Denison Mines Corp.

2016 Annual Information Form

March 23, 2017

ABOUT THIS ANNUAL INFORMATION FORM

This annual information form ("**AIF**") is dated March 23, 2017. Unless stated otherwise, all of the information in this AIF is stated as at December 31, 2016.

This AIF has been prepared in accordance with Canadian securities laws and contains information regarding Denison's history, business, mineral reserves and resources, the regulatory environment in which Denison does business, the risks that Denison faces and other important information for Shareholders.

This AIF incorporates by reference:

- Denison's management discussion and analysis ("**MD&A**") for the year ended December 31, 2016, which is available under the Company's profile on SEDAR (www.sedar.com) and on EDGAR (www.sec.gov/edgar.shtml) as an exhibit to the Company's Form 40-F.
- Denison's audited consolidated financial statements for the year ended December 31, 2016, which are available on SEDAR and EDGAR as an exhibit to the Company's Form 40-F.

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Financial Information

Unless otherwise specified, all dollar amounts referred to in this AIF are stated in United Stated dollars. References to "CAD" mean Canadian dollars.

Financial information is presented in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board.

Caution about Forward-Looking Information

Certain information contained in this AIF and the documents incorporated by reference concerning the business, operations and financial performance and condition of Denison constitutes forward-looking information within the meaning of the United States *Private Securities Litigation Reform Act of 1995* and similar Canadian legislation.

Generally, the use of words and phrases like "plans", "expects", "is expected", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates", or "believes", or the negatives and/or variations of such words and phrases, or statements that certain actions, events or results "may", "could", "would", "might" or "will" "be taken", "occur", "be achieved" or "has the potential to" and similar expressions are intended to identify forward-looking information.

Forward-looking information involves known and unknown risks, uncertainties and other factors that may cause actual results or events to differ materially from those expressed or implied by such forward-looking statements. Denison believes that the expectations reflected in this

forward-looking information are reasonable, but no assurance can be given that these expectations will prove to be correct.

Forward-looking information should not be unduly relied upon. This information speaks only as of the date of this AIF, and Denison will not necessarily update this information, unless required to do so by securities laws.

Examples of Forward-Looking Information

This AIF contains forward-looking information in a number of places, such as in statements pertaining to:

- Denison's estimates of its mineral reserves and mineral resources
- Denison's expectations regarding the toll milling of Cigar Lake ores
- Denison's capital expenditure program, exploration and development expenditures and reclamation costs
- Denison's expectations of market prices and costs
- the supply and demand for uranium ("**U_3O_8**")
- possible impacts of litigation and regulatory actions on Denison
- Denison's exploration, evaluation and development plans and objectives
- expectations regarding ongoing joint arrangements and Denison's share of the same
- future royalty and tax payments and rates
- Denison's expectations regarding raising capital
- Denison's expectations regarding additions to its mineral reserves and resources through acquisitions and exploration
- the receipt of regulatory approvals, permits and licences under governmental regulatory regimes

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

Material Risks

Denison's actual results could differ materially from those anticipated. Management has identified the following risk factors which could have a material impact on the Company or the trading price of its common shares ("**Shares**"):

- the speculative nature of exploration and development projects
- failure to realize benefits from transactions
- Denison's inability to expand and replace its mineral reserves and resources
- the imprecision of mineral reserve and resource estimates
- the impact of uranium price volatility on the valuation of Denison's mineral reserves and resources and the market price of its shares
- public acceptance of nuclear energy and competition from other energy sources
- volatility in the market price of the Company's shares
- the risk of dilution from future equity financings
- reliance on other operators
- property title risk
- competition for properties
- global financial conditions

- the ability of Denison to meet its obligations to its creditors
- change of control restrictions
- the capital intensive nature of mining industry and the uncertainty of funding
- uncertainty as to reclamation and decommissioning liabilities
- technical innovation rendering Denison's products and services obsolete
- liabilities inherent in mining operations and the adequacy of insurance coverage
- delays in obtaining licence amendments and renewals for development properties
- difficulty complying with changing government regulations and policy, including without limitation, compliance with environment, health and safety regulations
- the ability of Denison to ensure compliance with anti-bribery and anti-corruption laws
- potential claims of Canada's First Nations people
- the reliance of the Company on its information systems and the risk of cyber-attacks on those systems
- dependence on key personnel
- potential conflicts of interest for the Company's directors who are engaged in similar businesses
- limitations of disclosure and internal controls
- the potential influence of Denison's largest Shareholder, Korea Electric Power Corporation ("**KEPCO**") and its subsidiary, Korea Hydro & Nuclear Power ("**KHNP**").

The risk factors listed above are discussed in more detail later in this AIF (see "Risk Factors"). These factors and the factors discussed later in this AIF are not, and should not be construed as being, exhaustive.

A Note for US Investors Regarding Estimates of Measured, Indicated and Inferred Mineral Resources

This AIF uses the terms "measured", "indicated" and "inferred" mineral resources. United States investors are advised that while such terms are recognized and required by Canadian regulations, the United States Securities and Exchange Commission does not recognize them. "Inferred mineral resources" have a great amount of uncertainty as to their existence, and as to their economic and legal feasibility. It cannot be assumed that all or any part of an inferred mineral resource will ever be upgraded to a higher category. Under Canadian rules, estimates of inferred mineral resources may not form the basis of feasibility or other economic studies. **United States investors are cautioned not to assume that all or any part of measured or indicated mineral resources will ever be converted into mineral reserves. United States investors are also cautioned not to assume that all or any part of an inferred mineral resource exists, or is economically or legally mineable.**

ABOUT DENISON

Denison Mines Corp. is engaged in uranium exploration and development. The registered and head office of Denison is located at 1100 – 40 University Avenue, Toronto, Ontario, M5J 1T1, Canada. Denison's website address is www.denisonmines.com.

At the end of 2016, Denison had a total of 68 active employees, all of which were employed in Canada. None of the Company's employees are unionized.

Denison is a reporting issuer in all of the Canadian provinces.

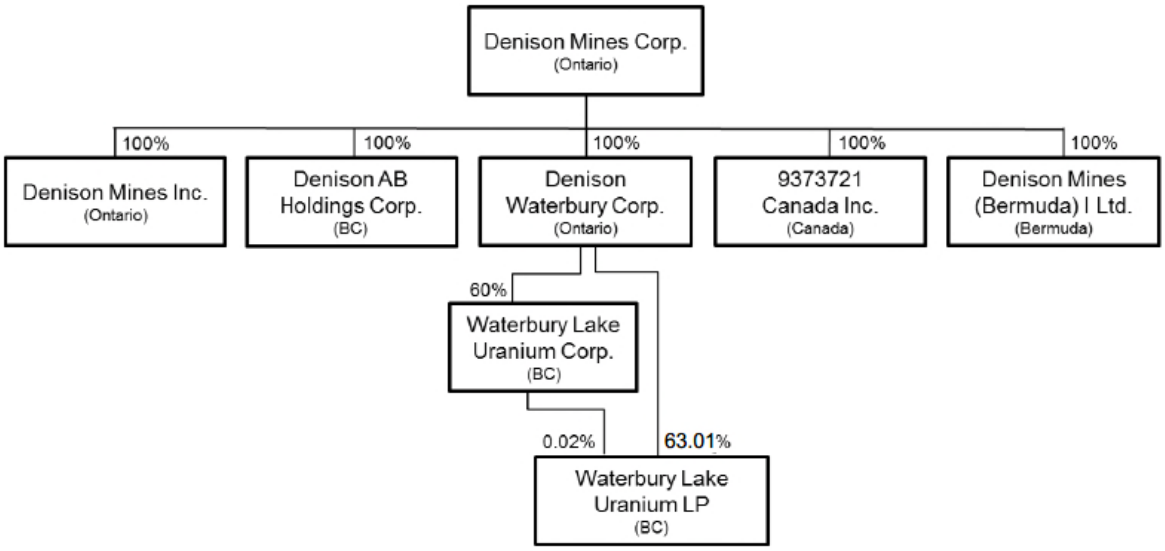
The Shares are listed on the Toronto Stock Exchange ("**TSX**") under the symbol "DML" and on the NYSE MKT under the symbol "DNN." Computershare Investor Services Inc. acts as the registrar and transfer agent for the Shares. The address for Computershare Investor Services Inc. is 100 University Avenue, 8th Floor, Toronto, ON, M5J 2Y1, Canada, and the telephone number is 1-800-564-6253.

In this AIF, *Denison* or *the Company* means Denison Mines Corp., *Shareholders* means holders of Denison's common shares and *Shares* means Denison's common shares.

The Shares are registered under the United States *Securities Exchange Act of 1934*, as amended, and Denison files periodic reports with the United States Securities and Exchange Commission.

Denison's Structure

Denison conducts its business through a number of subsidiaries. The following is a diagram depicting the corporate structure of Denison and its active subsidiaries as at December 31, 2016, including the name, jurisdiction of incorporation and proportion of ownership interest in each.



Denison also owns a number of inactive subsidiaries which have no liabilities or assets and do not engage in any business activities.

Denison Asset Overview

Denison's uranium exploration properties are principally held directly by the Company or indirectly through Denison Mines Inc. ("**DMI**"). DMI holds a 22.5% interest in the McClean Lake project and a 25.17% interest in the Midwest project, both of which are operated by Denison's joint venture partner, AREVA Resources Canada Inc. ("**ARC**"). DMI also holds a 60% interest in, and is the operator of, the Wheeler River project, host to the Phoenix deposit and the Gryphon deposit, as well as interests in other exploration properties in the Athabasca Basin. Denison's 63.01% interest in the Waterbury Lake project is held indirectly through Denison Waterbury Corp and its 30% interest in the Mann Lake project is held indirectly through Denison AB Holdings Corp.

In addition to its exploration, evaluation and development interests in the Athabasca Basin, Denison participates in a toll-milling arrangement through its interest in the McClean Lake Joint Venture ("**MLJV**") whereby ore is processed for the Cigar Lake Joint Venture ("**CLJV**") at the McClean Lake mill (the "**Toll Milling**"). In February 2017, Denison completed a financing (the "**APG Financing**") with Anglo Pacific Group PLC ("**APG**") and its wholly owned subsidiary Centaurus Royalties Ltd. ("**Centaurus**") for gross proceeds to Denison of CAD$43,500,000. The APG Financing has the effect of monetizing Denison's future share of the Toll Milling and providing Denison with the financial flexibility to advance its interests in the Athabasca Basin, including the Wheeler River project, without selling its strategic ownership stake in the MLJV or McClean Lake mill. See "Denison Operations – Cigar Lake Toll Milling – APG Financing".

The Company also generates cash flow through the following areas of its business:

(i) Management of Uranium Participation Corporation ("**UPC**")

Pursuant to a management services agreement, DMI serves as the manager of UPC, a publicly-traded company listed on the TSX under the symbol "U", which invests in uranium oxide in concentrates and uranium hexafluoride.

(ii) The Denison Environmental Services ("**DES**") division of DMI

DES provides mine care & maintenance, decommissioning and environmental services to third party customers.

Denison's Key Assets Today:

- A 60% interest in the Wheeler River project, which includes the Phoenix and Gryphon deposits in northern Saskatchewan.
- A 22.50% interest in the McClean Lake uranium processing facility and uranium deposits in northern Saskatchewan.
- A 25.17% interest in the Midwest uranium project, including the Midwest and the Midwest A deposits in northern Saskatchewan.
- A 63.01% interest in the Waterbury Lake property, which includes the J Zone deposit in northern Saskatchewan.
- An extensive portfolio of exploration and development property interests in the Athabasca Basin in northern Saskatchewan including: Crawford/Bachman Lake (100%), Hook Carter (80%), Murphy Lake (78.96%), Hatchet Lake (70.11%), Bell Lake (100%) and Mann Lake (30%).

The Formation of Denison

Denison was formed by articles of amalgamation as International Uranium Corporation ("**IUC**"), effective May 9, 1997 pursuant to the *Business Corporations Act* (Ontario) (the "**OBCA**"). On December 1, 2006, IUC combined its business and operations with DMI, by way of arrangement under the OBCA (the "**IUC Arrangement**"). Pursuant to the IUC Arrangement, all of the issued and outstanding shares of DMI were acquired in exchange for IUC's shares. Effective December 1, 2006, IUC's articles were amended to change its name to "Denison Mines Corp."

Prior to July 2012, Denison was engaged in the exploration, development, mining, and milling of uranium and vanadium, with projects in the United States, Canada, Zambia and Mongolia. At the time, Denison's principal assets included 100% ownership of the White Mesa Mill in Utah and 22.5% ownership of the McClean Lake uranium mill in Saskatchewan.

On June 29, 2012, Denison sold its shares in certain subsidiaries, which owned all of the Company's mining assets and operations located in the United States ("**U.S. Mining Division**"). The sale was carried out by way of a plan of arrangement between Denison and Energy Fuels Inc. ("**EFR**"). After completing the various steps in the plan of arrangement, Denison shareholders retained their interest in Denison and received 1.106 common shares of EFR for each Share held in Denison. By completing the transaction with EFR, Denison transformed its business to focus on its uranium exploration and development projects in Saskatchewan, Zambia and Mongolia.

In 2013, through its acquisitions of JNR Resources Inc. ("**JNR**"), Fission Energy Corp. ("**Fission**") and Rockgate Capital Corp. ("**Rockgate**"), and in 2014, through its acquisition of International Enexco Limited ("**IEC**"), Denison increased its project portfolio in Canada, primarily in the Athabasca Basin, and expanded its position in Africa by acquiring interests in uranium exploration properties in Namibia and Mali.

Throughout 2015 and 2016, Denison worked to further achieve its objective of focusing on its core activities in the Athabasca Basin. In November 2015, Denison completed the sale of its interest in the Gurvan Saihan joint venture in Mongolia to Uranium Industry a.s. pursuant to an amended and restated share purchase agreement entered into on November 25, 2015.

In June 2016, GoviEx Uranium Inc. ("**GoviEx**") and Denison completed a transaction to combine their respective African uranium mineral interests, in which GoviEx acquired all of Denison's African uranium mineral interests in Zambia, Mali and Namibia through the acquisition from Denison of Rockgate. In exchange for Rockgate, Denison received a total of 56,050,450 common shares of GoviEx and 22,420,180 GoviEx common share purchase warrants.

DEVELOPMENTS OVER THE LAST THREE YEARS

2014…

In January, Denison completed the acquisition of Rockgate. Denison had previously acquired 89.7% of the outstanding Rockgate common shares by way of a takeover bid, which expired on December 6, 2013. Denison acquired the remaining 10.3% of the outstanding shares of Rockgate by plan of arrangement, making Rockgate a wholly-owned subsidiary of the Company. Rockgate shareholders received 0.192 of a Share for each Rockgate common share. Through the acquisition of Rockgate, Denison added $15,322,000 in cash and investments and mineral property interests in Mali and Niger. Pursuant to the Rockgate Offer and the Rockgate Arrangement, an aggregate total of 22,444,287 Shares were issued to Rockgate shareholders.

Also in January, Mr. Eun Ho Cheong, KEPCO's representative on Denison's Board, resigned and was replaced by Mr. Tae Hwan Kim.

At the end of January, the Company amended and extended the terms of its CAD$15,000,000 credit facility with the Bank of Nova Scotia (the "**Credit Facility**") to January 31, 2015.

In March, Denison announced the discovery of a new zone of mineralization at Wheeler River, named the Gryphon zone. The discovery resulted from an intersection of high grade, basement hosted uranium mineralization returning 15.3% U_3O_8 over 4.0 metres in an area three kilometres northwest of the Phoenix deposit. Shortly after its initial discovery, Denison announced a second intersection of high grade, basement hosted uranium mineralization returning 21.2% U_3O_8 over 4.5 metres. The Gryphon zone would become the focus of further drilling for the balance of the year.

In June, Denison completed the acquisition of IEC, which included IEC's uranium exploration assets in the eastern part of the Athabasca Basin in Saskatchewan, consisting of a 30% interest in the Mann Lake property and a 20% interest in Denison's Bachman Lake property. The acquisition of IEC was completed by way of plan of arrangement (the "**IEC Arrangement**"). As a result of the IEC Arrangement, Denison acquired all of the issued and outstanding IEC shares that it did not already own, while certain non-Canadian assets were spun out to a former subsidiary of IEC ("**IEC Spinco**"). Under the IEC Arrangement, each IEC share was exchanged for 0.26 of a Denison Share, one common share of IEC Spinco, and one-half of an IEC Spinco warrant to acquire an additional IEC Spinco share at a price of CAD$5.00 for six months. The expiry of outstanding IEC stock options was extended to 90 days from closing and outstanding warrants were automatically exchanged for warrants of Denison and IEC Spinco.

Also in June, an updated mineral resource estimate for the Phoenix deposit at the Wheeler River project was received from Roscoe Postle Associates Inc. ("**RPA Inc**."), which was retained to independently estimate the mineral resources in accordance with the requirements of NI 43-101. The total indicated mineral resource estimate increased from 52,300,000 pounds of U_3O_8 to 70,200,000 pounds of U_3O_8 (the Company's share, 42,100,000 pounds) based on 166,400 tonnes of mineralization at an average grade of 19.14% U_3O_8. The total inferred mineral resource is now estimated to be 1,100,000 pounds of U_3O_8 (the Company's share, 700,000 pounds) based on 8,600 tonnes of mineralization with an average grade of 5.80% U_3O_8.

In August, Denison completed a private placement offering (the "**2014 Offering**") of 9,257,500 Shares, at a price of CAD$1.62 each, issued on a "flow-through" basis under the *Income Tax Act* (Canada). The 2014 Offering raised aggregate gross proceeds for the Company of CAD$14,997,000, which was used towards the funding of its Canadian exploration programs through to the end of 2015.

Construction and commissioning activities continued at the McClean Lake mill through the summer. In September, the McClean Lake mill was officially restarted and leaching of McClean Lake ore slurry commenced as an initial source of mill feed. Ore from the CLJV was introduced into the mill circuit towards the end of September, leading to the production of the first packaged uranium from CLJV ore in October. Production for 2014 amounted to approximately 344,000 pounds U_3O_8 for the CLJV and approximately 112,000 pounds U_3O_8 for the MLJV (Denison's share, 25,000 pounds U_3O_8).

In November, Peter Longo joined Denison as Vice President, Project Development with responsibilities including advancing the Wheeler River project to the next phase of development and working closely with ARC on the McClean, Midwest and SABRE projects.

During 2014, Denison continued to be one of the most active exploration companies in the Athabasca Basin. The Company completed 52,300 metres of diamond drilling on properties that it operates and participated in an additional 15,500 metres on joint ventures operated by others. A large amount of geophysical surveying was also completed to ensure a continuous pipeline of drilling targets was maintained.

2015…

In January, David Cates, formerly Vice President Finance & Tax and Chief Financial Officer, was appointed President and Chief Financial Officer of the Company. The appointment increased the scope of the operational management responsibilities included in Mr. Cates' portfolio of responsibilities. Ron Hochstein continued as Chief Executive Officer.

Also in January, Mr. Tae Hwan Kim, KEPCO's representative on Denison's Board, resigned and was replaced by Mr. Joo Soo Park.

At the end of January, the Company extended its Credit Facility to January 2016, increased the maximum credit provided under the facility to CAD$24,000,000 and amended certain other provisions, including the introduction of a covenant to maintain a minimum balance of cash and equivalents of CAD$5,000,000 on deposit with the Bank of Nova Scotia.

In March, Ron Hochstein resigned as Chief Executive Officer of the Company and was appointed Executive Chairman of the Company's Board of Directors and David Cates assumed the role of Chief Executive Officer to become President and Chief Executive Officer of the Company. To facilitate these changes, Lukas Lundin resigned as Chairman, but continued as a

Director of the Company. Also in March, Mac McDonald was appointed Vice-President Finance and Chief Financial Officer.

In April, the Company completed its winter exploration drilling in the Athabasca Basin. The drilling program included the expansion of the Gryphon zone of basement hosted uranium mineralization at Wheeler River, a new discovery of high grade unconformity hosted uranium mineralization southwest of Gryphon, and the extension of a zone of high grade unconformity hosted uranium mineralization at Mann Lake. The Company reported that over 30,300 metres had been completed in 61 drill holes on seven projects operated by the Company. Additionally, approximately 12,700 metres were completed in 32 holes on projects operated by the Company's joint venture partners.

In May, the Company completed a bought deal private placement of 12,000,000 common shares on a flow-through basis at a price of CAD$1.25 per share for total gross proceeds of CAD$15,000,000 (the "**2015 Offering**"). The gross proceeds from the financing were intended to fund the Company's Canadian exploration expenses through to the end of 2016.

In July, Denison and Fission Uranium Corp. ("**Fission Uranium**") announced a transaction to create a diversified uranium company, and executed a definitive arrangement agreement (the "**2015 Fission Arrangement Agreement**"). In October, Denison and Fission Uranium terminated the arrangement agreement because the required two-thirds approval of the arrangement by Fission Uranium shareholders was not obtained.

In late July, Denison completed the definition drilling component of the summer exploration program at the Gryphon Zone on the Wheeler River property, and reported the discovery of uranium mineralization at the Murphy Lake property, which is located 30 kilometres northwest of the McClean Lake mill.

Also in late July, the Company announced it had entered into an agreement (the "**Share Purchase Agreement**") with Uranium Industry a.s. pursuant to which the Company would sell its interest in the Gurvan Saihan joint venture (the "**GSJV**") to Uranium Industry a.s. for $20,000,000 with an initial payment of $250,000 on closing and a deferred payment of $19,750,000 due by November 30, 2015, subject to the issuance by the Mongolian government to the GSJV of certain mining licences. On November 25, 2015, Denison amended and restated the Share Purchase Agreement (the "**Mongolia Transaction**") and announced the closing of the sale of its interest in the GSJV on December 1, 2015. In connection with the closing the Company received $1,250,000 and retained rights to receive additional proceeds from contingent payments of up to $12,000,000, for total consideration of up to $13,250,000. The contingent payments are payable as follows: (1) $5,000,000 within 60 days of the issuance of a mining licence for an area covered by any of the four principal exploration licences held by the GSJV, being the Hairhan, Haraat, Gurvan Saihan and Ulzit projects (the "**First Project**"); (2) $5,000,000 within 60 days of the issuance of a mining licence for an area covered by any of the other exploration licences held by the GSJV (the "**Second Project**"); (3) $1,000,000 within 365 days following the production of an aggregate of 1,000 pounds U_3O_8 from the operation of the First Project; and (4) $1,000,000 within 365 days following the production of an aggregate of 1,000 pounds U_3O_8 from the operation of the Second Project. On December 2, 2015, Uranium Industry a.s. submitted applications to the Mongolian government for mining licences for each of the four exploration licence projects. See "Developments Over the Last Three Years – 2016…"

In October, Denison appointed Lukas Lundin as Executive Chairman of the Board of Directors. To facilitate this appointment, Ron Hochstein stepped down as Executive Chairman, but continued to serve as a Director.

Also in October, Denison completed its summer 2015 exploration activities. The exploration program was highlighted by the completion of delineation drilling at the Gryphon zone on the Wheeler River property, which resulted in the expansion of uranium mineralization at Gryphon. During the summer exploration program, over 37,900 metres of drilling was completed on 13 properties operated and non-operated by Denison, with approximately 24,500 metres of drilling completed at Wheeler alone.

Effective November, John Craig resigned as a member of the Board of Directors and Steve Blower resigned from his position as Vice President, Exploration.

Also in November, Denison announced a significant increase in the estimated mineral resources on its Wheeler River property due to the addition of the Gryphon Deposit. The initial resource estimate for the Gryphon Deposit added inferred mineral resources of 43,000,000 pounds U_3O_8 (834,000 tonnes at a grade of 2.31% U_3O_8) to a property that was already host to the Phoenix deposit, which includes an estimated indicated mineral resource of 70,200,000 pounds U_3O_8, (166,400 tonnes at a grade of 19.14% U_3O_8). Together, the Gryphon and Phoenix deposits represent a unique combination of large resource size and high grades, with the potential for co-development. Denison completed an updated mineral resource estimates for the Wheeler River property in the technical report titled "Technical Report on a Mineral Resource Estimate for the Wheeler River Property, Eastern Athabasca Basin, Northern Saskatchewan, Canada" dated November 25, 2015. The Wheeler Technical Report was publicly filed on December 7, 2015.

Effective December, Sheila Colman, General Counsel and Corporate Secretary, resigned as an officer of Denison and its applicable affiliates.

Production from the McClean Lake mill in 2015 amounted to approximately 11,294,000 pounds U_3O_8 for the CLJV and 11,000 pounds U_3O_8 for the MLJV. The Company's share of toll milling revenues from processing Cigar Lake ore at the McClean Lake mill during the year totaled approximately $3,155,000.

2016…

In January, Dale Verran was appointed Vice President, Exploration with responsibility for overseeing and advancing the Company's exploration programs. Prior to his appointment, Mr. Verran served as Technical Director, Exploration for the Company. In addition, Mr. Joo Soo Park, KEPCO's representative on Denison's Board, resigned and was replaced by Mr. Hyung Mun Bae.

Also in January, the Company amended and extended its Credit Facility to January 31, 2017.

In February, Amanda Willett was appointed Corporate Counsel and Corporate Secretary of Denison on a secondment basis, which appointment was made permanent effective June 2016.

In March, the Company announced the execution of a new three year agreement (the "**MSA**") to provide management services to UPC. The MSA took effect on April 1, 2016, at the conclusion of the three year term of the then current management services agreement between UPC and DMI. See "Manager of UPC".

In April, Denison announced the results of the PEA (as defined herein) on its 60% owned Wheeler River Project. The PEA considered the potential economic merit of co-developing the high grade Gryphon and Phoenix deposits as a single underground mining operation, and assumed processing at Denison's 22.5% owned McClean Lake mill. The PEA considered two economic scenarios: (a) a base case scenario based on a March 2016 long-term price of uranium of $44.00 per pound; and (b) a production case scenario based on a long-term price of uranium of $62.60 per pound. Economic highlights of the PEA included (a) base case: a pre-tax IRR of 20.4% and a pre-tax Net Present Value ("**NPV**") of CAD$513 million (Denison's share CAD$308 million); and (b) production case: a pre-tax IRR of 34.1% and pre-tax NPV of CAD$1,420 million (Denison's share CAD$852 million). Following the completion of the PEA, a decision was made to advance towards the completion of a Pre-Feasibility Study ("**PFS**") which would require additional definition drilling to be completed in order to improve the confidence in the existing mineral resources estimated for the Gryphon deposit. See "Mineral Properties – Wheeler River".

Also in April, Denison completed its winter exploration drilling in the Athabasca Basin. Drilling results at Wheeler River included the discovery of the D Series lenses of mineralization located within 200 metres north and northwest of the Gryphon deposit and continued intercepts of mineralization and/or radioactivity to the southwest of Gryphon along the K-North trend. Other notable winter results included extension of the mineralized trend at Murphy Lake and the discovery of mineralization on the CR-3 trend at Moon Lake South. The Company reported that 31,091 metres of drilling had been completed in 55 drill holes on seven projects operated by the Company. Additionally, 8,107 metres of drilling was completed in 31 holes on projects operated by the Company's joint venture partners.

In May, Denison completed a private placement offering (the "**2016 Offering**") of common shares issued on a "flow-through" basis pursuant to the *Income Tax Act* (Canada) (the "**Flow-Through Shares**"). Denison issued 15,127,805 Flow-Through Shares, at a price of CAD$0.82 per Flow-Through Share, for aggregate gross proceeds to Denison of CAD$12,405,000. The gross proceeds from the financing are intended to fund the Company's Canadian exploration expenses through to the end of 2017.

In June, GoviEx and Denison completed the combination of their respective African uranium mineral interests (the "**Africa Transaction**"). Pursuant to the Africa Transaction, GoviEx acquired all of Denison's African uranium mineral interests in Mali, Zambia and Namibia through the acquisition of Rockgate from Denison. In exchange, Denison received 56,050,450 common shares and 22,420,180 common share purchase warrants ("**Consideration Warrants**") of GoviEx. Each Consideration Warrant is convertible into one common share of GoviEx at a price of $0.15 per share for a period of three years. The Consideration Warrants include an acceleration clause, which provide that in the event that the closing price of GoviEx's common shares on the TSX Venture Exchange is equal to or greater than CAD$0.24 per share for a period of 15 consecutive trading days, GoviEx may provide holders of the Consideration Warrants with written notice that holders have 30 days to exercise the Consideration Warrants on the original terms, failing which the exercise price of the Consideration Warrants will be increased to $0.18 per share and the term of the Consideration Warrants will be reduced by six months. Concurrently, GoviEx completed a non-brokered equity financing on a private placement basis, in which Denison provided the lead order of approximately $500,000 for 9,093,571 common shares and common share purchase warrants (the "**Concurrent Warrants**"). Each Concurrent Warrant is convertible into one common share of GoviEx for a period of three years, at a price of $0.12 per share until June 10, 2018 and thereafter at a price of $0.14 per share. The Concurrent Warrants include an acceleration clause, which provide that

in the event that the closing price of GoviEx's common shares on the TSX Venture Exchange is equal to or greater than CAD$0.20 per share for a period of 15 consecutive trading days, GoviEx may provide holders of the Concurrent Warrants with written notice that holders have 60 days to exercise the Concurrent Warrants on the original terms, failing which the Concurrent Warrants will expire unexercised. In total, as a result of the sale and the concurrent financing, Denison acquired a total of 65,144,021 common shares of GoviEx, or approximately 24.6% of GoviEx's issued and outstanding common shares at the end of June 2016 (20.68% at December 2016), and 31,513,751 GoviEx common share purchase warrants, or approximately 36.7% of GoviEx's issued and outstanding warrants at the end of June 2016 (27.71% at December 2016). GoviEx is a publicly traded company and is listed on the TSX Venture Exchange under the symbol "GXU". For so long as Denison holds at least 5% of the issued and outstanding common shares of GoviEx, Denison will have the right to appoint one director to the GoviEx board of directors and will have the right to participate in future GoviEx equity financings in order to maintain its pro-rata ownership. Denison's nominee director, Mr. David Cates, President and Chief Executive Officer of Denison, was appointed to the GoviEx board of directors.

In August, the Company closed an option agreement with Skyharbour Resources Ltd. ("**Skyharbour**"), which grants Skyharbour an option to acquire a 100% interest in Denison's wholly owned Moore Lake property in exchange for cash, stock and exploration spending commitments (the "**Skyharbour Agreement**"). Under the terms of the Skyharbour Agreement, Denison received 4,500,000 common shares of Skyharbour and will receive staged cash payments of CAD$500,000, in aggregate, over the next five years. Skyharbour must also spend CAD$3,500,000 in exploration expenditures on the property over the same five year period in order to complete the option. Under the terms of the Skyharbour Agreement, Denison also maintains various back-in rights on the property to re-acquire a 51% interest in the property and is entitled to nominate a member to Skyharbour's Board of Directors as long as Denison maintains a minimum ownership position of 5%. In total, as a result of the option agreement shares and Denison's existing position, Denison holds 5,000,000 common shares of Skyharbour, or approximately 11.3% of Skyharbour's issued and outstanding shares at the end of August 2016 (11.3% at December 2016). Denison's nominee director, Mr. David Cates, was appointed to the Skyharbour board of directors.

In September, the Mongolian government (through the Mineral Resource Authority of Mongolia) formally issued the mining licence certificates for the Hairhan, Haraat, Gurvan Saihan and Ulzit projects. The issuances triggered an obligation for UI to make an aggregate of $10,000,000 of contingent payments to Denison, within 60 days, as per the terms of the Mongolia Transaction.

In October, Denison announced completion of a highly successful summer 2016 drilling program on the Wheeler River project. Highlights included; (1) continued expansion of the D Series lenses along strike to a collective strike length of 330 metres, (2) new high grade drill intersections which indicated expansion of the A and B Series lenses both down-dip and up-dip on the southwestern portion of the Gryphon deposit, (3) discovery of basement-hosted mineralization on the K-West conductive trend, located approximately 500 metres west of the Gryphon deposit, and (4) completion of an initial set of five infill and delineation holes on the Gryphon deposit, which confirmed high grades. During the summer exploration program, over 32,000 metres of drilling was completed on five properties operated by Denison, with over 25,000 metres of drilling completed at Wheeler River. A further 4,857 metres of drilling was completed in 10 holes on projects operated by the Company's joint venture partners.

In November, Denison completed a definitive agreement with ALX Uranium Corp. ("**ALX**") and acquired an immediate 80% ownership of the entire Hook Carter property in exchange for the issuance of 7,500,000 common shares of Denison. Under the terms of the agreement with ALX (the "**Hook Carter Agreement**"), ALX will retain a 20% interest in the Hook Carter property and Denison agrees to fund ALX's share of the first CAD$12,000,000 in expenditures. Denison will be the operator of the project and will retain full discretion as to the nature, extent, timing and scope of all work projects, and has agreed to a modest work commitment, whereby Denison is required to spend CAD$3,000,000 on the property over the first 3 years. If Denison does not meet the CAD$3,000,000 work commitment, ALX's interest will increase from 20% to 25% and Denison's interest in the project will decrease from 80% to 75%. The parties have agreed to form a joint venture thirty-six months after the effective date of the Hook Carter Agreement, in which all material decisions shall be carried by a vote representing a 51% ownership interest.

Also in November, Denison acquired the Coppin Lake property ("**Coppin Lake**") from Areva Resources Canada Inc. and UEX Corporation. Coppin Lake comprises ten mineral claims covering an area of 2,768 hectares in the western portion of the Athabasca Basin region in northern Saskatchewan, contiguous with the Hook Carter property. Pursuant to the area of interest provisions within the Hook Carter Agreement, ALX Coppin Lake now forms a part of the Hook Carter property for the purposes of the Hook Carter Agreement and the eventual joint venture between Denison and ALX with respect thereto.

Effective in December, Hyung Mun Bae resigned as a member of the Board of Directors.

Also in December, Denison was notified that KEPCO's indirect ownership of Denison's shares had been transferred from an affiliate of KEPCO to an affiliate of its wholly owned subsidiary, KHNP. In connection therewith, KHNP will benefit from KEPCO's rights under the KEPCO SRA (as defined herein). See "Risk Factors – Potential Influence of KEPCO and KHNP".

Events this Year…

In January, Denison executed an agreement with the partners of the Wheeler River Joint Venture ("**WRJV**") that has the potential to result in an increase in Denison's ownership of the Wheeler River project to up to approximately 66% by the end of 2018. The WRJV is a joint venture between Denison as operator (60% interest), Cameco Corporation ("**Cameco**") (30% interest), and JCU (Canada) Exploration Limited ("**JCU**") (10% interest) (collectively, the "**JV Parties**"). Under the terms of the agreement, the JV Parties have agreed to allow for a one-time election by Cameco to fund 50% of its ordinary share of joint venture expenses in 2017 and 2018. The shortfall in Cameco's contribution will be funded by Denison, in exchange for a transfer to Denison of a portion of Cameco's interest in the WRJV. Accordingly, Denison's share of joint venture expenses will be 75% in 2017 and 2018, and Cameco and JCU's share of joint venture expenses will be 15% and 10%, respectively. In connection with the Agreement, the JV Parties have also approved a CAD$12,500,000 work program and budget for the WRJV in 2017, of which Denison's share will be CAD$9,400,000 million (representing 75%). Denison has also agreed to propose a budget for 2018 that will not exceed CAD$15,600,000. See "Mineral Properties – Wheeler River" and "Mineral Exploration – Wheeler River".

Also in January, UI and Denison entered into an extension agreement, pursuant to which it was agreed that the payment deadline for the contingent payments due under the Mongolia Transaction would be extended to July 16, 2017, provided that the outstanding amount would bear interest at a rate of 5% per annum, payable monthly in arrears. The first payment under the extension agreement was due on or before January 31, 2017. The required payments were not made and UI is now in default of both Mongolia Transaction and the extension agreement. The

Company has served notice to UI that it is in default and is exploring the proceedings available to it to pursue collection.

In February, Denison completed the APG Financing for gross proceeds to Denison of CAD$43,500,000. See "Denison's Operations – Cigar Lake Toll Milling – APG Financing".

Co-ordinated with the closing of the APG Financing, the maturity date under the Credit Facility was extended to January 31, 2018 and the terms of the Credit Facility were amended to reflect certain changes required to facilitate an inter-creditor agreement between BNS and the parties to the APG Financing. Amongst those changes, BNS and DMI agreed to replace a restrictive covenant to maintain CAD$5,000,000 on deposit with BNS with a pledge of CAD$9,000,000 in restricted cash or GIC's as collateral. Under the amended Credit Facility, Denison will pay letter of credit fees of 0.4% on the first CAD$9,000,000 (associated with the restricted cash), and 2.4% on the remaining CAD$13,000,000 of letters of credit issued under the facility.

Also in February, Mr. Kwang Hee Jeong was appointed to the Board as KHNP's representative.

In March, Denison closed a private placement share offering, under which the Company issued, in aggregate, 18,337,000 shares of Denison for gross proceeds of CAD$20,000,290. The aggregate share offering was comprised of the following three elements: a) a "Common Share" offering which consisted of 5,790,000 common shares of Denison at a price of CAD$0.95 per share for gross proceeds of CAD$5,500,500; b) a "Tranche A Flow-Through" offering which consisted of 8,482,000 flow-through shares at a price of CAD$1.12 per share for gross proceeds of CAD$9,499,840; and c) a "Tranche B Flow-Through" offering which consisted of 4,065,000 flow-through shares at a price of CAD$1.23 per share for gross proceeds of CAD$4,999,950.

THE URANIUM INDUSTRY

In 2016, the uranium industry weathered one of the most difficult years in recent history. An oversupplied spot market put dramatic downward pressure on the spot price of U_3O_8, despite the announcement of various production curtailments from uranium producers. The spot price started the year at $34.25 per pound U_3O_8, and lost nearly 20% by the end of the first quarter of 2016, breaking through the $30.00 per pound U_3O_8 threshold. Following six months of steady price declines during the middle of the year, the spot price plummeted from $26.00 per pound U_3O_8 to a 12-year low of $17.75 per pound U_3O_8 by November 2016. At its low for the year, the spot price had fallen 50% from where it started 2016 at $34.25 per pound U_3O_8. Needless to say, industry insiders have pointed to multiple reasons for the dramatic decline in spot prices during 2016 – including the disappointing rate of nuclear reactor restarts in Japan (following initial restarts in 2015, after the Fukushima Daichii nuclear incident led to a total shut down of nuclear power generation in Japan in 2011), the deferral of utility contracting expected to commence in 2017, and an abundance of secondary supplies entering the market (including underfeeding from under-utilized enrichment plants). Even the long-term contract price of uranium, which is typically less volatile than the spot price, fell over 30%, from a price of $44.00 per pound U_3O_8 at the beginning of the year, to end 2016 at $30.00 per pound U_3O_8.

Juxtaposed to statistics from the U.S. Energy Information Administration and American Nuclear Society regarding the fact that more new nuclear power capacity was added to the global electricity grid, on a net basis, during 2015 and again in 2016 than in any other year over the last 25 years, a steep decline in the uranium price during 2016 seems illogical. This view is bolstered by the fact that a uranium price in the low $20.00 per pound range renders even the

lowest cost producing uranium mine in the world, according to Ux Consulting Company, LLC ("**UxC**"), to lose money on an all-in cost per pound basis. With demand for uranium forecasted to increase steadily through to 2030, meaningful new capacity coming onto the grid at present, and a uranium mining production pipeline that has been stagnated by several years while uranium prices fail to incentivize the majority of undeveloped uranium projects towards construction, logic would suggest that prices should be on the rise. Underpinning that logic, however, is the assumption that growing demand in the future translates into increased buying today, and that an oversupplied spot market with historically low prices will be fixed by opportunistic buying for long-term utility needs. While volumes in the spot market remain relatively steady in the 40-50 million pounds U_3O_8 per year range, long term utility contracting volumes sit at levels nearly 75% below the height of the market's annual contracting volumes from 2007 to 2012 (when annual contracting volumes reached as high as 250 million pounds U_3O_8 per year). Without meaningful sales volumes, a truly sustainable uranium price has been difficult to discover. Instead, sellers simply outnumber buyers and prices have been subject to downward pressure.

With the world's largest uranium producer, Kazatomprom, having announced (in early 2017) a 10% reduction in its planned production for 2017, the uranium market has finally started to show some signs of a potential turn-around. While the market remains oversupplied, a combination of production cuts from the world's largest producers, and a dysfunctional project pipeline that is unlikely to deliver meaningful new sources of primary supply to the market before 2025, has helped to buoy a recovery in the spot price through the end of 2016 and into early 2017. For a recovery to be sustained, however, utility buying must resume and contracting volumes must increase as utilities work towards securing over 1.5 billion pounds U_3O_8 in uncovered uranium requirements for the period between 2017 and 2030. With few new sources of supply on the horizon over the next 8 to 10 years (and beyond), a significant contracting cycle is expected to lead to the realization that current uranium prices are well below the level required to incentivize most new sources of primary supply, thus leading to a potentially sustained market of rising prices as buyers are forced to bid up the price to secure available supplies of uranium or bring new sources of supply into the market.

Much of the uncovered future demand is estimated to come from non-U.S. utilities, as growth in nuclear energy is expected to be driven by increasing nuclear generating capacities in Asia – primarily from China, India and South Korea. According to the World Nuclear Association ("**WNA**"), as of March 1, 2017, China had 36 operable nuclear reactors (+6 from January 1, 2016) capable of producing 32.6 gigawatts of electricity. A further 21 reactors are under construction (-3 from January 1, 2016) and an additional 179 reactors are either planned or proposed (+3 from January 1, 2016). UxC, in its "Uranium Market Outlook – Q1'2017" (the "**Q1 Outlook**"), estimates that 108 reactors are expected to be operable and capable of producing over 113 gigawatts of electricity in China by 2030. To achieve this level of production, China's fleet of nuclear reactors will have to increase by between 5 and 6 reactors each year for the next 13 years. The WNA is projecting a similar growth profile for India, where 22 reactors (+1 from January 1, 2016) were operable as of March 1, 2017, capable of producing 6.2 gigawatts of power. Taken together, 69 reactors are either under construction, planned or proposed in India (+ 3 from January 1, 2016). UxC estimates that India could have over 36 operable reactors generating nearly 18 gigawatts of nuclear energy by 2030, representing 3 times as much power capacity as is currently available from nuclear. To achieve this level of production, India's fleet of nuclear reactors will have to increase by at least one additional reactor each year over the next 13 years.

Although the uranium market is expected to remain oversupplied in the near term, the long term growth projections for the nuclear industry, combined with the expected depletion of uranium resources in operation today, continue to suggest that a significant long term supply shortage could emerge, even after factoring in new production sources that are expected to come online. With a sustained period of low commodity prices, the uranium mining industry has been challenged to discover and advance the new production sources necessary to meet the expected increase in demand in future years. This story remains unchanged, and accordingly higher prices are expected to be needed to justify the construction of new mines. In the absence of a significant price increase in the near term, it is possible that even the most ambitious development plans could leave the market with an unavoidable supply shortage as soon as the early 2020s.

Uranium Demand

The WNA reports that there are 447 nuclear reactors (+8 from January 1, 2016) operable in 31 countries as of March 1, 2017. These reactors can generate 391.9 gigawatts of electricity and supply over 11% of the world's electrical requirements. As of March 1, 2017, 59 nuclear reactors are under construction in 14 countries with the principal drivers of this expansion being China (21 reactors under construction), Russia (7), India (5), the United States (4), UAE (4), and South Korea (3). Based on the most recent statistics from the WNA, there are a total of 223 reactors that are either under construction, or planned around the world, and an additional 350 reactors that are proposed.

According to UxC's Q1 Outlook, global nuclear power capacities are projected to increase from 379.4 gigawatts in 2015 (the most recent reference year) to over 483 gigawatts by 2030. UxC also estimates that annual uranium demand could grow nearly 60% to more than 300 million pounds U_3O_8 by 2030 from 190.2 million pounds U_3O_8 in 2016.

Primary Uranium Supply

According to the Q1 Outlook, uranium production increased slightly year over year from 158.3 million pounds U_3O_8 in 2015 to 163.4 million pounds U_3O_8 in 2016. Production in 2017, however, is expected to decrease back below 2015 levels to 157.8 million pounds U_3O_8, which would represent a 3.4% reduction for the year. Production from Russia, and the United States declined in 2016, while production from Kazakhstan, Australia, and Africa increased slightly. Production in Canada rose 5% or 1.9 million pounds U_3O_8 from the ramp up of activities at the Cigar Lake mine, which more than offset the roughly 4 million pounds U_3O_8 of production that was suspended at the Rabbit Lake mine. Cigar production is expected to remain flat at today's levels of 18 million pounds of U_3O_8 per year through 2025. Canada remains the second largest producing nation with nearly 22% of the world's production from 2016 coming from within Canada. Kazakhstan continues to be the world's largest producer of uranium, representing approximately 39% of production in 2016.

UxC has estimated in its Q1 Outlook that existing mine production, plus new planned and potential mine production, will increase primary uranium supply from an estimated 163.4 million pounds U_3O_8 in 2016 to 174.7 million pounds U_3O_8 by 2020, before declining to only 159.5 million pounds U_3O_8 by 2025. At its height in 2020, the projected production represents an increase of only 7%, as compared to the dramatic increases in uranium demand outlined above. In past years, UxC projected that Kazakhstan was expected to continue to be one of the principal drivers for the increases in primary mine production. In the Q1 Outlook, the main drivers are now limited to the final increases in production planned for Cigar Lake mine in Canada, which is expected to increase annual production to 18 million pounds U_3O_8 in 2017,

and the Husab mine in Namibia, which is being built by a Chinese utility as a source of captive supply with first production factored in during 2017. For other projects to move forward to increase UxC's production forecasts, uranium prices will need to increase appreciably to support their higher cost production profiles and the significant capital expenditures that will be required.

Secondary Uranium Supply

Primary mine production supplies approximately 86% of current demand. The balance of demand is supplied from secondary sources such as commercial inventories, reprocessing of spent fuel, sales by uranium enrichers and inventories held by governments, in particular the U.S. Department of Energy.

Excess commercial inventories, which were once one of the major sources of secondary supplies during the period from the early 1970s to the early 2000s, have largely been consumed; however, as a result of the shutdown of the German nuclear program and the continued shut down of the majority of the Japanese nuclear fleet, commercial inventories could become a more significant factor. A large source of secondary supplies continues to be government inventories, particularly in the U.S. and Russia. The disposition of these inventories may have a market impact over the next 10 to 20 years, although, the rate and timing of this material entering the market is uncertain.

Secondary supplies remain a complexity of the uranium market. UxC previously forecasted that 39.7 million pounds U_3O_8 would enter the market from secondary supplies in 2015. A year later, in the Q4 Outlook UxC reported that 47.6 million pounds actually entered the market from secondary supplies in 2015. This represents a nearly 20% increase in secondary supplies and nearly a 4% increase in total supplies entering the market in 2015.

Looking ahead, UxC expects that secondary sources of supply will fall from 2016 levels of 45.9 million pounds U_3O_8 per year to only 30.7 million pounds U_3O_8 per year by 2025.

Uranium Prices

Nuclear utilities purchase uranium primarily through long-term contracts. These contracts usually provide for deliveries to begin two to four years after they are signed and provide for delivery from four to ten years thereafter. In awarding medium and long-term contracts, electric utilities consider the producer's uranium reserves, record of performance and production cost profile, in addition to the commercial terms offered. Prices are established by a number of methods, including base prices adjusted by inflation indices, reference prices (generally spot price indicators, but also long-term reference prices) and annual price negotiations. Contracts may also contain annual volume flexibility, floor prices, ceiling prices and other negotiated provisions. Under these contracts, the actual price mechanisms are usually confidential.

The long-term demand that actually enters the market is affected in a large part by utilities' uncovered requirements. UxC estimates, in the Q1 Outlook, that uncovered demand is only 4.1 million pounds U_3O_8 or 2.2% of projected demand in 2017. Uncovered demand, however, is projected by UxC to increase significantly over the period of 2018 to 2020, such that up to 54.9 million pounds remains uncovered for 2020, representing 29% of projected demand in that year. Annual uncovered demand rises rapidly for years after 2020, to 150 million pounds U3O8 in 2025 and over 179 million pounds U3O8 by 2030 (representing roughly 80% of total base case demand). At 179 million pounds, uncovered demand in 2030 is over 16 million pounds U3O8 more than total production expected from the year. In order to address the rising portion of

demand that is uncovered, utilities will have to return to the market and enter into long-term contracts. From 2006 to 2010, on average, 39 million pounds U_3O_8 equivalent were purchased on the spot market per year and roughly 200 million pounds U_3O_8 equivalent were contracted in the long term market each year. In 2016, by comparison, 46 million pounds U_3O_8 equivalent were purchased on the spot market, and approximately 66 million pounds U_3O_8 equivalent were contracted in the long term market. With low contract volumes in recent years and increasing uncovered requirements, we expect that long term contracting activity will have to increase in the near future as utilities look to secure supply and move U_3O_8 through the nuclear fuel cycle in order to fuel the world's growing fleet of nuclear reactors.

The long-term price is published on a monthly basis and began the year at $44.00 per pound U_3O_8. On low volumes, as noted above, the long-term price declined to $30.00 per pound U_3O_8 by the end of the year.

Electric utilities procure their remaining uranium requirements through spot and near-term purchases from uranium producers, traders and other suppliers. Historically, spot prices are more volatile than long-term prices. The spot price began the year at $34.25 per pound $U_3O_8$and ended the year at $20.25 per pound U_3O_8. In the early part of 2017, the uranium price has gained some momentum, trading in the $25.00 per pound U_3O_8 range, and was last quoted at $25.50 per pound U_3O_8 on March 20, 2017.

Competition

The uranium industry is small compared to other commodity industries, in particular other energy commodity industries. Uranium demand is international in scope but supply is characterized by a relatively small number of companies operating in only a few countries. Production, in general, is concentrated amongst a small number of producers and is also geographically concentrated with 71% of the world's production in 2016 coming from only three countries: Kazakhstan, Canada, and Australia.

Competition is somewhat different amongst exploration & development companies focused on the discovery or development of a uranium deposit. Exploration for uranium is being carried out on various continents, but expenditures by public companies have been generally concentrated in recent years in Canada and in Africa. In Canada, exploration has focused on the Athabasca Basin region in northern Saskatchewan. Explorers have been drawn to the Athabasca Basin region by the high-grade uranium deposits that have produced some of the most successful uranium mines operating in the world today. Within the Athabasca Basin region, exploration is generally divided between activity that is occurring in the eastern portion of the Basin and the western portion of the Basin. The eastern Basin is a district that is defined by rich infrastructure associated with the existence of several operating uranium mines and uranium processing facilities. Infrastructure includes access to the provincial power grid and a network of provincial all weather highways. By comparison, in the western Basin, there are no operating uranium mines or processing facilities and access to the provincial power grid is not currently available. Several uranium discoveries have been made in the Athabasca Basin region in recent years, and competition for capital can be intense. In Africa, exploration activity has slowed in recent years as investment has been difficult to come by to fund the relatively low-grade and potentially high-cost operations that are expected to emerge from African uranium deposits.

DENISON'S OPERATIONS

McClean Lake and the McClean Lake Mill

McClean Lake is comprised of several uranium deposits and a state of the art mill located on the eastern edge of the Athabasca Basin in northern Saskatchewan, approximately 750 kilometres north of Saskatoon. McClean Lake is owned by Denison (22.5%) and its joint venture partners, ARC (70.0%) and OURD Canada Co., Ltd. ("**OURD**") (7.5%). ARC is the operator/manager of the facility. Denison, ARC and OURD also jointly own the nearby Midwest project, although ownership percentages are slightly different. See "Mineral Properties – Midwest." It is planned that the Midwest ore will be milled at the McClean Lake mill.

Development of the McClean Lake project began in March 1995. Construction and commissioning were completed in 1997. The JEB deposit was mined out and the ore stockpiled. The JEB pit was then converted in 1999 into the JEB Tailings Management Facility ("**TMF**"). The McClean Lake mill began production of uranium concentrates in 1999, processing ore from the JEB deposit. The first ore was fed to the mill on June 22, 1999 and commercial production was achieved on November 1, 1999. The mill operated until the end of June 2010 producing approximately 49.9 million pounds U_3O_8 when it was placed on stand-by due to a lack of ore.

In 2014, the McClean Lake mill re-commenced operations with the delivery of ore shipments from the Cigar Lake Mine, owned by the CLJV and operated by Cameco. Operations have continued since, as described further below.

McClean Lake Mill

The McClean Lake mill is specially designed and constructed to process high grade uranium ores in a safe and environmentally responsible manner. The mill uses sulphuric acid and hydrogen peroxide leaching and a solvent extraction recovery process to extract and recover the uranium product from the ore. In addition to the mill facility, other infrastructure on the site includes a sulphuric acid plant, a ferric sulphate plant, an oxygen plant, an electricity transmission line tied into the provincial power grid, a 14 megawatt back-up diesel power plant, warehouses, shops, offices and living accommodations for site personnel. In 2016, mill expansion construction and licensing was completed and the licensed production capacity of the mill was increased to 24 million pounds U_3O_8 per year. This increased licensed capacity allows for the processing of 100% of ore production from the Cigar Lake mine, forecasted to be 18 million pounds U_3O_8 per year, and the flexibility to mill ore from other sources.

In 2014, the McClean Lake mill re-commenced operations and processed over 456,800 pounds of U_3O_8 with a 97.5% recovery rate. Re-start of the mill proceeded smoothly with no significant production problems. Mill feed consisted of a blend of Cigar Lake ores and stockpiled Sue B and McClean Lake North ores (mined via SABRE). In 2015, production ramped up and the mill produced approximately 11.3 million pounds of U_3O_8 with a 98.9% recovery including several months with production over 1.5 million pounds. In 2016, the mill produced 17.3 million pounds of U_30_8 with a 99% recovery, and mill feed was all Cigar Lake ore. While mill personnel continue to refine operational practices and procedures to further improve performance, overall mill performance included no major upsets in the areas of safety, the environment or production.

Mining

McClean Lake consists of nine known ore deposits, five of which have been mined out with some of the ore still stockpiled on the surface.

The first ore body, JEB, was mined from 1997 to 1999 and the ore was stockpiled. Mining of the Sue C ore body was completed in February 2002, and all of the ore was stockpiled on the surface. Mining was then suspended until the third quarter of 2005 when mining began on the Sue A, Sue E and Sue B deposits. Mining was completed at Sue A in the first quarter of 2006, at Sue E in the first quarter of 2008 and at Sue B at the end of 2008. Exploration activities intended to expand the known deposits and identify new deposits are ongoing. See "Mineral Exploration – McClean Lake."

Low-grade special waste from the mining of the JEB, Sue C, Sue A, Sue E and Sue B deposits has been disposed of in the mined-out Sue C pit. In the future, Cigar Lake special waste will also be disposed of in the Sue C pit. By agreement between the CLJV and the MLJV, costs to upgrade the Sue Water Treatment Plant and costs to dewater the Sue C pit for Cigar Lake special waste will be shared 50/50 between the CLJV and the MLJV.

Operations

The table below shows the operating statistics for McClean Lake over the last five years.

	2016	2015	2014	2013	2012
Ore Milled (thousand tonnes)	36,682	24,912	8.4	-	-
Average Grade (% U_3O_8)	21.39	20.61	2.85	-	-
MLJV Production (thousand pounds U_3O_8)	-	10.7	112.4	-	-
Denison's share MLJV Production (thousand pounds U_3O_8)	-	2.4	25.3	-	-
Toll Mill Production (thousand pounds U_3O_8)	17,333	11,294	344.4	-	-

Approximately 87,500 tonnes of Sue B ore at a grade of 0.35% U_3O_8 and 534 tonnes of McClean Lake North ore (mined via SABRE) (see "Denison's Operations - Surface Access Borehole Resource Extraction Mining Program"), at an average grade of 4.78% U_3O_8, remain on the stockpile as at the end of 2016.

For information pertaining to taxes and royalties, see "Government Regulation – Canadian Royalties" and "Government Regulation – Canadian Income and Other Taxes."

Tailings Disposal

The disposal of mill tailings in an environmentally acceptable manner has led to advances in the design and construction of new tailings management facilities. In the TMF, tailings are deposited sub-aqueously in a paste form from a barge. This procedure minimizes tailings segregation, eliminates concerns of freezing and dust generation, and controls radiation and radon emissions from the pond. This facility has been designed to receive tailings from processing high grade Midwest and Cigar Lake ores in addition to tailings from the McClean Lake deposits.

Under the regulatory approved TMF Optimization project, the tailings capacity of the TMF is being increased in two stages. In 2013, the first phase of the TMF Optimization project was completed which involved the sloping of the TMF walls and the placement of a bentonite liner to increase the TMF capacity elevation to 439 metres above sea level ("**m ASL**"). The additional elevation provides several years of tailings capacity based on current projected throughputs. The second phase of the TMF Optimization project is designed to further increase the TMF capacity elevation to 443 m ASL and is scheduled to start in 2017.

A second project, called TMF Expansion, entails adding an additional 4.5 million cubic metres of tailings capacity over and above that created through the TMF Optimization project. The full scope of this project envisions the TMF capacity elevation being increased by an additional 12 m ASL to an elevation of 455 m ASL, over a number of stages along with a larger surface footprint. The MLJV is working on advancing the TMF Expansion project in parallel with the TMF Optimization project with regulatory applications and engineering completed in 2016. In 2017, following receipt of regulatory approvals, construction activities are expected to begin including the decommissioning of the existing dewatering wells, the installation of a new tailings pipe bench and the relocation of the contaminated landfill from the TMF to the Sue C site.

Property

All of the surface facilities and the mine sites are located on lands owned by the province of Saskatchewan. The right to use and occupy the lands was granted in a surface lease agreement with the province of Saskatchewan. The original surface lease agreement of 1991 was replaced by a new agreement in 2002. This new surface lease is valid for a period of 33 years. Obligations under the surface lease agreement primarily relate to annual reporting regarding the status of the environment, land development and progress made on northern employment and business development. The McClean Lake surface lease covers an area of approximately 3,677 hectares.

Mill Licence

The McClean Lake site is operated under various permits, licences, leases and claims granted and renewed from time to time, all of which are currently in good standing. Historically licences were granted for a 5 year term, but in 2009 the McClean Lake operations received an 8 year term. The mill continues to operate under the CNSC issued Mine Operating License – UMOL-MINEMILL-McLEAN.01/2017 (the "**Mine Operating License**") which is valid for the period July 1, 2009 to June 30, 2017. In addition to renewal of all previously licensed activities, the current licence authorizes mining of the McClean North deposits using hydraulic borehole mining methods (SABRE) and includes the care and maintenance activities at the Midwest site. The McClean Lake operations have initiated the licence renewal process through the CNSC and other regulatory processes.

Environmental

The McClean Lake mill re-commenced operation in 2014. In 2016, there were 17 reportable environmental incidents all of which were minor in nature and have been successfully remediated with no lasting impacts. There were five reportable exceedances in administration levels for radiological events. An administration level is an internally set benchmark level that provides an early warning (and allows for corrective action to be taken) before a reportable level radiological event is approached. All incidences have been successfully remediated and addressed with no lasting impacts.

Cigar Lake Toll Milling

In 2002, Denison and its partners entered into an agreement with the CLJV to process Cigar Lake ore at the McClean Lake mill. Pursuant to that agreement, all Cigar Lake ore was to be leached at the McClean Lake mill with the pregnant aqueous solution being divided between the McClean Lake and Rabbit Lake facilities for processing into uranium concentrates. In order to process this Cigar Lake ore, an expansion of the McClean Lake mill was required. The expansion and modifications of the McClean Lake mill to raise its capacity to 13.0 million pounds U_3O_8 were completed in 2008 and all costs were paid for by the CLJV.

As a result of delays in the startup of the Cigar Lake mine and the exhaustion of permitted ore deposits at McClean Lake, the McClean Lake mill was placed on stand-by at the end of June of 2010. Under the Cigar Lake toll milling agreement, the CLJV funded a considerable portion of the McClean Lake stand-by costs, with the relative proportion of the stand-by costs paid by each party calculated on the basis of the percentage of mineral reserves between the McClean Lake and Cigar Lake joint ventures.

In 2011, the CLJV and the MLJV agreed to amend the toll milling agreement. Under the new milling arrangement, the McClean Lake operation is expected to process and package 100% of the uranium produced from the Cigar Lake mine. To accommodate the annual production of 18.0 million pounds U_3O_8 from the CLJV, the mill has been further expanded to an annual licensed capacity of 24.0 million pounds U_3O_8. All costs for the expansion of the McClean Lake mill and a portion of the TMF Optimization and TMF Expansion (See "Denison's Operations - McClean Lake - Tailings Disposal") are paid for by the CLJV.

Cigar Lake Toll Milling – APG Financing

Pursuant to the APG Financing in February 2017, certain of Denison's interests in the Cigar Lake toll milling proceeds have been sold to APG and Centaurus for aggregate gross proceeds to Denison of CAD$43,500,000. The APG Financing is comprised of the following elements: (1) a 13 year limited recourse lending arrangement involving a loan from APG to 9373721 Canada Inc. ("**SPV**") (the "**APG Loan**") and a further loan from SPV to DMI (the "**SPV Loan**") each for CAD$40,800,000 (collectively, the "**Lending Arrangement**"); and (2) CAD$2,700,000 in proceeds from the sale, to Centaurus, of a stream equal to Denison's 22.5% share of proceeds from the toll milling of Cigar Lake ore by the McClean Lake mill for specified Cigar Lake toll milling throughput in excess of 215 million pounds U_3O_8 after July 1, 2016 (the "**Stream Arrangement**").

Additional details of the APG Financing are as follows:

- No Warranty of the Future Rate of Production - No warranty is provided by Denison (including DMI and SPV) to APG (including Centaurus), under the terms of the Lending Arrangement or the Stream Arrangement, regarding: the future rate of production at the Cigar Lake mine and / or the McClean Lake mill; or the amount or collectability of proceeds to be received by the MLJV in respect of toll milling of Cigar Lake ore.
- APG Loan Details - The APG Loan will accrue interest at a rate of 10% per annum and does not have a predetermined principal repayment schedule. The APG Loan is secured by a first priority interest in the assets of SPV which will essentially consist of the SPV Loan to DMI.
- SPV Loan Details - The SPV Loan will accrue interest at a rate of approximately 10% per annum and does not have a predetermined principal repayment schedule. The SPV Loan is limited in its recourse against DMI such that it is generally repayable only to the extent of Denison's share of the toll milling revenues earned by the MLJV from the processing of the first 215 million pounds of U308 from Cigar Lake ore on or after July 1, 2016. Denison will guarantee the limited recourse loan repayments and will grant a second ranking pledge of its share of DMI to secure performance by DMI of its obligations to pay the SPV Loan. The share pledge is second ranking to Denison's existing pledge of its shares of DMI to the Bank of Nova Scotia ("**BNS**") under the terms of its Letters of Credit Facility.

Surface Access Borehole Resource Extraction (SABRE) Mining Program

The SABRE program is focused on developing a viable alternate mining method combining surface drilling and borehole mining technology. Benefits of the method may include a reduced

time to production, reduced or deferred capital costs, as well as minimizing safety and environmental risks.

Hydraulic borehole mining is a technique used to extract materials through a small access borehole, typically less than one-half of a metre in diameter, resulting in a very small disturbance to the surface. A mining tool containing a high-pressure water jet nozzle is lowered through the access borehole in the overburden and sandstone to the mineralized horizon. The high-pressure water jet is used to cut or erode the mineral-bearing ore and to create a cavity up to four meters in diameter. The cuttings are transported to surface in a slurry form and sent through a series of screens and settling ponds to separate the ore from the jetting water. Jetting water is filtered further and re-used in the process. Each mined out cavity is backfilled after completion with a cemented mixture in the mineralized horizon.

Between 2007 and 2012, approximately 2,100 tonnes of ore was recovered through various SABRE test mining programs, a portion of which has been fed to the mill between 2007 and 2014. As of the end of 2016, there was approximately 534 tonnes of McClean Lake North ores (mined via SABRE) yet to be processed at an average grade of 4.78% U_3O_8.

In 2013, further evaluation of the 2012 program results and the initial planning for the next phases of the SABRE program were carried out, including the preliminary evaluation of the application of SABRE for mining the Midwest and Caribou deposits. After the completion of several significant milestones in 2012 and 2013, a decision was made in late 2013 to suspend the SABRE program in 2014 in response to the low uranium price environment. In 2015, SABRE activities were limited to patent applications and upgrading down-hole sonar capabilities with the objective of improving surveying of cavity dimensions and mining performance. In 2016, an expanded program was evaluated for SABRE including the re-tooling of the program to allow for larger volumes and jetting pressures designed to increase the SABRE production rate. In addition, the purchase, installation and testing of a new solid / liquid separation system was completed to assess the improvement in recovery of small uranium particles from the production slurry creating during the SABRE mining process.

The next step for the SABRE program is expected to involve further test mining activities to assess whether a redesigned mining system with increased volumes and jetting pressure can successfully increase the rate of production to a commercial level. In 2017, the MLJV expects to continue the re-engineering of the SABRE mining system (including the procurement of long lead time items such as mining pipes and high pressure pumps necessary in the redesigned system) and planning of the mining test.

MINERAL PROPERTIES

Dale Verran, MSc, Pr.Sci.Nat., Denison's Vice President Exploration, who is a “Qualified Person” in accordance with the requirements of NI 43-101, is responsible for the mineral resource estimates for the Company’s properties and all disclosure of scientific or technical information concerning mineral resources in this AIF.

Summary of Mineral Reserves and Mineral Resources

The following tables show the Company's estimate of mineral reserves and mineral resources as of December 31, 2016. NI 43-101 requires mining companies to disclose mineral reserve and resource estimates using the subcategories of proven mineral reserves, probable mineral reserves, measured mineral resources, indicated mineral resources and inferred mineral resources. Denison reports mineral reserves and mineral resources separately.

Proven Mineral Reserve Estimates

	100% Basis			Company Share
Project/Deposit	Tonnes (,000)	Grade % U_3O_8	Pounds of U_3O_8 (,000)	Pounds of U_3O_8 (,000)
McClean - Ore Stockpile	87.5	0.35	682	153

Probable Mineral Reserve Estimates

	100% Basis			Company Share
Project/Deposit	Tonnes (,000)	Grade % U_3O_8	Pounds of U_3O_8 (,000)	Pounds of U_3O_8 (,000)
McClean – SABRE Pond	0.5	4.78	56	13

Indicated Mineral Resource Estimates [(1)(2)]

	100% Basis			Company Share
Project/Deposit	Tonnes (,000)	Grade % U_3O_8	Pounds of U_3O_8 (,000)	Pounds of U_3O_8 (,000)
McClean - Caribou	47.8	2.62	2,800	600
McClean - Sue D	122.8	1.05	2,800	600
McClean - McClean North	205.8	2.75	12,400	2,800
Midwest - Midwest[(3)]	354.0	5.50	42,900	10,800
Midwest - Midwest A	464.0	0.57	5,800	1,500
Wheeler - Phoenix	166.4	19.14	70,200	42,100
Waterbury - J Zone	291.0	2.00	12,800	8,100
Total Indicated Mineral Resources			149,700	66,500

Inferred Mineral Resource Estimates [(1)(4)]

	100% Basis			Company Share
Project/Deposit	Tonnes (,000)	Grade % U_3O_8	Pounds of U_3O_8 (,000)	Pounds of U_3O_8 (,000)
McClean - Sue D	24.2	0.39	200	0
McClean – Sue E[(5)]	483.4	0.69	7,300	1,600
McClean - McClean North	3.3	0.79	100	0
Midwest - Midwest	25.0	0.80	400	100
Midwest - Midwest A	9.2	21.23	4,300	1,100
Wheeler - Phoenix	8.6	5.8	1,100	700
Wheeler - Gryphon	834.0	2.31	43,000	25,800
Total Inferred Mineral Resources			56,400	29,300

Notes:

(1) Mineral resources are not mineral reserves and do not have demonstrated economic viability. No mineral reserves have as yet been defined.

(2) The indicated mineral resources were estimated at various cut-off grades. They are:
- Caribou: 0.10% U_3O_8
- Sue D: 0.10% U_3O_8
- McClean North: 0.10% U_3O_8
- Midwest: 0.30% U_3O_8
- Midwest A: 0.05% U (0.059% U_3O_8)
- Phoenix: 0.80% U_3O_8
- J Zone: 0.10% U_3O_8

(3) The Company's share of the indicated mineral resources at Midwest also contains 4.35% nickel (8.55 million pounds) and 0.34% cobalt (0.68 million pounds).

(4) The inferred mineral resources were estimated at various cut-off grades. They are:
- Sue D: 0.10% U_3O_8
- Sue E: 0.10% U_3O_8
- McClean North: 0.10% U_3O_8
- Midwest: 0.30% U_3O_8
- Midwest A: 0.05% U (0.059% U_3O_8)
- Phoenix: 0.80% U_3O_8
- Gryphon: 0.20% U_3O_8

(5) The operator conducted confirmatory drilling on a portion of these mineral resources outside the designated pit and late in 2006 submitted a preliminary analysis detailing an inferred mineral resource of approximately 2 million pounds on a 100% basis in this area, as compared to the 7.3 million pounds that Scott Wilson Roscoe Postle Associates Inc. (now RPA Inc.) ("**Scott Wilson RPA**") has estimated in its February 2006 technical report. RPA Inc. has not re-estimated the mineral resource using the new drill information.

The mineral reserve and mineral resource information shown above is as reported in the various technical reports prepared in accordance with NI 43-101, adjusted for mining activity where applicable, and discussed in greater detail in this section of the AIF. The summary information above on Denison's mineral reserve estimates was prepared from the year-end stockpile survey reported by ARC, the operator of the McClean Lake joint venture.

The tables below detail the changes to the Company's mineral reserve and mineral resource estimates from the financial year ended December 31, 2015 to December 31, 2016.

Change to Denison's Share of Proven Mineral Reserves (in thousands of pounds U_3O_8)

Reserves	December 31, 2015	2016 Additions (Deletions)	December 31, 2016
McClean - Ore Stockpile	169	(16)	153

Change to Denison's Share of Probable Mineral Reserves (in thousands of pounds U_3O_8)

Reserves	December 31, 2015	2016 Additions (Deletions)	December 31, 2016
McClean - SABRE Pond	0	13	13

Change to Denison's Share of Mineral Resources
(in thousands of pounds U_3O_8)

Resources	December 31, 2015	2016 Additions (Deletions)	December 31, 2016
Waterbury - J Zone			
Indicated	7,900	200[(1)]	8,100
Mutanga – All deposits			
- Measured	2,000	(2,000)[(2)]	0
- Indicated	5,800	(5,800)[(2)]	0
- Inferred	41,400	(41,400)[(2)]	0

Notes:

(1) Increase in Waterbury Lake J Zone indicated resource associated with the Company's acquisition of an additional 1.46% interest in the project in 2016.

(2) In June 2016, GoviEx and Denison completed the Africa Transaction under which GoviEx acquired all of Denison's African uranium mineral interests in Zambia (Mutanga).

McClean Lake

Property Description and Location

The McClean Lake project is owned by Denison (22.5%) and its joint venture partners, ARC (70.0%) and OURD (7.5%). ARC is the operator/manager of the project.

The McClean Lake property is located approximately 26 kilometres west of the Rabbit Lake mine and approximately 750 kilometres north of Saskatoon. The mineral property consists of four mineral leases covering an area of 1,147 hectares and 13 mineral claims covering an area of 3,111 hectares. The right to mine the McClean Lake deposits was acquired under these mineral leases, as renewed from time to time. Mineral leases are for terms of 10 years with the right to renew for successive 10-year periods provided that the leaseholders are not in default of the terms of the lease. A mineral claim grants the holder the right to explore for minerals within the claim lands and the right to apply for a mineral lease. The current mineral leases have terms that expire between November 2025 and August 2026 and title to the mineral claims is secure until at least 2036. It is expected that the leases will be renewed in the normal course, as required, to enable all the McClean Lake deposits to be fully exploited.

The right to use and occupy the lands at McClean Lake has been granted in a surface lease agreement with the province of Saskatchewan. The McClean surface lease was entered into in 2002, has a term until 2035 (33 years) and covers a land area of approximately 3,677 hectares.

For additional information on mineral leases, mineral claims and surface leases, see "Government Regulation – Land Tenure".

The uranium produced from the McClean Lake deposits is subject to uranium mining royalties in Saskatchewan in accordance with Part III of The Crown Mineral Royalty Regulations. See "Government Regulation - Canadian Royalties." In addition, a royalty of 2% of the spot market price on all U_3O_8 produced from the Sue E deposit is payable to the previous owner of a portion of the deposit.

Accessibility, Climate, Infrastructure and Physiography

Access to the McClean Lake site is by both road and air. Goods are transported to the site by truck over an all–weather road connecting with the provincial highway system. Air

transportation is provided through the Points North airstrip about 25 kilometres from the project site.

The nearest permanent community is Wollaston Post, about 50 kilometres from the property. Workers commute to and from the site by aircraft landing at Points North then by bus to the site. While at the site, workers reside in permanent camp facilities. Personnel are recruited from the northern communities and major population centres, such as Saskatoon, and normally work one week on and one week off.

Site activities are carried out all year, despite the cold weather during the winter months. Mean daily temperatures range from –25°C in January to +15°C in July. The average length of the frost–free period is about 90 days.

Water for industrial activities is obtained from one of the many lakes that surround the area. Electric power is obtained from the provincial grid with stand–by power available as required.

All tailings from the McClean Lake deposits (as currently known) are licensed for deposit in the TMF.

The terrain at McClean Lake is typical of the Athabasca Basin area with glacial drift features following northeast–southwest trends to produce sand and gravel ridges. These ridges are surrounded by low–lying ground which is often water logged and dominated by muskeg. Small ponds and lakes cover over 25% of the area. Jack pine and spruce, rarely more than 10 metres high, are the predominant trees. Surface elevations range from 400 to 500 metres above sea level.

History

Canadian Occidental Petroleum Limited ("**Canadian Oxy**") began exploring for uranium in northern Saskatchewan in 1974 in the area between the Rabbit Lake deposit and the Midwest Lake area where uraniferous boulder trains had been found previously. In April 1977, Canadian Oxy entered into a joint venture agreement with Inco Limited. During a diamond drilling program in 1977, one of the 47 drilled holes encountered encouraging uranium mineralization. During the next two years, extensive exploration work, including airborne geophysics, electromagnetic surveys and diamond drilling were conducted.

Mineralization was discovered at McClean Lake (the McClean North deposit) in January 1979 and follow up drilling later that year confirmed the existence of significant unconformity type uranium mineralization. Subsequent exploration resulted in the discovery in 1980 of the McClean South zone and the JEB deposit in 1982. The Sue deposits were discovered between 1988 and 1991, and the Caribou deposit in 2002.

In 1993, the owners of the Midwest and McClean Lake projects agreed to combine the two projects and develop them as a complementary development. Ownership interests in the respective joint ventures were interchanged, resulting in the Company acquiring a 22.5% interest in McClean Lake.

Geological Setting

The McClean Lake uranium deposits lie near the eastern margin of the Athabasca Basin in the Churchill Structural Province of the Canadian Shield. The bedrock geology of the area consists of Precambrian gneisses unconformably overlain by flat lying, unmetamorphosed sandstones

and conglomerates of the Athabasca Group. The Precambrian basement complex is composed of an overlying Aphebian aged supracrustal metasedimentary unit infolded into the older Archean gneisses. The younger Helikian aged, Athabasca sandstone was deposited onto this basement complex. The basement surface is marked by a paleoweathered zone with lateritic characteristics referred to as regolith.

Exploration

Uranium mineralization at McClean North was discovered in January 1979 following extensive airborne electromagnetic surveying and drilling in the McClean Lake area. Further drilling led to the discovery of the McClean South trend in 1980. In the late 1980s, further airborne and ground geophysics, percussion and reconnaissance diamond drilling and delineation diamond drilling were carried out on the McClean North deposits.

Following the discovery of the Sue A deposit in 1988, diamond drilling was continued along the Sue trend leading to the discovery of the Sue E deposit in late 1991; however, it did not undergo development drilling until 2001. Sue D was explored by diamond drilling from the surface from 1989 to 1992 with additional infill holes drilled between 1994 and 2001.

The Caribou deposit was discovered during a winter drilling program in 2002.

Mineralization

Excluding the JEB deposit, which was mined out several years ago and which is now used as the TMF, the McClean Lake mineral resources are located along two "trends" of mineralization, the Sue trend and the McClean trend. The Caribou pod is a singular deposit at this time.

The mineralized zones in the McClean trend occur as sausage–shaped pods straddling the unconformity between the Athabasca sandstones and the crystalline basement. The high grade part of the mineralized pods undulates from 13 metres above to 13 metres below the unconformity contact which is, on average, at a depth of 160 metres below the surface in this area. The host rocks for the mineralization are altered sandstones and Aphebian basement rocks usually altered to clay–rich rocks. There are 11 discrete pods, arranged along two separate but parallel trends (termed the North and South zones) separated by approximately 500 metres. Generally, mineralization in the basement is at the eastern extremity of the combined zone. Uranium mineralization is hosted in hematite altered clay–rich zones in which illite forms massive layers. Uranium occurs as fine–grained coffinite, as veinlets and nodules of pitchblende and as massive masses of pitchblende/uraninite. Highly variable but generally small amounts of nickel arsenides are associated with the uranium.

The deposits of the Sue trend line up along the western flank of the Collins Bay dome. These deposits trend north-south along or near a steeply east-dipping unit of graphitic gneiss within a 4.2 kilometre long basement conductor. Mining has been completed at Sue A, Sue B, Sue C and Sue E. The Sue D deposit lies north of Sue E and south of the Sue C pit along the Sue trend. Uranium mineralization is hosted by faulted/fractured brecciated and altered graphitic paragneiss.

Caribou is an unconformity related deposit similar to such deposits as Collins Bay and Midwest. The Caribou mineralization occurs at 110 metres below surface and consists primarily of uranium oxides (uraninite and pitchblende) with a suite of nickel-cobalt arsenides in a clay-altered matrix within the sandstones and fault breccias in the basement. The mineralization is concentrated along the sub-Athabasca unconformity.

Drilling

As of April 30, 1990, 416 diamond drill holes totaling 81,800 metres had been drilled into the McClean North and McClean South zones.

Sue D was explored by diamond drilling from surface from 1989 to 2001 with 70 holes totaling 13,395 metres drilled.

At Sue E, a total of 135 diamond drill holes have been cored for a total of 23,757 metres. Drill spacing was at 10 metre centres on 12.5 metre lines on all of the above properties. Open pit mining was completed in 2008; however there are mineral resources south of the existing pit wall that could potentially be extracted by underground mining methods.

The Caribou deposit was explored in 2002 with the drilling of 44 diamond drill holes for a total of 7,022 metres. Holes were drilled on 12.5-metre sections at a spacing of 5 metres.

Sampling and Analysis

The following description applies to all exploration on the McClean Lake property.

Following the completion of a drill hole, the hole is radiometrically logged using a downhole slim-line gamma probe. The gamma-log results provide an immediate equivalent uranium value (eU_3O_8%) for the hole, which, except in high grade zones, is reasonably accurate. The gamma-log results, however, have not been used for the purposes of estimating mineral reserves.

Sample intervals are generally 50 centimetres long, except where higher or lower grade mineralization boundaries fall within the interval. In that case, two 25 centimetre samples are collected. Flank samples of 1.0 metre are always collected where mineralization is located. A background geochemistry sample is collected every 10 metres down the hole.

All sampled core is split in half, one half retained and the other sent to an independent laboratory. Lost core is not an issue at the McClean project as core recovery has been good. Control samples are routinely assayed with each batch of core samples analyzed.

The mineralization in the various McClean deposits is highly variable in both mineralogy and uranium content. The principal minerals identified in the deposits are pitchblende, uraninite and niccolite. As a result of the highly variable uranium content, a variable density formula was developed for the McClean deposits. This formula was modified over the years to account for the fact that it originally tended to underestimate U_3O_8 content where the U_3O_8 values were associated with high values of nickel and arsenic.

Security of Samples

No opinion can be given regarding security of samples in the mid to late 1970s and the late 1980s other than to indicate that subsequent geological work and all metallurgical and geotechnical work have confirmed the results. All procedures reviewed follow generally accepted industry practice. A good demonstration of the reliability is that JEB and the Sue deposits (B and C) have been mined out and more uranium has been recovered into stockpiles than had been estimated from surface drilling.

Mineral Reserve and Mineral Resource Estimates

Estimation procedures have evolved over the years. At the time of the feasibility study in 1990, polygonal methods were used for the JEB, the Sue A, the Sue B, the Sue C deposits and for the McClean zones. Prior to the start of mining at the JEB deposit, the mineral reserves were re-evaluated using computerized methods whereby block models were constructed and geostatistical methods were implemented. Much more recently, these mineral resource estimates have been further refined using Whittle pit optimization software. Appropriate tests and audits of the databases on all the McClean deposits have been carried out by past qualified Denison personnel. In the case of JEB, Sue C and Sue B, the amount of U_3O_8 recovered into stockpiles was higher than that estimated from surface drilling.

The Company received a technical report from Scott Wilson RPA (now RPA Inc.) dated November 21, 2005, as revised February 16, 2006, on its mineral reserves and mineral resources at certain of the deposits (Sue A, B, E and McClean North and Caribou) at McClean Lake in which it has an interest entitled "Technical Report on the Denison Mines Inc. Uranium Properties, Saskatchewan, Canada" (the "**McClean Technical Report**"), a copy of which is available on the Company's profile on the SEDAR website at www.sedar.com. Richard E. Routledge, M.Sc., P. Geo. and James W. Hendry, P. Eng., are the independent Qualified Persons for the McClean Technical Report for the purposes of the requirements of NI 43-101.

In preparing the McClean Technical Report, Scott Wilson RPA reviewed previous estimates of mineral reserves and mineral resources at the applicable properties, and examined and analyzed data supporting the previous estimates, as well as other available data regarding the properties, including extensive information from ARC.

For the Sue E deposit, Scott Wilson RPA constructed a block model using indicator kriging to both map out and geologically constrain mineralized areas. A block that had at least one nearby composite within 10 metres of its centre, and that had composites from at least two different drill holes in its search neighbourhood was classified as part of the indicated mineral resource. The indicated mineral resource was evaluated by Scott Wilson RPA in 2005 using Whittle economic evaluation software showing that the Sue E pit economics were robust and mineral reserves were estimated. Mining was completed at the Sue E pit during 2008 recovering about 91% of the probable mineral reserves estimated by Scott Wilson RPA. Scott Wilson RPA classified approximately 7.3 million of the pounds outside the current pit as inferred mineral resources. Confirmatory drilling in 2006 by the operator has indicated that this may be reduced to 2.0 million pounds. Scott Wilson RPA has not re-estimated the mineral resources based on this drilling.

The mineral resource estimate for the Caribou deposit is based on a block model for which grade was interpolated using ordinary kriging. Since there were no plans for the mining of this deposit at the date of the McClean Technical Report, the economic potential was not evaluated and mineral reserves were not estimated.

The Company received a technical report from Scott Wilson RPA dated March 31, 2006 on its mineral resources at the Sue D deposit entitled "Technical Report on the Sue D Uranium Deposit Mineral Resource Estimate, Saskatchewan, Canada" (the "**Sue D Report**"), a copy of which is available on the Company's profile on the SEDAR website at www.sedar.com. Richard E. Routledge, M.Sc., P. Geo. and James W. Hendry, P. Eng., are the independent Qualified Persons for the Sue D Report for the purposes of the requirements of NI 43-101. Scott Wilson RPA carried out an independent mineral resource estimate for Sue D by conventional 3-D

computer block modeling. A minimum vertical mining width of two metres was employed with a 0.1% U_3O_8 cut-off.

Due to the significant increase in the price of uranium from 2004 to 2006, Denison requested Scott Wilson RPA to re-evaluate the uranium resources in the McClean North trend that are amenable to other methods of mining. The original McClean Technical Report had only evaluated mineral resources and mineral reserves of the high grade portions under the assumption that they would be mined using a blind shaft mining method. The Company received a technical report from Scott Wilson RPA dated January 31, 2007, on the mineral reserves and resources at the McClean North uranium project entitled "Technical Report on the McClean North Uranium Deposit Mineral Resource Estimate, Saskatchewan, Canada" (the "**McClean North Technical Report**"), a copy of which is available on the Company's profile on the SEDAR website at www.sedar.com. Richard E. Routledge, M.Sc., P. Geo. is the independent Qualified Person for the McClean North Technical Report for the purposes of the requirements of NI 43-101.

The re-evaluation of McClean North was carried out by conventional 3-D computer block modeling. Wire frames were constructed for each of pods 1, 2 and 5. The estimate included internal dilution, but not external dilution, and was carried out at a 0.1% U_3O_8 cut-off. This mineral resource estimate is based entirely on diamond drill information. Block cell dimensions were selected at 8 metre model grid east west x 5 metre model grid north south and a 2 metre bench height or approximately 180 tonnes/block. Scott Wilson RPA constructed a mineral resource wireframe based on kriging, and constructed a special waste wireframe, that generally surrounds the mineral resource wireframe, using similar kriging parameters but with larger search distances. Subsequent to this report, the Company and Scott Wilson RPA reviewed the block model and estimation procedures in October 2009 and made a slight revision to the mineral resource estimate for the McClean North deposit.

Evaluation and Development

An internal study, the McClean Lake Underground Project ("**MUG**") evaluating the feasibility of mining of the McClean North, Caribou and Sue D deposits via conventional underground methods was initiated in 2012 and completed in April 2014. The material assumptions and projections of the MUG internal study are outlined below.

Access to the deposits will be via a ramp from the existing Sue B open pit. This access approach allows development to proceed through stable ground conditions which positively affects costs, schedule and environmental impacts. Underhand cut and fill mining method using pastefill as backfill is planned to be employed to maximize recovery of the high value ore under poor ground conditions. Water management is a critical aspect of the design which led to the incorporation of a freeze wall surrounding the McClean North and Caribou deposits. Production mining for the McClean North and Caribou deposits will be completed via mechanical excavation (i.e. roadheader) due to the ore grades and the corresponding risk of high radiation exposures, whereas a traditional drill and blast method will be used for Sue D. An average production rate of 270 tonnes per day is expected.

Mining recovery of 95% and a mining dilution factor of 20% have been assumed. The summary of the projected mine production by deposit is shown in the following table.

Summary of Mine Production by Deposit

Deposit	Ore Production (Tonnes)	Grade (%U_3O_8)	Minable Metal[(1)] (M lbs. U_3O_8)
Sue D	97,519	0.99	2.14
McClean North	204,326	2.26	10.19
Caribou	34,696	2.05	1.57
Total	**336,541**	**1.87**	**13.90**

Notes:
(1) Minable metal is presented on a 100% basis and does not include a factor for milling losses.

Mine ventilation will be provided by four vent raises from surface excavated using blind boring or raise boring methods. Mine dewatering systems will be designed for 170% of anticipated inflows. A second independent system of the same capacity is planned to be on stand-by and will have a design capacity of 270% of the potential estimated uncontrolled water inflows. All mine water will report to the Sue Water Treatment Plant. The nearby Sue C open pit provides emergency water storage.

Ore will be transported to the existing JEB Mill where minor modifications are required to process the ore. Mill recoveries are predicted to be in the 97% range. Tailings and waste will be disposed of in the existing TMF. Construction of additional infrastructure is minimal due to the use of existing facilities.

The McClean North, Sue D and Caribou deposits are anticipated to produce approximately 13.5 million pounds U_3O_8 over a five year mine life following a three year development and construction period.

The 2012 internal study estimated the capital cost of the project at CAD$267.3 million and the mine, mill, site support, transport and other operating costs at CAD$24.01 per pound U_3O_8.

A production decision has been deferred due to the low uranium price environment.

Midwest

Property Description and Location

The Midwest project is owned by Denison (25.17%) and its joint venture partners, ARC (69.16%) and OURD (5.67%). ARC is the operator/manager. Denison, ARC and OURD are also the joint venture partners in the McClean Lake joint venture and the owners of the McClean Lake mill. It is currently planned that the Midwest ore will be processed at the McClean Lake mill.

The Midwest project is located near South McMahon Lake approximately 15 kilometres from the McClean Lake mill. The site is approximately 750 kilometres north of Saskatoon.

Since the completion of the underground test mine at the Midwest deposit in 1988 and 1989, the site has been under an environmental monitoring and site security surveillance program. At present, there is an inactive water treatment plant, two water storage ponds and a core storage area on the site, as well as a dam in the Mink Arm of South McMahon Lake. All of the facilities used in the test mine program and all of the existing surface facilities are located on lands

owned by the province of Saskatchewan. The right to use and occupy the lands was granted in a surface lease agreement with the province of Saskatchewan. The original surface lease agreement of 1988 was replaced by a new agreement in 2002. This new surface lease is valid for a period of 33 years. Obligations under the surface lease agreement primarily relate to annual reporting regarding the status of the environment, the land development and progress made on northern employment and business development. The Midwest surface lease covers an area of approximately 646 hectares.

The mineral property consists of three contiguous mineral leases covering an area of 1,426 hectares. The right to mine the Midwest deposit was acquired under these mineral leases, as renewed from time to time. The mineral leases are for terms of 10 years with the right to renew for successive subsequent 10 year periods, provided that the leaseholders are not in default of the terms of the lease. The term of one of the mineral leases expires in December 2023 and the other two expire in December 2018. The Company expects that the leases will be renewed in the normal course, as required, to enable the Midwest deposit to be fully exploited.

For additional information on mineral leases and surface leases, see “Government Regulation – Land Tenure.”

The uranium produced from the two Midwest deposits is subject to uranium mining royalties in Saskatchewan in accordance with Part III of The Crown Mineral Royalty Regulations. See "Government Regulation - Canadian Royalties.” In addition, a portion of Denison's interest in the Midwest project (i.e. 5.5% of the project reducing to 3.44% after payout) is subject to a sliding–scale, gross overriding royalty ranging from 2% to 4% payable to two previous owners of a portion of the Midwest project.

Accessibility, Climate, Infrastructure and Physiography

Access to the Midwest project is by both road and air. Goods are transported to the site by truck over an all–weather road that connects to the provincial highway system. Air transportation is provided through the Points North airstrip approximately 4 kilometres from the project site. The nearest permanent community is Wollaston Post, about 70 kilometres from the property on the other side of Wollaston Lake.

Site activities are carried out all year despite the cold weather during the winter months. Mean daily temperatures range from –25°C in January to +15°C in July. The average length of the frost–free period is about 90 days.

Water for industrial activities is obtained from one of the many lakes that surround the area. Electric power can be accessed from the provincial grid through nearby Points North.

No tailings storage areas are expected to be required at Midwest since it is planned that all Midwest ore will be transported to the McClean Lake mill for processing, with all resulting tailings being disposed of in McClean Lake’s licensed TMF.

Surface facilities and infrastructure at the Midwest project will consist of a water treatment plant and other facilities necessary to support the mining operation and the ore shipment activities. Ample area for these facilities is available on the existing surface lease.

The terrain at Midwest is typical of the Athabasca Basin area with glacial drift features following northeast-southwest trends to produce sand and gravel ridges. These ridges are surrounded by low lying ground which is often water logged and dominated by muskeg. Over 25% of the area

is covered by small ponds and lakes. Jack pine and spruce, rarely more than 10 metres high, are the predominant trees. Surface elevations range from 400 to 500 metres above sea level.

History

Initial exploration work in the vicinity of the two Midwest deposits began in 1966. Canada Wide Mines Ltd., a subsidiary of Esso Resources Canada Ltd., was operator of the project from 1968 to 1982. From 1968 to 1975, exploration was carried out on an exploration permit which included the area covered by the current mineral leases. Most of the work was concentrated on the area near South McMahon Lake where uranium mineralized boulders were found. In 1974, the exploration permit was changed to mineral leases.

During the winter season of 1977, one of the holes drilled through the unconformity encountered mineralization. In January 1978, the Midwest deposit was intersected by the first drill holes. During 1978 through 1980, a further 439 holes were drilled (for a total of about 650) to delineate the deposit and to explore the surrounding area of the mineral leases.

In 1987, Denison acquired a 45% interest in the Midwest project and became the operator. An underground test mine program was completed in 1989 which confirmed the results of the surface drilling program and identified a high grade mineral reserve containing 35.7 million pounds of U_3O_8 at an average diluted grade of 4.5% U_3O_8, considered to be mineable by underground methods.

In 1993, the respective owners of McClean Lake and Midwest combined their interests to make one complementary project with one mill at McClean Lake. In order to accomplish this, a portion of Denison's interest in Midwest was exchanged for an interest in McClean Lake. This transaction, together with several related ownership changes, resulted in Denison's ownership interest in Midwest being reduced to 19.5% and Minatco, ARC's predecessor in title, becoming the operator.

In 1999, Denison increased its interest in Midwest by 5.50% through the exercise of first refusal rights. With the uncertainty of the timing and costs of the Midwest development and the desire to eliminate the obligation to pay advance and future royalties on production from Midwest, Denison decreased its interest in Midwest from 25% to 19.96% effective March 31, 2001. ARC, the operator/manager of Midwest, also reduced its interest from 70.5% to 54.84% for the same reason.

At the end of 2004, in order to take advantage of rapidly increasing uranium prices, Denison again increased its interest at Midwest, along with its joint venture partners, by buying the 20.70% interest in Midwest then held by Redstone Resources Inc. This purchase permitted Denison to acquire a further 5.21% interest in Midwest, bringing its interest to 25.17%. ARC's interest increased to 69.16% and OURD's interest increased to 5.67%.

Exploration activities resumed in 2004 some three kilometres to the northeast of the Midwest deposit to test ground around a historic hole MW-338 that had returned an isolated intercept of 3.8 metres at 6.9% U_3O_8. Continuing exploration identified the Midwest A deposit and several other mineralized areas, including the Josie Zone, lying between the Midwest and the Midwest A deposits.

Geological Setting

The Midwest uranium deposits lie near the eastern margin of the Athabasca Basin in the Churchill Structural Province of the Canadian Shield. The bedrock geology of the area consists of Precambrian gneisses unconformably overlain by flat lying, unmetamorphosed sandstones and conglomerates of the Athabasca Group. The Precambrian basement rocks are Aphebian–aged, are termed the Wollaston Group, and are essentially graphitic pelitic metasediments. These pelitic metasediments form a steeply dipping syncline which trends northeast. The basement surface is marked by a paleoweathered zone with lateritic characteristics referred to as regolith.

Exploration

Initial work on the property was a regional airborne geophysical survey, which located conductors below the sandstone cover. Ground prospecting identified a radioactive boulder field, and subsequent drill testing of the conductors located the mineralization in 1978.

After Denison acquired a 45% interest in the project and became the operator in 1987, an underground exploration test mine program was initiated at the Midwest deposit. From the fall of 1988 through April 1989, a 3.7 metre diameter shaft was sunk to a depth of 185 metres on the west shore of the Mink Arm of South McMahon Lake. From a depth of 170 metres, a crosscut was driven a total of 180 metres east. At the end of the crosscut, a blind-hole boring rig was installed to test the unconformity and related mineralization. Blind–hole boring of two 1.2 metre diameter holes through the mineralization was then carried out.

The two known uranium occurrences in the area (Midwest deposit and Midwest A deposit) lie along a long resistivity low corresponding to a conductor associated with the graphite-bearing gneissic units of the basement. The other exploration tool of choice is rock geochemistry and clay mineralogy in drill hole core samples, mostly to define alteration haloes in the overlying Athabasca sandstone.

Mineralization

The Midwest and Midwest A uranium deposits at the Midwest project are two of several high grade deposits at or near the contact between the basement complex and the sandstone in the Athabasca Basin in northern Saskatchewan. The Midwest deposit is sausage–shaped, 215 metres long with two main pods of high–grade mineralization separated by a 50 metre long section of low grade disseminated mineralization, at a depth of approximately 200 metres below surface. The average width is 80 metres with a maximum of 128 metres. Thickness of the zone averages 10 metres with a maximum of 30 metres. Overall, the deposit is high grade at 5.50% U_3O_8. Nickel and arsenic average grades are also high, at 4.35% and 5.3% respectively.

The Midwest deposit is representative of typical unconformity style mineralization, whereby 99.5% of the resources are located at the basement sandstone contact either in the basal conglomerate or in the upper basement unit.

Locally, mineralized lenses occur along steep faults above and below the main unconformity mineralization. These are termed "perched" and "deep basement mineralization" respectively.

The Midwest A deposit is located at a depth of between 175 and 210 metres below the surface. It consists of several sub-parallel high grade mineralized zones. These zones are surrounded by low-grade remobilized and clay-rich mineralization. The mineralized zones also exhibit structurally controlled roots that extend as much as 70 metres beneath the unconformity.

Drilling

Over 650 drill holes have tested the Midwest property prior to 2004, of which 100 surface (and wedged extensions) and three underground holes have been used for resource estimations. Eighty of these are NQ diamond drill holes from the surface, 20 are PQ holes drilled for metallurgical test work, and three are confirmation holes drilled from the underground crosscut. All of the surface holes were geologically and geotechnically logged and sampled by previous owners, while the underground holes were logged and sampled by Denison.

Of the 103 holes used for estimation of the Midwest resources, 22 did not have downhole survey information and therefore were assumed to be vertical. A statistical analysis carried out in 1982 indicated that at the 285 metre level, these supposedly vertical holes could have deviated by as much as 12 metres with an average of roughly five metres. Sensitivity studies have been carried out and indicate that, if the block boundaries remain fixed, the uncertainty in hole location for these 22 holes causes a fluctuation of 8% in tonnes, 5% in metal content and 3% in grade.

The mineral resource estimate for Midwest A is based on 85 core holes drilled between 2005 and 2007, as well as 29 vertical core holes drilled in 1979 and 1980, and in 1989. Additional drilling has been carried out since the date of the mineral resource estimate.

Sampling and Analysis

Due to the nature of the mineralization, lost core is a significant issue. Lost core ranges between 0% and 50%, with an average core loss of 33% for the drill holes included in the mineral resource estimate for the Midwest deposit. The original owners initiated a convention which is conservative and has withstood many audit procedures over the years. The value assigned to lost core is the lowest assay of recovered material from one of three samples. These samples are: (1) the sample within which the lost core occurs; (2) the sample immediately above the one containing the lost core; and, (3) the sample immediately below the one containing the lost core.

Core recovery from the 2005 to 2007 Midwest A drilling was substantially improved in relation to earlier drilling, with 86% overall core recovery. The sections of poor core recovery occur with more frequency in the sandstone just above the unconformity.

Geochemical rock samples from the 2005 to 2007 drilling were shipped to and analysed by Saskatchewan Research Council Geoanalytical Laboratories ("**SRC**") in Saskatoon. Quality control procedures in place at SRC include a systemic insertion of blanks, duplicates and standards. Radiometric data are converted into % eU in a standard manner.

Security of Samples

No opinion can be given regarding security of samples by the previous owners in the mid to late 1970s, other than to indicate that subsequent geological work, and all metallurgical and geotechnical work, including the sinking of a shaft and a test mining program in the late 1980s, have given no cause to doubt the veracity of the samples from which the mineral resource estimations are based. The best confirmation that proper security of samples was maintained is the previously mentioned report on the assay data, where the assay data base was checked at two external labs and found to contain an average variation of only 4% for values greater than 0.5% U_3O_8.

No special security measures have been used for the core samples from drilling since 2005. Samples were transported to the core shack and logging facility in sealed, standard, wooden core boxes, where they were photographed, logged, radiometrically scanned and, in some cases, split or chipped. Bagged samples were shipped to SRC in plastic pails or metallic containers.

Mineral Reserve and Mineral Resource Estimates

From June 1978 to October 1980, there were a total of 13 discrete "reserve estimation" reports published on the Midwest deposit by the previous owners.

The Company retained Scott Wilson RPA to independently review and audit its previously reported mineral reserves and resources in accordance with the requirements of NI 43-101. The Company received a technical report from Scott Wilson RPA dated June 1, 2005, revised on February 14, 2006, on its mineral reserves and resources at the Midwest uranium project entitled "Technical Report on the Midwest Uranium Deposit Mineral Resource and Mineral Reserve Estimates, Saskatchewan, Canada" (the "**Midwest Technical Report**"), a copy of which is available on the Company's profile on the SEDAR website at www.sedar.com. Richard E. Routledge, M.Sc., P. Geo., James W. Hendry, P. Eng. and Luke Evans, M.Sc., P. Eng. are the independent Qualified Persons for the Midwest Technical Report for the purposes of the requirements of NI 43-101.

In preparing the Midwest Technical Report, Scott Wilson RPA reviewed previous estimates of mineral reserves and mineral resources, and examined and analyzed data supporting the previous estimates, as well as other available data regarding the properties, including extensive information from ARC. For the purpose of the economic analysis for determining open pit mineral reserves for the deposit, Scott Wilson RPA used a 0.3% U_3O_8 mining cut-off, mining costs based on previous actual operating experience at Sue C, historical milling costs at the JEB mill and a uranium price of $23.20 per pound of U_3O_8. Scott Wilson RPA constructed a block model based on a total of 265 surface drill holes. Scott Wilson RPA adopted the ARC unconformity and sandstone mineralization interpretation with some minor modifications. The total mineral reserve in the Scott Wilson RPA estimate is approximately 24% greater than the previously reported estimates due to the addition of the South Extension Zone and increased U_3O_8 grade estimates due to the application of a density weighted methodology. This block model was then used as the basis for evaluation of open pit economics using an industry standard Whittle software analysis program. As a result of increased costs and other economic factors, the Midwest mineral reserves were reclassified to mineral resources in 2008 pending a decision to proceed with the development of the Midwest deposit.

Midwest Mineral Resources (1)(2)(3)(4)(5)

	100% Basis			Company Share
Category	**Tonnes (,000)**	**Grade (% U_3O_8)**	**Pounds of U_3O_8 (,000)**	**Pounds of U_3O_8 (,000)**
Indicated	354.0	5.50	42,900	10,800
Inferred	25.0	0.80	400	100

Notes:

(1) The Midwest Technical Report estimated probable mineral reserves but they were reclassified by the Company to indicated mineral resources in 2008 as a result of the decision not to proceed with the development of the project at that time.
(2) The cut-off grade for the Midwest indicated mineral resources is 0.30% U_3O_8.
(3) The indicated mineral resources also contain 4.35% nickel (Company share of 8.55 million pounds) and 0.34% cobalt (Company share of 0.68 million pounds).

(4) Mineral resources are not mineral reserves and do not have demonstrated economic viability. No mineral reserves have as yet been defined.
(5) Inferred mineral resources have a greater amount of uncertainty as to their existence and as to whether they can be mined economically. It cannot be assumed that all or part of the inferred mineral resources will ever be upgraded to a higher classification.

Geostat was retained to complete an independent technical review of the Midwest A uranium deposit. Geostat's review was carried out and a report was prepared in compliance with the standards of NI 43-101. The Company received Geostat's report on the mineral resources of the Midwest A deposit, dated January 31, 2008, entitled "Technical Report on the Midwest A Uranium Deposit of Saskatchewan, Canada" (the "**Midwest A Technical Report**"), a copy of which is available on the Company's profile on the SEDAR website at www.sedar.com. Michel Dagbert, P. Eng is the independent Qualified Person for the Midwest A Technical Report for the purposes of the requirements of NI 43-101.

In preparing the Midwest A Technical Report, Geostat delineated mineralized envelopes on drill section planes at 25 metre intervals, mostly based on equivalent uranium grades and a cut-off of 0.05% eU. As a general rule, the mineralized shapes look simple on both extremities of the zone while they seem to have a more complex geometry in the centre part of the zone. In that centre part, a small high grade pod is defined within the outline of the mineralized zone itself around a few intercepts of significant length and consistently showing high grades, generally above 10% eU.

Once mineralized solids and the location and cut-off grades of composites within those solids were defined, the next step was to fill the solids with small blocks on a regular grid and interpolate the grade of each block from the grades of composites close to the blocks. Blocks of the current mineral resource model are 10 x 10 x 3 metres and they are oriented along the strike of the deposit. The procedure used calculates the proportion of each mineralized solid in each mineral resource block on the regular grid. Altogether, 1,461 mineral resource blocks have some mineralized material with proportions ranging from 0.6% to 100%, and an average of 47.6%.

Volumes of mineralized material of each solid, obtained by adding block fractions, are reasonably close to the mineralized solid volumes. For the low-grade solids, the interpolation of the uranium grade of the block fraction in a given solid is done with ordinary kriging following search conditions as defined by variography routines. With the above conditions, the grade of all low-grade fractions in the 1,461 blocks can be interpolated. For the high grade solid (only 73 blocks with some fraction of that material from 0.2% to 49.2%), no local block grade interpolation was attempted. An 18% U fixed value (reasonably close to the average composite grade of 18.6% U) has been assigned to all block fractions. This approach corresponds to kriging with a pure nugget effect variogram.

The mineral resource block model leads to mineral resource estimates provided that volumes are converted into tonnages. Since at this time, there are no density measurements from Midwest A core samples, densities used are based on the density model defined for the nearby Midwest deposit. In this model, fixed densities (from 2.24 to 2.34 tonnes per cubic metre) are assigned to material in given uranium grade categories (from 0 to 6% U), and a fixed density of 2.8 tonnes per cubic metre is used for the high grade material.

Geostat classified the Midwest A mineral resources as follows:

Midwest A Mineral Resources[(1)(2)(3)]

Category	100% Basis			Company Share
	Tonnes (,000)	Grade (% U_3O_8)	Pounds of U_3O_8 (,000)	Pounds of U_3O_8 (,000)
Indicated	464.0	0.57	5,800	1,500
Inferred	9.2	21.23	4,300	1,100

Notes:

(1) The cut-off grade is 0.05% U (0.059% U_3O_8).

(2) Mineral resources are not mineral reserves and do not have demonstrated economic viability. No mineral reserves have as yet been defined.

(3) Inferred mineral resources have a greater amount of uncertainty as to their existence and as to whether they can be mined economically. It cannot be assumed that all or part of the inferred mineral resources will ever be upgraded to a higher classification.

Evaluation and Development

The Midwest project is host to two significant uranium deposits: the Midwest deposit, discovered in 1978; and the Midwest A deposit which was discovered in 2005. The Midwest deposit is expected to be the first to be mined. Various studies since its discovery in 1978 have examined the feasibility of mining by open pit, underground and SABRE methods.

In December 2005, the project description for the development of the Midwest deposit was submitted to the CNSC, the Environmental Assessment Branch of the Saskatchewan Ministry of Environment and the Canadian Environmental Assessment Agency. This project description contemplated the Midwest deposit being mined by open pit and a further expansion of the McClean Lake mill.

The development of this deposit will involve draining the Mink Arm of the South McMahon Lake to construct an open pit mine. Other deposits and extensions located to the north, south and in the basement could be developed once the pit nears completion. Ore from this deposit would be trucked over a dedicated haul road to the McClean Lake mill.

In November 2007, the Midwest joint venture partners made a formal production decision to proceed with development of the Midwest deposit. The capital cost, including surface facilities, the water treatment plant, the haul road and the related mill expansion, was estimated at approximately CAD$435 million. Capital expenditures were estimated to be as follows: CAD$75 million for the water treatment plant, CAD$115 million for de-watering wells, CAD$100 million for infrastructure, CAD$35 million for mobile equipment and maintenance facilities, CAD$100 million for modification to the mill and CAD$10 million for miscellaneous capital expenses.

In November 2008, the Midwest joint venture partners announced that the development of the Midwest project would be delayed for an indefinite period. The delay was the result of the global economic climate, delays and uncertainties associated with the regulatory approval process, increasing capital and operating costs and the depressed state of the uranium market. Based on an update of the capital cost estimates completed in 2008, the capital cost increased approximately 50% from the previous estimate of CAD$435 million. Efforts to optimize the project continue, and the status of the project is expected to be reviewed periodically.

In September 2011, the final version of the Midwest Project Environmental Impact Statement ("**EIS**") was submitted to provincial and federal governments. The Comprehensive Study Report

was drafted by the CNSC and circulated for federal, provincial and aboriginal review. In September 2012, the Midwest EIS was approved.

The project has remained on care and maintenance and will continue to do so in 2017.

Wheeler River

Current Technical Report

In 2016, SRK Consulting conducted a preliminary independent assessment of the economic potential of the Wheeler River project and prepared an NI 43-101 technical report for the Company entitled the "Preliminary Economic Assessment for the Wheeler River Uranium Project, Saskatchewan, Canada" dated April 8, 2016 with an effective date of March 31, 2016, a copy of which is available under the Company's profile on SEDAR and EDGAR (the "**PEA**"). Ken Reipas, PEng, is the independent Qualified Person for the PEA for the purposes of the requirements of NI 43-101.

The assessment evaluated the co-development of the two separate deposits (Gryphon and Phoenix) with one production facility based on the mineral resource estimates for the Wheeler River property with an effective date of September 25th, 2015. For the Phoenix and Gryphon deposits combined, total Indicated mineral resources are estimated at 166,400 tonnes at an average grade of 19.14% U_3O_8 containing 70.2 million pounds of U_3O_8. Total Inferred mineral resources are estimated at 842,600 tonnes at an average grade of 2.37% U_3O_8 containing 44.1 million pounds of U_3O_8. Except as otherwise stated below, the following disclosure is summarized from the PEA.

Property Description and Location

Denison has a 60% interest in the WRJV consisting of 19 mineral claims totaling 11,720 hectares in northern Saskatchewan. Denison has been the operator since November 10, 2004. The other partners are Cameco (30%) and JCU (10%). There are no back-in rights or royalties applicable to this property. There is an annual requirement of CAD$0.3 million either in work or cash to maintain title to the mineral claims. Based on previous work submitted and approved by the province of Saskatchewan, title is secure until 2035.

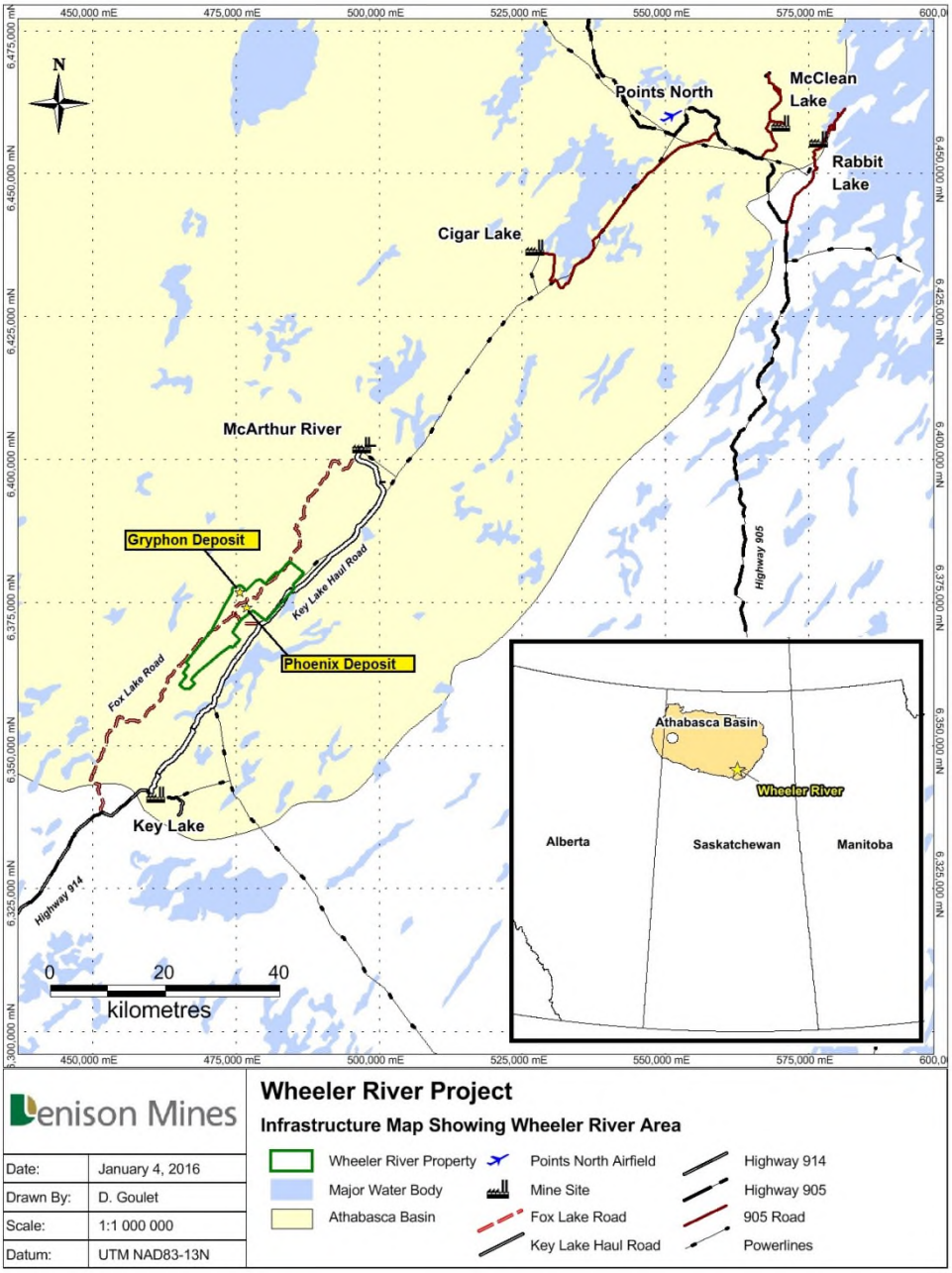


Figure 1-0: Location Map of Wheeler River Project Showing Regional Infrastructure

As shown on the map provided above (Figure 1-0), the Wheeler River property is located along the eastern edge of the Athabasca Basin in northern Saskatchewan and is located approximately 35 km north-northeast of the Key Lake mill and 35 km southwest of the McArthur River uranium mine. The Wheeler River property is host to the Phoenix uranium deposit and the Gryphon uranium deposit, discovered in 2008 and 2014, respectively.

Accessibility, Climate, Infrastructure and Physiography

Access to the Wheeler River property is by road or air from Saskatoon. The property is well located with respect to all-weather roads and the provincial power grid. Vehicle access to the property is by the provincial highway system to the Key Lake mill then by the ore haul road

between the Key Lake and McArthur River operations to the eastern part of the property. An older access road, the Fox Lake Road, between Key Lake and McArthur River, provides access to most of the northwestern side of the property. Gravel and sand roads and drill trails provide access by either four-wheel-drive or all-terrain-vehicle to the rest of the property.

The climate is typical of the continental sub-arctic region of northern Saskatchewan, with temperatures ranging from +32°C in summer to -45°C in winter. Winters are long and cold, with mean monthly temperatures below freezing for seven months of the year. Winter snow pack averages 70 cm to 90 cm. Freezing of surrounding lakes, in most years, begins in November and breakup occurs around the middle of May. The average frost-free period is approximately 90 days. Field operations are possible year round with the exception of limitations imposed by lakes and swamps during the periods of break-up and freeze-up.

Average annual total precipitation for the region is approximately 450 mm, of which 70% falls as rain, with more than half occurring from June to September. Snow may occur in all months but rarely falls in July or August. The prevailing wind direction is from the west with a mean speed of 12 km/hr.

La Ronge, roughly 170 km south of the project, is the nearest commercial/urban centre where most exploration supplies and services can be obtained. The operating Key Lake mill complex is approximately 35 km southwest of the property. Personnel working on the project commute by road from Saskatoon or by air to the Key Lake mill where they are picked up and transported to Wheeler by road.

Field operations are currently conducted from Denison's Wheeler River camp located centrally within the property. The camp provides accommodations for up to 35 exploration personnel. Fuel and miscellaneous supplies are stored in existing warehouse and tank facilities at the camp. The site generates its own power. Abundant water is available from the numerous lakes and rivers in the area.

The property is characterized by a relatively flat till plain with elevations ranging from 477 metres to 490 metres above sea level. Throughout the area, there is a distinctive north-easterly trend to landforms resulting from the passage of glacial ice from the northeast to the southwest. The topography and vegetation are typical of the taiga forested land common to the Athabasca Basin area of northern Saskatchewan. The area is covered with between 30 metres to 50 metres of overburden. The terrain is gently rolling and characterized by forested sand and dunes. Vegetation is dominated by black spruce and jack pine, with occasional small stands of white birches occurring in more productive and well-drained areas. Productive lichen growth is common to this boreal landscape mostly associated with mature coniferous stands and bogs.

History

The Wheeler River property was staked on July 6, 1977, due to its proximity to the Key Lake uranium discoveries, and was vended into an agreement on December 28, 1978 between AGIP Canada Ltd., E&B Explorations Ltd. and Saskatchewan Mining Development Corporation, with each holding a one-third interest. On July 31, 1984, each party divested a 13.3% interest and allowed Denison Mines Limited, a predecessor company to Denison, to earn in to a 40% interest.

In late 2004, Denison entered into an agreement to earn a further 20% interest by expending CAD$7,000,000 within six years. At that time, Denison became the project operator. In 2007,

when the earn-in obligations were completed, the participating interests were: Denison, 60%; Cameco, 30%; and JCU, 10%.

The former operator, Cameco, had identified a major geological unit termed the "quartzite ridge" and had noted extensive dravite (boron) alteration in the overlying sandstones. Cameco discovered several uranium mineralized intercepts that occurred in a variety of geological settings throughout the property.

During the initial years of its option, Denison targeted the west area, or footwall side of the quartzite ridge. In 2007, Denison completed a major DC resistivity survey to the north of an earlier Cameco 2003 resistivity survey. Interpretation of the 2007 resistivity survey lead to the recommendation for drilling three holes to test two separate resistivity lows, both interpreted to represent "alteration chimneys" within the Athabasca sandstone.

Discovery and Delineation of the Phoenix Deposit

In the summer of 2008, as a direct result of the 2007 DC resistivity survey along the hanging wall of the quartzite ridge, two drill holes were located 600 metres apart along the same low resistivity trend. This drilling intersected a zone of characteristic sandstone alteration and uranium mineralization linked to unconformity-associated uranium deposits. All drill holes during the summer of 2008 intersected either uranium mineralization or very strong alteration close to mineralization.

Subsequent drilling programs conducted during 2009 and 2010 established significant milestones in the advancement of the project in terms of demonstrating continuity and extending the mineralized zone for a strike length of greater than 900 metres. An initial mineral resource estimate was completed at the end of 2010. Aggressive drilling programs in 2011 and 2012 successfully added additional mineral resources. In 2013, drilling was completed at the Phoenix deposit, but a large portion of the 2013 Wheeler River drilling program was also allocated to exploration of several other target areas on the property.

Some additional infill drilling was completed at the Phoenix deposit in early 2014, and this work was successful in extending some high grade mineralization into areas previously modeled as low grade. These results, combined with results from 2013 were the catalyst for an updated mineral resource estimate for the Phoenix deposit in June 2014.

Discovery and Delineation of the Gryphon Deposit

In March 2014, drill hole WR-556 resulted in discovery of the Gryphon deposit, intersecting uranium mineralization averaging 15.33% U_3O_8 over 4.0 metres in basement graphitic gneiss, 200 metres below the sub-Athabasca unconformity. The Gryphon deposit occurs on the K-North trend, which exhibits numerous favourable exploration criteria including basement quartzite and graphitic gneisses, basement structures, reverse offsets of the unconformity, weak basement hosted mineralization near the unconformity, and anomalous sandstone geochemistry and alteration.

Historical holes ZK-04 and ZK-06 drilled in the late 1980s, along the K-North trend, targeted unconformity-related mineralization and intersected favourable sandstone structure and alteration as well as alteration and weak mineralization in the basement approximately 35 metres below the unconformity. Follow-up drilling campaigns attempted to locate unconformity mineralization up dip of the weak basement mineralization. Gryphon deposit discovery drill hole

WR-556 was the first to evaluate the down dip projection of these intersections into the basement.

Since the discovery hole at Gryphon, subsequent drilling campaigns in 2014 and 2015 were completed and an initial resource estimate was released in November 2015.

Geological Setting and Mineralization

The Wheeler River property located near the southeastern margin of the Athabasca Basin in the southwest part of the Churchill Structural Province of the Canadian Shield. The Athabasca Basin is a broad, closed, and elliptically shaped, cratonic basin with an area of 425 km (east-west) by 225 km (north-south). The bedrock geology of the area consists of Archean and Paleoproterozoic gneisses unconformably overlain by up to 1,500 m of flat-lying, unmetamorphosed sandstones and conglomerates of the mid-Proterozoic Athabasca Group. The property is located near the transition zone between two prominent litho-structural domains within the Precambrian basement, the Mudjatik Domain to the west and the Wollaston Domain to the east. The Mudjatik Domain is characterized by elliptical domes of Archean granitoid orthogenesis separated by keels of metavolcanic and metasedimentary rocks, whereas the Wollaston Domain is characterized by tight to isoclinal, north-easterly trending, doubly plunging folds developed in Paleoproterozoic metasedimentary rocks of the Wollaston Supergroup, which overlie Archean granitoid orthogenesis identical to those of the Mudjatik Domain. The area is cut by a major northeast-striking fault system of Hudsonian Age. The faults occur predominantly in the basement rocks but often extend up into the Athabasca Group due to several periods of post-depositional movement.

Local geology comprises little-deformed late Paleoproterozoic to Mesoproterozoic Athabasca Group strata comprised of Manitou Falls Formation sandstones and conglomerates which unconformably overlie the crystalline basement and have a considerable thickness from 170 m over the quartzite ridge to at least 560 m on the western side of the Property. Basement rocks beneath the Phoenix and Gryphon deposits are part of the Wollaston Domain and are comprised of metasedimentary and granitoid gneisses. The metasedimentary rocks belong to the Wollaston Supergroup and include graphitic and non-graphitic pelitic and semipelitic gneisses, meta-quartzite, and rare calc-silicate rocks together with felsic and quartz feldspathic granitoid gneisses. Pegmatitic segregations and intrusions are common in all units with garnet, cordierite, and sillimanite occurring in the pelitic strata, indicating an upper amphibolite grade of metamorphism. Graphitic pelite and quartzite units appear to play important roles in the genesis of Athabasca Basin unconformity-type deposits. Thus the presence of extensive subcrop of both units: 18 km of quartzite and 152 line-km of conductors (assumed to be graphitic pelite), greatly enhances the economic potential of the Wheeler River property. The Wheeler River property is partially covered by lakes and muskeg, which overlie a complex succession of glacial deposits up to 130 metres in thickness. These include eskers and outwash sand plains, well-developed drumlins, till plains, and glaciofluvial plain deposits. The orientation of the drumlins reflects southwesterly ice flow.

The Phoenix deposit straddles the sub-Athabasca unconformity approximately 400 metres below surface and comprises three zones (A, B, C) which cover a strike length of 1.1 kilometres. The deposit comprises an exceptionally high grade core surrounded by a lower grade shell. The deposit is interpreted to be structurally-controlled by the WS shear, a prominent basement thrust fault which occurs footwall to a graphitic-pelite and hangingwall to a garnetiferous pelite and quartzite unit.

The Gryphon deposit occurs from 580 metres below surface and is centered approximately 220 metres below the sub-Athabasca unconformity within basement rocks. The Gryphon deposit, as currently defined, consists of a set of parallel, stacked, northeast plunging mineralized lenses that are broadly conformable with the basement stratigraphy. The deposit is approximately 450 metres along plunge, 80 metres across plunge and varies in thickness, between 2 and 20 metres, depending on the number of lenses present. Four groups of mineralized lenses have been interpreted to date, namely the A, B, C and D series, based on their position relative to the different basement stratigraphic units. The basement stratigraphy, which strikes northeast and dips moderately to the southeast, typically comprises of: (1) a hangingwall graphitic pelitic gneiss (Upper Graphite), (2) a Quartz-Pegmatite assemblage, (3) a thin graphitic pelitic gneiss (Lower Graphite), and (4) a footwall Basal Pegmatite unit. A major structure termed the G-Fault separates the Upper Graphite from the Quartz-Pegmatite assemblage. The A, B and C series lenses occur with the hangingwall and footwall to the Quartz-Pegmatite assemblage, respectively. The estimated mineral resources contained in the Gryphon deposit includes only the results from the A, B and C series lenses. The D series lenses, which occur within the Basal Pegmatite unit, were excluded from the initial resource estimate in September 2015 as insufficient drilling had been completed at the time of the resource estimate.

Deposit Types and Geological Model

Since discovery of the McArthur River deposit in 1988, the McArthur River exploration model has emphasized a different association between uranium mineralization and rock type compared to the earlier Key Lake exploration model. At McArthur River, one of the most significant rock types in the basement succession is a massive, homogenous, and competent quartzite. Mechanically, particularly compared to the adjacent layered members of the basement stratigraphy, the quartzite is extremely competent, and thus exerts an important control both in basement and post-Athabasca sandstone structural evolution. Both the footwall and hanging wall contacts of the quartzite unit, particularly where these contacts involve highly incompetent rocks such as graphitic pelite, are sites of major thrust and strike-slip faults.

Although these faults are loci for mineralization; the poor conductivity, low magnetic susceptibilities and low density values associated with the quartzite limits the effectiveness of airborne and ground geophysical methods in mapping these basement units especially when they are covered by hundreds of metres of sandstone. Another noteworthy characteristic of McArthur River type mineralization is the widespread presence of hydrothermal dravite, indicating boron addition into the overlying Athabasca sandstone. Thus, borehole geochemistry and drilling are the primary exploration methods.

Recently, basement-hosted deposits have become more recognized as a viable exploration target through the development of Eagle Point mine and the discovery of deposits such as Millenium, Triple R and Arrow. Exploration typically requires the recognition of significant fault zones within basement metasediments (often associated with graphite) with associated clay and geochemical alteration haloes.

Exploration, Drilling, Sampling and Analysis

Diamond drill holes are typically sited in the field using local grid coordinates as the main reference. Upon completion of a drill hole the collar is surveyed with a Differential Global Positioning System ("**DGPS**"). The DGPS allows for very accurate definition of the collar position including elevation, which is critical in locating any unconformity offsets. The trajectory of all drill holes is determined with a Reflex instrument in single point mode, which measures the

dip and azimuth at 50 metre intervals down the hole with an initial test taken six metres below the casing and a final measurement at the bottom of the hole.

Denison submits assay samples for chemical analysis for all the cored sections through mineralized intervals, where core recovery permits. All mineralized core is measured with a gamma-ray scintillometer by removing each piece of drill core from the ambient background, noting the most pertinent reproducible result in counts per second, and carefully returning it to its correct place in the core box. Any core registering over 500 cps is flagged for splitting and sent to the laboratory for assay. Early drill holes were sampled using variable intervals (0.2 metres to 1.0 metre) however all recent holes have been sampled using 0.5 metre lengths. Barren samples are taken to flank both ends of mineralized intervals, with flank sample lengths at least 0.5 metres on either end - this may be significantly more in areas with strong mineralization. All core samples are split with a hand splitter according to the sample intervals marked on the core. One-half of the core is returned to the core box for future reference and the other half is bagged, tagged, and sealed in a plastic bag. Bags of mineralized samples are sealed for shipping in metal or plastic pails depending on the radioactivity level. In addition, samples are routinely collected from mineralized intersections for bulk dry density determination as required for mineral resource estimation. Samples collected for assay and bulk dry density are analyzed at the Saskatchewan Research Council ("**SRC**") in Saskatoon, an independent and accredited laboratory. SRC uses an ISO/IEC 17025:2005 accredited method for the determination of U_3O_8 weight %. Sample preparation involves crushing and pulverizing core samples to 90% passing minus 106 microns. The resultant pulp is digested using aqua-regia and the solution analyzed for U_3O_8 weight % using ICP-OES. In addition to internal checks by SRC Geoanalytical Laboratories, the Company has rigorous quality assurance and quality control ("**QAQC**") procedures including the insertion of standard reference materials, blanks and field duplicates.

Three other types of drill core samples are collected during routine exploration, the results of which are used to prioritize drill holes for follow-up exploration or determine geochemical and/or alteration vectors toward mineralization, as follows:

1. Composite geochemical samples are collected over approximately 10 metre intervals in the upper Athabasca sandstone and in unaltered basement lithologies beneath the unconformity and over 5 metre intervals in the basal sandstone and altered basement units. The samples consist of 1 cm to 2 cm disks of core collected at the top or bottom of each row of core in the box over the specified interval. Care is taken not to cross lithological contacts or stratigraphic boundaries.

2. Representative/systematic core disks (one to five centimetres in width) are collected at regular 5 metre to 10 metre intervals throughout the entire length of core. These samples are analyzed for clay minerals using reflectance spectroscopy.

3. Select spot samples are collected from significant geological features (i.e. radiometric anomalies, structure, alteration etc.) Core disks 1 cm to 2 cm thick are collected for reflectance spectroscopy and split core samples are collected for geochemical analysis.

Geochemical samples are submitted to the SRC for multi-element analysis by partial and total digestion and ICP-OES/MS finish. Samples for reflectance clay analyses have been analyzed by Denison using a PIMA spectrometer or an ArcSpectro FT-NIR ROCKET spectrometer and sent to Rekasa Rocks Inc. (Rekasa) or AusSpec International Ltd. (AusSpec), respectively, for interpretation. These sampling types and approaches are typical of uranium exploration and

definition drilling programs in the Athabasca Basin. Drill core handling and sampling protocols are in accordance with industry best practices.

All drill holes on the property are logged with a radiometric probe to measure the natural gamma radiation, from which an initial indirect estimate of equivalent uranium content (eU_3O_8) can be made. The equivalent uranium grades also serve as further verification of chemical assay grades or can provide reliable substitute grades in the event of core loss. The downhole probes are calibrated originally by the manufacturer at test pits with known mineralization in the United States. These probes are also regularly tested in the test pits at a government-owned facility in Saskatoon. In addition, Denison further calibrates the probes with a correlation curve of probe grades versus corresponding high-grade assays on split core as received from the laboratory. At the Wheeler River project, different probes are used depending on the observed grade of mineralization at the unconformity as the standard probes generally become saturated at grades above 20% U_3O_8.

Once the diamond drill core is geologically logged but before sampling, the core is photographed and the core boxes are labelled with aluminum tags. After sampling, all core is stored in specially constructed core racks outdoors in the event the core needs to be re-logged or re-sampled in the future.

For additional information on the drilling, sampling and analytical procedures used by Denison on the Wheeler River project, refer to Section 10 of the PEA. Recent details on exploration and drilling at Wheeler River Lake is provided in the Mineral Exploration section below.

Mineralization and Metallurgical Testing

Mineralization at both Phoenix and Gryphon is monominerallic uranium as uraninite/pitchblende. Values of all accompanying metals are low, particularly in comparison with other Athabasca uranium deposits, which can have very high values of nickel, cobalt and arsenic.

Preliminary metallurgical testing was carried out on composite samples from the Phoenix deposit in 2014 and from the Gryphon deposit in 2015 by the Saskatchewan Research Council in Saskatoon under the direction of Chuck Edwards, Director of Metallurgy at AMEC Foster Wheeler. The objective of the tests carried out by SRC was to determine the preliminary leaching process, leach residue settling, raffinate composition and purity of the U_3O_8 product, using test conditions that emulated the McClean Lake mill flowsheet.

For the Phoenix deposit, a representative composite sample consisting of 17.5 kilograms of split drill core from the Phoenix deposit was subjected to QEMSCAN analysis, preliminary sulphuric acid leaching tests, leach residue settling tests, solvent extraction tests, and a yellowcake production test. The grade of the sample was 19.7% U_3O_8, approximately the same as the average grade of the deposit.

Key points from the test work are summarized below:

- Uraninite is the primary uranium mineral.
- Deleterious element concentrations are very low.
- Over 95% of the uraninite was exposed in all size fractions, indicating that a relatively coarse grind can be planned for leaching.
- Leach tests suggest that over 99.5% of the uranium can be extracted in 8-12 hours at a temperature of 50°C, atmospheric pressure, and addition of an oxidant.
- Acid consumption was low at 1.6-1.7 kg/lb U_3O_8.

- Solvent extraction is effective to selectively extract and purify uranium.

For the Gryphon deposit, a 22.8 kilogram composite sample was analyzed containing 3.36% U_3O_8 and composed of drill cores from 26 individual drill holes spatially distributed throughout the Gryphon deposit. A comparison to the geological assay database indicated the composite sample was a fair representative of the Gryphon deposit on key parameters. The sample was subjected to QEMSCAN analysis, preliminary sulphuric acid leaching tests, leach residue settling tests, solvent extraction tests, and a yellowcake production test. Key highlights from the test work include:

- A reasonable grind size of P100 = 300 µm achieved good uranium liberation;
- Leaching tests demonstrated from 95.4% to 98.8% of uranium can be extracted in 8 hours and from 98.6% to 99.2% can be extracted in 12 hours;
- Reasonable reagent consumption levels in line with other Athabasca basin ores;
- Solvent extraction was effective in selectively extracting and purifying the uranium; and
- No abnormal challenges are expected for effluent treatment based on raffinate composition.

Taken together, the results from the Phoenix and Gryphon test work indicate that a high purity U_3O_8 product can be produced that meets all specifications from ASTM C967-13 "Standard Specifications for Uranium Ore Concentrate".

Security of Samples

Drill core samples are collected and processed at Denison's Wheeler River camp facility located on the property, which is off limits to outsiders. Samples are logged, split, bagged and stored in pails by Denison staff at the core preparation facility. Because the mineralized drill cores are classified as hazardous materials and are regulated under requirements governing the transport of dangerous goods, Denison staff have been trained in the proper handling and transport of the cores and deliver them from the core facility directly to the SRC facilities without outside contact.

SRC considers customer confidentiality and security of utmost importance and takes appropriate steps to protect the integrity of sample processing at all stages from sample storage and handling to transmission of results. All electronic information is password protected and backed up on a daily basis. Electronic results are transmitted with additional security features. Access to SRC's laboratories is restricted by an electronic security system. The facilities at the main lab are regularly patrolled by security guards 24 hours a day.

After the analyses are completed, analytical data is securely sent using electronic transmission of the results, by SRC to Denison. The electronic results are secured using WINZIP encryption and password protection. These results are provided as a series of Adobe PDF files containing the official analytical results and a Microsoft Excel spreadsheet file containing only the analytical results. Analytical data received from the lab is imported directly into Denison's local database. The data is subject to validation using triggers built into the local database to identify blank or standard assays that fall outside the accepted limits that require re-analysis. Field duplicates are validated using control charts. The laboratory is notified immediately of any problematic samples or batches and these are re-analyzed. Assay values that fall below the method detection limit (MDL) are reported by the lab as 'less than' values (<MDL). These values are automatically replaced by half MDL by the local database during import. The database is backed up on- and off-site every day.

Mineral Resource Estimate

RPA Inc. was retained by Denison on behalf of the WRJV to prepare the current mineral resource estimate for the Wheeler River property, which has an effective date of September 25, 2015. Details of the resource estimate are available in the PEA, which is the current NI 43-101 Technical Report for Wheeler River property. Ken Reipas, PEng, is the independent Qualified Person for the PEA for the purposes of the requirements of NI 43-101. A copy of the PEA is available on Denison's website and under its profile on SEDAR at www.sedar.com and on EDGAR at www.sec.gov. A summary of the mineral resource estimated for the Wheeler River Property is provided as follows:

Wheeler River Property Mineral Resources [(1)(2)(3)(4)]

		100% Basis			Company Share[(5)]
Deposit	**Category**	**Tonnes (,000)**	**Grade (% U_3O_8)**	**Pounds of U_3O_8 (,000)**	**Pounds of U_3O_8 (,000)**
Gryphon	Inferred	834.0	2.31	43,000	25,800
Phoenix	Indicated	166.4	19.14	70,200	42,100
Phoenix	Inferred	8.6	5.80	1,100	700

Notes:

(1) CIM Definitions were followed for classification of mineral resources.
(2) Mineral resources for the Gryphon deposit are reported above a cut-off grade of 0.20% U_3O_8, which is based on assumptions made by RPA and a price of US$65 per lb U_3O_8.
(3) Mineral resources for the Phoenix deposit are reported above a cut-off grade of 0.80% U_3O_8, which is based on internal Denison studies and a price of US$50 per lb U_3O_8.
(4) Mineral resources for the Phoenix deposit were last estimated in 2014 to reflect the expansion of the high-grade zone. As no new drilling has been completed at Phoenix since that time, the mineral resource estimates for the Phoenix deposit remain current.
(5) Denison's share is 60% of total mineral resources.

This mineral resource estimate was carried out on a combination of chemical and radiometric probe data. Although there is a correlation between data, the probe grades tended to be lower than chemical grades and are only used when the drill hole had less than 80% core recovery. Most of the U_3O_8 grade data (76%) used for the Phoenix mineral resource estimate was obtained from chemical assays of the rock. The remainder of the data was derived from radiometric probe results, typically when poor drill core recovery prevents representative sampling for chemical assays. For the Gryphon mineral resource estimate, 100% of the U_3O_8 grade data was obtained from chemical assay of the rock.

Evaluation and Development

The PEA considers the potential economic merit of co-developing the high grade Gryphon and Phoenix deposits as a single underground mining operation and assumes processing at Denison's 22.5% owned McClean Lake mill. The PEA is based on a strategic development plan designed to minimize risk, generate higher up front margins, and reduce initial capital funding requirements – by development of the conventionally mined basement hosted Gryphon deposit first, followed by the unconformity hosted Phoenix deposit. The Gryphon deposit is expected to produce 40.7 million pounds U_3O_8, over a seven year mine life, while the Phoenix deposit is expected to produce 64.0 million pounds U_3O_8, over a nine year mine life. Project risk, capex and schedule were also reduced in the PEA by utilizing existing infrastructure in the eastern Athabasca Basin including excess milling capacity at the McClean Lake mill, provincial highways and the provincial power grid.

The conclusions, projections and estimates included in this summary are subject to the qualifications, assumptions and exclusions set out in the PEA, except to the extent such qualifications, assumptions and exclusions may be modified in this AIF. We recommend you read the technical report in its entirety to fully understand the project. A copy of the PEA is available on SEDAR and EDGAR.

Mining Operations in the PEA

The PEA is based on the Indicated and Inferred mineral resources of the Phoenix and Gryphon deposits. SRK's methodology for estimating the mineralization to be included in the mine production plan included:

- Jet bore system (JBS) mining for the Phoenix Zones A and B1. This is planned to be done using freeze wall protection.
- Conventional longhole open stoping with backfill is planned for the Gryphon deposit.
- A cut-off grade of 0.4% U_3O_8 was estimated for longhole mining at Gryphon and a cut-off grade of 2% U_3O_8 was used as a guide for jet bore mining at Phoenix (refer to Section 16.3.2 of the PEA).
- Mineralization wireframes were evaluated at a zero cut-off grade.
- Wireframes were clipped to remove low grade areas below the cut-off grade.
- The final wireframes were evaluated in Gemcom to determine in situ tonnes and grades.
- Factors for external dilution and mining recovery were applied.

The following table summarizes the mineral resources included in the PEA mining production plan:

Deposit	Kilo-Tonnes	Grade % U_3O_8	Mlbs U_3O_8	Source
Phoenix	232.0	12.30	63.0	Indicated mineral resources
Phoenix	7.8	6.27	1.1	Inferred mineral resources
Gryphon	975.0	1.90	41.0	Inferred mineral resources

The following hydrogeological and geotechnical characteristics of the project were considered in the mining study and the selection of appropriate mining methods:

- The Phoenix deposit is located at the unconformity and is subject to high pressure water in the overlying sandstone. Ground freezing will be required to prevent water inflows. Very poor rock mass conditions are expected in the hanging wall.
- The Gryphon deposit is located in basement rocks and is considered protected from the water bearing sandstone. Ground conditions are expected to be good to fair.

Jet bore system (JBS) mining was selected as the mining method for the high grade Phoenix Zones A and B1, similar to the mining method utilized at the Cigar Lake mine. This mining method requires freeze wall protection in a tent configuration (see Figure 1-1).

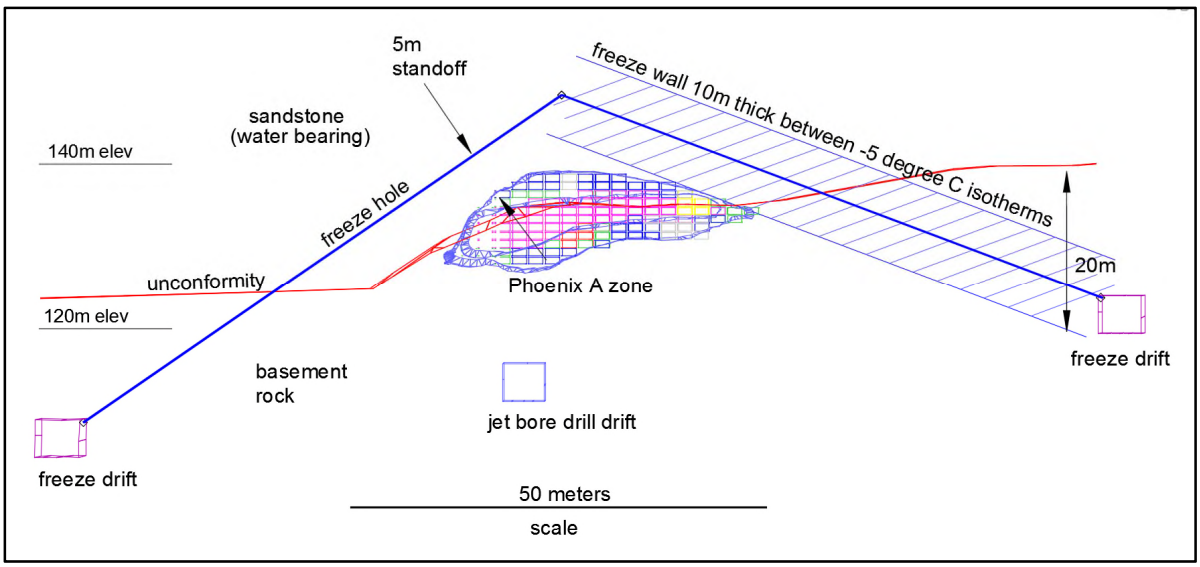


Figure 1-1: Phoenix A Zone Cross-Section Showing Tent Freeze Wall Arrangement (Looking NE)

The JBS mining method requires an access drill drift within basement (waste) rock below the mineralization (Figure 1-1). A pilot hole is drilled up into the deposit equipped with a rotating high pressure water jet capable of cutting the surrounding mineralization. A slurry of water and loose broken rock flows by gravity out of the cavity created, down into a receiving car next to the jet bore machine. Mined out cavities will be filled with concrete that withstands the force of the water jet when an adjacent cavity is mined. The JBS method allows for mine operators to carry out their work in a protective environment to ensure exposure to high grade mineralization is minimized for all personnel.

Conventional longhole open stoping with backfill is planned for the Gryphon deposit. No freeze wall protection is needed due to the location of the deposit well below the unconformity in basement rock. The average mining grade at Gryphon is estimated at 1.90% U_3O_8, however, there are areas of much higher grade locally. Conventional mining methods are planned for Gryphon. A production rate of 400 tonnes per day has been selected to yield an annual uranium production rate of six million pounds.

Sublevels spaced at 15 metres were selected due to the narrow vein nature of the deposit considering blast hole deviation in the down dip dimension, and also due to the variable shapes of the mining wireframes as viewed in a vertical projection. Refer to Figure 1-2 for the Gryphon 3D Mine Model.

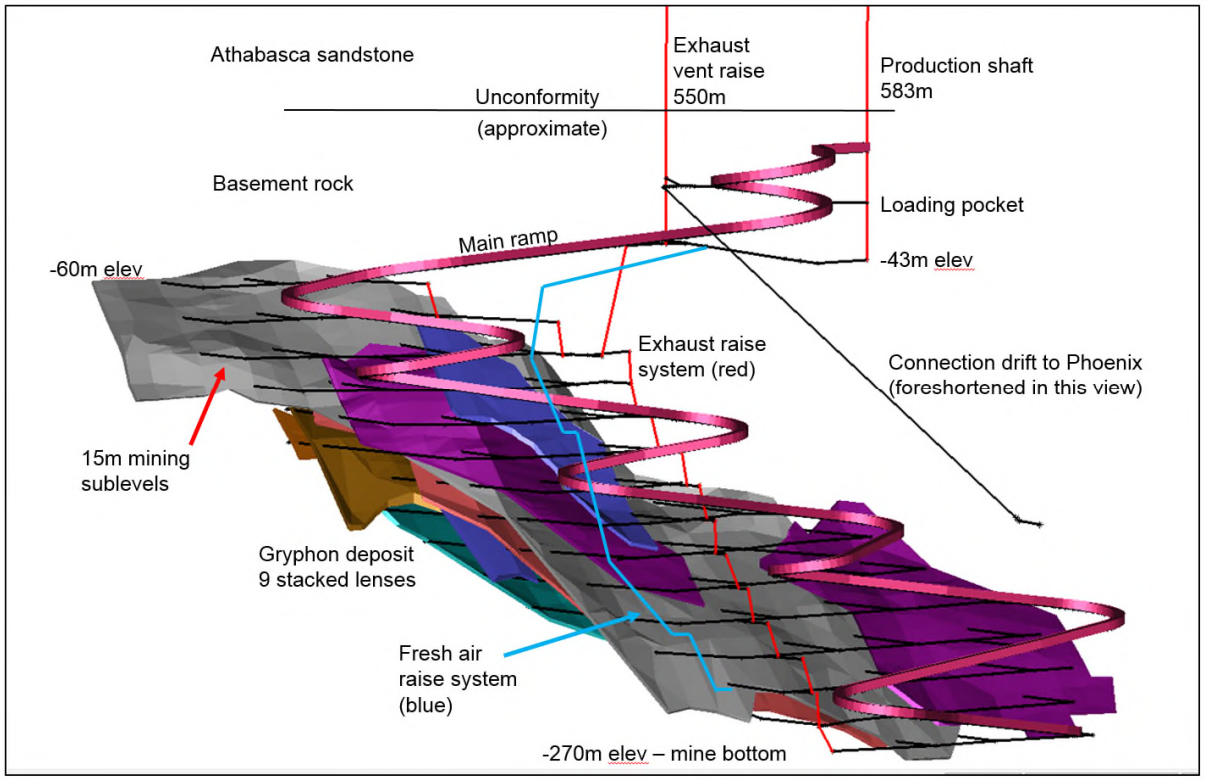


Figure 1-2: Isometric View - Gryphon 3D Mine Model (Looking N)

An important aspect of the design approach was to maximize synergy between the two deposits. Aspects considered in the mine access design process included:

- Minimizing capital costs.
- Maximizing synergy between the two deposits, including ability to move workers, materials, services and equipment from surface and between deposits.
- Providing sufficient air flows without exceeding rule-of-thumb air velocities.

The design approach selected connects the two deposits underground with a 2.8 kilometre (line distance) connection drift driven from Gryphon to Phoenix where it is positioned safely in the basement rock below the deposit (Figure 1-3). For Gryphon, the mine design includes a full service production shaft and a bare ventilation exhaust raise to support underground development and production. Heated fresh air will be delivered through the shaft with return air up the ventilation raise. Later in the mine life with Gryphon mining completed, Phoenix will receive fresh air from Gryphon through the connection drift and Phoenix exhaust air will be routed to surface through an additional ventilation raise at Phoenix.

Refer to Figure 1-3 Isometric View of the Gryphon and Phoenix deposits.

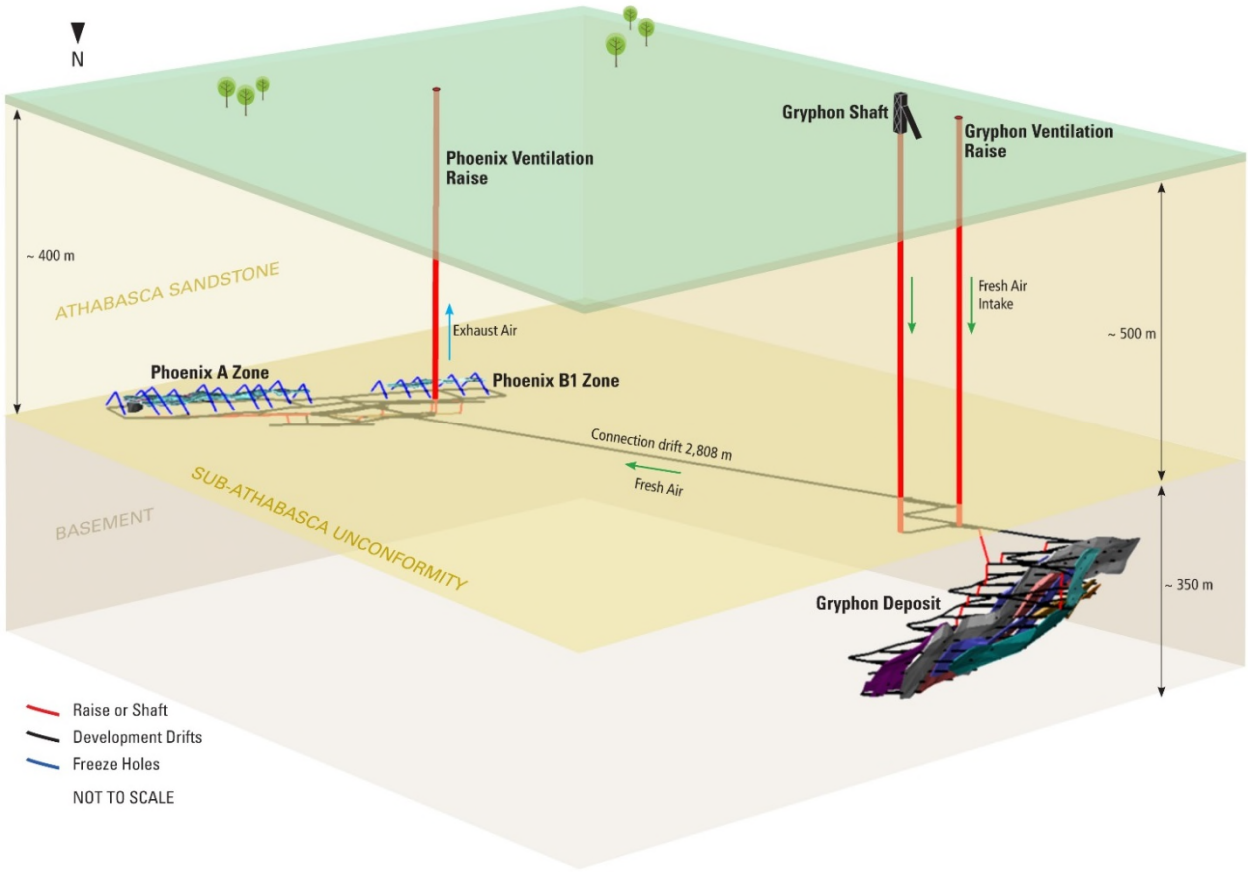


Figure 1-3: Isometric View – Gryphon and Phoenix Deposit (Looking South)

The nominal production rates selected for this study are:

- Gryphon – 7 year mine life, at 6.0 million lbs U_3O_8 per year (399 tonnes/day).
- Phoenix – 9 year mine life, at 7.0 million lbs U_3O_8 per year (73 tonnes/day).

SRK defined a five-year pre-production period from January 2021 until it reaches commercial production in December 2025. The project production period is 16 years from January 2026 to the end of 2041.

Mineral Processing Operations

The PEA is based on the assumption that mill feed from Wheeler River will be trucked to an existing uranium mill in northern Saskatchewan for processing under a custom milling agreement. Preliminary metallurgical test work was completed for the Phoenix deposit in 2014, and for the Gryphon deposit in 2015 (see “Wheeler River – Mineralization and Metallurgical Testing” section). The results were used to support process design criteria suitable for the Wheeler River feeds at a regional acid leach mill.

At this time, custom milling at the McClean Lake mill is considered the most likely scenario due to capacity constraints (in production and tailings management) at other regional milling facilities. Pursuing this option requires the construction of a new 45 kilometre section of haul

road between the McArthur River mine site and the Cigar Lake mine site to connect existing roads that otherwise run from the McClean Lake mill to the Key Lake mill. The cost estimate for this haul road is included in the project capital outlined below.

The production plan for the Gryphon and Phoenix deposits aligns well with making use of available capacity at the McClean Lake mill while co-milling with anticipated feeds from the Cigar Lake mine. The expected peak mill production rate of up to 24 million pounds U_3O_8 per year ("**lbs U_3O_8 / yr**") could occur while co-milling Cigar Lake Phase 1 high grade and Gryphon deposit low grade feeds, matching the intended total license capacity of the mill.

The current facilities at McClean Lake enables the processing of up to 18 million lbs U_3O_8 / yr milling of high grade Cigar Lake Phase 1 feed through the #2 leach circuit. The #1 leach circuit has a nominal capacity of 4 - 6 million lbs U_3O_8 / yr dependent upon the characteristics of the ore being processed. Metallurgical test work completed for the Wheeler River deposits identified constraints in the mill circuits that, without modifications, may limit milling capacity.

In order to co-mill the full tonnage of the Gryphon deposit feed with the Cigar Lake Phase 1 feed, expansion of the #1 leaching circuit and the solid-liquid separation circuits' capacities are required. The McClean Lake #1 leach circuit may have insufficient retention capacity to provide the estimated leach time. One or two additional tanks would be required to augment the existing capacity to efficiently process the Gryphon deposit feed. In addition, the counter current decantation (CCD) circuit used for solid-liquid separation at McClean Lake is anticipated to be a bottleneck in mill production. A conventional approach to wash poorly settling solids is pressure filtration. In order to reach full Cigar Lake Phase 1/Gryphon co-milling capacity within the design recovery rate, two new pressure filters are proposed to supplement the existing CCD thickener circuit. The proposed solid-liquid separation operation is as follows:

- Cigar Lake leach residue slurry from the primary thickener underflow feeds to a new dedicated high grade pressure filter. The washed cake is sent directly to tailings neutralization.
- Gryphon leach residue slurry is split into coarse and fine fractions using a hydrocyclone, and then:
  - The coarse fraction is sent to the existing CCD thickener circuit. This way, CCD tonnage is reduced to an acceptable rate and settling performance is improved at the same time.
  - The fines fraction is sent to a new low grade pressure filter. The washed cake is sent directly to tailings neutralization.

To co-mill the full tonnage of the Phoenix zone feed with the Cigar Lake Phase 2 feed, some minor re-configurations of the slurry receiving, leaching, and solid/liquid separation circuits are required. After the pregnant solution is separated from the leached solids residue, the downstream circuits (clarification, SX, carbon columns, precipitation, calcining, packaging, crystallization) are assumed to be capable of processing 24 million lbs U_3O_8 / yr.

The metallurgical test results indicate the Gryphon and Phoenix deposits are suitable for processing through the McClean Lake mill. Overall uranium process recovery has been estimated at 97.0% for Gryphon (due to lower grade), while Phoenix recovery is estimated at 98.1%.

Infrastructure, Permitting and Compliance Activities

The project is located in the infrastructure rich part of the Athabasca basin. A provincial highway and powerline runs through the property and will be connected with short tie-ins. As a remote northern site, the Wheeler River project will be a fly in / out site complete with camp and other infrastructure to facilitate year round operation. Crews would work a nominal two week in/out rotation with management and other key staff on a Monday-Thursday rotation. The PEA assumes that existing runways, at Key Lake and McArthur River, will be available for Wheeler River. Other infrastructure required to support mining operations would include:

- Production shaft, hoist house and headframe, and ventilation raise
- Main fresh air fans and mine air heater
- Fully serviced camp
- Mine buildings including administration office, change house, maintenance shop, warehouse, emergency services building, and laboratories
- Electrical sub-station supplied by a new overhead power supply line
- Back-up diesel power generators
- Water treatment plant and ponds
- Waste rock storage facilities for special waste, potentially acid generating (PAG) waste, and clean waste
- Fuel storage facility
- Backfill preparation plant
- Freeze plant infrastructure
- High grade slurry load out facility

From an environmental perspective, there are no recognized environmental fatal flaws associated with this project. All potential environmental impacts can be successfully mitigated through the implementation of industry best practices. The most significant environmental concern associated with the project will be the management of routine and non-routine mine water effluent.

From a permitting perspective, the project will require completion of a federal and provincial environmental assessment ("**EA**"). This assessment will be completed as a joint environmental assessment. It is estimated the assessment will require approximately 24 to 36 months to complete following the submission of a detailed project description.

Consultation with northern communities and collection for environmental baseline data was initiated in 2016.

Capital and Operating Costs

Capital costs are expressed in 2015 Canadian dollars to a bottom line accuracy of +/- 40%. Initial capital costs are based on the five-year period from January 1, 2021 through to December 31, 2025. Sustaining capital costs are for the period from January 1, 2026 through to the end of 2041.

The Wheeler River project total capital cost estimate is CAD$1,103 million, including a contingency of 26%. The total capital cost estimate is split between CAD$560 million of initial capital and CAD$543 million of sustaining capital (Table 1-1).

Table 1-1: Wheeler River Project Capital Cost Estimate (in millions of CAD)

Capital Cost Area	Initial	Sustaining	Total
Owners Costs	$25	$0	$25
Surface Infrastructure	$167	$7	$174
Mine	$219	$335	$554
Plant Feed Handling & Processing	$18	$60	$78
Decommissioning	$0	$40	$40
Subtotal	**$429**	**$442**	**$871**
Contingency	$131	$101	$232
Total Capital ($M)	**$560**	**$543**	**$1,103**

Operating costs have been estimated at $19.28 per pound U_3O_8 for the Gryphon deposit and $29.90 per pound U_3O_8 for the Phoenix deposit and include costs for mining, surface transportation, mill processing, toll milling fees and general and administration costs. The higher operating cost for Phoenix is primarily due to higher mining costs (Table 1-2).

Table 1-2: Wheeler River Project Operating Cost Estimates

	CAD$ / lb U_3O_8	
Operating Cost Area	**Gryphon**	**Phoenix**
Mining	$3.45	$17.45
Surface Transportation	$1.63	$0.85
Processing	$8.03	$6.03
Toll Milling Fee	$2.00	$2.00
General & Administration	$4.17	$3.57
Total	**$19.28**	**$29.90**

Because of the long lead time to production (estimated to be 2026 in the PEA), the PEA considers the following two pricing scenarios, both sourced from UxC: (1) a Base case scenario using a long-term contract price of US$44.00 per pound U_3O_8 as of March 28, 2016; and (2) a Production case price sensitivity using a long-term contract price of US$62.60 per pound U_3O_8 for the year 2026 (based on UxC's Uranium Market Outlook Q1 2016) when the project production period begins. These prices have been converted to CAD using an exchange rate of 1.35 CAD / USD based on Bloomberg long term projections as of February 2016.

The project economics have been further analyzed on a pre-tax (100% basis) and a Denison specific post-tax (60% basis) basis – a summary of the results is as follows:

- Pre-tax (100% basis) economic results:
  - Internal rate of return (IRR): Base case = 20.4% / Production Case = 34.1%;
  - Net present value (NPV) at 8% discounting: Base case = CAD$513 million / Production case = CAD$1,420 million;
  - Pay-back period (from the start of production): Base case = approximately 3 years / Production case = approximately 18 months; and
  - The break-even price for the project is estimated at approximately US$34 per pound U_3O_8 under the Base case scenario.

- Denison specific post-tax (60% basis) economic results:
  - Internal rate of return (IRR): Base case = 17.8% / Production Case = 29.2%; and
  - Net present value (NPV) at 8% discounting: Base case = CAD$206 million / Production case = CAD$548 million;

Future Evaluation Plans

Following completion of the PEA, a decision was made to advance towards the completion of a PFS which will require additional definition drilling to be completed in order to improve the confidence in the Gryphon mineral resources currently in the PEA. The 2017 work program for Wheeler River includes approximately 46,000 metres of infill and exploration drilling designed to confirm and expand uranium mineralization at or near the Gryphon deposit, ahead of the completion of a PFS for the project. Project development field programs are planned to continue in 2017, including environmental and engineering data collection programs required for the PFS and EA process. Additional programs, including metallurgical testing and analysis, further engineering studies related to shaft sinking methodologies, mining methods and water treatment are also expected to be initiated. In addition, Denison expects to continue to advance and strengthen relationships with various northern communities.

Waterbury Lake

Property Description and Location

The Waterbury Lake property is located in northern Saskatchewan and is jointly owned by Denison (63.01%) and Korea Waterbury Uranium Limited Partnership ("**KWULP**") (36.99%), a consortium of investors in which KEPCO is included. Denison and KWULP are limited partners in the Waterbury Lake Uranium Limited Partnership ("**WLULP**"), which owns the Waterbury Lake property together with Waterbury Lake Uranium Corporation ("**WLUC**"), the WLULP's general partner. Denison acquired its initial 60% interest in the WLULP and WLUC through the acquisition of Fission in 2013.

Waterbury Lake is a 40,256 hectare collection of 13 irregularly shaped contiguous claims and one separate claim in the eastern Athabasca Basin of northern Saskatchewan, Canada. The property is located approximately 12 km north of Points North Landing and 700 km northeast of Saskatoon, Saskatchewan.

There are no known environmental liabilities associated with the Waterbury Lake property, and there are no other significant factors and risks that may affect access, title, or the right or ability to perform work on the property.

All the necessary permits for surface exploration on the property are in place and current.

Accessibility, Climate, Infrastructure and Physiography

The Waterbury Lake project can be accessed year round by taking Saskatchewan provincial Highway 102 to Southend from La Ronge, then Highway 905 to Points North, which is a privately owned service centre with an airstrip and accommodations available. The nearest community is Wollaston Lake, 57 km directly south east of Points North. During summer drilling campaigns the core camp is most commonly accessed by helicopter based out of Points North. An all season secondary road exists from Highway 905 to the Midwest deposit dam from which a motor boat can be used to access the camp during the summer months. During the winter months the core camp can be easily reached by 4x4 truck using a secondary road that runs north east along Waterbury Lake claim S-107367 to an ice road which crosses McMahon Lake.

Waterbury Lake lies in a sub-arctic climate region. Winters are generally extremely cold and dry with temperatures regularly dropping below -30° C. The cold temperatures allow for a sufficient ice thickness to support a drill rig generally from mid-January to mid-April. Temperatures in the summer can vary widely with yearly maxima of around 30° C often recorded in late July.

The project area is characterized by gently rolling relief covered by thinly wooded boreal forest. Numerous lakes and ponds generally show a north-easterly elongation imparted by the last glaciation. Broad zones of muskeg are present at low elevations around many of the local lakes. McMahon Lake is one of the largest lakes in the immediate project area and it overlies the J Zone deposit as well as the Midwest and Roughrider deposits. Vegetation is predominantly thinly distributed black spruce, alder and jack pine with lesser birch, while ground cover comprises mostly reindeer lichen and Labrador tea.

History

Strathmore Minerals Corp. ("**Strathmore**") acquired a 100% interest in the 13 mineral claims located in Saskatchewan in 2004. During 2007, Strathmore spun out all of their Canadian assets, including Waterbury's 13 mineral claims into a new company, being Fission. In 2008, an earn-in agreement was signed with the KWULP, whereby Fission granted KWULP the exclusive rights to earn up to a 50% interest in the Waterbury Lake property by funding CAD$14,000,000 of expenditures on or before January 30, 2011. Additionally, Fission retained an overriding royalty interest in the property of 2% of net smelter returns. On April 29, 2010, KWULP had fully funded its CAD$14,000,000 of expenditures and consequently earned a 50% interest in the property.

The earn-in agreement required that on completion of the earn-in period, the joint venture parties agree to form a jointly control limited partnership to hold the property and on August 16, 2010 the WLULP agreement was signed, superseding the original earn-in agreement. WLULP was officially formed December 30, 2010. Fission had 12 months from the completion of the earn-in agreement during which time it could acquire an additional 10% interest in WLULP for CAD$6,000,000. On April 12, 2011, Fission exercised its back-in option by paying KWULP CAD$6,000,000, bringing its interest up to 60%.

The WLULP agreement required that Fission and its partners spend a total of CAD$30,000,000 for exploration and evaluation costs over the next three years, according to their interest in WLULP. The winter 2013 program completed the budgeted three year exploration program. Fission was appointed operator for WLULP.

In January 2014, Denison agreed to allow KWULP to defer its funding obligations to WLULP until September 30, 2015 and to not be diluted as per the dilution provisions in the relevant agreements, in exchange for allowing Denison to authorize spending programs without obtaining the approval of 75% of the voting interest. On September 30, 2015, KWULP notified Denison that it elected to dilute its interest in the Waterbury Lake project and that it would not fund its deferred funding obligation to WLULP. As a result, Denison earned an additional 1.55% interest in the Waterbury Lake project. In December, 2016, Denison and KWULP further agreed to allow Denison to continue to authorize spending programs up to an aggregate amount of CAD$10,000,000 until September 30, 2017 without obtaining the approval of 75% of the voting interest and that KWULP would not fund its pro rata portion of such spending. By the end of 2016, the agreement with KWULP had resulted in Denison earning a further 1.46% interest, bringing Denison's interest in the project to 63.01%.

Uranium exploration has been undertaken on the Waterbury Lake property for over 40 years. Numerous and varied programs have been carried out on different portions of the property, including diamond drill campaigns, airborne and ground geophysics, boulder sampling and prospecting. Airborne radiometric, magnetic and electromagnetic (EM) surveys as well as a hydrogeochemical survey were conducted on Waterbury Lake as early as 1969. Cogema acquired properties in the Waterbury and Henday Lake areas during the late 1980s and carried

out an extensive exploration program involving geological mapping, sampling, drilling and geophysical surveys. The latter included airborne EM and magnetic surveys, and ground VLF-EM and gravity surveys.

Following-up on work done by Cogema up until the early 1990s, Cameco acquired properties in the Waterbury and McMahon Lakes area and initially completed geological mapping and sampling programs. This was followed by more geophysical surveys including ground time domain electromagnetic (TDEM), magnetic, gravity and induced polarization (IP) over select targets and drilling throughout the decade.

In 2004, Strathmore acquired the Waterbury Lake property through the staking of 13 mineral claims. During the spring of 2005, an airborne high power time domain electromagnetic (MEGATEM II) survey was completed over the entire property. A total of 1,749 line kilometres were flown. Other work during 2005 included a heli-borne EM survey flown in the spring and a small boulder sampling program in the fall. Strathmore continued work on the property during 2006 with a ground EM geophysical survey and completing eight drill holes totaling 2,865 metres. In addition, an IP-resistivity survey was competed. This was followed by more ground geophysical surveys in early 2007. In June 2007 all of Strathmore's Canadian and Peruvian uranium assets, including the Waterbury Lake Property, were spun out of Strathmore and into Fission.

Late in 2007, Fission funded the drilling of eight diamond drill holes totaling 2,222 metres. In early 2008, five drill holes totaling 1,303 metres were completed and a 594 line-kilometre VTEM airborne magnetic and EM survey was flown. Following this work, soil sampling, ground and airborne geophysical surveys and a 19-hole drilling program (7,996 metres) were completed between May and August. In 2009, two drilling programs were carried out totalling 10,082 metres in 29 holes. Two diamond drilling programs were completed on the property during 2010. The first was carried out between mid-January and end of March, 2010. During this period 35 diamond drill holes were completed for a total accumulated length (including restarts) of 11,250 metres. Several geophysical surveys were also completed during the first three months of the year. A second diamond drilling program was conducted between mid-July to early September. During this period, 16 holes were completed for a total accumulated length (including restarts) of 5,172 metres. Airborne radiometric anomalies delineated from the previous summer were checked in the field during August and early September, and a bathymetry survey of the Discovery Bay/Talisker area was carried out in early October. A winter 2011 drilling program was carried out between early January and mid-April, 2011. Three diamond drill rigs completed a total of 82 holes for a total accumulated length (including restarts) of 26,300 metres. Between January and June 2011, several geophysical surveys were conducted on the Waterbury Property. These included 26.4 kilometres of time domain EM survey at Discovery Bay Extension, 25.6 kilometres of time domain EM at Oban and Oban North grids, and 64 kilometres of IP Resistivity and 32.15 kilometres of time domain EM surveys at Murphy-Glen grid. Two drilling programs were completed on the property in 2012 totalling approximately 39,320 metres of core, including 75 holes on the J Zone. A total of 86 holes (31,590 metres) were drilled during the winter drilling program including 49 holes in and around the J Zone. Twenty-six drill holes totaling 7,730 metres were completed in the J Zone area in a summer 2012 drilling program. A total of 68 drill holes and 11 restarts were completed in 2013 comprising 21,013 meters. All of the winter 2013 drilling was completed in the immediate area of the J Zone deposit to extend the boundaries of the mineralization and infill gaps in the drill pattern.

Geological Setting

The Waterbury property is located in the eastern portion of the Proterozoic Athabasca Basin. The Athabasca sediments unconformably overlie older crystalline basement complexes of the highly prospective Mudjatik – Wollaston Transition Zone ("**MWTZ**"). The MWTZ marks a gradational contact between bands of Paleoproterozoic metasediments and Archean granitic gneisses of the Mudjatik domain to the west and variably graphitic Paleoproterozoic metasediments and Archean granitic gneisses of the Wollaston domain to the east. The MWTZ currently hosts all producing uranium deposits in the Athabasca Basin including McArthur River and Cigar Lake.

The Athabasca basin in the project area is comprised of several hundred meters of Manitou Falls Formation fluvial, quartz rich conglomeratic sandstone. Basement rocks in the area are dominated by Archean orthogneisses, occurring as large domes, and steeply dipping, locally graphitic, Paleoproterozoic metasedimentary paragneisses to granofels. Directly below the Athabasca/basement unconformity is a zone of paleoregolith which commonly extends for many meters into the basement. The paleoweathered zone typically grades with depth from pervasive hematization into pervasive chloritization and finally into fresh rock. The unconformity surface is relatively flat on a large scale but in the Discovery Bay area local reverse faulting down drops the unconformity to the south-east.

The Athabasca Basin sedimentary rocks which overlie the Waterbury Lake project area typically range in thickness from 195 to 300 metres. The upper portion of the sedimentary package is comprised of the Manitou Falls Collins (MFc) Formation pebbly quartz arenite which grades into Manitou Falls Bird (MFb) Formation pebble bedded quartz arenite at approximately 80 metres depth. An easily recognizable 5 to 7 metres marker conglomerate exists in the MFb sandstone, and a basal conglomerate unit is almost always present directly above the unconformity. In the deposit area, the underlying basement geology is interpreted to be a steeply north-northwest dipping, east-west trending corridor of variably graphitic Wollaston Group metasedimentary gneisses, bounded to the north and south by thick zones of predominantly granitic Archean orthogneiss. The Archean orthogneisses apparently define two large dome structures identified as the north and south side orthogneiss domes. The stratigraphy of the metasedimentary corridor is dominantly comprised of: weakly graphitic cordierite-almandine pelitic gneiss, informally termed the 'typical J Zone pelitic gneiss'; graphite-sulphide rich pelitic gneiss; cordierite-almandine augen gneiss; and thin lenses of garnetite which appear to be more abundant along the southern edge of the corridor. A thick unit of strongly graphitic cataclasite exists within the graphite-sulphide pelitic gneiss.

Exploration and Drilling

Following the acquisition by Denison of Fission in April 2013, a summer program of DC-resistivity geophysics (50.4 line kilometres) and diamond drilling (2,350 metres in six drill holes) was also completed in 2013. Work was concentrated on the Aran area and the north rim of the Waterbury Dome. This work was followed by 37.2 line kilometres of DC-resistivity geophysics and 3,100 metres of diamond drilling in nine drill holes in 2014. The primary focus of the drilling in 2014 was the Discovery Bay corridor to the west of the J Zone, and the Oban target area.

During 2015, Denison completed 12 drill holes to follow up the 2014 resistivity results and extended the 2013-2014 resistivity coverage over the Oban area. At Oban, drill holes on the southern resistivity low trend intersected strong alteration and structure in the sandstone and graphite and alteration within the basement, while holes on the northern resistivity low intersected anomalous sandstone and basement geochemistry, hydrothermal hematite and

zones of weak uranium mineralization up to 0.267% U_3O_8 over 0.5 metres. A sizeable DC-IP resistivity survey, covering approximately 40 kilometres squared, was completed over the Hamilton Lake area in the first half of 2015. This is a relatively large and underexplored area on the western flank of the Midwest Dome which shows prospective airborne magnetic and electromagnetic trends but has not been subject to adequate ground geophysical surveying and follow-up drill testing. Limited historical drilling by Cameco at Hamilton Lake intersected graphitic metasediments, structure, alteration, and elevated sandstone geochemistry.

More recent details on exploration and drilling at Waterbury Lake is provided in the Mineral Exploration section below.

Mineralization

The J Zone uranium deposit was discovered during the winter 2010 drilling program at Waterbury Lake. The second drill hole of the campaign, WAT10-063A, was an angled hole drilled from a peninsula extending into McMahon Lake. It intersected 10.5 metres of uranium mineralization grading 1.91% U_3O_8 including 1.0 metres grading 13.87% U_3O_8 as well as an additional four meters grading at 0.16% U_3O_8.

The J Zone deposit is currently defined by 268 drill holes intersecting uranium mineralization over a combined east-west strike length of up to 700 metres and a maximum north-south lateral width of 70 metres. The deposit trends roughly east-west (80°) in line with the metasedimentary corridor and cataclastic graphitic fault zone.

Mineralization thickness varies widely throughout the J Zone and can range from tens of centimetres to over 19.5 metres in vertical thickness. In cross section J Zone mineralization is roughly lens shaped with a relatively thick central zone that corresponds with the interpreted location of the cataclasite and rapidly tapers out to the north and south. Locally, a particularly high grade (upwards of 40% U_3O_8) but often thin lens of mineralization is present along the southern boundary of the metasedimentary corridor. Ten metre step out drill holes to the south from these high grade holes have failed to intersect any mineralization, demonstrating the extremely discreet nature of mineralization.

Uranium mineralization is generally found within several metres of the unconformity at depth ranges of 195 to 230 metres below surface. It variably occurs entirely hosted within the Athabasca sediments, entirely within the metasedimentary gneisses or straddling the boundary between them. A semi-continuous, thin zone of uranium mineralization has been intersected in occasional southern J Zone drill holes well below the main mineralized zone, separated by several meters of barren metasedimentary gneiss. This mineralized zone is informally termed the south-side lens and can host grades up to 3.70% U_3O_8.

The J Zone deposit is generally flat lying (located roughly 200 metres below the surface of McMahon Lake) and therefore whenever possible holes have been drilled vertically in order to intersect the ore lenses perpendicularly, thereby giving an approximate true thickness.

Sampling, Analysis and Data Verification

The sampling, analysis and data verification for the J Zone mineral resource estimate is comprehensively described in the technical report from GeoVector dated September 6, 2013 on entitled “Mineral Resource Estimate On The J Zone Uranium Deposit, Waterbury Lake Property” (the "**J Zone Technical Report**"), a copy of which is available on the Company’s profile on the SEDAR website at www.sedar.com. A summary of the procedures are provided as follows:

Drill core was split once geological logging, sample mark up and photographing were completed. All drill core samples were marked out and split at the splitting shack by Fission employees, put into 5-gallon sample pails and sealed and transported to Points North, Saskatchewan only prior to shipment. The samples were then transported directly to SRC Geoanalytical Laboratories ("**SRC**") located in Saskatoon Saskatchewan by Marsh Expediting. All assay and bulk density samples were split using a manual core splitter over the intervals noted in the sample booklet. Half of the core was placed in a plastic sample bag with the sample tag and taped closed with fibre tape. The other half of the core was returned to the core box in its original orientation for future reference. All drill core samples were evenly and symmetrically split in half in order to try and obtain the most representative sample possible. Mineralized core samples which occur in drill runs with less than 80% core recovery are flagged for review prior to the resource estimation process. Recovery through the mineralized zone is generally good however and assay samples are assumed to adequately represent in situ uranium content. The SRC offers an ISO/IEC 17025:2005 accredited method for the determination of U_3O_8 weight % in geological samples. Rock samples are crushed to 60 % at -2 mm and a 100-200g sub sample is split out using a riffler. The sub sample is further crushed to 90% at -106 microns using a standard puck and ring grinding mill. An aliquot of pulp is digested in a concentrated mixture of HNO_3:HCl in a hot water bath for an hour before being diluted by deionised water. Samples are then analysed by a Perkin Elmer ICP-OES instrument (models DV4300 or DV5300).

Drill core samples collected for bulk density measurements were first weighed as they are received and then submerged in deionised water and re-weighed. The samples are then dried until a constant weight is obtained. The sample is then coated with an impermeable layer of wax and weighed again while submersed in deionized water. Weights are entered into a database and the bulk density of the core waxed and un-waxed (immersion method) is calculated and recorded. Not all density samples had both density measurements recorded. Water temperature at the time of weighing is also recorded and used in the bulk density calculation. The detection limit for bulk density measurements by this method is 0.01 g/cm^3.

Prior to the summer 2010 drill program, the only QA/QC procedures implemented on drill core samples from the Project were those performed internally by SRC. The in-house SRC QA/QC procedures involve inserting one to two quality control samples of known value with each new batch of 40 geochemical samples. All of the reference materials used by SRC on the Waterbury project are certified and provided by CANMET Mining and Mineral Services. The SRC internal QA/QC program continued through the 2013 drill program. Starting in the summer of 2010 and continuing into the 2013 drill program (discontinued after DDH WAT13-350), an internal QA/QC program was designed by Fission to independently provide confidence in the core sample geochemical results provided by the SRC. The internal QA/QC sampling program determines analytical precision through the insertion of sample duplicates, accuracy through the insertion of materials of "known" composition (reference material) and checks for contamination by insertion of blanks. Blanks, reference standards and duplicates were inserted into the sample sequence including field duplicates (quarter core every 1 in 20 samples), prep and pulp duplicates (inserted by SRC every 1 in 20 samples) and blank samples (1 sample for every mineralized drill hole). Beginning in 2012 certified, internal reference standards were used in all holes drilled at Waterbury Lake, replacing the re-analysed low, medium and high grade reference samples. The results of the QA/QC programs indicate there are no issues with the drill core assay data. The data verification programs undertaken on the data collected from the Project support the geological interpretations, and the analytical and database quality, and therefore the data can support mineral resource estimation.

Mineral Resource Estimates

The Company retained GeoVector Management Inc. ("**GeoVector**") to independently review and audit mineral resource estimates in accordance with the requirements of NI 43-101. The Company received a technical report from GeoVector dated September 6, 2013 on its mineral resources at Waterbury Lake entitled "Mineral Resource Estimate On The J Zone Uranium Deposit, Waterbury Lake Property" (the "**J Zone Technical Report**"), a copy of which is available on the Company's profile on the SEDAR website at www.sedar.com. Allan Armitage, Ph.D., P.Geol., and Alan Sexton, M.Sc., P.Geol., are the independent Qualified Persons for the J Zone Technical Report for the purposes of the requirements of NI 43-101.

Waterbury Mineral Resources [(1)(2)(3)]

		100% Basis			Company Share[(4)]
Deposit	Category	Tonnes (,000)	Grade (% U_3O_8)	Pounds of U_3O_8 (,000)	Pounds of U_3O_8 (,000)
J-Zone	Indicated	291.0	2.00	12,800	8,100

Notes:

(1) The mineral resource estimates comply with the requirements of NI 43-101 and the classifications comply with CIM definition standards.
(2) The cut-off grade is 0.10% U_3O_8.
(3) Mineral resources are not mineral reserves and do not have demonstrated economic viability. No mineral reserves have as yet been defined.
(4) Denison's share is 63.01% of total mineral resources.

For the 2013 mineral resource estimate, a 3D wireframe model was constructed based generally on a cut-off grade of 0.03 to 0.05 % U_3O_8 which involved visually interpreting mineralized zones from cross sections using histograms of U_3O_8. 3D rings of mineralized intersections were created on each cross section and these were tied together to create a continuous wireframe solid model in Gemcom GEMS 6.5 software. The modeling exercise provided broad controls on the size and shape of the mineralized volume.

Based on a statistical analysis of the composite database, no capping was applied on the composite populations to limit high values for uranium. A histogram of the data indicates a log normal distribution of the metals with very few outliers within the database. Analysis of the spatial location of outlier samples and the sample values proximal to them led GeoVector to believe that the high values were legitimate parts of the population and that the impact of including these high composite values uncut would be negligible to the overall resource estimate.

Using waxed core and dry bulk density determinations a formula was derived relating bulk density to grade and was used to assign a density value to each assay. Bulk density values were used to weight grades during the resource estimation process and to convert volume to tonnage.

Uranium grade times density (GxD) values and density (D) values were interpolated into the block model using an inverse distance squared (ID2) algorithm. Block grade was derived from the interpolated GxD value divided by the interpolated D value for each block. Block tonnage was based on volume times the interpolated D value.

Two passes were used to interpolate all of the blocks in the wireframe, but 99% of the blocks were filled by the first pass. The size of the search ellipse, in the X, Y, and Z direction, used to interpolate grade into the resource blocks is based on 3D semi-variography analysis (completed

in GEMS) of mineralized points within the resource model. For the first pass, the search ellipse was set at 25 x 15 x 15 metres in the X, Y, Z direction respectively. The Principal azimuth is oriented at 075º, the Principal dip is oriented at 0° and the Intermediate azimuth is oriented at 0°. For the second pass, the search ellipse was set at 50 x 30 x 30 metres in the X, Y, Z direction respectively. The Principal azimuth is oriented at 075º, the Principal dip is oriented at 0° and the Intermediate azimuth is oriented at 0°.

The mineral resources for the J Zone were classified as indicated based on drill hole spacing and continuity of mineralization. The block model was validated by visual and statistical comparisons of composite grades and block grades.

Historical Estimates

On several of Denison's mineral properties, estimates of mineral reserves or mineral resources have not been prepared in accordance with NI 43-101; however, historical mineral resource estimates exist for the projects, as discussed below. The Company is not treating the following historical estimates as current mineral resources or reserves.

McClean South Historical Estimates

In Canada, on the McClean Joint Venture, the McClean South trend is located parallel to and approximately 500 metres south of the McClean North trend (see "Mineral Properties – McClean Lake"). There are two presently known mineralized pods which were drilled by Canadian Oxy during 1979-1980: the Southwest Pod and the Southeast Pod. The original owner of the property, Canadian Oxy, prepared estimates of tonnages, grades and contained uranium for these deposits as of 1980, which have not been verified by Denison. The results of these estimates are set out below.

McClean South Historical Estimates [(1)(2)]

	100% Basis			Company's Share
Deposit	Tons (,000)	Grade (% U_3O_8)	Pounds of U_3O_8 (,000)	Pounds U_3O_8 (,000)
Southwest Pod	47.6	2.10	2,000	500
Southeast Pod	126.7	0.73	1,900	400

Notes:

(1) The historical estimates do not comply with the requirement of NI 43-101. CIM definitions are not used.

(2) The historical estimates cannot be verified and the estimates are not necessarily indicative of the mineralization on the property.

This trend will require future evaluation to upgrade this historical estimate as a current mineral resource estimate.

Elliot Lake Historical Estimates

In June 2007, the Company received a technical report entitled "Technical Report on the Elliot Lake Property, Elliot Lake District, Ontario" from Scott Wilson RPA (the "**Elliot Lake Report**"), a copy of which is available on SEDAR. Scott Wilson RPA compiled the historic mineral resources for the Elliot Lake deposits and reported in accordance with the requirements of NI 43-101. The mineral resource estimate is based on historical mine records at the time of the shutdown of the mines in 1992. No subsequent work has been carried out since that time.

Elliot Lake Historical Estimates [(1)(2)(3)(4)]

Category	100% Basis =Company Share		
	Tons (,000)	Grade (pounds/ton)	Pounds of U_3O_8 (,000)
Developed	89,200	1.29	115,000
Undeveloped	80,500	1.13	90,000
			205,000

Notes:

(1) The mineral resource estimate does not comply with the requirements of NI 43-101. CIM definitions are not used.
(2) The cut-off grade is 0.8 pound/ton U_3O_8.
(3) A minimum mining width of 6 feet was used and no mining recovery factors were applied.
(4) The historical estimates cannot be verified and the estimates are not necessarily indicative of the mineralization on the property.

In the opinion of Scott Wilson RPA, although the historical estimate cannot be verified, the estimate is considered to be reasonable based on the estimation methods at the time. The current historical resource, without access to the drilling information, cannot be classified directly under the CIM classification standards incorporated under NI 43-101. The mineral resource estimates were originally classified for the purposes of the Elliot Lake Report as developed and undeveloped. Developed mineral resources are those resources that have been developed for mining and represent total mineralization remaining after partial extraction during the previous mining operations. Undeveloped mineral resources are located in blocks beyond existing development workings where no mining has taken place.

MINERAL EXPLORATION

Athabasca Basin, Saskatchewan

In the Athabasca Basin, Denison currently has interests in 35 exploration projects, which are located primarily on the eastern side of the Basin (Figure 2-0). During 2016, a total of 76,863 metres were drilled on 13 projects, 63,899 metres of which were drilled on 10 projects which Denison operated. A total of 5,339 metres and 2,850 metres were drilled by ARC on the Wolly and McClean properties, respectively, and 4,775 metres were drilled by Cameco on the Mann Lake property. Highlights from the 2016 drilling results included: (1) Wheeler - discovery and expansion of the Gryphon D Series lenses along strike to a collective strike length of 330 metres; (2) Wheeler - high grade drill intersections which indicated expansion of the A and B Series lenses both down-dip and up-dip on the southwestern portion of the Gryphon deposit; (3) Wheeler - discovery of basement-hosted mineralization on the K-West conductive trend, located approximately 500 metres west of the Gryphon deposit; (4) Wheeler - completion of an initial set of five infill and delineation holes on the Gryphon deposit, which confirmed high grades; (5) Murphy Lake - extending the strike length of mineralization and strong sandstone alteration from 200 to 850 metres, which remains open in both directions along strike; (6) Crawford Lake - discovery of extensive basement alteration and structure along the CR-3 conductive trend; and (7) Moon Lake South - the first discovery of uranium mineralization on the property, interpreted to occur on the northern extension of the CR-3 conductive trend from the adjacent Crawford Lake property (0.102% U_3O_8 over 0.5 metres).

Results from Denison's highest priority properties from the 2016 program are discussed below.

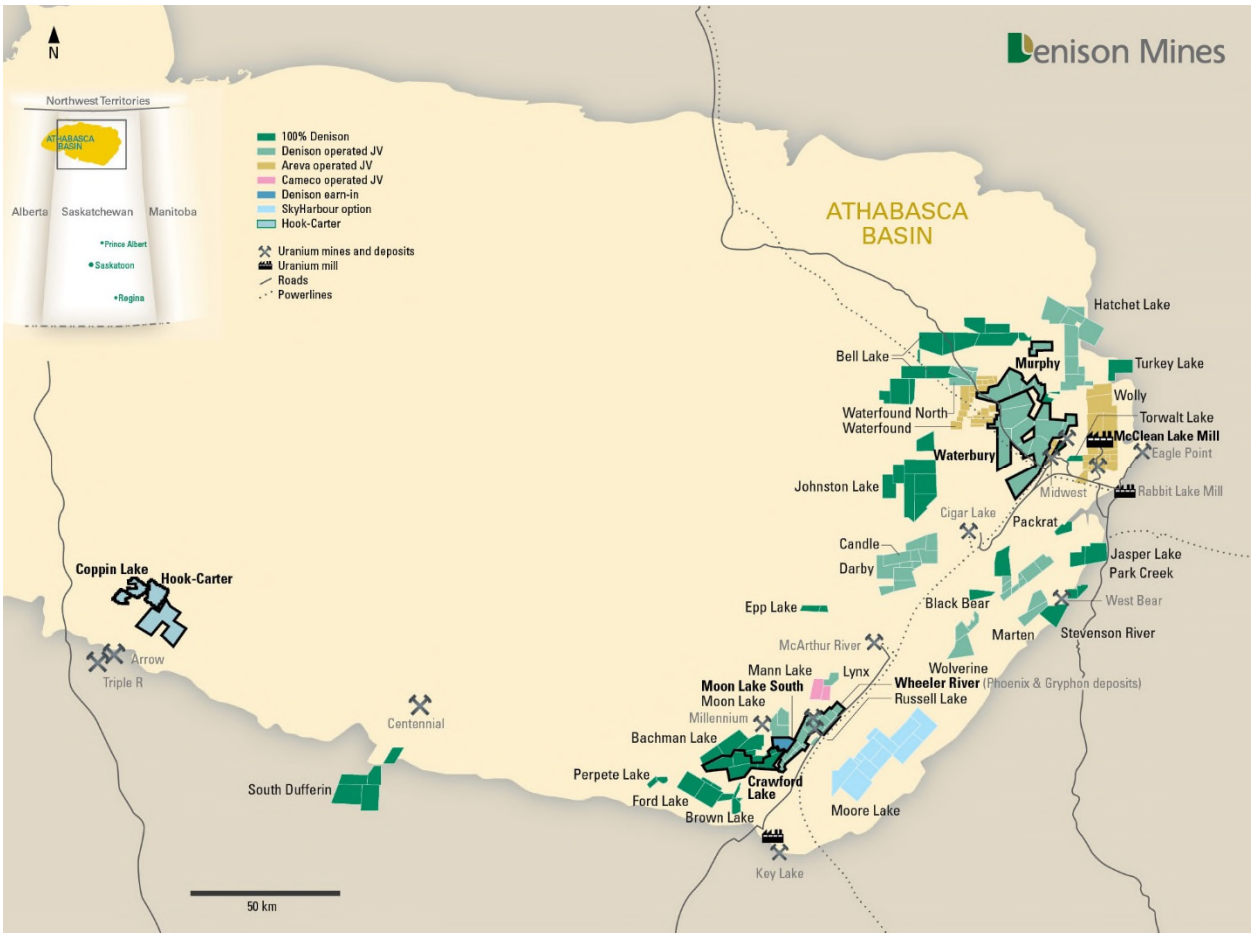


Figure 2-0: Location Map of Denison's Athabasca Basin Mineral Properties

Wheeler River (60% Denison)

Denison holds a 60% interest in the Wheeler River project consisting of 19 mineral claims totaling 11,720 hectares. The other parties with ownership are Cameco with a 30% interest and JCU holding the remaining 10%. Denison is the operator.

Exploration efforts in 2014 were focused on the K North trend along the north western edge of the property. This resulted in the discovery of the Gryphon zone of high grade basement hosted uranium mineralization, approximately three kilometres northwest of the Phoenix deposit. Drill hole WR-556 was the discovery hole, intersecting 15.3% U_3O_8 over 4.0 metres approximately 180 metres beneath the sub-Athabasca unconformity. Subsequent drilling on a coarse 50 metre by 50 metre grid defined a substantial zone of uranium mineralization that consists of several parallel, stacked lenses of varying thickness that are concordant with the moderate east dipping stratigraphy and foliation, and plunge moderately to the northeast. Some additional infill drilling was completed at the Phoenix deposit in early 2014. This work was successful in extending high grade mineralization into some areas previously modeled as low grade. These results, combined with the results from 2013 prompted Denison to complete an updated mineral resource estimate for the Phoenix deposit in June 2014.

During 2015, the focus of the Company's drilling activities were designed to: (1) define the high grade mineralization in the main part of the Gryphon zone; (2) test down-plunge of the Gryphon zone; (3) test for parallel basement lenses; (4) test for unconformity mineralization on the southwestern up-plunge side of Gryphon; and (5) further drill test the Phoenix Zone D, Phoenix North, the K West conductor, and the R conductor east of Phoenix.

The Gryphon drilling completed in 2015, resulted in the completion of a 50 metre by 50 metre drilling pattern, which allowed the Company to release an initial inferred resource estimate, in accordance with NI 43-101, for the Gryphon deposit in November 2015. The Gryphon deposit adds considerable resources to the Wheeler River project, which previously included only the Phoenix deposit. With the addition of the Gryphon deposit, the Company began to study the potential for the co-development of the Gryphon and Phoenix deposits as a single project. Accordingly, the Company announced the results of its PEA for the Wheeler River project on April 4, 2016. See "Mineral Properties – Wheeler River – Evaluation and Development".

Exploration activities at Wheeler River during 2016 focused on numerous unconformity and basement targets in the vicinity of the Gryphon deposit. In February and March 2016 new high grade uranium intersections were obtained within 200 metres north and northwest of the Gryphon deposit. Intersections included 5.3% U_3O_8 over 11.0 metres in drill hole WR-641 (including 12.6% U_3O_8 over 4.5 metres) and, 2.9% U_3O_8 over 6.0 metres and 2.3% U_3O_8 over 4.0 metres in drill hole WR-633D1. The newly discovered intersections obtained from WR-633D1 and WR-641 were attributed to the newly designated D Series Lenses since they occurred outside of the current resource lens group included in the resource estimate for the Gryphon deposit – namely the A, B and C Series lenses. The D Series lenses are located within the pegmatite-dominated footwall (Basal Pegmatite), and are interpreted to occur as a series of stacked, parallel lenses conformable to the stratigraphy and dominant foliation - similar to the A, B and C Series lenses of the Gryphon deposit. The D Series Lenses became a focus of exploration drilling over the winter and summer 2016 drill seasons and were successfully extended along strike to the northeast and southwest during the remainder of 2016 to a collective strike length of 330 metres, and remained open along strike to the northeast and southwest.

In addition, during the 2016 winter program, drill testing for unconformity or basement hosted mineralization continued to the southwest of the Gryphon deposit along the K-North trend. During 2015, numerous mineralized intercepts were obtained along this trend over a 1.5 kilometer strike length - including drill hole WR-597 (Section 4000GP), which intersected 4.5% U_3O_8 over 4.5 metres. The mineralization is located at or proximal to the unconformity and is associated with structurally disrupted, clay altered, and geochemically anomalous sandstone and basement rocks, typical of other Athabasca unconformity deposit settings. Drilling during the 2016 winter program focused on testing for additional zones of mineralization at the unconformity along strike of the southernmost hole drilled in 2015, WR-628 (Section 3200GP), which intersected the most significant sandstone alteration and anomalous geochemistry of the 2015 program. A total of 13 drill holes were completed during the 2016 winter program, commencing on Section 3200GP and continuing along strike to the southwest on sections at 200 metres, 600 metres, 1,000 metres and 1,400 metres respectively. Weak mineralization and/or anomalous radioactivity was intersected in almost every hole, including 0.32% U_3O_8 over 1.0 m in drill hole WR-634 and 0.21% U_3O_8 over 3.0 m in drill hole WR-655. The mineralization is generally located at or proximal to the unconformity. Although no significant high grade mineralization was intersected, the favorable alteration and structure along the K-North trend, within the sandstone and basement, indicate further drilling is warranted to test targets at the unconformity and within the basement below. The trend remains untested for approximately 3.5

kilometres along strike to the southwest before reaching the K-Central area. Historic drilling from the K-Central area encountered significant alteration and anomalous geochemistry within the sandstone and basement lithologies.

During the summer 2016 drilling program, new uranium mineralization was intersected on the K-West conductive trend, approximately 500 metres to the west of the Gryphon deposit. Drill hole WR-663 intersected basement-hosted mineralization including 0.06% U_3O_8 over 0.5 metres (from 826.3 to 826.8 metres), 0.06% U_3O_8 over 1.5 metres (from 858.2 to 859.7 metres) and 0.04% U_3O_8 over 0.5 metres (from 867 to 867.5 metres). The mineralization was encompassed within an extensive alteration zone, with an estimated true thickness of approximately 50 metres, which indicates significant fluid flow and the potential for higher grades along the trend. Two follow-up drill holes were completed, WR-676 and WR-663D1, drilled approximately 50 metres up-dip and down-dip of WR-663, respectively. Although they did not encounter any significant mineralization, a similar extensive alteration zone was intersected indicating continued potential for higher grades. The zone is open along strike within the basement and, given the proximity to Gryphon and similar favorable geological setting, additional follow-up is warranted.

On July 19, 2016 Denison announced the initiation of a PFS for the Wheeler River project. An important step in completing the PFS involves increasing the level of confidence of the previously released inferred resources estimated for the Gryphon deposit to an indicated level. The inferred resource estimate was derived from a drill hole spacing of approximately 50 x 50 metres with drill holes oriented steeply toward the northwest - intersecting the geology and mineralized lenses at high angles to provide for an accurate evaluation of the true thickness of the mineralization. An infill and delineation drilling program was designed to achieve a drill hole spacing across the A, B and C series lenses of approximately 25 x 25 metres. The drilling program was designed with the assistance of RPA Inc. and is expected to require approximately 40 drill holes, which will also be oriented steeply toward the northwest. A total of five initial infill and delineation drill holes, totaling 2,620 metres, were completed as part of the summer 2016 program, the results of which correlated well with the inferred grade model for the Gryphon deposit.

In January 2017, Denison, Cameco and JCU entered into an agreement pursuant to which they have agreed to allow for a one-time election by Cameco to fund 50% of its ordinary share of joint venture expenses in 2017 and 2018. The shortfall in Cameco's contribution will be funded by Denison, in exchange for a transfer to Denison of a portion of Cameco's interest in the project. Accordingly, Denison's share of joint venture expenses will be 75% in 2017 and 2018, and Cameco and JCU's share of joint venture expenses will be 15% and 10%, respectively. Based on approved and estimated work programs for 2017 and 2018, Denison’s ownership interest in the Wheeler River project has the potential to increase to approximately 66% by December 31, 2018.

The 2017 work program for Wheeler River includes approximately 46,000 metres of infill and exploration drilling designed to confirm and expand uranium mineralization at or near the Gryphon deposit, ahead of the completion of a PFS for the project. Accordingly, a CAD$12.5 million work program and budget has been approved for Wheeler River in 2017, of which Denison's share will be CAD$9.4 million - representing 75% of the project budget.

Waterbury Lake (63.01% Denison)

Waterbury Lake is a 40,256 hectare collection of 13 irregularly shaped contiguous claims and one separate claim in the eastern Athabasca Basin of northern Saskatchewan, Canada. The property is located approximately 12 kilometres north of Points North Landing, contiguous with Denison's Midwest property. Waterbury Lake was acquired through the acquisition of Fission in 2013 and includes the J-Zone uranium deposit, located within 20 kilometres of the McClean Lake mill, and is situated near the Roughrider, Midwest and Midwest A deposits.

Uranium exploration has been undertaken on the property for over 40 years. Numerous and varied programs have been carried out on different portions of the property, including diamond drilling campaigns, airborne and ground geophysics, boulder sampling and prospecting since 1969.

Denison completed the first phase of the 2016 exploration drilling planned for the property during the second quarter of the year, comprising a total of 6 holes for 2,076 metres. Two drill holes were completed to follow-up on the weak uranium mineralization intersected previously on the western portion of the Oban grid, which included 0.079% U_3O_8 over 4.8 metres in drill hole WAT14-406A and 0.050% U_3O_8 over 1.5 metres in drill hole WAT14-407. The holes were successful in intersecting their respective targets, but no uranium mineralization was intersected. A further four drill holes in the second quarter of 2016 tested the eastern portion of the Oban grid which was surveyed with ground DC-IP resistivity in the first quarter of 2016. The targets included a basement resistivity low with weak sandstone 'breach' anomalies and the associated ground electromagnetic conductor. The survey outlined the continuation of the parallel set of east-west striking metasedimentary units that contains variably faulted graphitic pelites. The two holes drilled in the second quarter successfully intersected graphitic pelites, faulting and associated alteration. Although no mineralization was encountered, potential exists along strike given the favorable geological setting.

The second phase of 2016 drilling was completed during the third quarter and included a drill program at the Hamilton Lake area located on the western side of the property. The Hamilton Lake area is a relatively large and underexplored area on the western flank of the Midwest Dome which shows prospective airborne magnetic and electromagnetic trends, but has not been subject to adequate ground geophysical surveying and follow-up drill testing. Limited historical drilling by Cameco at Hamilton Lake intersected graphitic metasediments, structure, alteration, and elevated sandstone geochemistry. During the second quarter of 2016, a large DCIP resistivity survey was completed over the southern portion of the Hamilton Lake area (Grid WAT-16-G2) comprising 21 lines and totaling 115.2 line kilometres. Results showed a significant north-south, linear, low resistivity trend with some associated low resistivity 'breaches' in the sandstone that could be indicative of alteration chimneys associated with uranium mineralization. The drill program included two drill holes for a total of 1,077 metres to target one of the sandstone breach anomalies overlying a strong basement resistivity low on line L36+00E. Drill hole WAT16-432A intersected a significant illite/chlorite altered fault zone in the basement within north-south striking, steeply east dipping, graphite-rich pelitic gneisses. WAT16-433, which was drilled 75 metres west of WAT16-432A, intersected a 30 metre wide fault zone in the sandstone approximately 85 metres above the unconformity (at 426 metres) with associated intense bleaching, desilicification and illite clay replacement. WAT16-433 averaged 8.3 parts per million U ("**ppm U**") over the basal 24.8 metres of sandstone. Spot samples taken immediately above the unconformity in WAT16-433, from 421.5 to 422.0 metres and from 422.0 to 422.5 metres, returned values of 389 ppm U and 299 ppm U respectively. A

20 metre reverse unconformity offset can be interpreted between the two holes, which would constitute a priority target, on section and along strike, for follow-up.

The Hamilton Lake north–south trending resistivity low associated with the graphitic fault structure intersected in WAT16-432A and WAT16-433 has a minimum strike length of 4.5 kilometres to the south of the current drilling, based on the WAT16-G2 resistivity survey results. Furthermore, based on airborne magnetic data, this trend appears to continue for a further 9 kilometres to the north. No drilling has been conducted along this trend outside of the current drilling and, given the highly encouraging summer 2016 exploration results, this trend warrants further exploration. A 2017 winter drill program of approximately 10 holes (4,600 metres) is planned to test priority resistivity targets along this extensive trend.

Murphy Lake Project (78.96% Denison)

Denison holds a 78.96% interest in the Murphy Lake project, with Eros Resource holding the remaining 21.04%. Murphy Lake is located approximately 30 kilometres northwest from the McClean Lake mill and is contiguous with the northwest boundary of Denison's Waterbury Lake property. Denison is the operator.

In 2015, Denison carried out a diamond drilling program consisting of five holes totalling 1,818 metres on the southern block of the Murphy Lake property. The program focused on testing DCIP resistivity targets along the southern Murphy Lake trend (Dalton Lake trend), where limited historical drilling had intersected significant structure and alteration both in the sandstone and the basement. The first hole of the program, MP-15-03, encountered weak uranium mineralization over a significant width. The hole intersected 0.25% U_3O_8 over 6.0 metres starting at a depth of 270 metres at the sub-Athabasca unconformity. The mineralization is associated with a zone of strong sandstone alteration including desilicification and clay over a hematite cap. Basement rocks immediately below the mineralization consist of graphitic pelitic gneisses that are in fault contact with both the overlying meta-arkoses and the underlying granites. Four additional drill holes were completed to follow up on the mineralization in MP-15-03. While none of the holes intersected significant mineralization, all encountered significant structure and alteration, suggesting the presence of a prospective mineralized system. Drill hole MP-15-06 intersected weakly elevated radioactivity straddling the unconformity approximately 23 metres south of the mineralized section in MP-15-03. Sandstone litho-geochemistry samples from this section returned elevated partial uranium values (>1 ppm) extending more than 150 metres above the mineralization.

A drilling program was completed during the 2016 winter program, as well as ground gravity and DC-IP resistivity surveys. A total of 3,695 metres in 10 drill holes were completed to mainly test high priority targets identified along strike and on section of MP-15-03. Drilling confirmed the continuity of the intense hydrothermal sandstone alteration system, identified in 2015, over a strike length of 850 metres. Weak uranium mineralization was intersected in the sandstone associated with intense hematite and clay alteration in three drill holes (MP-16-08, MP-16-11 and MP-16-17). Highlight results include 0.19% U_3O_8 over 2.9 metres (drill hole MP-16-08), 0.13% U_3O_8 over 14.5 metres (drill hole MP-16-11) and 0.04% U_3O_8 over 16 metres (drill hole MP-16-17). Drill hole MP-16-08, drilled on section with MP-15-03, identified uranium mineralization associated with a parallel graphitic fault zone approximately 70 metres to the south. Drill holes MP-16-11 and MP-16-17 were both drilled along strike to the west of drill hole MP-15-03 at 200 metres and 100 metres, respectively.

Drilling to date has tested approximately 850 metres of total strike length of the mineralized trend. A total of 2.2 kilometres of interpreted strike length remains entirely untested both to the east and west of the mineralized trend. Within the current DC-IP resistivity coverage, which extends 0.8 kilometres east and 1.4 kilometres west of the mineralized zone, several priority targets have been identified for drill testing. The ground gravity survey has produced gravity-low targets, in some cases coincident with DC-IP resistivity targets, as well as delineating potential areas of unconformity offset to the north of the mineralized zone which constitutes a further target area. A drilling program consisting of a total of eight drill holes (3,200 metres) is planned for the winter of 2017 to test high priority geophysical and geological targets along strike of the mineralized zone.

Crawford Lake Project (100% Denison)

Crawford Lake is 100% owned by the Company and is located immediately southwest of Denison's Wheeler River project, approximately 10 kilometres south of Cameco's Millennium deposit in the southeast portion of the Athabasca Basin.

During the third quarter of 2016, two holes were completed for a total of 1,706 metres which focused on targets on the CR-3 conductive trend from a 2014 resistivity survey. The first hole completed (CR-16-27A) was designed to follow up 600 metres along strike to the southwest of weak uranium mineralization intersected at the unconformity in drill hole MS-16-01 on CanAlaska's Moon Lake property (refer to the Moon Lake South section below). CR-16-27A intersected 100 metres of strong sandstone alteration above the unconformity and a wide graphitic structure 90 metres below the unconformity suggesting the optimal target at the unconformity remains untested. The second hole (CR-16-28) was targeting a previously untested parallel conductor to the main CR-3 trend. CR-16-28 intersected 100 metres of strong sandstone alteration and a wide structurally disrupted graphitic conductor. No elevated radioactivity or uranium mineralization was intersected in either of the holes. The CR-3 trend remains highly prospective with the previous discovery of weak uranium mineralization and both strong sandstone and basement alteration present. Work planned for 2017 includes approximately 1,725 metres of drilling in three holes.

Moon Lake South Project (Denison earn-in option)

An option agreement for the Moon Lake South property was executed in January 2016 with CanAlaska Uranium Ltd. ("**CanAlaska**") to earn an interest in CanAlaska's 100% owned Moon Lake South project located adjacent to Denison's 100% owned Crawford Lake property. Under the terms of the option, Denison can earn an initial 51% interest in the project by incurring CAD$200,000 in exploration expenditures by December 31, 2017, and it can increase its interest to 75% by incurring an additional CAD$500,000 in exploration expenditures by December 31, 2020.

The Moon Lake South Project covers the northeastern extension of the CR-3 conductive trend. An initial hole drilled at Moon Lake South in 2016 (MS-16-01) on the CR-3 trend intersected 0.1% U_3O_8 over 0.5 metres at the sub-Athabasca unconformity, and was encompassed by a significant sandstone alteration and geochemical halo. The CR-3 trend is completely untested to the northeast of drill hole MS-16-01 on the Moon Lake South property. Work planned for 2017 includes a DCIP resistivity survey and at least 575 metres of drilling in one hole.

Hook Carter Project (80% Denison)

In November 2016, Denison acquired an immediate 80% ownership of the entire Hook Carter property ("**Hook Carter**"), from ALX, in exchange for the issuance of 7,500,000 common shares of Denison. Under the terms of the agreement, ALX will retain a 20% interest in Hook Carter and Denison has agreed to fund ALX's share of the first CAD$12,000,000 in expenditures. Denison will be the operator of the project and will retain full discretion as to the nature, extent, timing and scope of all work projects on Hook Carter. Denison agreed to a modest work commitment, whereby Denison is required to spend CAD$3,000,000 on the property over the first 3 years. If Denison does not meet the $3,000,000 work commitment, ALX's interest will increase from 20% to 25% and Denison's interest in the project will decrease from 80% to 75%. Thirty-six months after the effective date of the agreement, the parties agree to form a joint venture, in which all material decisions shall be carried by a vote representing a 51% ownership interest. The Denison common shares issued to ALX are subject to an escrow arrangement, whereby 1/6th of the shares were available to ALX on closing, and a further 1/6th of the shares are to be released from escrow in 6 month increments following the closing.

Hook Carter is located near the southwestern margin of the Athabasca Basin, in northern Saskatchewan approximately 25 kilometres east of Highway 955 and is accessible year round by utilizing a combination of vehicular and helicopter and/or fixed wing aircraft. The property comprises a total of 28 mineral dispositions covering approximately 16,805 hectares, including three blocks of contiguous claims, namely the Carter West Claims, Carter East Claims and Orphan East Claim. Hook Carter is highlighted by 15 kilometres of strike potential along the Patterson Lake Corridor – host to the recently discovered Triple R deposit (Fission Uranium Corp.), Arrow deposit (NexGen Energy Ltd.), and Spitfire discovery (Purepoint Uranium Group Inc., Cameco Corp., and AREVA Resources Canada Inc.) which occur within 8 to 20 kilometres of Hook Carter. The property also covers significant portions of the Derkson and Carter Corridors which provide additional priority target areas (Figure 2-1).

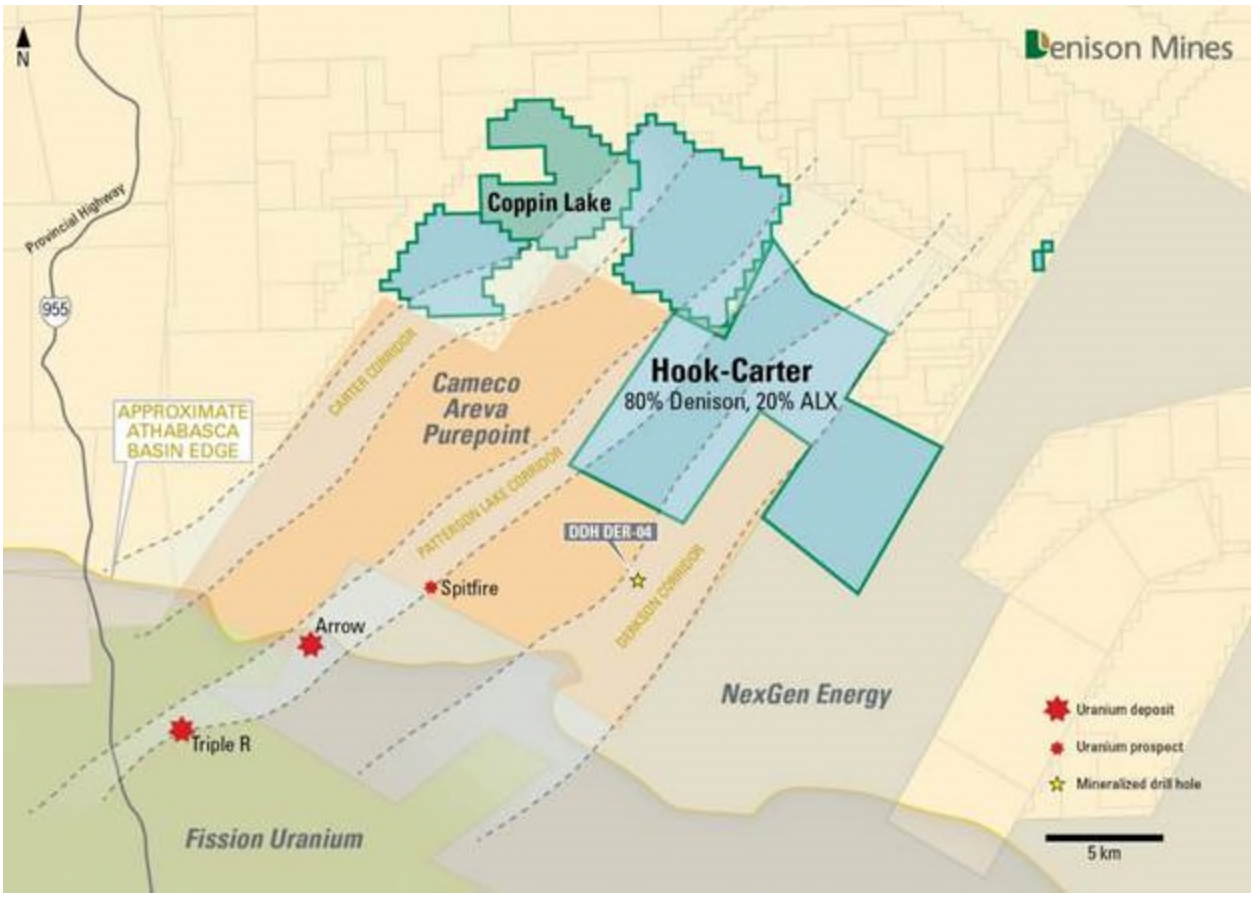


Figure 2-1: Location Map of the Hook Carter Property in Relation to Nearby Uranium Deposits and Prospects

Hook Carter features between 250 and 700 metres of Athabasca Group sandstone cover overlying the basement rocks that define the prospective geological trends or corridors. As a result, Hook Carter offers both basement- and unconformity-hosted uranium deposit potential. The sandstone thicknesses are similar to those at Denison's 60% owned Wheeler River property in the eastern Athabasca Basin where Denison has developed proven exploration methodologies which have resulted in the discovery of the high-grade unconformity-hosted Phoenix deposit in 2008 and the high-grade basement-hosted Gryphon deposit in 2014. Hook Carter is significantly underexplored compared with other properties along this trend with only eight historic drill holes, including only five holes over the 15 kilometres of Patterson Lake Corridor strike length. Three historic holes have been completed on the Derkson Corridor and no drilling has been carried out on the Carter Corridor. Results from historic holes (including sandstone alteration, geochemistry and basement geology and structure) suggest favorable environments for the presence of unconformity-related uranium deposits. All the holes drilled to date were designed to test the unconformity (seldom penetrating more than 100 metres into the basement) and therefore the basement is considered unexplored. The five holes on the Patterson Lake Corridor are between 1.5 and 4.3 kilometres apart and considering the corridor is comprised of multiple conductors, significant space and potential exists for sizeable deposits.

Previous exploration work has been dominated by geophysical surveys dating back to 1997. Airborne surveying has included property-wide electromagnetics (including a VTEM™ survey on the Patterson Lake Corridor), a property-wide medium-resolution magnetic survey and limited

Falcon® Airborne Gravity Gradiometry and HeliSAM TEM surveying. These data sets provide an excellent repository for the interpretation of basement geology and area selection for further targeting. Ground geophysical surveying has included property-wide electromagnetic surveys on a reconnaissance spacing. The airborne and ground electromagnetic survey results indicate the prospective corridors on Hook Carter are comprised of multiple conductors suggesting numerous graphitic target horizons are present. Surficial surveys completed include lake sediment sampling, radiometric sampling, and boulder sampling. Anomalies produced by boulder and lake geochemistry along the Patterson Lake corridor provide further encouragement for mineralization. Approximately 3 kilometres southwest along trend of the Hook Carter property boundary, drilling on the Derkson Corridor has previously returned mineralized results approximately 5 metres below the unconformity (0.24% U_3O_8 over 2.5 metres reported in drill hole DER-04 by SMDC-Imperial Oil, 1978, Assessment File Number 74F11-0008, Saskatchewan Mineral Assessment Database).

In November 2016, Denison also completed the purchase of the Coppin Lake property ("**Coppin Lake**") from ARC and UEX Corporation. Coppin Lake comprises ten mineral claims covering an area of 2,768 hectares in the western portion of the Athabasca Basin region in northern Saskatchewan. The claims lie between, and are contiguous with, both the Carter East and Carter West blocks of the Hook Carter property. Coppin Lake also covers approximately five kilometres of prospective strike on the Carter corridor. Under the terms of the Hook Carter acquisition, ALX has elected to acquire an interest in Coppin Lake from Denison that is equal to ALX's interest in Hook Carter and the Coppin Lake claims will be included as part of the overall Hook Carter property.

Denison's work plan for Hook Carter in 2017 includes initial ground resistivity and electromagnetic surveying during winter, followed by a reconnaissance five-hole drill program (2,700 metres) during the summer months. Work is expected to be focused on the southwestern portion of the property on the Patterson Lake Corridor, where Athabasca sandstone thicknesses vary between 250 and 450 metres.

McClean Lake (22.5% Denison)

The McClean Lake project includes the deposits of the Sue Trend, and the JEB, Caribou and McClean Lake sandstone hosted deposits. The "Sue Trend" represents an arcuate graphitic gneiss which flanks various granitic domes, and one of these domes is associated with virtually all of the mineralization at the property. Depths to basement are relatively shallow, rarely exceeding 175 metres, which is well within the range of open pit mining methods. The Sue trend is host to five deposits, including Sue A, Sue C, Sue E and Sue B, all of which have been mined.

During winter 2016, geological modelling of the Sue Trend was completed and several basement targets were identified including south of the Sue E pit, south of the Sue D ore body and southwest of the Sue B pit. During the third quarter of 2016, a total of seven drill holes were completed for a total of 2,850 metres, including two hole re-starts. The objective of the program was to test for basement-hosted mineralization occurring down-dip or down-plunge of the previously mined Sue deposits. Localized weak basement mineralization was intersected in drill holes S-835 and S-836, south and southwest of the Sue B open-pit, respectively. Highlight results include hand-held scintillometer probe peaks of 4,558 counts per second ("**cps**") at 364.8 m in drill hole S-835 and 24,052 cps at 186.2 m in drill hole S-836. The other five holes did not intersect any significant mineralization. The proposed 2017 exploration program consists

of approximately 18 drill holes for approximately 4,800 metres to evaluate brownfield style targets in the Sue North and JEB East project areas.

Midwest (25.17% Denison)

No exploration activity has been carried out at the Midwest project since 2012. No exploration work is planned for 2017.

Wolly (22.76% Denison)

The Wolly uranium exploration project is a large and well located property which surrounds the McClean Lake uranium operations and comprises approximately 23,700 hectares. The Wolly project is a joint venture between ARC (63.62%, and operator), Denison (22.76%) and JCU (13.62%). Wolly was first explored in the mid-1970s by its prior owners, due to its proximity to the Rabbit Lake discoveries. Because of the relatively shallow depths to the unconformity, which do not exceed 200 metres, drill testing there is less expensive than many other properties in the area. Wolly was originally included in the McClean Lake project area until the decision was made to place McClean into production, at which time McClean was separated from Wolly.

The 2016 exploration program consisted of a winter drilling program and ground geophysical surveys. The drilling program consisted of 27 drill holes for a total of 5,339 metres. Drilling was conducted in four separate areas: the Sabot area, the Sphinx area, the Lasoy 'B'/'D' area and the Lasoy 'E'/'C'/'SA' area. The drilling program was mainly focused on testing the 2015 small moving loop electromagnetic (TEM) conductor targets within the Sabot, Sphinx and Lasoy 'E'/'C'/'SA' areas. In the Lasoy 'B'/'D' area, the drilling program was design to follow up historical drilling results and untested portions of the conductor. No significant mineralization was intersected during the 2016 drilling program. The proposed 2017 exploration program consists of approximately 15 drill holes for approximately 4,500 metres to test conductors on the northern portion of the Pat Lake area with lower priority drill targets defined along the Vulture/Torwalt grid areas.

Mann Lake (30% Denison)

The Mann Lake exploration project is located 25 km southwest of the McArthur River mine and is on trend between Cameco's Read Lake project and Denison's 60% owned Wheeler River project in Saskatchewan's eastern Athabasca Basin. The Mann Lake project is a joint venture between Cameco (52.5%), Denison (30%) and ARC (17.5%). Cameco is the operator.

During 2014 and 2015 a significant zone of unconformity mineralization was discovered by Cameco along the Granite Contact ("**GC**") fault over a 600 metre strike length, highlighted by 6.7% U_3O_8 over 3.9 metres in drill hole MN-066-01. The winter 2016 drilling program was focused on testing the southern extent of the GC fault, which is interpreted to extend approximately 2.4 kilometres from the mineralized zone to the southern property boundary. Three holes were completed, two of which identified a significant sub-Athabasca unconformity offset related to the GC fault, including significant alteration and anomalous geochemistry, approximately 300 metres from the southern property boundary on section L500N. As a result, the 2016 exploration program was increased to allow for a further 3 holes which were completed in the second quarter of 2016. Drill hole MN-078, designed to test the unconformity offset on section L500N, pierced the unconformity 10 to 15 metres west of optimal target and intersected weak uranium mineralization (up to 400 cps on the handheld total gamma scintillometre) over 1 metre. A further two holes were drilled 200 metres to the south on L300N to test the GC fault

offset at the unconformity. Drill hole MN-079 intersected significant structure and alteration in the lower sandstone associated with the GC fault, including elevated radioactivity up to 800 cps on the handheld total gamma scintillometer, and was interpreted to have overshot the optimal target by approximately 40 metres. Drill hole MN-080, drilled 40 metres to the east of MN-079, intersected the damage zone of the GC fault in the basal sandstone and intersected the GC fault zone approximately 50 metres below the unconformity within graphitic pelitic gneiss. The significant structure, alteration and unconformity offset first identified on L500N associated with the GC fault was confirmed to be present on L300N and to have associated elevated radioactivity. No field work is planned in 2017.

Other Denison Athabasca Projects

Denison has ownership in other exploration projects located in the Athabasca Basin as at December 31, 2016, including:

Bachman Lake	100%	Moore Lake	100% (under option)
Bell Lake	100%	Packrat	100%
Brown Lake	100%	Park Creek	49%
Candle Lake	44.61%	Perpete Lake	100%
Darby	59.48%	Russell Lake	37.82%
Epp Lake	100%	South Dufferin	100%
Ford Lake	100%	Stevenson River	100%
Hatchet Lake	70.11%	Torwalt Lake	100%
Jasper Lake	100%	Turkey Lake	100%
Johnston Lake	100%	Waterbury North	100%
Lynx Lake	59.48%	Waterfound	15%
Marten	50%	Waterfound North	59.48%
Moon Lake	59.48%	Wolverine	50%

During 2016 exploration programs on Denison's other Athabasca projects included:

- Bachman Lake — DCIP resistivity surveying
- Bell Lake — 2,382 metres of drilling in 4 holes and ground electromagnetic surveying
- Hatchet Lake — 2,040 metres of drilling in 6 holes, ground electromagnetic surveying and a soil geochemical and radon survey
- Marten — 1,021 metres of drilling in 4 holes
- Moore Lake — Ground electromagnetic surveying
- South Dufferin — Soil geochemical and radon survey
- Torwalt Lake — 612 metres of drilling in 2 holes
- Turkey Lake — 501 metres of drilling in 4 holes

Exploration for 2017 on Denison's other Athabasca projects is expected to include ground geophysics at Bachman Lake and South Dufferin.

ATHABASCA EXPLORATION: SAMPLING, ANALYSIS AND DATA VERIFICATION

The following section details procedures and protocols for all Athabasca exploration programs operated by Denison in reference to downhole radiometric surveying, core sampling, sample preparation methods, analytical procedures and the Quality Assurance and Quality Control ("**QA/QC**") procedures.

Downhole Radiometric Probe Surveying

All drill holes are logged with a downhole radiometric probe to measure the natural gamma radiation, from which an initial indirect estimate of 'equivalent uranium' (eU_3O_8) can be made. The downhole probes are calibrated originally by the manufacturer at test pits with known mineralization in the United States. These probes are also regularly tested in the test pits at a government-owned facility in Saskatoon. In addition, Denison further calibrates the probes with a correlation curve of probe grades versus corresponding high-grade assays on split core as received from the laboratory. At the Wheeler River project, different probes are used depending on the observed grade of mineralization at the unconformity as the standard probes generally become saturated at grades above 20% U_3O_8. Data are typically logged at a speed of 10 metres/minute down hole and 15 metres/minute up hole through the drill rods.

Core Sampling, Sample Preparation and Assaying

Drill core samples are collected in the field at dedicated core logging and sampling facilities. The samples are logged, split, bagged and stored in pails for shipment to the laboratory. Because the mineralized drill cores are classified as hazardous materials and are regulated under requirements governing the transport of dangerous goods, Denison staff have been trained in the proper handling and transport of the cores and deliver them from the core facility directly to the laboratory without outside contact.

Denison submits drill core samples for chemical U_3O_8 assay for all mineralized intervals, where core recovery permits. All mineralized core is measured with a scintillometer by removing each piece of drill core from the ambient background, noting the most pertinent reproducible result in cps, and carefully returning it to its correct place in the core box. Any core registering over 500 cps is flagged for splitting and sent to the laboratory for assay. Barren samples are taken to flank both ends of mineralized intersections, with flank sample lengths at least 0.5 metres on either end - this may be significantly more in areas with strong mineralization. All core samples are split with a hand splitter according to the sample intervals marked on the core. One-half of the core is returned to the core box for future reference and the other half is bagged, tagged, and sealed in a plastic bag. Bags of mineralized samples are sealed for shipping in metal or plastic pails depending on the radioactivity level. In addition, samples are routinely collected from mineralized intersections for bulk dry density determination as required for mineral resource estimation.

All drill core U_3O_8 assays are conducted by the Saskatchewan Research Council ("**SRC**") using ISO/IEC 17025:2005 accredited method for the determination of U_3O_8 wt%. The assay sample preparation and analytical procedures are as follows:

- Drill core samples are received by the analytical laboratory from Denison in sealed five-gallon plastic or metal pails. Each sample is contained in a sealed plastic bag with a sample tag. A packing slip is enclosed that contains instructions and a sample number list. Samples are verified against the packing slip. Any extra samples or missing samples are noted and Denison is informed.

- Samples are sorted and processed according to location (sandstone or basement origin) and level of radioactivity
- Sample preparation includes drying, jaw crushing to 60% passing -2 millimetres and pulverizing to 90% passing -106 microns.
- The resultant pulp is digested using aqua-regia and the solution analyzed for U_3O_8 wt% using ICP-OES.

Three other types of drill core samples are collected during routine exploration, the results of which are used to prioritize drill holes for follow-up exploration or determine geochemical and/or alteration vectors toward mineralization, as follows:

1. Composite geochemical samples are collected over approximately 10 metre intervals in the upper Athabasca sandstone and in fresh lithologies beneath the unconformity (basement) and over 5 metre intervals in the basal sandstone and altered basement units. The samples consist of 1 centimetre to 2 centimetres disks of core collected at the top or bottom of each row of core in the box over the specified interval. Care is taken not to cross lithological contacts or stratigraphic boundaries. These samples are submitted to SRC for sample preparation and multi-element analysis. The same sample preparation procedures are used as described above for U_3O_8 assay samples. The pulps are analyzed using the ICPMS Exploration Package which includes a total digest (HF:HNO_3:$HClO_4$) and partial digest (HNO_3:HCLl) followed by ICP-MS analysis. Boron values are obtained through NaO_2/$NaCO_3$ fusion followed by ICP-OES.
2. Representative/systematic core disks (one to five centimetres in width) are collected at regular 5 metre to 10 metre intervals throughout the entire length of core until basement lithologies become unaltered. These samples are analyzed for clay minerals using reflectance spectroscopy. Samples for reflectance clay analyses have been analyzed by Denison using a PIMA spectrometer or an ArcSpectro FT-NIR ROCKET spectrometer and sent to Rekasa Rocks Inc. (Rekasa) or AusSpec International Ltd. (AusSpec), respectively, for interpretation.
3. Select spot samples are collected from significant geological features (i.e. radiometric anomalies, structure, alteration etc.). Core disks 1 centimetre to 2 centimetres thick are collected for reflectance spectroscopy and split core samples are collected for geochemical analysis. The same reflectance spectrometry or geochemical procedures as described above are used.

These sampling types and approaches are typical of uranium exploration and definition drilling programs in the Athabasca Basin. Drill core handling and sampling protocols are in accordance with industry best practices. Once the diamond drill core is geologically logged but before sampling, the core is photographed and the core boxes are labeled with aluminum tags. After sampling, all core is stored in specially constructed core racks out of doors in the event the core needs to be re-logged or re-sampled in the future.

After the analyses are completed, analytical data are securely sent using electronic transmission of the results, by SRC to Denison. The electronic results are secured using WINZIP encryption and password protection. These results are provided as a series of Adobe PDF files containing the official analytical results and a Microsoft Excel spreadsheet file containing only the analytical results. Analytical data received from the lab is imported directly into Denison's local database. The data is subject to validation using triggers built into the local database to identify blank or standard assays that fall outside the accepted limits that require re-analysis. Field duplicates are validated using control charts. The laboratory is notified

immediately of any problematic samples or batches and these are re-analyzed. Assay values that fall below the method detection limit (MDL) are reported by the lab as 'less than' values (<MDL). These values are automatically replaced by half MDL by the local database during import. The database is backed up on- and off-site every day.

QAQC

The SRC laboratory has an internal QAQC program dedicated to active evaluation and continual improvement in the internal quality management system. The laboratory is accredited by the Standards Council of Canada as an ISO/IEC 17025 Laboratory for Mineral Analysis Testing and is also accredited ISO/IEC 17025:2005 for the analysis of U_3O_8. The laboratory is licensed by the Canadian Nuclear Safety Commission (CNSC) for possession, transfer, import, export, use, and storage of designated nuclear substances by CNSC Licence Number 01784-1-09.3. As such, the laboratory is closely monitored and inspected by the CNSC for compliance. All analyses are conducted by SRC, which has specialized in the field of uranium research and analysis for over 30 years. SRC is an independent laboratory, and no associate, employee, officer, or director of Denison is, or ever has been, involved in any aspect of sample preparation or analysis on samples. The SRC uses a Laboratory Management System (LMS) for Quality Assurance. The LMS operates in accordance with ISO/IEC 17025:2005 (CAN-P-4E) "General Requirements for the Competence of Mineral Testing and Calibration Laboratories" and is also compliant to CAN-P-1579 "Guidelines for Mineral Analysis Testing Laboratories". The laboratory continues to participate in proficiency testing programs organized by CANMET (CCRMP/PTP-MAL).

The SRC routinely inserts standard reference materials and blanks into batches of the Company's samples as an internal check on accuracy and contamination. Quality control samples (reference materials, blanks, and duplicates) are included with each analytical run, based on the rack sizes associated with the method. Before the results leave the laboratory, the standards, blanks, and split replicates are checked for accuracy, and issued provided the senior scientist is fully satisfied. If for any reason there is a failure in an analysis, the sub-group affected will be re-analyzed, and checked again. A Corrective Action Report will be issued and the problem is investigated fully to ensure that any measures to prevent the re-occurrence can and will be taken. All human and analytical errors are, where possible, eliminated. If the laboratory suspects any bias, the samples are re-analyzed and corrective measures are taken.

Denison has developed several QA/QC procedures and protocols for all exploration projects to independently monitor laboratory performance which include the analysis of uranium standards, blanks, field duplicates and exploration standards, as follows:

Uranium Standards - Due to the radioactive nature of the standard material, insertion of the standard materials is preferable at SRC instead of in the field. During sample processing, the appropriate standard grade is determined, and an aliquot of the appropriate standard is inserted into the analytical stream for each batch of materials assayed. Uranium standards are typically inserted at a minimum rate of 1 in every 40 samples. For the Wheeler River project, Denison uses standards provided by Joint Venture partner Cameco for uranium assays. Six uranium assay standards have been prepared for use in monitoring the accuracy of uranium assays received from the laboratory. In addition, for each assay group, an aliquot of Cameco's blank material is also included in the sample run. In a run of 40 samples, at least one will consist of a Cameco standard and one will consist of a Cameco blank. Accuracy of the analyses and values obtained relative to the standard values, based on the analytical results of the six reference standards used, is acceptable for Mineral Resource estimates.

Blanks - Denison employs a lithological blank composed of quartzite to monitor the potential for contamination during sampling, processing, and analysis. The selected blank consists of a material that contains lower contents of U_3O_8 than the sample material but is still above the detection limit of the analytical process. Due to the sorting of the samples submitted for assay by SRC based on radioactivity, the blanks employed must be inserted by the SRC after this sorting takes place, in order to ensure that these materials are ubiquitous throughout the range of analytical grades. In effect, if the individual geologists were to submit these samples anonymously, they would invariably be relegated to the minimum radioactive grade level, preventing their inclusion in the higher radioactive grade analyses performed by SRC.

Field Duplicates - The Company regularly submits a variety of duplicate samples in the sample stream as a check on the precision of the analytical lab. Core duplicates are prepared by collecting a second sample of the same interval, through splitting the original sample, or other similar technique, and are submitted as an independent sample. Duplicates are typically submitted at a minimum rate of one per 20 samples in order to obtain a collection rate of 5%. The collection may be further tailored to reflect field variation in specific rock types or horizons.

Exploration Standards – Denison has prepared three in-house 'exploration standards' to independently monitor laboratory performance during the processing of routine drill core exploration samples. These standards aim to test laboratory accuracy and precision for a variety of trace metals at low levels, as required for Athabasca uranium exploration.

In addition to the QAQC described above, Denison sends one in every 25 U_3O_8 assay samples to the SRC's Delayed Neutron Counting (DNC) laboratory, a separate facility located at SRC Analytical Laboratories in Saskatoon, to compare the uranium values using two different methods, by two separate laboratories. All radioactive samples are monitored and recorded as per CNSC licence 01784-1-09.0. Furthermore, down hole radiometric probe results provide equivalent uranium data (eU_3O_8) that is used internally by the Company for assessing the accuracy of the laboratory U_3O_8 results.

MANAGER OF UPC

DMI is the manager of UPC. UPC is a public company with the primary investment objective of achieving an appreciation in the value of its uranium holdings. The Company does not, directly or indirectly, have an ownership interest in UPC. As manager, DMI provides UPC's officers and manages UPC's activities, including purchasing uranium for and on behalf of UPC as directed by the UPC board, arranging for its storage and attending to regulatory reporting for UPC.

The MSA is the current management services agreement between DMI and UPC, effective April 1, 2016. Under the MSA, DMI will receive the following fees from UPC: a) a base fee of CAD$400,000 per annum, payable in equal quarterly installments; b) a variable fee equal to (i) 0.3% per annum of UPC's total assets in excess of CAD$100 million and up to and including CAD$500 million, and (i) 0.2% per annum of UPC's total assets in excess of CAD$500 million; c) a fee, at the discretion of the UPC board, for on-going monitoring or work associated with a transaction or arrangement (other than a financing, or the acquisition of or sale of U_3O_8 or UF_6); and d) a commission of 1.0% of the gross value of any purchases or sales of U_3O_8 or UF_6, or gross interest fees payable to UPC in connection with any uranium loan arrangements. The MSA has a three-year term and may be terminated by either party upon the provision of 120 days written notice.

During 2016, DMI earned an aggregate of $1,484,000 in total management fees as manager of UPC.

DENISON ENVIRONMENTAL SERVICES

DES was formed in 1997 to provide mine decommissioning and mine care and maintenance services to industry and government, as well as to manage Denison's post mine closure environmental obligations on its Elliot Lake landholdings. DES's current focus is on post-closure mine care and maintenance services and the majority of DES's revenue comes from such services. DES is headquartered in Elliot Lake, Ontario.

The primary activities of DES include: providing the ongoing monitoring of Denison's two closed Elliot Lake mine sites as well as environmental monitoring, effluent treatment and maintenance services for several clients including:

- Rio Algom Ltd.'s five closed Elliot Lake mines;
- Yukon Government's Mt. Nansen Mine in the Yukon;
- Vale Canada Limited's closed Shebandowan Mine in northern Ontario;
- BHP Billiton's closed base metal mine at Les Mines Selbaie in Quebec; and
- Ontario Government's closed Kam Kotia Mine in northern Ontario.

In 2016, DES also carried out work on several other smaller contracts.

ENVIRONMENTAL, HEALTH AND SAFETY MATTERS

The Company has adopted an Environmental, Health and Safety Policy (the "**EHS Policy**") that affirms Denison's commitment to environmentally responsible management and compliance with occupational health and safety laws. Under the EHS Policy, the Company has committed to run its operations in compliance with applicable legislation, in a manner that minimizes the impact on our ecosystem. The EHS Policy mandates the use of regular monitoring programs to identify risks to the environment, to the public and to Denison's employees and to ensure compliance with regulatory requirements. The EHS Policy also sets out Denison's requirement to train its employees regarding environmental and health and safety compliance and best practices and to provide adequate resources in this regard.

The EHS Policy requires regular reporting to the Board regarding the Company's compliance and the results of the Company's monitoring. To assist the Board with its responsibilities in overseeing environmental, health and safety matters, the Board has established the Environment, Health and Safety (the "**EHS Committee**") which works with management to discuss matters affecting the environment, health and safety and its stakeholders and reporting and making recommendations to the Board.

Canada

McClean Lake

At McClean Lake, which is operated by ARC, construction activities for the mill expansion were ongoing throughout the year along with milling operations for processing of Cigar Lake ores. During 2016 there were five reportable incidents including three lost time incidents and two medical aids. Environmentally there were 17 reportable environmental incidents, all of which were minor in nature and have been successfully remediated with no lasting impacts. There were five reportable exceedances in administration levels for radiological events, of which all

incidences have been successfully remediated and addressed with no lasting impacts. The facility has maintained its internationally recognized ISO 14001:2004 and OHSAS 18001 certification.

The McClean operation and the Midwest project are combined under a single Operating Licence issued by the CNSC. The combined Preliminary Closure Plan was prepared by ARC and approved by the authorities in 2016, estimating the total decommissioning and reclamation costs to be CAD$107,241,000. Financial assurances are in place for this entire amount, with Denison's share being CAD$24,135,000.

Elliot Lake

Denison's uranium mine at Elliot Lake, Ontario, which started operations in 1957, was permanently closed upon completion of deliveries of U_3O_8 to Ontario Hydro in May 1992. During its 35 years of continuous operation, the facility produced 147 million pounds of U_3O_8 in concentrates from the milling of 70 million tons of ore.

By 1998, all significant capital reclamation activities at Denison's two closed Elliot Lake mines had been completed and, for the most part, decommissioning has progressed to the long-term monitoring phase.

During 2016, the treatment plants operated as planned and all environmental targets were met. Monitoring and other remediation related expenses were CAD$654,000 for the year. Monitoring costs for 2017 are budgeted to be CAD$864,000. All expenditures are funded from the Reclamation Trust described below. It is estimated that sufficient funds are in the Reclamation Trust to meet all monitoring costs through 2022.

All activities and monitoring results are reviewed regularly by the CNSC and the Elliot Lake Joint Regulatory Group, which consists of federal and provincial regulators.

Pursuant to a Reclamation Funding Agreement, effective June 30, 1994, with the Governments of Canada and Ontario, Denison has established a Reclamation Trust from which all spending on its Elliot Lake reclamation activities is funded. When the Reclamation Trust was first established in 1994, Denison was required to deposit 90% of its cash receipts after deducting permitted expenses, as defined in such agreement, into the Reclamation Trust. In 1997, the Governments of Canada and Ontario agreed to suspend the 90% funding requirement provided Denison maintained four years of cash requirements in the Reclamation Trust. Early in 1999, the Governments of Canada and Ontario agreed to further amend the Reclamation Funding Agreement, effective when Denison received an amended site decommissioning licence, which was obtained on April 22, 1999. Pursuant to that amendment, Denison is required to maintain sufficient funds in the Reclamation Trust to meet six years of cash requirements.

The CNSC has proposed the modification of the licences for Elliot Lake to a single Waste Disposal Licence for both facilities (see "Government Regulation – Canadian Uranium Industry"). Under the proposed Waste Disposal Licence, the reclamation funding arrangement may be modified, but at this point in time the Company believes that it will be able to maintain the current funding agreement.

Denison Environmental Services

DES has maintained its internationally recognized ISO 9001:2008 certification which is a certification for Quality Management Systems. In 2016, DES had no lost time or medical aids and only one first aid.

Exploration

The Denison exploration office in Saskatchewan had no lost time accidents or and two minor medical aids in 2016. All required permits were obtained, and the exploration sites were remediated for any environmental impacts as required.

GOVERNMENT REGULATION

Canadian Uranium Industry

The federal government recognizes that the uranium industry has special importance in relation to the national interest and therefore regulates the mining, extraction, use and export of uranium under the *Nuclear Safety and Control Act* ("**NSCA**"). The NSCA is administered by the CNSC which issues licences pursuant to the regulations under the NSCA. All of the McClean Lake and Midwest uranium operations are governed primarily by such licences and are subject to all applicable federal statutes and regulations and to all laws of general application in Saskatchewan, except to the extent that such laws conflict with the terms and conditions of the licences or applicable federal laws.

The export of uranium is regulated by the Canadian federal government, which establishes nuclear energy policy. Denison's uranium exports are required to have export licences and export permits granted by the CNSC and the Department of Foreign Affairs and International Trade respectively.

Environmental matters related to the McClean Lake uranium facility and the Midwest project are regulated by the CNSC and the Saskatchewan Ministry of Environment. A number of other ministries and departments of the federal and Saskatchewan governments also regulate certain aspects of the operation. Prior to proceeding with development of the McClean Lake uranium facility and Midwest project, the proponents were required to submit Environmental Impact Statements for review. After completion of that review and receipt of recommendations, the federal and Saskatchewan governments issued the appropriate authorizations, subject to the normal licensing process, for the McClean Lake uranium facility in 1995 and for Midwest in 2012.

Decommissioning activities at Elliot Lake are currently carried out under two decommissioning licences issued by the CNSC, one for the Stanrock tailings area and one for the Denison mine site and tailings areas. Decommissioning of the facilities pursuant to the terms of the decommissioning licences has been completed. The CNSC has initiated the actions to combine the Stanrock and Denison sites under one Waste Facility Operating Licence. There are no significant differences between the different forms of licences. After a lengthy period of care, maintenance and monitoring, Denison may apply to the CNSC for permission to abandon the sites.

Canadian Land Tenure

The right to explore for minerals in Saskatchewan is acquired under a mineral claim from the province (a "**Mineral Claim**"). The initial term of a Mineral Claim is two years, renewable for

successive one–year periods, provided the Mineral Claim is in good standing. To maintain a Mineral Claim in good standing, generally, the holder of a Mineral Claim must expend a prescribed amount on exploration. Excess expenditures can be applied to satisfy expenditure requirements for future claim years. Except for exploration purposes, a Mineral Claim does not grant the holder the right to mine minerals. A holder of a Mineral Claim in good standing has the right to convert a Mineral Claim into a Mineral Lease. Surface exploration work on a Mineral Claim requires additional governmental approvals.

The right to mine minerals in Saskatchewan is acquired under a mineral lease from the province (a "**Mineral Lease**"). A Mineral Lease is for a term of 10 years, with a right to renew for successive 10-year terms in the absence of default by the lessee. The lessee is required to spend certain amounts for work during each year of a Mineral Lease. A Mineral Lease cannot be terminated except in the event of default and for certain environmental concerns, as prescribed in *The Crown Minerals Act* (Saskatchewan). However, Mining Leases may be amended unilaterally by the lessor by amendment to *The Crown Minerals Act* (Saskatchewan) or *The Mineral Disposition Regulations*, 1986 (Saskatchewan).

The surface facilities and mine workings are located on lands owned by the province of Saskatchewan. The right to use and occupy lands is acquired under a surface lease (a "**Surface Lease"**) from the province of Saskatchewan. A Surface Lease is for a period of time, up to a maximum of 33 years, as is necessary to allow the lessee to operate its mine and plant and thereafter carry out the reclamation of the lands involved. Surface Leases are also used by the province of Saskatchewan as a mechanism to achieve certain environmental and radiation protection and socio-economic objectives, and contain certain undertakings in this regard.

Canadian Royalties

The province of Saskatchewan imposes royalties on the sale of uranium extracted from ore bodies in the province in accordance with Part III of The Crown Mineral Royalty Regulations (the "**Regulations**") pursuant to The Crown Minerals Act (the "**Act**"). Significant revisions to the uranium royalty regime in Saskatchewan became effective in 2013. The new royalty system is effective retroactive to January 1, 2013 and has three components:

(i) Basic Royalty: Computed as 5% of gross revenues derived from uranium extracted from ore bodies in the province;
(ii) Saskatchewan Resource Credit: Reduction in the basic royalty equal to 0.75% of gross revenues derived from uranium extracted from ore bodies in the province; and
(iii) Profit Royalty: Computed as 10% to 15% of net profits derived from the mining and processing of uranium extracted from ore bodies in the province.

Under the new system, each owner or joint venture participant in a uranium mine is a royalty payer. Individual interests are consolidated on a corporate basis for the computation and reporting of royalties due to the province.

Royalty payments are due to the province on or before the last day of the month following the month in which the royalty payer sold, or consumed, the uranium for the purposes of the basic royalty, and quarterly installments are required based on estimates of net profits in respect of the profit royalty.

Gross revenue, for the Basic Royalty, is determined in accordance with the Regulations and allows for reductions based on specified allowances. Net profit, for the Profit Royalty, is calculated based on the recognition of the full dollar value of a royalty payer's exploration,

capital, production, decommissioning and reclamation costs, in most cases, incurred after January 1, 2013. Net profits will be taxed under the profit royalty at a rate of 10% for net profits up to and including CAD$22.00 per kilogram (CAD$10 per pound) of uranium sold, and at 15% for net profits in excess of CAD$22.00 per kilogram. The CAD$22.00 per kilogram threshold is applicable for 2013 (the base year) and is indexed in subsequent years for inflation.

Canadian Income and Other Taxes

Denison and its Canadian subsidiaries are subject to federal and provincial income taxes. In 2016, taxable income was subject to federal taxes at a rate of 15%, and provincial taxes in Saskatchewan, Ontario, Quebec, British Columbia and the Yukon Territory at rates varying between 11% and 15%. Taxable income for each entity is allocated between provinces and territories based on a two point average of the proportion of salaries and revenues attributable to each province or territory. Denison expects that it will not be liable for Canadian income taxes on a current tax basis for the financial year ended 2016. As a resource corporation in Saskatchewan, Denison is also subject to a resource surcharge equal to 3% of the value of resource sales from production in Saskatchewan, if any, during the year.

In recent years, including 2016, Denison has issued shares eligible for treatment as "flow through shares", as defined in subsection 66(15) of *the Income Tax Act* (Canada). As a result, a significant portion of Denison's Canadian Exploration Expenditures have been renounced to shareholders and are not available to Denison as a tax deduction in the current year or future years.

Audit / Review by Taxing Authorities

From time to time, Denison is subject to audit / review by taxing authorities. In certain jurisdictions, periodic reviews are carried out by taxing authorities in the ordinary course of business. Denison cooperates with all requests received from taxing authorities, and is not currently engaged in a material dispute with any of the applicable taxing authorities.

RISK FACTORS

There are a number of factors that could negatively affect Denison's business and the value of the Shares, including the factors listed below. The following information pertains to the outlook and conditions currently known to Denison that could have a material impact on the financial condition of Denison. Other factors may arise in the future that are currently not foreseen by management of Denison which may present additional risks in the future. Current and prospective security holders of Denison should carefully consider these risk factors.

Nature of Exploration and Development

Exploration for and development of mineral properties is speculative, and involves significant uncertainties and financial risks that even a combination of careful evaluation, experience and knowledge may not eliminate. While the discovery of an ore body may result in substantial rewards, few properties which are explored are commercially mineable or ultimately developed into producing mines. Major expenses may be required to establish mineral reserves by drilling, constructing mining and processing facilities at a site, developing metallurgical processes and extracting uranium from ore. It is impossible to ensure that Denison's current exploration and development programs will result in profitable commercial mining operations.

Denison's current and future uranium production is dependent in part on the successful development of new ore bodies and/or expansion of existing mining operations. The economic

feasibility of development projects is based upon many factors, including, among others: the accuracy of mineral reserve and resource estimates; metallurgical recoveries; capital and operating costs of such projects; government regulations relating to prices, taxes, royalties, infrastructure, land tenure, land use, importing and exporting, and environmental protection; and uranium prices, which are historically cyclical. Development projects are also subject to the successful completion of engineering studies, issuance of necessary governmental permits and availability of adequate financing.

Development projects have no operating history upon which to base estimates of future cash flow. Denison's estimates of mineral reserves and resources and cash operating costs are, to a large extent, based upon detailed geological and engineering analysis. Denison also conducts economic analyses and feasibility studies which derive estimates of capital and operating costs based upon many factors, including, among others: anticipated tonnage and grades of ore to be mined and processed; the configuration of the ore body; ground and mining conditions; expected recovery rates of the uranium from the ore; and alternate mining methods.

The results of economic analyses for Denison's projects may be preliminary in nature and could include inferred mineral resources, which are considered too speculative geologically to have the economic considerations applied that would enable them to be categorized as mineral reserves. There is no certainty that any forecasts in an economic analysis, including the PEA and the results of the planned PFS for Wheeler River, would be realizable or that any resources would ever be upgraded to reserves. Mineral resources that are not mineral reserves do not have demonstrated economic viability.

It is possible that actual costs and economic returns of current and new mining operations may differ materially from Denison's best estimates. It is not unusual in the mining industry for new mining operations to experience unexpected problems during the start-up phase, take much longer than originally anticipated to bring into a producing phase, and to require more capital than anticipated.

Benefits Not Realized From Transactions

Denison has completed a number of transactions over the last several years, including without limitation the acquisition of International Enexco Ltd., the acquisition of Fission, the acquisition of JNR, the sale of its mining assets and operations located in the United States to Energy Fuels Inc., the sale of its interest in the GSJV, the Africa Transaction, the optioning of the Moore Lake property to Skyharbour and entering into the APG Financing. Despite Denison's belief that these transactions, and others which may be completed in the future, will be in Denison's best interest and benefit the Company and Denison's shareholders, Denison may not realize the anticipated benefits of such transactions or realize the full value of the consideration paid or received to complete the transactions. This could result in significant accounting impairments or write-downs of the carrying values of mineral properties or other assets and could adversely impact the Company and the price of its Shares.

Inability to Expand and Replace Mineral Reserves and Resources

Denison's mineral reserves and resources at its McClean Lake, Midwest, Wheeler River and Waterbury Lake projects are Denison's future sources of uranium concentrates. Unless other mineral reserves or resources are discovered, Denison's sources of future production for uranium concentrates will decrease over time when its current mineral reserves and resources are depleted. There can be no assurance that Denison's future exploration, development and acquisition efforts will be successful in replenishing its mineral reserves and resources. In

addition, while Denison believes that many of its properties will eventually be put into production, there can be no assurance that they will be put into production or that they will be able to replace production in future years.

Imprecision of Mineral Reserve and Resource Estimates

Mineral reserve and resource figures are estimates, and no assurances can be given that the estimated levels of uranium will be produced or that Denison will receive the prices assumed in determining its mineral reserves and resources. Such estimates are expressions of judgment based on knowledge, mining experience, analysis of drilling results and industry practices. Valid estimates made at a given time may significantly change when new information becomes available. While Denison believes that the mineral reserve and resource estimates included are well established and reflect management's best estimates, by their nature, mineral reserve and resource estimates are imprecise and depend, to a certain extent, upon statistical inferences which may ultimately prove unreliable. Furthermore, market price fluctuations, as well as increased capital or production costs or reduced recovery rates, may render mineral reserves and resources containing lower quantities or lower grades of mineralization uneconomic and may ultimately result in a restatement of mineral reserves and resources. The evaluation of mineral reserves or resources is always influenced by economic and technological factors, which may change over time.

Volatility and Sensitivity to Market Prices

The long and short term market prices of U_3O_8 affect the value of Denison's mineral resources and the market price of the Shares. Historically, these prices have fluctuated and have been and will continue to be affected by numerous factors beyond Denison's control. Such factors include, among others: demand for nuclear power, political and economic conditions in uranium producing and consuming countries, public and political response to nuclear incidents, reprocessing of used reactor fuel and the re-enrichment of depleted uranium tails, sales of excess civilian and military inventories (including from the dismantling of nuclear weapons) by governments and industry participants, uranium supplies from other secondary sources, and production levels and costs of production from primary uranium suppliers.

Public Acceptance of Nuclear Energy and Competition from Other Energy Sources

Growth of the uranium and nuclear power industry will depend upon continued and increased acceptance of nuclear technology as a clean means of generating electricity. Because of unique political, technological and environmental factors that affect the nuclear industry, including the risk of a nuclear incident, the industry is subject to public opinion risks that could have an adverse impact on the demand for nuclear power and increase the regulation of the nuclear power industry. Nuclear energy competes with other sources of energy, including oil, natural gas, coal and hydro-electricity. These other energy sources are to some extent interchangeable with nuclear energy, particularly over the longer term. Sustained lower prices of oil, natural gas, coal and hydroelectricity may result in lower demand for uranium concentrates. Technical advancements in renewable and other alternate forms of energy, such as wind and solar power, could make these forms of energy more commercially viable and put additional pressure on the demand for uranium concentrates.

Current estimates project significant increases in the world's nuclear power generating capacities, primarily as a result of a significant number of nuclear reactors that are under construction, planned, or proposed in China, India and various other countries around the world. Market projections for future demand for uranium are based on various assumptions regarding the rate of construction and approval of new nuclear power plants, as well as continued public

acceptance of nuclear energy around the world. The rationale for adopting nuclear energy can be varied, but often includes the clean and environmentally friendly operation of nuclear power plants, as well as the affordability and round-the-clock reliability of nuclear power. A change in public sentiment regarding nuclear energy could have a material impact on the number of nuclear power plants under construction, planned or proposed, which could have a material impact on the market's and the Company's expectations for the future demand for uranium and the future price of uranium.

Market Price of Shares

Securities of mining companies have experienced substantial volatility in the past, often based on factors unrelated to the financial performance or prospects of the companies involved. These factors include macroeconomic conditions in North America and globally, and market perceptions of the attractiveness of particular industries. The price of Denison's securities is also likely to be significantly affected by short-term changes in commodity prices, other mineral prices, currency exchange fluctuation, or changes in its financial condition or results of operations as reflected in its periodic earnings reports and/or news releases. Other factors unrelated to the performance of Denison that may have an effect on the price of the securities of Denison include the following: the extent of analytical coverage available to investors concerning the business of Denison; lessening in trading volume and general market interest in Denison's securities; the size of Denison's public float and its inclusion in market indices may limit the ability of some institutions to invest in Denison's securities; and a substantial decline in the price of the securities of Denison that persists for a significant period of time could cause Denison's securities to be delisted from an exchange. If an active market for the securities of Denison does not continue, the liquidity of an investor's investment may be limited and the price of the securities of the Company may decline such that investors may lose their entire investment in the Company. As a result of any of these factors, the market price of the securities of Denison at any given point in time may not accurately reflect the long-term value of Denison. Securities class-action litigation often has been brought against companies following periods of volatility in the market price of their securities. Denison may in the future be the target of similar litigation. Securities litigation could result in substantial costs and damages and divert management's attention and resources.

Dilution from Further Equity Financing

If Denison raises additional funding by issuing additional equity securities, such financing may substantially dilute the interests of Shareholders and reduce the value of their investment.

Reliance on Other Operators

At some of its properties, Denison is not the operator and therefore is not in control of all of the activities and operations at the site. As a result, Denison is and will be, to a certain extent, dependent on the operators for the nature and timing of activities related to these properties and may be unable to direct or control such activities.

As an example, ARC is the operator and majority owner of the McClean Lake and Midwest joint ventures in Saskatchewan, Canada. The McClean Lake mill employs unionized workers who work under collective agreements. ARC, as the operator, is responsible for all dealings with unionized employees. ARC may not be successful in its attempts to renegotiate the collective agreements, which may impact mill and mining operations. Similarly, ARC is responsible for all licensing and dealings with various regulatory authorities. Any lengthy work stoppages or disruption to the operation of the mill or mining operations as a result of a licensing matter or

regulatory compliance may have a material adverse impact on the Company's future cash flows, earnings, results of operations and financial condition.

Property Title Risk

The Company has investigated its rights to explore and exploit all of its material properties and, to the best of its knowledge, those rights are in good standing. However, no assurance can be given that such rights will not be revoked, or significantly altered, to its detriment. There can also be no assurance that the Company's rights will not be challenged or impugned by third parties, including the Canadian, provincial and local governments, as well as by First Nations and Métis.

There is also a risk that Denison's title to, or interest in, its properties may be subject to defects or challenges. This may be true particularly in countries where there may be less developed legal systems or where ownership interests may become subject to political interference or changes in laws. If such defects cover a material portion of Denison's property, they could materially and adversely affect Denison's results of operations and financial condition, its reported mineral reserves and resources or its long-term business prospects.

Competition for Properties

Significant competition exists for the limited supply of mineral lands available for acquisition. Many participants in the mining business include large, established companies with long operating histories. The Company may be at a disadvantage in acquiring new properties as competitors may have greater financial resources and more technical staff. Accordingly, there can be no assurance that the Company will be able to compete successfully to acquire new properties or that any such acquired assets would yield resources or reserves or result in commercial mining operations.

Global Financial Conditions

Global financial conditions continue to be subject to volatility arising from international geopolitical developments and global economic phenomenon, as well as general financial market turbulence. Access to public financing and credit can be negatively impacted by the effect of these events on Canadian and global credit markets. The health of the global financing and credit markets may impact the ability of Denison to obtain equity or debt financing in the future and the terms at which financing or credit is available to Denison. These increased levels of volatility and market turmoil could adversely impact Denison's operations and the trading price of the Shares.

Ability to Maintain Obligations under Credit Facility and Other Debt

Denison is required to satisfy certain financial covenants in order to maintain its good standing under the Credit Facility. Denison is also subject to a number of restrictive covenants under the APG Financing. Denison may from time to time enter into other arrangements to borrow money in order to fund its operations and expansion plans, and such arrangements may include covenants that have similar obligations or that restrict its business in some way. Events may occur in the future, including events out of Denison's control, that would cause Denison to fail to satisfy its obligations under the Credit Facility, APG Financing or other debt instruments. In such circumstances, the amounts drawn under Denison's debt agreements may become due and payable before the agreed maturity date, and Denison may not have the financial resources to repay such amounts when due. The Credit Facility and APG Financing are secured by DMI's main properties by a pledge of the shares of DMI. If Denison were to default on its obligations

under the Credit Facility, APG Financing or other secured debt instruments in the future, the lender(s) under such debt instruments could enforce their security and seize significant portions of Denison's assets.

Change of Control Restrictions

The APG Financing and certain other of Denison's agreements contain provisions that could adversely impact Denison in the case of a transaction that would result in a change of control of Denison or certain of its subsidiaries. In the event that consent is required from our counterparty and our counterparty chooses to withhold its consent to a merger or acquisition, then such party could seek to terminate certain agreements with Denison, including certain agreements forming part of the APG Financing, or require Denison to buy the counterparty's rights back from them, which could adversely affect Denison's financial resources and prospects. If applicable, these restrictive contractual provisions could delay or discourage a change in control of our company that could otherwise be beneficial to Denison or its shareholders.

Capital Intensive Industry and Uncertainty of Funding

The exploration and development of mineral properties and the ongoing operation of mines requires a substantial amount of capital and may depend on Denison's ability to obtain financing through joint ventures, debt financing, equity financing or other means. General market conditions, volatile uranium markets, a claim against the Company, a significant disruption to the Company's business or operations or other factors may make it difficult to secure financing necessary for the expansion of mining activities or to take advantage of opportunities for acquisitions. There is no assurance that the Company will be successful in obtaining required financing as and when needed on acceptable terms.

Decommissioning and Reclamation

As owner of the Elliot Lake decommissioned sites and part owner of the McClean Lake mill, McClean Lake mines, the Midwest uranium project and certain exploration properties, and for so long as the Company remains an owner thereof, the Company is obligated to eventually reclaim or participate in the reclamation of such properties. Most, but not all, of the Company's reclamation obligations are secured, and cash and other assets of the Company have been reserved to secure this obligation. Although the Company's financial statements record a liability for the asset retirement obligation, and the bonding requirements are generally periodically reviewed by applicable regulatory authorities, there can be no assurance or guarantee that the ultimate cost of such reclamation obligations will not exceed the estimated liability contained on the Company's financial statements.

As Denison's properties approach or go into decommissioning, regulatory review of the Company's decommissioning plans may result in additional decommissioning requirements, associated costs and the requirement to provide additional financial assurances. It is not possible to predict what level of decommissioning and reclamation (and financial assurances relating thereto) may be required from Denison in the future by regulatory authorities.

Technical Innovation and Obsolescence

Requirements for Denison's products and services may be affected by technological changes in nuclear reactors, enrichment and used uranium fuel reprocessing. These technological changes could reduce the demand for uranium or reduce the value of Denison's environmental

services to potential customers. In addition, Denison's competitors may adopt technological advancements that give them an advantage over Denison.

Mining and Insurance

Denison's business is capital intensive and subject to a number of risks and hazards, including environmental pollution, accidents or spills, industrial and transportation accidents, labour disputes, changes in the regulatory environment, natural phenomena (such as inclement weather conditions, earthquakes, pit wall failures and cave-ins) and encountering unusual or unexpected geological conditions. Many of the foregoing risks and hazards could result in damage to, or destruction of, Denison's mineral properties or processing facilities, personal injury or death, environmental damage, delays in or interruption of or cessation of production from Denison's mines or processing facilities or in its exploration or development activities, delay in or inability to receive regulatory approvals to transport its uranium concentrates, or costs, monetary losses and potential legal liability and adverse governmental action. In addition, due to the radioactive nature of the materials handled in uranium mining and processing, additional costs and risks are incurred by Denison on a regular and ongoing basis.

Although Denison maintains insurance to cover some of these risks and hazards in amounts it believes to be reasonable, such insurance may not provide adequate coverage in the event of certain circumstances. No assurance can be given that such insurance will continue to be available, that it will be available at economically feasible premiums, or that it will provide sufficient coverage for losses related to these or other risks and hazards.

Denison may be subject to liability or sustain loss for certain risks and hazards against which it cannot insure or which it may reasonably elect not to insure because of the cost. This lack of insurance coverage could result in material economic harm to Denison.

Dependence on Issuance of Licence Amendments and Renewals

ARC maintains the regulatory licences in order to operate the McClean Lake mill, all of which are subject to renewal from time to time and are required in order for the mill to operate in compliance with applicable laws and regulations. In addition, depending on ARC's or the Company's business requirements, it may be necessary or desirable to seek amendments to one or more of its licences from time to time. While ARC and the Company have been successful in renewing its licences on a timely basis in the past and in obtaining such amendments as have been necessary or desirable, there can be no assurance that such licence renewals and amendments will be issued by applicable regulatory authorities on a timely basis or at all in the future.

Governmental Regulation and Policy Risks

Uranium mining and milling operations and exploration activities, as well as the transportation and handling of the products produced, are subject to extensive regulation by state, provincial and federal governments. Such regulations relate to production, development, exploration, exports, imports, taxes and royalties, labour standards, occupational health, waste disposal, protection and remediation of the environment, mine decommissioning and reclamation, mine safety, toxic substances, transportation safety and emergency response, and other matters. Compliance with such laws and regulations has increased the costs of exploring, drilling, developing, constructing, operating and closing Denison's mines and processing facilities. It is possible that, in the future, the costs, delays and other effects associated with such laws and regulations may impact Denison's decision with respect to exploration and development properties, whether to proceed with exploration or development, or that such laws and

regulations may result in Denison incurring significant costs to remediate or decommission properties that do not comply with applicable environmental standards at such time. Denison expends significant financial and managerial resources to comply with such laws and regulations. Denison anticipates it will have to continue to do so as the historic trend toward stricter government regulation may continue. Because legal requirements are frequently changing and subject to interpretation, Denison is unable to predict the ultimate cost of compliance with these requirements or their effect on operations. Furthermore, future changes in governments, regulations and policies, such as those affecting Denison's mining operations and uranium transport could materially and adversely affect Denison's results of operations and financial condition in a particular period or its long-term business prospects.

Failure to comply with applicable laws, regulations and permitting requirements may result in enforcement actions. These actions may result in orders issued by regulatory or judicial authorities causing operations to cease or be curtailed, and may include corrective measures requiring capital expenditures, installation of additional equipment or remedial actions. Companies engaged in uranium exploration operations may be required to compensate others who suffer loss or damage by reason of such activities and may have civil or criminal fines or penalties imposed for violations of applicable laws or regulations.

Worldwide demand for uranium is directly tied to the demand for electricity produced by the nuclear power industry, which is also subject to extensive government regulation and policies. The development of mines and related facilities is contingent upon governmental approvals that are complex and time consuming to obtain and which, depending upon the location of the project, involve multiple governmental agencies. The duration and success of such approvals are subject to many variables outside Denison's control. Any significant delays in obtaining or renewing such permits or licences in the future could have a material adverse effect on Denison. In addition, the international marketing of uranium is subject to governmental policies and certain trade restrictions. Changes in these policies and restrictions may adversely impact Denison's business.

Aboriginal Title and Consultation Issues

First Nations and Métis title claims as well as related consultation issues may impact Denison's ability and that of its joint venture partners to pursue exploration, development and mining at its Saskatchewan properties. Pursuant to historical treaties, First Nations bands in Northern Saskatchewan ceded title to most traditional lands but continue to assert title to the minerals within the lands. Managing relations with the local native bands is a matter of paramount importance to Denison. There may be no assurance however that title claims as well as related consultation issues will not arise on or with respect to the Company's properties.

Anti-Bribery and Anti-Corruption Laws

The Company is subject to anti-bribery and anti-corruption laws, including the *Corruption of Foreign Public Officials Act* (Canada). Failure to comply with these laws could subject the Company to, among other things, reputational damage, civil or criminal penalties, other remedial measures and legal expenses which could adversely affect the Company's business, results from operations, and financial condition. It may not be possible for the Company to ensure compliance with anti-bribery and anti-corruption laws in every jurisdiction in which its employees, agents, sub-contractors or joint venture partners are located or may be located in the future.

Environmental, Health and Safety Risks

Denison has expended significant financial and managerial resources to comply with environmental protection laws, regulations and permitting requirements in each jurisdiction where it operates, and anticipates that it will be required to continue to do so in the future as the historical trend toward stricter environmental regulation may continue. The uranium industry is subject to, not only the worker health, safety and environmental risks associated with all mining businesses, including potential liabilities to third parties for environmental damage, but also to additional risks uniquely associated with uranium mining and processing. The possibility of more stringent regulations exists in the areas of worker health and safety, the disposition of wastes, the decommissioning and reclamation of mining and processing sites, and other environmental matters each of which could have a material adverse effect on the costs or the viability of a particular project.

Denison's facilities operate under various operating and environmental permits, licences and approvals that contain conditions that must be met, and Denison's right to continue operating its facilities is, in a number of instances, dependent upon compliance with such conditions. Failure to meet any such condition could have a material adverse effect on Denison's financial condition or results of operations.

Although the Company believes its operations are in compliance, in all material respects, with all relevant permits, licences and regulations involving worker health and safety as well as the environment, there can be no assurance regarding continued compliance or ability of the Company to meet stricter environmental regulation, which may also require the expenditure of significant additional financial and managerial resources.

Mining companies are often targets of actions by non-governmental organizations and environmental groups in the jurisdictions in which they operate. Such organizations and groups may take actions in the future to disrupt Denison's operations. They may also apply pressure to local, regional and national government officials to take actions which are adverse to Denison's operations. Such actions could have an adverse effect on Denison's ability to produce and sell its products, and on its financial position and results.

Information Systems and Cyber Security

The Company's operations depend upon the availability, capacity, reliability and security of its information technology (IT) infrastructure, and its ability to expand and update this infrastructure as required, to conduct daily operations. Denison relies on various IT systems in all areas of its operations, including financial reporting, contract management, exploration and development data analysis, human resource management, regulatory compliance and communications with employees and third parties.

These IT systems could be subject to network disruptions caused by a variety of sources, including computer viruses, security breaches and cyber-attacks, as well as network and/or hardware disruptions resulting from incidents such as unexpected interruptions or failures, natural disasters, fire, power loss, vandalism and theft. The Company's operations also depend on the timely maintenance, upgrade and replacement of networks, equipment, IT systems and software, as well as pre-emptive expenses to mitigate the risks of failures.

The ability of the IT function to support the Company's business in the event of any such event and the ability to recover key systems from unexpected interruptions cannot be fully tested. There is a risk that, if such an event actually occurs, the Company's continuity plan may not be

adequate to immediately address all repercussions of the disaster. In the event of a disaster affecting a data centre or key office location, key systems may be unavailable for a number of days, leading to inability to perform some business processes in a timely manner. As a result, the failure of Denison's IT systems or a component thereof could, depending on the nature of any such failure, adversely impact the Company's reputation and results of operations.

Although to date the Company has not experienced any material losses relating to cyber attacks or other information security breaches, there can be no assurance that the Company will not incur such losses in the future. Unauthorized access to Denison's IT systems by employees or third parties could lead to corruption or exposure of confidential, fiduciary or proprietary information, interruption to communications or operations or disruption to the Company's business activities or its competitive position. Further, disruption of critical IT services, or breaches of information security, could have a negative effect on the Company's operational performance and its reputation. The Company's risk and exposure to these matters cannot be fully mitigated because of, among other things, the evolving nature of these threats. As a result, cyber security and the continued development and enhancement of controls, processes and practices designed to protect systems, computers, software, data and networks from attack, damage or unauthorized access remain a priority.

The Company applies technical and process controls in line with industry-accepted standards to protect information, assets and systems; however these controls may not adequately prevent cyber-security breaches. There is no assurance that the Company will not suffer losses associated with cyber-security breaches in the future, and may be required to expend significant additional resources to investigate, mitigate and remediate any potential vulnerabilities. As cyber threats continue to evolve, the Company may be required to expend additional resources to continue to modify or enhance protective measures or to investigate and remediate any security vulnerabilities.

Dependence on Key Personnel and Qualified and Experienced Employees

Denison's success depends on the efforts and abilities of certain senior officers and key employees. Certain of Denison's employees have significant experience in the uranium industry, and the number of individuals with significant experience in this industry is small. While Denison does not foresee any reason why such officers and key employees will not remain with Denison, if for any reason they do not, Denison could be adversely affected. Denison has not purchased key man life insurance for any of these individuals. Denison's success also depends on the availability of qualified and experienced employees to work in Denison's operations and Denison's ability to attract and retain such employees.

Conflicts of Interest

Some of the directors and officers of Denison are also directors of other companies that are similarly engaged in the business of acquiring, exploring and developing natural resource properties. Such associations may give rise to conflicts of interest from time to time. In particular, one of the consequences would be that corporate opportunities presented to a director or officer of Denison may be offered to another company or companies with which the director of officer is associated, and may not be presented or made available to Denison. The directors of Denison are required by law to act honestly and in good faith with a view to the best interests of Denison, to disclose any interest which they may have in any project or opportunity of Denison, and to abstain from voting on such matter. Conflicts of interest that arise will be subject to and governed by the procedures prescribed in the Company's Code of Ethics and by the OBCA.

Disclosure and Internal Controls

Internal controls over financial reporting are procedures designed to provide reasonable assurance that transactions are properly authorized, assets are safeguarded against unauthorized or improper use, and transactions are properly recorded and reported. Disclosure controls and procedures are designed to ensure that information required to be disclosed by a company in reports filed with securities regulatory agencies is recorded, processed, summarized and reported on a timely basis and is accumulated and communicated to the company's management, including its Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance with respect to the reliability of reporting, including financial reporting and financial statement preparation.

Potential Influence of KEPCO and KHNP

As at the date hereof, KEPCO holds indirectly a large shareholding in Denison and is contractually entitled to Board representation. Provided KEPCO holds over 5% of the Shares, it is entitled to nominate one director for election to the Board at any shareholder meeting. In connection with its transfer of indirect interest in Denison to its subsidiary, KHNP, effective December 2016, KEPCO has exercised that entitlement by nomination of a KHNP representative in 2017.

KEPCO's shareholding level gives it a large vote on decisions to be made by shareholders of Denison, and its right to nominate a director may give KEPCO influence on decisions made by Denison's Board. Although KEPCO's or KHNP's director nominee, as applicable, will be subject to duties under the OBCA to act in the best interests of Denison as a whole, such director nominee is likely to be an employee of KEPCO or KHNP and he or she may give special attention to KEPCO's or KHNP's interests as indirect Shareholders. The interests of KEPCO or KHNP as an indirect Shareholder may not always be consistent with the interests of other Shareholders.

The strategic relationship agreement entered into by Denison and KEPCO in 2009 (the "**KEPCO SRA**") also includes provisions that will provide KEPCO with a right of first offer for certain asset sales and the right to be approached to participate in certain potential acquisitions. The right of first offer and participation right of KEPCO may negatively affect Denison's ability or willingness to entertain certain business opportunities, or the attractiveness of Denison as a potential party for certain business transactions. KEPCO's large shareholding block may also make Denison less attractive to third parties considering an acquisition of Denison if those third parties are not able to negotiate terms with KEPCO to support such an acquisition.

DENISON'S SECURITIES

The Shares

The Company is entitled to issue an unlimited number of Shares. As of December 31, 2016, Denison had an aggregate of 540,722,365 Shares issued and outstanding. As at the date hereof, Denison had an aggregate of 559,070,902 Shares issued and outstanding.

Shareholders are entitled to receive notice of, and to one vote per share at, every meeting of Shareholders and to share equally in the assets of Denison remaining upon the liquidation, dissolution or winding up of Denison after the creditors of Denison have been satisfied.

Dividends

Shareholders are entitled to receive dividends if, as and when declared by the Board of Directors. The directors have adopted a policy of dedicating cash flow to reinvestment in the business of the Company. Accordingly, no dividends have been declared to date. Further, the Company is restricted from paying dividends under its Credit Facility.

Fission Replacement Options

In connection with the acquisition of Fission in 2013, unexercised Fission options were exchanged for options to acquire Shares of Denison (the "**Fission Replacement Options**").

As at December 31, 2016, an aggregate 657,929 Fission Replacement Options were outstanding and, during the financial year ended December 31, 2016, an aggregate of 173,445 expired unexercised.

Price Range and Trading Volume of Shares

The Shares trade on the TSX under the symbol "DML" and on the NYSE MKT under the symbol "DNN". The following table sets forth, for the periods indicated, the reported intra-day high and low sales prices and aggregate volume of trading of the Shares on the TSX and NYSE MKT.

Month	High (CAD$) TSX	Low (CAD$) TSX	Volume TSX	High (US$) NYSE MKT	Low (US$) NYSE MKT	Volume NYSE MKT
January	0.69	0.53	9,377,964	0.50	0.36	7,888,484
February	0.67	0.57	11,115,313	0.49	0.41	7,431,503
March	0.77	0.60	18,163,349	0.59	0.44	13,714,893
April	0.85	0.69	10,311,754	0.67	0.52	11,216,409
May	0.76	0.61	12,481,263	0.61	0.47	6,186,737
June	0.75	0.63	9,678,323	0.59	0.48	8,974,888
July	0.75	0.69	6,673,702	0.58	0.52	5,248,415
August	0.70	0.65	7,261,494	0.54	0.49	7,125,149
September	0.69	0.61	9,768,596	0.54	0.46	4,356,643
October	0.63	0.52	10,324,884	0.47	0.40	5,674,215
November	0.65	0.49	8,986,975	0.49	0.37	10,594,416
December	0.75	0.57	8,845,855	0.58	0.43	12,130,226

Source: Bloomberg Finance

Prior Sales

During the year ended December 31, 2016, the Company issued the following stock options, each exercisable for a Share at the following exercise prices:

Date of Issuance	Number of Options Issued	Exercise Prices
March 11, 2016	1,976,250	CAD$0.64
August 8, 2016	160,000	CAD$0.67
TOTAL	**2,136,250**	

Escrowed Securities and Securities Subject to Contractual Restrictions on Transfer

Designation of Class	Number of Securities held in escrow or that are subject to contractual restriction on transfer	Percentage of Class
Common Shares	6,250,000[(1)]	1.16%
TOTAL	6,250,000	1.16%

(1) The 6,250,000 common shares (the "**Escrowed Shares**") are being held in escrow by Blake, Cassels & Graydon LLP ("**Blakes**") pursuant to an escrow agreement dated November 4, 2016 among the Company, ALX Uranium Corp. and Blakes in connection with the Hook Carter property acquisition. The Escrowed Shares are to be released in increments of 1,250,000 Escrowed Shares, twice per year, beginning on May 4, 2017.

DENISON'S MANAGEMENT

Denison's Directors

The following table sets out the names and the provinces and countries of residence of each of the directors of Denison as of the date hereof, their respective positions and offices held with Denison and their principal occupations during the five preceding years. The following table also identifies the members of each committee of the Board of Directors.

Name and Province and Country of Residence	Principal Occupation and Employment for Past Five Years	Director Since(1)
W. ROBERT DENGLER(2, 4, 5) Ontario, Canada	Corporate Director since 2006; prior: Vice-Chairman and Director of Dynatec Corporation; President and Chief Executive Officer of Dynatec Corporation.	2006
BRIAN D. EDGAR(3, 6, 7) British Columbia, Canada	Chairman of Silver Bull Resources, Inc., a mineral exploration company listed on both NYSE MKT and the TSX, since 2012, and President and Chief Executive Officer of Dome Ventures Corporation, a subsidiary of Silver Bull Resources Inc., since 2005.	2005
RON F. HOCHSTEIN(2) British Columbia, Canada	Director of the Company since 2000 and President and Chief Executive Officer of Lundin Gold Inc. since 2014; prior: President and Chief Executive Officer of the Company from 2009 to 2015.	2000
KWANG HEE JEONG Gyeongsangbuk, Korea	General Manager of the Global Business Planning and Administration Team at KHNP, a subsidiary of the Korea Electric Power Corporation (KEPCO), since 2016 and has been with KHNP in different positions since 1997.	2017
LUKAS H. LUNDIN Vaud, Switzerland	Chairman of the Board of the Company since 1998 (other than Mr. Hochstein's term as Executive Chairman for a period in 2015); Business/Mining Executive.	1997
WILLIAM A. RAND(4, 6) British Columbia, Canada	President and director of Rand Investments Ltd., a private investment company based in British Columbia.	1997
CATHERINE J. G. STEFAN(3, 6, 8) Ontario, Canada	Lead Director of the Board of the Company; prior: President, Stefan & Associates, a consulting firm based in Ontario, from 2009-2016; prior: Managing Partner, Tivona Capital Corporation, a private investment firm, from 1999-2008.	2006

Notes:

(1) The term of office of each of the directors of Denison will expire at the Annual Meeting of the Shareholders to be held on May 3, 2017.
(2) Member, Environment, Health and Safety Committee
(3) Member, Corporate Governance and Nominating Committee
(4) Member, Compensation Committee

(5) Chair, Compensation Committee and Environment Health and Safety Committee
(6) Member, Audit Committee
(7) Chair, Corporate Governance and Nominating Committee
(8) Chair, Audit Committee

Denison's Executive Officers

The following table sets out the names and the provinces or states and countries of residence of each of the executive officers of Denison as of the date hereof, their respective positions and offices held with Denison and their principal occupations during the five preceding years.

Name and Province and Country of Residence	Position with Denison and Employment for Past Five Years
DAVID CATES Ontario, Canada	President and Chief Executive Officer since 2015; Vice President Finance, Tax and Chief Financial Officer since 2013; prior: Director, Taxation from 2008 to 2012.
PETER LONGO Saskatchewan, Canada	Vice President, Project Development since 2014; prior: Vice-President, Operations, Claude Resources Inc., a gold mining company from 2011-2014; prior Project Manager, AREVA Resources Inc. from 2007-2011.
GABRIEL MCDONALD Ontario, Canada	Vice President, Finance and Chief Financial Officer since 2015; prior: Director of Financial Reporting at IAMGOLD Corporation from 2015, Senior Manager at PricewaterhouseCoopers LLP from 2008.
MICHAEL SCHOONDERWOERD Ontario, Canada	Vice President, Controller since 2013; prior, Corporate Controller, 2004 to 2012.
DALE VERRAN Saskatchewan, Canada	Vice President, Exploration since January 2016; Technical Director, Exploration since 2013; prior: Technical Director, Remote Exploration Services from 2005 to 2013, and Exploration Manager, Manica Minerals Limited from 2010 to 2013.
AMANDA WILLETT British Columbia, Canada	Corporate Counsel and Corporate Secretary since June 2016; prior: Senior Associate at Blake, Cassels & Graydon LLP since 2011.

The directors and executive officers of Denison, as a group, beneficially own, or control or direct, directly or indirectly, 3,075,758 Shares or less than one percent of the Shares as of the date of this AIF. No single director or officer beneficially owns or controls or directs, directly or indirectly, one percent or more of the Shares as of the date of this AIF. The information as to Shares beneficially owned or directed by the directors and officers, not being within the knowledge of the Company, has been furnished by each such individual.

Cease Trade Orders, Bankruptcies, Penalties or Sanctions

Other than as referred to below, no director or officer of the Company:

(a) is, as at the date of this AIF, or has, within the previous ten year period, been a director or executive officer of a company (including Denison) that:

    (i) was subject to a cease trade or similar order or an order that denied the relevant company access to any exemption under securities legislation that was in effect for a period of more than 30 consecutive days that was issued (A) while that person was acting in such capacity or (B) after that person ceased to act in such

capacity but which resulted from an event that accrued while that person was acting in that capacity; or

(ii) became bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold its assets (A) while that person was acting in such capacity or (B) within a year of that person ceasing to act in such capacity, or

(b) has, within the previous ten year period, become bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency, or become subject to or instituted any proceedings, arrangement or compromise with creditors, or had a receiver, receiver manager or trustee appointed to hold such person's assets; or

(c) is, or has been, subject to any penalties or sanctions (i) imposed by a court relating to securities legislation or by a securities regulatory authority or has entered into a settlement agreement with a securities regulatory authority, or (ii) imposed by a court or regulatory body that would likely be considered important to a reasonable security holder in making an investment decision.

Ron Hochstein and Lukas Lundin were directors of Sirocco Mining Inc. ("**Sirocco**"). Pursuant to a plan of arrangement completed on January 31, 2014, Canadian Lithium Corp. amalgamated with Sirocco to form RB Energy Inc. ("**RBI**"). In October 2014, RBI commenced proceedings under the Companies' Creditors Arrangement Act (the "**CCAA**"). CCAA proceedings continued in 2015 and a receiver was appointed in May 2015. The TSX de-listed RBI's common shares in November 24, 2014 for failure to meet the continued listing requirements of the TSX. Although Lukas Lundin was never a director, officer or insider of RBI, he was a director of Sirocco within the 12-month period prior to RBI filing under the CCAA. Ron Hochstein was a director of RBI from the time of the plan of arrangement with Canadian Lithium Corp. to October 3, 2014.

Conflicts of Interest

Some of Denison's directors and officers are also directors and/or officers of other natural resource companies and, consequently, there exists the possibility for such directors and officers to be in a position of conflict relating to any future transactions or relationships between the Company or common third parties. However, the Company is unaware of any such pending or existing conflicts between these parties. Any decision made by any of such directors and officers involving the Company are made in accordance with their duties and obligations to deal fairly and in good faith with the Company and such other companies and their obligations to act in the best interests of Denison's shareholders. In addition, each of the directors of the Company discloses and refrains from voting on any matter in which such director may have a conflict of interest.

None of the present directors or senior officers of the Company, and no associate or affiliate of any of them, has any material interest in any transaction of the Company or in any proposed transaction which has materially affected or will materially affect the Company except as described herein.

- Investor relations, administrative service fees and other expenses of $140,000 were incurred during the financial year ended December 31, 2016 with Namdo Management Services Ltd, a company which shares a common director with Denison. These services were incurred in the normal course of operating a public company.

- Office and administrative service fees of $23,000 were incurred during the financial year ended December 31, 2016 with Lundin S.A., a company with which a director of Denison is affiliated.
- One of Denison's directors, Mr. Jeong, is employed by KHNP, a subsidiary of KEPCO. Through its corporate holdings, KEPCO is a significant shareholder of the Company, with approximately 10.4% of the outstanding Shares as of the date hereof. Concurrent with its investment in the Company in 2009, KEPCO entered into the KEPCO SRA with Denison, which may present a conflict of interest for Mr. Jeong. The KEPCO SRA provides KEPCO with a right of first offer for certain asset sales and the right to be approached to participate in certain potential acquisitions being considered by Denison. While the Company is not aware of a pending or existing conflict of interest with Mr. Jeong as of the date hereof, the interests of KEPCO and KHNP as shareholders of Denison and their business relationships with Denison may place Mr. Jeong in a position of conflict as a director of the Company in the future.

Interest of Management and Others in Material Transactions

Other than as disclosed in this AIF, no director or executive officer of Denison, no person or company that beneficially owns, controls or directs, indirectly or directly, more than 10% of the Shares, and no associate or affiliate of any of them, has or has had, within the three most recently completed financial years or during the current financial year, any material interest, direct or indirect, in any transaction which materially affects or is reasonably expected to materially affect Denison.

Standing Committees of the Board

The Audit Committee

The audit committee of the Company's Board of Directors is principally responsible for:

- recommending to the Company's Board of Directors the external auditor to be nominated for election by the Company's shareholders at each annual general meeting and negotiating the compensation of such external auditor;
- overseeing the work of the external auditor;
- reviewing the Company's annual and interim financial statements, its MD&A in respect thereof and press releases regarding earnings before they are reviewed and approved by the Board of Directors and publicly disseminated by the Company; and
- reviewing the Company's financial reporting procedures for the Company's public disclosure of financial information extracted or derived from its financial statements.

The Company's Board of Directors has adopted an audit committee mandate/terms of reference (the "**Mandate**") which sets out the Audit Committee's mandate, organization, powers and responsibilities. The complete Mandate is attached as Schedule A to this AIF.

Below are the details of each Audit Committee member, including his or her name, whether she or he is independent and financially literate as such terms are defined under National Instrument 52-110 - *Audit Committees* of the Canadian Securities Administrators ("**NI 52-110**") and his or her education and experience as it relates to the performance of his or her duties as an Audit Committee member. All three audit committee members have "financial expertise" within the meaning of the *U.S. Sarbanes-Oxley Act* of 2002, as amended, and are financially literate under NI 52-110. The qualifications and independence of each member is discussed.

Director	Independent[1]	Financially Literate[2]	Education & Experience Relevant to Performance of Audit Committee Duties
Catherine J.G. Stefan Chair of the Audit Committee	Yes	Yes	• Chartered Professional Accountant (Chartered Accountant) • B.Comm • Held position of Chief Operating Officer, O&Y Properties Inc., President of Stefan & Associates and Executive Vice-President of Bramalea Group, Chair, Tax Committee of the Canadian Institute of Public Real Estate Companies (CIPREC).
Brian D. Edgar	Yes	Yes	• Law degree, with extensive corporate finance experience • Held positions of Chairman since 2011 and President and Chief Executive Officer of a public company from 2005 to 2011. • Has served on audit committees of a number of public companies
William A. Rand	Yes	Yes	• B.Comm (Accounting) • Two law degrees, with extensive corporate finance experience • Has served on audit committees of a number of public companies

Notes:

(1) Independent within the meaning of NI 52-110.

(2) To be considered financially literate, a member of the Committee must have the ability to read and understand a set of financial statements that present a breadth and level of complexity of accounting issues that are generally comparable to the breadth and complexity of the issues that can reasonably be expected to be raised by the Company's financial statements.

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

The Audit Committee has adopted specific policies and procedures for the engagement of non-audit services as described in Section D of the Mandate.

The following table discloses the fees billed to the Company by its external auditor, PricewaterhouseCoopers LLP, during the last two fiscal years. Services were billed and paid in Canadian dollars and have been translated into U.S. dollars using an average annual exchange rate of: $1.3245 for 2016 and $1.2785 for 2015.

Financial Year Ending	Audit Fees[1]	Audit-Related Fees[2]	Tax Fees[3]	All Other Fees[4]
December 31, 2016	$132,871	$97,379	Nil	Nil
December 31, 2015	$195,586	$107,351	Nil	$59,286

Notes:

(1) The aggregate fees billed for audit services of the Company's consolidated financial statements.

(2) The aggregate fees billed for assurance and related services that are reasonably related to the performance of the audit or review of the Company's financial statements and are not disclosed in the

Audit Fees column. Fees relate to reviews of interim consolidated financial statements and specified audit procedures not included as part of the audit of the consolidated financial statements.

(3) The aggregate fees billed for tax compliance, tax advice, and tax planning services, such as transfer pricing and tax return preparation.

(4) The aggregate fees billed for professional services other than those listed in the other three columns. For 2015, "All Other Fees" relates to special project costs.

Other Board Committees

The Board currently has three other standing committees in addition to the Audit Committee, namely the Corporate Governance and Nominating Committee, the Compensation Committee and the Environment, Health and Safety Committee. Each standing committee of the Board operates according to its mandate, which is approved by the Board and sets out the committee's duties and responsibilities. A discussion of each committee and its composition can be found in the most recent management information circular prepared in connection with the Company's Shareholder meeting.

Corporate Governance

As a Canadian reporting issuer with its Shares listed on the TSX, Denison has in place a system of corporate governance practices which is responsive to applicable Canadian requirements, including National Policy 58-201 - *Corporate Governance Guidelines* of the Canadian Securities Administrators (the "**Guidelines**"). Denison's corporate governance practices meet or exceed the Guidelines and all other applicable Canadian requirements. Reference is made to the Corporate Governance Practices section of the Circular, which contains a description of the Company's system of corporate governance practices with reference to the Guidelines.

Denison is classified as a foreign private issuer under U.S. securities law and its Shares are listed on NYSE MKT. Pursuant to the rules of the NYSE MKT, a foreign private issuer is permitted to follow home country practice except with respect to certain rules, with which Denison complies.

LEGAL AND REGULATORY PROCEEDINGS

Except as described below, the Company is not currently a party to, nor was it a party to during the last financial year, and none of the Company's property is or was the subject of, any material legal proceedings, and the Company knows of no such legal proceedings that are contemplated. However, from time to time, the Company may become party to routine litigation incidental to its business.

EFR Indemnity

In connection with the EFR Arrangement, the Company agreed to indemnify EFR against any future liabilities it may incur in connection with ongoing litigation between Denison Mines (USA) Corp. ("**DUSA**"), which was acquired by EFR in June 2012, and a contractor who was engaged by DUSA in respect of an earthworks project for one of the tailings cells at DUSA's White Mesa mill. A dispute arose between the parties when the contractor ceased work on the project, and DUSA engaged an alternate contractor to complete the project on time. The original contractor sued DUSA for damages on account of alleged breach of contract and reimbursement of costs due to complications and delays allegedly beyond its control at the project. DUSA counter-claimed for damages flowing from breach of contract and indemnity and reimbursement for monies paid by DUSA to satisfy the original contractor's unpaid obligations to subcontractors and for project completion costs. Both parties agreed to resolve the dispute via binding arbitration and arbitration hearings for this matter were held in November 2013. In January

2014 an arbitration order was issued in DUSA's and Denison's favour. The contractor filed a motion to vacate the arbitration award, to which Denison filed a response in opposition and, in July 2014, the Utah state court denied the contractor's motion to vacate the arbitration award and confirmed the arbitrator's award in favour of Denison. The contractor subsequently filed a motion to appeal the decision of the Utah state court. In January 2016, appeal arguments were heard by the Utah Court of Appeals and a decision was issued in August 2016 affirming the Utah state court's decision in favour of Denison. The Company is entitled to any proceeds that are received or recovered by EFR pursuant to its indemnity. The Company does not expect to recover a material amount of damages related to this issue.

MATERIAL CONTRACTS

Reference is made to the material contracts which have been filed by Denison with the Canadian securities regulatory authorities on the SEDAR website at www.sedar.com.

Below are the particulars of each contract, other than those entered into in the ordinary course of business, that is material to Denison and that was entered into between January 1, 2016 and the date hereof or was entered into before those dates but is still in effect:

1. The following agreements executed in connection with the APG Financing:
    a. The loan agreement between DMI and SPV dated January 31, 2017 with respect to the DMI Loan;
    b. The loan agreement between SPV and APG dated January 31, 2017 with respect to the SPV Loan;
    c. The performance guarantee by Denison as guarantor in favour of the SPV as beneficiary and APG as permitted assignee, pursuant to which Denison has agreed to guarantee the performance of DMI's obligations to SPV under the SPV Loan, which guarantee has been assigned by SPV in favour of APG;
    d. The streaming agreement between the DMI and Centaurus dated January 31, 2017 with respect to the Stream Arrangement; and
    e. The performance guarantee by Denison as guarantor in favour of Centaurus as beneficiary, pursuant to which Denison has agreed to guarantee the performance of DMI's obligations to Centaurus under the Stream Arrangement.

2. The Reclamation Funding Agreement made as of the 21st day of December 1995 among DML, Her Majesty the Queen in Right of Canada (the "**Government of Canada**") and Her Majesty the Queen in Right of the Province of Ontario (the "**Government of Ontario**") as amended by the Amending Agreement made as of the 11th day of April 1997 among Denison Mines Limited (now DMI), the Government of Canada and the Government of Ontario and as further amended by the Amending Agreement made as of the 25th day of February 1999 among Denison Mines Limited, the Government of Canada and the Government of Ontario and further amended by an Assignment and Novation Agreement made as of the 29th day of December, 2003 among Denison Energy, the Company, the Government of Canada and the Government of Ontario.

    According to the Reclamation Funding Agreement, the Company is required to maintain funds in an Environmental Trust sufficient for the succeeding six years of the estimated reclamation and on-going care and monitoring expenditures for the Company's closed Elliot Lake mining facility.

3. The KEPCO SRA made as of June 15, 2009 among the Company, KEPCO and KEPCO Canada Uranium Investment Limited Partnership.

   The KEPCO SRA provides for a long-term collaborative business relationship between the parties. Under the KEPCO SRA, KEPCO is entitled to Board representation based on its shareholder percentage in the Company. Initially, Denison was required to nominate for election to its Board at any shareholder meeting at which directors are to be elected, two persons designated by KEPCO as long as KEPCO held at least 15% of the outstanding Shares. However, now that KEPCO's interest has dropped below 15%, Denison is only required to nominate one person, provided KEPCO's shareholding percentage stays above 5%.

   The KEPCO SRA also provides that if Denison intends to sell an interest in certain of its substantial assets, it will first notify KEPCO of each such proposed sale and provide KEPCO with a 30-day right of first offer to allow KEPCO to purchase the interest in the asset that Denison proposes to sell. The KEPCO SRA provides that Denison will allow KEPCO to participate in potential purchases of certain assets, including a mill facility, a producing mine or a mineral resource for which a production feasibility study has been completed, which Denison plans to pursue with a co-investor. KEPCO's ability to purchase will not be available where Denison and KEPCO cannot agree on terms within a reasonable time or where their involvement would adversely affect Denison's ability to pursue an investment opportunity. The right of first offer and co-investment rights are subject to pre-existing contractual commitments and do not apply to certain pre-existing transactions. KEPCO is also entitled to subscribe for additional Shares in order to maintain or increase its shareholding percentage in Denison to thresholds which are relevant to its rights under the KEPCO SRA and KEPCO Offtake Agreement, in circumstances where Denison completes a public offering or broadly distributed private placement to raise proceeds of greater than CAD$10 million.

   Denison is entitled to terminate the KEPCO SRA if KEPCO's shareholding percentage in Denison drops below 5% and stays below 5% for 60 days following delivery of a notice to that effect by Denison to KEPCO.

4. The EFR Arrangement Agreement dated May 23, 2012 between EFR and Denison.

   Denison entered into the EFR Arrangement Agreement with EFR on May 23, 2012. Pursuant to the EFR Arrangement Agreement, EFR purchased the U.S. Mining Division by acquiring all of the shares and debt of certain subsidiaries. As a result of the transaction, Denison Shareholders received 1.106 common shares of EFR for each Share held, while still maintaining their positions in Denison.

   Pursuant to the EFR Arrangement Agreement, Denison agreed to indemnify EFR against any future liabilities it may incur in connection with ongoing litigation between Denison Mines (USA) Corp. (a company acquired by EFR as part of the sale of the U.S. Mining Division) and a contractor in respect of a construction project at the White Mesa Mill. See "Legal and Regulatory Proceedings".

   In addition, in connection with the assignment of sales contracts as required by the EFR Arrangement Agreement, the Company remains a guarantor under a sales contract included in the sale of the U.S. Mining Division to EFR. The sales contract requires deliveries of 200,000 pounds of U_3O_8 per year from 2013 to 2017 at a selling price of

95% of the long-term U_3O_8 price at the time of delivery. Should EFR not be able to deliver for any reason other than "force majeure" as defined under the contract, the Company may be liable to the customer for incremental costs incurred to replace the contracted quantities if the unit price of the replacement quantity is greater than the contracted unit price selling amount. EFR has agreed to indemnify the Company for any future liabilities it may incur related to this guarantee.

NAMES AND INTERESTS OF EXPERTS

The Company's independent auditor is PricewaterhouseCoopers LLP, Chartered Professional Accountants, Licensed Public Accountants, who have issued an independent auditor's report dated March 8, 2017 in respect of Denison's consolidated financial statements as at December 31, 2016 and 2015 and for each of the years ended 2016 and 2015 and the Company's internal control over financial reporting as at December 31, 2016. PricewaterhouseCoopers LLP has advised that it is independent with respect to the Company within the meaning of the Rules of Professional Conduct of the Chartered Professional Accountants of Ontario and Public Company Accounting Oversight Board Rule 3520 Auditor Independence.

Dale Verran, MSc, Pr.Sci.Nat., Denison's Vice President, Exploration, who is a "Qualified Person" within the meaning of this term in NI 43-101, has prepared sections of this AIF that are of a scientific or technical nature pertaining to the Company's mineral projects and has verified the data disclosed therein. To the knowledge of Denison, Dale Verran is the registered or beneficial owner, directly or indirectly, of less than one percent of the outstanding Shares.

Peter Longo, P.Eng, MBA, PMP, Denison's Vice President Project Development, who is a "Qualified Person" within the meaning of this term in NI 43-101, has prepared sections of this AIF that are of a scientific or technical nature pertaining to the Company's mineral projects and has verified the data disclosed therein. To the knowledge of Denison, Peter Longo is the registered or beneficial owner, directly or indirectly, of less than one percent of the outstanding Shares.

RPA Inc., which was retained to independently review and audit the mineral reserves and mineral resources in accordance with the requirements of NI 43-101, prepared the following technical reports:

- Elliot Lake Report dated June 29, 2007 by Lawrence B. Cochrane, Ph.D., P.Eng. and Leo R. Hwozdyk, P.Eng.
- McClean Technical Report dated November 21, 2005 as amended on February 16, 2006 by Richard E. Routledge, M.Sc., P.Geo. and James W. Hendry, P.Eng.
- McClean North Technical Report January 31, 2007 by Richard E. Routledge, M.Sc., P.Geo.
- Sue D Report dated March 31, 2006 by Richard E Routledge, M.Sc., P.Geo. and James W. Hendry, P.Eng.
- Midwest Technical Report dated June 1, 2005, as amended on February 14, 2006 by Richard E. Routledge, M.Sc., P.Geo., James W. Hendry, P.Eng. and Luke Evans, M.Sc., P.Eng.

The Midwest A Technical Report dated January 31, 2008 was prepared by Michel Dagbert, P.Eng. of Geostat, which was retained to independently review and audit the mineral reserves in accordance with the requirements of NI 43-101.

The J Zone Technical Report dated September 6, 2013 was prepared by Allan Armitage, Ph.D., P.Geo., and Alan Sexton, M.Sc., P.Geo. of GeoVector, which was retained to independently review and audit mineral resource estimates in accordance with the requirements of NI 43-101.

The Preliminary Economic Assessment for the Wheeler River Uranium Project, Saskatchewan, Canada dated March 31, 2016 was prepared by Ken Reipas, P.Eng, of SRK Consulting (Canada) Inc., which was retained to independently prepare the PEA in accordance with the requirements of NI 43-101.

All of the authors of the technical reports noted above are independent of Denison. To the knowledge of Denison as of the date hereof, the partners, employees and consultants of each of RPA Inc. (formerly Scott Wilson RPA), Geostat and SRK who participated in the preparation of the aforementioned reports, or who were in a position to influence the outcome of such reports and each of RPA Inc., Geostat and SRK are the registered or beneficial owner, directly or indirectly, of less than one percent of the outstanding Shares.

ADDITIONAL INFORMATION

Additional information regarding the Company is available on the SEDAR website at www.sedar.com. Further information concerning the Company, including directors' and officers' remuneration and indebtedness, principal holders of the Company's securities, options to purchase securities and interests of insiders in material transactions, where applicable, is contained in the Circular for the Annual General and Special Meeting of Shareholders to be held on May 3, 2017. Additional financial information is provided in the Company's audited consolidated financial statements and MD&A for the financial year ended December 31, 2016.

A copy of this AIF, as well as the Circular and such other information and documentation that the Company makes available via SEDAR, can be found at www.sedar.com. In addition, certain of this information is distributed to shareholders in connection with Denison's Annual General Meeting of Shareholders. The Company will provide any of the foregoing documents subject to its rights to require people who are not security holders of the Company to pay a reasonable charge. Copies of these documents may be obtained by writing to:

Denison Mines Corp.
1100 – 40 University Avenue
Toronto, Ontario, M5J 1T1

Telephone: (416) 979-1991
Facsimile: (416) 979-5893
Email: info@denisonmines.com

SCHEDULE A

Audit Committee Mandate and Charter

A. Composition of the Committee

(1) The Board shall appoint annually from among its members at the first meeting of the Board following the annual meeting of the shareholders a committee to be known as the Audit Committee (the "Committee") to be composed of three (3) directors or such other number not less than three (3) as the Board may from time to time determine.

(2) Any member of the Committee may be removed or replaced at any time by the Board. Any member of the Committee ceasing to be a director or ceasing to qualify under A(3) below shall cease to be a member of the Committee. Subject to the foregoing, each member of the Committee shall hold office as such until the next annual appointment of members to the Committee after his or her election. Any vacancy occurring in the Committee shall be filled at the next meeting of the Board.

(3) Each member of the Committee shall:

(a) be a member of the Board;

(b) not be an officer or employee of the Company or any of its affiliates;

(c) be an unrelated director as defined in the Toronto Stock Exchange (the "TSX") Corporate Governance Guidelines ("TSX Guidelines") as the same may be amended from time to time;

(d) satisfy the independence requirements applicable to members of audit committees under each of Multilateral Instrument 52-110 – Audit Committees of the Canadian Securities Administrators ("M1 52-110"), Rule 10A-3(b)(1)(ii) of the United States Securities and Exchange Commission, and any other applicable laws and regulations, as the same may be amended from time to time (with the TSX Guidelines, "Applicable Laws"); and

(e) satisfy the financial literacy requirements prescribed by Applicable Laws.

(4) A majority of the Committee shall constitute a quorum.

(5) The Committee shall elect annually a chairperson from among its members.

B. Purpose

(1) The Committee's purpose is to assist the Board in its supervision of the management of the business and affairs of the Company through oversight of:

(a) the integrity of the Company's financial statements, Management's Discussion and Analysis ("MD&A") and other financial reporting;

(b) the integrity of the Company's internal control and management information systems;

(c) the Company's compliance with all applicable laws, rules, regulations, policies and other requirements of governments, regulatory agencies and stock exchanges relating to accounting matters and financial disclosure;

(d) the auditor's qualifications and activities;

(e) communication among the auditor, management and the Board; and

(f) such other matters as are determined by the Board from time to time.

C. Committee Resources

(1) The Committee shall have direct channels of communication with the Company's auditor to discuss and review specific issues as appropriate.

(2) The Committee, or any member of the Committee with the approval of the Committee, may retain at the expense of the Company such independent legal, accounting (other than the auditor) or other advisors on such terms as the Committee may consider appropriate and shall not be required to obtain the approval of the Board in order to retain or compensate any such advisors.

(3) The Committee shall have unrestricted access to Company personnel and documents and shall be provided with all necessary funding and other resources to carry out its responsibilities.

D. Committee Responsibilities

(1) The responsibilities of the Committee shall be to:

(a) with respect to financial accounting matters:

(i) review with management and the external auditors the annual consolidated financial statements, MD&A and press release announcing annual financial results of operations before making recommendations to the Board relating to approval of such documents;
(ii) review with management and the external auditors interim financial statements, MD&A and press release announcing interim financial results of operations before making recommendations to the Board relating to approval of such documents;
(iii) review and discuss with management and the external auditors all public disclosure documents containing audited or unaudited financial information including: any Prospectus; the Annual Report; interim unaudited reports; and any material change report pertaining to the Company's financial matters. The Committee will review the consistency of the foregoing documents with facts, estimates or judgments contained in the audited or unaudited financial statements;
(iv) satisfy itself that adequate procedures are in place for the review of the Company's disclosure of financial information extracted or derived from the Company's financial statements, other than the Company's financial statements, MD&A and earnings press releases, and shall periodically assess the adequacy of those procedures;
(v) prior to the completion of the annual audit, and at any other time deemed advisable by the Committee, review and discuss with management and the auditor the quality of the Company's accounting policies and financial statement presentation, including, without limitation, the following:

1. all critical accounting policies and practices to be used, including, without limitation, the reasons why certain estimates or policies are or are not considered critical and how current and anticipated future events may impact those determinations as well as an assessment of any proposed modifications by the auditors that were not made;

2. all alternative accounting treatments for policies and practices that have been discussed by management and the auditors; and

3. other material written communications between the auditor and management, including, without limitation, any management letter, schedule of unadjusted differences, the management representation letter, report on internal controls, as well as the engagement letter and the independence letter;

(vi) review annually the accounting principles and practices followed by the Company and any changes in the same as they occur;

(vii) review new accounting principles of the Chartered Professional Accountants of Canada and the International Accounting Standards Board which would have a significant impact on the Company's financial reporting as reported to the Committee by management;

(viii) review the status of material contingent liabilities as reported to the Committee by management;

(ix) review potentially significant tax problems as reported to the Committee by management; and

(x) review any errors or omissions in the current or prior year's financial statements which appear material as reported to the Committee by management;

(b) with respect to the external auditors:

(i) be directly responsible for recommending the appointment of the auditor, the auditor's compensation, retention and termination and for oversight of the work of the auditor (including, without limitation, resolution of disagreements between management and the auditor regarding financial reporting) for the purpose of preparing or issuing an audit report or performing other audit, review or services for the Company;

(ii) approve, prior to the auditor's audit, the auditor's audit plan (including, without limitation, staffing), the scope of the auditor's review and all related fees;

(iii) satisfy itself as to the independence of the auditor. The Committee shall pre-approve any non-audit services (including, without limitation, fees therefor) provided to the Company or its subsidiaries by the auditor or any auditor of any such subsidiary and shall consider whether these services are compatible with the auditor's independence, including, without limitation, the nature and scope of the specific non-audit services to be performed and whether the audit process would require the auditor to review any advice rendered by the auditor in connection with the provision of non-audit services. The Committee shall not allow the auditor to render any non-audit services to the Company or its subsidiaries that are prohibited by Applicable Law;

(iv) review and approve the Company's policies concerning the hiring of employees and former employees of the Company's auditor or former auditor.

(c) with respect to internal controls:

(i) oversee management's design, testing and implementation of the Company's internal controls and management information systems and review the adequacy and effectiveness thereof.

(d) with respect to concerns and complaints:

(i) establish procedures for:

1. the receipt, retention and treatment of complaints received by the Company regarding accounting, internal accounting controls or auditing matters; and

2. the confidential, anonymous submission by employees of the Company of concern regarding questionable accounting or auditing matters.

(e) with respect to ethics:

(i) The Committee shall be responsible for oversight and enforcement of the Code of Ethics for the Chief Executive Officer, Senior Financial Officers and Other Officers of the Company, subject to the supervision of the Board.

(f) with respect to general audit matters:

(i) inquire of management and the external auditors as to any activities that may or may not appear to be illegal or unethical;

(ii) review with management, the operations analyst and the external auditors any frauds reported to the Audit Committee;

(iii) review with the external auditors the adequacy of staffing for accounting and financial responsibilities; and

(iv) report and make recommendations to the Board as the Committee considers appropriate.

(2) In addition, the Board may refer to the Committee such matters and questions relating to the Company as the Board may from time to time see fit;

(3) Any member of the Committee may require the auditors to attend any or every meeting of the Committee.

E. Meetings

(1) The times of and the places where meetings of the Audit Committee shall be held and the calling of and procedure at such meetings shall be determined from time to time by the Committee, provided however that the Committee shall meet at least quarterly, and the Committee shall maintain minutes or other records of its meetings and activities. Notice of every such meeting to be given in writing not less than five (5) days prior to the date fixed for the meeting, and shall be given to the auditors of the Company, that the auditors shall be entitled to attend and be heard thereat. Meetings shall be convened whenever requested by the auditors, the operations analyst or any member of the Audit Committee in accordance with the Ontario Business Corporations Act.

(2) As part of each meeting of the Committee at which it recommends that the Board approve the financial statements of the Company, and at such other times as the Committee deems appropriate, the Committee shall meet separately with the auditor to discuss and review specific issues as appropriate.

F. Evaluation of Charter and Mandate

(1) On at least an annual basis, the Committee shall review and assess the adequacy of this Charter and Mandate and recommend any proposed changes to the Board of Directors.

(2) All prior resolutions of the Board relating to the constitution and responsibilities of the Audit Committee are hereby repealed.

SCHEDULE B

Glossary of Technical Terms

Note: The terms related to Mineral resources and mineral reserves presented herein are as defined in "CIM DEFINITION STANDARDS on Mineral Resources and Mineral Reserves" prepared by the CIM Standing Committee on Reserve Definitions, adapted by CIM Council, December 11, 2005.

eU_3O_8
This term refers to equivalent U_3O_8 grade derived from gamma logging of drill holes.

Historical Estimate
A historical estimate means an estimate of the quantity, grade or metal or mineral content of a deposit that an issuer has not verified as a current mineral resource or mineral reserve, and which was prepared before the issuer acquiring, or entering into an agreement to acquire, an interest in the property that contains the deposit.

Indicated Mineral Resource
An indicated mineral resource is that part of a mineral resource for which quantity, grade or quality, densities, shape and physical characteristics, can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough for geological and grade continuity to be reasonably assumed.

Inferred Mineral Resource
An inferred mineral resource is that part of a mineral resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes

Measured Mineral Resource
A measured mineral resource is that part of a mineral resource for which quantity, grade or quality, densities, shape, and physical characteristics are so well established that they can be estimated with confidence sufficient to allow the appropriate application of technical and economic parameters, to support production planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough to confirm both geological and grade continuity.

Mineral Reserve
A mineral reserve is the economically mineable part of a measured or indicated mineral resource demonstrated by at least a Preliminary Feasibility Study. This Study must include adequate information on mining, processing, metallurgical, economic and other relevant factors that demonstrate, at the time of reporting, that economic extraction can be justified. A mineral reserve includes diluting materials and allowances for losses that may occur when the material is mined.

Mineral Resource
A mineral resource is a concentration or occurrence of diamonds, natural solid inorganic material, or natural solid fossilized organic material including base and precious metals, coal, and industrial materials in or on the Earth's crust in such form and quantity and of such a grade or quality that it has reasonable prospects for economic extraction. The location, quantity, grade, geological characteristics and continuity of a mineral resource are known, estimated or interpreted from specific geological evidence and knowledge.

Probable Mineral Reserve
A ‘probable mineral reserve’ is the economically mineable part of an indicated, and in some circumstances, a measured mineral resource demonstrated by at least a Preliminary Feasibility Study. This Study must include adequate information on mining, processing, metallurgical, economic, and other relevant factors that demonstrate, at the time of reporting, that economic extraction can be justified.

Proven Mineral Reserve
A ‘proven mineral reserve’ is the economically mineable part of a measured mineral resource demonstrated by at least a Preliminary Feasibility Study. This Study must include adequate information on mining, processing, metallurgical, economic, and other relevant factors that demonstrate, at the time of reporting, that economic extraction is justified.

Qualified Person
A ‘Qualified Person’ means an individual who is an engineer or geoscientist with at least five years of experience in mineral exploration, mine development or operation or mineral project assessment, or any combination of these; has experience relevant to the subject matter of the mineral project and the technical report and is a member or licensee in good standing of a professional association of geoscientists and/or engineers meeting the criteria set out in NI 43-101.