilizing a conversion on a 6:1 basis may be misleading as an indication of value.

### ***Technical Terms***

“**apex**” means the thickest point of a formation;

“**API**” means the American Petroleum Institute, a trade association for the oil and natural gas industry in the United States, of which the Corporation is not a member;

“**API gravity**” or “**API**” means American Petroleum Institute gravity, which is a measure of how heavy or light a petroleum liquid is compared to water. If a petroleum liquid’s API gravity is greater than 10 degrees, it is lighter and floats on water; if less than 10 degrees, it is heavier than water. API gravity is thus a measure of the relative density of a petroleum liquid and the density of water, but it is used to compare the relative densities of petroleum liquids. A higher API gravity indicates a lighter and less dense liquid;

“**barrel**” means a unit of volume equal to 42 US gallons;

“**best estimate**” means at least a 50% probability (P50) that the quantities actually recovered will equal or exceed the best estimate;

“**bitumen**” means a naturally occurring solid or semi-solid hydrocarbon

(a) consisting mainly of heavier hydrocarbons, with a viscosity greater than 10,000 millipascal-seconds (mPa·s) or 10,000 centipoise (cP) measured at the hydrocarbon’s original temperature in the reservoir and at atmospheric pressure on a gas-free basis, and

(b) that is not primarily recoverable at economic rates through a well without the implementation of enhanced recovery methods;

“**carbonate**” means a class of sedimentary rock whose chief mineral constituents (95% or more) are calcite, aragonite and dolomite. Limestone, dolostone (or dolomite) and chalk are carbonate rocks. Carbonate rocks are common hydrocarbon reservoir rocks;

“**CO<sub>2</sub>e**” means carbon dioxide equivalent; an internationally recognized standard unit for describing different greenhouse gases;

“**Chance of Commerciality**” means the product of the Chance of Discovery and the Chance of Development;

“**Chance of Discovery**” means the estimated probability to discover a known accumulation. For contingent resources, the Chance of Discovery is considered to be one since the accumulation has been discovered through drilling of wells in the reservoir and a significant quantity of accumulation is proven through testing, sampling and logging;

“**Chance of Development**” means the estimated probability that, once the accumulation is discovered, a known accumulation will be commercially developed;

“**CHOPS**” means Cold Heavy Oil Production with Sand, a technique used for the extraction of conventional heavy oil in which sand is pumped out of the well bore with oil, leading to improved recovery;

“**clastic**” means sediment consisting of weathered fragments derived from pre-existing rocks and transported elsewhere and redeposited before forming another rock. Examples of common clastic sedimentary rocks include siliciclastic rocks such as conglomerate, sandstone, siltstone and shale;

“**cogeneration of power**” means generating steam and electric power at the same time from the same energy source;

“**completion**” means the process of making a well ready for production;

“**condensate**” means a low density mixture of the heavier hydrocarbons (C5+) in natural gas that condense out to a liquid at normal pressure and temperature and that is commonly used as a diluent for bitumen;

“**contingent resources**” means quantities of petroleum estimated, as of a given date, to be potentially recoverable from known accumulations using established technology or technology under development, but which are not currently considered to be commercially recoverable due to one or more contingencies. Contingencies may include factors such as economic, legal, environmental, political, and regulatory matters, or a lack of markets. Contingent resources are further classified in accordance with the level of certainty associated with the estimates and may be subclassified based on project maturity and/or characterized by their economic status;

“**conventional heavy oil**” means a heavy crude oil produced through conventional means without thermal stimulation that is measured at 20 API° or less. Sunshine’s conventional heavy oil development at Muskwa utilizes CHOPS for primary production without any thermal stimulation, but due to the nature of the oil produced at Muskwa it falls under the ‘Bitumen’ classification (quantified as crude oil with API gravities lower than 10 degrees and viscosities greater than 10,000 milliPascal seconds);

“**crude oil**” means a mixture consisting mainly of pentanes and heavier hydrocarbons that exists in the liquid phase in reservoirs and remains liquid at atmospheric pressure and temperature. Crude oil may contain small amounts of sulphur and other non-hydrocarbons but does not include liquids obtained from the processing of natural gas;

“**CSS**” means cyclic steam stimulation, an *in-situ* process used to recover bitumen from oil sands. In this method, the well is put through cycles of steam injection, soak and oil production. First, steam is injected into a well for a period of weeks to months; then, the well is allowed to sit for days to weeks to allow heat to soak into the formation and, later, the hot oil is pumped out of the well for a period of weeks or months. Once the production rate falls off, the well is put through another cycle of injection, soak and production;

“**delineation**” means determination of the physical boundary of an accumulation of petroleum substances underground;

“**delineation well**” means a well that is so closely located to another well penetrating an accumulation of petroleum that there is a reasonable expectation that another portion of the accumulation will be penetrated by the first mentioned well. The drilling of the first-mentioned well is necessary in order to determine the physical extent, reserves and commercial value of the accumulation;

“**Development Not Viable**” means no further data acquisition or evaluation is currently planned for the project and there is a low chance of development;

“**Development On Hold**” means the project is considered to have at least a reasonable chance of commerciality, but there are major non-technical contingencies that must be resolved before the project can move toward development;

“**Development Pending**” means the status of the project addressing all or part of a known accumulation where project activities are ongoing to justify commercial viability in the foreseeable future. The critical contingencies have been identified and are reasonably expected to be resolved within a reasonable time frame;

“**Development Unclassified**” means the project is still under evaluation or requires significant further appraisal to clarify the potential for development and the contingencies have yet to be fully defined;

“**dilbit**” means a blend of diluent and bitumen;

“**diluent**” means lighter viscosity petroleum products that are used to dilute bitumen for transportation in pipelines;

“**dolomite**” is a carbonate mineral. Geological formations that are dolomitized generally tend to be more productive because it involves replacing the calcium in calcium carbonate with magnesium that is slightly smaller in size. The net result is a smaller molecule in the same volume, thus increasing porosity of the rock;

“**Edmonton Par**” means Edmonton Par, a light sweet crude oil;

“**first steam**” means when steam is first injected into a well or well pair;

“**HCSS**” means horizontal CSS;

“**heavy crude oil**” means crude oil with a relative density greater than 10 degrees API gravity and less than or equal to 22.3 degrees API gravity;

“**high estimate**” means at least a 10% probability (P10) that the quantities actually recovered will equal or exceed the high estimate;

“**in-situ**” means “**in place**” and, when referring to oil sands, means a process for recovering bitumen from oil sands by means other than surface mining, such as SAGD or CSS;

“**low estimate**” means at least a 90% probability (P90) that the quantities actually recovered will equal or exceed the low estimate;

“**P&NG**” means petroleum and natural gas;

“**payout**” means the point at which all costs of leasing, exploring, drilling, development and operating have been recovered from production;

“**permeability**” means a measure of the ability of a rock to conduct a fluid through its interconnected pores (pore throat) when that fluid is at 100% saturation. A rock may be highly porous and yet impermeable if it has no pore throat. Geological formations that are highly permeable generally tend to be more productive because the steam used in SAGD can penetrate through the pore throats of the bitumen sands, growing the steam chamber, while allowing the less viscous bitumen to travel back through the pore throats for production;

“**petroleum**” means a naturally occurring mixture consisting of hydrocarbons in the gaseous, liquid or solid phase;

“**porosity**” means the ratio of void space to the bulk volume of rock containing that void space. Geological formations that are highly porous generally tend to be more productive because the higher the porosity, the greater capacity that volume has to hold fluid (i.e., bitumen);

“**possible reserves**” means those additional reserves that are less certain to be recovered than probable reserves. There is a 10% probability that the quantities actually recovered will be equal or exceed the sum of the estimated proved plus probable plus possible reserves;

“**probable reserves**” means 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;

“**prospective resources**” means those quantities of petroleum estimated, as of a given date, to be potentially recoverable from undiscovered accumulations by application of future development projects. Prospective resources have both an associated chance of discovery and a chance of development. Prospective resources are further subdivided in

accordance with the level of certainty associated with recoverable estimates assuming their discovery and development may be subclassified based on project maturity;

“**proved reserves**” means 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;

“**PV10%**” means the present value of estimated future net revenues to be generated from the production of proved reserves and discounted using an annual discount rate of 10%;

“**railbit**” means a blend of diluent and bitumen designed for transport by railcar instead of pipeline;

“**reserves**” means those quantities of petroleum anticipated to be commercially recoverable by the application of development projects to known accumulations from a given date forward under defined conditions. Reserves are classified according to the degree of certainty associated with the estimates;

“**SAGD**” means steam assisted gravity drainage, an *in-situ* recovery process used to produce heavy crude oil and bitumen. Two parallel horizontal wells, which are generally 5 metres apart, are drilled for the SAGD process. Steam is injected to the upper steam injector and a steam chamber is developed above the injector. With the growth of the steam chamber, mobilized bitumen drains to the producer below the injector and is lifted to the surface through an artificial lift system;

“**saturation**” means the fraction or percentage of the pore volume occupied by a specific fluid (e.g. oil, gas, water, etc.);

“**shoreline complex**” means a stratified sedimentary package composed largely of clastic material located parallel to and adjoining the edge of a standing water body that may contain depositional environments ranging from wave base through to beach and back barrier marsh;

“**SOR**” means steam to oil ratio;

“**TAGD**” means thermal assisted gravity drainage, an *in-situ* recovery process using down-hole heaters to heat oil reservoirs by thermal conduction;

“**working interest**” means a proportional interest in a lease granting its owner the right to explore, develop and produce resources from a property and to receive revenues in proportion to the working interest over the property and incur costs in proportion to the working interest over the property;

“**WCS**” or “**Western Canadian Select**” means a conventional heavy sour crude oil blend that contains crude oil that has been blended with lighter hydrocarbon diluents, such as condensate, to meet the required density and sulphur content; and

“**WTI**” means West Texas Intermediate, a light sweet crude oil.

### ***General Terms***

Wherever used in this Annual Information Form, unless the context otherwise requires, the following words and phrases shall have the meanings set forth below:

“**ABCA**” means the *Business Corporations Act*, RSA 2000, c B-9, together with any amendments thereto and all regulations promulgated thereunder;

“**AER**”, means the Alberta Energy Regulator (formerly the Energy Resources Conservation Board);

“**AEP**” means Alberta Environment and Parks, a ministry of the Government of Alberta;

“**AIF**” means this Annual Information Form;

“**ALSA**” means *Alberta Land Stewardship Act* SA 2009, c A-26.8, together with any amendments thereto and all regulations promulgated thereunder;

“**Amended and Restated Forbearance Agreement**” means the ARFA dated September 26, 2017.

“Forbearance Reinstatement and Amending Agreement\_ or the “FRAA” means the FRAA dated on October 31, 2018“**Annual and Special Meeting**” means the annual and special meeting of the shareholders of the Corporation held on January 26, 2012;

“**ASC**” means the Alberta Securities Commission, the regulatory agency responsible for administering the securities laws of Alberta;

“**AUC**” means the Alberta Utilities Commission, the regulatory agency responsible for regulating the utilities sector, natural gas and electricity markets in Alberta;

“**Bank of China**” means Bank of China Limited;

“**Board**” or “**Board of Directors**” means the board of directors of the Corporation, as constituted from time to time;

“**BOCGI**” means Bank of China Group Investment Limited, a wholly owned subsidiary of Bank of China, incorporated in Hong Kong and an indirect shareholder of the Corporation;

“**BGEC**” means Boury Global Energy Consultant Ltd., one of the independent qualified reserves evaluators (as such term is defined under NI 51-101) of the Corporation;

“**BGEC Report**” means the resource report prepared by Boury Global Energy Consultant Ltd. effective as of December 31, 2018;

“**Class “B” Shares**” means the Class “B” Common Voting Shares in the capital of the Corporation, and prior to the amendment of the Corporation’s Articles on February 28, 2012, the Class “B” Common Shares;

“**Class “G” Shares**” means the Class “G” Preferred Non-Voting Shares in the capital of the Corporation, and prior to the amendment of the Corporation’s Articles on February 28, 2012, the Class “G” Preferred Shares;

“**Class “H” Shares**” means the Class “H” Preferred Non-Voting Shares in the capital of the Corporation, and prior to the amendment of the Corporation’s Articles on February 28, 2012, the Class “H” Preferred Shares;

“**Climate Change and Emissions Management Act**” means *Climate Change and Emissions Management Act* (Alberta), SA 2003, c C-16.7, together with any amendments thereto and all regulations promulgated thereunder;

“**Climate Change and Emissions Management Fund**” or “**Fund**” means a provincial fund established pursuant to the *Climate Change and Emissions Management Act*;

“**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 (Petroleum Society), as amended from time to time;

“**Commissioner**” means the Commissioner of Competition, pursuant to the *Competition Act*, RSC 1985, c C-34;

“**Common Shares**” means the Common Shares in the capital of the Corporation, being the Shares, the Class “B” Shares, the Class “C” Non-Voting Common Shares, the Class “D” Non-Voting Common Shares, the Class “E” Non-Voting Common Shares, and the Class “F” Non-Voting Common Shares;

“**Companies Act**” means *Companies Act* (Alberta), RSA 2000, c C-21, together with any amendments thereto and all regulations promulgated thereunder;

“**Companies Ordinance**” means the *Companies Ordinance* (Chapter 32 of the Laws of Hong Kong), as amended, supplemented or otherwise modified from time to time;

“**Competition Act**” means the *Competition Act*, RSC 1985, c C-34, together with any amendments thereto and all regulations promulgated thereunder;

“**Corporation**”, “**Sunshine**”, “**we**”, “**our**”, or “**us**” means Sunshine Oilsands Ltd., a corporation incorporated under the ABCA in 2007;

“**COSL**” means China Oilfield Services Ltd., a company incorporated under the laws of China;

“**Crown**” means Her Majesty in Right of Alberta;

“**Crown Land Sales**” means the competitive process whereby the Government of Alberta awards leases of public land in Alberta;

“**Director(s)**” means the director(s) of the Corporation;

“**First Nations**” means the indigenous peoples of Canada;

“**Forbearance Agreement**” means the agreement among Forbearing Holders and the Corporation dated September 9, 2016;

“**Forbearance Reinstatement Agreement**” means the agreement among Forbearing Holders and the Corporation dated March 20, 2017 to fully reinstate the Forbearance Agreement;

“**Forbearing Holders**” means those Noteholders that entered into the Forbearance Agreement, the FRA and the ARFA;

“**GHG**” means Greenhouse gas;

“**GLJ**” means GLJ Petroleum Consultants Ltd., a limited liability company incorporated under the laws of Alberta and one of the independent qualified reserves evaluators (as such term is defined under NI 51-101) of the Corporation;

“**GLJ Report**” means the reserve and resource report which is evaluated separately and is prepared by GLJ effective as of December 31, 2018;

“**Global Offering**” means the initial public offering on the SEHK of 923,299,500 Shares in the capital of the Corporation at HK\$4.86 per Share for gross proceeds of approximately \$570 million (HK\$4,487 million);

“**ICA**” means the *Investment Canada Act* (Canada), RSC 1985, c 28 (1st Supp), together with any amendments thereto and all regulations promulgated thereunder;

“**IFRS**” means International Financial Reporting Standards, as issued by the International Accounting Standards Board;

“**Indenture**” means the indenture dated August 8, 2014 among Sunshine, The Bank of New York Mellon, as trustee, and BNY Trust Company of Canada, as collateral agent, providing for the creation and issuance of the Notes;

“**Independent Evaluators**” means both BGEC and GLJ;

“**Independent Reports**” means both the BGEC Report and the GLJ Report and the “**Independent Report**” means either one of them;

“**IPO**” means the initial public offering of Shares of the Corporation in March 2012;

“**Joint Operating Agreement**” means the joint operating agreement entered into between the Corporation and Renergy on October 20, 2013;

“**LARP**” means the Lower Athabasca Regional Plan;

“**Listing Committee**” means the Listing Committee of the SEHK;

“**Mines and Minerals Act**” means the *Mines and Minerals Act* (Alberta), RSA 2000, c M-17, together with any amendments thereto and all regulations promulgated thereunder;

“**Minister of Energy**” means the Minister of Energy for the Government of Alberta;

“**NI 51-101**” means National Instrument 51-101 - *Standards of Disclosure for Oil and Gas Activities*, as amended from time to time;

“**Nobao**” means Nobao Renewable Energy Holdings Limited, a Shanghai based company controlled by Mr. Kwok Ping Sun incorporated under the laws of the Cayman Islands;

“**Note Exchange Agreement**” means the agreement between certain Noteholders and the Corporation dated March 20, 2017 pursuant to which the Corporation repurchased Notes in exchange for Common Shares issued at a 19.9% discount to market price;

“**Notes**” means the 10.0% senior secured notes issued by Sunshine pursuant to the Indenture;

“**Noteholders**” means the holders of the Notes;

“**Oil Sands**” or “**oil sands**” means sands and other clastic rock materials which contain bitumen and include all other mineral substances in association therewith;

“**Oil Sands Lease**” means an oil sands lease pursuant to which the Crown grants the holder the right to develop and use oil sands resources existing under the *Oil Sands Tenure Regulation* on a primary or a continued basis;

“**Oil Sands Tenure Regulation**” means *Oil Sands Tenure Regulation* (Alberta), 2010, Alta Reg 196/2010, as amended, supplemented or otherwise modified from time to time;

“**Post-IPO Share Option Scheme**” means the stock option plan approved and adopted by the Corporation on January 26, 2012 for the grant of stock options to eligible participants following the completion of the Global Offering, as amended on May 6, 2013;

“**Preferred Shares**” means the preferred shares in the capital of the Corporation, being the Class “G” Shares, and the Class “H” Shares;

“**Pre-IPO Share Option Schemes**” means the stock option plan approved and adopted by the Corporation on May 9, 2007 and amended on April 30, 2008 and the stock option plan approved and adopted by the Corporation on May 7, 2009 and amended on June 13, 2010;

“**Renergy**” means Renergy Petroleum (Canada) Co., Ltd., an affiliate of Changjiang Investment Group Co., Ltd.;

“**SEDAR**” means the system for electronic document analysis and retrieval maintained by CDS Inc. under the website address <http://www.sedar.com/>;

“**SEHK**” means the Stock Exchange of Hong Kong Limited;

“**SGER**” means the *Specified Gas Emitters Regulation* (Alberta), Alta Reg 139/2007, enacted under the *Climate Change and Emissions Management Act* (Alberta), both as amended, supplemented or otherwise modified from time to time;

“**Shares**” means the Class “A” Common Voting Shares in the capital of the Corporation as listed on the SEHK, and prior to the amendment of the Corporation’s Articles on February 28, 2012, the Class “A” Common Shares;

“**Shareholders**” means the holder of the Shares and the holders of the Preferred Shares;

“**Share Option Schemes**” means the Pre-IPO Share Option Schemes and the Post-IPO Share Option Scheme;

“**Share Split**” means the 20 for 1 share split effected by the Corporation on February 10, 2012 in respect all of the issued and outstanding shares of the Corporation;

“**SIPC**” means Sinopec International Petroleum Exploration & Production Corporation, a company incorporated and existing under the laws of the People’s Republic of China, and a wholly owned subsidiary of Sinopec;

“**Sinopec**” means China Petroleum & Chemical Corporation, a joint stock limited company incorporated and existing under the laws of the People’s Republic of China and controlled by Sinopec Group;

“**Sinopec Group**” means China Petrochemical Corporation, a state-owned petroleum and petrochemical enterprise that was incorporated in July 1988;

“**Subscription Agreements**” means the three subscription agreements entered into between Sunshine and each of China Life Insurance (Overseas) Company Limited, Charter Globe Limited and Cross-Strait Common Development Fund Co. Limited in January and February 2011, under which China Life Insurance (Overseas) Company Limited subscribed for Class “B” Shares and Charter Globe Limited and Cross Strait Common Development Fund Co., Limited subscribed for Shares;

“**Surface Rights Act**” means *Surface Rights Act* (Alberta), RSA 2000, c S-24, together with any amendments thereto and all regulations promulgated thereunder;

“**Surface Rights Board**” means the Surface Rights Board established and continued under the *Surface Rights Act*;

“**Tax Act**” means *Income Tax Act* (Canada), RSC 1985, c 1 (5th Supp), together with any amendments thereto and all regulations promulgated thereunder;

“**TSX**” means the Toronto Stock Exchange; and

“**Water Act**” means the *Water Act* (Alberta), RSA 2000, c W-3, together with any amendments thereto and all regulations promulgated thereunder.

### ***Special Note Regarding Share Split***

All share information in this AIF is provided after giving effect to the Share Split (as defined below) that was approved by the Shareholders of the Corporation at the Annual and Special Meeting of the Shareholders on January 26, 2012. The Share Split became effective upon the filing of the Articles of Amendment on February 10, 2012.

### ***Currency of Information***

The information set out in this AIF is stated as at December 31, 2018, unless otherwise indicated. Capitalized terms used but not defined in the text are defined in the “*Glossary of Technical Terms*” and the “*Glossary of Terms*”.

***Dollar Amounts***

All dollar amounts set forth in this AIF are in Canadian dollars, except where otherwise indicated. References to “US\$” are to United States dollars and references to “HK\$” are to Hong Kong dollars.

## CORPORATE STRUCTURE

Sunshine was incorporated pursuant to the provisions of the ABCA on February 22, 2007. The registered office of Sunshine is located at Suite 1020, 903 – 8<sup>th</sup> Avenue S.W. Calgary, Alberta, T2P 0P7, Canada and its corporate head office and principal place of business is located at Suite 1020, 903 – 8<sup>th</sup> Avenue SW, Calgary, Alberta, T2P 0P7, Canada.

On May 4, 2007, Sunshine amended its articles of association (the “**Articles**”) to add restrictions on the transfer of its shares, removed restrictions on the number of shareholders allowable by the Corporation, removed the prohibition on the Corporation from making an invitation to the public to subscribe for its securities and included a provision with respect to appointment of additional directors between annual general meetings.

On February 10, 2012, the Corporation amended its Articles to give effect to a 20 for 1 share split of all of the issued and outstanding shares of the Corporation (the “**Share Split**”).

On February 28, 2012, the Corporation amended its Articles to increase the maximum number of directors of the Corporation from ten to fifteen, amended the retraction rights available to the holders of the Class “G” Shares and the Class “H” Shares, removed the voting rights available to the holders of the Class “G” Shares, removed the provision with respect to liens the Corporation had against the issued and outstanding shares of its registered Shareholders to the extent of their indebtedness to the Corporation, included a provision in the Articles that any future amendments or repeals of the Corporation’s by-law would only be effective if passed by a special resolution of Shareholders, re-designated each class of shares of the Corporation such that each class of shares are expressly indicated as being either “voting” or “non-voting” shares of the Corporation and removed its private corporation restrictions with respect to restrictions on the transfer of shares of the Corporation.

On May 29, 2012, Sunshine Shareholders approved amendments to its bylaws in order to be consistent with the rules governing the listing of securities on the SEHK. The bylaws now expressly provide that all votes at shareholder meetings will be made by way of ballot, except where the Chair decides to allow a vote on purely procedural or administrative matters to be by show of hands. Sunshine’s Bylaws were also amended to provide that any person entitled to attend and vote at a meeting of shareholders may appoint another person as his or her proxy, a person entitled to attend and vote at a meeting of shareholders who holds two or more shares may appoint more than one proxy and a clearing house (or its nominee(s)) entitled to attend and vote at a meeting of shareholders may authorize such person as it thinks fit to act as its representative at any meeting of Sunshine’s shareholders (provided that if more than one person is so authorized, the authorization shall specify the number and class of shares in respect of which each representative is authorized). Finally, Sunshine’s Bylaws were amended to provide that all transfers of shares shall be effected by transfer in writing in the usual form, on the back of Sunshine’s share certificates or such other form as the Board may accept provided that it shall be in such a form prescribed by the SEHK and under hand only except where the transferor or transferee is a Clearing House (or its nominee(s)) or where otherwise approved by the Board.

On May 4, 2012, Sunshine Oilsands (Hong Kong) Limited (“**Sunshine Hong Kong**”) was incorporated in Hong Kong under the Companies Ordinance (Chapter 32 of the Laws of Hong Kong) and is a wholly-owned subsidiary of the Corporation. The address of the principal place of business for Sunshine Hong Kong is Unit 8504A, 85/F, International Commerce Centre 1 Austin Road West, Kowloon.

On July 14, 2015, Boxian Investments Limited (“**Boxian**”) was incorporated in the British Virgin Islands and is a wholly-owned subsidiary of the Corporation. The address of the principal place of business for Boxian is P.O. Box 957, Offshore Incorporation Centre, Road Town, Tortola, British Virgin Islands. As of December 31, 2018, no activity has occurred in Boxian. The purpose of Boxian is to pursue new investment opportunities.

On March 24, 2017, Sang Xiang Petroleum & Chemical (Shanghai) Limited (“**Sunshine Shanghai**”) was incorporated in China and is a wholly-owned subsidiary of the Corporation. The address of the principal place of business for Sunshine Shanghai is Building 1, Level 6, Room 41, 39 Jia Tai Road, the China (Shanghai) Pilot Free Trade Zone.

## GENERAL DEVELOPMENT OF THE BUSINESS

### Three Year History

The following is a summary of significant events in the development of the Corporation's business over the past three years:

#### 2016

January 2016 was the first month the Corporation produced oil from the wells through the installed electric submersible pumps (ESPs) at the West Ells project. In July 2016, three more ESPs were installed. In October/November 2016 the remaining three ESPs were installed. In the meantime, all the wells were gradually heated up by circulating steam in the well bores to reach the optimum pressure and temperature to mobilize the bitumen for production. Currently, all 8 well pairs are in early SAGD production.

On March 15, 2016, the Corporation entered into a subscription agreement with Bright Hope Global Investments Limited for a total of 558,823,500 Common Shares at HK\$0.34 per Common Share (the "**Bright Hope Financing**").

On April 27, 2016, Sunshine completed a portion of the Bright Hope Financing of a total of 88,234,000 Common Shares at a price of HK\$0.34 per Common Share (approximately \$0.055 per Common Share at the time of closing) for aggregate gross proceeds of HK\$29,999,560 (approximately \$4.9 million at the time of closing).

In May 2016, the largest wildfire in Alberta history struck Fort McMurray, Alberta and put a halt to all activities at the West Ells project site. A Provincial State of Emergency was called in early May and on May 17, 2016, with the wildfire out-of-control, a mandatory evacuation from the Government was issued which affected the project. The Corporation was required to evacuate all employees from the site and used charter air service due to road closures and the plant was shut down in a matter of hours. The project was suspended for 38 days. Once the threats and hazardous areas were secured, it took the Corporation weeks to re-establish the camp, to organize the work crew and to systematically re-start the plant. It is estimated that this shutdown pushed back the production timeline for at least 3-4 months.

On June 3, 2016, Sunshine completed a portion of the Connected Persons Financing of a total of 13,333,333 Common Shares at a price of HK\$0.75 per Common Share (approximately \$0.126 per Common Share at the time of closing) for aggregate gross proceeds of HK\$10,000,000 (approximately CDN\$1.68 million).

On June 22, 2016, Sunshine completed a portion of the Bright Hope Financing of a total of 58,871,000 Common Shares at a price of HK\$0.34 per Common Share (approximately CDN\$0.056 per Common Share at the time of closing) for aggregate gross proceeds of HK\$20,016,140 (approximately CDN\$3.3million).

On June 23, 2016, Sunshine completed a portion of the Connected Persons Financing of a total of 40,000,000 Common Shares at a price of HK\$0.75 per Common Share (approximately CDN\$0.124 per Common Share at the time of closing) for aggregate gross proceeds of HK\$30,000,000 (approximately CDN\$4.96 million).

On July 21, 2016, Sunshine completed a portion of the Connected Persons Financing of a total of 96,400,000 Common Shares at a price of HK\$0.75 per Common Share (approximately CDN\$0.126 per Common Share at the time of closing) for aggregate gross proceeds of HK\$72,300,000 (approximately CDN\$12.2 million).

On August 1, 2016, the Corporation entered into a forbearance arrangement with Noteholders whereby the Noteholders agreed not to enforce the rights under the Indenture prior to August 8, 2016, subject to certain restrictions, in order to provide the Corporation and the Noteholders with additional time to finalize definitive documentation.

The Corporation entered into a further forbearance arrangement with Noteholders on August 11, 2016, pursuant to which Noteholders agreed not to enforce their rights in respect of the Notes prior to August 15, 2016, subject to certain restrictions. On August 16, 2016, the forbearance arrangement was further extended until August 22, 2016. Pursuant to the forbearance arrangement, Sunshine paid a US\$10 million installment of interest due on the Notes as at August 1, 2016.

On August 21, 2016, Sunshine completed portion of the Connected Persons Financing of a total of 152,000,000 Common Shares at a price of HK\$0.75 per Common Share (approximately CDN\$0.126 per Common Share at the time of closing) for aggregate gross proceeds of HK\$114,000,000 (approximately CDN\$19.16 million).

On August 29, 2016, the Corporation and a majority of the Noteholders agreed to further extend the forbearance arrangement. As a result of this extension, the forbearing Noteholders agreed not to enforce their rights in respect of the Notes prior to August 31, 2016, subject to certain restrictions.

On September 1, 2016, the Corporation announced that Noteholders representing at least 94% of the outstanding Notes had agreed to extend the forbearance period under the forbearance arrangement. As a result of this extension, the Noteholders that were party to the forbearance arrangement agreed not to enforce their rights in respect of the Notes prior to September 9, 2016, subject to certain restrictions.

On September 9, 2016, the Corporation and Noteholders representing 84.5% of the outstanding Notes (the “**Forbearing Holders**”) entered into a forbearance agreement in respect of the Notes (the “**Forbearance Agreement**”). On September 12, 2016, Noteholders representing a further 11.5% of the outstanding Notes signed onto the Forbearance Agreement (for total Noteholders representing 96% of the outstanding Notes). The principal terms of the Forbearance Agreement included: (a) payment on October 17, 2016, of the yield maintenance premium payment due on August 1, 2016; (b) payment of the coupon interest accruing on the Notes and repurchase of US\$22.5 million in principal amount of the Notes on February 1, 2017; (c) payment of the principal of the Notes and the coupon interest on the Notes on August 1, 2017; (d) payment of forbearance fees accruing at 2.50% on the principal amount of the Notes held by the Forbearing Holders; (e) payment of a fee equal to 7.298% of the outstanding principal amount of the Notes held by the Forbearing Holders on August 1, 2017 and proportionately smaller fees if the Notes are repurchased or redeemed prior to that date; (f) covenants relating to minimum liquidity to be maintained by the Corporation for specified periods; (g) board of director observation rights for certain significant Noteholders; (h) use of proceeds restrictions for the proceeds of any asset sales completed by the Corporation; (i) budget approval rights; and (j) requirements that the Corporation raise additional capital and provide additional security for the Notes.

On September 14, 2016, Sunshine signed a non-binding memorandum of understanding for the potential acquisition of a 51% shareholding interest in Nobao.

The Corporation’s voluntary delisting from the Toronto Stock Exchange was completed on September 30, 2016.

The Corporation entered into discussions with the Forbearing Holders about altering the timing and the form of payment of the yield maintenance premium to the Forbearing Holders due on October 16, 2016, as required by the Forbearance Agreement.

On October 24, 2016, Sunshine completed a portion of the Bright Hope Financing of a total of 137,941,176 Common Shares at a price of HK\$0.34 per Common Share (approximately CDN\$0.06 per Common Share at the time of closing) for aggregate gross proceeds of HK\$46,900,000 (approximately CDN\$8.05 million).

On October 24, 2016, Sunshine completed a portion of the Connected Persons Financing of a total of 13,333,333 Common Shares at a price of HK\$0.75 per Common Share (approximately CDN\$0.13 per Common Share at the time of closing) for aggregate gross proceeds of HK\$10,000,000 (approximately CDN\$1.72 million).

On October 31, 2016, Sunshine completed a portion of the Bright Hope Financing of a total of 23,529,412 Common Shares at a price of HK\$0.34 per Common Share (approximately CDN\$0.06 per Common Share at the time of closing) for aggregate gross proceeds of HK\$8,000,000 (approximately CDN\$1.38 million).

On November 21, 2016, the Bright Hope Financing was mutually terminated.

On November 27, 2016, all eight well pairs in West Ells were put into production.

On December 1, 2016, Sunshine completed the final portion of the Connected Persons Financing of a total of 98,453,334 Common Shares at a price of HK\$0.75 per Common Share (approximately CDN\$0.13 per Common Share at the time of closing) for aggregate gross proceeds of HK\$73,840,000 (approximately CDN\$12.69 million).

On December 14, 2016, Sunshine completed a non-brokered private placement of a total of 50,000,000 Common Shares at a price of HK\$0.321 per Common Share (approximately CDN\$0.054 per Common Share at the time of closing) for aggregate gross proceeds of HK\$16,050,000 (approximately CDN\$2.7 million).

On December 28, 2016 Sunshine entered into a subscription agreement for 150,000,000 Common Shares at a price of HK\$0.28 per Common Share (approximately CDN\$0.048 per Common Share at the time of closing) for aggregate gross proceeds of HK\$42,000,000 (approximately CDN\$7.3 million).

## 2017

On January 2, 2017, the West Ells project reached a production volume of 2,200 barrels of crude per day.

On January 17, 2017, the Corporation entered into a subscription agreement for a total of 60,000,000 common shares at a price of HK\$0.262 per share (approximately CDN\$0.045 per common share), for gross proceeds of HK\$15,744,000 (approximately CDN\$2.7 million). On January 24, 2017, the Corporation completed the closing of this subscription agreement. In addition, a placing commission of HK\$117,900 (approximately CDN\$0.02 million), was incurred in relation to the Closing.

On January 31, 2017, the Corporation announced that it was negotiating, among other things, the obligation to make an interest payment and to repurchase US\$22.5 million in principal amount of the Notes on February 1, 2017, pursuant to the Forbearance Agreement. However, these payments were not made.

On February 16, 2017, the non-binding memorandum of understanding for the potential acquisition of a 51% shareholding interest in Nobao was terminated as the conditions necessary to complete the transaction had not been fulfilled.

The Corporation and the certain Noteholders entered into a Note Exchange Agreement dated March 20, 2017 pursuant to which Sunshine agreed to repurchase an aggregate of US\$8.9 million principal amount of Notes from Forbearing Holders in exchange for US\$8.9 million in Common Shares issued at a 19.9% discount to market price. This transaction was not completed.

On March 20, 2017, the Corporation and Forbearing Holders agreed to reinstate the Forbearance Agreement by entering into the Forbearance Reinstatement Agreement pursuant to which, *inter alia*, the Corporation agreed to cure various defaults under the Forbearance Agreement and to pay Noteholders an aggregate of US\$5.2 million in cash to satisfy a portion of the outstanding yield maintenance premium, interest and fees due under the Indenture and Forbearance Agreement.

In 2017, the West Ells project was in early SAGD operation mode. With all 8 well pairs in early SAGD production, the average production rate was about 310 m<sup>3</sup>/day (1950 bbl/d) with peak production of 623 m<sup>3</sup>/d (3920 bbl/d). The Corporation continues to focus on increasing production and improving efficiency. Through optimization of operation processes, revamped and tuned equipment, the plant had improved heat recovery and reduced diluent usage. The Corporation also commissioned one of the HRSGs (Heat Recovery Steam Generator) which provided approximately 260 m<sup>3</sup>/day of additional steam to the injection wells. Two ESPs (Electrical Submersible Pump) were replaced in the production wells that were capable of handling a higher production volume.

On March 16, 2017, the Corporation entered into a subscription agreement for a total of 247,350,000 class "A" common shares at a price of HK\$0.283 per share (approximately CDN\$0.050 per common share), for gross proceeds of HK\$70,000,050 (approximately CDN\$12.1 million). On March 24, 2017, the Corporation completed the closing of this

subscription agreement. In addition, a placing commission of HK\$525,000 (approximately CDN\$0.09 million), was incurred in relation to the Closing.

On March 28, 2017, the Corporation completed the closing of 40,000,000 Common Shares HK\$0.29 (approximately CDN\$0.050 per Common Share). The Corporation received total gross proceeds of HK\$11,599,985 (approximately CDN\$2.0 million) after which the subscription agreement expired and the private placement of additional Common Shares lapsed.

On April 5, 2017, the Corporation entered into a subscription agreement for a total of 140,874,000 Common Shares at a price of HK\$0.241 per share (approximately CDN\$0.041 per Common Share), for gross proceeds of HK\$33.95 million (approximately CDN\$5.8 million). On April 13, 2017, the Corporation completed the closing of this subscription agreement.

On May 31, 2017, the Corporation entered into a subscription agreement for a total of 67,511,000 Common Shares at a price of HK\$0.237 per share (approximately CDN\$0.041 per Common Share), for gross proceeds of HK\$15,880,106 (approximately CDN\$2.74 million). On June 7, 2017, the Corporation completed the closing of this subscription agreement. In addition, a placing commission of HK\$122,314 (approximately CDN\$20,000.00), was incurred in relation to the Closing.

On June 5, 2017, the Corporation entered into a subscription agreement with Prime Union at the issue price of HK\$0.234 per Common Shares (approximately CDN\$0.041 per Common Share) for an aggregate cash consideration of HK\$106,487,500.4 (approximately CDN\$18.5 million). Prime Union is a company directly wholly owned by Mr. Kwok Ping Sun who is a substantial shareholder and the Executive Chairman of the Corporation. The subscription would be issued pursuant to the Special mandate to be sought from the Independent Shareholders at Special General Meeting (“SGM”). On August 4, the SGM was held in Sunshine Hong Kong office, and the subscription agreement resolution was duly passed as an ordinary resolution. The subscription agreement lapsed on August 28, 2017.

On August 24, 2017 the Corporation signed an unsecured loan agreement (the “Loan”) with Prime Union Enterprises Limited (“Prime Union”). Prime Union is 100% owned by Mr. Kwok Ping Sun, the Corporation’s Executive Chairman. The Loan amount is HK\$ 14,058,885 (approximately CDN\$2.27 million), and the loan had an interest rate of 6.0% per annum and required repayment in full within three months from the date of the receipt of the Loan.

On September 26, 2017, the Corporation and the Forbearing Holders entered into an Amended and Restated Forbearance Agreement (the “**Amended and Restated Forbearance Agreement**”) to extend forbearance until August 1, 2018. The Amended and Restated Forbearance Agreement provided that *inter alia* forbearance would extend until August 1, 2018, if the Corporation: (i) repurchased \$1.66 million Notes upon signing (inclusive of outstanding interest and applicable forbearance fees), \$1.8 million Notes on or before October 30, 2017, \$5 million Notes on or before February 1, 2018 and \$15 million Notes on or before May 1, 2018; (ii) completed quarterly financings of \$5 million or more commencing November 1, 2018; (ii) made the prescribed interest payments; and (iii) paid the prescribed forbearance fees. However, Sunshine did not complete the October 30, 2017 and February 1, 2018 Note repurchases required under the Amended and Restated Forbearance Agreement.

On October 18, 2017, the Corporation entered into a subscription agreement for a total of 8,934,755 Common Shares at a price of HK\$0.257 per share (approximately CDN\$0.041 per common share), for gross proceeds of HK\$2.3 million (approximately CDN\$0.4 million). On October 31, 2017, the Corporation completed the closing of this subscription agreement. This subscription agreement was entered into for settlement of indebtedness with an independent third party.

On November 16, 2017 and November 28, 2017, the Corporation signed an unsecured loan agreement (the “Loan”) with Prime Union. The Loan amounts were HK\$15,200,000 (approximately CDN\$2.48 million) and HK\$18,269,768 (approximately CDN\$3.0 million), and the loan had an interest rate of 6.0% per annum and required repayment in full within three months from the date of the receipt of the Loan.

On December 14, 2017, the Corporation entered into a subscription agreement for a total of 60,606,500 Common Shares at a price of HK\$0.264 per share (approximately CDN\$0.043 per Common Share), for gross proceeds of HK\$16,000,116 (approximately CDN\$2.6 million). On December 20, 2017, the Corporation completed the closing of this subscription agreement. In addition, a placing commission of HK\$482,319 (approximately CDN\$0.08 million), was incurred in relation to the Closing.

## **2018**

On January 16, 2018 the Corporation entered into a subscription agreement for a total of 80,882,500 class “A” common shares at a price of HKD \$0.272 per share (approximately CAD \$0.043 per common share), for gross proceeds of HKD \$22.0 million (approximately CAD \$3.5 million). On January 22, 2018 the Corporation completed the closing of this subscription agreement. In addition, a placing commission of HKD \$0.7 million (approximately CAD \$0.1 million), was incurred in relation to the placement.

On February 5, 2018 the Corporation entered into a subscription agreement for a total of 122,951,000 class “A” common shares at a price of HKD \$0.244 per share (approximately CAD \$0.039 per common share), for gross proceeds of HKD \$30.0 million (approximately CAD \$4.79 million). On February 13, 2018 the Corporation completed the closing of 116,803,500 class “A” common shares at a price of HKD \$0.244 per share for gross proceeds of HKD \$28.5 million (approximately CAD \$4.6 million) of this subscription agreement. In addition, a placing commission of HKD \$0.9 million (approximately CAD \$0.14 million), was incurred in relation to the Closing. The subscription agreement expired on February 13, 2018 and hence the time to close the remaining 6,147,500 class “A” common shares lapsed.

On February 28, 2018 the Corporation entered into a settlement agreement for a total of 102,436,500 class “A” common shares at a price of HKD \$0.245 per share (approximately CAD \$0.040 per common share), for gross proceeds of HKD \$25.1 million (approximately CAD \$4.1 million). On March 14, 2018 the Corporation completed the closing of this settlement agreement. This settlement agreement was entered into for settlement of indebtedness with two independent third parties.

On March 2, 2018 the Corporation entered into a settlement agreement for a total of 20,393,059 class “A” common shares at a price of HKD \$0.245 per share (approximately CAD \$0.040 per common share), for gross proceeds of HKD \$5.0 million (approximately CAD \$0.8 million). On March 14, 2018 the Corporation completed the closing of this settlement agreement. This settlement agreement was entered into for settlement of indebtedness with independent third parties.

On June 7, 2018 the Corporation entered into a settlement agreement for a total of 30,765,000 class “A” common shares at a price of HKD \$0.214 per share (approximately CAD \$0.035 per common share), for gross proceeds of HKD \$6.6 million (approximately CAD \$1.1 million). On June 15, 2018 the Corporation completed the closing of this settlement agreement. This settlement agreement was entered into for settlement of indebtedness with an independent third party.

On July 6, 2018, the Corporation entered into a settlement agreement for a total of 14,322,500 class “A” common shares at a price of HKD \$0.192 per share (approximately CAD \$0.032 per common share), for gross proceeds of HKD \$2.75 million (approximately CAD \$0.46 million). This settlement agreement was entered into for settlement of indebtedness with an independent third party.

On September 11, 2018, the Corporation entered into a settlement agreement for a total of 11,868,000 class “A” common shares at a price of HKD \$0.159 per share (approximately CAD \$0.026 per common share), for gross proceeds of HKD \$1.89 million (approximately CAD \$0.31 million). On September 20, 2018 the Corporation completed the closing of this settlement agreement. This settlement agreement was entered into for settlement of indebtedness with an independent third party.

On September 17, 2018, the Corporation entered into a settlement agreement for a total of 8,247,500 class “A” common shares at a price of HKD \$0.166 per share (approximately CAD \$0.028 per common share), for gross proceeds of HKD \$1.37 million (approximately CAD \$0.23 million). On September 21, 2018 the Corporation completed the closing of this

settlement agreement. This settlement agreement was entered into for settlement of indebtedness with an independent third party

On November 2, 2018, the Corporation entered into a settlement agreement for a total of 32,832,000 class “A” common shares at a price of HKD \$0.146 per share (approximately CAD \$0.0246 per common share), for gross proceeds of HKD \$4.79 million (approximately CAD \$0.81 million). On November 16, 2018 the Corporation completed the closing of this settlement agreement. This settlement agreement was entered into for settlement of indebtedness with an independent third party.

On November 14, 2018, the Corporation entered into a settlement agreement for a total of 2,199,500 class “A” common shares at a price of HKD \$0.152 per share (approximately CAD \$0.0257 per common share), for gross proceeds of HKD \$0.33 million (approximately CAD \$0.06 million). On November 21, 2018 the Corporation completed the closing of this settlement agreement. This settlement agreement was entered into for settlement of indebtedness with an independent third party.

On November 23, 2018, the Corporation entered into a settlement agreement for a total of 1,000,500 class “A” common shares at a price of HKD \$0.144 per share (approximately CAD \$0.0245 per common share), for gross proceeds of HKD \$0.14 million (approximately CAD \$0.02 million). On November 29, 2018 the Corporation completed the closing of this settlement agreement. This settlement agreement was entered into for settlement of indebtedness with an independent third party.

On June 25, 2018, the Corporation entered into a subscription agreement for convertible bonds in the principal amount up to HKD \$11 million (approximately CAD \$1.87 million) with independent third parties. With an initial conversion price of HKD \$0.207 per share (approximately CAD \$0.035 per share), a maximum of 53,140,097 Class “A” common shares will be allotted and issued upon the full conversion of the placing convertible bonds. The convertible bonds interest rate was 5.0% per annum and required repayment in full within three months from the maturity date. On July 5, 2018, the Corporation completed the placing of convertible bonds. The Conversion Period expired on September 30, 2018 and no conversion right attached to the Placing CB had been exercised. As such, all Placing CB were redeemed by the Corporation and will forthwith be cancelled. On November 30, 2018, the Corporation received conversion notices from all Placees and they exercised all the Conversion Rights attached to the Placing CB to convert the whole principal amount of the Placing CB into Shares at the Conversion Price of HK\$0.210 per share (approximately CAD \$0.036 per share). Accordingly, 52,380,952 Class “A” common shares will be allotted and issued to the Placees pursuant to the terms and conditions of the Placing CB.

On December 5, 2018, the Corporation entered into a settlement agreement for a total of 27,983,000 class “A” common shares at a price of HKD \$0.137 per share (approximately CAD \$0.0234 per common share), for gross proceeds of HKD \$3.83 million (approximately CAD \$0.66 million). On December 14, 2018 the Corporation completed the closing of this settlement agreement. This settlement agreement was entered into for settlement of indebtedness with an independent third party.

On December 20, 2018, the Corporation entered into a settlement agreement for a total of 5,854,500 class “A” common shares at a price of HKD \$0.133 per share (approximately CAD \$0.0232 per common share), for gross proceeds of HKD \$0.78 million (approximately CAD \$0.14 million). On December 28, 2018 the Corporation completed the closing of this settlement agreement. This settlement agreement was entered into for settlement of indebtedness with an independent third party.

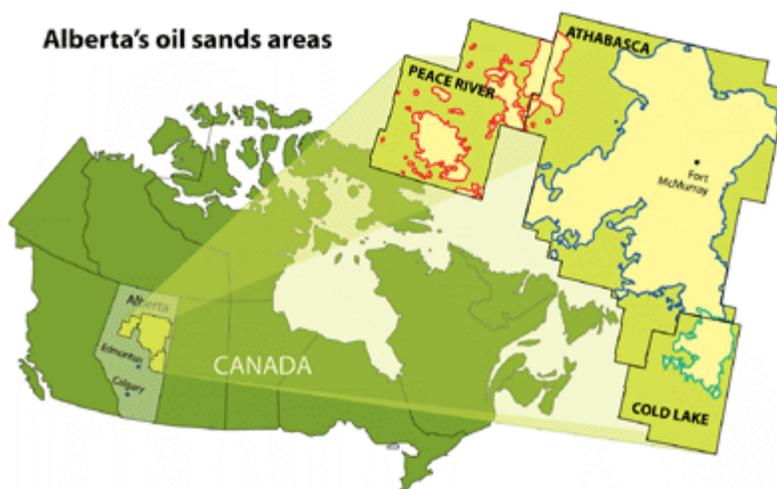
### **SIGNIFICANT ACQUISITIONS**

Sunshine did not complete any significant acquisitions during the financial year ended December 31, 2018 for which disclosure is required under Part 8 of National Instrument 51-102 – *Continuous Disclosure Obligations*.

## DESCRIPTION OF THE BUSINESS

### Overview

Sunshine is headquartered in Calgary, Alberta and the Corporation's principal operations are the evaluation and development of its diverse portfolio of Oil Sands Leases in the Athabasca region of the Province of Alberta. The Corporation's seven principal operating regions in the Athabasca area are at West Ells, Thickwood, Legend Lake, Harper, Muskwa, Goffer and Portage. In addition, the Corporation has non-principal areas with no immediate development plans located at East Long Lake, Godin, Saleski and South Thickwood. The Athabasca region is the largest oil sands region in Alberta, and Canada's oil sands represent the largest oil resource found in a stable political environment located in the western hemisphere and the third largest oil resource in the world, with 168 billion bbls (27 million cubic metre) of estimated resources. The Canadian oil sands are the largest single source of supply of oil imported into the United States.



Source: AER

Sunshine is focused on development of its assets, having undertaken construction development at West Ells and, in late 2013, Sunshine obtained approval for a 10,000 bbl/d project at Thickwood. Sunshine is awaiting regulatory approval for an additional 10,000 bbl/d project at Legend Lake, with such approval being anticipated in 2019. Incremental development of West Ells and Legend Lake in modular and scalable phases will assist in managing project timing and cost pressures, as well as allowing Sunshine to take advantage of any improvements in recovery technologies. With approximately 263 MMbbls of proved plus probable reserves, Sunshine has significant commercial development potential. Sunshine's commercial development plans in the West Ells and Legend Lake areas target 130,000 bbl/d of potential risked production capacity from these areas.

Improvement work was continuously performed to increase the efficiency of the West Ells SAGD plant. These improvements included: 1) recovered heat from the operation processes to increase the temperature of the makeup water and water to the boiler; 2) increased density of the sales oil to reduce usage of the diluent; 3) revamped operation processed to reduce the usage of diluent for oil treatment; 4) commissioned one of two HRSG to provide additional 260 m<sup>3</sup>/day of injection steam to the wellpad; 5) replaced two ESP with higher capacity and increased the throughput of the individual wells All 8 well pairs are in early production stages. The focus is to promote the growth of the steam chamber and ramp up the wells to target production rate (which can take 12 to 18 months) and to increase the up time and reliability of the equipment in the facility to designed capacity of 5,000 bbls/d of oil production.

### Oil Sands Leases

Sunshine holds approximately 990,807 acres (approximately 393,323 hectares) of leases (including Sunshine's Oil Sands Leases and P&NG leases and licences) in the Athabasca oil sands region of north eastern Alberta that we have acquired, primarily through Crown Land Sales and also by purchases from third parties, for approximately \$81.5 million. Sunshine

has a 100% working interest in almost all of our oil sand leases with the exception of our oil sand leases in the Godin and Muskwa region (in which Sunshine has retained our 100% working interest position in the carbonate formations but has granted Renenergy a 50% working interest in the clastic formations pursuant and subject to the terms of the Joint Operating Agreement). Sunshine's portfolio of Oil Sands Leases consists of three distinct asset categories: clastics, carbonates and conventional heavy oil.

The map on the next page highlights Sunshine's Oil Sands Leases.

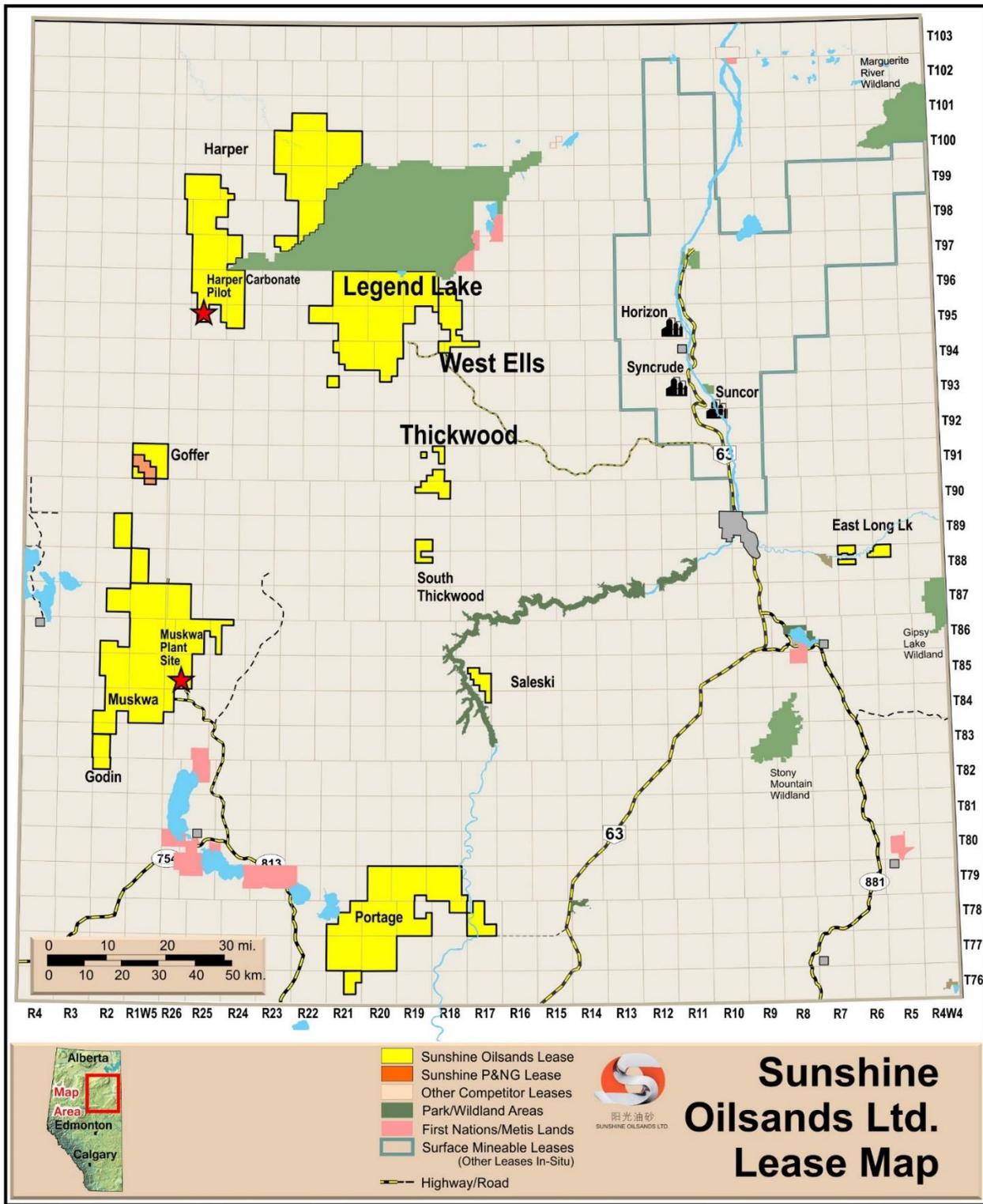


Figure 1: Sunshine Oilsands Ltd. Lease Map

This AIF includes estimates of Sunshine's reserves and resources made by GLJ and BGEC. These estimates are described in the section titled "*Statement of Reserves Data and Other Oil and Gas Information*" and "*Appendix A – The Corporation's Resources*".

## **Development of Sunshine's Assets**

### **West Ells**

The West Ells asset area consists of approximately 9,600 hectares of contiguous oil sands leases and is located within the Athabasca oil sands region between townships 94 to 96 and ranges 17 and 18 west of the fourth meridian. This area is contiguous with the Corporation's Legend Lake asset area, providing synergies in development plans for the combined area. The area is located approximately 80 km to the northwest of the city of Fort McMurray, with permanent road access completed to the West Ells site. This permanent road access links West Ells to Provincial Highway 63 just north of Fort McMurray. In addition, natural gas pipeline infrastructure exists in the immediate West Ells area and service is connected to the West Ells site.

The bitumen reservoir at West Ells is contained in the Wabiskaw member of the Clearwater formation, which is a clastic reservoir. In the GLJ Report, GLJ has assigned an estimated 77 MMbbls of proved undeveloped reserves and 132 MMbbls of proved plus probable undeveloped reserves. The asset is expected to be exploitable using proven SAGD technology.

### ***Project Development***

Sunshine plans to develop the West Ells asset area using a staged development strategy. Phase 1 is expected to provide the initial 5,000 bbl/d of production, while Phase 2 is expected to provide an additional 5,000 bbl/d of the Corporation's 170,000 bbl/d risked development plan in the clastics. Sunshine has the potential to develop the West Ells asset (70,000 bbl/d) in conjunction with the Legend Lake area (60,000 bbl/d), providing an estimated 130,000 bbl/d of risked capacity towards this strategy. In support of this, the Corporation has progressed environmental field work and completed engineering efforts in support of commercial applications planned for 2020 in Legend Lake.

Sunshine obtained regulatory approval for the first 10,000 bbl/d SAGD facility on January 26, 2012 (West Ells Phase 1 and 2), and the project began construction in late 2012. For the year ended December 31, 2018, approximately \$1.3 million was incurred for West Ells equipment, engineering construction, civil works, completions, commissioning & start-up activities and other post-suspension project related expenditures.

Improvement work was continuously performed to increase the efficiency of the West Ells SAGD plant. The improvements were: 1) recovered heat from the operation processes to increase the temperature of the makeup water and water to the boiler; 2) increased density of the sales oil to reduce usage of the diluent; 3) revamped operation processes to reduce the usage of diluent for oil treatment; 4) commissioned HRSG to provide additional 260 m<sup>3</sup>/day of injection steam to the wellpad; 5) replaced two ESP's with higher capacity and increased the throughput of the individual wells

Production rates at the Corporation's West Ells project have been temporarily reduced due to market condition since Q3-2018. The Corporation is committed to continue with the following key project activities in 2019 : (i) improve energy efficiency and the reliability of the Phase 1 facility; (ii) replace ESPs with higher capacity in better wells ; (iii) ramp up production; (iv) achieve steady state operations; and (v) continue diversifying marketing options.

### **Thickwood**

The Thickwood region consists of 7,936 hectares of oil and gas leases of which the Oil Sands Leases covering 5,888 hectares and is located within the Athabasca oil sands region between Townships 90 and 91 and Range 18 west of the fourth meridian, approximately 90 km from Fort McMurray and 40 km from West Ells.

The bitumen reservoir at Thickwood is contained in the Wabiskaw member of the Clearwater formation, which is a clastic reservoir. Consistent with 7 year-end, no reserves are assessed at Thickwood in 2018 the year-end GLJ Report.

Furthermore, best estimate contingent resources were determined by GLJ to be sub-economic; no economic contingent resources are presented in the GLJ Report

### ***Project Development***

The Corporation filed an application for regulatory approval for the first 10,000 bbl/d project in October 2011 and approval was obtained in September 2013. Since then, the Corporation has continued its internal design and planning for development of this asset.

Following completion of Phase 2 of the 10,000 bbl/d West Ells SAGD project, Sunshine intends to develop Legend Lake area and then the Thickwood area in phases in order to control costs, implement improvements in recovery technologies, improve efficiency and apply learnings from West Ells operation.

Sunshine plans to further develop the Thickwood asset area using a staged development strategy. Commercial expansion of this area to 40,000 bbl/d of risked production is a key component of the Corporation's 170,000 bbl/d risked development capacity in the clastics.

### **Legend Lake**

The Legend Lake asset area consists of 9,216 hectares of oil sands leases and is located within the Athabasca oil sands region in Township 96 and Range 18 west of the fourth meridian, approximately 100 km from Fort McMurray and 15 km from West Ells. The Legend Lake lease area is contiguous with the West Ells leases, and will therefore benefit from synergies in long term development including permanent road access, natural gas infrastructure, and location of key plant facilities.

The bitumen reservoir at Legend Lake is contained in the Wabiskaw member of the Clearwater formation, which is a clastic reservoir. The GLJ Report shows an estimated 132 MMbbls of proved plus probable reserves with a potential risked production capacity of 60,000 bbl/d, in which the Corporation has a 100% working interest. The asset is expected to be exploitable using proven SAGD technology.

### ***Project Development***

In November 2011, the Corporation filed an application for regulatory approval for the first 10,000 bbl/d SAGD Project at Legend Lake. Sunshine responded to the initial round of Supplemental Information Request (SIR's) from the regulators in 2012 and completed the final set of SIR's in December 2013. The Corporation will continue working with stakeholders and First Nations to promote understanding and address concerns of the project. Regulatory approval is expected in 2019 and the Corporation has progressed internal engineering design efforts for the project.

Sunshine estimates there is a risked development potential of over 60,000 bbl/d of bitumen from the Legend Lake area. When combined with the estimated 70,000 bbl/d of risked production from West Ells, 40,000 bbl/d of risked production from Thickwood, this results in an estimated total risked production capacity of 170,000 bbl/d for the Corporation's clastics assets. Sunshine is progressing with internal design and planning for development of this asset.

Following completion of Phase 2 of the 10,000 bbl/d West Ells SAGD project, Sunshine intends to develop the Legend Lake area through phases to control costs, implement improvements in recovery technologies; improve efficiency and apply learnings from West Ells operation.

### **2019 Drilling Program**

The last drilling that occurred was for West Ells Phase 2 SAGD wells and all drilling was completed by August 2013. There were no drilling programs conducted since then and Sunshine currently has no plans for further drilling in 2019.

## **Other Clastic Assets**

In addition to the three core areas that have been identified to date for commercial development, we are continuing to evaluate other clastic areas, in part through future delineation programs to expand these existing commercial areas and potentially identify new commercial areas. We will continue to monitor and assess the results of each winter program as we weigh our investment decisions in order to maximize value. The other clastic areas (Harper, Muskwa/Godin, Portage and East Long Lake) have been estimated to contain contingent resources by our Independent Evaluators as at December 31, 2018. As described below, these properties are not subject to near term mineral agreement expiry issues.

## **Joint Venture**

On October 20, 2013, Sunshine announced it had entered into the Joint Operating Agreement with Renergy in respect of Sunshine's Muskwa and Godin Oil Sands Leases (excluding the carbonate formations contained therein). In exchange for a 50% working interest in these Oil Sands Leases, Renergy agreed to fund 100% of the initial joint operations conducted on the lands up to a fixed maximum amount of \$250 million (the "**Commitment Cap**") in order to meet a production target of 5,000 barrels per day (the "**Production Target**"). Renergy, as operator, can deploy funding in its discretion until the earlier of when it funds up to the Commitment Cap or until production from the lands over any 20 consecutive days period equals or exceeds the Production Target.

In the event that the Commitment Cap or Production Target is not reached by an outside date (being the earlier of three years the date of receipt of all required regulatory approvals in respect of the first phase of discrete operations and October 20, 2019), Renergy's working interest shall be reduced commensurate to the lesser of either the difference between the funding contributions it made and the Commitment Cap or the difference between the average production achieved from the lands compared to the Production Target.

Renergy obtained approval for a steam and carbon dioxide co-generation co-injection thermal pilot project on January 26, 2015 but at the date hereof, construction had not been commenced for this project. During the final quarter of 2014, Muskwa cold production wells were suspended due to low oil prices. The suspension continued with no indication that it is intending to re-activate production in the current fiscal year.

## **Carbonates**

The Corporation's land base includes bitumen resources in the carbonates in several geological formations. The Independent Reports did not include an evaluation of the Corporation's resources in the carbonates.

## **Conventional Heavy Oil**

Sunshine has identified conventional heavy oil opportunities across several areas within our land base, including Muskwa, Harper, Godin and Portage. The development of these conventional oil reservoirs may not require thermal stimulation but, due to their location, should benefit from the Alberta oil sands royalty structure. This provides an economic advantage over heavy oil in other locations. The most advanced of these projects is in the Muskwa area where, prior to the joint venture agreement with Renergy, Sunshine executed several stages of preliminary exploration and development spending. Sustained production was demonstrated from several well types, including horizontal, slant and vertical wells.

The Muskwa property began producing in September 2010. Production volumes from the Muskwa property are not economic at current prices. On October 20, 2013, Sunshine entered into the Joint Operating Agreement with Renergy to look nre technologies to develop it.

## **Regional Infrastructure**

### ***Product Movement***

We are transporting early SAGD production volumes by trucks which are also used to transport diluent to site for use in the extraction process and for blending with the bitumen to make it ready for transportation and sale. This is typical of

managing the early stages of development when production is below 10,000 bbl/d. Options are constantly being updated to identify various delivery points which are identified where the blend will be subject to the best available market conditions. This could include delivery to pipeline or rail sales points in the future. In conjunction with developing SAGD facilities, Sunshine developed related infrastructure such as a main access road, spur roads and natural gas pipelines and tie-ins on an as needed basis.

Sunshine shared the total cost of the all season road with industry partners. The all season road has a wide running surface capable of managing heavy loads, construction modules and equipment and will be available for public use without liability to the company. Industry users will pay Sunshine for their use of the road.

### ***Water Source***

Sunshine requires water to generate steam for their SAGD recovery process. Exploration confirmed the presence of a significant water source located in the Viking Formation. This shoreline complex is mapped up to 65 m thick at the apex and is spread over three Townships, or over 279 km<sup>2</sup>. The average porosity for the Viking water sand is generally 35% in the West Ells and Legend Lake areas. This complex contains an estimated 19 billion bbls (3 million cubic metres) of water supply underlying our leases. This water is not utilized for any other purposes. Under the *Water Act*, the AEP has the discretion to require that security requirements be imposed pursuant to the requirements set out by the regulations. To date, the regulations only require that security be provided if an approval is cancelled or suspended under the *Water Act*. Generally, AEP may suspend or cancel a licence in a number of situations, including at the request for a licensee, if a licensee is indebted to the government of Alberta or for non-compliance with the *Water Act*. There is also no royalty or fee owed to the Crown for water usage.

Sunshine has drilled and completed three water source wells for the West Ells operation but currently are able to obtain sufficient water by utilizing just two wells which are under an active diversion licence. The third water source well is tied-in and ready to be used when needed by obtaining a diversion licence from the regulatory body. Two more water wells were drilled and tested for deliverability; the wells will be tied-in for future project expansion. No government costs or subsidies were realized for water. In addition to the Viking, non-saline water source, Sunshine is exploring saline water sources that have been identified in the Devonian Leduc and Grosmont Formations for long term operations.

### ***Natural Gas***

Sunshine is using natural gas to fuel our steam generators and to generate electricity to power our pumps and other equipment for our SAGD processing. Natural gas is purchased from the TCPL intra-Alberta pipeline system. Access to this pipeline system allows Sunshine to purchase interruptible and firm gas on the open Alberta market.

### ***Cogeneration of Power***

Sunshine integrated cogeneration into its SAGD projects. Integrated natural gas driven cogeneration is typically more economic than purchasing electricity from the grid, and has fewer emissions than coal power generation. For the West Ells project, Sunshine applied for and received approval from the AUC for a power plant generating a total capacity of 24 MW of electricity on June 12, 2013. Sunshine has also received approval for an Industrial System Designation to facilitate power distribution around the entire site. The cogeneration units may also be tied into the Alberta electrical grid to sell surplus power to the grid when it is established in the project area and economically feasible. In addition, we expect the grid will eventually provide backstopping to the projects.

Over time, as commercial projects for bitumen extraction are established in the region, Sunshine anticipates that transmission lines will be tied into the grid. Critical demand levels are required to trigger the applicable transmission facility owner to allocate capital for new transmission lines. Alternatively, the *Transmission Deficiency Regulation*, Alta Reg 176/2014 and amendments to the *Transmission Regulation*, Alta Reg 86/2007 were introduced in 2014 and permit oil sands and other industrial operators to construct their own radial transmission lines for the purposes of providing power from the provincial grid to their operations under certain circumstances and by constructing the transmission line themselves and paying the capital charges up front. In December 2014, the Alberta Electric System Operator awarded

through its first ever competitive process, the construction and operation of the Fort McMurray West 500 kV Transmission Project to the Alberta PowerLine Limited Partnership. The Fort McMurray West 500-kV Transmission Project will allow more power to flow in and out of the Fort McMurray area, increasing the capacity of the existing system to meet the growing demand for power in this area, including for Sunshine's SAGD projects.

### ***Diluent***

Sunshine does not intend to upgrade our bitumen and currently utilizes condensate as a diluent. Prior to the installation of dilbit and diluent pipelines, trucks are being used for transportation of volumes to and from the site. Trucks returning from the delivery of blended dilbit can be loaded with diluent, which is stored on site for use in the SAGD process and for blending of future production volume. The condensate comes from various condensate hubs in Alberta. It is anticipated diluent for future project phases will come from various potential suppliers. Sunshine is constantly monitoring and evaluating options for diluent supply for the West Ells project and reviewing diluent supply arrangements.

### ***Marketing of Bitumen Blend***

Sunshine anticipates that its bitumen will be blended with diluent and sold as a dilbit or railbit. These products are sold to refineries in Canada and the United States. Conventional heavy oil is typically priced off the Canadian benchmark crude known as Western Canadian Select, which is priced at Hardisty at a monthly floating differential to WTI. Sunshine expects its bitumen will be similarly priced though at a discount to Western Canadian Select due to deductions for quality and transportation.

### ***Revenue***

The revenue that a producer ultimately receives for one barrel of bitumen production is derived from the price of bitumen blend, less transportation and diluent costs. The price for bitumen blend is benchmarked to conventional heavy oil at various locations, which in turn typically trades at a discount to light oil benchmarks such as WTI at Cushing, Oklahoma or Edmonton Par in Alberta.

Bitumen revenue depends on the cost of diluent and the blending ratio required to create bitumen blend. The price of diluent varies depending on its quality attributes, although it typically trades at a price that is similar to WTI or Edmonton Par. We understand the supply of diluent to be currently adequate in the oil sands region, with imports from the U.S., and management expects to be able to source sufficient quantities to satisfy blending requirements.

### ***Royalties***

Alberta requires royalties be paid on the production of natural resources from lands for which it owns the mineral rights. The Government of Alberta's royalty share from oil sands production is price-sensitive. The royalty range applicable to price sensitivities changes depending on whether the project's status is pre-payout or post-payout. "Payout" is generally defined as the point in time when a project has generated enough net revenue to recover its costs and provide a designated return allowance. Under the current royalty framework, the base pre-payout royalty rate starts at 1% of gross revenue and increases for every dollar that the world oil price, as reflected by the WTI crude oil price in Canadian dollars, is priced above \$55 per barrel, to a maximum of 9% when the WTI crude oil price is \$120 per barrel or higher. The post-payout royalty rate, on the other hand, is based on net revenue, and starts at 25% and increases for every dollar the WTI crude oil price is above \$55 per barrel to a maximum of 40% when the WTI crude oil price is \$120 per barrel or higher. Specified capital and operating costs may be deducted to arrive at net revenue for this calculation.

On January 29, 2016, the provincial government announced changes to the current royalty framework. Under the new Modernized Royalty Framework (the "MRF"), the sliding scale royalty concept will be maintained, but will be achieved with a greater degree of simplicity. The new royalty percentage will be applied to the gross revenue generated from all hydrocarbons, with no differentiation between produced substances, and wells will be charged a flat 5% royalty rate until revenues exceed a normalized well cost allowance, which will be based on vertical well depth and lateral length. The calculation of this cost allowance, and other details regarding the various parameters within the new formula under the

MRF was announced on March 31, 2016. Ultimately, there were no changes to the royalty structure or rates for oil sands projects.

## **Industry Conditions**

Both the Canadian and international oil industry are highly competitive. Oil producers compete with each other in a number of areas, including in attracting and retaining experienced and skilled personnel, the procurement of equipment, access to capital markets, the exploration for, and the development of, new sources of supply, the acquisition of oil interests, the distribution and marketing of petroleum products, and obtaining means of transportation. Sunshine will directly compete with other producers of bitumen, bitumen blends, synthetic crude oil and conventional crude oil. Some of these competitors have lower costs and greater financial and other resources than Sunshine. A number of competitors have significantly longer operating histories and have more widely recognised brand names, which could give such competitors advantages in attracting customers, partners and employees. Sunshine proposes to leverage our contacts in Asia, and in particular China, in order to source more cost-effective supplies, plant and equipment to support the developments.

## **Alberta Carbon Levy**

On January 1, 2017, Alberta's passed legislation under the Climate Leadership Act which imposed a substantial carbon levy (tax) on a wide variety of products. The Corporation filed and received approval for an exemption to the levy on all fuels used in the processes associated with the project. This includes: natural gas, methanol, pentanes plus, condensate (diluent), marked diesel and propane. This exemption is valid until 2023.

## **Employees**

At December 31, 2018, Sunshine had 60 full time employees.

## **STATEMENT OF RESERVES DATA AND OTHER OIL AND NATURAL GAS INFORMATION**

### **Overview**

The information set forth herein relating to the Corporation's reserves and resources includes forward-looking information, which is subject to certain risks and uncertainties. Please see the sections titled "*Forward-Looking Statements*" and "*Risk Factors*" for further discussion.

### ***Independent Reports***

The Corporation engaged the Independent Evaluators to prepare independent reserve and resource assessments for its assets effective as of December 31, 2018. The statement of reserves data and the oil and natural gas information set forth below is derived from the GLJ Report. Disclosure of the Corporation's Contingent Resources is derived from the GLJ Report and from the BGEC Report and is attached to this AIF as Appendix A.

The GLJ Report was prepared on February 19, 2019. The BGEC Report was prepared on February 28, 2019.

- **GLJ Report** – GLJ evaluated the Corporation's Reserves attributed to the assets of West Ells, Legend Lake and East Long Lake. GLJ also evaluated the Corporation's Contingent Resources attributable to the assets at West Ells, Legend Lake and East Long Lake.
- **BGEC Report** – BGEC evaluated the Corporation's Contingent Resources attributable to the assets at Portage, Harper, and Muskwa/Godin.

The Independent Evaluators carried out their evaluations in accordance with the COGE Handbook and standards established by the Canadian Securities Administrators in NI 51-101 and CSA 51-324. All of the Corporation's properties are located in the Province of Alberta and are described elsewhere in this AIF.

GLJ's Report on Reserves Data by Independent Qualified Reserves Evaluator or Auditor and Report on Resources Data by Independent Qualified Reserves Evaluator or Auditor and BGEC's Report on Resources Data by Independent Qualified Reserves Evaluator or Auditor in the Form 51-101F2 are set forth in Schedule "A" to this AIF. The Corporation's Report of Management and Directors on Oil and Gas Disclosure in the Form 51-101F3 is set forth in Schedule "B" to this AIF.

Gross reserves are the Corporation's working interest share before deducting royalties and without including any royalty interests of the Corporation. Net reserves are the Corporation's working interest share after deduction of royalty obligations, plus the Corporation's royalty interests in reserves.

The Corporation has determined the future net revenue and present value of future net revenue after income taxes by utilizing GLJ's before income tax future net revenue and our estimate of income tax. Estimates of the after income tax value of future net revenue have been prepared by the Corporation based on before income tax reserves information and include assumptions and estimates of the Corporation's tax pools and the sequences of claims and rates of claim thereon. The values shown may not be representative of future income tax obligations, applicable tax horizon or after tax valuation. The after tax net present value of the Corporation's oil and gas properties reflects the tax burden of the properties on a stand-alone basis. It does not provide an estimate of the value of the Corporation as a business entity, which may be significantly different. The Corporation's financial statements for the year ended December 31, 2018 should be consulted for additional information regarding its taxes.

Future net revenue is 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. The estimated future net revenue contained in the following tables does not necessarily represent the fair market value of our reserves. There is no assurance that the forecast price and cost assumptions contained in the GLJ Report will be attained and variations could be material. Other assumptions and qualifications relating to costs and other matters are summarized in the notes to or following the tables below. Readers should review the definitions and information contained in "Notice Regarding Presentation of Reserves and Resources Data" earlier in this AIF in conjunction with the following tables and notes. The recovery and reserve estimates on our properties described herein are estimates only. The actual reserves on our properties may be greater or less than those calculated. See "Risk Factors".

### ***Reserves and Resources Classification***

As an *in-situ* bitumen project is developed, the estimated recoverable volumes will be classified according to their stage of development. Before filing a regulatory application seeking approval to proceed with a development project, the associated estimated recoverable volumes are categorized as contingent resources and are sub-categorized in low, best and high estimate cases. Upon filing for regulatory approval, and assuming no other significant contingencies exist, the estimated volumes associated with the development project are categorized as reserves and may be sub-categorized as probable and possible reserves. Upon the receipt of regulatory and internal corporate approvals, and assuming no other significant contingencies exist, the estimated volumes associated with an *in-situ* bitumen development project may be sub-categorized as proved reserves.

## Reserves Data (Forecast Prices and Cost)

### Summary of Oil and Gas Reserves and Net Present Values of Future Net Revenue – Forecast Prices and Costs as of December 31, 2018

#### Summary Of Oil And Gas Reserves

Reserves Category	Bitumen		Oil Equivalent	
	Company	Company	Company	Company
	Gross Mbbbl	Net Mbbbl	Gross Mboe	Net Mboe
Proved				
Producing	0.00	0.00	0.00	0.00
Developed Non-Producing	0.00	0.00	0.00	0.00
Undeveloped	76,640.00	70,589.00	76,640.00	70,589.00
Total Proved	76,640.00	70,589.00	76,640.00	70,589.00
Total Probable	186,656.00	158,821.00	186,656.00	158,821.00
Total Proved Plus Probable	263,296.00	229,410.00	263,296.00	229,410.00
Total PPP	372,505.00	309,779.00	372,505.00	309,779.00

**Note:** (1) The Corporation has only Bitumen Reserves

#### Summary Net Present Values of Future Net Revenue

Reserves Category	Net Present Values of Future Net Revenue Before Income Taxes Discounted At (%/year)					Unit Value Before Income Tax Discounted at 10%/year
	0%	5%	10%	15%	20%	
	M\$	M\$	M\$	M\$	M\$	\$/boe
Proved						
Producing	0	0	0	0	0	0.00
Developed Non-Producing	0	0	0	0	0	0.00
Undeveloped	575,379	180,930	40,455	(12,960)	(34,600)	0.57
Total Proved	575,379	180,930	40,455	(12,960)	(34,600)	0.57
Total Probable	4,008,425	1,106,787	352,816	98,393	(5,802)	2.22
Total Proved Plus Probable	4,583,804	1,287,717	393,271	85,433	(40,402)	1.71
Total PPP	8,048,537	2,730,160	1,059,943	425,166	143,699	3.42

Summary Net Present Values of Future Net Revenue

Reserves Category	Net Present Values of Future Net Revenue After Income Taxes Discounted At (%/year)				
	0%	5%	10%	15%	20%
	M\$	M\$	M\$	M\$	M\$
Proved					
Producing	0	0	0	0	0
Developed Non-Producing	0	0	0	0	0
Undeveloped	575,379	180,930	40,455	(12,960)	(34,600)
Total Proved	575,379	180,930	40,455	(12,960)	(34,600)
Total Probable	3,066,586	894,222	296,242	81,144	(11,664)
Total Proved Plus Probable	3,641,965	1,075,152	336,696	68,185	(46,264)
Total PPP	6,163,758	2,147,586	848,257	337,578	103,647

Total Future Net Revenue (Undiscounted)

Reserves Category	Revenue M\$	Royalties M\$	Operating Costs M\$	Capital Development Costs M\$	Aband. & Recl. Costs M\$	Future	Future	Future
						Net Revenue Before Income Taxes M\$	Income Tax M\$	Net Revenue After Income Taxes M\$
Proved Producing	0	0	0	0	0	0	-	-
Proved Developed Non-Producing	0	0	0	0	0	0	-	-
Proved Undeveloped	5,765,611	471,337	2,892,189	1,623,603	203,103	575,379	-	575,379
Total Proved	5,765,611	471,337	2,892,189	1,623,603	203,103	575,379	-	575,379
Total Probable	16,829,699	2,611,450	6,064,896	3,744,364	400,564	4,008,425	941,839	3,066,586
Total Proved Plus Probable	22,595,310	3,082,787	8,957,085	5,367,967	603,667	4,583,804	941,839	3,641,965
Total PPP	30,006,016	5,287,406	9,887,762	6,140,451	641,862	8,048,537	1,884,779	6,163,758

**Future Net Revenue by Product Type – Forecast Prices and Costs as of December 31, 2018**

Reserves Category	Production Group	Future Net Revenue Before Income Taxes	
		(Discounted at 10% per year)	
		Present Value (MM\$)	\$/boe
<b>Proved</b>	Bitumen	40.5	0.57
Total Proved		40.4	0.57
<b>Proved Plus Probable</b>	Bitumen	393.3	1.71
Total Proved Plus Probable		393.3	1.71
<b>Proved Plus Probable Plus Possible</b>	Bitumen	1,059.9	3.42
Total Proved Plus Probable Plus Possible		1,059.9	3.42

**Pricing Assumptions**

The forecast cost and price assumptions that formed the basis for the revenue projections and net present value estimates in the independent reports were based on GLJ's January 1, 2019 pricing forecast with an effective date of December 31, 2018. A summary of this price forecast is set forth below.

## GLJ Pricing Forecast Effective January 1, 2019

Year	Inflation %	CAD/USD Exchange Rate USD/CAD	NYMEX WTI Near Month Futures Contract Crude Oil at Cushing, Oklahoma		Brent Blend Crude Oil FOB North Sea	MSW, Light Crude Oil (40 API, 0.34%S) at Edmonton	Bow River Crude Oil Stream Quality at Hardisty	WCS Crude Oil Stream Quality at Hardisty	Heavy Crude Oil Proxy (12 API) at Hardisty	Light Sour Crude Oil (35 API, 1.2%S) at Cromer	Medium Crude Oil (29 API, 2.0%S) at Cromer	Alberta Natural Gas Liquids (Then Current Dollars)			
			Constant 2019 \$ USD/bbl	Then Current USD/bbl	Then Current USD/bbl	Then Current CAD/bbl	Then Current CAD/bbl	Then Current CAD/bbl	Then Current CAD/bbl	Then Current CAD/bbl	Then Current CAD/bbl	Then Current CAD/bbl	Spec Ethane CAD/bbl	Edmonton Propane CAD/bbl	Edmonton Butane CAD/bbl
2019	0.0	0.7500	56.25	56.25	63.25	63.33	48.17	47.67	37.65	62.07	58.90	5.69	25.33	21.45	67.67
2020	2.0	0.7700	61.76	63.00	68.50	75.32	58.94	58.44	51.21	73.82	70.05	7.20	32.39	37.66	79.22
2021	2.0	0.7900	64.40	67.00	71.25	79.75	66.32	65.82	59.51	78.15	74.16	8.51	36.68	47.85	83.54
2022	2.0	0.8100	65.96	70.00	73.00	81.48	68.40	67.90	61.62	79.85	75.78	9.27	39.11	57.04	85.49
2023	2.0	0.8200	66.98	72.50	75.50	83.54	70.62	70.12	63.82	81.87	77.69	10.12	41.77	58.48	87.80
2024	2.0	0.8250	67.93	75.00	78.00	86.06	73.23	72.73	66.45	84.34	80.04	10.42	43.03	60.24	90.30
2025	2.0	0.8250	68.82	77.50	80.50	89.09	76.26	75.76	69.48	87.31	82.85	10.78	44.55	62.36	93.33
2026	2.0	0.8250	70.00	80.41	83.41	92.62	79.78	79.28	73.01	90.77	86.13	11.03	46.31	64.83	96.86
2027	2.0	0.8250	70.00	82.02	85.02	94.57	81.74	81.24	74.96	92.68	87.95	11.27	47.28	66.20	98.81
2028	2.0	0.8250	70.00	83.66	86.66	96.56	83.72	83.22	76.95	94.63	89.80	11.48	48.28	67.59	100.80
2029	2.0	0.8250	70.00	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr

### Reconciliation of Changes in Reserves

#### Reconciliation of Corporation's Gross Reserves - Forecast Prices and Costs as of December 31, 2018

Factors	Bitumen				Oil Equivalent			
	Proved (MMbbl)	Probable (MMbbl)	Proved Plus Probable (MMbbl)	Proved Plus Probable Plus Possible (MMbbl)	Proved (MMbbl)	Probable (MMbbl)	Proved Plus Probable (MMbbl)	Proved Plus Probable Plus Possible (MMbbl)
<b>December 31, 2017</b>	77	187	264	373	77	187	264	373
Discoveries	0	0	0	0	0	0	0	0
Extension	0	0	0	0	0	0	0	0
Infill Drilling	0	0	0	0	0	0	0	0
Improved Recovery	0	0	0	0	0	0	0	0
Technical Revisions	0	0	0	0	0	0	0	0
Acquisitions	0	0	0	0	0	0	0	0
Dispositions	0	0	0	0	0	0	0	0
Economic Factors	0	0	0	0	0	0	0	0
Production	(1)	0	(1)	(1)	(1)	0	(1)	(1)
<b>December 31, 2018</b>	77	187	264	373	77	187	264	373

**Note:**

- (1) The Economic Factors revision is the estimate on the value of the project to meet a hurdle discounted rate of 10% with the forecast pricing
- (2) The numbers in this table may not add exactly due to rounding.

## Additional Information Relating to Reserves Data

Undeveloped reserves are attributed by GLJ in accordance with standards and procedures contained in the COGE Handbook. Proved undeveloped reserves are those reserves that can be estimated with a high degree of certainty and are expected to be recovered from known accumulations where a significant expenditure is required to render them capable of production. Probable undeveloped reserves are those reserves that are less certain to be recovered than proved reserves and are expected to be recovered from known accumulations where a significant expenditure is required to render them capable of production.

The GLJ Report estimated the Corporation's gross Proved Undeveloped Reserves to be 77 MMbbls and proved plus probable undeveloped reserves to be 263 MMbbls. The undiscounted capital estimated in the GLJ Report is \$1,624 MM to develop the Proved Undeveloped Reserves. All of the Corporation's reserves will be developed with the start-up and commissioning of both the first and second 5,000 bbl/d phases at West Ells as well as with approval, construction, start-up and commissioning of additional first 10,000 bbl/d phases at Legend Lake.

### Proved Undeveloped Reserves

Proved Undeveloped Reserves have been assigned in areas where the reserves can be estimated with a high degree of certainty. The following table presents the Corporation's gross proved undeveloped and probable undeveloped reserves that were attributed to the Corporation for the most recent three financial years.

#### Corporation's Gross Proved Reserves First Attributed by Year

Proved Undeveloped Reserves	Bitumen (Mbbbl) <sup>(1)</sup>		Oil Equivalent (Mbbbl)	
	First Attributed	Total at Year-end	First Attributed	Total at Year-end
2016	-	85,679	-	85,679
2017	-	77,302	-	77,302
2018	-	76,640	-	76,640

Note: (1) The Corporation has only Bitumen Reserves.

#### Corporation's Gross Probable Reserves First Attributed by Year

Probable Undeveloped Reserves	Bitumen (Mbbbl) <sup>(1)</sup>		Oil Equivalent (Mbbbl)	
	First Attributed	Total at Year-end	First Attributed	Total at Year-end
2016	-	189,952	-	189,952
2017	-	186,655	-	186,655
2018	-	186,656	-	186,656

Note: (1) The Corporation only has Bitumen Reserves

The Corporation plans to develop its undeveloped reserves in connection with the first two phases of the West Ells SAGD operation within the next two years and plans to develop its undeveloped reserves in Legend Lake as funding for development becomes available which currently is estimated to be developed in the next 5 years. A number of factors could result in delayed or cancelled development, including (i) changing economic conditions; (ii) changing technical

conditions; (iii) availability and allocation of capital; (iv) surface access issues; (v) environmental and emissions regulation by governmental authorities; and (vi) the treatment of the Corporation under regulatory regimes.

The Corporation's future development plans for its proved and probable undeveloped reserves are described in the section of this AIF titled "*Description of the Business – Development of Our Assets*".

### ***Significant Factors or Uncertainties Affecting Reserves Data***

The process of evaluating reserves is inherently complex. It requires significant judgments and decisions based on available geological, geophysical, engineering and economic data. These estimates may change substantially as additional data from ongoing development activities and production performance becomes available and as economic conditions impacting oil and gas prices and costs change. The reserve estimates contained herein are based on current production forecasts, prices and economic conditions and other factors and assumptions that may affect the reserve estimates and the present worth of the future net revenue therefrom. These factors and assumptions also include, among others: (i) historical production in the area compared with production rates from analogous producing areas; (ii) initial production rates; (iii) production decline rates; (iv) ultimate recovery of reserves; (v) success of future development activities; (vi) marketability of production; (vii) effects of government regulations; and (viii) other government levies imposed over the life of the reserves.

As circumstances change and additional data becomes available, reserve estimates also change. Estimates 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, government restrictions and evaluation guidelines. Revisions to reserve estimates can arise from changes in year-end prices, reservoir performance and geologic conditions or production. These revisions can be either positive or negative.

### ***Abandonment and Reclamation Cost***

The Corporation's future asset retirement obligations are reviewed regularly by management based upon current regulations, costs, technologies and industry standards. The discounted obligations are recognized as a liability and are accreted against income until they are settled or the applicable property is sold. Actual restoration expenditures are charged to the accumulated obligations as incurred.

As of December 31, 2018, the Corporation's asset retirement obligation program estimated the total undiscounted amount to decommission the Corporation's wells (observation, water sources), facilities, and net of estimated salvage recoveries was approximately \$48.7 million. The obligation is reviewed periodically based on the current regulations, technologies, costs and industry practices. This is recognized as a liability and is accreted against income until the retirement process is completed or the property is sold.

In the GLJ Report, abandonment and reclamation costs for Total Proved and Probable Reserves (2P) assessed for dedicated facilities and for all existing and future wells to which reserves and resources have been assigned is approximately \$604 million to be settled in periods up to 2062. Cost has been scheduled five years after the last year of production for each well. Other additional abandonment and reclamation costs have not been included in the reserves and resources reports.

In connection with Corporation's operation, the Corporation will incur abandonment and reclamation costs for surface leases, facilities and pipelines. The overall costs will include all cost associated with restoring a property that has been disturbed by the Corporation's oil and gas activities to the standard imposed by the applicable government authorities.

The future net revenue disclosed in this AIF is based on the GLJ Report do not contain an allowance for abandonment and reclamation costs for wells to which no reserves and resources have been attributed. Furthermore, the estimated cost of abandonment and reclamation is included in the economic evaluation of each of the Corporation's properties. As a result of anticipated long project lives, usually of 20 to 50 years, these estimates may change substantially due to, among other things: (i) changes in regulations; (ii) changes and advancement in technology; (iii) changes in costs and cost structure; and (iv) adjustments to the termination time of a project.

For summaries and descriptions of the risk factors and uncertainties affecting the Corporation's reserves data, please see "Risk Factors".

***Future Development Costs***

Future development costs and capital requirements are presented in the following table for the proved and proved plus probable undeveloped reserves.

**Corporation's Annual Capital Expenditures  
Forecast Prices and Costs as of December 31, 2018  
(M\$)**

Year	Proved	Proved Plus Probable
2019	7,020	7,020
2020	54,998	78,258
2021	17,000	205,265
2022	16,173	282,982
2023	65,287	106,274
2024	13,878	58,750
2025	26,703	95,789
2026	89,850	125,742
2027	42,603	70,299
2028	16,895	89,013
2029	56,911	112,985
2030	71,115	97,977
Subtotal	478,434	1,330,353
Remainder	1,145,169	4,037,614
Total	1,623,603	5,367,967
10% Discount	417,376	1,184,325

The Corporation will require additional funding in the form of debt and/or equity, joint venture arrangements and other structures to fund the development of its significant asset base. Once sufficient funding has been obtained, the Corporation intends to develop its projects in phases and expects that cash flows from the successfully developed early projects will help to finance later projects. Management believes that it is reasonable to assume the availability of external financing in the future, which financing could include one or more of: (i) debt financing; (ii) asset dispositions; (iii) joint ventures; and

(iv) equity financing. There can be no guarantee, however, that sufficient funds will be available or will be available on a timely basis, or that the Corporation will allocate funding to develop all of its reserves. Failure to develop its reserves would have a negative impact on the Corporation's net revenue. The interest or other costs of external financing are not included in future net revenue estimates and would reduce future net revenue depending upon the financing sources utilized.

## Other Oil and Gas Information

Information concerning the Corporation's important properties is set forth under the heading "*Description of the Business – Development of Our Assets*" in this AIF.

### Oil and Gas Wells

As at December 31, 2018, there were no wells producing conventional heavy oil at Muskwa. Renergy, as operator, suspended production operations in December 2014 based on project economics and future long term planning. Renergy is looking new technologies to develop Muskwa. ***Properties with No Attributed Reserves***

The following tables summarize Sunshine's undeveloped land holdings (in acres) as at December 31, 2018.

<u>Property</u>	<u>Gross</u>	<u>Net</u>	<u>Net Acres Expiring Within One Year</u>
Goffer	23,040	23,040	0
Portage	186,240	186,240	0
Thickwood	9,968	9,968	0
West Ells	20,261	20,261	0
Legend Lake	19,906	19,906	0
Opportunity	142,720	142,720	0
Harper	248,400	248,400	0
Saleski	8,000	8,000	0
East Long Lake	8,440	8,440	0

#### Notes:

- (1) The above table includes all properties except Muskwa, Godin and South Thickwood.
- (2) The above table includes clastic and carbonate formations except as laid out below.
- (3) The above table excludes the regulatory approved sections for West Ells, Thickwood and Legend Lake, which have been assigned reserves.

The Corporation's business model focuses on development of our SAGD projects which results in capital allocated to the development of our properties with no attributed reserves. Our decision to develop our properties with no attributed reserves can be affected significantly by fluctuations in product pricing, capital expenditures, operating costs and royalty regimes, all of which are beyond our control. There are no unusually significant abandonment and reclamation costs with our properties with no attributed reserves. See "Significant Factors and Uncertainties Affecting Reserves Data – Abandonment and Reclamation Costs" and "Risk Factors".

<u>Muskwa and Godin Carbonates</u>	<u>Gross</u>	<u>Net</u>	<u>Net Acres Expiring Within One Year</u>
Muskwa	232,528	232,528	0
Godin	21,760	21,760	0

#### Note:

- (1) This table includes interests in Muskwa and Godin carbonate formations only and the numbers it contains are not additive with the numbers in the Muskwa and Godin Clastics table below.

<b>Muskwa and Godin Clastics</b>	<b>Gross</b>	<b>Net</b>	<b>Net Acres Expiring Within One Year</b>
Muskwa	232,528	116,264	0
Godin	21,760	10,880	0

**Notes:**

- (1) This table includes interests in Muskwa and Godin clastic formations only and the numbers it contains are not additive with the numbers in the Muskwa and Godin Carbonates table above.
- (2) Sunshine has a 50% working interest in Muskwa and Godin clastic formations.

<b>Property</b>	<b>Gross</b>	<b>Net</b>	<b>Net Acres Expiring Within One Year</b>
South Thickwood	6,400	6,400	0

**Note:**

- (1) This table includes all oil sands below top Viking to base Woodbend excluding oil sands in the Wabiskaw formation and the numbers it contains.
- (2) are not additive with the numbers in the South Thickwood Oil Sands in Wabiskaw table below.

<b>Property</b>	<b>Gross</b>	<b>Net</b>	<b>Net Acres Expiring Within One Year</b>
South Thickwood	6,400	4,480	0

**Notes:**

- (1) This table includes interests in the Wabiskaw formation only and the numbers it contains are not additive with the numbers in the South Thickwood Oil Sands Below Top Viking to Base Woodbend Excluding Oil Sands in Wabiskaw table above.
- (2) Sunshine has a 50% working interest in the Wabiskaw formation in six sections of South Thickwood and a 100% interest in the Wabiskaw formation in four sections of South Thickwood.

For a description of significant factors or uncertainties relevant to properties with no attributed reserves, please see “*Significant Factors or Uncertainties Affecting Resources Data*” below.

**Tax Horizon**

Based on estimated 2019 cash flow and expenditures, the Corporation does not expect to be cash taxable until at least 2034.

**Costs Incurred**

The following table summarizes the costs incurred by the Corporation in respect of its properties for the year ended December 31, 2018:

<b>Property Acquisition Costs (M\$)</b>			
<b>Proved Properties</b>	<b>Unproved Properties</b>	<b>Exploration Costs (M\$)</b>	<b>Development Costs (M\$)</b>
0	0	1.6	7.7

**Exploration and Development Activities**

The Corporation completed no exploratory or development wells during the year ended December 31, 2018. As Sunshine’s activities were focused on achieving production at West Ells, work supported the initial phases of production.

## *Production Estimates*

The following table sets out the volumes of the Corporation working interest production estimated for the year ending December 31, 2018 which is reflecting in the estimate of future net revenue disclosed in the forecast price tables contained herein.

### Summary of First Year Production

Entity Description	Bitumen		Oil Equivalent	
	Company Gross bbl/d	Company Net bbl/d	Company Gross boe/d	Company Net boe/d
Proved Producing				
Other Properties	0	0	0	0
West Ells	0	0	0	0
Total: Proved Producing	0	0	0	0
Proved Developed Non-Producing				
Other Properties	0	0	0	0
West Ells	0	0	0	0
Total: Proved Developed Non-Producing	0	0	0	0
Proved Undeveloped				
Other Properties	0	0	0	0
West Ells	2000	1931	2000	1931
Total: Proved Undeveloped	2000	1931	2000	1931
Total Proved				
Other Properties	0	0	0	0
West Ells	2000	1931	2000	1931
Total: Total Proved	2000	1931	2000	1931
Total Probable				
Other Properties	0	0	0	0
West Ells	0	0	0	0
Total: Total Probable	0	0	0	0
Total Proved Plus Probable				
Other Properties	0	0	0	0
West Ells	2000	1931	2000	1931
Total: Total Proved Plus Probable	2000	1931	2000	1931

Total PPP				
	Other Properties	0	0	0
	West Ells	2000	1931	2000
				1931
Total: Total PPP		2000	1931	2000
				1931

Note: (1) The Corporation has only Bitumen Reserves

### ***Production History***

The Corporation commenced commercial production at West Ells Project on March 1, 2017. As at the time, the Corporation ceased capitalization of petroleum revenue, royalties, diluent, transportation, and operating expenses relating to West Ells Project and has included these amounts in the statement of comprehensive income (loss) for the twelve months ended December 31, 2018. Total production for the year ending December 31, 2018 was 591,948 bbl.

	<b>Three month ended March 31, 2018</b>	<b>Three month ended June 30, 2018</b>	<b>Three month ended September 30, 2018</b>	<b>Three month ended December 31, 2018</b>
Total Production (m3)	29,097	23,228	26,304	15,483
Total Production (bbls)	183,016	146,100	165,444	97,387
<b>bbls/day</b>	<b>2,034</b>	<b>1,605</b>	<b>1,798</b>	<b>1,059</b>
Total Revenues	11,257,882	9,252,223	12,285,908	4,772,741
<b>(Realized Bitumen \$/bbl)</b>	<b>37.81</b>	<b>46.22</b>	<b>59.86</b>	<b>25.20</b>

Our Muskwa property began producing in September 2010. As at the date of this AIF, we have not recognised any revenue from this property. In December 2014, Muskwa cold production wells were suspended based on project economics and future long term planning. Once the Muskwa property has been determined to meet the appropriate criteria for technical feasibility and commercial viability, revenues from the production and sales of crude oil will be recognised.

### **RISK FACTORS**

An investment in the securities of the Corporation is subject to certain risk. These can be categorized into (i) risks relating to the business of Sunshine, (ii) risks relating to the oil sands industry; (iii) risks relating to Alberta and Canada and (iv) risks relating to our Shares. Investors should carefully consider the various risk factors associated with the business and operations of the Corporation.

#### **Risks Relating to Our Business**

***We may be unable to continue to generate sufficient cash to service all of our indebtedness, including the Notes, and may be forced to take other actions to satisfy our obligations under such indebtedness, which may not be successful.***

Our ability to make scheduled payments on or refinance our debt obligations, including the Notes, depends on our financial condition and operating performance, which are subject to prevailing economic and competitive conditions and to certain financial, business, legislative, regulatory and other factors beyond our control. We deposited into escrow funds sufficient to pay the first 18 months of interest on the Notes. Since then we have been unable to generate a sufficient level of cash

flows from operating activities to permit us to pay the principal, premium, and interest on our indebtedness, including the Notes and pursuant to the Amended and Restated Forbearance Agreement.

If our cash flows and capital resources remain insufficient to fund our debt service obligations, we could face substantial liquidity problems and could be forced to reduce or delay investments and capital expenditures or to dispose of material assets or operations, seek additional debt or equity capital or restructure or refinance our indebtedness, including the Notes. We may not be able to effect any such alternative measures, if necessary, on commercially reasonable terms or at all and, even if successful, those alternatives may not allow us to meet our scheduled debt service obligations. The Indenture restricts our ability to dispose of assets and use the proceeds from those dispositions and may also restrict our ability to raise debt or equity capital to be used to repay other indebtedness when it becomes due. We may not be able to consummate those dispositions or to obtain proceeds in an amount sufficient to meet any debt service obligations then due.

Our inability to generate sufficient cash flows to satisfy our debt obligations or to refinance our indebtedness on commercially reasonable terms or at all, materially and adversely affects our financial position and operations and our ability to satisfy our obligations under the Notes and the Amended and Restated Forbearance Agreement.

Because we have been unable to meet the conditions of the Amended and Restated Forbearance Agreement, holders of the Notes could declare all outstanding principal and interest to be due and payable, causing a cross-acceleration or cross-default under our other debt agreements, if any, and we could be forced into bankruptcy, liquidation or restructuring proceedings.

***The Corporation's operating performance, capital requirements and ability to raise capital cast doubt on its ability to continue to operate as a going concern.***

The Corporation has one producing property, West Ells which has been generating revenue. There is no assurance that any of the Corporation's other properties will commence economic production, generate earnings, operate profitably or provide a return on investment in the future.

While the Corporation's consolidated financial statements for the years ended December 31, 2018 and 2017 have been prepared on a going concern basis, which contemplates the Corporation's continued operation for the foreseeable future and the Corporation's ability to realize assets and discharge liabilities and commitments in the normal course of business, adverse events could cast significant doubt upon the validity of this assumption and hence the appropriateness of the use of accounting principles applicable to a going concern.

If the Corporation is unable to successfully finance its current and future properties and projects, it may not be able to realize its assets and discharge its liabilities in the normal course of operations and could eventually result in, among other things, the default of the Corporation under the Indenture.

As at December 31, 2018, the consolidated financial statements have been prepared on a going concern basis. The going concern basis of presentation assumes that Sunshine will continue in operation for the foreseeable future and will be able to realize its assets and discharge its liabilities and commitments in the normal course of business. For the year ended December 31, 2018, Sunshine reported a net loss of \$127.0 million. At December 31, 2018, Sunshine had negative working capital of \$461.3 million and an accumulated deficit of \$1,115.9 million. Sunshine's ability to continue as a going concern is dependent on completion of the West Ells development, achieving profitable operations and the ability to access additional financing. As such there is significant doubt and there can be no assurance Sunshine will be able to continue as a going concern.

The Corporation will require further financing in order to proceed with its development projects and its ongoing corporate and administrative activities. To address its financing requirements, it will continue to seek financing through further debt and equity financing transactions and joint venture agreements as well as potential asset sales, to the extent permitted by the Indenture. The Corporation is also working to identify a range of financing sources available to it, with a view to preserving and maximizing shareholder value. This could result in a private or public financing through the issuance of debt, equity or a combination of both, a sale of a material portion of the Corporation's assets, a merger, business

combination or a corporate reorganization, among other alternatives. The Corporation's operating losses, negative operating cash flows and uncertainty regarding its ability to obtain financing in a timely manner raise doubt as to the Corporation's ability to continue as a going concern. If the going concern assumption is not appropriate, adjustments may be necessary to the carrying amounts and classification of the Corporation's assets and liabilities. The consolidated financial statements do not include any adjustments that may result if the Corporation is unable to continue as a going concern, and, such adjustments could be material.

Sunshine has practically completed the construction of the first phase 5,000 barrels/day West Ells SAGD Project. All 8 well pairs are in production. When the project has proved the productivity of the reservoir, the Corporation may continue the remaining construction of phase two which adds additional 5,000 barrels/day of production to the project. The Corporation's current funds alone may not be sufficient to fund the completion of phase two at our West Ells asset. In such a case, the Corporation would need to rely on additional equity or debt financing or other sources of capital to obtain the funds necessary for the completion of phase two at West Ells. There can be no assurance that additional financing will be available, or available under terms favorable to the Corporation. Failure to obtain such financing on a timely basis could cause the Corporation to delay or suspend the construction and development at West Ells.

#### ***Volatility in commodity prices***

The Corporation's results of operations and financial condition are dependent on the prevailing prices of crude oil and bitumen. Crude oil and bitumen prices have fluctuated widely in the recent past and are subject to fluctuations in response to relatively minor changes in supply, demand, market uncertainty and other factors that are beyond Sunshine's control. Crude oil and bitumen prices are impacted by a number of factors including, but not limited to: the global supply of and demand for crude oil; global economic conditions; government regulation; political stability; the ability to transport crude to markets; the availability and prices of alternate fuel sources; and weather conditions. All of these factors are beyond Sunshine's control and can result in a high degree of price volatility.

Fluctuations in the price of commodities and associated price differentials may impact the value of Sunshine's assets, Sunshine's ability to maintain its business and to fund growth projects. Prolonged periods of commodity price depression and volatility may also negatively impact Sunshine's ability to meet all of its financial obligations as they come due. Any substantial and extended decline in the price of oil and bitumen would have an adverse effect on the Corporation's carrying value of its reserves, borrowing capacity, future revenues and profitability and may have a material adverse effect on the Corporation's business, financial condition, results of operations, prospects and the level of expenditures for the development of bitumen reserves, including delay or cancellation of existing or future drilling or development programs.

#### ***The development of current projects requires capital investment that may be difficult to raise or may be raised under unfavourable terms.***

The Corporation currently has limited capital and no positive cash flow from operations and therefore will require significant capital investment in order to carry out its planned development activities. There can be no assurance that additional financing will be available, or available under terms favorable to the Corporation. Failure to obtain such financing on a timely basis could cause the Corporation to have limited ability to expend the capital necessary to continue development of the West Ells project and beyond. There can be no assurance that debt or equity financing or cash generated by operations will be available or sufficient to meet these requirements or for other corporate purposes or, if debt or equity financing is available, that it will be on terms acceptable to the Corporation. Moreover, future activities may require the Corporation to alter its capitalization significantly. Financing by issuing additional securities of the Corporation may result in a change of control of the Corporation dilution to the Corporation's current holders of Common Shares, or both.

#### ***Projects currently in development may not be completed within expected time frames, within budget, or at all.***

Even if we obtain sufficient funding for our current projects, they are currently in early development stages. The advancement and completion of our projects or the commencement of production and commercial sales from our projects could be delayed or experience interruptions or increased costs or may not be completed at all due to a number of factors, including:

- inability to raise capital;
- delays in obtaining or an inability to obtain, or conditions imposed by, regulatory approvals;
- disruption in the supply of energy and diluent;
- non-performance by third party contractors;
- inability to attract sufficient numbers of qualified workers;
- labour disputes or disruptions or declines in labour productivity;
- unfavourable weather conditions restricting access to project sites or resulting in road bans that restrict or prohibit road usage;
- contractor or operator errors;
- design errors;
- availability of infrastructure and pipeline capacity;
- increases in materials or labour costs;
- catastrophic events such as fires, storms or explosions;
- the breakdown or failure of equipment or processes;
- construction, procurement and/or performance falling below expected levels of output or efficiency;
- changes in project scope;
- violation of permit requirements;
- the pace of progress with respect to developing extraction technologies; and
- the existence of environmental sensitivities such as endangered species or other at-risk or threatened wildlife within the project area.

Given the stage of development of our projects, various changes to the applicable designs and concepts may be made prior to their completion, which could increase costs or delay project completion. We intend to grow our business in stages, and the potential production capacity targets for our clastics and conventional heavy oil are approximately 170,000 bbl/d. We plan to develop our three primary clastics areas initially, and eventually, as the recovery technologies continue to evolve, our carbonate assets. However, we cannot assure you that our growth will proceed in the stages we expect due to the factors mentioned above or others that we are not able to foresee.

Historically, some oil sands projects have experienced capital cost increases and overruns due to a variety of factors. While we have a schedule for developing our projects, including obtaining regulatory approvals and commencing and completing the construction of our projects, we cannot assure you that our expected timetables will be met without delays, or at all. Any delays may increase the costs of our projects, requiring additional capital, and we cannot assure you that such capital will be available in a timely and cost-effective fashion.

***The development of projects requires significant and continuous capital investment that may be difficult to raise or may be raised under unfavourable terms.***

In general, the development of oil sands projects requires a significant amount of capital investment that occurs over several years before commencing commercial operations. As a result, our projected capital expenditures required for continuing development of commercial operations of the West Ells project and beyond are significantly greater than currently available working capital. We currently do not have the capital or committed financing necessary to complete all of our planned future development phases and therefore will need to rely on additional equity or debt financing or other sources of capital to obtain the funds necessary for our future development activities. Capital and operating cost inflation risks subject us to potential erosion of profitability. In addition, any construction or development delays at the projects could increase the capital expenditure required to develop the projects. If we face difficulty in raising sufficient capital or raise capital under unfavourable terms in order to meet our working capital requirements, our business, results of operations, financial position and growth prospects could be materially and adversely affected.

***Restrictive covenants in the Indenture and agreements governing future indebtedness may restrict our ability to pursue our business strategies.***

The Indenture contains covenants that limit our ability and the ability of our restricted subsidiary to, among other things:

- transfer or sell assets including capital stock of restricted subsidiaries or use asset sale proceeds;
- pay dividends or make distributions, redeem subordinated debt or make other restricted payments;
- make loans and certain investments;
- incur or guarantee additional debt or issue preferred equity securities and certain disqualified stock;
- create or incur certain liens on our assets;
- incur dividend or other payment restrictions affecting our restricted subsidiaries;
- merge, amalgamate, consolidate, sell or otherwise dispose of all or substantially all of our assets;
- enter into certain transactions with affiliates;
- until we reach certain production levels, make capital expenditures or investments except for capital expenditures or investments in our West Ells asset;
- establish or permit to exist, or permit any of our restricted subsidiaries to establish or permit to exist, any ‘defined benefit plan’; and
- designate any of our subsidiaries as unrestricted subsidiaries.

The restrictions contained in the Indenture and instruments governing any future indebtedness could also limit our ability to plan for or react to market conditions, meet capital needs or make acquisitions or otherwise restrict our activities or business plans.

***The level of profitability expected may not be achieved.***

The profitability of oil sands operations is dependent upon many factors beyond our control. As with any oil sands projects, we cannot assure you that bitumen will be produced pursuant to our Oil Sands Leases. In addition, the marketability of the bitumen produced from our projects will be affected by numerous factors beyond our control. These factors include fluctuations in market prices, the proximity, cost and capacity of pipelines and upgrading and processing facilities, the development and condition of infrastructure necessary to carry out our operations, equipment availability and government regulations (including regulations relating to prices, taxes, royalties, land tenure, allowable production, importing and exporting of oil and gas and environmental protection). These factors could materially affect our financial performance and result in our not receiving an adequate return on invested capital.

In the event that our projects are developed and become operational, we cannot assure you that these projects will produce or transport bitumen or bitumen blends in quantities or at the costs anticipated, or that they will not cease production entirely in certain circumstances. Reservoir quality or equipment failures and design flaws could increase the costs of extracting bitumen at our projects. The costs of producing and transporting bitumen blends from oil sands may increase so as to render recovery of bitumen resources from our projects uneconomical. We cannot assure you that an adequate supply of natural gas and electricity will be available as fuel sources to support production operations at prices which would make our projects economically feasible.

Our estimates of operating costs have been based on current estimations for our projects. Actual operating costs may differ materially from such current estimates. Moreover, it is possible that other developments, such as increasingly strict environmental and safety laws and regulations and enforcement policies could result in substantial costs and liabilities, delays or an inability to complete our projects or the abandonment of our projects.

***Our operations depend on infrastructure owned and operated by third parties and on services provided by third parties.***

We depend on certain infrastructure owned and operated or to be constructed by others and on services provided by third parties, including, without limitation, processing facilities, pipelines or rail lines for the transportation of products to the

market, natural gas, supply, diluents supply, disposal facilities, electrical grid transmission lines for the provision and/or sale of electricity to us, engineering, equipment procurement and construction contracts, maintenance contracts for key equipment, and contracts for various other services. The failure of any or all of these third parties to supply goods and services, or, in connection with our SAGD projects, to construct necessary infrastructure on a timely basis and on acceptable commercial terms will negatively impact our operations and financial results.

We initially plan on trucking diluent to, and dilbit from, our SAGD projects in the short term and are also investigating rail and pipeline alternatives. The ability to deliver diluent to our SAGD projects and ship dilbit to markets is dependent on, among other things, access to trucks and drivers, absence of unforeseen obstacles and accidents, weather and general road conditions. Delays or the inability to deliver diluent to our SAGD projects or ship dilbit to market could have a negative impact on our business, results of operations, financial position, growth prospects and cash flow.

***Strategic alliances, partnerships and joint venture arrangements could present unforeseen integration obstacles or costs and may not enhance the business.***

We may pursue potential strategic alliances and partnerships in the areas of infrastructure development for our clastic assets, as well as the development and application of new technologies to our carbonate resources and pursue joint venture arrangements with other oil and gas companies to develop our core areas. These arrangements involve a number of risks and present financial, managerial and operational challenges. We may not be able to realise any anticipated benefits or achieve the synergies we expect from these arrangements and we may be exposed to additional liabilities of any acquired business or joint venture. Any of these could materially and adversely affect our revenue and results of operations. In addition, future acquisitions or joint ventures may involve the issuance of additional Shares of the Corporation, which may dilute Shareholders' interests.

***Attracting, retaining and training key personnel is required.***

We rely on certain key members of our senior management team and employees who have experience in the oil sands industry to manage our business and growth. The loss or departure of any of our key officers, employees or consultants could negatively impact our business, results of operations, financial position and growth prospects.

Our projects will require experienced employees with particular areas of expertise. The number of persons skilled in the development and operation of oil sands projects may be limited. We cannot assure you that all of the required employees with the necessary expertise will be available. There are other oil sands projects in Alberta that are planned for completion on timetables similar to those of our projects. Should those other projects or expansions proceed in the same timeframe as our projects, we may need to compete for experienced employees and such competition may result in retention of an insufficient number of skilled employees and increases to compensation paid to such employees.

In addition, our ability to recruit and train operating and maintenance personnel is a key factor for the success of our business activities. Actual staffing needs may exceed our current projections. If we are not successful in recruiting, training and retaining the personnel we require in sufficient numbers, our business, results of operations, financial position and growth prospects could be materially and adversely affected.

***Carbonate resources may not be successfully developed.***

We intend to apply current and future technologies for development of our carbonate resources, predominantly at our Harper, Muskwa and Portage project areas. The successful development of our carbonate reservoirs depends on, among other things, the successful development and application of SAGD and CSS or other recovery processes to carbonate reservoirs. Although the technology has been developed for application to non-carbonate reservoirs, there are no known successful commercial projects that use SAGD or CSS to recover bitumen from carbonate formations and there exists a large range in the expected recoverable volumes, the lower end of which may not be economically viable. The principal risks associated with SAGD and CSS recovery in carbonate reservoirs are (i) the possibility of unexpected steam channeling which would increase steam requirements resulting in increased costs and potentially reduced economically recoverable bitumen volumes; (ii) potential mechanical operating problems due to production of fine sedimentary particles

which could cause wellbore plugging and reduced bitumen production rates and potential interruption of surface production operations; and (iii) the ability to drain the bitumen and to scale results from tests and pilots to commercial scale.

Development of carbonate reservoirs will involve significant financial and time investment and project payout is not assured. Our ability to develop our bitumen resources that are located in carbonate reservoirs on a commercially viable scale is contingent upon one or more of the following events occurring:

- using existing SAGD or CSS technology to successfully exploit carbonate reservoirs;
- adapting existing SAGD or CSS technology such that it can be successfully used to exploit carbonate reservoirs; or
- developing or acquiring new technology that can be used to successfully exploit carbonate reservoirs.

We cannot assure you that any of these events will occur. The development of such recovery processes will involve significant capital expenditures and a significant lag time between capital expenditures and the commencement of commercial sales. If a pilot project and/or the technology under development does not demonstrate potential commerciality in carbonate reservoirs then our projects on these assets may not proceed and this may occur only after significant expenditures have been incurred. Regardless, evaluators may re-evaluate these resources due to changes or reinterpretations based on the COGE Handbook and processes for assessing uncertainty and risk.

***There could be claims related to infringement of oil and gas development rights and litigation in the ordinary course of business.***

We are subject to the risk that a third party could claim that we have infringed such third party's oil and gas development rights. In addition, we could be involved in litigation in the ordinary course of business. Any claim, whether with or without merit, could be time-consuming to evaluate, result in costly litigation and cause delays in our operations, which could divert management's attention and financial resources from our normal operations.

It is possible for the Crown to grant different mineral rights over a given parcel of land in separate geological horizons. It is not uncommon for different parties to have different rights to specific geological horizons granted on different dates. As a result, different rights of different parties on the same parcel of land can result in conflicts due to their competing interests. Where this occurs, the parties may work together to negotiate a compromise that maximizes recovery for all parties involved. Where such a compromise is unattainable, the authority of one of a number of administrative bodies, such as the AER or the Surface Rights Board, will be determinative while the ultimate result will be affected by the nature and particular characteristics of the conflict. The ultimate result of such conflicts cannot therefore be predicted accurately in advance and could include the temporary suspension of our ability to explore, develop and exploit our mineral rights.

***Hedging arrangements are subject to risks.***

The nature of our operations will result in exposure to fluctuations in currency and commodity prices. We may use financial instruments and physical delivery contracts to hedge our exposure to these risks. To the extent that we engage in hedging activities, we will be exposed to credit related losses in the event of non-performance by counterparties to the physical or financial instruments. Additionally, if product prices increase above those levels specified in any future commodity hedging agreements we enter into, we would lose the full benefit of commodity price increases. If we enter into hedging arrangements, we may suffer financial losses if we are unable to commence operations on schedule or are unable to produce sufficient quantities of oil to fulfil our obligations. We may also hedge our exposure to the costs of inputs to our projects such as natural gas. If the prices of these inputs fall below the levels specified in any future hedging agreements, we would lose the full benefit of commodity price decreases.

***Management's estimates and assumptions could be inaccurate.***

In preparing consolidated financial statements in conformity with IFRS, estimates and assumptions are used by management in determining the reported amounts of assets and liabilities, revenues and expenses recognized during the

periods presented and disclosures of contingent assets and liabilities known to exist as of the date of such financial statements. These estimates and assumptions must be made because certain information that is used in the preparation of such financial statements is dependent on future events, cannot be calculated with a high degree of precision from data available, or is not capable of being readily calculated based on generally accepted methodologies. In some cases, these estimates are particularly difficult to determine and our management must exercise significant judgment. Estimates may be used in management's assessment of items such as fair values, income taxes, stock based compensation and asset retirement obligations. Actual results for all estimates could differ materially from the estimates and assumptions used by the Corporation, which could have a material adverse effect on the Corporation's business, results of operations, financial position and growth prospects.

***As we are selling our product, an inability to generate a sufficient number of customers could have a material adverse effect on our business, financial condition, results of operations and ability to make payment on any outstanding indebtedness.***

The West Ells Phase 1 nameplate capacity is 5,000 bbl/d. With the operation and production of West Ells project, we will continuously looking for customers to purchase the bitumen. An inability to generate a sufficient customer base could have a material adverse effect on our business, financial condition and results of operations and ability to make payment on any outstanding indebtedness, including the Notes.

***There are potential conflicts of interest to which some of the directors and officers of the Corporation will be subject in connection with our operations.***

Some of the directors and officers of the Corporation are engaged and will continue to be engaged in the search of oil and gas interests on their own behalf and on behalf of other companies and situations may arise where the directors and officers will be in direct competition with us. From time to time, the Corporation may jointly participate in exploration and development activities with one or more companies with which a director or officer of ours may be involved. Conflicts of interest, if any, which arise will be subject to and be governed by procedures prescribed by the ABCA which require a director or officer of a company 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 us to disclose his interest and to refrain from voting on any matter in respect of such contract unless otherwise permitted under the ABCA. However, we cannot assure you that such director or officer will comply with the requirements of the ABCA and any undisclosed conflict of interest might have an adverse effect on the Corporation's operations.

## **Risks Relating to the Alberta Oil Sands Industry**

***Revenue and results of operations are sensitive to changes in oil prices and general economic conditions.***

Our revenue and results of operations are sensitive to movements in the market prices for crude oil and general economic conditions. The prices that we receive for our conventional heavy oil bitumen and bitumen blend will depend on crude oil prices. Crude oil prices have historically been subject to large fluctuations due to changes in the supply of, and demand for, oil (and the market perception thereof), which in turn are affected by factors beyond our control. These factors include, among other things, the condition of the Canadian, United States and global economies, actions taken by the Organisation of Petroleum Exporting Countries ("OPEC"), governmental regulation, political stability in oil producing nations and elsewhere and war or the threat of war in oil producing regions. Adverse changes in general economic and market conditions could also negatively impact demand for crude oil, bitumen and bitumen blend, revenue, operating costs, results of financing efforts, fluctuations in interest rates, market competition, labour market supplies, timing and extent of capital expenditures or credit risk and counterparty risk.

Any significant reduction in oil prices would lower our selling prices, which could have a material and adverse effect on our revenue and profitability. In addition, fluctuations in the current oil prices could render uneconomic the recovery and sale of our bitumen resources. We cannot assure you that oil prices will be sustained at commercially acceptable levels for oil sands developers. Further, we cannot anticipate the effects of the recent sharp decline in crude oil prices due to rising supplies of crude oil combined with weak demand growth, and the general growing uncertainty surrounding the

energy industry as a whole. The longer crude oil prices remain at or below current levels, the greater the probability of a material and adverse effect on our revenue, profitability and growth prospects.

Recent market events and conditions, including disruptions in the international credit markets and other financial systems and the American and European sovereign debt levels, have caused significant volatility in commodity prices. These events and conditions have caused a decrease in confidence in the broader United States and global credit and financial markets and have created a climate of greater volatility, less liquidity, widening of credit spreads, a lack of price transparency, increased credit losses and tighter credit conditions. Notwithstanding various actions by governments, concerns about the general condition of the capital markets, financial instruments, banks, investment banks, insurers and other financial institutions caused the broader credit markets to further deteriorate and stock markets to decline substantially. These factors have negatively impacted company valuations and are likely to continue to impact the performance of the global economy going forward. Worldwide crude oil commodity prices are expected to remain volatile in the near future as a result of global excess supply, recent actions taken by OPEC, and ongoing global credit and liquidity concerns. This volatility may affect the Corporation's ability to obtain equity or debt financing on acceptable terms.

In addition, the market prices for conventional heavy oil and bitumen blends are lower than the established market indices for light and medium grades of oil, due principally to diluent prices and the higher transportation and refining costs associated with conventional heavy oil and bitumen blends. Future price differentials between heavier and lighter grades of crude oil are subject to uncertainty and any increase in the price differentials could have an adverse effect on our business, results of operations, financial position and growth prospects.

We conduct an assessment of the carrying value of our assets to the extent required by IFRS. If crude oil prices decline, the carrying value of our assets could be subject to downward revision, and our earnings could be adversely affected.

In the future, we may enter into hedging arrangements in order to reduce the impact of crude oil price fluctuations. For a discussion of the risks associated with those arrangements please refer to the section titled "*Risks Relating to Our Business - Hedging Arrangements Are Subject to Risks*" above.

***A lack of, or impediment to constructing, sufficient pipeline, shipping or refining capacity could adversely affect our business, results of operations, financial position and growth prospects.***

The primary market for Canadian-sourced oil has traditionally been the United States. Through proposed pipelines and shipping terminals, Canadian-sourced oil from Alberta could be transported to Asian markets when destination terminals are constructed along the west coast of Canada and when transportation proposals connecting the Athabasca region to west coast terminals are implemented. Currently there are a number of planned projects which could potentially increase the pipeline, shipping and refining capacity for bitumen and conventional heavy oil sourced from Alberta. However, we cannot assure you that these projects will increase pipeline, shipping or refining capacity at a rate which would be sufficient to match the demand for such capacity. If there is a shortage of pipeline, shipping and refining capacity for heavy conventional oil and bitumen, our business, results of operations, financial position and growth prospects could be materially and adversely affected.

***Bitumen in-situ recovery processes are subject to uncertainties.***

The recovery of bitumen using *in-situ* processes such as SAGD or CSS is subject to uncertainty. Although several companies have utilized these processes to recover bitumen, we cannot assure you that our projects will achieve the same or similar results, or that any of our projects will produce bitumen at expected levels, on schedule or at all.

The quality and performance of the reservoir can also impact the timing, cost and levels of production using this technology. *In-situ* exploration and production operations are also subject to risks such as encountering unexpected formations or pressures and invasion of water into producing formations. With additional data and knowledge of a reservoir, we may realise that the reservoir does not show the same level of porosity and permeability as shown from the previous data set. Moreover, the actual production performance, including recovery rate and SOR, may not meet what has been predicted. In that case, the production plan may be changed or adjusted significantly.

The performance of SAGD or CSS facilities may differ from our expectations. The variances from expectations may include, without limitation:

- the ability to operate at the expected level of production;
- the reliability or availability of the SAGD and CSS facilities; and
- the amount of steam required to produce bitumen resources.

If the SAGD or CSS facilities do not perform to our expectations or as required by regulatory approvals, we may be required to invest additional capital to correct deficiencies or we may not be able to meet our expected level of production. If these expectations are not met, our revenue, cash flow, reserves and resource evaluations, and relationships with customers could be materially and adversely affected.

***Our profitability could be materially and adversely affected by increases in natural gas prices.***

Our profitability could be materially and adversely affected by increases in natural gas prices. We utilize natural gas to produce steam and natural gas condensate as a diluent to reduce the viscosity of our bitumen resources. Natural gas prices have been subject to significant fluctuations due to changes in supply and demand. Factors which affect natural gas prices include, among other things, weather conditions in the United States and Canada, pipeline capacity and oil prices. We currently do not plan to enter into long term contracts for the purchase of natural gas or hedging arrangements related to movements in natural gas prices. If natural gas prices increase, our profitability could be materially and adversely affected.

***Public perception of Canada's oil sands may have an impact on our operations and business.***

Development of Canada's oil sands has received significant attention in political, media and activist commentary on the subject of pipeline transportation, climate change, GHG emissions, water usage, impact on aboriginal communities and environmental damages. Public concerns regarding such issues may directly or indirectly have a negative impact on our profitability by: (i) creating significant regulatory uncertainty that could challenge the economic modeling of future projects and potentially delay sanctioning; (ii) resulting in additional environmental and emissions regulation by governmental authorities, which could result in changes to our operating requirements, thereby potentially increasing the cost of operation and reclamation and abandonment; (iii) resulting in legislation or policy that limits the purchase of crude oil produced from Canada's oil sands by governments or other consumers, which in turn, may limit the market for our dilbit and reduce its price; and (iv) resulting in proposed pipelines not being able to receive the necessary permits and approvals, which, in turn may limit the market for our dilbit and reduce its price.

***The Canadian oil sands industry could experience disruptions due to unfavourable or seasonal weather conditions.***

The level of activity in the Canadian oil sands industry is influenced by seasonal weather patterns and could be affected by unfavourable weather conditions. Wet weather and spring thaw may make the ground unstable. Consequently, municipalities and provincial transportation departments enforce road bans that restrict the movement of rigs and other heavy equipment, thereby reducing activity levels. Also, certain oil producing and exploration areas (including many of the areas in which we operate) are located in regions that are inaccessible other than during the winter months because the ground surrounding the sites consists of swampy terrain. Seasonal factors and unexpected weather patterns may lead to declines in development and production activities.

***Drilling and other equipment for exploration and development activities may not be available when needed.***

Oil exploration and development activities depend on the availability of drilling and related equipment in the areas where such activities will be conducted. If the demand for this equipment exceeds the supply at any given time, or if the equipment is subject to access restrictions, our exploration and development activities could be delayed. We cannot assure you that sufficient drilling and other necessary equipment will be available as needed by us. Shortages could delay our proposed exploration, development and sales activities, and could have a material adverse effect on the business, results of our operations, financial position and growth prospects.

***Access to diluent supplies at favourable prices may be limited.***

Bitumen is characterised by low API gravity or weight and high viscosity or resistance to flow. We plan on using condensate as a diluent to facilitate the processing and transportation of bitumen. A shortfall in the supply of diluent may cause its cost to increase or require alternative diluent supplies to be purchased, thereby increasing the cost to transport bitumen to market and correspondingly increasing our operating cost and adversely impacting our overall profitability.

Major infrastructure projects such as trans-continental pipelines to transport oil from Alberta to the United States require regulatory and government approvals from both the Canadian and US governments. If proposed pipeline construction projects are rejected by either government or if there are other technical or regulatory obstacles associated with the construction of the pipelines, new pipelines may not be constructed and our ability to transport oil using such pipelines would be negatively impacted. Similarly, any rejection by governments or regulatory bodies of proposals to build new shipping and refining capacity for heavy conventional oil and bitumen may also materially and adversely affect our business, results of operations, financial position and growth prospects.

***Oil sands exploration and development is subject to operational risks and hazards.***

The operation of our projects is subject to risks and hazards relating to recovering, transporting and processing hydrocarbons, such as fires, explosions, gas leaks, migration of harmful substances, blowouts and spills. The occurrence of any of these incidents might result in the loss of equipment or life, as well as injury or property damage. Our projects could be interrupted by natural disasters or other events beyond our control. Losses and liabilities arising from uninsured or under-insured events could have a material adverse effect on our projects and on our business, results of operations, financial position and growth prospects.

Our projects are expected to process large volumes of hydrocarbons at high pressure and at high temperatures in equipment with defined tolerances which will handle large volumes of high pressure steam. Equipment failures could result in damage to our facilities and liability to third parties against which we may not be able to fully insure or may elect not to insure due to high premium costs or for other reasons.

We expect that we will initially use trucks to bring our bitumen to the market. Normal hazards associated with trucking include collisions between vehicles and wildlife. We may also use rail or pipelines to transport dilbit to the market and diluent to our projects. Normal hazards associated with transportation by rail include collisions with vehicles and wildlife and rail line breaks. Normal hazards associated with transportation by pipeline include leakage and other potential environmental issues. These hazards could potentially disrupt the transportation of our products and materials and could materially and adversely affect our business, results of operations, financial position and growth prospects.

***There are risks associated with reserves and resources definitions.***

We have disclosed estimated volumes and values of our contingent resources in this AIF. Actual recovery may be substantially less.

Contingent resources are those quantities of petroleum estimated, as of a given date, to be potentially recoverable from known accumulations using established technology or technology under development, but which are not currently considered to be commercially recoverable due to one or more contingencies. Contingencies may include factors such as economic, legal, environmental, political, and regulatory matters, established recovery technology or technology under development, corporate commitment, and/or a lack of markets. It is also appropriate to classify as contingent resources the estimated discovered recoverable quantities associated with a project in the early evaluation stage. Contingent resources are further classified in accordance with the level of certainty associated with the estimates and may be sub-classified based on project maturity and/or characterised by their economic status. There is a greater degree of risk associated with developing the carbonates in view of the distinction that established recovery technologies are methods proven to be successful in commercial applications, whilst technology under development is technology developed and verified by testing as feasible for future commercial application to the subject reservoir.

- The range of uncertainty of estimated recoverable volumes may be represented by either deterministic scenarios or by a probability distribution. Reserves are disclosed under proved, proved plus probable and proved plus probable plus possible categories. Resources are provided as low, best, and high estimates and are not classified as commercially recoverable reserves due to one or more contingencies;
- Proved reserves/low estimate contingent resources: This is considered to be a conservative estimate of the quantity that will actually be recovered. It is likely that the actual remaining quantities recovered will exceed the proved reserves/low estimate. If probabilistic methods are used, there should be at least a 90% probability (P90) that the quantities actually recovered will equal or exceed the proved reserves/low estimate contingent resources;
- Proved plus probable plus possible/high estimate: This is considered to be an optimistic estimate of the quantity that will actually be recovered. It is unlikely that the actual remaining quantities recovered will exceed the proved plus probable plus possible reserves/high estimate. If probabilistic methods are used, there should be at least a 10% probability (P10) that the quantities actually recovered will equal or exceed the proved plus probable plus possible reserves/high estimate contingent resources

We cannot assure you that it will be commercially viable to produce any portion of the contingent resources. The reserves and resources data and present value calculations presented in this AIF are estimates based on a number of assumptions which may deviate from the actual figures over time.

There are numerous uncertainties inherent in estimating quantities of proved and probable reserves, quantities of contingent resources and future net revenues to be derived therefrom, including many factors beyond our control. The reserves, contingent resources and estimated financial information with respect to certain of our Oil Sands Leases have been independently evaluated by GLJ and BGEC. These evaluations include a number of factors and assumptions made as of the date on which the evaluation is made such as geological and engineering estimates which have inherent uncertainties, initial production rates, production decline rates, ultimate recovery of reserves and contingent resources, timing and amount of capital expenditures, marketability of production, current and estimate prices of blended bitumen, crude oil and natural gas, our ability to transport our product to various markets, operating costs, abandonment and salvage values, the effects of regulation by governmental agencies and royalties and other government levies that may be imposed over the productive life of the reserves and contingent resources. Reserves and contingent resources estimates may require revision based on actual production experience. Actual production and cash flow derived from our Oil Sands Leases may vary from GLJ and BGEC's estimates on both, and such variations may be material and adverse.

We use PV10% to estimate the present value of future net revenues from our operations. Pre-tax PV10% is the estimated present value of our future net revenues generated from our proved reserves and contingent resources before taxes, discounted using an annual discount rate of 10%. Post-tax PV10% is the same calculation on an after tax basis. PV10% is not a measure of financial or operating performance, nor is it intended to represent the current market value of our estimated oil sands reserves and resources. Estimates with respect to reserves and contingent resources that may be developed and produced in the future are often based on volumetric calculations, probabilistic methods and analogy to similar types of reserves and resources, rather than upon actual production history, and are therefore generally less reliable. Subsequent evaluations of the same reserves or resources based on production history may result in material variations from current estimated reserves and contingent resources. Furthermore, estimates with respect to future revenue to be derived from proved reserves and contingent resources are inherently uncertain as they are often determined based on assumed oil prices and our operating costs and may be further impacted by assumptions we make in respect of a number of factors, such as market demand for oil, interest rate and inflation rate, all of which are not within our control. While we believe that the presentation of PV10% estimates provides useful information to investors in evaluating and comparing the relative size and value of our reserves and contingent resources, calculations of our future net revenues using PV10% are inherently uncertain as a result of the reasons outlined above and therefore should not be unduly relied on. Furthermore, both GLJ and BGEC have used a range of other discount rates to calculate present value of future net revenues which would produce different results from the use of PV10%. We make no representation that 10% is the correct or best discount rate to use and PV10% estimates are presented in this AIF for reference only.

Only positive PV10% values and the associated resource barrels are reported in this AIF for each asset and classification category. In some scenarios, the low case estimate indicates a 0 value indicating that there are uneconomic results (negative PV10%) and the Corporation would not proceed with development. This is consistent with reporting in the Corporation's independent resource reports and COGE Handbook guidelines that specify that contingent resources must be economic under current pricing.

***Reservoir characteristics may vary from analogues.***

The reservoir characteristics of our properties vary among the different properties and in comparison to other producing projects in the McMurray or other formations. The reservoir we are proposing to produce has had little thermally stimulated production to date, although there are several commercial projects announced or in early stage of development. There is no guarantee that our steam oil ratio will be equivalent to those ratios in the McMurray or other formations which are currently producing. There is a risk that the recovery of bitumen will be lower in our projects than in projects in other reservoirs that have been used as analogues to produce the contingent resources in our technical report, because the reservoir characteristics are different although management believes that these differences have been taken into account.

***Our operations are subject to environmental regulation.***

Our operations are, and will continue to be, affected in varying degrees by federal, provincial and local laws and regulations regarding the protection of the environment. Should there be changes to existing laws and regulations, our competitive position within the oil sands industry may be adversely affected, and other industry players may have greater resources than we have to adapt to legislative changes.

We cannot assure you that future environmental approvals, laws or regulations will not adversely impact our ability to develop and operate our oil sands projects or increase or maintain production of bitumen or control of our costs of production. Equipment which can meet future environmental standards may not be available on economically viable terms or on a timely basis and instituting measures to ensure environmental compliance in the future may significantly increase operating costs or reduce output. There is a risk that the federal and/or provincial governments could pass legislation that would tax air emissions or require, directly or indirectly, reductions in air emissions produced by energy industry participants, which we may be unable to mitigate.

All phases of the oil sands business present environmental risks and hazards and are subject to environmental legislation and regulation pursuant to a variety of federal, provincial and local laws and regulations. Environmental legislation provides for, among other things, restrictions and prohibitions on spills, prohibitions and measures for the protection of wildlife and species at risk, releases and emissions of various substances produced in connection with oil sands operations. The legislation also requires that wells and facility sites be operated, maintained, abandoned and reclaimed to the satisfaction of applicable regulatory authorities. Compliance with such legislation can require significant expenditures, and a breach of applicable environmental legislation may result in the imposition of fines and penalties, some of which may be material. For example, areas that may in the future be subject to both federal and provincial regulation include:

- the possible cumulative regional impacts of oil sands development;
- the manufacture, import, storage, treatment and disposal of hazardous or industrial wastes and substances;
- the reduction of various air emissions;
- water usage and changes to the terms thereof; and
- issues related to wildlife habitat restoration and protection.

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. Unlawful 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 us to incur costs to remedy such discharge. We cannot assure you that environmental laws will not result in a curtailment of production or a material increase in the costs of production, development or exploration activities or otherwise may have a material adverse effect on our business, results of operations, financial position and growth prospects.

Oil Sands Leases are subject to provincial stewardship and conservation guidelines, and as such, there is a risk that surface and subsurface access and activities could be altered to conserve and protect the diversity of ecological regions, migratory species and support the efficient use of lands. The ALSA defines regional outcomes (economic, environmental and social) and includes a broad plan for land and natural resource use for public and private lands.

Additionally, although we are currently not a party to any material environmental litigation, we cannot assure you that we will not become subject to such legal proceedings in the future, which may have a material adverse effect on our business, results of operations, financial position, growth prospects and reputation.

***Operations could be adversely affected by climate change legislation.***

As is the case for all producers, our exploration activities and production facilities emit GHG which directly subjects us to statutory regulation. The current statutory regime governing emissions management and climate change, both provincially and federally, is likely subject to multiple changes in the near future.

In Alberta, the key piece of legislation with respect to emissions management was the *Specified Gas Emitters Regulation* (“**SGER**”), which came into force on July 1, 2007 under the *Climate Change and Emissions Management Act*. The Carbon Competitiveness Incentive Regulation (CCIR) replaced the Specified Gas Emitters Regulation (SGER) on Jan 1, 2018. The CCIR applies to facilities that emitted 100,000 tonnes or more of greenhouse gases (GHGs) in 2003, or a subsequent year. A facility with less than 100,000 tonnes of GHGs may be eligible to opt-in to the CCIR if it competes against a facility regulated under the CCIR or has more than 50,000 tonnes of annual emissions, high emissions-intensity and trade-exposure.

While the SGER created an emissions reduction requirement that was based on a particular facility’s emissions profile, the CCIR will impose an output-based benchmark on all competitors in the same emitting industry. Products produced by a regulated facility in Alberta are assigned a benchmark or permitted emissions intensity for each benchmark unit of such product. Net emissions for any facility in a year may not exceed the output-based allocation applicable to that facility’s sector. Where actual emissions intensity exceeds the benchmark, the large emitter will need to bring its net emissions down by applying emission performance credits, emission offsets or fund credits against its actual emissions in the applicable year.

In a competitive industry, those large emitters whose facilities emit less than the benchmark for that industry will bear no carbon costs, while the brunt of the industry’s CCIR compliance costs will be borne by the least efficient industry players.

Large emitters subject to the CCIR have the same four emission reduction compliance options available to them as they had under the SGER; to make improvements in facility operating efficiency; to purchase emission performance credits; to purchase emission offsets or to purchase fund credits (payments made to a government body at the current rate of \$30 per tonne of emissions).

The CCIR introduces a shelf life to emission offsets and emission performance credits. Those offsets or credits generated in 2014 and earlier will expire in 2020, and those generated in 2015 or 2016 will expire in 2021. Emission offsets and emission performance credits generated in 2017 and going forward will have an eight-year expiry, in contrast to the SGER’s evergreen shelf life for such credits. The consequence of the introduction of built-in expiry dates is that generators of these credits will need to use their credits, trade them in the Alberta market, or forever lose their value.

In addition, the CCIR introduces a cap on a large emitter’s ability to use emission offsets and emission performance credits towards its emission reduction obligations under the CCIR. While the SGER permitted a large emitter to use any combination of compliance options to meet its emissions reduction requirements, the CCIR will cap the use of emission offsets and emission performance credits at 50% of the emitter’s total compliance obligation, which cap will grow to 60% by 2020. Since there is likely a natural limit on how much of a large emitter’s compliance can be achieved through annual operating efficiencies, a policy which caps the use of market-based offsets will drive regulated facilities to purchase fund credits from the government’s Emissions Reduction Alberta agency. In turn, this will ensure an annual stream of

government funds for energy efficiency initiatives, green infrastructure spending, household energy rebates and other promised government initiatives.

With a new provincial government taking the helm in May 2015, there was a distinct shift in Alberta's approach to the climate change file as the government sought to assert a stronger leadership role on environmental matters. On November 22, 2015, Alberta released its Climate Leadership Plan ("**Climate Plan**") which, among other things, promises an economy-wide carbon price, a legislated cap on oil sands emissions, and sets goals for the phase-out of coal-fired generation by 2030. For the power sector, the objective is to replace two-thirds of the existing coal electricity with renewable energy and one-third with natural gas. The 2030 goal is for renewable sources to account for 30% of Alberta's total operating generation capacity. Contemporaneously with the Climate Plan, the Alberta government released the Climate Change Advisory Panel's *Report to the Minister: Climate Leadership*, which identifies carbon pricing as the primary policy tool for reducing emissions in the province.

One of the changes under the Climate Plan is that Alberta will legislate a cap on oil sands emissions. First, an oil sands specific emission performance standard under the Climate Plan will replace the current approach by applying a \$30/tonne carbon price to oil sands facilities based on results already achieved by high performing facilities. Second, a legislated maximum emissions limit of 100 megatonnes in any year will be implemented, with provisions for cogeneration and new upgrading capacity, with the goal of driving technological progress and ensuring operators have time to develop and implement new technology. The Alberta government has promised to consult with industry, regulators, environmental organizations and Indigenous and metis communities on the implementation of the 100 megatonne limit.

On January 1, 2017, Alberta's passed legislation under the Climate Leadership Act which imposed a substantial carbon levy (tax) on a wide variety of products. The Corporation filed and received approval for an exemption to the levy on all fuels used in the processes associated with the project. This includes: natural gas, methanol, pentanes plus, condensate (diluent), marked diesel and propane. This exemption is valid until 2023.

With current Phase 1 production capability, Sunshine does not presently meet the GHG threshold limit and is unaffected by carbon emission levies. It is expected that as production increases in future phases, Sunshine may qualify as a large emitter or regulated facility under CCIR.

The recent change in Canada's federal government is also anticipated to result in changes to the regulatory framework surrounding climate change and emissions management.

Canada adopted the Paris Agreement on December 12, 2015 at the United Nations Climate Change Conference. The goal of the Paris Agreement is to cut global GHG emissions and implement actions to mitigate and adapt to climate change impacts. The Paris agreement is a significant departure from the 2009 Copenhagen Accord, and contains a number of binding and non-binding commitments, including a long-term emissions goal of peaking global greenhouse gas "as soon as possible" to achieve balance between anthropogenic emissions by sources and removal of GHG emissions by sinks in the second half of the century. This means reaching net zero emissions after 2050; however, there is no corresponding timeline or details about how the delayed peak by developing countries will be balanced. In 2018, Canada along with the other member parties will convene a facilitative dialogue to assess their collective efforts in relation to their progress towards the long-term goal. The outcomes of this dialogue will likely inform future climate policies and actions.

It is likely that the goals of the Paris Conference and the federal government's plans for climate change will be discussed in an upcoming First Ministers' conference. First Ministers' conferences are meetings of the provincial and territorial premiers and the Prime Minister, which are closed-door discussions on policy initiatives and legislative changes. The resulting policy initiatives and legislative changes are typically announced in a public statement immediately following the conference.

On March 1, 2016, a First Ministers' conference began, and one of the speculated goals to be discussed is an increase from the \$15/tonne carbon tax to potentially up to \$40/tonne. Further, it is expected that the First Ministers' conference will result in the formation of four working groups, which will respectively focus on: (i) clean technology and innovation; (ii) mitigating climate change (reducing emissions); (iii) adaptation; and (iv) a pan-Canadian price on carbon.

Among the other international developments with respect to climate change initiatives, on February 12, 2016, energy ministers from Canada, Mexico and the United States signed a Memorandum of Understanding on Climate Change and Energy Collaboration (“**MOU**”). The MOU provides that the three countries will collaborate and share information in a number of areas, including: (i) exchanging information and promoting joint action to advance the deployment of carbon capture, use and storage; and (ii) sharing best practices and seeking methods to reduce emissions from the oil and gas sector, including methane and black carbon.

Changes in the regulatory environment, such as increasingly strict carbon dioxide emission laws, could result in significant cost increases. As a result of such, we cannot assure you that we will not incur material costs in the future depending on changes to the relevant legislative regime surrounding emissions management.

***Future delineation programmes may not be successful in adding to reserves and resources.***

As part of our growth strategy, we intend to further delineate reserves and resources on our existing Oil Sands Leases land base. We cannot assure you that our delineation programmes will be successful in adding to our reserves and resources. If these programmes are not successful, our growth prospects could be materially and adversely affected.

***The oil sands and oil industry in general are highly competitive.***

The Canadian oil sands industry and international oil industry are highly competitive. Oil producers compete with each other in a number of areas, including in attracting and retaining experienced and skilled management personnel and oil and gas professionals, the procurement of equipment for the extraction of bitumen, access to capital markets, the exploration for, and the development of, new sources of supply, the acquisition of oil interests, the distribution and marketing of petroleum products, and the obtainability of sufficient pipeline and other means of transportation. Our business will compete with producers of bitumen, bitumen blends, synthetic crude oil and conventional crude oil. Some of these competitors may have lower costs and greater financial and other resources than us. A number of these competitors have significantly longer operating histories and have more widely recognised brand names, which could give such competitors advantages in attracting customers and employees. The expansion of existing operations and development of new projects by other companies could materially increase the supply of competing crude oil products in the marketplace. Depending on the levels of future demand, increased supplies could have a negative impact on prices for bitumen blend, which in turn could negatively affect our selling prices.

***Ownership of Oil Sands Leases and P&NG Licences are subject to federal, provincial and local laws and regulations and Oil Sands Leases may be unable to be renewed.***

The *Mines and Minerals Act* (Alberta) regulates those natural persons and corporate entities eligible to own Oil Sands Leases or P&NG Licences and limits ownership to a number of different types of locally registered corporate entities, including corporations registered under the *Companies Act* or corporations registered, incorporated or continued under the ABCA. Accordingly, overseas companies or entities may not directly own Oil Sands Leases or P&NG Licences in Alberta. They may only do so indirectly through whole or part ownership of a Canadian registered or incorporated company.

The ICA also generally prohibits a reviewable investment to be made by an entity that is a “non-Canadian”, unless after review, the minister responsible for the ICA is satisfied that the investment is likely to be of net benefit to Canada.

An investment in the Shares by a non-Canadian who is not a “WTO investor” (which includes governments of, or individuals who are nationals of, member states of the World Trade Organisation (including Canada) and corporations and other entities which are controlled by them), at a time when Sunshine was not already controlled by a WTO investor, would be subject to a net benefit review under the ICA in two circumstances. First, if it was an investment to acquire control (within the meaning of the ICA, and as described below) and the value of the Corporation’s assets, as determined under ICA regulations, was \$5 million or more. Second, the investment would also be reviewable if an order for review was made by the federal cabinet of the Canadian government on the grounds that the investment related to Canada’s cultural heritage or national identity (as prescribed under the ICA), regardless of asset value.

An investment in our Shares by a WTO investor (or by a non-Canadian who is not a WTO investor at a time when the Corporation was already controlled by a WTO investor) would only be reviewable under the ICA if it was an investment to acquire control and the value of the Corporation's assets, as determined under ICA regulations, was not less than a specified amount, which for 2016 is \$375 million.

In addition to the foregoing circumstances, an investment would also be reviewable if an order for review is made by the federal cabinet of the Canadian government on the grounds that an investment by a non-Canadian could be injurious to national security.

As a result of legislative amendments not yet in force, the usual thresholds for review for direct acquisitions of Canadian businesses (other than acquisitions of cultural businesses) by foreign investors may change as of a date to be determined by the federal cabinet of the Canadian Government. In February of 2016, new regulations under the ICA came into force, increasing the \$369 million threshold to \$375 million for WTO investors.

The ICA provides detailed rules to determine if there has been an acquisition of control. For example, a non-Canadian would acquire control of the Corporation for the purposes of the ICA if the non-Canadian acquired a majority of the Shares. The acquisition of less than a majority, but one-third or more, of the Shares would be presumed to be an acquisition of control of Sunshine unless it could be established that, upon such acquisition, Sunshine would not in fact be controlled by the acquirer. An acquisition of control for the purposes of the ICA could also occur as a result of the acquisition by a non-Canadian of all or substantially all of the Corporation's assets.

Further, the *Competition Act* provides that certain substantial transactions among significant parties may not be consummated unless a pre-merger notification thereof is made to the Commissioner and a stipulated waiting period expires. Where the Commissioner believes that a proposed transaction does not give rise to competition concerns, he may issue an Advance Ruling Certificate (an "ARC") that exempts the parties from the notification requirement and precludes the Commissioner from challenging the transaction in the future.

There are two thresholds that must be met in order for a transaction to be notifiable. The first threshold is the current \$92 million "size of transaction" threshold. If the book value of the assets in Canada of Sunshine or the revenues generated from sales in or from Canada by Sunshine and its affiliates exceed \$92 million, the second \$400 million "size of the parties" threshold must also be considered. Assuming the first threshold is exceeded, if the book value of the assets in Canada or the revenues generated in, from and into Canada of the purchaser and its affiliates and Sunshine and its affiliates exceeds \$400 million, notification is required.

If a person (or affiliated group of persons) acquires more than 20% of the total issued and outstanding Shares and the above mentioned thresholds are exceeded, *Competition Act* approval may be required.

If a transaction is subject to notification, the parties thereto are required to file prescribed information in respect of themselves, their affiliates and the proposed transaction and pay a prescribed filing fee. The parties may also apply for an ARC or a "no action letter" which may be issued by the Commissioner in respect of a proposed transaction if she is satisfied that there are not sufficient grounds on which to apply to the Competition Tribunal for an order challenging the transaction at that time. As the Commissioner retains the right to challenge a transaction for up to three years after closing, the parties usually agree not to close until the Commissioner has completed her review and has issued either a no-action letter or an ARC. The Commissioner would likely only challenge a proposed transaction if the transaction prevents or lessens, or is likely to prevent or lessen, competition substantially in the market affected.

Oil produced from Oil Sands Leases in Alberta is produced pursuant to two types of oil sands agreements issued under the *Oil Sands Tenure Regulation* made under the *Mines and Minerals Act*. These are (i) permits, issued for a five-year term, which can be converted into leases; and (ii) leases, issued for an initial 15-year term, which can be continued as to all or any portion which the Minister of Energy may determine. The *Mines and Minerals Act* requires that exploration or development activities be undertaken according to prescribed levels of evaluation or production. Permits may generally be converted into leases provided certain minimum levels of exploration have been achieved and all lease rentals have been timely paid. Although an Oil Sands Lease may generally be continued after the initial term as to all or any portion

which the Minister of Energy may determine, if the minimum levels of exploration or production have not been achieved or if lease rentals have not been timely paid, we cannot assure you that we will be able to renew all of our Oil Sands Leases as they expire.

***Operations are subject to significant government regulation.***

Our business is subject to substantial regulation under provincial and federal laws relating to the exploration for, and the development, processing, marketing, pricing, taxation, and transportation of oil sands bitumen, its related products and other matters. Changes to current laws and regulations governing operations and activities of oil sands operations could have a material adverse impact on our business. We cannot assure you that laws, regulations and government programmes related to our projects and the oil sands industry will generally not be changed in a manner which may adversely affect our projects, cause delays or the inability to complete our projects, or adversely affect our profitability.

The Extractive Sector Transparency Measures Act (“**ESTMA**”), a federal regime for the mandatory reporting of payments to government, came into force on June 1, 2015. ESTMA contains broad reporting obligations with respect to payments to governments and state owned entities, including employees and public office holders, made by Canadian businesses involved in resource extraction. Under ESTMA, all payments made to payees (broadly defined to include any government or state owned enterprise) must be reported annually if the aggregate of all payments in a particular category to a particular payee exceeds \$100,000 per financial year. The categories of payments include taxes, royalties, fees, bonuses, dividends and infrastructure improvement payments. Payments to aboriginal governments are exempt from reporting obligations until 2017. Failure to comply with the reporting obligations under ESTMA is punishable upon summary conviction with a fine of up to \$250,000. In addition, each day that passes prior to a non-compliant report being corrected forms a new offence, and therefore, a payment that goes unreported for a year could result in over \$9,000,000 in total liability.

***The permits, leases, licences and approvals which are necessary to conduct our operations may not be obtained or renewed or may be cancelled.***

Permits, leases, licences, and approvals are required from a variety of regulatory authorities at various stages of our projects. We cannot assure you that the various government permits, leases, licences and approvals sought will be granted in respect of our projects or, if granted, will not be cancelled or will be renewed upon expiry. We cannot assure you that such permits, leases, licences, and approvals will not contain terms and provisions which may adversely affect the final design and/or economics of our projects. In addition, we cannot assure you that third parties will not object to the development of our projects during the regulatory process.

***When resources and reserves have been extracted from projects, abandonment and reclamation costs will be incurred.***

We will be responsible for compliance with the terms and conditions of environmental and regulatory approvals we receive and all the laws and regulations regarding the abandonment of our exploration and delineation wells, our projects and the reclamation of our lands at the end of their economic lives. These abandonment and reclamation costs may be substantial.

A breach of such approvals, laws or regulations may result in the issuance of remedial orders, the suspension of approvals, or the imposition of fines and penalties. It is not presently possible to estimate the abandonment and reclamation costs with certainty since they will be a function of regulatory requirements in the future. The value of salvageable equipment may not fully cover these abandonment and reclamation costs.

In addition, in the future we may be required by applicable laws or regulations to establish and fund one or more reclamation funds to provide for payment of future abandonment and reclamation costs, which could divert cash resources away from capital expenditure and working capital needs. We have made a provision for decommissioning obligations.

***Changes in foreign exchange rates could adversely affect our business, results of operations and financial position.***

Our results are affected by the exchange rate between the Canadian and US dollar. The majority of our expenditures and other expenses are in Canadian dollars, and our reporting currency is the Canadian dollar. The majority of our revenues will be received in US dollars or from the sale of oil commodities that reflect prices determined by reference to

US benchmark prices. An increase in the value of the Canadian dollar relative to the US dollar will decrease the revenues received and recorded in our financial statements from the sale of our products.

***Shortages in electricity and natural gas, or increases in electricity and natural gas prices may adversely affect our business, results of operations and financial position.***

We expect to consume substantial amounts of electricity and natural gas in connection with our bitumen recovery techniques, and our demand will increase as our production capabilities increase and our projects are developed. Any shortages or disruptions in our electricity or natural gas supplies could lead to increased costs. Although we plan to generate electricity for our projects through the use of our cogeneration plant rather than through purchasing power from the local grid, we cannot assure you that this plant will sufficiently supply power to our projects. If we purchase electricity from the local grids, the electricity prices could be higher than the electricity sourced from our cogeneration plant, and our operating expenses could increase.

***Shortages in water supply may adversely affect our business, results of operations and financial position.***

In SAGD operations, water is used to create steam. In order to use or divert fresh water, we must first obtain a water licence. Any shortages in our water supply could lead to increased costs, and any delays or difficulties in obtaining or maintaining a water licence could adversely affect our operations.

***Our independent reserves evaluators have not undertaken site inspections of our properties or independently verified the data provided to them by Sunshine.***

Both GLJ and BGEC rely on, amongst other things, the data provided to them by us in their evaluation of our reserves and resources. Our independent reserves evaluators have not undertaken site inspections of our properties. Further, data provided to our independent reserves evaluators by us is considered by our independent reserves evaluators, but is only independently verified through public data, analogous developments and/or interpreted by utilising the GLJ and BGEC's experience and industry knowledge. Our independent reserves evaluators provide independent evaluation of our resources based on all available data. We cannot be certain that our independent reserves evaluators would not have evaluated our reserves and resources, as disclosed in this AIF, differently, if they had conducted a site visit or relied only on public data sources not including the information directly provided by Sunshine.

***Political events throughout the world may have an impact on the Alberta Oil Sands Industry.***

Political events throughout the world that cause disruptions in the supply of oil continuously affect the marketability and price of oil and bitumen acquired or discovered by the Corporation. Conflicts, or conversely peaceful developments, arising outside of Canada have a significant impact on the price of oil and bitumen. Any particular event could result in a material decline in prices and have a material adverse effect on the Corporation.

In addition, the Corporation's 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.

## **Risks Relating to Alberta and Canada**

***Cash flow and profitability could be affected by changes in Alberta's royalty regime and by increased taxes.***

The development of our resource assets will be directly affected by the applicable fiscal regime. The economic benefit of future capital expenditures for our projects is, in many cases, dependent on the fiscal regime. The Government of Alberta receives royalties on production of natural resources from lands in which it owns the mineral rights. On October 25, 2007, the Government of Alberta unveiled a new royalty regime. The regime introduced new royalties for conventional oil, natural gas and crude bitumen and became effective on January 1, 2009. On March 10, 2010, the Government of Alberta announced further changes to Alberta's royalty system. These royalties are linked to commodity prices and production

levels and applied to both new and existing oil sands projects and conventional oil and gas activities. The royalty rates within this new regime have since been subject to change.

Under this current regime, the Government of Alberta increased its royalty share from oil sands production by introducing price-sensitive formulas which will be applied both before and after specified allowed costs have been recovered. These changes to Alberta's oil sands royalty regime required changes to existing legislation, including the *Mines and Minerals Act*, and the implementation of certain new legislation, namely the *Oil Sands Royalty Regulation*, the *Oil Sands Allowed Cost (Ministerial) Regulation*, and the *Bitumen Valuation Methodology (Ministerial) Regulation*. While the intent of such revised and newly implemented legislation is to provide a fair, predictable and transparent royalty regime, each of the abovementioned statutes have been partially amended since 2009, and in some cases specifically remain open to changing circumstances and new categories of costs, and as such remain subject to further future modification, whether as a result of industry developments, renewed public and/or industry consultation or otherwise.

On January 29, 2016, the provincial government announced changes to the current royalty framework. Under the MRF, the sliding scale royalty concept is maintained, but will be achieved with a greater degree of simplicity. The new royalty percentage will be applied to the gross revenue generated from all hydrocarbons, with no differentiation between produced substances, and wells will be charged a flat 5% royalty rate until revenues exceed a normalized well cost allowance, which will be based on vertical well depth and lateral length. The calculation of this cost allowance, and other details regarding the various parameters within the new formula under the MRF, was announced on March 31, 2016. Ultimately, there were no changes to the royalty structure or rates for oil sands projects.

The MRF will not affect current oil sands royalty rates, as it was determined that the existing royalty structure for oil sands was consistent with global constructs for pre-payout and post-payout profit sharing between operating companies and resources owners. Instead, changes will be made to the *Oil Sands Allowed Costs (Ministerial) Regulation* (which sets out the costs which are deductible when calculating oil sands royalties) in order to improve transparency, to ensure that companies face stern, fact-based decision-making in respect of allowable costs, and to create enhanced predictability, consistency and promptness regarding decisions in respect of the applicability of cost rules.

We cannot assure you that the Government of Alberta or the Government of Canada will not adopt a new fiscal regime or otherwise modify the existing fiscal regime governing oil sands producers in a manner that could materially affect the financial prospects and results of operations of oil sands developers and producers in Alberta, including us.

***Claims may be made by aboriginal peoples.***

Aboriginal peoples have claimed aboriginal title and rights to portions of western Canada based on historic use and occupation of lands, historic customs and treaties with governments. Such rights may include rights to access the surface of the lands, as well as hunting, harvesting and fishing rights. We are not aware that any claims have been made in respect of our specific properties or assets. However, if a claim arose and was successful such claim could, among other things, delay or prevent the exploration or development at our projects, which in turn could have a material adverse effect on our business, results of operations, financial position and growth prospects.

Prior to making decisions that may adversely affect existing or claimed aboriginal rights and interests, the government has a duty to consult with potentially affected aboriginal peoples. The time required for the completion of aboriginal consultations may affect the timing of regulatory authorisations. Furthermore, any agreements or arrangements reached pursuant to such consultation may materially affect our business, results of operations, financial position and growth prospects.

***As a Canadian corporation, it could be difficult for our investors not resident in Canada to effect service of process on and recover against us or our Directors and officers. Shareholders who are not resident in Canada may face difficulties in protecting their interest.***

We are a Canadian corporation and a number of our officers and Directors are residents of Canada. A substantial portion of our assets and the assets of our officers and Directors, at any one time, are located in Canada. It could be difficult for

investors not resident in Canada to effect service of process within Canada on our Directors and officers who reside outside their jurisdiction or to recover against us or our Directors and officers on judgments of foreign courts predicated upon the laws of other jurisdictions.

Our corporate affairs are governed by our charter documents, consisting of our Articles, and by the ABCA. The rights of our Shareholders and the fiduciary responsibilities of our Directors are governed by the laws of Alberta and Canada. The laws of Alberta and Canada relating to the protection of the interests of minority Shareholders differ in some respects from those established under statutes or judicial precedent in existence in Hong Kong. Investors not resident in Canada should be mindful of such differences.

### **Risks Relating to Our Shares**

***The price and trading volume of our Shares may be volatile, which could result in substantial losses for investors purchasing Shares.***

Factors such as fluctuations in our revenue, earnings, cash flows, new investments, acquisitions or alliances, regulatory developments, additions or departures of key personnel, or actions taken by competitors could cause the market price of our Shares or trading volume of our Shares to change substantially and unexpectedly. In addition, stock prices have been subject to significant volatility in recent years. Such volatility has not always been directly related to the performance of the specific companies whose shares are traded. Such volatility, as well as general economic conditions, may materially and adversely affect the prices of shares, and as a result investors in our Shares may incur substantial losses.

***Future sale or major divestment of Shares by any of our substantial Shareholders could adversely affect the prevailing market price of the Shares.***

The Shares held by certain substantial Shareholders are subject to certain reporting requirements. We cannot assure you that these Shareholders will not dispose of any Shares. Sales of substantial amounts of our Shares in the public market, or the perception that these sales may occur, may materially and adversely affect the prevailing market price of the Shares.

***Future issuances or sales, or perceived issuances or sales, of substantial amounts of the Shares in the public market could materially and adversely affect the prevailing market price of the Shares and the Corporation's ability to raise capital in the future.***

The market price of our Shares could decline as a result of future sales of substantial amounts of our Shares or other securities relating to our Shares in the public market, including by our substantial Shareholders, or our issue of new Shares, or the perception that such sales or issuances may occur. Future sales, or perceived sales, of substantial amounts of our Shares could also materially and adversely affect our ability to raise capital in the future at a time and at a price favourable to it, and our Shareholders would experience dilution in their holdings upon issuance or sale of additional securities in the future.

***We may not be able to pay any dividends on the Shares.***

We cannot guarantee when, if and/or in what form dividends will be paid on our Shares in the future. A declaration of dividends must be proposed by our Board and is based on, and limited by, various factors, including, without limitation, our business and financial performance, capital and regulatory requirements and general business conditions. We may not have sufficient or any profits to make dividend distributions to Shareholders in the future, even if our financial statements prepared under IFRS indicate that our operations have been profitable. For further details on our dividend policy, please refer to the section titled "*Financial Information - Dividend Policy*" in this AIF. In addition, the ability of the Corporation to declare dividends is currently subject to restrictions under the provisions of the Indenture.

***Issuance of Shares pursuant to the Share Option Schemes could result in dilution to our Shareholders.***

We have granted options over our Shares pursuant to two Pre-IPO Share Option Schemes and one Post-IPO Share Option Scheme. As of the date of this AIF, including all share option schemes, there are outstanding options to subscribe for

491,005,881 Shares, representing approximately 8.00% of Shares issued and outstanding as of the date of this AIF. If these options are exercised, there would be an increase in our issued Share capital, which in turn would dilute our existing Shareholders' shareholding interest in us and reduce the *pro forma* earnings per Share.

## **DIVIDENDS**

The Corporation has not declared or paid any dividends since its incorporation. The Corporation does not have a present intention to pay any dividends. The payment of dividends in the future will depend on the Corporation's earnings, financial condition and such other factors as the board of directors considers appropriate. In addition, the ability of the Corporation to declare dividends is currently subject to restrictions under the provisions of the Indenture.

## **DESCRIPTION OF SHARE CAPITAL AND DEBT SECURITIES**

The authorized capital of the Corporation consists of an unlimited number of shares designated as Class "A" Common Voting Shares, Class "B" Shares, Class "C" Common Non-Voting Shares, Class "D" Common Non-Voting Shares, Class "E" Common Non-Voting Shares, Class "F" Common Non-Voting Shares, Class "G" Shares and Class "H" Shares.

As of the date of this AIF, the Corporation has 6,135,846,624 Class "A" Common Voting Shares and nil shares of any other class of shares in the capital of the Corporation issued and outstanding.

### **Common Shares**

The Corporation is authorised to issue an unlimited number of Common Shares.

Holders of Class "A" Common Voting Shares and Class "B" Common Voting Shares have the following rights, privileges, conditions and restrictions: (i) the right to vote at any meeting of Shareholders; and (ii) the right to receive the remaining property of the Corporation on dissolution, whether voluntary or involuntary. Such property shall be divided equally among all classes of Common Shares and the right to receive dividends as declared by the Corporation provided that such dividends may be declared on any class of Common Shares, or on any combination of classes of Common Shares, to the exclusion of any class or classes of Common Shares, or in part on each class.

Holders of Class "C" Common Non-Voting Shares, Class "D" Common Non-Voting Shares, Class "E" Common Non-Voting Shares and Class "F" Common Non-Voting Shares have the following rights, privileges, conditions and restrictions: (i) no right to vote at any meeting of Shareholders; and (ii) the right to receive the remaining property of the Corporation on dissolution, whether voluntary or involuntary. Such property shall be divided equally among all classes of Common Shares, and the right to receive dividends as declared by the Corporation provided that such dividends may be declared on any class of Common Shares, or on any combination of classes of Common Shares, to the exclusion of any class or classes of Common Shares, or in part on each class. None of these classes of shares have been issued.

### **Preferred Shares**

The Corporation is authorised to issue an unlimited number of Preferred Shares to eligible persons, namely, its Directors, officers, employees, consultants or advisers.

The Preferred Shares are non-cumulative, redeemable and retractable (provided that purchases not made by tender, or through the market, shall be limited to a maximum price and, provided further, that if purchases are made by tender, tenders shall be available to all Shareholders alike) which may be issued for such consideration and bearing such rights, privileges, conditions and restrictions, in addition to the following, as determined by the Director(s) before issue:

- (1) The holders of the Class "G" and Class "H" Preferred Non-Voting shares shall in each year be entitled, out of any or all profits or surplus available for dividends, to a non-cumulative cash dividend calculated at such a rate as the Directors set at the time of issuance. No dividend shall be declared and paid on or set apart for payment on the Common Shares or any other shares that rank junior to the Class "G" and Class "H" Preferred Non-Voting shares in any fiscal year unless the dividends on all the Class "G" and

Class “H” Preferred Non-Voting shares which are issued and outstanding at that time have been declared and paid for that fiscal year or set apart for payment, except with the consent in writing of all the holders of the Class “G” and Class “H” Preferred Non-Voting shares.

- (2) Upon dissolution of the Corporation, the holders of the Class “G” and Class “H” Preferred Non-Voting shares shall take priority with regards to the return of capital and distribution of assets. They shall receive an amount equal to the amounts paid up on the shares held by them together with all declared and unpaid dividends thereon, if any. After payment to the holders of the Class “G” and Class “H” Preferred Non-Voting shares as provided for above, they shall not be entitled to share in any further distribution of the assets or property of the Corporation.
- (3) The Class “G” and Class “H” Preferred Non-Voting shares shall not be entitled to vote at any meeting of the Shareholders, to receive notice of such meeting or to attend same, subject to the provisions of the ABCA.

## **Notes**

*The following is only a summary of certain characteristics of the Notes. For a complete description of the Notes and the rights and conditions associated therewith, see the full text of the Indenture which is available under Sunshine’s profile on SEDAR at [www.sedar.com](http://www.sedar.com).*

### **General**

On August 8, 2014, the Corporation closed an offering of US\$200 million principal amount of 10% senior secured notes (the “Notes”) issued at a price of US\$938.01 per US\$1,000 principal amount. The Notes were offered in Canada and in the United States on a private placement basis.

Under the terms of the Notes, the maturity date was August 1, 2017 and, if certain events did not take place, August 1, 2016. The Corporation did not complete the requirements to maintain an August 1, 2017 maturity date and, as such, the maturity date of the Notes was August 1, 2016.

Since that time the Corporation has entered into the Forbearance Agreement, the Forbearance Reinstatement Agreement, the Amended and Restated Forbearance Agreement with Forbearing Holders, and Reinstatement and Amending Agreement however, the terms of these agreements have not been fully satisfied.

Interest on the Notes accrues at a rate of 10% per annum, with interest payments made semi-annually on February 1 and August 1 of each year commencing on February 1, 2015.

On August 1, 2016, Sunshine was required to pay the holders of any Notes then outstanding a yield maintenance premium of 7.298% of the aggregate principal amount of the Notes (the “**Yield Maintenance Premium**”).

### **Escrow Account**

US\$30 million of the proceeds of the Notes was funded into an escrow account, pursuant to the Indenture, representing 18 months of interest in respect of the Notes (calculated based upon the aggregate principal amount of Notes initially issued). All of such funds have been released from the escrow account and such released amounts were used solely to make payments of interest on the Notes.

### **Guarantees**

The Notes are fully and unconditionally guaranteed, jointly and severally, on a senior secured basis by certain future subsidiaries of the Corporation. Sunshine Hong Kong, a subsidiary of the Corporation which holds only nominal assets, did not guarantee the Notes on the issue date and will not, except in certain circumstances, on any date thereafter.

### **Security Interest**

The Notes are secured by a first priority security interest in substantially all of Sunshine's and any guarantors' tangible and intangible assets, subject to certain permitted liens. The Notes contain a carveout for a senior credit facility once Sunshine reaches certain production and PV-10 levels, at which point the Notes and guarantees will have a second-priority security interest in the collateral behind such senior credit facility.

### ***Ranking***

The Notes and the guarantees will be the Corporation's and the guarantors' senior secured obligations and rank:

- equally in right of payment with all of the Corporation's and the guarantors' future senior obligations;
- senior in right of payment to all of the Corporation's and the guarantors' future subordinated indebtedness;
- effectively senior to the Corporation's future unsecured indebtedness to the extent of the value of the collateral securing the Notes and the guarantees; and
- effectively junior to all of the Corporation's and the guarantors' obligations under a permitted senior credit facility, once we reach certain production and PV-10 levels, which may be secured by liens on the collateral that ranks senior to the liens securing the Notes and the guarantees.

### ***Optional Redemption***

On or after August 1, 2015, Sunshine may redeem some or all of the Notes at a redemption price that includes a certain specified premium based on the redemption date and any accrued and unpaid interest. The Notes are also subject to redemption in certain other circumstances described in the Indenture, including at 100% of the principal amount in the event of changes in certain tax laws.

### ***Additional Amounts***

In the event that certain taxes are payable in respect of payments on the Notes and the guarantees, the Corporation will, subject to certain exceptions, pay such additional amounts as will result, after deduction or withholding of such taxes, in the receipt of the amounts which would have been received in respect of the Notes and the guarantees, respectively, had no such withholding or deduction been required.

### ***Change of Control Rights***

If Sunshine experiences certain kinds of changes of control, each holder of the Notes will have the right to require Sunshine to repurchase all or any part of their Notes at an offer price in cash equal to 101% of the aggregate principal amount thereof, plus any accrued and unpaid interest to the date of the purchase.

### ***Asset Sales***

Upon certain asset sales, Sunshine may be required to use an amount of cash equal to the net cash proceeds of such sales to offer to repurchase a portion of the Notes at a price in cash equal to 100% of the aggregate principal amount thereof, plus any accrued and unpaid interest to the date of the purchase.

### ***Covenants***

The Indenture contains covenants that limit Sunshine's ability to, among other things: (i) transfer or sell assets including capital stock of restricted subsidiaries or use asset sale proceeds; (ii) pay dividends or make distributions, redeem subordinated debt or make other restricted payments; (iii) make loans and certain investments; (iv) incur or guarantee additional debt or issue preferred equity securities and certain disqualified stock; (v) create or incur certain liens on our assets; (vi) incur dividend or other payment restrictions affecting our restricted subsidiaries; (vii) merge, amalgamate, consolidate, sell or otherwise dispose of all or substantially all of our assets; (viii) enter into certain transactions with affiliates; (ix) until Sunshine reaches certain production levels, make capital expenditures or investments except for capital expenditures or investments in our West Ells asset; (x) designate any of our subsidiaries as unrestricted subsidiaries; and

(xi) establish or permit to exist, or permit any of its restricted subsidiaries to establish or permit to exist, any Defined Benefit Plan (as defined in the Indenture). These covenants are subject to a number of exceptions and qualifications and are described in more detail in the Indenture.

## MARKET FOR SECURITIES

### Trading Price and Volume

As of the date of this AIF, the Shares of the Corporation are listed and posted for trading on the SEHK under the stock code “2012”. The following table sets forth the price range and trading volume of the Shares as reported by the SEHK for the period commencing January 1, 2018 to December 31, 2018:

<u>2018 Month</u>	<u>Class "A" Common Voting Shares</u>		
	<u>High (HK\$)</u>	<u>Low (HK\$)</u>	<u>Volume</u>
January	0.365	0.28	389,826,561
February	0.29	0.235	128,870,655
March	0.26	0.221	73,896,475
April	0.242	0.211	41,078,500
May	0.285	0.2	290,139,915
June	0.275	0.22	51,711,979
July	0.237	0.21	34,836,262
August	0.214	0.188	39,951,454
September	0.215	0.181	29,236,572
October	0.225	0.171	85,586,350
November	0.182	0.159	68,965,102
December	0.171	0.15	37,213,000

The Corporation was voluntarily delisted from TSX effective at the close of markets on September 30, 2015. Prior to delisting, the Shares of the Corporation were listed and posted for trading on the TSX under the stock symbol “SUO”.

### Prior Sales

The following stock options were granted pursuant to the Post-IPO Share Option Scheme during the most recently completed financial year of the Corporation:

<u>Date of Issuance</u>	<u>Type of Security</u>	<u>Exercise Price per Security</u>	<u>Number of Securities</u>
July 5, 2018	Options	\$0.040	315,000,000

Other than as set out above, the Corporation does not have any class of securities outstanding which are not listed or quoted on a marketplace.

## DIRECTORS AND OFFICERS

### Name, Address, and Principal Occupations

The names, municipality of residence and principal occupation during the last five years of each of the directors and senior officers of the Corporation are as follows:

Name, Municipality of Residence & Current Position(s) with the Corporation	Principal Occupation in the Past Five Years	Director Since	Shares Beneficially Owned or Over Which Control or Direction Exercised as at March 18, 2019 (As a Percentage of Total Number of Shares Outstanding)
<b>Kwok Ping Sun</b> <sup>(1)(3)</sup> Hong Kong <i>Executive Chairman</i> Age: 54	Executive Chairman of the Corporation since July 2015. Non-Executive Director of the Corporation from May 2015 to June 2015. Founder of Nobao Renewable Energy Holdings Limited (“ <b>Nobao</b> ”) and served as the Chairman of the Board, Director and Chief Executive Officer of Nobao since its inception in 2007.	May 27, 2015	1,687,377,000 (27.50%)
<b>Gloria Pui Yun Ho</b> Hong Kong Executive Director, Chief Financial Officer Age: 38	Executive Director, Chief Financial Officer of the Corporation since June 27, 2017. Chief Financial Officer from November 2016. Ms. Ho is a Chartered Accountant, Certified Public Accountant, Chartered Financial Analyst and Chartered Alternative Investment Analyst. Ms. Ho holds a postgraduate certificate in Financial Engineering at Stanford University and a M.Sc. in Finance at the University of Illinois at Urbana-Champaign	June 27, 2017	Nil
<b>Hong Luo</b> Calgary, Alberta Canada <i>Executive Director</i> , Age: 56	Executive Director since September 1, 2017, Executive Director and Chief Executive Office since July 2015. Non-Executive Director from November 2014 to July 2015. Executive Vice President of Sinopec Canada from February 2012 to July 2015. Prior thereto, Director of Strategy and Planning at Sinopec International Petroleum Exploration and Production Corporation (“ <b>SIPC</b> ”) from September 2009 to January 2012, President of West Africa and Asia-Pacific Exploration and Production Projects from May 2008 to August 2009.	November 28, 2014	Nil
<b>Michael John Hibberd</b> <sup>(1)</sup> Calgary, Alberta Canada <i>Non-Executive Vice-Chairman</i> Age: 63	Non-Executive Vice-Chairman of the Corporation since July 2015, Executive Vice-Chairman of the Corporation from November 2014 to June 2015. Executive Chairman from June 2014 to November 2014. Executive Co-Chairman of the Corporation from October 2008 to June 2014. Prior thereto, from August 2007 to October 2008, Chairman and Co CEO of the Corporation. President and Chief Executive Officer of MJH Services Inc., a corporate finance advisory company, since January 1995. Chairman of Greenfields Petroleum Corporation since February 2010. Chairman of Canacol Energy Ltd. since October 2008. Director of Pan Orient Energy Corp. since April 2005. Director of Petro Frontier Corp. since September 2013. Director of Montana Exploration Corp. since 1997.	May 9, 2007	104,674,685 (1.71 %)

Name, Municipality of Residence & Current Position(s) with the Corporation	Principal Occupation in the Past Five Years	Director Since	Shares Beneficially Owned or Over Which Control or Direction Exercised as at March 18, 2019 (As a Percentage of Total Number of Shares Outstanding)
<b>Raymond Shengti Fong</b> <sup>(1) (2) (3) (4)</sup> Calgary, Alberta Canada <i>Independent Non-Executive Director</i> Age: 72	Director of Palinda International Group Limited since September 2012. Prior thereto, Chief Executive Officer of China Coal Corporation of Calgary from May 2010 to December 2012. Director of Abenteuer Resources Ltd. from November 2000 to August 2008. Director of Stealth Ventures Ltd. from November 1999 to November 2007. Director of Zapata Capital Inc. from January 1998 to June 1999 and director of United Rayore Gas Ltd. from January 1990 to January 1997.	May 9, 2007	9,250,621 (0.15%)
<b>Xijuan Jiang</b> <sup>(3)</sup> Beijing China <i>Non-Executive Director</i> Age: 53	Vice President and Chief Engineer of Nuoxin Energy Technology (Shanghai) Co. Ltd. since 2012.	June 30, 2016	300,000 (0.01%)
<b>Yi He</b> <sup>(1) (2)(4)</sup> Beijing China <i>Independent Non-Executive Director</i> Age: 46	Founder of Yaoxin Asset Management Company since 2015, director of Kai Yuan Holding Limited Company, Chief Executive Officer of Nomura China.	June 30, 2016	1,600,000 (0.03%)
<b>Joanne Yan</b> <sup>(1) (3)(4)</sup> Vancouver, British Columbia Canada <i>Independent Non-Executive Director</i> Age: 61	President of Joyco Consulting Services Inc. since September 1994. Director of TSX listed Hanwei Energy Services Corp. since June 2006, President and Director of Brazilian Gold Corporation from June 2006 to November 2013, Director of New Era Minerals Inc. from June 2014 to April 2016, Director of Archer Petroleum Corp. from April 2013 to October 2014	June 30, 2016	Nil
<b>Linna Liu</b> Hong Kong Non-Executive Director Age: 41	Head of Special Situation Investment Division of Bank of China Group Investment Limited ("BOCGI") since 2016. Prior to joining BOCGI, from 2000 to 2015, Ms. Liu held a number of positions in Bank of China Headquarter and New York Branch. Ms. Liu has over 17 years of experiences in Banking and Financing. Ms. Liu graduated from Peking University and Columbia University and holds Bachelor and Master degrees.	April 6, 2017	Nil

**Notes:**

- (1) Member of the Corporate Governance Committee.
- (2) Member of the Reserves Committee.
- (3) Member of the Compensation Committee.
- (4) Member of the Audit Committee.

**Share Ownership by Directors and Officers**

The Corporation's officers and Directors beneficially own, as a group, or exercise control or direction over, directly or indirectly 1,803,202,306 Shares as at March 18, 2019. As at March 18, 2019, the Shares held by the Corporation's officers and Directors represent approximately 29.39% of the issued and outstanding Shares and 27.21% of the issued and outstanding Shares on a fully diluted basis, including options held by the Corporation's officers and Directors.

## Corporate Cease Trade Orders or Bankruptcies

To the knowledge of the management of the Corporation, no director or executive officer of Sunshine, is at the date of this AIF, or has been, within 10 years before the date of this AIF, a director, chief executive officer or chief financial officer of any company (including Sunshine) that, while such person acted in such capacity:

- was subject to a cease trade or similar order or an order that denied the relevant company access to any exemption under securities legislation, for a period of more than 30 consecutive days; or
- was subject to an event that resulted, after such person ceased to be a director, chief executive officer or chief financial officer (as applicable), in the company being the subject of a cease trade or similar order or an order that denied the relevant company access to any exemption under securities legislation, for a period of more than 30 consecutive days.

Except as disclosed herein, no director, executive officer, or principal shareholder of Sunshine:

- is, at the date of this AIF, or has been within 10 years before the date of this AIF, a director or executive officer of any company (including Sunshine) that, while such person was acting in such capacity or within one year of such person ceasing to act in such capacity, became; or
- has, within the 10 years before the date of this AIF, become bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency, or was subject to or instituted any proceedings, arrangement or compromise with creditors, or had a receiver, receiver manager or trustee appointed to hold its assets or the assets of the proposed director.

Mr. Hibberd was an independent director of Challenger Energy Corp. (“**Challenger**”) from December 1, 2005 to September 16, 2009. Challenger obtained a creditor protection order under the *Companies’ Creditors Arrangement Act*, from the Court of Queen’s Bench of Alberta, Judicial District of Calgary on February 27, 2009. On June 19, 2009, Challenger announced that it had entered into an arrangement agreement providing for the acquisition by Canadian Superior Energy Inc. of Challenger. On September 17, 2009, all common shares of Challenger were exchanged for common shares of Canadian Superior. Mr. Hibberd was formerly a director of Skope Energy Inc. (a TSX listed oil and gas company), which commenced proceedings in the Court of Queen’s Bench of Alberta under the *Companies’ Creditors Arrangement Act* (Canada) to implement a restructuring in November 2012 which was completed on February 19, 2013. Mr. Hibberd was a director of Montana Exploration Corporation. at the time that an order was issued to suspend trading until 2017 year end financial statements and MD&A were filed and compliance with TSX Venture Exchange requirements was confirmed. The order was issued by the Alberta Securities Commission on May 4, 2018.

## Penalties or Sanctions

To the knowledge of the management of the Corporation, no director, executive officer or principal shareholder of Sunshine has:

- been subject to any penalties or sanctions imposed by a court relating to securities legislation or by a securities regulatory authority;
- entered in a settlement agreement with a securities regulatory authority; or
- has been subject to any other penalties or sanctions imposed by a court or regulatory body that would likely be considered important to a reasonable security holder in deciding whether to vote for a proposed director.

## Conflicts of Interest

Certain officers and directors of Sunshine are also officers and/or directors of other companies engaged in the oil and gas business generally. As a result of those offices or directorships, situations may arise where the interests of the directors and officers of Sunshine may conflict with their interests as directors and officers of other companies. The resolution of such conflicts is governed by applicable corporate laws, which require that directors act honestly, in good faith and with a view to the best interests of the Corporation. The ABCA provides that in the event that an officer or director 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 material transaction or proposed material contract or proposed material transaction, such officer or director shall disclose the nature and extent of his or her interest and shall refrain from voting to approve such contract or transaction, unless otherwise provided under the ABCA. To the extent that conflicts of interest arise, such conflicts will be resolved in accordance with the provisions of the ABCA.

Except as otherwise disclosed herein, as of the date hereof, the Corporation is not aware of any existing or potential material conflicts of interest between the Corporation and any director or officer of the Corporation.

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

The Corporation has been named as a Defendant in a Court of Queen's Bench of Alberta Judicial District of Calgary action, commenced by Cross-Strait Common Development Fund Co., Limited ("**Cross-Strait**"), a shareholder of the Corporation, by Statement of Claim filed January 2, 2014. Cross-Strait alleges that, pursuant to a Subscription Agreement entered into in January 2011, it is entitled to require Sunshine to repurchase 4,132,232 Shares of the Corporation that Cross Strait acquired pursuant to the Subscription Agreement. This constitutes a claim for \$40 million plus interest at 15% per annum since the date of the Subscription Agreement. The Corporation filed its Statement of Defence on April 2, 2014. Cross-Strait filed an application for summary judgment on March 18, 2015. The Court denied Cross-Strait's summary judgment application on February 3, 2016. The matter is currently in the discovery stage.

Other than as set forth above, to the knowledge of the Corporation, there were no legal proceedings material to the Corporation to which the Corporation is or was a party, or to which any of its properties is or was subject, nor are there any such proceedings known to the Corporation to be contemplated. For the purposes of the foregoing, a legal proceeding is not considered to be "material" by the Corporation if it involves a claim for damages and the amount involved, exclusive of interest and costs, does not exceed 10% of the Corporation's total assets, provided that if any proceeding presents in large degree the same legal and factual issues as other proceedings pending or known to be contemplated, the Corporation has included the amount involved in the other proceedings in computing the percentage.

During the year ended December 31, 2018, there were: (a) no penalties or sanctions imposed against the Corporation by a court relating to securities legislation or by a securities regulatory authority; (b) no 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 (c) no settlement agreements entered into by the Corporation before a court relating to securities legislation or with a securities regulatory authority.

### **INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS**

Other than Mr. Kwok Ping Sun as disclosed in this AIF, none of Sunshine's directors or executive officers, nor any person who beneficially owns directly or indirectly or exercises control or direction over securities carrying more than 10% of the voting rights attaching to the shares in the capital of the Corporation, nor any known associate or affiliate of these persons had any material interest, direct or indirect in any transaction since the commencement of the Corporation's last completed financial year which has materially affected the Corporation, or in any proposed transaction which has materially affected or would materially affect the Corporation.

In August 2014, Mr. Michael Hibberd, Non-Executive Vice-Chairman and a director of the Corporation, purchased US\$2 million principal amount of Notes.

Mr. Kwok Ping Sun, the Corporation's Executive Chairman, has beneficial ownership of, or control or direction of 1,682,407,000 common shares of the Corporation which represents approximately 27.98% of the Corporation's outstanding common shares.

On August 24, 2017, November 16, 2017 and November 28, 2017, the Corporation signed loan agreements with Prime Union. The Loan interest rate was 6.0% per annum and required repayment in full within three months from the date of

the receipt of the loan, the total loans amount were HKD \$33.3 million (approximately CAD \$5.4 million). As at December 31, 2018, all the loans and interests were paid in full.

On June 1, 2018, the Corporation signed a loan agreement with Prime Union with the loan interest rate being 10.0% per annum and required repayment in full within three months from the date of the receipt of the loan. The total loan amount was HKD \$14.2 million (approximately CAD \$2.4 million). As at December 31, 2018, the loan and interests were paid in full.

On August 11, 2018, the Corporation signed a loan agreement with Prime Union with the loan interest rate being 10.0% per annum and required repayment in full within three months from the date of the receipt of the loan. The total loan amount was about HKD \$9.0 million (approximately CAD \$1.5 million). As at December 31, the loan and interests were paid in full.

### **TRANSFER AGENT AND REGISTRAR**

The Corporation maintains a central securities register in Canada and a branch securities register in Hong Kong. The transfer agent and registrar for the central securities register in Canada is Alliance Trust Company located at Suite 1010, 407 – 2<sup>nd</sup> Street SW, Calgary, Alberta, T2P 2Y3. The transfer agent and registrar for the branch securities register in Hong Kong is Computershare Hong Kong Investor Services Limited located at Hopewell Centre 46<sup>th</sup> Floor, 183 Queen’s Road East Wan Chai, Hong Kong.

### **AUDIT COMMITTEE**

The purpose of the Corporation’s Audit Committee is to provide assistance to the Board in fulfilling its legal fiduciary obligations with respect to matters involving the accounting, auditing, financial reporting, internal control and legal compliance functions of the Corporation. The Audit Committee has a defined mandate and is responsible for reviewing and overseeing the external audit function, recommending the external auditor and the terms of such appointment or discharge, reviewing external auditor reports and significant findings and reviewing and recommending for approval to the Board all public financial disclosure information such as financial statements, management’s discussion and analysis, AIFs and prospectuses. The Audit Committee also pre-approves all non-audit services to be conducted by the external auditors and ensures that management has effective internal control systems, investigates any recommendations for improvement of internal controls and meets at least annually with the Corporation’s external auditors without management present and at least quarterly with management present. Sunshine does not have internal auditors and, given the size of the Corporation, Sunshine considers this to be practical and appropriate. The Audit Committee expects to convene no less than four times each year and as circumstances otherwise warrant.

The full text of the Audit Committee’s Charter is attached hereto as Schedule “C”.

#### **Composition of the Audit Committee**

The Audit Committee is comprised of Ms. Yan, who is the chairlady, Mr. Fong and Mr. He. Each of the members of the Audit Committee is financially literate under Section 1.5 of NI 52-110. Ms. Yan, Mr. Fong and Mr. He are independent as such term is described under Section 1.4 of NI 52-110.

#### **Relevant Education and Experience**

The following is a description of the education and experience of each audit committee member that is relevant to the performance of his responsibilities as an audit committee member.

##### **Ms. Joanne Yan**

Ms. Yan has over twenty years of experience advising, directing and managing publicly listed companies in North America. She has been a leading director, a corporate governance committee chair and audit committee member of

numerous companies listed on the TSX Venture Exchange and the TSX. She also has been active in the cross border investment and M&A space and is familiar with the business culture and operations of North American and Chinese businesses.

Since September 1994, Ms. Yan has been President of Joyco Consulting Services Inc., a wholly-owned private company based in Vancouver, BC, providing business consulting services particularly with respect to mergers and acquisitions and related public and private financings. Ms. Yan is currently a director of Hanwei Energy Services Corp., a TSX listed company that manufactures and sells high-pressure fibreglass reinforced plastic pipes for international oil & gas and infrastructure industries in addition to producing oil & gas in Canada. From June 2006 to November 2013, Ms. Yan was the President and a director of Brazil Resources Inc. (formerly, Brazilian Gold Corp.), a resource exploration company with international scope, which is listed on the TSX Venture Exchange (trading symbol BRI). Ms. Yan was a director of New Era Minerals Inc. from June 2014 to April 2016, Grande West Corp. from November 2013 to May 2014, and of Archer Petroleum Corp. from April 2013 to October 2014.

### **Mr. Raymond Fong**

Mr. Fong has over 30 years of experience in the oil and gas industry. Mr. Fong is currently an executive director for Palinda International Group limited. He held previous directorships with China Coal Corporation, Abenteuer Resources Ltd., Stealth Ventures Ltd., Zapata Capital Inc., was a director and the President of Ultra Capital Inc. and was a former director of United Rayore Gas Ltd. Mr. Fong obtained a bachelor of science degree from the Taiwan Cheng Kung University in 1970, and a master of science degree from the Tennessee Technological University in 1971. Mr. Fong is a registered professional engineer in Ontario and Alberta, Canada.

### **Mr. Yi He**

Mr. He has worked in the financial industry for more than 22 years and held various senior management roles in several global banks in China. In 2012, Mr. He was appointed as Chief Executive Officer of Nomura China Bank and led all China related banking businesses. From 2008 to 2012, he was in charge of China related banking business for Barclays Bank as the General Manager of the Shanghai Branch. Prior thereto, Mr. He led the global markets business for Australia and New Zealand Banking Corporations Limited and was the Deputy General Manager of ANZ China. Mr. He began his career with Credit Agricole China in 1994 and joined First Sino Bank as the Head of Treasury in 1997.

Mr. He has been an independent non-executive director of Kai Yuan Holding Limited Company (SEHK code: 01215) since 2011 and is member of the audit committee, the remuneration committee, and the nomination committee of Kai Yuan Holding Limited Company.

Mr. He founded Yaixin Asset Management Company in early 2015, which mainly focuses on financial related consulting. In addition, Mr. He holds a Master Degree in Economics from Fudan University of China and also is a Certified Professional Accountant in China.

### **Audit Committee Oversight**

Since the commencement of the Corporation's most recently completed financial year, there has not been a recommendation of the Audit Committee to nominate or compensate an external auditor that was not adopted by the Board.

### **Pre-Approval Policies and Procedures**

The Audit Committee has adopted specific policies and procedures for the engagement of non-audit services, including tax advisory and compliance services. The Audit Committee has the authority to establish financial thresholds for fees for non-audit services to be provided by the external auditors without advance approval of the Audit Committee. See the *Other Responsibilities* provisions of the Audit Committee Charter which is attached hereto as Schedule "C".

## External Auditor Service Fees

The fees paid to the Corporation's external auditor in each of the last two fiscal years are as follows:

<u>Financial Year Ending</u>	<u>Audit Fees<sup>(1)</sup></u>	<u>Audit-Related Fees<sup>(2)</sup></u>	<u>Tax Fees<sup>(3)</sup></u>	<u>All Other Fees<sup>(4)</sup></u>
December 31, 2018	\$198,000	\$60,000	\$12,500	\$9,000
December 31, 2017	\$180,000	\$100,000	\$19,000	\$9,000

### Notes:

- (1) The aggregate fees billed by the Corporation's auditor for audit fees.
- (2) The aggregate fees billed for assurance and related services by the Corporation's auditor that are reasonably related to the performance of the audit or review of the Corporation's financial statements and are not disclosed in the "Audit fees" column.
- (3) The aggregate fees billed for professional services rendered by the Corporation's auditor for tax compliance, tax advice, and tax planning.
- (4) The aggregate fees billed for professional services rendered by the Corporation's auditor in relation to private placements and prospectus filings.
- (5) Audit fees consist of fees paid for the audit of Sunshine Oilsands Ltd.'s annual financial statements and the review of quarterly financial reports or services that are normally provided in connection with statutory and regulatory filings or engagements. In 2018, PwC has been paid \$73,500 for the 2018 year-end audit with a total audit fees estimated to be \$198,000

## MATERIAL CONTRACTS

Other than the Indenture and those contracts entered into in the normal course of business, the Corporation did not enter into any material contracts within the last financial year or remain a party to any material contracts it entered into prior to the last financial year which are still in effect.

## INTERESTS OF EXPERTS

As at the date hereof, to the knowledge of management of the Corporation, neither of GLJ and BGEC, or the respective principals thereof, had any registered or beneficial interests, direct or indirect, in any securities or other property of the Corporation or its associates or affiliates either at or to be received after the time they prepared the respective reports, valuations or statements the Corporation included in the filings it made under National Instrument 51-102 – *Continuous Disclosure Obligations* or NI 51-101 during or related to the most recently completed financial year.

PricewaterhouseCoopers LLP have advised that they are independent in accordance with the Rules of Professional Conduct of the Institute of Chartered Professional Accountants of Alberta.

## ADDITIONAL INFORMATION

Additional information about the Corporation may be found on SEDAR at [www.sedar.com](http://www.sedar.com). Additional information, including directors' and officers' remuneration and indebtedness, principal holders of Shares and securities authorized for issuance under equity compensation plans, is contained in the Corporation's Management Information Circular for the most recent annual meeting of Shareholders that involved the election of directors (being, at the date of the AIF, the Management Information Circular dated May 22, 2017 for the Annual General Meeting of Shareholders held on June 27, 2017).

Additional financial information is provided in our financial statements and management's discussion and analysis for the year ended December 31, 2018. Documents affecting the rights of securityholders, along with other information relating to the Corporation, may be found on the Corporation's website at <http://www.sunshineoilsands.com>.

## APPENDIX "A" THE CORPORATION'S CONTINGENT RESOURCES DATA

**An estimate of risked net present value of future net revenue of contingent resources is preliminary in nature and is provided to assist the reader in reaching an opinion on the merit and likelihood of the company proceeding with the required investment. It includes contingent resources that are considered too uncertain with respect to the chance of development to be classified as reserves. There is uncertainty that the risked net present value of future net revenue will be realized.**

The Corporation engaged GLJ and BGEC to prepare contingent resource assessments for the Corporation's clastic reservoirs, which were prepared on February 28, 2018 and February 26, 2018, respectively, each with an effective date of December 31, 2018. In addition to the reserves as assigned by GLJ, West Ells contains 4 MMbbls of risked best estimate contingent resources (Development Pending) and 381 MMbbls of risked best estimate contingent resources (Development Unclarified). Legend Lake has been assigned risked best estimate contingent resource (Development Unclarified) recognition of 311 MMbbls. Sunshine's other clastic assets account for an additional risked best estimate contingent resource (Development Unclarified and Development On Hold) assignment of 29 and 254 MMbbls respectively.

The Corporation's carbonate assets in Harper, West Ells, Goffer, Muskwa and Portage were not assessed for the year ended December 31, 2018. The technology considered in the development of these assets is experimental with no commercial analogues within close proximity.

### **Carbonates**

The Corporation's land base includes bitumen resources in the carbonates in six horizons. The Corporation has progressed development of the carbonates through delineation drilling in each area, detailed reservoir characterization, and field piloting in the Harper area. Internal technical analyses of this data continues to progress with a focus on optimizing recovery techniques and development planning.

### ***Location and Size***

The Harper area contains a total of 383 sections. The Grosmont formation is well known as a thick, vuggy, and highly fractured and permeable dolomite reservoir with high bitumen content. Sunshine's project area is located approximately 19 km north of Shell Canada's significant oil sands leases in Townships 95 to 99, Ranges 23 to 25. The Corporation executed a field pilot to evaluate CSS technology at Harper over the winter seasons of 2010 and 2011. This pilot provided key data in regard to fluid mobility and reservoir characterization within the Grosmont that has been incorporated into reservoir models to optimize thermal recovery schemes.

In December 2013, the implementation of LARP affected the Corporation's properties in the Harper and East Long Lake area, where 24 agreements were altered in whole or in part with cancellation of Oil Sands Leases resulting in a loss of approximately 84,000 hectares of land. This resulted in a loss of recoverable resource; however, this loss is offset by the addition of recoverable resources resulting from the acquisition of 5,088 hectares in the Harper Birch River area in March of 2013.

The Portage region consists of 287 sections, of which 152 sections include bitumen carbonate resource potential with the Upper and Lower Nisku Formation. Sunshine's project area is located within the Athabasca oil sands region between Townships 76 and 79 and Ranges 17 and 21 west of the fourth meridian. The Nisku zone at Portage is dolomitized and fractured, and has both an intercrystalline and extensive vuggy porosity system making this a highly permeable pay zone with high bitumen saturation. This region offers conventional heavy oil production as well as significant carbonate development potential. The area also benefits from oil and gas development infrastructure in the area, including access to roads, labour, and services.

The Goffer area contains 36 contiguous sections of bitumen carbonate resource and is located in Townships 91 and 92, Range 1 west of the fifth meridian. Two bitumen carbonate zones have been identified and mapped over this asset: the

Upper Ireton and Nisku. The Upper Ireton is a bitumen saturated extensively fractured and brecciated carbonate with intercrystalline porosity. The thick Nisku pay zone is also a bitumen saturated fractured carbonate with intercrystalline porosity, as well as vuggy porosity that enhance this reservoir's porosity and permeability.

The Muskwa area covers 337 contiguous sections of carbonate resource, located in Townships 83–89, Ranges 24–26W4 and 1-2W5 within the Athabasca oil sands region. The Corporation's bitumen carbonate resource is contained within the Wabamun, Blueridge and Nisku formations. Like the Nisku, the Wabamun and Blueridge pay zones in the Muskwa area are a bitumen saturated, highly porous and permeable dolomitized and fractured reservoir, with vuggy and intercrystalline porosity.

### ***Project Development***

The Corporation's technical teams continue to collect, map, and evaluate the large amount of well log, core, and reservoir data to characterize and rank the opportunity that exists on each of the Corporation's five main carbonate properties (Harper, Ells, Portage, Goffer, and Muskwa). The drilling of additional delineation wells over these properties is anticipated over the coming drilling seasons following completion of Phase 2 of the 10,000 bbls/d West Ells SAGD project. The Corporation's carbonate workflow model will utilize this extensive carbonate data set to develop reservoir models and simulations that will lead to optimal development plans and exploitation strategies.

### **Risks and Uncertainties**

It should not be assumed that the estimates of recovery, production and net revenue presented in the tables below represent the fair market value of the Corporation's bitumen resources. There is no assurance that the forecast prices and cost assumptions will be realized and variances could be material. The recovery and production estimates of the Corporation's bitumen resources provided herein are only estimates and there is no guarantee that the estimated resources will be recovered or produced. Actual resources may be greater than or less than the estimates provided herein. The contingencies which currently prevent the classification of the Contingent Resources disclosed in the tables below as reserves consist of: economic matters, further facility design and preparation of firm development plans, regulatory matters, including regulatory applications (including associated reservoir studies and delineation drilling), Corporation approvals and other factors such as legal, environmental and political matters or a lack of markets. There is no certainty that it will be commercially viable for the Corporation to produce any portion of the Contingent Resources on any of its properties.

## **SUMMARY OF RISKED OIL AND GAS BEST ESTIMATE CONTINGENT RESOURCES as of December 31, 2018**

### **Notes:**

- (1) "Contingent Resources" are those qualities of petroleum estimated, as of a given date, to be potentially recoverable from known accumulations using established technology of technology under development, but which are not currently considered to be commercially recoverable due to one or more contingencies. Contingencies may include factors such as economic, legal, environment political, and regulatory matters, or lack of markets. It is also appropriate to classify as contingent resources the estimated discovered recoverable quantities associated with a project in the early evaluation stage. Contingent Resources are further classified in accordance with the level of certainty associated with the estimates and may be subclassified based on project maturity and/or characterized by their economic status
- (2) "Best estimate" This is considered to be the best estimate of the quantity that will actually be recovered. It is equally likely that the actual remaining quantities recovered will be greater or less than the best estimate. If probabilistic methods are used, there should be at least 50% probability (P50) that the quantities actually recovered will equal or exceed the best estimate
- (3) There is no certainty that it will be commercially viable for the Corporation to produce any portion of the Contingent Resources on any of its properties
- (4) The risked volumes are derived from unrisked volumes by multiplying the Chance of Commerciality tabulated in the table "*SUMMARY OF RISKED BEST CONTINGENT RESOURCES, THE CHANCE OF COMMERCIALITY AND THE CAPITAL REQUIRED TO FIRST COMMERCIAL PRODUCTION*"
- (5) Resources Maturity Sub-class:

- (a) "Development On Hold" means the project is considered to have at least a reasonable chance of commerciality, but there are major non-technical contingencies that must be resolved before the project can move toward development
- (b) "Development Pending" means the status of the project addressing all or part of a known accumulation where project activities are ongoing to justify commercial viability in the foreseeable future. The critical contingencies have been identified and are reasonably expected to be resolved within a reasonable time frame
- (c) "Development Unclarified" means the project is still under evaluation or requires significant further appraisal to clarify the potential for development and the contingencies have yet to be fully defined

<b>Best Estimate Contingent Resources (1)(2)(3)(4)</b>				
<b>Resources Project Maturity Sub-class (5)</b>	<b>Bitumen</b>		<b>Oil Equivalent</b>	
	<b>Gross (Mbbbl)</b>	<b>Net (Mbbbl)</b>	<b>Gross (MBoe)</b>	<b>Net (MBoe)</b>
Development Pending				
West Ells	4,212	3,626	4,212	3,626
Muskwa/Godin	78,887	65,540	78,887	65,540
<b>Total Development Pending</b>	<b>83,099</b>	<b>69,166</b>	<b>83,099</b>	<b>69,166</b>
Development On Hold				
Harper	148,632	121,814	148,632	121,814
<b>Total Development On Hold</b>	<b>148,632</b>	<b>148,632</b>	<b>148,632</b>	<b>148,632</b>
Development Unclarified				
West Ells	380,810	326,231	380,810	326,231
Greater Legend Lake	311,123	275,658	311,123	275,658
East Long Lake	29,476	24,347	29,476	24,347
<b>Total Development Unclarified</b>	<b>721,409</b>	<b>626,236</b>	<b>721,409</b>	<b>626,236</b>

**SUMMARY OF RISKED NET PRESENT VALUE OF FUTURE NET REVENUE  
(BEST ESTIMATE CONTINGENT RESOURCES)  
as of December 31, 2018  
FORECAST PRICES AND COSTS**

Resources Project Maturity Sub-class	Before Income Taxes Discounted At (% per year)				
	0%	5%	10%	15%	20%
	(MM\$)	(MM\$ )	(MM\$)	(MM\$)	(MM\$)
Development Pending					
West Ells	107	12	1	(1)	(1)
Muskwa/Godin	1,708	640	240	85	24
<b>Total Development Pending</b>	<b>1,815</b>	<b>652</b>	<b>241</b>	<b>84</b>	<b>23</b>
Development On Hold					
Harper	3,715	978	238	38	11
<b>Total Development On Hold</b>	<b>3,715</b>	<b>3,715</b>	<b>3,715</b>	<b>3,715</b>	<b>3,715</b>
Development Unclarified					
West Ells	6,264	1,877	527	73	(88)
Greater Legend Lake	3,702	1,046	209	(53)	(127)
East Long Lake	533	203	63	3	(21)
<b>Total Development Unclarified</b>	<b>10,499</b>	<b>3,126</b>	<b>799</b>	<b>23</b>	<b>(236)</b>

The contingencies preventing classification of contingent resources as reserves fall into the categories of technical, such as the need for more evaluation drilling or the assumed use of technology under development, and non-technical, such as uneconomic development or lack of a regulatory submission. Portions of Sunshine's West Ells, Legend Lake and Thickwood project resources are considered contingent due to the need for additional evaluation drilling, which is expected to occur as appropriate over the long term lives of these developments. Sunshine's additional clastics properties are

considered contingent for the same reasons, with detailed planning, additional evaluation drilling, corporate approvals and regulatory submissions expected to occur as capital availability and market conditions allow.

## Pricing Assumptions

The price forecast used in the GLJ and BGEC December 31, 2018 resources assessments that formed the basis for the revenue projections and net present value estimates in the independent reports were based on GLJ's January 1, 2019 pricing forecast with an effective date of December 31, 2018. A summary of this price forecast is set forth below.

### GLJ Pricing Forecast Effective January 1, 2019

Year	Inflation %	CAD/USD Exchange Rate USD/CAD	NYMEX WTI Near Month Futures Contract Crude Oil at Cushing, Oklahoma		Brent Blend Crude Oil FOB North Sea	MSW, Light Crude Oil (40 API, 0.34%S) at Edmonton	Bow River Crude Oil Stream Quality at Hardisty	WCS Crude Oil Stream Quality at Hardisty	Heavy Crude Oil Proxy (12 API) at Hardisty	Light Sour Crude Oil (35 API, 1.2%S) at Cromer	Medium Crude Oil (29 API, 2.0%S) at Cromer	Alberta Natural Gas Liquids (Then Current Dollars)			
			Constant 2019 \$ USD/bbl	Then Current USD/bbl	Then Current USD/bbl	Then Current CAD/bbl	Then Current CAD/bbl	Then Current CAD/bbl	Then Current CAD/bbl	Then Current CAD/bbl	Then Current CAD/bbl	Then Current CAD/bbl	Then Current CAD/bbl	Spec Ethane CAD/bbl	Edmonton Propane CAD/bbl
2019	0.0	0.7500	56.25	56.25	63.25	63.33	48.17	47.67	37.65	62.07	58.90	5.69	25.33	21.45	67.67
2020	2.0	0.7700	61.76	63.00	68.50	75.32	58.94	58.44	51.21	73.82	70.05	7.20	32.39	37.66	79.22
2021	2.0	0.7900	64.40	67.00	71.25	79.75	66.32	65.82	59.51	78.15	74.16	8.51	36.68	47.85	83.54
2022	2.0	0.8100	65.96	70.00	73.00	81.48	68.40	67.90	61.62	79.85	75.78	9.27	39.11	57.04	85.49
2023	2.0	0.8200	66.98	72.50	75.50	83.54	70.62	70.12	63.82	81.87	77.69	10.12	41.77	58.48	87.80
2024	2.0	0.8250	67.93	75.00	78.00	86.06	73.23	72.73	66.45	84.34	80.04	10.42	43.03	60.24	90.30
2025	2.0	0.8250	68.82	77.50	80.50	89.09	76.26	75.76	69.48	87.31	82.85	10.78	44.55	62.36	93.33
2026	2.0	0.8250	70.00	80.41	83.41	92.62	79.78	79.28	73.01	90.77	86.13	11.03	46.31	64.83	96.86
2027	2.0	0.8250	70.00	82.02	85.02	94.57	81.74	81.24	74.96	92.68	87.95	11.27	47.28	66.20	98.81
2028	2.0	0.8250	70.00	83.66	86.66	96.56	83.72	83.22	76.95	94.63	89.80	11.48	48.28	67.59	100.80
2029	2.0	0.8250	70.00	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr

### Significant Factors or Uncertainties Affecting Resources Data

A significant portion of the Corporation's resource base is comprised of contingent resources; Development Pending, Development On Hold and Development Unclarified which are estimated to be potentially recoverable from known accumulations using established technology or technology under development, but not currently considered to be commercially recoverable due to one or more contingencies as listed above. We cannot assure you that it will be commercially viable to produce any portion of the contingent resources until contingencies are eliminated through detailed designs and regulatory submissions. Future net revenue is not a measure of financial or operating performance, nor is it intended to represent the current value of our reserves and resources. There is uncertainty that it will be commercially viable to produce any portion of the resources.

The resources data and present value calculations presented in this AIF are estimates based on a number of assumptions which may deviate from the actual figures over time.

Based on the maturity of the project, the contingent resources are further sub-classified into Development Pending, Development On Hold, Development Unclarified and Development Not Viable in each of the low, best and high sub-categories. A numeric assessment of the Chance of Commerciality, which is calculated by multiplying the Chance of Discovery and Chance of Development, is also applied to the volume and value of the contingent resources to further quantify the contingencies associated with the assets.

For contingent resources, the Chance of Discovery is considered to be 'one' since the bitumen has been discovered through drilling of wells in the reservoir and a significant quantity of bitumen is proven through testing, sampling and logging.

Chance of Development is assessed through considering a number of contingencies, including, but not limited to: recovery technology, economic factors, development timeline, marketing environment, infrastructure needs, facility design, and

operating strategy. West Ells Development Pending resources were assessed a high value in respect of its Chance of Commerciality 0.90 since the Phase 1 development has completed and is on production. The West Ells Development Unclarified resources incorporated into the long term expansion plan of the West Ells project was assessed with a Chance of Commerciality of 0.67. The Thickwood project is sub-classified as Development Unclarified and was assessed a Chance of Commerciality of 0.69. The Greater Legend Lake project is classified as Development Pending and was assessed a Chance of Commerciality value of 0.62. The remaining projects are not as mature in the development stage and, accordingly, have a lower Chance of Commerciality. The uncertainty factors in the Chance of Development will improve as contingencies are resolved. At such time, the properties would be assessed at a higher Chance of Commerciality value. The following table shows the Chance of Commerciality by property as of December 31, 2018:

**SUMMARY OF RISKED BEST CONTINGENT RESOURCES, THE CHANCE OF COMMERCIALITY AND THE CAPITAL REQUIRED TO FIRST COMMERCIAL PRODUCTION as of December 31, 2018 <sup>(1)</sup>**

	<b>Riskd Best Estimate Contingent Resources (MMbbl)</b>	<b>Chance of Commerciality</b>	<b>Project Evaluation Scenario (Technology)</b>	<b>Year of First Commercial Production</b>	<b>Riskd Capital Required To First Commercial Production MM\$</b>
West Ells, Development Pending	<b>4.2</b>	<b>0.9</b>	<b>SAGD</b>	<b>2057</b>	<b>8</b>
West Ells, Development Unclarified	<b>380.8</b>	<b>0.67</b>	<b>SAGD</b>	<b>2023</b>	<b>489</b>
Greater Legend Lake, Development Unclarified	<b>311.1</b>	<b>0.62</b>	<b>SAGD</b>	<b>2026</b>	<b>509</b>
East Long Lake, Development Unclarified	<b>29.5</b>	<b>0.59</b>	<b>SAGD</b>	<b>2026</b>	<b>274</b>
Harper, Development On Hold	<b>148.6</b>	<b>0.46</b>	<b>HCSS</b>	<b>2027</b>	<b>114</b>
Muskwa/Godin, Development Pending	<b>78.9</b>	<b>0.46</b>	<b>HCSS</b>	<b>2020</b>	<b>0</b>

**Notes:**

(1) Chance of Commerciality is applied to unrisked to derive values of risked volumes

*West Ells Contingent Resources*

The Development Pending Best Estimate Contingent Resources assigned to the West Ells project have no further facility capital requirements as first production was achieved on December 7, 2015. No capital is required for the facility, however, an estimate of \$8MM will be required to drill sustaining well pairs to maintain production in the West Ells project.

Following the successful completion of the 5,000 bbls/d Phase 2 development in West Ells, the Development Unclarified Best Estimate Contingent Resources will be developed in accordance with the Corporation's development plan. The first commercial production is anticipated in 2023 and the undiscounted, risked capital cost is anticipated to be \$489MM to realize the first commercial production of the expansion. The initial phase of the environment assessment was completed. The development options and the overall viability have been assessed but are not sufficient to make a final investment decision at this moment. Further delineation of the resources is required to refine pad placement. The facility will have a

similar design as the current phases of West Ells. Contingencies of the development include, but are not limited to, regulatory approval, completion of detailed engineering design for the 30,000 bbl/d facility, market conditions, securing financing and corporate commitment.

The positive factors relevant to the contingent resources in West Ells include, but are not limited to, the use of established technology, existing infrastructure and facilities, and the identification of water and disposal sources. The negative factors include, but are not limited to, uncertainty surrounding commodity prices, variability in market conditions, the need for project funding, pipeline access, and timing and availability of regulatory approval.

#### *Legend Lake Contingent Resources*

The Development Unclarified Best Estimate Contingent Resources assigned to Legend Lake have an expected capital requirement of \$509MM (undiscounted, risked) to achieve first commercial production. The first commercial production is anticipated in 2026.

The wells and pads required to sustain the full capacity of the project were planned and further delineation is required. The facility will have a similar design as West Ells. Facility design and infrastructure will need to be initiated. The development options and the overall viability have been assessed, with current market factors and uncertainties and financing requirements preventing the Corporation from making a final investment decision at this time. Contingencies of the development include, but are not limited to, regulatory approval, market conditions, completion of detailed engineering design of the first phase (30,000 bbl/d) SAGD facility and securing financing.

The positive factors relevant to the Contingent Resources include, but are not limited to, the use of established technology, the use of existing facility design as used in the West Ells project, and the ability to apply the Corporation's experience with the West Ells projects to reservoirs of properties. The negative factors include, but are not limited to, uncertainty surrounding commodity prices, variability in market conditions, the need for project funding, pipeline access, and timing and availability of regulatory approval.

#### *East Long Lake Contingent Resources*

The Development Unclarified Best Estimate Contingent Resources assigned to East Long Lake have an expected capital requirement of \$274MM (undiscounted, risked) to achieve first commercial production. The resources of this project were delineated by exploratory wells. Additional work will be required to advance this project to support development options and overall viability. Contingencies of the development include, but are not limited to, regulatory approval, marketing conditions, securing financing and corporate commitment.

The positive factors relevant to the Contingent Resources include, but are not limited to, the use of established technology, the use of existing facility design as used in the West Ells project, and the ability to apply the Corporation's experience with the West Ells projects to reservoirs of properties with similar geological characteristics. The negative factors include, but are not limited to, uncertainty surrounding commodity prices, variability in market conditions, the need for project funding, pipeline access, and timing and availability of regulatory approval.

#### *Harper Contingent Resources*

The Development On Hold Best Estimate Contingent Resources assigned to Harper have an expected capital requirement of \$114MM (undiscounted, risked) to achieve first phase (5,000 bb/d) commercial production in 2027. The resources of this project were delineated by exploratory wells. Sunshine has built a one well pilot in this area to test the performance of the bitumen carbonate formation. Additional work will be required to advance this project to support development options and overall viability. Contingencies of the development include, but are not limited to, regulatory approval, marketing conditions and securing financing.

The positive factors relevant to the Contingent Resource include, but are not limited to, the use of established technology, and the Corporation's carbonate pilot project in the area. The negative factors include, but are not limited to, uncertainty

surrounding commodity prices, variability in market conditions, the need for project funding, pipeline access, and timing and availability of regulatory approval.

*Muskwa/Godin Contingent Resources*

The Development Pending Best Estimate Contingent Resources assigned to Muskwa have an expected capital requirement of \$0MM (undiscounted, risked) to achieve first phase (1,000 bb/d) commercial production in 2020. The resources of this project have been exploited by primary horizontal wells through a joint venture agreement with Renergy. Renergy is looking for new technologies to develop I. Minimal work is required to advance this project to support development options and overall viability. Contingencies of the development include, but are not limited to, Renergy's activity as operator, variability in market conditions, the need for project funding, pipeline access, and timing and availability of regulatory approval.

The positive factors relevant to the Contingent Resource include, but are not limited to, the use of established technology and existing infrastructure, and extensive operating knowledge on the reservoir. The negative factors include, but are not limited to, uncertainty surrounding commodity prices, variability in market conditions, the need for project funding, pipeline access, and timing and availability of regulatory approval.

For further details, please refer to the "*Risk Factors*" section of this AIF, as there are risks associated with resource definitions and our carbonate resources may not be successfully developed.

**SCHEDULE "A"**  
**INDEPENDENT EVALUATOR REPORTS**

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

To the board of directors of Sunshine Oilsands Ltd. (the "Company"):

1. We have evaluated the Company's reserves data and contingent resources data as at December 31, 2018. The reserves data are estimates of proved reserves and probable reserves and related future net revenue as at December 31, 2018, estimated using forecast prices and costs. The contingent resources data are risked estimates of volume of contingent resources and related risked net present value of future net revenue as at December 31, 2018, estimated using forecast prices and costs.
2. The reserves data and contingent resources data are the responsibility of the Company's management. Our responsibility is to express an opinion on the reserves data and contingent resources data based on our evaluation.
3. We carried out our evaluation in accordance with standards set out in the Canadian Oil and Gas Evaluation Handbook 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 and contingent resources data are free of material misstatement. An evaluation also includes assessing whether the reserves data and contingent resources data are in accordance with principles and definitions presented in the COGE Handbook.
5. The following table shows the net present value of future net revenue (before deduction of income taxes) attributed to proved plus probable reserves, estimated using forecast prices and costs and calculated using a discount rate of 10 percent, included in the reserves data of the Company evaluated for the year ended December 31, 2018, and identifies the respective portions thereof that we have evaluated and reported on to the Company's board of directors:

Independent Qualified Reserves Evaluator or Auditor	Effective Date of Evaluation Report	Location of Reserves (Country or Foreign Geographic Area)	Net Present Value of Future Net Revenue (before income taxes, 10% discount rate – MM\$)			
			Audited	Evaluated	Reviewed	Total
GLJ Petroleum Consultants	Dec. 31, 2018	Canada	-	393	-	393

6. The following tables set forth the risked volume and risked net present value of future net revenue (before deduction of income taxes) attributed to best estimate contingent resources, estimated using forecast prices and costs and calculated using a discount rate of 10 percent, included in the Company's statement prepared in accordance with Form 51-101F1 and identifies the respective portions of the contingent resources data that we have evaluated and reported on to the Company's board of directors:

Project Maturity Subclass	Independent Qualified Reserves Evaluator or Auditor	Effective Date of Evaluation Report	Location of Resources other than Reserves (Country or Foreign Geographic Area)	Risky Volume (Mboe)	Net Present Value of Future Net Revenue (before income taxes, 10% discount rate – MM\$)		
					Audited	Evaluated	Total
Development Pending	GLJ Petroleum Consultants	Dec. 31, 2018	Canada	4,212	-	546	546

Project Maturity Subclass	Independent Qualified Reserves Evaluator or Auditor	Effective Date of Evaluation Report	Location of Resources other than Reserves (Country or Foreign Geographic Area)	Risky Volume (Mboe)	
				Audited	Evaluated
Development Unclassified	GLJ Petroleum Consultants	Dec. 31, 2018	Canada		721,408

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

Executed as to our report referred to above:

GLJ Petroleum Consultants Ltd., Calgary, Alberta, Canada, February 18, 2019

“Originally Signed by”

Caralyn P. Bennett, P. Eng

Executive Vice President, Chief Strategy Officer

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

To the board of directors of Sunshine Oilsands Ltd. (the "Company"):

1. We have evaluated the Company's contingent resources data as at December 31, 2018. The contingent resources data are risked estimates of volume of contingent resources and related risked net present value of future net revenue as at December 31, 2018, estimated using forecast prices and costs.
2. The contingent resources data are the responsibility of the Company's management. Our responsibility is to express an opinion on the contingent resources data based on our evaluation.
3. We carried out our evaluation in accordance with standards set out in the Canadian Oil and Gas Evaluation Handbook 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 and contingent resources data are free of material misstatement. An evaluation also includes assessing whether the contingent resources data are in accordance with principles and definitions presented in the COGE Handbook.
5. The following tables set forth the risked volume and risked net present value of future net revenue (before deduction of income taxes) attributed to contingent resources, estimated using forecast prices and costs and calculated using a discount rate of 10 percent, included in the Company's statement prepared in accordance with Form 51-101F1 and identifies the respective portions of the contingent resources data that we have evaluated and reported on to the Company's management:

Classification	Independent Qualified Reserves Evaluator or Auditor	Effective Date of Evaluation Report	Location of Resources other than Reserves (Country or Foreign Geographic Area)	Risked Volume (Mboe)	Net Present Value of Future Net Revenue (before income taxes, 10% discount rate)		
					Audited (MM\$)	Evaluated (MM\$)	Total (MM\$)
Development On Hold Economic Contingent Resources (Best Case)	Boury Global Energy Consultants	Dec. 31, 2018	Canada	148,632	-	238	238
Development Pending Economic Contingent Resources (Best Case)	Boury Global Energy Consultants	Dec. 31, 2018	Canada	78,887	-	240	240

6. In our opinion, the contingent resources 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 contingent resources data that we reviewed but did not audit or evaluate.
7. We have no responsibility to update our reports referred to in paragraphs 5 and 6 for events and circumstances occurring after the effective date of our reports.
8. Because the contingent resources data are based on judgements regarding future events, actual results will vary and the variations may be material.

EXECUTED as to our report referred to above:

Boury Global Energy Consultants, Calgary, Alberta, Canada, February 26, 2019

*“Originally Signed by”*

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Nahla R. Boury, P. Eng

**SCHEDULE “B”  
FORM 51-101F3**

**REPORT FROM MANAGEMENT AND DIRECTORS ON OIL AND GAS DISCLOSURE**

Management of Sunshine Oilsands Ltd. (the “**Corporation**”) is responsible for the preparation and disclosure of information with respect to the Corporation’s oil and gas activities in accordance with securities regulatory requirements. This information includes reserves data and includes, if disclosed in the statement required by item 1 of section 2.1 of NI 51-101, other information such as contingent resources data or prospective resources data.

Independent Qualified Reserves Evaluators have evaluated and reviewed the Corporation’s reserves data and contingent resources data. The reports 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:

- (a) reviewed the Corporation’s procedures for providing information to the independent qualified reserves evaluators;
- (b) 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
- (c) reviewed the reserves data and contingent resources 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:

- (a) the content and filing with securities regulatory authorities of the annual information form containing reserves data, contingent resources data and other oil and gas information;
- (b) the filing of Forms 51-102F2, which are the reports of the independent qualified reserves evaluators on the reserves data and contingent resources data; and
- (c) the content and filing of this report.

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

Dated effective March 18, 2019.

*(signed) “Horst Wunschelmeier”*

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**Horst Wunschelmeier**  
**Chief Executive Officer**

*(signed) “Kwok Ping Sun”*

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**Kwok Ping Sun**  
**Executive Director**

*(signed) “Raymond S. Fong”*

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**Raymond S. Fong**  
**Director**

**SCHEDULE “C”  
AUDIT COMMITTEE CHARTER**

**SUNSHINE OILSANDS LTD.**

**1. The Board of Directors’ Mandate for the Audit Committee**

**(a) Purpose**

The Audit Committee (the “**Audit Committee**”) is a committee of non-executive directors appointed by the Board of Directors of the Corporation (the “**Board of Directors**”). The Audit committee’s mandate is, inter alia, to provide assistance to the Board of Directors in fulfilling its financial reporting and control responsibility to the shareholders and the investment community. The committee is, however, independent of the Board of Directors and the Corporation and in carrying out their role shall have the ability to determine its own agenda and any additional activities that the Audit Committee shall carry out.

**(b) Composition of Committee**

(a) The Committee will be comprised of at least three non-executive directors of the Corporation, all of whom will be financially literate. In addition, at least one member of the Audit Committee shall have accounting or related financial expertise as such qualifications are interpreted by the Board of Directors in accordance with rule 3.10(2) of the Rules Governing the Listing of Securities on the Stock Exchange of Hong Kong Limited (the “**Listing Rules**”). A majority of the members of the Committee must also be “independent” in accordance with the Listing Rules. A “financially literate” director is a director who has the ability to read and understand a set of financial instruments that present a breadth and level of complexity of accounting issues that are generally comparable to the breadth and complexity of the issues that can reasonably be expected to be raised by the financial statements of the Corporation.

(b) Unless otherwise designated by the Board, the members of the Committee shall elect a Chairperson (the “**Chair**”) from among the independent non-executive directors present and the Chair shall preside at all meetings of the Committee.

**(c) Reliance on Experts**

In contributing to the Committee’s discharging of its duties under this mandate, each member of the Committee shall be entitled to rely in good faith upon:

(a) financial statements of the Corporation represented to him or her by an officer of the Corporation or in a written report of the external auditors to present fairly the financial position of the Corporation in accordance with GAAP consistently applied; and

(b) any report of a lawyer, accountant, engineer, appraiser or other person whose profession lends credibility to a statement made by any such person.

**(d) Limitations on Committee’s Duties**

In contributing to the Committee’s discharging of its duties under the Terms of Reference (defined at II below), each member of the Committee shall be obliged only to exercise the care, diligence and skill that a reasonably prudent person would exercise in comparable circumstances. Nothing in the Terms of Reference is intended, or may be construed, to impose on any member of the Committee a standard of care or diligence that is in any way more onerous or extensive than the standard to which all Board members are subject. The essence of the Committee’s duties is monitoring and reviewing to endeavour to gain reasonable assurance (but not to ensure) that the relevant activities are being conducted effectively and that the objectives of the Corporation’s financial reporting are being met and to enable the Committee to report thereon to the Board.

**2. Audit Committee Terms of Reference**

The Audit Committee’s Terms of Reference (the “**Terms of Reference**”) outline how the Committee will satisfy the requirements set forth by the Board in its mandate. Terms of Reference reflect the following:

- operating principles;
- operating procedures; and
- specific responsibilities and duties.

**(a) Operating Principles**

The Committee shall fulfill its responsibilities within the context of the following principles:

**(i) Committee Values**

The Committee expects the management of the Corporation to operate in compliance with corporate policies, reflecting laws and regulations governing the Corporation and to maintain strong financial reporting and control processes.

**(ii) Communications**

The Committee and members of the Committee expect to have direct, open and frank communications throughout the year with management, other Committee Chairpersons, the external auditors, and other key Committee advisors or Corporation staff members as applicable.

**(iii) Financial Literacy**

All Committee members should be sufficiently versed in financial matters to read and understand the Corporation’s financial statements and also to understand the Corporation’s accounting practices and policies and the major judgments involved in preparing the financial statements.

**(iv) Annual Audit Committee Work Plan**

The Committee, in consultation with management and the external auditors, shall develop an annual Committee work plan responsive to the Committee’s responsibilities as set out in these Terms of Reference. In addition, the Committee, in consultation with management and the external auditors, shall participate in a process for review of important financial topics that have the potential to impact the Corporation’s financial disclosure.

The work plan will be focused primarily on the annual and interim financial statements of the Corporation. However, the Committee may at its sole discretion, or the discretion of the Board, review such other matters as may be necessary to satisfy the Committee’s Terms of Reference.

**(v) Meeting Agenda**

Committee meeting agendas shall be the responsibility of the Chair in consultation with Committee members, senior management and the external auditors and shall be circulated on a timely basis prior to the Committee meetings.

**(vi) Committee Expectations and Information Needs**

The Committee shall communicate its expectations to management and the external auditors with respect to the nature, timing and extent of its information needs. The Committee expects that written materials will be received from management and the external auditors at a reasonable time in advance of meeting dates.

**(vii) External Resources**

To assist the Committee in discharging its responsibilities, the Committee may at its discretion, in addition to the external auditors, at the expense of the Corporation, retain one or more persons having special expertise, including independent counsel.

**(viii) In Camera Meetings**

At the discretion of the Committee, the members of the Committee shall meet in private sessions with the external auditors.

**(ix) Reporting to the Board**

The Committee, through its Chair, shall report after each Committee meeting to the Board at the Board's next regular meeting.

**(x) Committee Self-Assessment**

The Committee shall annually review, discuss and assess its own performance. In addition, the Committee shall periodically review its role and responsibilities.

**(xi) The External Auditors**

The Committee expects that, in discharging their responsibilities to the shareholders, the external auditors shall report directly to and be accountable to the Board through the Committee. The external auditors shall report all material issues or potentially material issues, either specific to the Corporation or to the financial reporting environment in general, to the Committee.

**(b) Operating Procedures**

- A. The Committee shall meet at least four times annually, or more frequently (if any) as circumstances dictate. At least once a year the Committee shall meet with the external and internal auditors without executive Board members present.
- B. Meetings shall be held at the call of the Chair, upon the request of two members of the Committee or at the request of the external auditors.
- C. A quorum shall be a majority of the Committee members and the rules for calling, holding, conducting and adjourning meetings of the Committee shall be the same as those governing the Board unless otherwise determined by the Committee or the Board.

- D. At all meetings of the Committee every question shall be decided by a majority of the votes cast, with each member of the Committee, including the Chair, having one vote, and with the Chair having no tie breaker vote.
- E. The Chair shall preside at all meetings of the Committee, unless the Chair is not present, in which case the members of the Committee present shall designate from among the independent non-executive directors the Chair for the purposes of the meeting.
- F. A member or members of the Committee may participate in Committee meetings by means of such telephonic, electronic or other communication facilities as permit all persons participating in the meeting to communicate adequately with each other, and a member participating in such a meeting by any such means is deemed to be present at that meeting.
- G. Unless the Committee otherwise specifies, the secretary of the Corporation (or his or her deputy), or such other person as designated by the Committee shall act as the secretary (the “Secretary”) of all meetings of the Committee.
- H. Minutes of the Committee will be maintained by the Secretary and made available to each director of the Corporation as soon as practicable following a Committee meeting.

**(c) Specific Responsibilities and Duties**

The specific responsibilities and duties of the Committee include:

**(i) Financial Reporting:**

- (a) review, prior to public release, the Corporation’s annual and quarterly financial statements with management and, to the extent required, the external auditors. In its review of such financial statements the Committee shall focus in particular on:
  - (i) any changes in accounting policies and practices;
  - (ii) major judgemental areas;
  - (iii) significant adjustments resulting from the audit or review;
  - (iv) the going concern assumption;
  - (v) compliance with accounting standards; and
  - (vi) compliance with stock exchange and legal requirements.

The Committee shall report thereon to the Board before such financial statements are approved by the Board;

- (b) receive from the external auditors reports of their audit of the annual financial statements and if the auditors are engaged, their reviews of the quarterly financial statements;
- (c) review, prior to public release, and, if appropriate, recommend approval to the Board, of news releases and reports to shareholders issued by the Corporation with respect to the Corporation’s annual and quarterly financial statements;

- (d) review and, if appropriate, recommend approval to the Board of prospectuses, material change disclosures of a financial nature, management discussion and analyses, annual information forms and similar disclosure documents to be issued by the Corporation;
- (e) assess whether the Corporation's accounting policies are being adequately disclosed in the Corporation's financial reporting;
- (f) review and validate procedures for the receipt, retention and resolution of complaints received by the Corporation from any party regarding accounting, auditing or internal controls. For greater certainty, the Committee's responsibilities in this area will not include complaints about minor operational issues. Examples of minor operational issues include late payment of invoices, minor disputes over accounts owing or receivable, revenue and expense allocations and other similar items characteristic of the normal daily operations of the accounting department of an oil and gas corporation;

**(ii) Accounting Policies:**

- (a) review with management and the external auditors the appropriateness of the Corporation's financial and accounting policies and practices, disclosures, reserves, key estimates and judgments, including changes or variations thereto;
- (b) obtain reasonable assurance that the Corporation's accounting policies are in compliance with GAAP consistently applied from management and external auditors and report thereon to the Board;
- (c) review with management and the external auditors the apparent degree of conservatism of the Corporation's underlying accounting policies, key estimates and judgments and provisions along with quality of financial reporting; and
- (d) participate, if requested, in the resolution of disagreements, between management and the external auditors;

**(iii) Risk and Uncertainty:**

- (a) acknowledging that it is the responsibility of the Board, in consultation with management, to identify the principal business risks facing the Corporation, determine the Corporation's tolerance for risk and approve risk management policies, the Committee shall focus on financial risk and gain reasonable assurance that financial risk is being effectively managed or controlled;
- (b) review policies and compliance therewith that require significant actual or potential liabilities, contingent or otherwise, to be reported to the Board in a timely fashion;
- (c) review foreign currency, interest rate and commodity price risk mitigation strategies, including the use of derivative financial instruments;
- (d) review the adequacy of insurance coverages maintained by the Corporation; and
- (e) review regularly with management, the external auditors and the Corporation's legal counsel, any legal claim or other contingency, including tax assessments, that could have a material effect upon the financial position or operating results of the Corporation and the manner in which these matters have been disclosed in the financial statements;

**(iv) Financial Controls and Control Deviations:**

- (a) review the plans of the external auditors to gain reasonable assurance that applicable internal financial controls are comprehensive, coordinated and cost effective;
- (b) receive regular reports from management and the external auditors on all significant deviations or indications/detection of fraud and the corrective activity undertaken in respect thereto;
- (c) institute a procedure that will permit any employee, including management employees, to bring to the attention of the Board, under conditions of confidentiality, concerns relating to financial controls and reporting which are material in scope and which cannot be addressed, in the employee's judgment, through existing reporting structures in the Corporation;
- (d) review and periodically assess the adequacy of controls over financial information disclosed to the public, which is extracted or derived from the Corporation's financial statements;
- (e) to review the Corporation's statement on internal control systems (where one is included in the annual report) prior to endorsement by the Board;
- (f) to discuss the internal control system with management to ensure that management has performed its duty to have an effective internal control system. This discussion should include the adequacy of resources, staff qualifications and experience, training programs and budget of the Corporation's accounting and financial reporting function;
- (g) (where an internal audit function is in operation) to review the internal audit programme, ensure co-ordination between the internal and external auditors, and ensure that the internal audit function is adequately resourced and has appropriate standing within the Corporation; and
- (h) to consider the major findings of internal investigations and management's response;

**(v) Compliance with Laws and Regulations:**

- (a) review regular reports from management and others (e.g. external auditors) with respect to the Corporation's compliance with laws and regulations having a material impact on the financial statements including:
  - (i) tax and financial reporting laws and regulations;
  - (ii) legal withholding requirements; and
  - (iii) other laws and regulations which expose directors to liability; and
- (b) review the filing status of the Corporation's tax returns;

**(vi) Relationship with External Auditors:**

- (a) recommend to the Board the appointment, re appointment and, if necessary, dismissal, of the external auditors;
- (b) to review and monitor the external auditor's independence and objectivity and the effectiveness of the audit process in accordance with applicable standards;

- (c) approve the remuneration and the terms of engagement of the external auditors as set forth in the engagement letter and receive a copy of the finalized version of the engagement letter;
- (d) to review the external auditors management letter and management's response;
- (e) to ensure that the Board will provide a timely response to the issues raised in the external auditors management letter;
- (f) review the performance of the external auditors annually or more frequently as required;
- (g) receive a report annually from the external auditors with respect to their independence, such report to include a disclosure of all engagements (and fees related thereto) for non-audit services to the Corporation;
- (h) review with the external auditors the scope of the audit, the areas of special emphasis to be addressed in the audit, and the materiality levels which the external auditors propose to employ;
- (i) meet with the external auditors in the absence of management to determine, inter alia, that no management restrictions have been placed on the scope and extent of the audit examinations by the external auditors or the reporting of their findings to the Committee;
- (j) establish effective communication processes with management and the Corporation's external auditors to assist the Committee to monitor objectively the quality and effectiveness of the relationship among the external auditors, management and the Committee; and
- (k) establish a reporting relationship between the external auditors and the Committee such that the external auditors can bring directly to the Committee matters that, in the judgment of the external auditors, merit the Committee's attention. In particular, the external auditors will advise the Committee as to disagreements between management and the external auditors regarding financial reporting and how such disagreements were resolved; and

**(vii) Other Responsibilities:**

- (a) approve annually the reasonableness of the expenses of the Chairpersons of the Board and the Chief Executive Officer;
- (b) after consulting with the Chief Financial Officer and the external auditors, to consider at least annually the quality and sufficiency of the Corporation's accounting and financial personnel and other resources;
- (c) to develop and implement policy on the engagement of an external auditor to supply non audit services, including tax advisory and compliance services provided by the external auditors;
- (d) ensure that an effective "whistle blowing" procedure exists to permit stakeholders to express any concerns regarding accounting or financial matters to an appropriately independent individual;
- (e) investigate any matters that, in the Committee's discretion, fall within the Committee's duties;
- (f) perform such other functions as may from time to time be assigned to the Committee by the Board;
- (g) review and update the Terms of Reference on a regular basis for approval by the Board;

- (h) review disclosures regarding the organization and duties of the Committee to be included in any public document, including quarterly and annual reports to shareholders, information circulars and annual information forms; and
- (i) ensure that an appropriate code of conduct is in place and understood by employees and directors of the Corporation.

**March 18, 2019**