



ANNUAL INFORMATION FORM

For the year ended December 31, 2018

EFFECTIVE MARCH 29, 2019

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GLOSSARY OF TERMS

In this Annual Information Form (“AIF”), the following terms shall have the meanings set forth below, unless otherwise indicated.

“**2½% Senior Notes**” means the US \$195.8 million 2½% Senior Notes of the Corporation due April 14, 2021.

“**2% Senior Notes**” means the US \$630 million 2% Senior Notes of the Corporation due May 14, 2018.

“**3% Senior Notes**” means the US \$485 million 3% Senior Notes of the Corporation due September 21, 2022.

“**4.2% Senior Notes**” means the US \$397.5 million 4.2% Senior Notes of the Corporation due June 1, 2023.

“**ABCA**” means the *Business Corporations Act (Alberta)*, together with any or all regulations promulgated thereunder, as amended from time to time.

“**BlackGold**” means the oil sands assets acquired from KNOC on August 6, 2010 in Conklin, Alberta, in the Oil Sands operating segment. See note 6 of the audited Consolidated Financial Statements for the year ended December 31, 2018, which is available on SEDAR at www.sedar.com for more information.

“**Breeze Trust No. 1**” means Harvest Breeze Trust No. 1, a trust established under the laws of the Province of Alberta, wholly owned by the Corporation.

“**Breeze Trust No. 2**” means Harvest Breeze Trust No. 2, a trust established under the laws of the Province of Alberta, wholly owned by the Corporation.

“**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.

“**Conventional**” means Harvest’s petroleum and natural gas segment, consisting of the exploitation, production and subsequent sale of petroleum, natural gas and natural gas liquids in Alberta, British Columbia and previously Saskatchewan, not including Harvest’s Oil Sands assets. Harvest sold its oil and gas assets in Saskatchewan during the year ended December 31, 2016. See note 6 of the audited Consolidated Financial Statements for the year ended December 31, 2018, which is available on SEDAR at www.sedar.com for more information.

“**Corporation**” means Harvest Operations Corp.

“**Corporate Partnerships**” means the Deep Basin Partnership and the HK MS Partnership.

“**Credit Facility**” means the \$500 million revolving credit facility provided by a syndicate of lenders to Harvest as more fully described in the “General Description of Capital Structure” section in this AIF.

“**Deep Basin Partnership**” or “**DBP**” means Harvest’s upstream joint venture with KERR formed on April 23, 2014.

“**Fiscal Agency Agreement dated June 16, 2016**” means the agreement with Harvest and KNOC as the Guarantor, Citibank N.A., London Branch as Fiscal Agent and Citigroup Global Markets Deutschland AG as Registrar of the 2½% Senior Notes.

“**Fiscal Agency Agreement dated May 14, 2013**” means the agreement with Harvest and KNOC as the Guarantor, Citibank N.A., London Branch as Fiscal Agent and Citigroup Global Markets Deutschland AG as Registrar of the 2% Senior Notes.

“**Fiscal Agency Agreement dated September 21, 2017**” means the agreement with Harvest and KNOC as the Guarantor, Citibank N.A., London Branch as Fiscal Agent and Registrar of the 3% Senior Notes.

“**Fiscal Agency Agreement dated May 1, 2018**” means the agreement with Harvest and KNOC as the Guarantor, Citibank N.A., London Branch as Fiscal Agent and Registrar of the 4.2% Senior Notes.

“**Future Net Revenue**” refers to the estimated net amount to be received with respect to the development and production of reserves computed by deducting, from estimated future revenues, estimated future royalty obligations,

costs related to the development and production of reserves and abandonment and reclamation costs (corporate general and administrative expenses and financing costs are not deducted).

“GAAP” means generally accepted accounting principles.

“GLJ” means GLJ Petroleum Consultants Ltd., an independent oil and natural gas reserves evaluator of Calgary, Alberta.

“Harvest Board” means the board of directors of Harvest.

“Harvest” means Harvest Operations Corp., a corporation amalgamated under the laws of the Province of Alberta.

“HK MS Partnership” means Harvest’s midstream joint venture with KERR formed on April 23, 2014.

“Independent Reserves Evaluator” means GLJ, who evaluated the crude oil, natural gas liquids and natural gas reserves of Harvest and the Operating Subsidiaries as at December 31, 2018 in accordance with the standards contained in the COGE Handbook and the reserve definitions and other requirements contained in NI 51-101.

“IFRS” means International Financial Reporting Standards as issued by the International Accounting Standards Board.

“KERR” means KERR Canada Co. Ltd., a corporation incorporated under the laws of Alberta.

“KNOC” means Korea National Oil Corporation.

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

“Oil Sands” means the oil sands operating segment, with a core focus on the exploration and development of the BlackGold oil sands assets acquired from KNOC on August 6, 2010. See note 7 of the audited Consolidated Financial Statements for the year ended December 31, 2018, which is available on SEDAR at www.sedar.com for more information.

“Operating Subsidiaries” means Breeze Resource Partnership, Breeze Trust No. 1, Breeze Trust No. 2, and Hay River Partnership, each a direct or indirect wholly-owned subsidiary of the Corporation, and "Operating Subsidiary" means any one of them.

“Person” includes an individual, a body corporate, a trust, a union, a pension fund, a government and a governmental agency.

“Production” means, with respect to Conventional operations the produced petroleum, natural gas and natural gas liquids attributed to the Properties and with respect to Oil Sands, bitumen.

“Properties” means the working, royalty or other interests of Harvest and the Operating Subsidiaries in any petroleum and natural gas rights, tangibles and miscellaneous interests, including properties which may be acquired by Harvest and the Operating Subsidiaries from time to time.

“Reserves Report” means collectively, the reports prepared by the Independent Reserves Evaluator evaluating the crude oil, natural gas liquids and natural gas reserves of Harvest and the Operating Subsidiaries including its share of production in equity investment in DBP as at December 31, 2018, in accordance with the standards contained in the COGE Handbook and the reserves definitions and other requirements contained in NI 51-101.

“Reserve Value” means for any petroleum and natural gas property at any time, the present worth of all of the estimated pre-tax cash flow net of capital expenditures from the Proved plus Probable reserves shown in the Reserves Report for such property, discounted at 10% and using forecast price and cost assumptions.

“Securities Act” means the Securities Act of 1933, as amended, enacted in the United States.

“Term Loan due 2020” means the \$500 million term loan due on February 24, 2020, provided by The Export-Import Bank of Korea, as more fully described in the “General Description of Capital Structure” section in this AIF.

“Term Loan due 2023” means the \$300 million term loan due on May 11, 2023, provided by Sumitomo Mitsui Banking Corporation, as more fully described in the “General Description of Capital Structure” section in this AIF.

“Working Interest” means an undivided interest held by a party in an oil and/or natural gas or mineral lease granted by a Crown or freehold mineral owner, which interest gives the holder the right to "work" the property (lease) to explore for, develop, produce and market the lease substances but does not include, among other things, a royalty, overriding royalty, gross overriding royalty, net profits interest or other interest that entitles the holder thereof to a share of production or proceeds of sale of production without a corresponding right or obligation to "work" the property.

ABBREVIATIONS AND CONVERSIONS

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

/d	Per day
Boe ⁽¹⁾	Barrel of oil equivalent on the conversion factor of 6 mcf of natural gas to one bbl of oil
bbl	Barrel
bbls	Barrels
Brent	Dated Brent, a benchmark for North Sea Brent blend crude oil
CO ₂ e	Carbon dioxide equivalent
CPF	Central processing facility
DBP	Deep Basin Partnership
EOR	Enhanced oil recovery
GHG	Greenhouse gas
HK MSP	HK MS Partnership
m ³	Cubic meter
Mmboe	Million barrels of oil equivalent
Mcf	Thousand cubic feet
MMcf	Million cubic feet
NGLs	Natural gas liquids
NO _x	The general oxides of nitrogen (NO, NO ₂ , N ₂ O ₂ , etc.)
OPEC	Organization of Petroleum Exporting Countries
SAGD	Steam-assisted gravity drainage is an enhanced oil recovery technology for producing heavy crude oil and bitumen
SO _x	The general oxides of sulfur (SO ₂ , SO ₃ , etc.)
tCO ₂ e	Tonnes of CO ₂ e
WTI	West Texas Intermediate, the reference price in U.S. dollars at Cushing, Oklahoma for crude oil of standard grade
\$000	Thousands of dollars

(1) Boes may be misleading, 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.

GENERAL INFORMATION

Unless otherwise specified, information contained in this AIF is dated December 31, 2018. The date of this discussion is March 29, 2019.

This AIF contains forward looking information and non-GAAP measures. Readers are cautioned that the AIF should be read in conjunction with the “Non-GAAP Measures” and “Forward-Looking Information” sections at the end of this form.

All dollar amounts set forth in this AIF are expressed in Canadian dollars, except where otherwise indicated. References to Canadian dollars, Cdn\$, C\$ or \$ are to the currency of Canada and references to U.S. dollars or US\$ are to the currency of the United States.

The Bank of Canada Indicative Canadian to US dollar exchange rates for Cdn\$1.00 were:

(US\$)	December 31	Average	High	Low
2018	0.7330	0.7721	0.8138	0.7330
2017	0.7971	0.7708	0.8245	0.7276
2016	0.7448	0.7548	0.7972	0.6854

CORPORATE STRUCTURE

Harvest Operations Corp.

Harvest was incorporated under the ABCA on May 14, 2002. All of the issued and outstanding common shares of Harvest are owned by KNOC. Harvest manages the affairs of the Operating Subsidiaries and is responsible for providing all of the technical, engineering, geological, land management, financial, administrative and commodity marketing services relating to the Corporation's operations.

The head and principal office of Harvest is located at 1500, 700 – 2nd Street SW, Calgary, Alberta, Canada T2P 2W1 while the registered office of Harvest is located at Suite 4500, Bankers Hall East 855 – 2nd Street S.W., Calgary, Alberta T2P 4K7.

Description of Subsidiaries

Each of the entities identified below is a material, direct or indirect wholly-owned subsidiary of Harvest at December 31, 2018.

Harvest Breeze Trust No. 1

Breeze Trust No. 1 is an unincorporated commercial trust established under the laws of the Province of Alberta on July 8, 2004. Breeze Trust No. 1 is wholly-owned by Harvest and its assets consist of the intangible portion of direct ownership interests in petroleum and natural gas properties purchased from the Breeze Resources Partnership and the Hay River Partnership. Harvest Breeze Trust No. 1 has a 99% interest in each of the Breeze Resources Partnership and the Hay River Partnership.

Harvest Breeze Trust. No. 2

Breeze Trust No. 2 is an unincorporated commercial trust established under the laws of the Province of Alberta on July 8, 2004. Breeze Trust No. 2 is wholly-owned by Harvest and its assets consist of a 1% interest in each of the Breeze Resources Partnership and the Hay River Partnership.

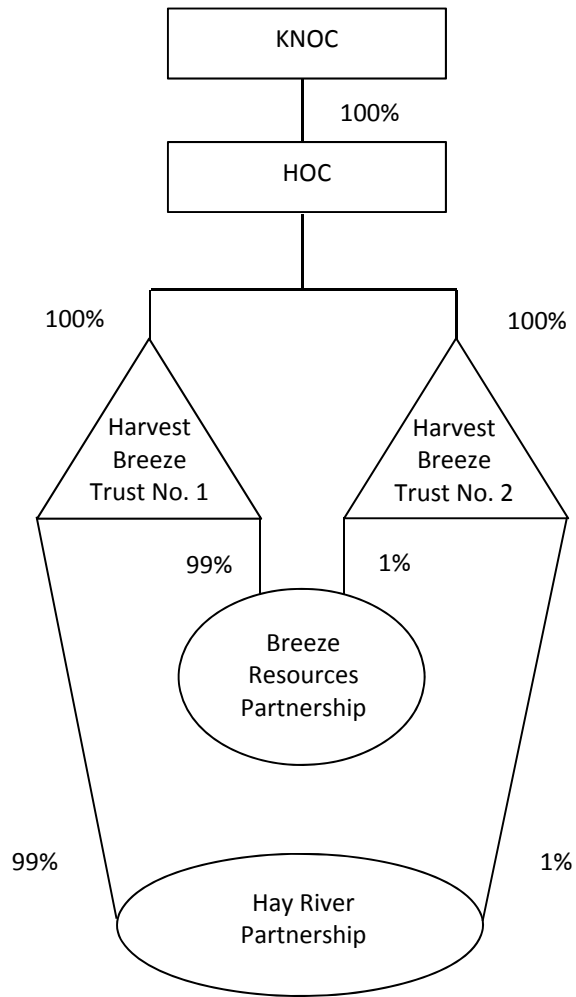
Breeze Resources Partnership

Breeze Resources Partnership (indirectly wholly-owned by Harvest) is a general partnership formed on June 30, 2004 under the laws of the Province of Alberta. Breeze Resources Partnership was acquired in September 2004. Its assets consist of the tangible portion of direct ownership interest in petroleum and natural gas properties located in east central Alberta and southern Alberta.

Hay River Partnership

Hay River Partnership (indirectly wholly-owned by Harvest) is a general partnership formed on December 20, 2004 under the laws of the Province of Alberta. Hay River Partnership was acquired in August 2005. Its assets consist of the tangible portion of direct ownership interests in petroleum and natural gas properties located in north eastern British Columbia.

The corporate structure including significant subsidiaries is set forth below. Harvest's remaining subsidiaries and partnerships did not have assets or sales and operating revenues which, in the aggregate, exceeded 20 percent of the total consolidated assets or total consolidated sales and operating revenues of Harvest as at and for the year ended December 31, 2018:



GENERAL DEVELOPMENTS OF THE BUSINESS

The following is a description of the general development of Harvest's business over the last three financial years. No material developments have occurred in 2019.

Developments in 2018

On May 1, 2018, Harvest issued US\$397.5 million 4.2% Senior Notes for net proceeds of US\$395.8 million. The 4.2% Senior Notes are unsecured and mature on June 1, 2023, with interest payable semi-annually on June 1 and December 1 of each year. They are unconditionally and irrevocably guaranteed by KNOC. A guarantee fee of 0.37% per annum of the principal balance is payable to KNOC semi-annually. Proceeds from these notes were used to re-pay the 2½% Senior Notes that matured on May 14, 2018.

On May 11, 2018 Harvest entered into a term loan with Sumitomo Mitsui Banking Corporation. The term loan is a \$300 million five year variable rate loan, which was fully drawn on May 11, 2018 and matures on May 11, 2023. The Term Loan due 2023 is guaranteed by KNOC and contains no financial covenants. Proceeds from the term loan were used to repay the remainder of the 2½% Senior Notes that matured on May 14, 2018.

During 2018, Harvest completed construction of its 10,000 bbl/d BlackGold facility. Commissioning and first steam injection was completed in the second quarter of 2018. First production was achieved during the third quarter of 2018. For additional information regarding the 2019 capital expenditure plan for BlackGold, please refer to NI 51-101F1 Statement of Reserves Data and Other Oil and Gas Information for the year ended December 31, 2018, which is available on SEDAR at www.sedar.com.

Developments in 2017

On February 17, 2017 Harvest entered into a Term Loan with The Export-Import Bank of Korea. The Term Loan is a \$500 million three year 2.27% per annum fixed rate loan, which was fully drawn on February 24, 2017 and matures on February 24, 2020. Interest is paid semi-annually in February and August. The Term Loan is guaranteed by KNOC and contains no financial covenants. Proceeds from the term loan were used to repay credit facility borrowings.

On February 24, 2017 Harvest entered into a new three year \$500 million revolving Credit Facility with a syndicate of banks; it has a maturity date of February 24, 2020. The new Term Loan and The Credit Facility replace Harvest's \$1 billion revolving credit facility which was to mature in April of 2017. The new syndicated revolving Credit Facility is guaranteed by KNOC and is secured by a first floating charge over all of the assets of Harvest and its material subsidiaries and contains no financial covenants. Refer to the "General Description of Capital Structure" of this AIF for additional information.

On September 21, 2017, Harvest issued US\$285 million 3% senior notes for net proceeds of US\$283.2 million. On November 6, 2017, Harvest issued an additional US\$200 million of 3% senior notes for net proceeds of US\$198.5 million. The September 21, 2017 and November 6, 2017 bond issuances are collectively referred to as the "3% Senior Notes". The 3% Senior Notes are unsecured and mature on September 21, 2022, with interest payable semi-annually on March 21 and September 21 of each year. They are unconditionally and irrevocably guaranteed by KNOC. A guarantee fee of 0.37% per annum of the principal balance is payable to KNOC semi-annually on March 21 and September 21 of each year. Proceeds from these notes were used to re-pay the 6½% senior notes that matured on October 2, 2017 and for general corporate purposes, including to facilitate the re-start of BlackGold.

On December 21, 2017, Harvest announced its decision to re-sanction and complete construction of its 10,000 bbl/d BlackGold facility. For additional information regarding the 2018 capital expenditure plan for BlackGold, please refer to NI 51-101F1 Statement of Reserves Data and Other Oil and Gas Information for the year ended December 31, 2017, which is available on SEDAR at www.sedar.com.

Developments in 2016

On February 5, 2016, Harvest's syndicate banks consented to a waiver of the Total Debt to Capitalization covenant that was breached as at December 31, 2015, effective until April 30, 2017.

On March 29, 2016 Harvest drew the remaining US\$51 million on the US\$171 million 5.91% loan agreement due 2017 with KNOC. At March 29, 2016, the full US\$171 million was drawn under the loan agreement. See “General Description of Capital Structure” of this AIF for details.

On June 16, 2016 Harvest completed the partial exchange of its 6% Senior Notes due 2017 for 2% Senior Notes due 2021, at an exchange ratio of US\$900 principal amount of the new 2% senior notes for each US\$1,000 principal amount of the old 6% senior notes. US\$217.5 million of the 6% Senior Notes was exchanged for US\$195.8 million 2% Senior Notes. At December 31, 2016, the remaining 6% Senior Notes were classified as a current liability. The 2% Senior Notes are unsecured and mature on April 14, 2021, with interest payable semi-annually on April 14 and October 14 of each year. They are unconditionally and irrevocably guaranteed by KNOC.

On June 30, 2016 Harvest entered into a US\$184.8 million loan agreement with KNOC, due on October 2, 2017, with an interest rate of 4.66% per annum. Interest was due upon maturity. On July 6, 2016, Harvest drew down the US\$184.8 million KNOC loan and used the proceeds to re-pay the US\$170 million 4.62% loan from Ankor E&P Holdings Corp., a 100% owned subsidiary of KNOC, which was due in 2017, including accrued interest.

On June 30, 2016 Harvest closed the disposition of its oil and gas assets in Saskatchewan for net proceeds of \$61.6 million and on August 16, 2016 closed the disposition of certain oil and gas assets in South Alberta for net proceeds of \$6.7 million.

On December 22, 2016, KNOC converted all its outstanding intercompany loans to Harvest to common shares of Harvest. As a result, 72.7 million common shares were issued to KNOC. As at December 31, 2016 there were no Related Party Loans outstanding.

During the year ended December 31, 2016, \$19.9 million of exploration and evaluation (“E&E”) costs were impaired as they were no longer deemed to be technically feasible or commercially viable.

Subsequent to December 31, 2016 an indicative bid was received from an arm’s length party to purchase certain oil and gas assets in Southern Alberta. The assets included in the bid are in the South Oil and South Gas cash generating units. This triggered an impairment reversal during the year ended December 31, 2016, of \$38.8 million to property, plant and equipment (“PP&E”) in Harvest’s Conventional segment.

GENERAL BUSINESS DESCRIPTION

Harvest is a significant operator in Canada’s energy industry with two operating segments: Conventional and Oil Sands. Harvest’s shareholder, KNOC, is an international oil and gas exploration and production company wholly owned by the Government of Korea. As at December 31, 2018, Harvest’s net proved reserves (excluding its equity investment in the DBP) represented approximately 24% of KNOC’s consolidated oil and gas reserves. Additionally, Harvest’s oil and gas production (excluding its interest in the DBP) represented approximately 13% of KNOC’s consolidated 2018 oil and gas production.

Conventional

In the Conventional operations, Harvest employs a disciplined approach to acquiring, developing and operating large resource-in-place producing properties. Harvest’s Conventional operations are located in the Western Canadian Sedimentary Basin and its core areas include Deep Basin, Loon, Royce, Hay River and Rocky Mountain House. For detailed description of these properties see NI 51-101F1 form for the year ended December 31, 2018, which is filed separately on SEDAR at www.sedar.com. Harvest has a high degree of operational control as it is the operator on properties that generate the majority of Harvest’s production. Harvest believes that this “hands on” approach allows it to better manage capital expenditures and accumulate institutional expertise in its operating regions. Conventional conducts its operations under the following business strategies:

Maximize Value and Production from Existing Properties

Harvest intends to enhance the long-term value of Harvest’s existing western Canadian assets with proven development strategies. The Corporation uses infill and step-out drilling to develop the potential of its assets. Included

among the drilling techniques is horizontal drilling which is typically employed with the majority of our new wells. Harvest has implemented numerous enhanced oil recovery (EOR) projects within its existing asset base, utilizing water floods to enhance the performance of its assets.

Increase Operating Netbacks

Harvest has traditionally focused on optimizing the operating costs and the sales portfolio to increase the operating netback and thereby extend the life and increase the value of its proved reserves. Harvest's ongoing cost reduction initiatives include continuous improvements to water handling, disposal alternatives, contracting for volume discounts on well servicing and purchased materials and services. Marketing initiatives contribute to achieving the highest well head price and include identifying new market opportunities, diversifying Harvest's customer base, blending crude oil to capture market arbitrage and developing enhanced revenue generating commercial activities. Harvest intends to maintain a disciplined and rigorous approach to cost control in properties it operates.

Re-balancing Asset Portfolio

Harvest assesses its portfolio of assets to identify core and non-core properties. Based on market conditions and specific circumstances, Harvest may dispose, farm-out or exchange those properties. For properties that are slated for disposition, active marketing initiatives are taken to facilitate the transactions. Proceeds received from dispositions may be used to repay debt or other financial commitments, which will provide Harvest with greater flexibility to redeploy capital sources when needed towards core assets development and exploration efforts.

Corporate Partnerships

Harvest has entered into business partnerships with Korean investors, wherein Harvest has contributed cash and selected assets with upside development potential, while the investors contribute cash for both infrastructure and development capital and retaining exposure to potential upside. This unique partnership allows Harvest to grow its core business region while conserving capital. See "Deep Basin and HK MS Partnerships" in the "General Business Description" section of this AIF for details.

Product and Marketing Arrangements

Harvest produces crude oil (light, medium, heavy and bitumen), natural gas, natural gas liquids and associated products from its reserves. For a breakdown of revenues by product type, please see page 12 of the Management's Discussion and Analysis for the year ended December 31, 2018, which is available on SEDAR at www.sedar.com.

Crude Oil and NGLs

Harvest's crude oil and NGL production is marketed to a diverse portfolio of intermediaries and end users with the majority of the oil contracts existing on a 30-day continuously renewing basis and the NGL contracts are on one and four-year terms. These commodities typically receive the prevailing monthly market prices. Harvest has a small number of condensate purchase contracts required for blending heavy oil to meet pipeline specifications and for use in treating and processing its bitumen production; these are a combination of evergreen and monthly spot contracts both related to the prevailing monthly market price.

For the year ended December 31, 2018, Harvest received an average sales price, excluding the effects of commodity price derivative contracts, of \$61.45/bbl for light and medium crude oil, \$51.75/bbl for heavy crude oil, \$(0.43)/bbl for bitumen and \$39.36/bbl for NGLs.

Natural Gas

The majority of Harvest's natural gas production is currently being sold at the prevailing daily spot market price in western Canada and a portion is sold on the monthly Alberta index.

For the year ended December 31, 2018, Harvest received an average sales price, excluding the effects of commodity price derivative contracts, of \$1.63/mcf for natural gas.

Competitive Conditions, Seasonality, and Trends

Competitive conditions and trends are described under the "Industry Conditions – Conventional" and "Risk Factors" sections of this AIF. The exploitation and development of petroleum and natural gas reserves is dependent on physical

access to production areas. Seasonal weather conditions, including freeze-up and break-up, affect such access. The seasonal accessibility increases competition for equipment and human resources during those periods.

Environment, Health and Safety Policies and Practices (“EH&S”)

Harvest commits to conducting its operations in a manner that protects the health and safety of employees, contractors and the public, and minimizes environmental impact. Harvest’s EH&S policy is designed with a primary objective to comply with industry and jurisdictional regulatory requirements. There are various components in the EH&S policies, with the core environmental components focused on prevention, remediation and reclamation of environmental impact to land, water and air. See the “Environmental Regulation” section of this AIF for discussion of specific regulatory requirement. Health and Safety components are focused on proactive measures of reducing risk and eliminating hazards to employees, contractors, subcontractors and the public. Harvest is committed to an injury-free workplace.

The majority of Harvest environmental expenditures relate to site remediation, site reclamation and reporting to regulatory bodies. In 2018, Harvest spent \$1.9 million on the management and closure of environmental obligations which included all required regulatory monitoring and reporting, remediation of spill sites, remediation of sites with historical contamination and the reclamation of abandoned well sites.

In 2018, all required Emergency Response Plan exercises were completed and training of key response personnel continued. Mandated full scale exercises were conducted in various areas of operations and post-exercise findings were used to improve Harvest’s Emergency Response System.

Human Resources

At December 31, 2018, Harvest (including KNOC secondees) had 269 permanent employees and 8 temporary employees. The Corporation also engages a number of contractors and service providers.

Deep Basin and HK MS Partnerships

On April 23, 2014, Harvest entered into the DBP and HK MSP joint ventures with KERR. The principal place of operations for both DBP and HK MSP is in Canada. DBP was established for the purposes of exploring, developing and producing from oil and gas properties in the Deep Basin area in northwest Alberta.

During 2018, Harvest contributed cash to the DBP in exchange for 39,929,228 common partnership units, increasing Harvest’s ownership interest to 83.45% and diluting KERR’s ownership interest to 16.55%. As at December 31, 2018, Harvest had 672,020,740 common partnership units

Amounts contributed by Harvest and KERR were spent by the DBP to purchase land, drill and develop natural gas properties in the Deep Basin area. As additional funds are required to fund the entire agreed initial multi-year development program, Harvest is obligated to fund the balance of the program and will obtain proportionately increased shares in each partnership in exchange for Harvest’s incremental capital investment.

For the year ended December 31, 2018, Harvest accounted for its investment in the DBP using the equity method. Pursuant to NI 51-101, Harvest is required to separately disclose information concerning DBP’s oil and gas reserves and Future Net Revenue as at December 31, 2018 and certain costs incurred by DBP during 2018, based on Harvest’s equity interest in DBP. Please see Harvest’s NI 51-101F1 form for the year ended December 31, 2018, which is filed separately on SEDAR at www.sedar.com.

HK MSP was formed for the purposes of constructing and operating a gas processing facility, which is primarily used to process the natural gas produced from the properties owned by DBP. A gas processing agreement was entered by the two partnerships on April 23, 2014.

During 2018, Harvest contributed cash to the Partnership in exchange for 576,510 common partnership units, increasing Harvest’s ownership interest to 68.15% and diluting KERR’s ownership interest to 31.85%. As at December 31, 2018, Harvest had 65,021,201 partnership units

Construction of the gas processing facility was completed in early 2015. Strategically, this facility provides the DBP an advantage of access to firm processing capability, the ability to extract maximum liquids from the natural gas produced by DBP and will allow DBP to pursue both acquisition and drilling opportunities in the region.

Oil Sands

The Oil Sands segment focuses on the development and production of in-situ oil sands from Harvest lands located near Conklin, Alberta. The project is named BlackGold and uses SAGD technology that involves horizontal drilling and thermal stimulation to maximize energy efficiency and minimize land disturbance. Phase 1 of the project is anticipated to produce 10,000 bbl/day. The scope of Phase 1 includes the drilling of 77 SAGD injector-producer well pairs over the life of the project and the construction of a CPF. Phase 2 of the project is targeted to expand processing capacity and increase output to 30,000 bbl/d and was approved by the provincial regulators in 2013.

Initial drilling of 30 SAGD wells (15 well pairs) was completed by the end of 2012 and the majority of the well completion activities were completed by the end of 2014. More SAGD wells will be drilled in the future to compensate for the natural decline in production of the initial well pairs and maintain the Phase 1 production capacity of 10,000 bbl/d.

Construction, including the building of the CPF plant site, well pads, and connecting pipelines was substantially completed in early 2015. Due to the collapse in crude oil prices, the project was delayed. Several systems have progressed slowly within a limited annual budget from 2015 to 2017.

On December 31, 2017, Harvest announced its decision to re-sanction and complete construction of its 10,000 bbl/d BlackGold facility. Commissioning and first steam injection was achieved in the second quarter of 2018, with first oil production in the third quarter of 2018. Ramp up of Phase 1 of the project has proceeded ahead of original targets and production rates from the initial 12 active well pairs averaged approximately 5,700 bbl/d in December 2018.

For additional information regarding the 2019 capital expenditure plan for BlackGold, please refer to NI 51-101F1 Statement of Reserves Data and Other Oil and Gas Information for the year ended December 31, 2018, which is available on SEDAR at www.sedar.com.

CASH FLOW RISK MANAGEMENT

Harvest's liquidity and financial condition are highly dependent on the prices received for its crude oil and natural gas production, among other factors. Crude oil and natural gas prices have fluctuated widely during recent years. Any material decline in crude oil and natural gas prices could have an adverse effect on Harvest's financial condition. Harvest mitigates such price risk through closely monitoring the various commodity markets and establishing commodity price risk management programs, as deemed necessary, to provide stability to its cash flows. Harvest utilizes commodity derivative contracts to reduce volatility in its cash flows.

At times, Harvest also enters into foreign currency exchange contracts to mitigate its exposures to the U.S. dollar from its U.S. denominated transactions. Commodity and foreign currency derivative contracts may be combined in a hedging strategy, when deemed appropriate. Harvest limits its financial hedge counterparties to lenders in its Credit Facility. Security interests over Harvest's assets provided under the Credit Facility extends to the derivative contracts, eliminating the requirement for margin calls and minimizing the requirement to provide letters of credit which limits the potential that these contracts could exacerbate credit concerns.

INDUSTRY CONDITIONS

The oil and gas industry is subject to extensive controls and regulations governing its operations (including land tenure, exploration, development, production, emissions, transportation and marketing) imposed by legislation enacted by various levels of government and with respect to pricing and taxation of oil and gas by agreements among the governments of Canada, Alberta and British Columbia. It is not expected that any of these controls or regulations will affect Harvest's operations in a manner materially different than they would affect other oil and gas entities of similar size. All current legislation is a matter of public record and Harvest is unable to predict what additional legislation or amendments may be enacted. Outlined below are some of the principal aspects of legislation, regulations and agreements governing the petroleum and natural gas industry.

Conventional and Oil Sands

Pricing and Marketing – Petroleum, Natural Gas and Associated Products

In the provinces of Alberta and British Columbia, petroleum, natural gas and associated products are generally sold at market based prices. It is common to transact at a fixed price or index, which are determined based on calculations that consider volume-weighted average prices for purchase and sale transactions at a specific sales point. These indices are generated from calculations that consider volume-weighted-industry-reported purchase and sales transactions. While these indices tend to directionally track benchmark prices (i.e. WTI crude oil at Cushing, Oklahoma or natural gas at Henry Hub, Louisiana), some variances can occur due to specific market imbalances. These relationships to industry reference prices can change on a monthly or daily basis depending on the supply-demand fundamentals at each location as well as other non-related market changes such as the value of the Canadian dollar and political news.

Although the market ultimately determines the price of crude oil and natural gas, producers are entitled to negotiate purchase or sales deals directly with third parties. Crude oil prices are primarily based on worldwide supply and demand, however, the specific price depends in part on quality, prices of competing fuels, location, the value of refined products, the supply/demand balance and other contractual terms. Natural gas prices are determined at various points including "NIT" (Nova Inventory Transfer), which is Alberta's main sales point, Station #2, which is British Columbia's main sales point along with numerous other locations throughout Canada and the United States. Each trading point has its own price, which is based on location and various supply and demand characteristics, which can fluctuate daily. As natural gas is also traded on trading platforms, like the Intercontinental Exchange and the New York Mercantile Exchange in the United States, or bi-laterally with various counterparties, spot and future prices can also be influenced by supply and demand fundamentals.

Pipeline Capacity

Although pipeline expansions are ongoing, the apportionment of capacity on pipeline systems can occur from time-to-time due to pipeline operational problems. This affects the ability to market crude oil and natural gas. Most of the current apportionments experienced in Western Canada, however, are due to significant supply which far exceeds current pipeline capacity. Oil and natural gas producers in North America and, particularly in Western Canada, currently receive discounted prices for their production relative to international prices, due to constraints on the ability to transport and sell such products to international markets.

Provincial Royalties and Incentives

In addition to federal regulation, each province has legislation and regulations which govern land tenure, royalties, production rates, environmental protection and other matters. The royalty regime is a significant factor in the profitability of crude oil, natural gas liquids, sulphur and natural gas production. Royalties payable on production from lands other than Crown lands are determined by negotiations between the mineral owner and the lessee, although production from such lands is also subject to certain provincial taxes and royalties. Crown royalties are determined by governmental regulation and are generally calculated as a percentage of the value of the gross production. The rate of royalties payable generally depends in part on prescribed reference prices, well productivity, geographical location, field discovery date, method of recovery and the type or quality of the petroleum product produced. Other royalties and royalty-like interests are from time to time carved out of the Working Interest owner's interest through non-public transactions. These are often referred to as overriding royalties, gross overriding royalties, net profits interests or net carried interests.

From time to time, the federal and provincial governments in Canada have established incentive programs which have included royalty rate reductions (including for specific wells), royalty holidays and tax credits for the purpose of encouraging oil and natural gas exploration or enhanced planning projects. However, the trend in recent years has been to eliminate these types of programs in favour of long-term programs which enhance predictability for producers. If applicable, oil and natural gas royalty holidays and reductions reduce the amount of Crown royalties paid by oil and gas producers to the provincial governments.

Alberta

On January 29, 2016, the Government of Alberta released and accepted the Royalty Review Advisory Panel's recommendations, which outlined the implementation of a "Modernized Royalty Framework" for Alberta (the "MRF"). The MRF took effect on January 1, 2017. Wells drilled prior to January 1, 2017 will continue to be governed by the current "Alberta Royalty Framework" for a period of 10 years until January 1, 2027. The MRF is structured in three phases: (i) Pre-Payout, (ii) Mid-Life, and (iii) Mature. During the Pre-Payout phase, a fixed 5% royalty will apply until the well reaches payout. Well payout occurs when the cumulative revenue from a well is equal to the Drilling and Completion Cost Allowance (determined by a formula that approximates drilling and completion costs for wells based on depth, length and historical costs). The new royalty rate will be payable on gross revenue generated from all production streams (oil, gas, and natural gas liquids), eliminating the need to label a well as "oil" or "gas". Post-payout, the Mid-Life phase will apply a higher royalty rate than the Pre-Payout phase. Depending on the commodity price of the substance the well is producing, the royalty rate could range from 5% to 40%. The metrics for calculating the Mid-life phase royalty are based on commodity prices and are intended, on average, to yield the same internal rate of return as under the Alberta Royalty Framework. In the Mature phase of the MRF, once a well reaches the tail end of its cycle and production falls below a "Maturity Threshold", currently the equivalent of 194m³ per month (40 bbl/d for oil or 345,500m³ of gas per month), the royalty rate will move to a sliding scale (based on volume and price) with a minimum royalty rate of 5%. The downward adjustment of the royalty rate in the Mature phase is intended to account for the higher per-unit fixed cost involved in operating an older well.

On July 11, 2016, the Government of Alberta released details of the Enhanced Hydrocarbon Recovery Program and the Emerging Resources Program. These programs, that came into effect on January 1, 2017, are a subset of the MRF and account for the higher costs associated with enhanced recovery methods and with developing emerging resources in an effort to make difficult investments economically viable and to increase royalties. Certain eligibility criteria must be satisfied in order for a proposed project to fall under each program. Enhanced recovery scheme applications can be submitted to the Alberta Energy Regulator ("AER").

Oil sands projects are also subject to Alberta's royalty regime. The MRF did not change the oil sands royalty framework, however, the Government of Alberta plans to increase transparency in the method and figures by which the royalties are calculated. Prior to payout of an oil sands project, the royalty is payable on gross revenues of an oil sands project. Gross revenue royalty rates range between 1 and 9 percent depending on the market price of oil, determined using the average monthly price, expressed in Canadian dollars, for WTI crude oil at Cushing, Oklahoma: rates are 1 percent when the market price of oil is less than or equal to \$55 per barrel and increase for every dollar of market price of oil increase to a maximum of 9 percent when oil is priced at \$120 per barrel or higher. After payout, the royalty payable is the greater of the gross revenue royalty based on the gross revenue royalty rate of 1 to 9 percent and the net revenue royalty based on the net revenue royalty rate. Net revenue royalty rates start at 25 percent and increase for every dollar of market price of oil increase above \$55 per barrel up to 40 percent when oil is priced at \$120 per barrel or higher.

Currently, producers of oil and natural gas from Crown lands in Alberta are required to pay annual rental payments, at a rate of \$3.50 per hectare, and make monthly royalty payments in respect of oil and natural gas produced.

Royalties, for wells drilled prior to January 1, 2017, are paid pursuant to "The New Royalty Framework" (implemented by the Mines and Minerals (New Royalty Framework) Amendment Act, 2008) and the "Alberta Royalty Framework" until January 1, 2027. Royalty rates for conventional oil are set by a single sliding rate formula, which is applied monthly and incorporates separate variables to account for production rates and market prices. The maximum royalty payable under the royalty regime is 40%. Royalty rates for natural gas under the royalty regime are similarly determined using a single sliding rate formula with the maximum royalty payable under the royalty regime set at 36% and a minimum royalty rate of 5%.

Producers of oil and natural gas from freehold lands in Alberta are required to pay annual freehold mineral tax. The freehold mineral tax is a tax levied by the Government of Alberta on the value of oil and natural gas production from non-Crown lands and is derived from the Freehold Mineral Rights Tax Act (Alberta). The freehold mineral tax is levied on an annual basis on calendar year production using a tax formula that takes into consideration, among other things, the amount of production, the hours of production, the value of each unit of production, the tax rate and the

percentages that the owners hold in the title. The basic formula for the assessment of freehold mineral tax is: revenue less allocable costs equals net revenue divided by wellhead production equals the value based upon unit of production. If payors do not wish to file individual unit values, a default price is supplied by the Crown. On average, the tax levied is four percent of revenues reported from fee simple mineral title properties.

The Government of Alberta has from time to time implemented drilling credits, incentives or transitional royalty programs to encourage oil and gas development and new drilling. For example, the Innovative Energy Technologies Program (the "IETP") has the stated objectives of increasing recovery from oil and gas deposits, finding technical solutions to the gas over bitumen issue, improving the recovery of bitumen by in-situ and mining techniques, and improving the recovery of natural gas from coal seams. The IETP provides royalty adjustments to specific pilot and demonstration projects that utilize new or innovative technologies to increase recovery from existing reserves.

In addition, the Government of Alberta has implemented certain initiatives intended to accelerate technological development and facilitate the development of unconventional resources (the "Emerging Resource and Technologies Initiative"). These initiatives apply to wells drilled before January 1, 2017, for a 10 year period, until January 1, 2027. Specifically:

- Coalbed methane wells will receive a maximum royalty rate of 5 percent for 36 producing months up to 750 MMcf of production, retroactive to wells that began producing on or after May 1, 2010;
- Shale gas wells will receive a maximum royalty rate of 5 percent for 36 producing months with no limitation on production volume, retroactive to wells that began producing on or after May 1, 2010;
- Horizontal gas wells will receive a maximum royalty rate of 5 percent for 18 producing months up to 500 MMcf of production, retroactive to wells that commenced drilling on or after May 1, 2010; and
- Horizontal oil wells and horizontal non-project oil sands wells will receive a maximum royalty rate of 5 percent with volume and production month limits set according to the depth (including the horizontal distance) of the well, retroactive to wells that commenced drilling on or after May 1, 2010.

British Columbia

The British Columbia royalty regime for oil is dependent on age and production. Oil is classified as "old", "new" or "third tier" and a separate formula is used to determine the royalty rate depending on the classification. The rates are further varied depending on production. Lower royalty rates apply to low productivity wells and third tier oil to reflect the increased cost of exploration and extraction. There is no minimum royalty rate for oil.

The British Columbia natural gas royalty regime is determined by a sliding scale formula based on a reference price, which is the greater of the average net price obtained by the producer and a posted minimum price. Natural gas is classified as either "conservation gas" or "non-conservation gas". For non-conservation gas, the royalty rate is dependent on the date on which title was acquired from the Crown and on the date on which the well was drilled and may also be impacted by the select price, a parameter used in the royalty rate formula to account for inflation. The base royalty rate for non-conservation gas ranges from 9% to 15%. A lower base royalty rate of 8% is applied to conservation gas. However, the royalty rate may be reduced for low productivity wells.

The Government of British Columbia also maintains a number of royalty programs such as the Deep Royalty Credit Program, Net Profit Royalty Program, and the Infrastructure Royalty Credit Program. These programs offer either royalty credit or royalty reduction and are intended to stimulate development of British Columbia's natural gas low productivity wells.

Land Tenure

Crude oil and natural gas located in western Canada is owned predominantly by the respective provincial governments. Provincial governments grant rights to explore for and produce oil and natural gas pursuant to leases, licences and permits for varying terms and on conditions set forth in provincial legislation including requirements to perform specific work or make payments. Oil and natural gas located in such provinces can also be privately owned and rights to explore for and produce such oil and natural gas are granted by lease on such terms and conditions as may be negotiated.

Alberta Regulatory Enhancement Project

The Regulatory Enhancement Project started in 2010 with the goal of creating a regulatory system that delivers clarity, predictability, certainty and efficiency. In December 2012, the Responsible Energy Development Act was passed with the intention to create a single regulator for upstream oil, gas, oil sands and coal projects in Alberta. In June 2013, the AER was created. The AER assumed the regulatory functions of the former Energy Resources Conservation Board and in November 2013, the AER assumed the public land and geophysical jurisdiction responsibilities from the Environment and Sustainable Resource Development (“ESRD”). On March 29, 2014, the AER assumed the energy related functions and responsibilities of ESRD in the areas of environment and water under the Environmental Protection and Enhancement Act and the Water Act, respectively.

Subsequent to December 31, 2018, the Company received a production curtailment order from the Albert Government. Currently, the Company does not believe the production curtailment order will have a material impact for 2019 and is fully cooperating with the Alberta Government. Harvest will be prepared to adjust its 2019 work plan and budget program, if and as required.

ENVIRONMENTAL REGULATION

The oil and gas industry is subject to environmental regulations issued pursuant to a variety of provincial and federal laws. Such legislation provides for restrictions and prohibitions on the release or emission of various substances produced in association with certain oil and gas industry operations. Environmental assessments and approvals are required before initiating most new larger projects, or changes to existing operations. In addition, such legislation requires that well and facility sites are abandoned and reclaimed to the satisfaction of provincial authorities, and in most instances, any liability associated with the sites remains with the company. Compliance with such legislation can require significant expenditures and a breach of such requirements may result in suspension or revocation of necessary licenses and authorizations, civil liability for pollution damage and the imposition of material fines and penalties. It is expected that future changes to environmental regulations, including air pollutants and GHG, water usage and land use planning, will impose further requirements on companies operating in the energy industry. As such, Harvest expects that its future capital and operating costs for environmental protection and controls will likely increase. Harvest cannot predict the changes that could be made to environmental regulations and the resulting financial impact. Given any future regulations will be imposed to the industry as a whole, Harvest believes that any cost increases relating to environmental protection or compliance will not materially impact Harvest’s competitive position. Harvest has assessed potential impact from existing environmental laws and regulations of jurisdictions in which it operates, and provides a summary below.

Climate Change

Federal

Canada committed to an Intended Nationally Determined Contribution of reducing GHG emissions by 30 percent below 2005 levels by 2030, as part of the Paris Agreement at the United Nations Framework Convention on Climate Change Conference held in Paris, France in December 2015. In general, there is some uncertainty with regard to the effectiveness of federal or provincial climate change policies in meeting the commitments for methane and GHG reduction. New federal requirements were released in early 2019 with timelines for compliance to begin as early as January 1, 2020. Cumulative results of program implementation across the individual provinces will drive future federal and provincial policy development.

Alberta

On January 1, 2018 the Government of Alberta (GOA) transitioned to the Carbon Competitiveness Incentive Regulation (CCIR), in which sector specific output-based carbon allocations will be used to ensure competitiveness.

As part of the CCIR, the GOA has released established sector specific bench marks for in-situ oilsands and electricity generation, for facilities generating over 100,000t CO₂e. The GOA has not released benchmark information for conventional oil and gas sectors. The GOA has set the price of carbon at \$30/tonne CO₂e. All fuel consumption, including gasoline and natural gas is to be subject to the levy, with certain exemptions.

Until 2023, fuels consumed, flared, or vented in a production process by conventional oil and gas producers will be exempt from the carbon levy. An exemption also applies for biofuels and fuels sold for export.

On December 13, 2018 the GOA released new regulations to reduce methane emissions from oil and gas operations. The GOA is targeting a 45% reduction in methane emissions by 2025 through a focus on:

- new emission design standards,
- improved measurement and reporting of methane emissions,
- new emission limits will be implemented starting January 1, 2020,
- staged implementation of new standards until January 1, 2023,

The corporation is required to implement the required program including monitoring, reporting and equipment changes at all of its facilities. Harvest has been aware of the proposed changes since their public release in 2018. Harvest has identified a number of options to fund the planning and implementation of the required changes to its facilities while minimizing financial impact to Harvest.

British Columbia

The British Columbia government released its Climate Leadership Plan Discussion Paper in July 2015. Harvest currently has one facility in British Columbia that meets the threshold for reporting within British Columbia. In 2018, the Province of British Columbia increased its price on carbon to \$35/tCO₂e and is expected to adopt the Government of Canada carbon floor pricing once it exceeds the BC floor price. In January of 2019, BC issued its policy committing to meet the federal methane emission reduction requirements. Harvest will manage its commitments on methane reduction through one program that will ensure the appropriate provincial standards will be applied to assets in the respective jurisdictions.

Species at Risk Act - Caribou

In October 2012, the Government of Canada released its Recovery Strategy for the Woodland Caribou Boreal Population in Canada. Alberta has enacted a number of policies and programs to meet these requirements. Alberta is in the process of developing specific ranges plans for caribou management in conjunction with industry members and municipal communities. Alberta continues to develop caribou range recovery plans and to date has not released any new information regarding final plans. Harvest has experience working with First Nations and Federal Regulatory bodies on the expected requirements for development within Caribou Ranges. These lessons have been incorporated into project planning within Woodland Caribou ranges.

Oil Sands Monitoring Plan

On February 3, 2012, the Government of Alberta and the Government of Canada released the Joint Canada-Alberta Implementation Plan for Oil Sands Monitoring (the "Monitoring Plan"). The Monitoring Plan was proposed to provide an improved understanding of the cumulative environmental impact of oil sands development and will increase air, water, land and biodiversity monitoring in the oil sands region. Harvest has maintained its compliance with the program.

Project specific environmental monitoring requirements for BlackGold which have been set out in the Project Environmental Protection and Enhancement Act Approval are also being managed. BlackGold is required to conduct monitoring, mitigation and reporting during construction, operation, and reclamation activities. Harvest continues to meet its ongoing environmental monitoring, mitigation and reporting requirements.

Abandonment and Reclamation

Alberta

In Alberta, the AER maintains a Licensee Liability Rating ("LLR") program to ensure abandonment and reclamation cost of oil and gas wells, facilities and pipelines are covered by the industry. The AER requires oil and gas operators to post financial security deposits to cover the abandonment and reclamation costs in the event that its deemed liabilities exceed its deemed assets. In March 2013, the AER updated the LLR program to address concerns that the previous LLR program significantly underestimated abandonment and reclamation liabilities of AER licensees. The 2013 updates were

implemented over three years, changing how both assets and liabilities were calculated. In addition to the changes in the LLR program, the AER released the Licensee Liability Rating Program Management Plan (LLRPM). This management plan allows operators whose liabilities exceed its assets and who have been issued abandonment orders due to unpaid financial securities to enter a plan to reduce liability. Under the management plan, a licensee may pay outstanding security amounts by quarterly payments, subject to meeting certain obligations. Those obligations include providing detailed financial information to the AER and submitting plans to abandon and reclaim outstanding, inactive wells.

On July 4, 2014, the AER introduced the inactive well compliance program (the "IWCP") to address the growing inventory of inactive wells in Alberta and to increase the AER's surveillance and compliance efforts under Directive 013: Suspension Requirements for Wells ("Directive 013"). The IWCP applies to all inactive wells that are noncompliant with Directive 013 as of April 1, 2015. The objective is to bring all inactive noncompliant wells under the IWCP into compliance with the requirements of Directive 013 within five years. As of April 1, 2015, each licensee was required to bring 20 percent of its IWCP inventory into compliance every year, either by reactivating or suspending the wells in accordance with Directive 013 or by abandoning them in accordance with Directive 020: Well Abandonment. In recent years, Harvest has seen a direct increase in the volume of surface abandonments due to the implementation of the IWCP program.

British Columbia

British Columbia implemented the Liability Management Rating ("LMR") Program, designed to manage public liability exposure related to oil and gas activities by ensuring that permit holders carry the financial risks and regulatory responsibility of their operations through to regulatory closure. Under the LMR Program, the commission determines the required security deposits for permit holders. The LMR is the ratio of a permit holder's deemed assets to deemed liabilities. Permit holders whose deemed liabilities exceed deemed assets will be considered high risk and reviewed for a security deposit. Permit holders who fail to submit the required security deposit within the allotted timeframe may be in non-compliance with the Oil and Gas Activities Act. This criterion did not have a material impact on Harvest's operations in 2018.

RISK FACTORS

Risks Associated with Commodity Prices

Prices received for Conventional production fluctuate significantly. Volatile differentials compound the commodity price risk.

Harvest's Conventional operations are dependent on the prices received for crude oil and natural gas production. Crude oil and natural gas prices are determined by supply and demand factors and are volatile. Similar to other western Canadian oil producers, Harvest has been negatively impacted by price declines in the level of crude oil prices since 2014 and by the continued discounted price of crude oil in Canada to WTI. While absolute crude oil prices have rebounded from recent lows and seem to have stabilized in a fairly tight trading range, levels of global crude oil prices continue to be impacted by global demand and growth expectations, increased output disruptions in Iran and Venezuela, and efforts by OPEC and other key crude oil producing countries to maintain a balanced crude oil supply market. Continued strong US domestic crude oil production, primarily from the Permian basin and from other shale oil plays has put pressure on storage levels throughout the US, capping WTI prices. Harvest continues to experience wide and volatile differentials between the selling price it receives for its light oil, heavy oil and bitumen production and WTI. Heavy oil and bitumen generally receives lower market prices than light crude due to quality differences. The light oil, heavy oil and bitumen price differential continues to be volatile, primarily due to supply and demand imbalances caused by growing U.S. light crude oil production, growing oil sands production in Canada, bottlenecks at the Gulf Coast refineries and pipeline constraints between Alberta and the U.S and between Alberta and the East and West Coasts of Canada. There continues to be significant uncertainty as to whether intra provincial crude oil pipelines can be expanded or built to relieve crude oil currently bottlenecked in Alberta. There is continuous pressure on the price spread between light and heavy crudes to discourage refiners from displacing heavier crudes with increasing volumes of light crude. The magnitudes of the future differentials are uncertain. In late 2018, the Alberta Government announced measures to curtail crude oil production in the Province in order to stabilize prices. It is uncertain as to the extent and duration of

such measures. A significant proportion of Harvest's production is in heavy oil, continued widening of these differentials could have a significant negative impact on Harvest.

North America natural gas reserves and production have significantly increased, primarily as a result of advances in hydraulic fracturing techniques that target liquids rich natural gas shale reservoirs. While demand for natural gas continues to grow, due primarily to exports to Mexico and as a result of US LNG capabilities, prices are very much driven by North American inventory levels. Weather, especially in key consuming areas of North America, is also a critical component that impacts demand, and therefore pricing for natural gas. Natural gas prices in Alberta are negatively impacted by transportation constraints and bottlenecks moving local production out of the province to consuming regions. LNG projects in Canada continue to be delayed and are uncertain.

Even though the prices Harvest receives for its crude oil and natural gas production are referenced to U.S. dollar benchmark prices, Harvest receives the majority of its revenues in Canadian dollars. As such, Harvest's revenue is impacted by changes in the Canadian/U.S. currency exchange rates. The strengthening of the Canadian dollar could have a material adverse effect on the Corporation's revenue and cash from operating activities.

Any prolonged period of low crude oil or natural gas commodity prices, could result in deterioration of Harvest's liquidity and profitability, which may lead to a decision by Harvest to suspend production and/or to curtail development projects. Suspension of production could result in a corresponding substantial decrease in revenues and earnings, which in turn could materially impact Harvest's liquidity. Harvest could also be exposed to significant additional expenses as a result of failure to meet certain commitments relating to development and production activities. Furthermore, low commodity prices could also lead to reserve write-downs and impairment of oil and gas assets.

Power expenses form a significant portion of Harvest's operating costs. Harvest is subject to risks associated with changes in electricity prices.

As a result of the deregulation of the electrical power system in Alberta, electrical power prices have been set by the market based on supply and demand has been volatile. To mitigate Harvest's exposure to the volatility in electrical power prices, the company may enter into fixed priced forward purchase contracts for a portion of Harvest's electrical power consumption in Alberta. In respect of the operations in British Columbia, the power systems are regulated and as such, electrical power costs are not subject to significant volatility. However, there can be no certainty that these power systems will not deregulate in the future.

Electricity prices have been and will continue to be affected by supply and demand for service in both local and regional markets and continued price increases could also have a material adverse effect on Harvest's business and results of operations, as well as its financial condition and the cash from operating activities.

Risks Associated with Conventional Operations

The Conventional operations are subject to a number of operational risks and natural hazards.

The Conventional business includes the drilling and completion of wells, the construction of associated infrastructures, the operations of crude oil and natural gas wells, equipment and facilities, the transportation, processing and storing of petroleum products, and the reclamation and abandonment of properties. These activities are subject to operational and natural hazards such as blowouts, explosions, fire, flooding, gaseous leaks, equipment failures, migration of harmful substances, spills, adverse weather conditions, environmental damage, trespass, malicious acts, unexpected accidents, natural disasters and other dangerous conditions. These incidents could result in damage to Harvest's assets, operational interruptions, suspension of development activities, personal injury or death.

Harvest's corporate EH&S manual has a number of specific policies to minimize the occurrence of incidents, and also to implement emergency response should an incident occur. If areas of higher risk are identified, Harvest will undertake to analyze and recommend changes to reduce the risk including replacement of specific infrastructure. Harvest employs prudent risk management practices and maintains property and liability insurance in amounts consistent with industry standards. In addition, business interruption insurance has been purchased for selected facilities. Harvest may become liable for damages arising from such events against which it cannot insure, which it may elect not to insure or that may result in damages in excess of existing insurance coverage. Costs incurred to repair such damage or pay such liabilities

would reduce Harvest's cash flow. The occurrence of a significant event against which Harvest is not fully insured could have a material adverse effect on Harvest's financial position, operating results and cash flows.

The Conventional exploration and development activities may not yield anticipated production, and the associated cost outlay may not be recovered.

The Conventional exploration and development activities may not yield the intended production or the associated costs to meet production targets may exceed the cash flows from such production. Either case could result in adverse impact to Harvest's future financial condition, cash flows and operating results. There are risks and uncertainties around the ability to commercially produce oil or gas reserves, to meet target production levels, and to complete the activities on schedule and on budget. Seismic data and other exploration technologies Harvest uses do not provide conclusive proof prior to drilling a well that crude oil or natural gas is present or may be produced economically. Even if production is present, Harvest may not be able to achieve or sustain production targets should reservoir production decline sooner than expected. The costs of drilling, completing and tying-in wells are often uncertain, and drilling activities may be extended, delayed or cancelled due to many factors, including but not limited to:

- inability to access drilling locations;
- failure to secure materials, equipment and qualified personnel to perform the activities;
- increased costs of oilfield services;
- delay caused by extreme weather conditions;
- changes in economic conditions, such as commodity prices;
- encountering unexpected formations or pressures;
- blowouts, wellbore collapse, equipment failures and other accidents;
- craterings and sour gas releases;
- accidents and equipment failures;
- uncontrollable flows of oil, natural gas or well fluids; and
- environmental risks.

The markets for crude oil, natural gas and related products depend upon available capacity to refine crude oil and process natural gas, pipeline capacity to transport the products to customers, and other factors beyond Harvest's control.

Harvest's ability to market its production depends upon numerous factors beyond its control, including:

- the availability of capacity to refine crude oil;
- the availability of natural gas processing capacity, including liquids fractionation;
- the availability of pipeline capacity;
- the availability of diluents to blend with heavy oil and bitumen to enable pipeline transportation;
- the effects of inclement weather; and
- changes in regulations.

Producers, including Harvest, often use rail as an alternative transportation method to crude oil pipelines, where economics warrant. Following some major rail accidents, the Transportation Safety Board of Canada and the U.S. National Transportation Board have recommended additional regulations for railway tank cars carrying crude oil. Recommendations include the imposition of higher standards for all DOT-111 tank cars carrying crude oil and the increased auditing of shippers to ensure they properly classify hazardous materials and have adequate safety plans in place. It is expected that more stringent regulations will be put in place to govern rail transportation, which may reduce the ability of railway lines to alleviate pipeline capacity issues and increase rail transportation costs.

Because of uncertainties regarding these factors, Harvest may be unable to market all of the crude oil, natural gas and related products it is capable of producing or to obtain favorable prices for its production.

Absent capital reinvestment or acquisition and development, production levels and cash flows from crude oil and natural gas properties will decline over time.

Harvest's cash from operating activities, absent commodity price increases or cost effective acquisition and development activities of properties, will decline over time in a manner consistent with declining production from typical crude oil and natural gas reserves. Accordingly, absent additional capital investment from other sources, production levels and reserves attributable to Harvest's properties will decline over time as a result of natural declines.

Harvest's future reserves, production and therefore Harvest's cash flows, will be highly dependent on the Corporation's access to acquisition, exploration and development capital and success in exploiting its resource base and acquiring additional reserves. Without reserves additions through acquisition or exploration and development activities, Harvest's reserves and production will decline over time as reserves are produced. There can be no assurance that Harvest will be successful in exploring for, developing or acquiring additional reserves on terms that meet its investment objectives. Also, Harvest may not have sufficient capital resources to invest in acquisition and development activities.

If the operators of Harvest's joint venture properties fail to perform their duties properly, production may be reduced and proceeds from the sale of production may be negatively impacted.

Continuing production from a property and, to a certain extent, the marketing of production are largely dependent upon the capabilities of the operator of the property. To the extent the operator fails to perform its duties properly, production may be reduced and proceeds from the sale of production from properties operated by third parties may be negatively impacted. Although Harvest maintains operative control over the majority of its properties, there is no guarantee that it will remain the operator of such properties or that it will operate other properties that it may acquire.

The level of activity in the Canadian oil and natural gas industry is influenced by seasonal weather patterns.

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. In addition, certain oil and natural gas producing areas are located in areas that are inaccessible other than during the winter months because the ground surrounding the sites in these areas consists of swampy terrain. Seasonal factors and unexpected weather patterns may lead to declines in exploration and production activity or the demand for crude oil and natural gas.

Expiration of licences and leases

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

Defects in title may defeat Harvest's claims to certain properties.

Although title reviews will generally be conducted on Harvest's properties in accordance with industry standards, such reviews do not guarantee or certify that a defect in title may not arise to defeat Harvest's claim to certain properties. If Harvest claims to certain properties are defeated, Harvest's entitlement to the production and reserves associated with such properties could be jeopardized, which could have an adverse effect on Harvest's financial condition and results of operations.

Aboriginal claims could have an adverse effect on Harvest's operations.

Aboriginal peoples have claimed aboriginal title and rights in portions of western Canada. Harvest is not aware that any claims have been made in respect of its properties and assets. However, if a claim arose and was successful, such claim may have a material adverse effect on Harvest's business, financial condition, results of operations and prospects.

Risks Associated with Reserve Estimates

The reservoir and recovery information in reserves reports are estimates and actual production and recovery rates may vary from the estimates and the variations may be significant.

The reserves and recovery information contained in the Reserves Report prepared by the Independent Reserves Evaluator are complex estimates and the actual production and ultimate reserves recovered from Harvest's properties may differ. There are numerous uncertainties inherent in estimating quantities of crude oil and natural gas reserves, including many factors beyond Harvest's control. The reserves data, as disclosed in NI 51-101F1 on SEDAR at www.sedar.com, represents estimates only. In general, crude oil and natural gas reserves and the future net cash flows are based upon a number of variable factors and assumptions, such as commodity prices, future operating and capital costs, historical production from the properties, initial production rates, production decline rates, infrastructure availability and the assumed effects of regulation by governmental agencies (including regulations related to royalty payments), all of which may vary considerably from actual results. All such estimates are to some degree uncertain, and classifications of reserves are only attempts to define the degree of uncertainty involved. For these reasons, estimates of the economically recoverable crude oil and natural gas reserves attributable to any particular group of properties, classification of such reserves based on risk of recovery and estimates of Future Net Revenues expected therefrom, prepared by different evaluators or by the same evaluators at different times, may vary substantially. Harvest's actual production, revenues, royalties, taxes, operating expenditures, abandonment costs and development costs with respect to Harvest's reserves may vary from such estimates, and such variances could be material.

Harvest's proved and probable reserves include undeveloped reserves that require additional capital to bring them on stream. Reserves may be recognized when plans are in place to make the required investments to convert these undeveloped reserves to producing. Circumstances such as a prolonged decline in commodity prices or poorer than expected results from offsetting (Harvest's or industry's) drilling activities could cause a change in the development plans, which could lead to a material change in the reserve estimates.

Estimates with respect to reserves and resources that may be developed and produced in the future are sometimes based upon volumetric calculations, probabilistic methods and upon analogy to similar types of reserves or resources, rather than simply extrapolating actual production history. Estimates based on these methods generally are less reliable than those based on actual production history. Subsequent evaluation of the same reserves or resources based upon production history will result in variations, which may be material, in the estimated reserves or resources.

The Reserve Value of Harvest's Properties as estimated by the Independent Reserves Evaluator is based in part on cash flows to be generated in future years as a result of future capital expenditures. The reserves value of the Properties as estimated by the Independent Reserves Evaluator may not be realized to the extent that such capital expenditures on the Properties do not achieve the level of success assumed in such engineering reports.

Prices paid for acquisitions are based in part on reserves report estimates and the assumptions made in preparing the reserves report are subject to change as well as geological and engineering uncertainty.

The prices paid for acquisitions are based, in part, on engineering and economic assessments made by Independent Reserves Evaluator in related reserves reports. These assessments include a number of material assumptions regarding such factors as recoverability and marketability of crude oil, natural gas and natural gas liquids, future commodity prices, operating costs, future capital expenditures and royalties and other government levies which will be imposed over the producing life of the reserves. Many of these factors are subject to change and are beyond Harvest's control. In particular, the prices of and markets for crude oil and natural gas may change from those anticipated at the time of making such acquisitions. In addition, as discussed above, all engineering assessments involve a measure of geological and engineering uncertainty which could result in lower production and reserves than those currently attributed to Harvest's properties.

Risks Associated with Investment in Joint Ventures

Harvest's investment in joint arrangements is also subject to the same risks that are described above for commodity prices, Conventional operations and reserve estimates.

In the event that DBP redeems the partnership units of KERR, Harvest may be liable for this obligation if DBP does not have sufficient funds for the redemption.

In 2024, KERR has the ability to cause DBP to redeem all its preferred partnership units for consideration equal to its initial contribution plus a specified minimum after-tax internal rate of return. There is a risk that Harvest would have to satisfy this obligation if DBP does not have sufficient funds to complete the redemption obligation. This obligation could also arise upon the termination of this arrangement. See note 10, "Investment in Joint Ventures" in the Audited Consolidated Financial Statements for the year ended December 31, 2018, which are available on SEDAR at www.sedar.com for more information.

Risks Associated with BlackGold Oil Sands Project

Harvest is subject to certain risks associated with the project execution of the SAGD operations.

BlackGold is subject to government regulation. The Phase One of the project, targeting production of 10,000 bbl/d is in the process of initial ramp up and achieved bitumen production of 5,700 bbl/d in the month of December 2018.. The expansion phase of the BlackGold project which increases target production to 30,000 bbl/d was approved by provincial regulators in 2013.

Each stage of the BlackGold project is subject to execution risks that are inherent in similar projects, such as failure to properly design and engineer the project and inability to meet performance targets upon commissioning and project start-up and continued ramp-up.

The development of the BlackGold assets requires substantial capital investment. While Harvest makes every effort to properly and accurately forecast capital and operating expenditures, the possibility remains that capital cost overruns or schedule delays will occur as a result of fluctuating market conditions and unexpected challenges, including but not limited to:

- the availability, scheduling and costs of materials and qualified personnel;
- the complexities around the integration and management of contractors, subcontractors, staff and supplies;
- design and construction errors;
- the impact from changing government regulations and public scrutiny over oil sands development; and
- severe weather conditions.

Harvest's estimates of performance and recoverable volumes from this project are based primarily on sample reservoir data, the results of core drilling and industry performance from other SAGD operations in similar reservoirs. Actual performance and operating results may be different as there can be no certainty that the existing and future SAGD wells will achieve or maintain the planned production rates or steam-to-oil ratio. The inability to achieve anticipated results could be due to one or all of design, facility or reservoir performance, or the presence of problematic geological features. As such, additional drilling, construction of new facilities, modification of existing facilities and additional operating expenses may be required to maintain optimal production levels. Harvest may encounter operational issues unanticipated thus far as BlackGold is Harvest's first SAGD project. Operating costs may vary considerably from expectation as they are impacted by various factors, including but not limited to, the amount and cost of labour to operate the project, the cost of diluent, catalyst and chemicals, the cost of natural gas and electricity, reliability of the facilities, repair and maintenance costs, etc. Transportation costs may be higher than planned as Harvest will depend, to a large degree, on third party vehicles and infrastructure to move its bitumen. There is no assurance that Harvest will have the most cost-effective market access. Failure to meet performance targets may adversely impact Harvest's financial conditions, operating results, cash flows and ultimate recoverability of the project.

Risks Associated with Acquisitions and Dispositions

Harvest may not be able to realize the anticipated benefits of acquisitions and dispositions

Harvest makes acquisitions and dispositions of businesses and assets in the ordinary course of business. Achieving the benefits of acquisitions depends in part on successfully consolidating functions and integrating operations and

procedures in a timely and efficient manner as well as Harvest's ability to realize the anticipated growth opportunities and synergies from combining the acquired businesses and operations with those of Harvest. The integration of acquired businesses may require substantial management effort, time and resources and may divert management's focus from other strategic opportunities and operational matters. Management continually assesses the value and contribution of services provided and assets required to provide such services. In this regard, assets are periodically disposed of, so that Harvest can focus its efforts and resources more efficiently. Depending on the state of the market for such assets, certain assets, if disposed of, could be expected to realize less than their carrying value on the financial statements.

Risks Associated with Harvest's Capital Resources

Harvest must meet certain ongoing covenants; failure to do so may result in debt repayment and consequently may have an adverse effect on Harvest's cash flows.

All of Harvest's term debt is secured by a guarantee from KNOC that covers principal and interest on such term debt. In addition, under the Credit Facility, Harvest and certain subsidiaries of Harvest (designated as material subsidiaries) have provided the lenders security over all of the assets of Harvest and of the material subsidiaries. If an event of default (as defined under the Credit Facility) has occurred, the lenders may demand repayment and exercise rights under the security, including sale of the secured assets. Certain payments by Harvest or the material subsidiaries are prohibited upon an event of default. Harvest must meet certain ongoing covenants under the Credit Facility. The covenants include customary provisions and restrictions related to Harvest and the material subsidiaries' operations and activities, and are described further in the "General Description of Capital Structure" section. Harvest reviews the covenants regularly based on historical financial results. If Harvest does not comply with the covenants, repayments could be required. Though Harvest continually monitors compliance with all of its covenants, there is no assurance that Harvest will be able to comply with the covenants of its Credit Facility or meet repayment requirements to or refinance such obligations if a default occurs. This could result in an adverse effect on Harvest's financial condition and liquidity.

Harvest debt level and financial commitments may negatively impact the business.

Harvest's current debt levels, associated interest payments there on and financial commitments may limit its financial and operating flexibility, which could have significant and adverse consequences to the business, including:

- an increased sensitivity to adverse economic and industry conditions;
- a limited ability to fund future working capital and capital expenditures, engage in future acquisitions or development activities, or to otherwise fully realize the value of assets or opportunities, because a substantial portion of the cash flows are required to service debt and other obligations;
- a limited ability to plan for, or react to, industry trends;
- an uncompetitive position relative to Harvest's competitors whose debt and financial commitment levels are lower; and
- insolvency and bankruptcy.

Harvest's ability to raise capital resources is subject to various risks. Failure to access future financing may result in severe liquidity issues.

Harvest's ability to raise capital resources is subject to certain risks, including disruptions in international credit markets and financial systems, global economy downturns, overall oil and gas industry conditions, credit rating downgrades of its parent, and intense competition from other debt/equity issuers. At December 31, 2018, Harvest has \$2.6 billion of debt outstanding that require repayments in 2020 through to 2023.

To the extent that new or existing sources of financing becomes limited, unavailable or available on unfavorable terms, Harvest's ability to make capital investments, maintain existing assets, meet financing commitments, repay debt may be constrained, and, as a result Harvest's business, operating results and financial conditions may be materially impacted.

Harvest is exposed to exchange rate risks from its U.S dollar denominated debts and to interest rate risks from its floating-rate debts.

Harvest's borrowings under its 4.2% Senior Notes, 3% Senior Notes, 2½% Senior Notes and the related interest charges are denominated in U.S. dollars. As such, material adverse changes to the exchange rates between Canadian dollar and the U.S. dollar could negatively impact Harvest's financial conditions, cash flows and operating results.

Harvest is also exposed to interest rate risks on its Credit Facility and Term Loan due 2023 borrowings as interest rates are determined in relation to floating market rates. Furthermore, Harvest is exposed to interest rate risk when maturing debt is refinanced, or when new debt capital is raised. Significant increase to interest rates could result in reduced future profitability and liquidity. Increased interest rates could also cause capital projects to become uneconomical and might lead to suspension of such projects. Ultimate recoverability of capital assets may be impaired from higher interest rates.

Harvest engages in various risk management activities using derivative instruments, which inherently are subject to risks and uncertainties.

Harvest monitors its exposure to commodity prices, interest rates and foreign exchange rates and, where deemed appropriate, utilizes derivative financial instruments and physical delivery contracts to help mitigate such risks. The utilization of derivative financial instruments may introduce significant volatility into Harvest's reported net earnings, comprehensive income and cash flows. The terms of our various hedging agreements may limit the benefit to Harvest of commodity price increases or changes in interest rates and foreign exchange rates. Harvest may also suffer financial loss because of hedging arrangements if:

- Harvest is unable to produce crude oil or natural gas products to fulfill delivery obligations;
- Harvest is required to pay royalties based on market or reference prices that are higher than hedged prices; or
- counterparties to the hedging agreements are unable to fulfill their obligations under the hedging agreements.

Risks Associated with General Business

Harvest may be adversely affected by changes in laws and regulations relating to the crude oil and natural gas industry.

Harvest's operations could be impacted by changes in federal, provincial and municipal laws and regulations relating to the crude oil and natural gas, including but not limiting to, royalty regimes, income and capital tax laws, land tenure, government incentive programs, production rates controls, safety programs and environmental acts. Changes in laws, regulations and policies could lead to direct reduction in revenue and cash flows, and/or additional compliance costs. Significant adverse changes could also result in suspension of Harvest's exploration, development and production of its oil and gas reserves. Government laws and regulations could be complex and subject to misinterpretation. Non-compliance may lead to significant penalties and fines, loss of licenses and permits or legal claims, all could have material effect to Harvest's financial condition, results of operations and cash flows.

Harvest's operations are subject to environmental regulation pursuant to local, provincial and federal legislation and require us to obtain and maintain regulatory approvals. A breach of such legislation may subject Harvest to liability and result in the imposition of fines as well as higher operating standards that may increase costs.

Harvest's operations and related properties are subject to extensive federal, provincial, and local environmental and health and safety regulations governing, among other things, the production, processing, storage, handling, use and transportation of petroleum and hazardous substances, the emission and discharge of materials into the environment and waste management. If Harvest fails to comply with these regulations, it may be subject to administrative, civil and criminal proceedings by governmental authorities as well as civil proceedings by environmental groups and other entities and individuals. A failure to comply, and any related proceedings, including lawsuits, could result in significant costs and liabilities, penalties, judgments against us or governmental or court orders that could alter, limit or stop the operations.

Consistent with the experience of other Canadian oil and gas, environmental laws and regulations have raised operating costs and at times required significant capital investments in our assets. Harvest believes that its operations are materially compliant with existing laws and regulatory requirements. However, material expenditures could be required

in the future to comply with evolving environmental, health and safety laws, regulations or requirements that may be adopted or imposed in the future.

Harvest operates under permits issued by the federal and provincial governments and these permits may be renewed periodically. The federal and provincial governments may make operating requirements more stringent which may require additional spending. To the extent that the costs associated with meeting any of these requirements are substantial and not adequately provided for, there could be a material adverse effect on Harvest's business and results of operations as well as its financial condition and cash from operating activities.

Harvest's abandonment and reclamation obligations may increase due to changes in environmental laws and regulations.

Harvest is responsible for compliance with terms and conditions of environmental and regulatory approvals and all laws and regulations regarding the abandonment and reclamation of its surface leases, wells, facilities and pipelines at the end of their economic life as well as those for any future expansions. A breach of such legislation and/or regulations may result in the imposition of fines and penalties, including an order for cessation of operations at the site until satisfactory remedies are made. It is not possible to accurately predict the timing and the amount of the abandonment and reclamation costs due to uncertainties around numerous factors, such as regulatory requirements at the time, future labor and material costs, the extent of contamination at the site, future technology and the value of the salvaged equipment. Any adverse changes to any of these factors could result in additional costs to Harvest, which could impact Harvest's cash flows and financial conditions. In addition, in the future Harvest may determine it prudent or may be required by applicable laws, regulations or regulatory approvals to establish and fund one or more reclamation funds to provide for payment of future abandonment and reclamation costs.

Harvest may be subject to litigation and claims under such litigation may be material.

In the normal course of operations, Harvest may become involved in, named as a party to, or be the subject of, various legal proceedings, including regulatory proceedings, tax proceedings and legal actions, related to personal injuries, property damage, property tax, land rights, the environment and contract disputes. The outcome of outstanding, pending or future proceedings cannot be predicted with certainty and it is possible that there could be material adverse developments in pending or future proceedings and as a result, could have a material adverse effect on Harvest's assets, liabilities, business, financial condition and results of operations.

Harvest is subject to income tax assessments and re-assessment, which may result in unfavorable tax consequences.

From time to time, Harvest may take steps to organize its affairs in a manner that minimizes taxes and other expenses payable with respect to the operation of Harvest and its Operating Subsidiaries. Harvest's prior years' income tax and royalty filings are subject to reassessment by government entities. The reassessment of previous filings may result in additional income tax expenses, royalties, interest and penalties which may adversely affect the Corporations cash flows, results from operation and financial position.

Harvest faces strong competition in various aspects of its operations, which may create constraints and negative impact to Harvest's operations.

There is strong competition relating to all aspects of the oil and gas industry. Harvest actively competes for capital, skilled personnel, new sources of crude oil and natural gas reserves, access to drilling rigs, service rigs and other equipment, access to processing facilities and pipeline capacity and new customers or marketing channels with a substantial number of other crude oil and natural gas organizations, many of which may have greater technical and financial resources than Harvest. In areas where access and operations can only be conducted during limited times of the year due to weather or government regulations, the competition for resources is more intense. Constraints resulted from such competition may lead to increased cost outlay and suspension of operational and development activities, which could negatively impact Harvest's financial conditions, operating results and cash flows.

Harvest's operations and performances are heavily reliant on key personnel.

Harvest is dependent on the management of Harvest in respect of the administration and management of all matters relating to Harvest and the Operating Subsidiaries and the properties. The loss of key management could have an adverse effect on Harvest. There can be no assurance that Harvest will be able to continue to retain or attract the necessary personnel for the continuance of development and operation of its business.

Harvest is subject to credit risks in its normal course of business.

Harvest enters into contractual relationships with various counterparties, the majority of which are from or related to the oil and gas industry. If such counterparties do not fulfil their contractual obligations or settle their liabilities, Harvest may suffer losses, may have to proceed on a sole risk basis, may have to forgo opportunities or may have to relinquish leases. While the Corporation maintains a risk management system that limits exposures to any one counterparty, losses due to the failure by counterparties to fulfil their contractual obligations may adversely affect Harvest's financial condition and liquidity.

Harvest may disclose confidential information relating to its business, operations or affairs while discussing potential business relationships or other transactions with third parties.

Although confidentiality agreements are signed by third parties prior to the disclosure of any confidential information, a breach could put us at competitive risk and may cause significant damage to the business. The harm to the business from a breach of confidentiality cannot presently be quantified, but may be material and may not be compensable in damages. There is no assurance that, in the event of a breach of confidentiality, Harvest will be able to obtain equitable remedies, such as injunctive relief, from a court of competent jurisdiction in a timely manner, if at all, in order to prevent or mitigate any damage to its business that such a breach of confidentiality may cause.

STATEMENT OF RESERVES DATA AND OTHER OIL AND GAS INFORMATION

The following items are available on SEDAR at www.sedar.com for the year ended December 31, 2018:

1. Form 51-101F1: Statement of Reserves Data and Other Oil and Gas Information
2. Form 51-101F2: Report of Independent Qualified Reserves Evaluator
3. Form 51-101F3: Report of Management

GENERAL DESCRIPTION OF CAPITAL STRUCTURE

The outstanding securities of Harvest as at December 31, 2018 consisted of common shares, the 4.2% Senior Notes, 3% Senior Notes and the 2½% Senior Notes. At December 31, 2018, Harvest's capital structure included these outstanding securities, the Term Loan due 2020, the Term Loan due 2023 and the Credit Facility.

The authorized capital of Harvest consists of an unlimited number of common shares and an unlimited number of preferred shares issuable in series.

Common Shares

Holders of common shares are entitled: (i) to dividends if, as and when declared by the Harvest Board; (ii) to one vote per Common Share at meetings of shareholders; and (iii) upon liquidation, dissolution or winding up of the Corporation to receive pro rata the remaining property and assets of the Corporation, subject to the rights of shares having priority over the common shares. As of March 29, 2019, all 458.8 million of issued and outstanding common shares are held by KNOC.

Preferred Shares

The preferred shares are issuable in series and the Harvest Board has the right, from time to time, to fix the number of, and to determine the designation, rights, privileges, restrictions and conditions attaching to the preferred shares of each series. As of the date hereof, there were no preferred shares issued and outstanding.

2½% Senior Notes

The following is a summary of the material attributes and characteristics of the Fiscal Agency Agreement dated June 16, 2016 a copy of which is filed as a Material Contract on SEDAR at www.sedar.com

The 2½% Senior Notes were issued on June 16, 2016. The 2½% Senior Notes mature on April 14, 2021. Interest on the 2½% Senior Notes is paid semi-annually in arrears on April 14 and October 14 of each year. The 2½% Senior Notes are unsecured senior obligations of the Corporation and rank equally with its existing and future unsecured senior indebtedness. KNOC has fully, unconditionally and irrevocably guaranteed the 2½% Senior Notes. The notes are not redeemable prior to maturity except upon the occurrence of certain events related to tax law. Upon the occurrence of a Change in Control, each holder of the 2½% Senior Notes will have the right to require Harvest to redeem all or any part of such holder's 2½% Senior Notes at a redemption price equal to 100% of the principal amount thereof plus accrued and unpaid interest. The 2½% Senior Notes are listed on the Singapore Exchange.

2½% Senior Notes

The following is a summary of the material attributes and characteristics of the Fiscal Agency Agreement dated May 14, 2013, a copy of which is filed as a Material Contract on SEDAR at www.sedar.com

The 2½% Senior Notes were issued on May 14, 2013 and matured on May 14, 2018. Interest on the 2½% Senior Notes were paid semi-annually in arrears on May 14 and November 14 of each year. The 2½% Senior Notes were unsecured senior obligations of the Corporation and ranked equally with its existing and future unsecured senior indebtedness. KNOC had fully, unconditionally and irrevocably guaranteed the 2½% Senior Notes. The notes were not redeemable prior to maturity except upon the occurrence of certain events related to tax law. Upon the occurrence of a Change in Control, each holder of the 2½% Senior Notes would have the right to require Harvest to redeem all or any part of such holder's 2½% Senior Notes at a redemption price equal to 100% of the principal amount thereof plus accrued and unpaid interest. The 2½% Senior Notes were listed on the Singapore Exchange. On May 14, 2018, Harvest repaid the 2½% Senior Notes using the proceeds from the 4.2% Senior Notes and the Term Loan due 2023.

3% Senior Notes

The following is a summary of the material attributes and characteristics of the Fiscal Agency Agreement dated September 21, 2017, a copy of which is filed as a Material Contract on SEDAR at www.sedar.com

On September 21, 2017, Harvest issued US\$285 million 3% senior notes for net proceeds of US\$283.2 million. On November 6, 2017, Harvest issued an additional US\$200 million of 3% senior notes for net proceeds of US\$198.5 million. The 3% senior notes are unsecured and mature on September 21, 2022, with interest payable semi-annually on March 21 and September 21 of each year. The 3% Senior Notes are unsecured senior obligations of the Corporation and rank equally with its existing and future unsecured senior indebtedness. KNOC has fully, unconditionally and irrevocably guaranteed the 3% Senior Notes. The notes are not redeemable prior to maturity except upon the occurrence of certain events related to tax law. Upon the occurrence of a Change in Control, each holder of the 3% Senior Notes will have the right to require Harvest to redeem all or any part of such holder's 3% Senior Notes at a redemption price equal to 100% of the principal amount thereof plus accrued and unpaid interest. The 3% Senior Notes are listed on the Singapore Exchange.

4.2% Senior Notes

The following is a summary of the material attributes and characteristics of the Fiscal Agency Agreement dated May 1, 2018, a copy of which is filed as a Material Contract on SEDAR at www.sedar.com

On May 1, 2018, Harvest issued US\$397.5 million 4.2% senior notes for net proceeds of US\$395.8 million. The 4.2% senior notes are unsecured and mature on June 1, 2023, with interest payable semi-annually on June 1 and December 1 of each year. The 4.2% Senior Notes are unsecured senior obligations of the Corporation and rank equally with its existing and future unsecured senior indebtedness. KNOC has fully, unconditionally and irrevocably guaranteed the 4.2% Senior Notes. The notes are not redeemable prior to maturity except upon the occurrence of certain events related to tax law. Upon the occurrence of a Change in Control, each holder of the 4.2% Senior Notes will have the right

to require Harvest to redeem all or any part of such holder's 4.2% Senior Notes at a redemption price equal to 100% of the principal amount thereof plus accrued and unpaid interest. The 4.2% Senior Notes are listed on the Singapore Exchange.

Term Loan due 2020

The following is a summary of the material attributes and characteristics of the Term Loan due 2020 agreement, a copy of which is filed as a Material Contract on SEDAR at www.sedar.com:

On February 17, 2017 Harvest entered into a term loan with The Export-Import Bank of Korea. The Term Loan is a \$500 million 2.27% per annum fixed rate loan, which was fully drawn on February 24, 2017 and matures on February 24, 2020. Interest is paid semi-annually in February and August. The Term Loan due 2020 is guaranteed by KNOC and contains no financial covenants. The Term Loan due 2020 is unsecured.

Term Loan due 2023

The following is a summary of the material attributes and characteristics of the Term Loan due 2023 agreement, a copy of which is filed as a Material Contract on SEDAR at www.sedar.com:

On May 11, 2018 Harvest entered into a term loan with Sumitomo Mitsui Banking Corporation. The Term Loan due 2023 is a \$300 million variable rate loan, which was fully drawn on May 11, 2018 and matures on May 11, 2023. The Term Loan due 2023 is guaranteed by KNOC and contains no financial covenants. The Term Loan due 2023 is unsecured.

Credit Facility

On February 24, 2017, Harvest entered into a \$500 million revolving credit facility with a maturity date of February 24, 2020, with a syndicate of nine financial institutions. The Credit Facility is guaranteed by KNOC up to \$500 million and is secured by a first floating charge over all of the assets of Harvest. Harvest pays a floating interest rate based on a margin pricing grid based on the credit ratings of KNOC. See "Credit Ratings" in this AIF for details. At December 31, 2018, \$386.8 million was drawn from The Credit Facility, excluding \$13.6 million of letters of credit.

In addition to the standard representations, warrants and covenants commonly contained in a credit facility, the Credit Facility agreement contains the following limitations, among others:

- (a) A requirement to ensure Harvest and its material subsidiaries' tangible assets constitute at least 60% of consolidated tangible assets;
- (b) A requirement to provide cash collateral for the excess, if any, of month end net mark to market hedge liabilities less US\$100 million, or for month end cash management obligations less \$75 million; and
- (c) A limitation on the payment of distributions to shareholders except for permitted distributions. The basis for permitted distributions include allowed aggregate distributions for the most recent fiscal quarters (including the amount of the proposed distribution) in amounts less than EBITDA⁽¹⁾ minus capital expenditures, cash interest and cash taxes paid during the most recent four fiscal quarters by Harvest and its restricted subsidiaries. As well as there is a provision for other allowed distributions to the extent of US\$171,000,000 plus proceeds received by Harvest after February 24, 2017 from the issuance of equity or intercompany subordinated debt; and for additional cumulative distributions of \$50,000,000.

⁽¹⁾ EBITDA is the aggregate of the past four quarters Net Earnings plus: Interest and financing charges, future income tax expense, depletion, depreciation and amortization, unrealized gains/losses on risk management contracts, unrealized currency exchange gains/losses and other non-cash items.

A copy of the Credit Facility agreement dated February 24, 2017 is filed as a Material Contract on SEDAR at www.sedar.com

CREDIT RATINGS

The 4.2%, 3% and 2½% Senior Notes are rated "AA" by S&P and "Aa2" by Moody's as they are guaranteed by KNOC. KNOC was rated as "AA" by S&P and "Aa2" by Moody's at December 31, 2018.

Credit ratings are intended to provide investors with an independent measure of credit quality of any issue of securities. Credit ratings are not recommendations to purchase, hold or sell the debt securities in as much as such ratings do not comment as to market price or suitability for a particular investor. Any rating may not remain in effect for any given period of time, or may be revised or withdrawn entirely by a rating agency in the future, if in its judgment circumstances so warrant.

Moody's credit ratings are on a rating scale that ranges from Aaa to C, which represents the range from highest to lowest quality of such securities rated. Moody's applies numerical modifiers 1, 2 and 3 in each generic rating classification from Aa through Caa. The modifier 1 indicates that the issue ranks in the higher end of its generic rating category, the modifier 2 indicates a mid-range ranking and the modifier 3 indicates that the issue ranks in the lower end of its generic rating category. A Moody's rating outlook is an opinion regarding the likely direction of a rating over the medium term. A rating of Aa2 by Moody for the 4.2%, 3% and 2½% Senior Notes is the third highest of ten in the investment grade categories and is considered to be high grade and of very low credit risk.

S&P's credit ratings are on a rating scale that ranges from AAA to D, which represents the range from highest to lowest quality of such securities rated. The ratings from AA to CCC may be modified by the addition of a plus (+) or minus (-) sign to show relative standing within the major rating categories. An S&P rating outlook assesses the potential direction of a long-term credit rating over the intermediate term. In determining a rating outlook, consideration is given to any changes in the economic and/or fundamental business conditions. A rating of AA by S&P for the 4.2%, 3% and 2½% Senior Notes is the third highest of ten in the investment grade category. An obligor rated "AA" has very strong capacity to meet its financial commitments. It differs from the highest-rated obligors only to a small degree.

Harvest pays both S&P and Moody's a fee for every new rated bond issue plus an annual fee based on the total amount of outstanding rated debt. Other than the mentioned fees, Harvest has not made any payments to the credit rating agencies in the past three years for any other services.

MARKET FOR SECURITIES

2½% Senior Notes Due 2018

The 2½% Senior Notes were listed on the Singapore Exchange (the "SGX"). The following sets forth the high, low and closing trading prices and aggregate trading volume of the 2½% Senior Notes in 2018, as reported by the SGX for the periods indicated:

2018	High US\$	Low US\$	Close US\$	Volume Traded
January	100.060	99.884	99.965	4,756
February	99.959	99.881	99.954	7,000
March	99.940	99.915	99.940	3,000
April	99.958	99.958	99.958	974
May	N/A	N/A	N/A	N/A

(1) Notes were repaid on May 11, 2018

2½% Senior Notes Due 2018

The 2½% Senior Notes are listed on the Singapore Exchange (the "SGX"). The following sets forth the high, low and closing trading prices and aggregate trading volume of the 2½% Senior Notes in 2018, as reported by the SGX for the periods indicated:

2018	High US\$	Low US\$	Close US\$	Volume Traded
January	N/A	N/A	N/A	N/A
February	N/A	N/A	N/A	N/A
March	N/A	N/A	N/A	N/A
April	N/A	N/A	N/A	N/A
May	N/A	N/A	N/A	N/A
June	N/A	N/A	N/A	N/A
July	N/A	N/A	N/A	N/A
August	96.250	96.200	96.250	7,772
September	96.360	96.360	96.360	2,000
October	N/A	N/A	N/A	N/A
November	N/A	N/A	N/A	N/A
December	N/A	N/A	N/A	N/A

(1) For the months with the annotation of 'N/A' there exists no corresponding trade data

3% Senior Notes Due 2022

The 3% Senior Notes are listed on the Singapore Exchange (the "SGX"). The following sets forth the high, low and closing trading prices and aggregate trading volume of the 3% Senior Notes in 2018, as reported by the SGX for the periods indicated:

2018	High US\$	Low US\$	Close US\$	Volume Traded
January	98.958	98.649	98.649	8,535
February	N/A	N/A	N/A	N/A
March	96.659	96.659	96.659	4,000
April	97.114	96.144	96.155	16,410
May	97.200	96.306	97.200	13,795
June	96.660	96.660	96.660	3,500
July	96.717	96.410	96.628	13,900
August	N/A	N/A	N/A	N/A
September	97.165	97.165	97.165	250
October	N/A	N/A	N/A	N/A
November	97.150	97.150	97.150	7,915
December	N/A	N/A	N/A	N/A

(1) For the months with the annotation of 'N/A' there exists no corresponding trade data

4.2% Senior Notes Due 2023

The 4.2% Senior Notes are listed on the Singapore Exchange (the "SGX"). The following sets forth the high, low and closing trading prices and aggregate trading volume of the 4.2% Senior Notes in 2018, as reported by the SGX for the periods indicated:

2018	High US\$	Low US\$	Close US\$	Volume Traded
May	101.850	100.500	101.850	8,940
June	101.438	101.320	101.438	4,200
July	101.334	101.037	101.334	7,300
August	101.176	100.930	101.176	3,183
September	101.716	101.314	101.314	3,261
October	101.636	101.690	101.636	5,510
November	N/A	N/A	N/A	N/A
December	101.800	101.800	101.800	650

(1) There exists no corresponding trade data for January – April 2018 as the 4.2% Notes were issued in May 2018.

(2) For the month with the annotation of 'N/A' there exists no corresponding trade data

Common Shares

Harvest's common shares are not publicly traded, and at March 29, 2019, 458.8 million common shares have been issued to KNOC.

DIRECTORS AND OFFICERS OF HARVEST

The names, jurisdiction of residence, present positions and offices with Harvest and principal occupations during the past five years of the directors and executive officers of Harvest as at December 31, 2018 are set out in the table below. Directors are elected or appointed yearly by Shareholder's resolution for the ensuing year or until their successors are elected or appointed.

Name and Jurisdiction of Residence	Position with Harvest	Principal Occupation(s) and Other Relevant Experiences
Allan Buchignani Alberta, Canada	Director since May 2013	Mr. Buchignani is an accomplished executive with extensive experience in operations, strategic planning, profit & loss management and team building. Since 2009, he has acted as a consultant utilizing his leadership and business experience to advise management teams. From 2001 to 2009, Mr. Buchignani held senior positions with ENMAX Corporation and ENMAX Power Corporation. He has been a member of the STARS, Stoker Resources Ltd. and Furry Creek Power Ltd. boards.
Ohkyeu Baek	Director and Chairman since May 2018	Mr. Baek was appointed Chairman of Harvest in May, 2018. Mr. Baek is Executive Vice President, E&P Group at KNOC. Mr. Baek holds a Master of Energy Resources Engineering from Seoul National University.

Name and Jurisdiction of Residence	Position with Harvest	Principal Occupation(s) and Other Relevant Experiences
Jim Causgrove Alberta, Canada	Chief Operating Officer, from November 2017 to November 2018	Mr. Causgrove has over 35 years of experience in the energy sector. Prior to joining Harvest as Chief Operating Officer, Conventional in November 2017, Mr. Causgrove held senior executive positions at Pengrowth Corporation from 2005 to 2015. Prior thereto, Mr. Causgrove served as Senior Vice President and Chief Operating Officer of SemCAMS, ULC. and also served over 25 years of with Chevron, where he served as Manager of New Growth Opportunities Group and Senior Vice President and Chief Operating Officer of Central Alberta Midstream and is currently an Independent Director of Serinus Energy Inc. since September 2017. Mr. Causgrove holds Bachelor of Science in Chemical Engineering from the University of Alberta and is a Registered Professional Engineer. As of November 2018, Mr. Causgrove was no longer an officer of the Corporation, however remains as an Advisor to the Chief Operating Officer
Cheolwoong Choi	Director and Chief Financial Officer since May 2018	Mr. Cheolwoong Choi was appointed Chief Financial Officer and Director of Harvest in May 2018. Mr. Choi joined KNOC in 1996 working in various positions in the Finance and Accounting Departments. Mr. Choi was previously a Director of Dana Petroleum (UK based subsidiary of KNOC) from November 2014 to May 2018 and served previously as a Director of Harvest from November 2014 to April 2016. Mr. Choi graduated from Chung-Ang University with a Bachelor of Business Administration.
Randall Henderson Alberta, Canada	Director since May 2013	Mr. Henderson is a senior finance executive and corporate director who has consulted to the boards of directors and executive management teams of both publicly traded and private entities since 2005. Since 2001, Mr. Henderson has served in either a full-time or consulting capacity as the Chief Financial Officer of several significant public and private entities. He is President of Henderson Corporate Financial Consulting Inc. Mr. Henderson has been a director and chairman of the board or audit committees of Cortex Business Solutions Inc. since 2011 and PGNX Capital Corp. from 2008 to 2014.
Dae-Jung Hong	Director from April 2016 to January 2019	Mr. Hong joined KNOC in 1991 and is currently Vice President, Finance Management Department for KNOC. Prior thereto, he was Senior Manager, Finance Management Department from 2010 to 2014. Mr. Hong resigned as a Director of Harvest as at January 11, 2019.

Name and Jurisdiction of Residence	Position with Harvest	Principal Occupation(s) and Other Relevant Experiences
Byeongil Kim	Director and President & Chief Executive Officer since July 2018	Mr. Byeongil Kim was appointed President & Chief Executive Officer and Director of Harvest in July 2018. Mr. Kim first joined KNOC in 1991, and most recently was KNOC's Vice President of Harvest Business Department. Mr. Kim holds a Master of Business Administration, Financial Management and Markets from Arizona State University, as well as a Bachelor of Arts, Communication from Seoul National University.
Richard Kines Alberta, Canada	Director since May 2013	Mr. Kines currently consults in senior financial executive roles. He has over 37 years of business experience in the upstream and downstream sectors of the oil and gas industry. From 2002 to 2012 Mr. Kines served as Vice President of Finance and Chief Financial Officer at Connacher Oil and Gas Limited.
Seungkook Lee	Director and Chairman of the Board from April 2016 to April 2018	Mr. Lee joined KNOC in 1987 and is currently Executive Vice President for Exploration & Production Group for KNOC. Prior thereto, he was Vice President for Exploration Department from 2013 to 2016 and previous to that he was Managing Director of Iraq Office from 2009 to 2013. He has also held the position of Vice President for Production Operation Department at KNOC. Mr. Lee resigned as Director and Chairman of Harvest as at April 5, 2018.
Sungki Lee Alberta, Canada	Director and Chief Financial Officer since July 2014. Acting President & CEO from February 2018 to July 2018	Mr. Lee is currently the Chief Financial Officer and Acting President & CEO at Harvest. He has worked for KNOC since 1993 and has held positions including Senior Manager, Asset Optimization Department, Senior Manager, Business Development Department, Manager, E&P Planning Department, and Manager, Vietnam Office. Mr. Lee resigned as Director and Acting President & CEO as at July 16, 2018.
Keon Mug Lim	Director since July 2018	Mr. Lim was appointed as a Director of Harvest in July 2018. Mr. Lim joined KNOC in 1992 and is currently Vice President, Harvest Business Department. Mr. Lim holds both a Bachelor of Engineering and Master of Science in Mineral & Petroleum Engineering from Seoul National University.

Name and Jurisdiction of Residence	Position with Harvest	Principal Occupation(s) and Other Relevant Experiences
Jaegu Nam	Director from March 2018 to May 2018	Mr. Nam was the Vice President of KNOC's America Business Department. Mr. Nam was a Director of Harvest from March to May 2018.
Jean-Pierre Pham Alberta, Canada	Vice President – Legal, General Counsel & Corporate Secretary	Mr. Jean-Pierre (JP) Pham was appointed as Vice President, Legal, General Counsel & Corporate Secretary of Harvest in December 2018. Jean-Pierre was previously a partner at Bennett Jones LLP, a major law firm where his 20-year practice focused on the development of energy projects, oil and gas mergers and acquisitions, international joint ventures, midstream transactions and infrastructure projects in Canada and internationally. Mr. Pham obtained a J.D. from the University of Calgary. He is a member of the Association of International Petroleum Negotiators (AIPN), the Canadian Bar Association and the International Bar Association.
Grant Ukrainetz Alberta, Canada	Vice President, Treasurer from February 2013 to February 2016 and Vice President, Finance since March 2016	Prior to joining Harvest in 2012 as Treasurer, Mr. Ukrainetz was Treasurer then VP Corporate Development at Connacher Oil and Gas Limited from 2006 to 2012. Mr. Ukrainetz was Vice President, Treasurer from February 2013 until appointed Vice President, Finance in March 2016.

Name and Jurisdiction of Residence	Position with Harvest	Principal Occupation(s) and Other Relevant Experiences
Paul Vander Valk Alberta, Canada	Chief Operating Officer since December 2017	Mr. Vander Valk has over 20 years of progressive Oil Sands experience and joined Harvest in 2017, with responsibility to develop and operate the BlackGold oil sands assets. Prior to joining Harvest, he worked for Cenovus Energy, developing & operating their industry leading SAGD projects in various leadership positions; most recently as Vice President, Production Systems. Over his career he has also worked on various SAGD pilots and technologies at Gulf Canada Resources, Rio Alto Exploration and Nexen Inc. Mr. Vander Valk has a degree in Civil Engineering from the University of Calgary, is a registered Professional Engineer with APEGA and received a MBA from Edinburgh Business School.
Doug Walker Alberta, Canada	Vice President, Business Analysis and Reporting	Mr. Walker joined Harvest in August 2010 as Area Manager, Peace River Arch and SE Saskatchewan. Prior to joining Harvest, Mr. Walker was the North West and West Central Alberta Team Leader at Provident Energy from 2007 to 2010. Mr. Walker was Vice President, Engineering of Harvest from November 2012 to February 2015 and appointed Vice President, Operations and Development in February 2015. Mr. Walker was appointed Vice President, Exploitation in March 2016 and is currently Vice President, Business Analysis and Reporting. Mr. Walker's prior industry experience includes technical, business and senior management positions with Noise Solutions, Stellarton Energy, Jordan Petroleum and Gulf Canada Resources.
Jinha Woo	Director since January 2019	Mr. Woo joined as a Director of Harvest in January 2019. Mr. Woo is currently Vice President of Finance and Accounting Department at KNOC.

As at December 31, 2018, none of the directors and executive officers of Harvest and their associates and affiliates, directly or indirectly, beneficially owned, controlled or directed any of the outstanding shares of Harvest. Directors and officers of Harvest may, from to time, be involved with the business and operations of other oil and gas issuers, in which case a conflict may arise. Properties will not be acquired from officers or directors of Harvest or persons not at arm's length with such persons at prices which are greater than fair market value, nor will properties be sold to officers or directors of Harvest or persons not at arm's length with such persons at prices which are less than fair market value in each case as established by an opinion of an independent financial advisor and approved by the independent members of the Harvest Board. Any such conflicts shall be resolved in accordance with the procedures and requirements of the relevant provisions of the Alberta Business Corporation Act (ABCA), including the duty of such directors and officers to act honestly and in good faith with a view to the best interests of Harvest.

Committees of the Board of Directors

Name of Director	Audit Committee	Upstream Reserves, Safety & Environment Committee	Compensation and Corporate Governance Committee
Allan Buchignani	✓	Chair	-
Ohkyeu Baek ⁽¹⁾	-	-	Chair
Randall Henderson	Chair	-	✓
Richard Kines	✓	✓	-
Dae-Jung Hong ⁽²⁾	-	-	✓
Byeongil Kim ⁽³⁾	-	✓	-
Cheolwoong Choi ⁽⁴⁾	-	-	-
Jinha Woo ⁽⁵⁾	-	-	✓
Keon Mug Lim ⁽⁶⁾	-	-	-

(1) Effective May 2018, Mr. Ohkyeu Baek was appointed Director, Chairman of the Board and Chair of the Board and Chair of the Compensation and Corporate Governance Committee.

(2) Effective January 2019, Mr. Dae-Jung Hong was no longer a Director.

(3) Effective July 2018, Mr. Kim was appointed President & CEO and Director of Harvest.

(4) Mr. Cheolwoong Choi is not on any committee; however he is on the Board of Directors.

(5) Mr. Jinha Woo was appointed as a Director of Harvest, effective January 11, 2018.

(6) Mr. Keon Mug Lim is not any committee; however he is on the Board of Directors.

Audit Committee Information

Audit Committee Mandate and Terms of Reference

The Mandate and Terms of Reference of the Audit Committee of the Harvest Board is attached hereto as Appendix "A". The members of the Audit Committee are Messrs. Randall Henderson, Allan Buchignani and Richard Kines.

Composition of the Audit Committee

The Harvest Board has determined that each member of the Audit Committee is "financially literate" in accordance with National Instrument 52-110. In considering criteria for the determination of financial literacy, the Harvest Board looked at the director's ability to read and understand a set of financial statements of a public oil and gas company that is comparable to Harvest in size and nature of business as well as the director's past experience in reviewing or overseeing the preparation of financial statements.

The Harvest Board has also determined that Messrs. Henderson, Buchignani and Kines are "independent" in accordance with National Instrument 52-110.

Relevant Education and Experience

Name (Director Since)	Principal Occupation & Biography
<p>Randall Henderson (May 2013)</p> <p><u>Other Canadian Public Board of Director Memberships</u> Cortex Business Solutions Inc.</p>	<p>Mr. Henderson is a senior finance executive and corporate director who consults to the Board of Directors and executive management teams of both publicly-traded and private entities. He is President of Henderson Corporate Financial Consulting Inc. and a director and chairman of the Board of Cortex Business Solutions Inc. Since 2001, Mr. Henderson has served in either a full-time or consulting capacity as the Chief Financial Officer of several significant public and private entities. In 2003, he was nominated for Canada's CFO of the Year Award. He is a member of the Chartered Professional Accountants of Canada (CPA) and is an executive leadership program alumnus of the Stanford Business School of Stanford University. In 2008, he was awarded the Corporate Finance (CF) designation by the CICA. In 2009, he successfully completed the Directors Education Program offered by the Institute of Corporate Directors of Canada and was awarded its designation of ICD.D.</p>
<p>Allan Buchignani (May 2013)</p> <p><u>Other Canadian Public Board of Director Memberships</u> N/A</p>	<p>Mr. Buchignani is an accomplished executive with extensive experience in operations, strategic planning, profit & loss management and team building. Currently, he acts as a consultant utilizing his leadership and business experience to advise management teams. From 2001 to 2009, Mr. Buchignani held senior positions with ENMAX Corporation and ENMAX Power Corporation. He has been a member of the STARS, Stoker Resources Ltd. and Furry Creek Power Ltd. boards. He holds a Bachelor of Science degree in Mechanical Engineering from Washington State University and is a Registered Professional Engineer. In addition, he has completed the Institute of Corporate Directors Designation and the Institute of Corporate Directors Financial Literacy Program.</p>

Richard Kines (May 2013)	Mr. Kines is a senior financial executive with over 35 years of business experience in the upstream and downstream sectors of the oil and gas industry, the oil and gas services industry, merchant banking and public accounting service sector in domestic and internal arenas. Over the past 25 years he has served as a Vice President of Finance and / or Chief Financial Officer with public and private companies. Mr. Kines is a graduate of the Institute of Corporate Directors, a Chartered Accountant and holds a Bachelor of Commerce degree from the University of Saskatchewan.
<u>Other Canadian Public Board of Director Memberships</u>	
N/A	

Pre-Approval of Policies and Procedures

All non-audit or special services performed by any independent accountants must be first approved by the Audit Committee. All remuneration provided to Harvest's auditor and any independent accountants are also approved by the Audit Committee. Management presents to the Audit Committee at least annually a report of all services performed or to be performed by the independent accountants. The Audit Committee has delegated authority to the Chair of the Audit Committee to preapprove any permitted services, including the fees and terms of the proposed services, by the independent accountants if such services are set to be commenced before the next Audit Committee meetings. All pre-approvals granted by the Audit Committee Chair must be presented to the full Audit Committee at its next meeting. Prior to granting of any pre-approval, the Audit Committee or its Chair, as the case may be, must be satisfied that the performance of the services in question will not compromise the independence of the independent accountants. The Harvest's auditor meets with the Audit Committee, without management present, at least annually and more often at the request of either the Audit Committee or the auditor.

External Auditor Service Fees

The aggregate fees billed by Harvest's external auditors, KPMG LLP ("KPMG") in the last two fiscal years for audit services are as follows:

For the year ended December 31	2018	2017
Audit Fees ⁽¹⁾	\$540,000	\$602,000
Tax Fees ⁽²⁾	19,843	9,600
Total	\$559,843	\$611,600

(1) Audit Fees represent the aggregate fees for services related to the audit of annual financial statements and review of quarterly financial statements.

(2) Represents the aggregate fees billed for tax compliance, tax advice and tax planning in respect of the financial year.

EXECUTIVE COMPENSATION

Compensation and Corporate Governance Committee

Pursuant to a delegation of authority from the Board of Directors, the Compensation and Corporate Governance Committee ("CCGC") is responsible for establishing and overseeing the administration of Harvest's compensation program. The CCGC is responsible for overseeing all compensation and human resources issues relating to directors, executive officers and employees of Harvest as well as senior officer succession and development. Specific responsibilities of the CCGC relating to executive compensation are documented in the CCGC Mandate and listed below:

- to review the compensation philosophy and remuneration policy for employees of Harvest and to consider changes to improve Harvest's ability to recruit, retain and motivate employees;
- establish the goals and objectives of the CEO and annually review the performance of the CEO relative to the corporate goals and objectives;
- annually review and approve the CEO's recommendations of the overall compensation and other conditions of employment of Harvest's officers and employees, satisfy itself that the overall compensation is in accordance with the business plans of Harvest and with generally accepted compensation levels with comparable companies; and
- assist the Board with issues relating to succession planning, including appointing, training and monitoring the development and performance of the senior officers of Harvest.

Details relating to the composition of the CCGC are disclosed under "Directors and Officers of Harvest" within this AIF. The members of the CCGC have the skills and knowledge required to make decisions on the suitability of the Corporation's compensation policies and practices by virtue of their experience as senior officers or directors of public and private companies. For discussion regarding the independence of each CCGC members, see Section 7 of "Corporate Governance Disclosure" within this AIF.

Compensation Discussion & Analysis

Compensation Strategy

The compensation strategy discussion in this section applies to all Harvest's Named Executive Officers ("NEOs") except for NEOs that are secondees. For information regarding the secondee NEOs, see the "Secondees Compensation" section herein.

Harvest's NEO compensation structure consists of base salary, benefits and perquisites. Harvest has historically awarded short term incentives and also has a policy governing the award of long-term incentive amounts. These components have historically supported Harvest's long-term sustainability strategy and the following objectives:

- alignment of NEO and shareholder's interests;
- attraction and retention of highly qualified individuals by remaining competitive with Harvest's peers;
- focus on performance by rewarding NEOs for the achievement of business objectives and financial results; and
- support of retention of key individuals for leadership succession.

Harvest has adopted, in principle, a "pay for performance" philosophy throughout the organization and this approach is reflected in the appropriate differentiation in potential annual grants of short-term incentive and long-term incentive amounts provided to individual members of the executive team. Harvest believes that employees at more senior levels have a greater degree of influence on both departmental and organizational performance. As a result, a greater portion of Harvest's NEOs' potential total compensation is comprised of incentive payments which are more performance weighted. However, for the past three years the CCGC has exercised its discretion and chosen not to award any short term incentives and nominal long term incentive amounts due to financial constraints (see "CCGC's Use of Discretion" below). As Harvest NEOs compensation is more heavily tied to short and long term incentive compensation, NEOs are more heavily impacted by these decisions.

The CCGC is mandated to regularly review the compensation structure of NEO compensation, including the components and the mix of such components.

- Base salaries, benefits and perquisites are intended to provide fixed compensation that reflects Harvest's compensation philosophy to set aggregate NEO salaries and benefits at competitive levels, relative to individual skill sets, expertise and the oil and gas industry. The key objective is to attract and retain highly qualified executives.
- Short and long-term incentive payments are cash awards that are performance based, and intended to align with the shareholder's interests.

- Short-term incentive amounts, expressed as a percentage of base salaries, are measured on corporate and individual performance. The short-term incentive payments are made in the first quarter of each year and are determined based on the prior year performance of Harvest and the individual NEOs.

The CCGC, when making base salary determinations, takes into consideration the base salary amount paid to executives of other similarly sized oil and gas companies with a view to ensuring that Harvest's overall compensation packages are competitive. The CCGC utilizes compensation information from annual participation in the Mercer Total Compensation Survey ("MTCS") for the Energy Sector (Canada) published by Mercer Canada ("Mercer"). The MTCS provides a comprehensive perspective on the energy industry reward levels in Canada for any size of organization in any sector of the industry. Mercer, and its parent organization Mercer Global, are leaders in consulting in the area of human resources. Please see Appendix C for the peer groups that participated in the MTCS.

Seconded Compensation

Harvest's human resources include secondees assigned by KNOC, including the Chief Executive Officer, Chief Financial Officer and other NEOs. These individuals do not participate in Harvest's short and long-term incentive plans nor do they receive salaries based on Harvest's salary structure. Pursuant to an agreement with KNOC, Harvest will compensate these employees with base salaries, annual bonus and benefits. Base salary is differentiated based on an annual performance assessment performed by KNOC senior management. The annual bonus is determined in accordance with individual performance and KNOC corporate performance assessed by the Korean Government. Benefits are provided based on KNOC's Personnel Policy. Harvest complies with all withholding, remittance and reporting requirements in Canada, in respect of any remuneration paid to the seconded employees.

Elements of Compensation

The discussion in this section is applicable to all Harvest NEOs except for secondees assigned by KNOC. For information regarding secondee compensation see the "Seconded Compensation" section herein. The incentive programs (short-term and long-term) are available to all permanent employees of Harvest, except for KNOC secondees, and the following discussion of incentives describes the programs generally and with the respect to the NEOs specifically, as applicable.

Base Salaries

Base salaries for the NEOs are determined with reference to comparable marketplace salaries, as published by Mercer. In addition to the information published by Mercer, base salaries are adjusted based on an overall determination of Harvest's and the individual's performance. The individual's skill set, experience and expertise are also considered. The CCGC has not established additional strict predetermined quantitative performance criteria linked to the setting of salary levels.

Short-Term Incentive Program

Harvest has not paid short term incentives since 2014 primarily due to financial constraints. Historically, at the end of each year, a short-term incentive pool was established by the CCGC after careful consideration of the position, level, corporate performance, market information from the MTCS and other qualitative factors. To assess corporate performance, comparisons were made to performance metrics specific to corporate operational goals and relative to industry comparison. The annual pool was shared by all eligible employees, including the NEOs. Individuals' performances were factored into the allocation process.

NEOs' performance is evaluated annually by the CEO, CFO or COO, depending on the direct reporting relationships, based on subjective goals and measures. Recommendations on NEOs' salary adjustments and short-term incentives are presented to the CCGC, together with their performance evaluations. The CCGC reviews such recommendations and makes compensation decisions accordingly. As further discussed under "CCGC's Use of Discretion" the CCGC has not established strict predetermined quantitative performance criteria linked to the value of short-term incentives. Potential bonuses for individuals are also compared with the MTCS information, to ensure the awards are competitive with Harvest's peers. The practice of potentially paying short term incentives is included in employment agreements with certain senior NEOs and in employment letters issued to all employees. It is therefore possible that the CCGC will agree to reinstate payment of short-term incentives in the future.

Long-Term Incentive Program

Harvest has a long term incentive policy in place that contemplates the payment of long-term incentive compensation to all employees including NEOs. Per such policy each eligible employee is granted an annual long-term incentive payment target, expressed as a percentage of base salary. The target set for each employee reflects the individual's roles, responsibilities, skill sets, expertise, relevant experience and past performance. The NEOs' targets are set at higher levels so that a larger portion of their compensation is performance-based, compared to other Harvest employees. The CCGC determines an annual adjustment factor up to a maximum of 100%, which is applied to every employee's target to calculate the long-term incentive awards. The awards vest over three years, with one-third of the award vesting on the grant date and each of the next two anniversaries of the grant date. The long-term incentive program grant date is the end of the first quarter. This grant date provides the CCGC with a longer period between the year-end and the grant date so that the CCGC has more complete information to assess corporate performance.

Per the policy, the CCGC is to consider, among many things, the achievement of certain performance metrics, when making decisions about the adjustment factor. The performance metrics are selected to align with the goals and objectives approved by the shareholder and are subject to change year over year. For 2018, Harvest assessed the following primary performance metrics as part of the corporate performance review: operating income, operating days per minimum production unit, sales price improvement, operating costs on a per boe basis, investment effectiveness, Upstream safety (loss time injury frequency, fatality and oil spills) and budget savings. In addition to corporate performance, the CCGC also takes into consideration the competitive industry environment, peers' compensation information from the MTCS, historical corporate performance of Harvest, achievements of other financial and business strategies, and other relevant qualitative factors. The CCGC has not established any formulae to link the performance metrics to the annual adjustment factor, which therefore is subject to the CCGC's discretion.

Harvest has awarded only nominal long term incentives since 2014 due to financial constraints (see "CCGC's Use of Discretion" below). As NEOs' annual long-term incentive payment targets are set at higher levels so that a larger portion of their compensation is performance-based, compared to other Harvest employees, the decision to award only nominal long term incentives has a proportionately larger negative impact on NEO compensation.

CCGC's Use of Discretion

The determination of Harvest's NEO compensation requires significant judgment from the CCGC and involves annual performance assessments, taking into account many internal and external factors, including financial circumstances. The CCGC uses a list of performance metrics to assess Harvest's performance, but without direct linkages between those metrics and the amount of compensation. The performance metrics are tools to establish some preliminary premises for overall corporate performance assessment. The CCGC believes that making compensation decisions solely using set formulae and weightings could lead to consequences that are not aligned with the shareholder's interests and long-term goals. As well, the strict use of formulae and weightings of KPI achievement would operate against the ability to consider useful internal and external factors, such as but not limited to, market compensation data, changes in general business conditions, and any unforeseeable events encountered during a given year. This annual corporate performance assessment forms the basis for recommendations and decisions with respect to both the short-term incentive pool and the long-term incentive adjustment factor.

Risks of Compensation Policies and Practices

The Corporation's compensation program was designed to provide executive officers incentives for the achievement of near-term and long-term objectives, without motivating them to take unnecessary risk. As part of its review and discussion of executive compensation, the Harvest Board and the CCGC noted the following facts that discourage the Corporation's executives from taking unnecessary or excessive risk:

- the Corporation's operating strategy and related compensation philosophy;
- the effective balance, in each case, between base salary and short-term incentive and long-term incentive amounts, near-term and long-term focus, corporate and individual performance and financial and non-financial performance;

- the Corporation's approach to performance evaluation and compensation that potentially provides greater rewards to an executive officer achieving both short-term and long-term agreed-upon objectives; and
- the Corporation's compensation plans have been in effect for many years and there is no evidence they encourage high-risk taking.

Based on this review, the Harvest Board and the CCGC believe that the Corporation's total executive compensation program does not encourage executive officers to take unnecessary or excessive risk.

Compensation Summary

The following table sets forth for the year ended December 31, 2018 information concerning the compensation paid to the NEOs as defined under the National Instrument 51-102F6 Statement Of Executive Compensation:

Name and Principal Position	Year	Salary (\$)	Non-Equity Incentive Plan Compensation (\$)			Total Compensation (\$)
			Annual Incentive Plans	Long-term Incentive Plans	All Other Compensation ⁽¹⁾	
Jeff Tooth	2018	50,000	Nil	Nil	795,226	845,226
Former Chief Executive Officer ⁽²⁾⁽⁷⁾	2017	400,000	Nil	35,796	33,131	468,927
	2016	307,198	Nil	28,070	28,477	363,745
Byeongil Kim President and Chief Executive Officer ⁽⁴⁾⁽⁸⁾	2018	43,762	Nil	Nil	53,874	97,636
Sungki Lee Former Chief Financial Officer ⁽²⁾⁽³⁾	2018	60,556	Nil	Nil	70,474	131,130
	2017	105,750	Nil	Nil	216,536	322,286
	2016	89,907	Nil	Nil	229,053	318,960
Cheolwoong Choi Chief Financial Officer ⁽⁵⁾⁽⁸⁾	2018	60,636	Nil	Nil	69,039	129,675
Paul Vander Valk Chief Operating Officer	2018	375,000	Nil	3,081	9,740	387,821
	2017	30,048	Nil	Nil	2,314	32,362
Mark Tysowski Former Legal Counsel and Corporate Secretary ⁽⁶⁾	2018	278,338	Nil	55,393	322,604	656,335
	2017	281,580	Nil	20,727	27,554	329,861
	2016	281,580	Nil	33,538	27,706	342,824
Doug Walker VP, Business Analysis and Reporting	2018	251,385	Nil	34,642	9,523	295,550
	2017	239,927	Nil	18,460	25,249	283,636
	2016	239,927	Nil	30,138	25,400	295,465
Jim Causgrove COO, Advisor	2018	325,000	Nil	4,295	9,756	339,051
	2017	41,875	Nil	Nil	3,251	45,126

(1) Includes benefits like living, vehicle and housing allowances, payment of income taxes, contributions to a savings plan, severance paid and other benefits.

(2) During 2017 and 2018 Messrs. Tooth and Lee were directors of Harvest, but did not receive compensation for their services as directors.

- (3) Mr. Lee received a perquisite relating to living allowance in the amount of \$29,449 in 2018, which comprised 42% of the total perquisites and payment of income taxes of \$34,513 in 2018, which comprised 49% of the total perquisites earned by Mr. Lee in the year. Mr. Lee served as Chief Financial Officer from July 2014 until July 2018.
- (4) Mr. Kim received a perquisite relating to living allowance in the amount of \$27,937 and payment of income taxes of \$24,946 in 2018, which comprised 52% and 46% respectively of the total perquisites earned by Mr. Kim in the year.
- (5) Mr. Choi received a perquisite relating to living allowance in the amount of \$32,482 and payment of income taxes of \$34,910 in 2018, which comprised 47% and 51% respectively of the total perquisites earned by Mr. Choi in the year.
- (6) Mr. Tysowski received a perquisite relating to taxable benefits mainly comprised of severance in the amount of \$290,780 in 2018, which comprised 90% of the total perquisites earned by Mr. Tysowski in the year.
- (7) Mr. Tooth served as President & CEO and Executive Director from November 2016 until February 2018. Prior to being appointed President & CEO, Mr. Tooth was Chief Operating Officer (COO) of Harvest. Mr. Tooth received a perquisite relating to taxable benefits mainly comprised of vacation pay and severance in the amount of \$795,226, which comprised 100% of the perquisites earned by Mr. Tooth in the year.
- (8) During July 2018 Messrs. Kim and Choi were named directors of Harvest, but did not receive compensation for their services as directors.

The total cash compensation (salary plus annual bonus) paid to the NEOs, calculated as a percentage of annual cash flow from operations was (12.72%), (24.15%), (3.19%) for 2018, 2017, and 2016 respectively. The percentage of annual cash flow from operations is negative in 2018, 2017 and 2016 due to negative cash flows from operations.

Termination and Change of Control Benefits

Harvest has executive employment agreements in place with senior Canadian C-Level executives, including Mr. Jim Causgrove, COO - Conventional and Mr. Paul Van der Valk, COO – Oil Sands. The executive employment agreement for each executive provides that, in the event of termination of employment without cause, the executive shall be entitled to receive a cash payment equal to an agreed multiple of his total monthly compensation, where total monthly compensation is calculated as 1/12 of the aggregate of: (i) his then annual base salary, (ii) an amount equal to 20% of annual base salary for loss of benefits and contribution to the savings plan, and (iii) an amount equal to the average annual bonus payments made in the two prior years (or the last annual bonus or a reasonable estimate therefor if only one bonus year or no bonus year has been completed, as the case may be), plus the amount of the executive's long-term incentive plan related to prior years and unpaid as of the date of the termination, which vest upon termination on the last day of active work. The agreed multiple referenced above for Mr. Causgrove during the first year of employment is 9 and increases by one for each additional year or partial year of service thereafter to a maximum of 12. The agreed multiple for Mr. Van der Valk is 18.

The estimated termination payment of Mr. Causgrove at December 31, 2018 without cause is \$280,313. The estimated termination payment of Mr. Van der Valk at December 31, 2018 without cause is \$646,875. If the employment of an executive is terminated for cause or in the event of permanent disability (within the meaning of the employment agreement), or if he voluntarily resigns his employment, he would be entitled to receive payment of any earned but unpaid base salary and accrued vacation, but would not be entitled to receive any bonus, severance or termination pay or any other payment for loss of employment.

Former CEO Jeff Tooth, whose employment with Harvest ended on February 23, 2018, had in place an executive employment agreement with Harvest with similar termination and change of control provisions with an agreed multiple of 18.

Compensation of Directors

The independent directors of Harvest Operations Corp. were paid an annual retainer of \$32,000. Committee chairmen were paid an annual retainer of \$35,000, except for the audit committee chairman who was paid \$37,000. In addition, the independent directors were paid \$1,000 for each board meeting attended or \$1,500 for each committee meeting they chaired. If an independent director attended two meetings on the same date, the independent director received an additional \$500 for the second meeting. Independent directors are also eligible to receive an annual cash bonus of \$10,000, which is not performance-based. Each such director was entitled to reimbursement for expenses incurred in carrying out his duties as director.

The following table sets forth all compensation provided to the independent directors of Harvest for the most recently completed financial year ended December 31, 2018. The non-independent directors received no compensation for

carrying out their duties as directors. The Independent Directors each received a \$10,000 bonus on April 4, 2018 related to the 2017 year.

Name	Fees Earned (\$)
Allan Buchignani	59,500
Randall Henderson	58,000
Richard Kines	54,500

CORPORATE GOVERNANCE DISCLOSURE

Set out below is a description of Harvest's corporate governance practices as at the date hereof, relative to the National Instrument 58-101 — *Disclosure of Corporate Governance Practices* within Form 58-101F1 Disclosure (which is set out below in italics).

The Harvest Board (the "Board") supervises the management of Harvest's business and affairs and is responsible for the overall stewardship and governance of Harvest. The Board has put in place standards and benchmarks by which that responsibility can be measured.

1. Harvest Board

- (a) *Disclose the identity of directors who are independent.*

The following three directors of Harvest are independent:

Mr. Allan Buchignani

Mr. Randall Henderson

Mr. Richard Kines

- (b) *Disclose the identity of directors who are not independent, and describe the basis for that determination.*

Mr. Ohkyeu Baek is the Executive Vice President for Exploration & Production Group for KNOC.

Mr. Keon Mug Lim is the Vice President, Harvest Business Department for KNOC.

Mr. Jinha Woo is the Vice President, Finance and Accounting Department for KNOC.

Mr. Cheolwoong Choi is the Chief Financial Officer and Director of Harvest

Mr. Beyongil Kim is the President and Chief Executive Officer and Director of Harvest

Mr. Sungki Lee was the Chief Financial Officer and Acting President & CEO of Harvest and Director of Harvest until July 2018.

Mr. Jaegu Nam was Vice President, Harvest Business Department for KNOC and Director of Harvest until May 2018.

- (c) *Disclose whether or not a majority of directors is independent. If a majority of directors is not independent, describe what the Board does to facilitate its exercise of independent judgement in carrying out its responsibilities.*

The majority of the directors are not independent. The Board facilitates the exercise of judgment in carrying out its responsibilities by having unrestricted access to information regarding Harvest and by providing directors the ability to engage and seek input from outside advisors at the expense of Harvest. Also, independent directors have the option to meet without non-independent directors or management present at the end of each board meeting. All of the board meetings in financial year 2018 included an in-camera session.

- (d) *If a director is presently a director of any other issuer that is a reporting issuer (or the equivalent) in a jurisdiction or a foreign jurisdiction, identify both the director and the other issuer.*

The following directors of Harvest are presently directors of other issuers that are reporting issuers (or the equivalent):

Name of Director	Name of Other Issuer
Mr. Randall Henderson	Cortex Business Solutions Inc.

- (e) *Disclose whether or not the independent directors hold regularly scheduled meetings at which non-independent directors and members of management are not in attendance. If the independent directors hold such meetings, disclose the number of meetings held since the beginning of the issuer's most recently completed financial year. If the independent directors do not hold such meetings, describe what the Board does to facilitate open and candid discussion among its independent directors.*

To facilitate open and candid discussion among its independent directors, break-out sessions are allowed according to board and committee mandates. At the end of, or during each board or committee meeting, as applicable, the members of management of Harvest and KNOC who are present at such meeting may be asked to leave the meeting in order for the independent directors to discuss any necessary matters without management of Harvest and KNOC being present.

- (f) *Disclose whether or not the chair of the Board is an independent director. If the Board has a chair or lead director who is an independent director, disclose the identity of the independent chair or lead director, and describe his or her role and responsibilities. If the Board has neither a chair that is independent nor a lead director that is independent, describe what the Board does to provide leadership for its independent directors.*

Mr. Ohkyeu Baek, the Chairman of the Board, is not an independent director. As the Chairman, Mr. Baek provides overall leadership to the Board. Independent directors are included as members of every committee of the Board. Mr. Seung Kook Lee, the former Chairman of the Board, was not an independent director.

In the case of the Audit Committee and the Upstream Reserves, Safety and Environment Committee, the chairman of each committee is an independent director. The Chairman of the Board communicates with all directors and committee chairs to co-ordinate input from directors and optimize the effectiveness of the Board and its committees. Independent directors are encouraged to communicate with the Chairman and the CEO.

- (g) *Disclose the attendance record of each director for all Board meetings held since the beginning of the issuer's most recently completed financial year.*

The attendance record of each of the directors of the Board is as follows:

Name of Director	Board Meetings Attended ⁽¹⁾	Committee Meetings Attended
Mr. Seung-Kook Lee, former Chairman	0 out of 1 (0%)	0 out of 1 (0%)
Mr. Ohkyeu Baek, Chairman	1 out of 1 (100%)	N/A
Mr. Allan Buchignani	2 out of 2 (100%)	8 out of 8 (100%)
Mr. Randall Henderson	2 out of 2 (100%)	7 out of 7 (100%)
Mr. Richard Kines	2 out of 2 (100%)	8 out of 8 (100%)
Mr. Dae-Jung Hong	2 out of 2 (100%)	1 out of 1 (100%)
Mr. Byeongil Kim	1 out of 1 (100%)	N/A
Mr. Sungki Lee	2 out of 2 (100%)	N/A
Mr. Cheolwoong Choi	1 out of 1 (100%)	N/A
Mr. Jaegu Nam	1 out of 1 (100%)	N/A

Note: All of the above meetings included an *in-camera* session without members of management present.

- (1) Numerous Round Robin Resolutions were used to approve a majority of Board decisions in lieu of meetings as authorized by Harvest's Board Mandate.

2. Harvest Board Mandate

Disclose the text of the Board's written mandate. If the Board does not have a written mandate, describe how the Board delineates its role and responsibilities.

The mandate of the Harvest Board is attached as Appendix B hereto.

3. Position Descriptions

- (a) *Disclose whether or not the Board has developed written position descriptions for the chair and the chair of each Board committee. If the Board has not developed written position descriptions for the chair and/or the chair of each Board committee, briefly describe how the Board delineates the role and responsibilities of each such position.*

The Board has not yet developed such position descriptions in part given that the roles, responsibilities and functions of the Board and committees themselves have been comprehensively defined in the terms of reference which have been developed for the Board and each committee. As well, there is some delineation of the roles and responsibilities of the chairs within the committees' terms of reference, which expressly address certain procedural and communication responsibilities that are obligations of the chair. These include presiding at meetings and approving agendas. In practice, the Board has looked to the leadership role of each committee chair as including any responsibilities required to facilitate the effective operation and management of the committee and the interactions of the committee with management, the Board and other board committees, and also to manage the process of identifying and bringing forward for committee consideration matters which are within the committee's mandate.

- (b) *Disclose whether or not the Board and CEO have developed a written position description for the CEO. If the Board and the CEO have not developed such a position description, briefly describe how the Board delineates the role and responsibilities of the CEO.*

The Board has developed a position description for the President and CEO of Harvest.

4. Orientation and Continuing Education

- (a) *Briefly describe what measures the Board takes to orient new directors regarding: (i) the role of the Board, its committees and its directors; and (ii) the nature and operation of the issuer's business.*

The Board has the mandate to support an orientation and education program for new Board members in order to ensure that new directors are familiarized with Harvest's business, including Harvest's field operations, management, administration, policies and plans, and the procedures of the Board. When a new director is appointed to the Board and/or one of its committees the director is provided with copies of Harvest's most recent Annual Report, Quarterly Report and Annual Information Form as well as a copy of the Board Mandate and relevant Committee Mandates.

- (b) *Briefly describe what measures, if any, the Board takes to provide continuing education for its directors. If the Board does not provide continuing education, describe how the Board ensures that its directors maintain the skill and knowledge necessary to meet their obligations as directors.*

Harvest encourages directors to attend, enrol or participate in courses and/or seminars dealing with financial literacy, corporate governance and related matters and has agreed to pay the cost of such courses and seminars.

5. Ethical Business Conduct

- (a) *Disclose whether or not the Board has adopted a written code for the directors, officers and employees. If the Board has adopted a written code:*

(i) *Disclose how a person or company may obtain a copy of the code;*

The Board has adopted a code of ethics applicable to all members of Harvest, including directors, officers and employees. Each director, officer and employee of Harvest has been provided with a copy of the applicable code of ethics. In addition, a copy of code of ethics has been filed on SEDAR at www.sedar.com.

- (ii) *Describe how the Board monitors compliance with its code, or if the Board does not monitor compliance, explain whether and how the Board satisfies itself regarding compliance with its code; and*

The Board monitors compliance with the codes of ethics by requiring each of the officers and employees of Harvest to affirm in writing on hiring and annually thereafter their compliance with the applicable code of ethics.

- (iii) *Provide a cross-reference to any material change report filed since the beginning of the issuer's most recently completed financial year that pertains to any conduct of a director or executive officer that constitutes a departure from the code.*

There have been no material change reports filed since the beginning of the 2016 financial year that pertain to any conduct of a director or executive officer that constitutes a departure from the Corporation's code of ethics.

- (b) *Describe any steps the Board takes to ensure directors exercise independent judgment in considering transactions and agreements in respect of which a director or executive officer has a material interest.*

In accordance with the ABCA, directors who are a party to, or are a director of, or an officer of a party to a material contract or material transaction or a proposed material contract or proposed material transaction are required to disclose the nature and extent of their interest and not to vote on any resolution to approve the contract or transaction. In certain cases, an independent committee may be formed to deliberate on such matters in the absence of the interested party.

- (c) *Describe any other steps the Board takes to encourage and promote a culture of ethical business conduct.*

The Board has also adopted a "Whistleblower Policy" wherein employees of Harvest are provided with a mechanism by which they can raise concerns in a confidential and anonymous manner.

6. Nomination of Directors

- (a) *Describe the process by which the Board identifies new candidates for Board nomination.*

The Board does not have a formal process established to identify new candidates for Board nomination. Among other things, the Board will consider nominees presented by the shareholder and management. New candidates for nomination to the Board are identified and selected having regard to the strengths and composition of the existing Board and the needs of Harvest.

- (b) *Disclose whether or not the Board has a nominating committee composed entirely of independent directors. If the Board does not have a nominating committee composed entirely of independent directors, describe what steps the Board takes to encourage an objective nomination process.*

Harvest does not have a nominating committee nor has the Board delegated the process of Board nomination to any committee.

- (c) *If the Board has a nominating committee, describe the responsibilities, powers and operation of the nominating committee.*

Not applicable.

7. Compensation

- (a) *Describe the process by which the Board determines the compensation for the issuer's directors and officers.*

Compensation of Directors

The Compensation and Corporate Governance Committee ("CCGC") reviews annually the form and amount of compensation to ensure that such compensation reflects the responsibilities and risks of being an effective

director. The CCGC benchmarks directors' compensation against compensation received by directors in similar positions. The Board will set director compensation based upon recommendations from this committee.

Please see "Executive Compensation; *Compensation of Directors*" of this AIF for information regarding compensation of the directors.

Compensation of Officers

Please refer to the "Executive Compensation" section on of this AIF for a discussion of the process by which the Board determines the compensation for Harvest's officers.

- (b) *Disclose whether or not the Board has a compensation committee composed entirely of independent directors. If the Board does not have a compensation committee composed entirely of independent directors, describe what steps the Board takes to ensure an objective process for determining such compensation.*

The CCGC is not composed entirely of independent directors, but the non-independent directors are not members of Harvest's management and are not seconded to nor do they have any other relationship with Harvest. The non-independent directors of the CCGC are executive officers or directors of Harvest's sole shareholder and parent corporation, KNOC. These individuals are considered under the provisions of the National Instrument to have a material relationship with Harvest, without the necessity to apply the test of material relationship as a relationship which could, in the view of the Board, reasonably interfere with the exercise of a committee member's independent judgment.

The Board, has developed certain requirements, (included within comprehensive and specific terms of reference for the compensation committee), which are designed to ensure an objective process for determining compensation. The terms of reference expressly provide that the CCGC shall not include management directors as members. KNOC employee compensation is determined based on an annual performance assessment performed by KNOC. The CCGC may also retain, at Harvest's expense, persons with special expertise and obtain independent advice to assist in fulfilling its responsibilities. Please see "Executive Compensation" of this AIF for further discussion.

- (c) *If the Board has a compensation committee, describe the responsibilities, powers and operation of the compensation committee.*

The CCGC is responsible to the Board for reviewing matters relating to the human resource policies, employee retention and short and long-term compensation of the directors, officers and employees of Harvest and its subsidiaries in the context of the budget and business plan of Harvest.

- (d) *If a compensation consultant or advisor has, at any time since the beginning of the issuer's most recently completed financial year, been retained to assist in determining compensation for any of the issuer's directors and officers, disclose the identity of the consultant or advisor and briefly summarize the mandate for which they have been retained. If the consultant or advisor has been retained to perform any other work for the issuer, state that fact and briefly describe the nature of the work.*

Harvest has not retained any compensation consultant or advisor since the beginning of 2017.

8. Other Harvest Board Committees

If the Board has standing committees other than the audit, compensation and nominating committees, identify the committees and describe their function.

In addition to the Audit Committee, and the CCGC, the Board has also appointed an Upstream Reserves, Safety and Environment Committee.

At the financial year end of December 31, 2018, the Upstream Reserves, Safety and Environment Committee is comprised of Messrs. Allan Buchignani (Chairman) and Richard Kines. The Upstream Reserves, Safety and Environment Committee's primary objectives are as follows:

- to assist directors in meeting their responsibilities (especially for accountability) in respect of Harvest meeting its legal, industry and community obligations pertaining to Upstream Matters;

- to assist directors in meeting their responsibilities in respect of Harvest establishing appropriate health, safety, and environmental policies and procedures for Upstream Business and maintaining management systems to implement such policies and monitor compliance; and
- to assist directors in meeting their responsibilities in respect of certain responsibilities of the Board that may be delegated to it in accordance with NI 51-101.

More specific responsibilities of the committee include reviewing Upstream's internal control systems, strategies and policies, reviewing and approving the appointment of the independent reserves evaluating firms reporting on Harvest's oil and gas reserves, reviewing procedures relating to the disclosure of information with respect to oil and gas activities, including procedures for complying with NI 51-101 disclosure requirements, reviewing the reserves data and Harvest's procedures for providing information to the evaluators, meeting with management and the evaluators retained to perform procedures as outlined in NI 51-101F3, and reviewing and recommending to the Board for approval the content and filing of the annual statement of reserves data and other reports required under NI 51-101. The Upstream Reserves, Safety and Environment Committee is also responsible for ensuring compliance on a quarterly basis with all applicable laws and regulations and Harvest's policies with respect to EH&S matters, reviewing the findings from regulatory agencies and external consultants, and providing strategic direction in those areas when required.

9. Assessments

Disclose whether or not the Board, its committees and individual directors are regularly assessed with respect to their effectiveness and contribution. If assessments are regularly conducted, describe the process used for the assessments. If assessments are not regularly conducted, describe how the Board satisfies itself that the Board, its committees, and its individual directors are performing effectively.

The Chairman of the Board actively participates in and oversees the administration of the annual evaluation of performance and effectiveness of the Board, Board Committees, all individual Directors, and Committee Chairs (other than the Board Chair).

10. Director Term Limits and Other Mechanisms of Board Renewal

Disclose whether or not the issuer has adopted term limits for the directors on its board or other mechanisms of board renewal and, if so, include a description of those director term limits or other mechanisms of board renewal. If the issuer has not adopted director term limits or other mechanisms of board renewal, disclose why it has not done so.

The Board has not established a retirement policy or any term limits for directors. Furthermore, the Board takes the view that such limits are an arbitrary mechanism for removing directors which can result in valuable, experienced directors being forced to leave the Board solely because of age or length of service. The Board's priorities continue to be ensuring the appropriate skill sets are present amongst the Board to optimize the benefit to the Corporation.

11. Policies Regarding the Representation of Women on the Board

- (a) *Disclose whether the issuer has adopted a written policy relating to the identification and nomination of women directors. If the issuer has not adopted such a policy, disclose why it has not done so.*

Harvest has not adopted a written policy relating to the identification and nomination of women directors because the Board believes that board nominations should be made on the basis of the skills, knowledge, experience and character of individual candidates and the requirements of the board at the time.

- (b) *If an issuer has adopted a policy referred to in (a), disclose the following in respect of the policy: (i) a short summary of its objectives and key provisions, (ii) the measures taken to ensure that the policy has been effectively implemented, (iii) annual and cumulative progress by the issuer in achieving the objectives of the policy, and (iv) whether and, if so, how the board or its nominating committee measures the effectiveness of the policy.*

Not applicable.

12. Consideration of the Representation of Women in the Director Identification and Selection Process

Disclose whether and, if so, how the board or nominating committee considers the level of representation of women on the board in identifying and nominating candidates for election or re-election to the board. If the issuer does not consider the level of representation of women on the board in identifying and nominating candidates for election or re-election to the board, disclose the issuer's reasons for not doing so.

The Board believes that considering the broadest group of individuals who have the skills, knowledge, experience and character required to provide the leadership needed to achieve our business objectives, without reference to their age, gender, race, ethnicity or religion, is in the best interests of Harvest and all of its stakeholders, therefore, the Board does not consider the level of representation of women when identifying and nominating candidates.

13. Consideration Given to the Representation of Women in Executive Officer Appointments

Disclose whether and, if so, how the issuer considers the level of representation of women in executive officer positions when making executive officer appointments. If the issuer does not consider the level of representation of women in executive officer positions when making executive officer appointments, disclose the issuer's reasons for not doing so.

Harvest does not consider the level of representation of women in executive officer positions when making executive officer appointments. Consistent with the board diversity policy, the Board believes that executive officer appointments should be made on the basis of the skills, knowledge, experience and character of the individual candidates.

14. Issuer's Targets Regarding the Representation of Women on the Board and in Executive Officer Positions

(a) For the purposes of this item, a "target" means a number or percentage, or a range of numbers or percentages, adopted by the issuer of women on the issuer's board or in executive officer positions of the issuer by a specific date.

(b) Disclose whether the issuer has adopted a target regarding women on the issuer's board. If the issuer has not adopted a target, disclose why it has not done so. (c) Disclose whether the issuer has adopted a target regarding women in executive officer positions of the issuer. If the issuer has not adopted a target, disclose why it has not done so. (d) If the issuer has adopted a target referred to in either (b) or (c), disclose: (i) the target, and (ii) the annual and cumulative progress of the issuer in achieving the target.

Due to the reasons stated under section 12 and 13 above, Harvest has not established formal policies or targets regarding the representation of women on the Harvest Board or in executive officer positions.

15. Number of Women on the Board and in Executive Officer Positions

(a) Disclose the number and proportion (in percentage terms) of directors on the issuer's board who are women
None as at December 31, 2018.

(b) Disclose the number and proportion (in percentage terms) of executive officers of the issuer, including all major subsidiaries of the issuer, who are women.

(b) None as at December 31, 2018.

CONFLICTS OF INTEREST

As of the date hereof, Harvest is not aware of any existing or potential material conflict of interest between Harvest or its subsidiaries and any directors or officers of Harvest or Harvest's subsidiaries.

LEGAL PROCEEDINGS AND REGULATORY ACTIONS

Harvest is involved in various claims and litigation arising in the normal course of business. While the outcome of these matters is uncertain and there can be no assurance that such matters will be resolved in Harvest's favour, Harvest does not currently believe that the outcome of adverse decisions in any pending or threatened proceedings, except as disclosed below, related to these or other matters or amount which it may be required to pay by reason thereof would have a material adverse impact on its financial position, results of operations or liquidity.

An action in the Court of Queen's Bench of Alberta, as well as a formal Notice of Arbitration pursuant to an engineering, procurement and construction contract, were filed against Harvest in January 2017 by GS Engineering & Construction Corp ("GSE&C") of Korea. GSE&C was the prime contractor responsible for the development of Harvest's BlackGold oil sands project. A dispute has arisen in connection with a series of 'deferred payments' owing to GSE&C and due to be paid over an eight year period totalling up to \$75,892,259. GSE&C alleges that Harvest has missed payments of \$9,486,523 in April 2016, April 2017 and April 2018 and further alleges that, as a result, the entire remaining balance of the deferred payment is due and owing. Harvest acknowledges the 2016, 2017 and 2018 payments were not made, but disputes the allegation that it is in breach of contract. A post-contract audit conducted by PricewaterhouseCoopers has uncovered material non-compliant invoicing irregularities under the GSE&C contract for amounts that exceed many years' worth of deferred payments. Per express terms in the relevant contracts regarding audit findings, Harvest is entitled to withhold payments that would otherwise be considered owing until such audit findings are resolved. Harvest intends to vigorously defend the claims made against it. An arbitration hearing is scheduled for March 2019 on this matter.

There were no penalties or sanctions imposed against Harvest or any subsidiary of Harvest by a court relating to securities legislation or by a securities regulatory authority during the year ended December 31, 2018 or any other penalties or sanctions imposed by a court or regulatory body against Harvest or any subsidiary of Harvest that would likely be considered important to a reasonable investor in making an investment decision. No settlement agreements were entered into by Harvest or any subsidiary of Harvest with a court relating to securities legislation or with a securities regulatory authority during the year ended December 31, 2018.

INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS

Except as disclosed below, or elsewhere in this AIF, no director or executive officer of Harvest, no person that beneficially owns, or controls or directs, directly or indirectly more than 10% of the shares of Harvest and no known associate or affiliate of, any such person, had or has had material interest, direct or indirect, in any transaction within the three most recently completed financial years or during the current financial year that has materially affected or is reasonably expected to materially affect Harvest. See "General Description of Capital Structure" of this AIF.

AUDITORS

KPMG LLP, Chartered Accountants was appointed as auditors of Harvest on October 15, 2013.

TRANSFER AGENT AND REGISTRAR

Citigroup Global Markets Deutschland AG, at its principal office in Frankfurt, Germany, is the registrar of the 2½% Senior Notes due 2021.

Citibank, London Branch, is the Fiscal Agent of the 2½% Senior Notes due 2021, the 3% Senior Notes due 2022 and the 4.2% Senior Notes due 2023.

MATERIAL CONTRACTS

Except for contracts entered into in the ordinary course of business, the only material contracts entered into by Harvest within the most recently completed financial year, or before the most recently completed financial year but still in effect, are the following:

1. Fiscal Agency Agreement dated June 16, 2016 for the issuance of the 2½% Senior Notes
2. Term Loan entered into February 17, 2017
3. Credit Facility agreement entered into February 24, 2017
4. Fiscal Agency Agreement dated September 21, 2017 for the issuance of the 3% Senior Notes
5. Fiscal Agency Agreement dated November 6, 2017 for the reopening of the 3% Senior Notes
6. Fiscal Agency Agreement dated May 1, 2018 for the issuance of the 4.2% Senior Notes

7. Term Loan entered into May 11, 2018

For additional information regarding the 2018 material contracts, please refer to Material Change Report for the year ended December 31, 2018, which is available on SEDAR at www.sedar.com as well as the "General Description of Capital Structure" of this AIF.

INTERESTS OF EXPERTS

There is no person or company whose profession or business gives authority to a statement made by such person or company and who is named as having prepared or certified a report, valuation, statement or opinion described or included in a filing, or referred to in a filing, made under National Instrument 51-102 by Harvest during, or related to, Harvest's most recently completed financial year other than GLJ, the Independent Reserves Evaluator and KPMG LLP. As at the date hereof, none of the principals of GLJ as a group, directly or indirectly, owned more than 1% of any class of securities of the Corporation.

KPMG LLP, Chartered Accountants, 3100, 205 – 5th Avenue S.W., Calgary, Alberta, T2P 4B9, are the auditors of Harvest and have confirmed with respect to Harvest, that they are independent within the meaning of the relevant rules and related interpretations prescribed by the relevant professional bodies in Canada and any applicable legislation or regulation and also that they are independent accountants with respect to all relevant U.S. professional and regulatory standards.

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

ADDITIONAL INFORMATION

Additional financial information is provided in Harvest's audited consolidated financial statements and notes thereto for the year ended December 31, 2018 and Harvest's Management's Discussion and Analysis for the year ended December 31, 2018 which may be found on SEDAR at www.sedar.com.

For further information, please visit Harvest's website at harvestoperations.com, email information@harvestenergy.ca or call our toll free line at 1-866-666-1178.

Forward-Looking Statements

Certain statements contained in this AIF and documents incorporated by reference herein, constitute forward-looking statements. These statements relate to future events and future performance. All statements other than statements of historical fact may be forward-looking statements. Forward-looking statements are subject to certain risks and uncertainties that could cause actual results to differ materially from those included in the forward-looking statements. Forward-looking statements are often, but not always, identified by the use of words such as: "budget", "outlook", "forecast", "seek", "anticipate", "plan", "continue", "estimate", "expect", "may", "will", "project", "predict", "potential", "targeting", "intend", "could", "might", "should", "believe" and similar expressions. Harvest believes the expectations reflected in these forward-looking statements are reasonable but no assurance can be given that these expectations will prove to be correct and such forward-looking statements included in, or incorporated by reference into, this AIF should not be unduly relied upon. These statements speak only as of the date of this AIF or as of the date specified in the documents incorporated by reference into this AIF, as the case may be.

In particular, this AIF, and the documents incorporated by reference herein, contains forward-looking statements pertaining to:

- expected financial and operational performance in future periods, including but not limited to, production volumes, royalty rates, operating costs, commodity prices and results from its price risk management activities;
- expectations regarding the development and production potential of Conventional and BlackGold properties;

- reserves estimates, ultimate recoverability of reserves and estimates of the present value of Harvest's future net cash flows;
- estimated capital expenditures and the sources of funding;
- factors upon which to decide whether or not to undertake a capital project;
- future sources of funding, debt levels and availability of committed credit facilities;
- future allocation of funding to various activities;
- plans to make acquisitions and dispositions, and expected synergies from acquisitions made;
- possible financial and operational impact from planned dispositions;
- possible commerciality of exploration and development projects;
- the ability to achieve the maximum capacity from the BlackGold central processing facilities;
- treatment under government regulatory regimes including without limitation, royalty, environmental and tax regulations;
- ultimate recoverability, either from intended use or from sale, of the Harvest's assets;
- competitive advantages and ability to compete successfully; and
- global demand and supply of crude oil, natural gas, bitumen and other related products.

With respect to forward-looking statements contained in this AIF and the documents incorporate by reference herein, Harvest has made assumptions regarding, among other things:

- future oil and natural gas prices and differentials among light, medium and heavy oil prices;
- Harvest's ability to conduct its operations and achieve results of operations as anticipated;
- Harvest's ability to achieve the expected results from its development plans and sustaining maintenance programs;
- the continued availability of adequate cash flow and debt and/or equity financing to fund Harvest's capital and operating requirements as needed;
- Harvest's ability to obtain financing with favorable terms;
- the general continuance of current or, where applicable, assumed industry conditions;
- the general continuation of assumed tax, royalty and regulatory regimes;
- the accuracy of the Harvest's reserves;
- the ability to obtain equipment in a timely manner to carry out development and other capital activities;
- the ability to market oil and natural gas successfully to current and new customers;
- the cost of expanding Harvest's property holdings;
- the impact of increasing competition; and
- the ability to add production and reserves through development and exploitation activities.

Some of the significant risks and uncertainties that could affect Harvest's future results and could cause results to differ materially from those expressed in forward-looking statements include but is not limited to:

- volatilities of commodity prices, especially the price differential between light oil and heavy oil;
- uncertainties in the estimation of reserves;
- costs associated with developing and producing Conventional and BlackGold reserves;
- uncertainties around Harvest's ability to obtain financing;
- outages and disruptions to Harvest's operations due to operational issues, severe weather conditions, accidents or natural hazards;
- difficulties encountered to complete and commission the BlackGold project;
- difficulties encountered in delivering Conventional products to commercial markets;
- difficulties encountered during the drilling for and production of crude oil, natural gas, bitumen and other related products;
- difficulties encountered in the integration of acquisitions;
- uncertainties around realizing the value of acquisitions;
- interest rate and foreign currency fluctuations;
- non-performance risks associated with Harvest's counterparties;

- changes in, or the introduction of new, government laws and regulations relating to the crude oil and natural gas business including without limitation, tax, royalty and environmental law and regulation;
- the extent and timing of decommissioning liabilities and environmental remediation obligations;
- liabilities stemming from accidental damage to the environment;
- adverse changes in the economy generally, such as global demand and supply for commodities;
- the impact of technology on operations and developments of Harvest's assets;
- loss of the services of any of Harvest's senior management or directors;
- the impact of competition; and
- labour and material shortages.

Statements relating to "reserves" are deemed to be forward-looking statements, as they involve the implied assessment, based on certain estimates and assumptions, that the reserves described can be profitably produced in the future. Readers are cautioned that the foregoing lists of assumptions and factors are not exhaustive. The forward-looking statements contained in this AIF and documents incorporated by reference herein are expressly qualified by this cautionary statement. Readers should also carefully consider the matters discussed under the heading "RISK FACTORS" in this AIF.

Non-GAAP Measures

Throughout this document, the Corporation has referred to certain measures of financial performance that are not specifically defined under GAAP such as "operating income (loss)", "pre-operating losses", "operating netbacks", "EBITDA" and "Total Debt to Capitalization".

"Operating income (loss)" and "pre-operating loss" is a non-GAAP measure which Harvest uses as a performance measure to provide comparability of financial performance between periods excluding non-operating items. Harvest also uses this measure to assess and compare the performance of its operating segments. The amounts disclosed in the AIF reconcile to Note 6, "Segmented Information" in the December 31, 2018 financial statements which is available on SEDAR at www.sedar.com.

"Operating netbacks" is calculated on a per boe basis and include revenues, operating expenses, transportation and marketing expenses, and realized gains or losses on derivative contracts. Operating netback is utilized by Harvest and other to analyze the operating performance of its oil and natural gas assets. Refer to the "Summary of Financial and Operating Results" and "Operating Netback" tables in the December 31, 2018 Management's Discussion and Analysis available on SEDAR at www.sedar.com for reconciliations to IFRS measures, and calculation of operating netbacks on a per boe basis.

"EBITDA" and "Total debt to total capitalization" are terms defined in Harvest's Credit Facility agreement for the purpose of calculation of the financial covenant. "EBITDA" is defined in "General Description of Capital Structure" in this AIF. The non-GAAP measures do not have any standardized meaning prescribed by GAAP and may not be comparable to similar measures used by other issuers.

APPENDIX A – HARVEST AUDIT COMMITTEE MANDATE AND TERMS OF REFERENCE

Role and Objective

The Audit Committee (the "Committee") is a committee of the board of directors (the "Board") of Harvest Operations Corp. ("HOC") to which the Board has delegated its responsibility for oversight of the nature and scope of the annual audit, management's reporting on internal accounting standards and practices, financial information and accounting systems and procedures, financial reporting and statements and recommending, for approval of the Board, the audited financial statements, interim financial statements and other mandatory disclosure releases containing financial information. The primary objectives of the Committee with respect to HOC and its subsidiaries, (hereinafter collectively referred to as "Harvest") are as follows:

1. to assist directors meet their responsibilities (especially for accountability) in respect of the preparation and disclosure of the financial statements of Harvest and related matters;
2. to ensure that Harvest complies with all applicable laws, regulations, rules, policies and other requirements of governments, regulatory agencies and stock exchanges relating to financial reporting and disclosure;
3. to enhance that Harvest's accounting functions are performed in accordance with a system of internal controls designed to capture and record properly and accurately all of the financial transactions;
4. to provide better communication between directors and external auditor(s);
5. to enhance the external auditor's independence;
6. to increase the credibility and objectivity of financial reports; including that such reports are accurate within a reasonable level of materiality and present fairly Harvest's financial position and performance in accordance with generally accepted accounting principles consistently applied; and
7. to strengthen the role of the outside directors by facilitating in depth discussions between directors on the Committee, management and external auditor(s).

Membership of Committee

1. The Committee shall be comprised of at least three (3) directors of Harvest, none of whom are members of management of Harvest and all of whom are "unrelated directors" (as such term is used in the Report of the Toronto Stock Exchange on Corporate Governance in Canada) and "independent" (as such term is used in Multilateral Instrument 52-110 – Audit Committees ("MI 52-110") unless the Board shall have determined that the exemption contained in Section 3.6 of MI 52-110 is available and has determined to rely thereon.
2. All of the members of the Committee shall be "financially literate" (as defined in MI 52-110) unless the Board shall determine that an exemption under MI 52-110 from such requirement in respect of any particular member is available and has determined to rely thereon in accordance with the provisions of MI 52-110.
3. Unless otherwise designated by the Board, the members of the Committee shall elect a Chairman from among the members and the Chair shall preside at all meetings of the Committee.

Mandate and Responsibilities of Committee

1. It is the responsibility of the Committee to oversee the work of the external auditor(s), including resolution of disagreements between management and the external auditor(s) regarding financial reporting.
2. It is the responsibility of the Committee to satisfy itself on behalf of the Board with respect to Harvest's Internal Control Systems:
 - identifying, monitoring and mitigating business risks; and

- ensuring compliance with legal, ethical and regulatory requirements.
3. It is a primary responsibility of the Committee to review the annual and interim financial statements of Harvest and related management's discussion and analysis ("MD&A") prior to their submission to the Board for approval. The process should include but not be limited to:
- reviewing changes in accounting principles and policies, or in their application, which may have a material impact on the current or future years' financial statements;
 - reviewing significant accruals, reserves or other estimates such as the ceiling test calculation;
 - reviewing accounting treatment of unusual or non-recurring transactions;
 - ascertaining compliance with covenants under loan agreements;
 - reviewing disclosure requirements for commitments and contingencies;
 - reviewing adjustments raised by the external auditor(s), whether or not included in the financial statements;
 - reviewing unresolved differences between management and the external auditor(s); and
 - obtain explanations of significant variances with comparative reporting periods.
4. The Committee is to review the financial statements, prospectuses, MD&A, annual information forms and all public disclosure containing audited or unaudited financial information (including, without limitation, annual and interim press releases and any other press releases disclosing earnings or financial results) before release and prior to Board approval. The Committee must be satisfied that adequate procedures are in place for the review of Harvest's disclosure of all other financial information and shall periodically access the accuracy of those procedures.
5. With respect to the appointment of external auditor(s) by the Board, the Committee shall:
- recommend to the Board the external auditor(s) to be nominated;
 - recommend to the Board the terms of engagement of the external auditor(s), including the compensation of the auditor(s) and a confirmation that the external auditor(s) shall report directly to the Committee;
 - on an annual basis, review and discuss with the external auditor(s) all significant relationships such auditor(s) have with the Harvest to determine the auditor(s)' independence;
 - when there is to be a change in auditor(s), review the issues related to the change and the information to be included in the required notice to securities regulators of such change; and
 - review and pre-approve any non-audit services to be provided to Harvest by the external auditor(s) and consider the impact on the independence of such auditor(s). The Committee may delegate to one or more independent members the authority to pre-approve non-audit services, provided that the member report to the Committee at the next scheduled meeting such pre-approval and the member comply with such other procedures as may be established by the Committee from time to time.
6. Review with external auditor(s) (and internal auditor if one is appointed by Harvest) their assessment of the internal controls of Harvest, their written reports containing recommendations for improvement, and management's response and follow-up to any identified weaknesses. The Committee shall also review annually with the external auditor(s) their plan for their audit and, upon completion of the audit, their reports upon the financial statements of Harvest and its subsidiaries.
7. The Committee shall review risk management policies and procedures of Harvest (i.e. hedging, litigation and insurance).
8. The Committee shall establish a procedure for:

- the receipt, retention and treatment of complaints received by Harvest regarding accounting, internal accounting controls or auditing matters; and
 - the confidential, anonymous submission by employees of Harvest of concerns regarding questionable accounting or auditing matters.
9. The Committee shall review and approve Harvest's hiring policies regarding partners and employees and former partners and employees of the present and former external auditor(s) of Harvest.
 10. The Committee shall have the authority to investigate any financial activity of Harvest. All employees of Harvest are to cooperate as requested by the Committee.
 11. The Committee may retain persons having special expertise and/or obtain independent professional advice to assist in filling their responsibilities at the expense of Harvest without any further approval of the Board.
 12. The Committee shall review the Committee mandate and subsequent revisions periodically, and recommend to the Board for approval.

Meetings and Administrative Matters

1. At all meetings of the Committee every question shall be decided by a majority of the votes cast. In case of an equality of votes, the Chairman of the meeting shall not be entitled to a second or casting vote.
2. 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 members present the Chair for purposes of the meeting.
3. A quorum for meetings of the Committee shall be a majority of its 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.
4. Meetings of the Committee should be scheduled to take place at least four times per year and at such other times as the Chair of the Committee may determine necessary. Minutes of all meetings of the Committee shall be taken. The Chief Financial Officer shall attend meetings of the Committee, unless otherwise excused from all or part of any such meeting by the Chairman.
5. The Committee shall meet with the external auditor(s) at least once per year (in connection with the preparation of the year-end financial statements) and at such other times as the external auditor(s) and the Committee consider appropriate.
6. Agendas, approved by the Chair, shall be circulated to Committee members along with background information on a timely basis prior to the Committee meetings.
7. The Committee may invite such officers, directors and employees of the Corporation as it may see fit from time to time to attend at meetings of the Committee and assist thereat in the discussion and consideration of the matters being considered by the Committee.
8. At the discretion of the Committee, the members of the Committee shall meet in private session (in camera) with the external auditor(s), management and with Committee members as required.
9. Following each meeting, the Committee will report to the Board. Upon request, copies of the materials of such Committee meeting should be provided at the next Board meeting after a meeting is held (these may still be in draft form).
10. Minutes of the Committee will be recorded and maintained and circulated to directors who are not members of the Committee or otherwise made available at a subsequent meeting of the Board upon request.
11. The Committee may retain persons having special expertise and/or obtain independent professional advice to assist in fulfilling its responsibilities at the expense of Harvest.

12. Any members of the Committee may be removed or replaced at any time by the Board and shall cease to be a member of the Committee as soon as such member ceases to be a director. The Board may fill vacancies on the Committee by appointment from among its members. If and whenever a vacancy shall exist on the Committee, the remaining members may exercise all its powers so long as a quorum remains. Subject to the foregoing, each member of the Committee shall hold such office until the Committee is reconstituted by the Board.

Any issues arising from these meetings that bear on the relationship between the Board and management should be communicated to the Chairman of the Board by the Committee Chair.

APPENDIX B – HARVEST MANDATE OF THE HARVEST BOARD

The Board of Directors of Harvest Operations Corp. is responsible for the stewardship of the Harvest Operations Corp. (“HOC”) and its subsidiaries. In discharging its responsibility, the Board will exercise the care, diligence and skill that a reasonably prudent person would exercise in comparable circumstances and will act honestly and in good faith with a view to the best interests of Harvest. In general terms, the Board will:

- A. in consultation with the President and Chief Executive Officer of Harvest, define the principal objective(s) of Harvest;
- B. supervise the management of the business and affairs of Harvest with the goal of achieving Harvest’s principal objective(s) as defined by the Board;
- C. discharge the duties imposed on the Board by applicable laws; and
- D. for the purpose of carrying out the foregoing responsibilities, take all such actions as the Board deems necessary or appropriate.

Without limiting the generality of the foregoing, the Board will perform the following duties:

Strategic Direction, Operating, Capital and Financial Plans

1. require Management to present annually to the Board a longer range strategic plan and a shorter range business plan for Harvest’s business, which plans must:
 - (a) be designed to achieve Harvest’s principal objectives,
 - (b) identify the principal strategic and operational opportunities and risks of Harvest’s business, and
 - (c) be approved by the Board as a pre-condition to the implementation of such plans;
2. review progress towards the achievement of the goals established in the strategic, operating and capital plans;
3. identify the principal risks of Harvest’s business and take all reasonable steps to ensure the implementation of the appropriate systems to manage these risks;
4. approve the annual operating and capital plans;
5. approve acquisitions and dispositions in excess of a pre-determined limit;
6. approve the establishment of credit facilities;
7. approve issuances of additional equity or other securities to the public; and
8. monitor Harvest’s progress towards its goals, and to revise and alter its direction through management in light of changing circumstances.

Management and Organization

1. monitor overall human resources policies and procedures, including compensation and succession planning;
2. approve the dividend policy of Harvest;
3. appoint the President and Chief Executive Officer and determine the terms of the President and Chief Executive Officer’s employment with Harvest and monitor the President and Chief Executive Officer’s performance against a set of mutually agreed corporate objectives directed at maximizing shareholder value;
4. in consultation with the President and Chief Executive Officer, develop a clear mandate and position description for the President and Chief Executive Officer, which includes a delineation of management’s authority and responsibility in conducting Harvest’s business;
5. in consultation with the President and Chief Executive Officer, appoint all officers of Harvest and approve the terms of each officer’s employment with Harvest;

6. delegate the authority to the Compensation and Corporate Governance Committee on annual overall compensation including STI and LTI for the management, each senior officer and employees, based on Compensation and Corporate Governance Committee's evaluation of the performance of the Corporation and management including each senior officer;
7. develop a process that adequately provides for succession planning, including, the appointing, training and monitoring of senior management;
8. approve any proposed significant change in the management organization structure of Harvest;
9. in consultation with the President and Chief Executive Officer, review and maintain the Disclosure Policy for Harvest; and
10. generally provide advice and guidance to management.

Finances and Controls

1. use reasonable efforts to ensure that Harvest maintains appropriate systems to manage the risks of Harvest's business;
2. monitor the appropriateness of Harvest's capital structure;
3. ensure that the financial performance of Harvest is properly reported to shareholders, other security holders and regulators on a timely and regular basis;
4. in consultation with the President and Chief Executive Officer, establish the ethical standards to be observed by all officers and employees of HOC and use reasonable efforts to ensure that a process is in place to monitor compliance with those standards;
5. require that the President and Chief Executive Officer institute and monitor processes and systems designed to ensure compliance with applicable laws by HOC and its officers and employees;
6. require that the President and Chief Executive Officer institute, and maintain the integrity of, internal control and information systems, including maintenance of all required records and documentation;
7. review and approve material contracts to be entered into by Harvest;
8. review and approve a firm of chartered accountants to be appointed as Harvest's auditor(s); and
9. take all necessary actions to gain reasonable assurance that all financial information made public by Harvest (including Harvest's annual and quarterly financial statements) is accurate and complete and represents fairly Harvest's financial position and performance.

Governance

1. in consultation with the Chairman of the Board, develop a position description for the Chairman of the Board;
2. facilitate the continuity, effectiveness and independence of the Board by, amongst other things:
 - (a) selecting from nominees made by the shareholder for election to the Board;
 - (b) appointing a Chairman of the Board who is not a member of management;
 - (c) appointing from amongst the directors an audit committee and such other committees of the Board as the Board deems appropriate and in compliance with corporate governance regulations;
 - (d) defining the mandate of each committee of the Board;
 - (e) provide comprehensive orientation to new directors of the Board; and
 - (f) establishing a system to enable any director to retain an outside adviser having special expertise and/or obtain independent professional advice to assist in fulfilling their responsibilities at the expense of Harvest;
3. review and approve annually the adequacy and form of the compensation of directors.

Delegation

1. the Board may delegate its duties to and receive reports and recommendations from any committee of the Board.

Meetings

1. the Board shall meet at least four times per year and/or as deemed appropriate by the Board Chair;
2. minutes of each meeting shall be prepared;
3. the President and Chief Executive Officer or his/her designate(s) may be present at all meetings of the Board;
4. Vice-Presidents and such other staff as appropriate to provide information to the Board shall attend meetings at the invitation of the Board;
5. at the end of each meeting, members have the option to meet without management directors and management present; and
6. at the end of each meeting, independent members have the option to meet without non-independent directors present.

APPENDIX C – 2018 MERCER TOTAL COMPENSATION SURVEY PARTICIPANTS: CANADIAN EXPLORATION & PRODUCTION AND FULLY INTEGRATED

ACCEL Energy Canada, Ltd.	E&P and FI
Access Pipeline, Inc.	Pipeline Midstream
Advantage Oil & Gas, Ltd.	E&P and FI
Alberta Electric System Operator	Utilities
Alberta Energy Regulator	Other
Alberta Innovates	Other
Alberta Innovates - C-FER Technologies	Other
Alberta Innovates - InnoTech Alberta	Other
Alberta Utilities Commission	Other
AltaGas, Ltd.	Pipeline Midstream
AltaGas, Ltd. - Gas	Pipeline Midstream
AltaGas, Ltd. - Heritage Gas, Ltd.	Pipeline Midstream
AltaGas, Ltd. - Power Generation	Pipeline Midstream
AltaGas, Ltd. - Utilities, Inc.	Utilities
AltaLink Management, Ltd.	Utilities
ARC Resources, Ltd.	E&P and FI
ATCO, Ltd.	Utilities
Athabasca Oil Corporation	E&P and FI
Baker Hughes	Services and Drilling
Bankers Petroleum, Ltd.	E&P and FI
Baytex Energy Corp.	E&P and FI
Bellatrix Exploration, Ltd.	E&P and FI
BHP Billiton Canada, Inc.	Other
Birchcliff Energy, Ltd.	E&P and FI
BJ Services Canada	Services and Drilling
Black Swan Energy, Ltd.	E&P and FI
Bonavista Energy Corporation	E&P and FI
BP Canada Energy Group ULC	E&P and FI
Calfrac Well Services, Ltd.	Services and Drilling
Cameco Corporation	Other
Canadian Association of Petroleum Producers (CAPP)	Other
Canadian Natural Resources, Ltd.	E&P and FI
Canadian Natural Resources, Ltd. - Horizon Oil Sands	E&P and FI
Canbriam Energy, Inc.	E&P and FI
Capital Power Corporation	Utilities
CEDA International Corporation	Services and Drilling
Cenovus Energy, Inc.	E&P and FI
CF Chemicals, Ltd.	Other

CGG Services (Canada) Inc.	Services and Drilling
Chemtrade Logistics Income Fund	Other
Chevron Canada Limited	E&P and FI
Chevron Canada Resources	E&P and FI
City of Medicine Hat - Natural Gas & Petroleum Resources	Other
Clean Harbors Canada	Services and Drilling
ClearStream Energy Services, Inc.	Services and Drilling
Clearview Resources, Ltd.	E&P and FI
Clough Enercore Limited	Other
Computer Modelling Group, Ltd.	Services and Drilling
Cona Resources, Ltd.	E&P and FI
Connacher Oil and Gas Limited	E&P and FI
ConocoPhillips Canada	E&P and FI
Corex Resources, Ltd.	E&P and FI
Crescent Point Energy Corp.	E&P and FI
Crew Energy, Inc.	E&P and FI
Devon Canada Corporation	E&P and FI
Direct Energy	Utilities
Dow Chemical Canada ULC	Other
Ember Resources, Inc.	E&P and FI
Emera, Inc.	Utilities
Emera, Inc. - Emera Brunswick Pipeline Company, Ltd.	Utilities
Emera, Inc. - Nova Scotia Power, Inc.	Utilities
Emerson Automation Solutions	Other
Enbridge, Inc.	Pipeline Midstream
Enbridge, Inc. - Enbridge Gas Distribution	Pipeline Midstream
Enbridge, Inc. - Gas Transmission & Midstream	Pipeline Midstream
Enbridge, Inc. - Liquids Pipelines	Pipeline Midstream
Enbridge, Inc. - Spectra Energy Transmission	Pipeline Midstream
Enbridge, Inc. - Spectra Energy Transmission - Express Platte	Pipeline Midstream
Enbridge, Inc. - Spectra Energy Transmission - Maritimes & Northeast Pipeline	Pipeline Midstream
Enbridge, Inc. - Spectra Energy Transmission - Midstream Division	Pipeline Midstream
Enbridge, Inc. - Spectra Energy Transmission - Union Gas	Pipeline Midstream
Enbridge, Inc. - Tidal Energy Marketing	Pipeline Midstream
Enbridge, Inc. - Utilities & Power Operations	Pipeline Midstream
Encana Corporation	E&P and FI
Encana Corporation - Encana Services Company, Ltd.	E&P and FI
Enerplus Corp.	E&P and FI
ENMAX Corporation	Utilities
Ensign Drilling, Inc.	Services and Drilling
Ensign Energy Services, Inc.	Services and Drilling

Ensign Well Servicing, Inc.	Services and Drilling
EPCOR Utilities, Inc.	Utilities
ExxonMobil Canada	E&P and FI
Federated Co-operative, Ltd. - Co-op Refinery Complex	Other
FI Oilfield Services Canada ULC	Services and Drilling
Fortis, Inc. - FortisAlberta, Inc.	Utilities
Frontera Energy Corporation	E&P and FI
Gain Energy, Ltd.	E&P and FI
Gibson Energy - Infrastructure	Pipeline Midstream
Gibson Energy - Other	Pipeline Midstream
Gibson Energy - Wholesale	Pipeline Midstream
Golder Associates Corporation (GAC)	E&P and FI
Golder Associates Corporation (GAC) - Golder Associates (GAL)	E&P and FI
Halliburton Group Canada	Services and Drilling
Hammerhead Resources, Inc.	E&P and FI
Harvest Operations Corp.	E&P and FI
Heritage Resources Limited Partnership	Other
Husky Energy, Inc.	E&P and FI
Imperial Oil	E&P and FI
InPlay Oil Corp.	E&P and FI
Insignia Energy, Ltd.	E&P and FI
Inter Pipeline, Ltd.	Pipeline Midstream
IPC Alberta, Ltd.	E&P and FI
Irving Oil, Ltd.	Other
Irving Oil, Ltd. - Atlantic Emergency Response Team, Inc.	Other
Irving Oil, Ltd. - Highlands Fuel Delivery, LLC	Other
Irving Oil, Ltd. - Irving Blending & Packaging	Other
Irving Oil, Ltd. - Irving Oil Commercial GP	Other
Irving Oil, Ltd. - Irving Oil Marketing GP	Other
Irving Oil, Ltd. - Irving Oil Refining GP	Other
Irving Oil, Ltd. - Irving Oil Terminals & Pipelines GP	Other
Irving Oil, Ltd. - Newfoundland and Labrador Asphalt, Ltd.	Other
Japan Canada Oil Sands Limited	E&P and FI
Journey Energy, Inc.	E&P and FI
Kaden Energy, Ltd.	E&P and FI
Keyera Corp.	Pipeline Midstream
Kinder Morgan Canada, Ltd.	Pipeline Midstream
Long Run Exploration, Ltd.	E&P and FI
Mancal Energy, Inc.	E&P and FI
Manulife Financial Corp. - NAL Resources Management Limited	E&P and FI
MEG Energy	E&P and FI
MEGlobal Canada ULC	Other

Methanex Corporation	Other
Mikisew Group of Companies	Services and Drilling
Murphy Oil Company, Ltd.	E&P and FI
NAES Canada, Ltd.	Other
National Energy Board	Other
Nexen Energy ULC	E&P and FI
North West Redwater Partnership	Other
NOVA Chemicals Corporation	Other
Nutrien, Ltd.	Other
Nutrien, Ltd. - NPK	Other
NuVista Energy, Ltd.	E&P and FI
Obsidian Energy, Ltd.	E&P and FI
Oceaneering Canada, Ltd.	Services and Drilling
Oceaneering Canada, Ltd. - Grayloc Canada, Ltd.	Services and Drilling
ORLEN Upstream Canada, Ltd.	E&P and FI
Osum Oil Sands Corp.	E&P and FI
Osum Production Corp.	E&P and FI
Painted Pony Energy, Ltd.	E&P and FI
Paramount Resources, Ltd.	E&P and FI
Parex Resources, Inc.	E&P and FI
Parkland Fuel Corporation	Other
Patterson-UTI Drilling Canada Limited	Services and Drilling
Pec Tech LNG Limited	Other
Pembina Pipeline Corporation	Pipeline Midstream
Pengrowth Energy Corporation	E&P and FI
Perpetual Energy, Inc.	E&P and FI
PetroChina Canada, Ltd.	E&P and FI
Plains Midstream Canada	Pipeline Midstream
Polar Star Canadian Oil & Gas, Inc.	E&P and FI
Precision Drilling Corporation	Services and Drilling
Progress Energy Canada, Ltd.	E&P and FI
Propak Systems, Ltd.	Other
Repsol Oil & Gas Canada Inc.	E&P and FI
Ridgeback Resources, Inc.	E&P and FI
Rife Resources, Ltd.	E&P and FI
Rockpoint Gas Storage	Pipeline Midstream
Saguaro Resources, Ltd.	E&P and FI
SaskEnergy, Inc.	Utilities
SaskPower	Utilities
Sasol Canada Holdings, Ltd.	E&P and FI
Schlumberger Limited - Schlumberger Canada, Ltd.	Services and Drilling
Secure Energy Services, Inc.	Services and Drilling

Secure Energy Services, Inc. - Secure Energy (Drilling Services), Inc.	Services and Drilling
Secure Energy Services, Inc. - Secure Energy (OnSite Services), Inc.	Services and Drilling
SemCAMS, ULC	Pipeline Midstream
Serafina Energy, Ltd.	E&P and FI
Seven Generations Energy, Ltd.	E&P and FI
Shell Canada Limited	E&P and FI
Shell Canada Limited - Downstream	E&P and FI
Shell Canada Limited - Projects & Technology	E&P and FI
Shell Canada Limited - Upstream Americas - Non Heavy Oil	E&P and FI
Sherritt International Corporation - Oil Gas and Power Division	E&P and FI
Sinopec Daylight Energy, Ltd.	E&P and FI
Source Energy Services	Services and Drilling
Spartan Controls, Ltd.	Services and Drilling
Stantec, Inc.	Other
Statoil Canada, Ltd.	E&P and FI
Steel Reef Infrastructure Corp	Pipeline Midstream
Storm Resources, Ltd.	E&P and FI
Strath Resources, Ltd.	E&P and FI
Suncor Energy, Inc.	E&P and FI
Suncor Energy, Inc. - Exploration & Production	E&P and FI
Suncor Energy, Inc. - Oil Sands	E&P and FI
Suncor Energy, Inc. - Refining and Marketing	E&P and FI
Surge Energy, Inc.	E&P and FI
Syncrude Canada, Ltd.	E&P and FI
TAQA North, Ltd.	E&P and FI
Technip FMC Canada	Other
Teck Resources Limited	Other
Teine Energy, Ltd.	E&P and FI
Tenaris - Algomatubes, Inc.	Other
Tenaris - Hydril Canadian Company, Ltd.	Other
Tenaris - Prudential Steel, ULC	Other
Tenaris Global Services (Canada), Inc.	Other
Tervita Corporation	Services and Drilling
TGS Canada Corp	Services and Drilling
Todd Energy Canada Limited	E&P and FI
TORC Oil & Gas, Ltd.	E&P and FI
Toronto Hydro Corporation	Utilities
Torxen Oil & Gas, Ltd.	E&P and FI
Total E&P Canada	E&P and FI
Tourmaline Oil Corp	E&P and FI
TransAlta Corporation	Utilities
TransCanada Corporation	Pipeline Midstream

TransCanada Corporation - Energy Group	Pipeline Midstream
TransCanada Corporation - Pipelines Group	Pipeline Midstream
TransGlobe Energy Corporation	E&P and FI
Trican Well Service, Ltd.	Services and Drilling
Trident Exploration Corp.	E&P and FI
Trinidad Drilling, Ltd.	Services and Drilling
Tundra Oil & Gas, Ltd.	E&P and FI
Tundra Oil & Gas, Ltd. - Tundra Energy Marketing Limited	Pipeline Midstream
Velvet Energy, Ltd.	E&P and FI
Vermilion Energy, Inc.	E&P and FI
Weatherford Canada, Ltd.	Services and Drilling
West Lake Energy Corp.	E&P and FI
Western Energy Services Corp.	Services and Drilling
Western Energy Services Corp. - Aero Rental Services	Services and Drilling
Western Energy Services Corp. - Eagle Well Servicing	Services and Drilling
Western Energy Services Corp. - Horizon Drilling, Inc.	Services and Drilling
Western Energy Services Corp. - Western Field Services	Services and Drilling
Woodfibre LNG Limited	Other
WZR Development ULC	E&P and FI