



**104 - 26 Crystalridge Drive  
Okotoks, Alberta  
T1S 2C3**

**ANNUAL INFORMATION FORM**

**For the year ended December 31, 2013**

**Dated March 26, 2014**

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## GLOSSARY OF TERMS

The following are defined terms used in this Annual Information Form:

"**2011 Resource Report**" means the technical report entitled "Resources Estimate for the Wynyard Carnallite Project, Subsurface Mineral Permit KP 360A and Subsurface Mineral Lease, Saskatchewan, Canada" prepared by ERCOSPLAN and North Rim with an effective date of August 30, 2011;

"**2011 Technical Report**" means the technical report entitled "Reserve and Resources Estimate for the Wynyard Carnallite Project, Subsurface Mineral Permit KP 360A and Subsurface Mineral Lease KLSA 010, Saskatchewan, Canada" prepared by ERCOSPLAN and North Rim with an effective date of October 21, 2011;

"**2012 Technical Report**" means the technical report entitled "KCl and MgCl<sub>2</sub> Reserve and Resource Estimate for the Wynyard Carnallite Project, Subsurface Mineral Permit KP 360A and Subsurface Mineral Lease KLSA 010, Saskatchewan, Canada" prepared by ERCOSPLAN, North Rim, Foster Wheeler Canada and Lyntek with an effective date of June 27, 2012;

"**3D**" means three dimensional;

"**3D seismic**" means the surface exploration method using sound waves to assist in the determination of composition, fluid content, extent and geometry of subsurface rocks, providing three dimensional subsurface images of vertical and horizontal underground features, including carnallite layers;

"**ABCA**" means the *Business Corporations Act* (Alberta) together with any amendments thereto and where applicable, includes all regulations promulgated thereunder;

"**Agrium**" means Agrium Inc.;

"**AIF**" means this annual information form dated March 26, 2014;

"**Amended and Restated Technical Report**" means the technical report entitled "Amended and Restated Reserve and Resource Estimate for the Wynyard Carnallite Project, Subsurface Mineral Permit KP 360A and Subsurface Mineral Lease KLSA 010, Saskatchewan, Canada" prepared by ERCOSPLAN, North Rim and Foster Wheeler Canada with an effective date of March 30, 2012;

"**Belle Plaine Member**" means the potash and carnallite bearing bed that is second from the top, within the Prairie Evaporite Formation;

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

"**BPC**" means the JSC Belarusian Potash Company marketing agency;

"**brackish water**" means water that has more salinity than fresh water, but not as much as seawater;

"**British Sulphur**" means British Sulphur Consultants Ltd., a division of CRU International Ltd.;

"**business day**" means any day, other than a Saturday, Sunday or Canadian federal or Alberta provincial holiday, on which banks are open for business in Calgary, Alberta;

"**CAPEX**" means capital expenditures;

"**carnallite**" means a highly deliquescent evaporite mineral, being hydrated potassium magnesium chloride, with the chemical formula of  $KCl \cdot MgCl_2 \cdot 6(H_2O)$ ;

"**carnallitite**" means rock material consisting primarily of carnallite, along with sylvite, halite and insoluble materials such as clays, anhydrite, and dolomite;

"**CIM**" means Canadian Institute of Mining;

"**Common Shares**" means common shares in the share capital of the Corporation;

"**Compensation Option**" means the option issued to the underwriters pursuant to the IPO to purchase that number of Common Shares equal to 6% of the aggregate number of Common Shares sold pursuant to the IPO (including Common Shares sold pursuant to the exercise of the over-allotment option) at a price of \$8.60 per share until the date that is 18 months after the closing date of the IPO or over-allotment option, as applicable;

"**Corporation**" or "**Karnalyte**" means Karnalyte Resources Inc., a corporation incorporated under the ABCA;

"**CRU**" means CRU International Ltd., an independent company which provides market analysis, management consultancy and events in the mining, metals and fertilizer industries;

"**crystallizer**" means a processing vessel in which potash is precipitated out of a saturated brine;

"**DCF**" means discounted cash flow model;

"**Deadwood Formation**" or the "**Ordovician Formation**" means a succession of sandstones, shales, siltstones and limestones formed during the Cambrian Period when a shallow sea existed in what is now central western North America. It is now a "porous rock sea" situated about 1500 metres below the surface at Wynyard, Saskatchewan and which is approximately 50 metres thick in the Wynyard area;

"**deliquescent**" means the property of chemical compound, such as zinc chloride, calcium chloride, potassium hydroxide and sodium hydroxide, with a strong affinity for water, whereby it will absorb water from the atmosphere around it;

"**Devonian Age**" means the geological period and system of the Paleozoic Era spanning from the end of the Silurian Period;

"**DH10**" means a drill hole drilled by Dominion Potash Canada in 1952 on the Karnalyte Property;

"**DH11**" means a drill hole drilled by Mobil Oil Canada in 1967 on the Karnalyte Property;

"**DH20**" means a drill hole drilled by the Corporation in 2009 on the Karnalyte Property;

"**DH21**" means a drill hole drilled by the Corporation in 2009 on the Karnalyte Property;

"**EIS**" means an Environmental Impact Statement, which is a description and evaluation of the impacts of a development on the environment and includes a discussion of a company's commitment regarding the development which statement is required to be submitted to the Saskatchewan Ministry of Environment pursuant to the *Canadian Environmental Assessment Act*;

"**Elk Point Group**" means the an area composed of dolomite, shale, anhydrite, potash and limestone located from the North Dakota in the south-east, through Manitoba, Saskatchewan and Alberta to north-eastern British Columbia;

"**EPCM Services Agreement**" means Engineering, Procurement and Construction Management services agreement;

"**epsom**" means a naturally occurring pure mineral compound of magnesium and sulphate;

"**ERCOSPLAN**" means ERCOSPLAN Ingenieurgesellschaft Geotechnik und Bergbau mbH, an independent engineering company based in Erfurt, Germany that provides consulting services for potash exploration, mining and processing;

"**Esterhazy Member**" means the lowest potash and carnallite bearing bed within the Prairie Evaporite Formation;

"**Evaporite**" means any of a variety of individual minerals found in the sedimentary deposit of soluble salts that result from the evaporation of water;

"**FAO**" means the Food and Agriculture Organization of the United Nations;

"**Fertecon**" means Fertecon Limited;

"**feasibility study**" means a comprehensive study of a mineral deposit in which all geological, engineering, legal, operating, economic, social, environmental and other relevant factors are considered in sufficient detail that it could reasonably serve as the basis for a final decision by a financial institution to finance the development of the deposit for mineral production;

"**FOB**" means free on board;

"**FOB Vancouver (granular)**" means the "spot" price of granular potash shipped FOB from Vancouver, which has historically been the primary port of departure for Canadian potash exports;

"**FOB Vancouver (standard)**" means the "spot" price of standard grade potash shipped FOB from Vancouver which has historically been the primary port of departure for Canadian potash exports;

"**Foster Wheeler**" means Foster Wheeler USA Corporation, an international engineering construction and project management contractor based in Houston, Texas;

"**Foster Wheeler Canada**" means Foster Wheeler Canada Limited, an affiliate of Foster Wheeler located in Calgary, Alberta;

"**GSFC**" means Gujarat State Fertilizers & Chemicals Limited, a publicly-traded Indian agribusiness company focused on the production and sale of fertilizers and industrial products;

"**gypsum**" means a very soft sulfate mineral composed of calcium sulfate dehydrate;

"**halite**" means the natural mineral form of sodium chloride, or NaCl;

"**high quality**" means, when used in relation to potash and fertilizer, low sodium content;

"**hydromagnesite**" means a hydrated form of magnesium carbonate mineral with the chemical formula  $4\text{MgCO}_3 \cdot \text{Mg}(\text{OH})_2 \cdot 4(\text{H}_2\text{O})$ ;

"**IFA**" means the International Fertilizer Industry Association;

"**Indicated Mineral Resource**" means 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**" means 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;

"**Initial Facility**" means the planned solution mining facility of the Corporation which will initially produce 625,000 tonnes of potash per year;

"**IPO**" means the initial public offering of the Corporation's Common Shares;

"**IPO Underwriters**" means collectively, BMO Nesbitt Burns Inc., Dundee Securities Corporation, CIBC World Markets Inc., Scotia Capital Inc., Canaccord Genuity Corp. and Wellington West Capital Markets Inc.;

"**IRR**" means internal rate of return;

"**K<sub>2</sub>O**" is a chemical term used in the analysis and marketing of fertilizers that contain different potassium compounds, as a comparison of their relative potassium content when compared to equivalent potassium oxide (K<sub>2</sub>O). Pure KCl is equivalent to 63.178% K<sub>2</sub>O;

"**KCl**" is a chemical formula for potassium chloride, or potash;

"**km**" means kilometres;

"**Karnalyte Property**" means the approximate 85,126 acres of land located in south central Saskatchewan that is the subject of Permit KP 360A and the Lease held by the Corporation;

"**Lease**" means the subsurface mineral lease of approximately 16,825 acres granted by the Saskatchewan Ministry to the Corporation on February 14, 2011, which lease includes the conversion of approximately 15,680 acres of the original Permit Area to the lease and an additional approximate 1,145 acres of land not previously included in the Permit Area for road allowances, the conversion of certain Crown holdings and the grant of certain additional continuous parcels to Karnalyte by the Saskatchewan Ministry;

"**Lyntek**" means Lyntek Incorporated, an engineering and construction services company located in Lakewood, Colorado;

"**m**" means meter;

"**m<sup>2</sup>**" means square meter;

"**m<sup>3</sup>**" means cubic meter;

"**MD&A**" means management discussion and analysis;

"**Measured Mineral Resource**" means 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;

"**Members**" means collectively, the Belle Plaine Member, the Esterhazy Member and the Patience Lake Member;

"**MgCl<sub>2</sub>**" is a chemical formula for magnesium chloride;

"**MgO**" is a chemical formula for magnesium oxide;

"**Mineral Reserve**" means 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**" means a concentration or occurrence of natural solid inorganic or fossilized organic material 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;

"**mi<sup>2</sup>**" means square mile;

"**mm**" means millimetre;

"**mmt**" means million metric tonnes;

"**MOE**" means Saskatchewan Ministry of Environment;

"**MOP**" means muriate of potash;

"**Mosaic**" means The Mosaic Company;

"**mt**" means metric tonnes;

"**NaCl**" means sodium chloride (Halite);

"**NI 43-101**" means National Instrument 43-101 - *Standards of Disclosure for Mineral Projects*;

"**NI 51-102**" means National Instrument 51-102 - *Continuous Disclosure Obligations*;

"**North Rim**" means North Rim Exploration Ltd., an engineering, technical and consulting services company located in Saskatoon, Saskatchewan;

"**NPV**" means net present value;

"**Offtake Agreement**" means the committed offtake agreement dated January 10, 2013 and entered into between the Corporation and GSFC;

"**OPEX**" means operating expenses;

"**Options**" means incentive stock options of the Corporation currently issued or to be issued under its stock option plan;

"**Patience Lake Member**" means the uppermost potash and carnallite bearing bed within the Prairie Evaporite Formation;

"**PCS**" means Potash Corporation of Saskatchewan Inc.;

"**Permit Area**" means the area covered by the Permit KP 360 or Permit KP 360A, as the case may be;

"**Permit KP 360**" means the exclusive subsurface mineral permit issued on March 13, 2008 by the Saskatchewan Ministry and held by the Corporation for rights to explore and prospect for subsurface minerals on the portions of Karnalyte Property, which permit was replaced with Permit KP 360A by the Saskatchewan Ministry on February 14, 2011;

"**Permit KP 360A**" means the exclusive subsurface mineral permit issued by the Saskatchewan Ministry on February 14, 2011 and held by the Corporation for rights to explore and prospect for subsurface minerals on the portions of the Karnalyte Property, issued to replace Permit KP 360 subsequent to the conversion of certain acres of the Permit Area to the Lease;

"**Phase I**" means the development of the Wynyard Carnallite Project with a design capability and production capacity of 625,000 TPY of potash;

"**Phase II**" means the development of the Wynyard Carnallite Project with a design capability and production capacity of 1,375,000 TPY of potash;

"**Phase III**" means the development of the Wynyard Carnallite Project with a design capability and production capacity of 2,125,000 TPY of potash;

"**potash**" means the commercial name for potassium chloride, used as a fertilizer and as an industrial feedstock;

"**potassium chloride**" is the chemical compound that is a metal halite salt composed of potassium and chlorine;

"**Prairie Evaporite Formation**" means an underground sedimentary formation containing many layers of salts and insoluble material, formed by evaporation of water from ancient seas. Layers of interest for potash and carnallite content include in descending order of depth, the Patience Lake Member, the Belle Plaine Member, the White Bear Marker Beds, and the Esterhazy Member;

"**preliminary feasibility study**" or "**pre-feasibility study**" means a comprehensive study of the viability of a mineral project that has advanced to a stage where the mining method, in the case of underground



mining, or the pit configuration, in the case of an open pit, has been established and an effective method of mineral processing has been determined, and includes a financial analysis based on reasonable assumptions of technical, engineering, legal, operating, economic, social and environmental factors and the evaluation of other relevant factors which are sufficient for a qualified person, acting reasonably, to determine if all or a part of the mineral resource may be classified as a mineral reserve;

**"Proven Mineral Reserve"** means 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;

**"Probable Mineral Reserve"** means the economically mineable part of an Indicated Mineral Resource 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;

**"Qualified Person"** means an individual who: (a) 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; (b) has experience relevant to the subject matter of the mineral project; and (c) is a member in good standing of a professional association as defined by NI 43-101;

**"Resource Surcharge"** means the resource surcharge tax levied on the value of sales of all potash, uranium and coal produced in Saskatchewan, pursuant to *The Corporation Capital Tax Act* (Saskatchewan);

**"Saskatchewan Ministry"** means the Saskatchewan Ministry of Energy and Resources;

**"Saskatchewan Regulations"** means *Subsurface Minerals Regulations, 1960* (Saskatchewan) under *The Crown Minerals Act* (Saskatchewan) together with any amendments thereto;

**"Side Letter"** means the side letter agreement dated January 10, 2013 and entered into between the Corporation and GSFC;

**"Short-Form Offering"** means the short-form prospectus offering of the Corporation of 8,650,000 Common Shares at a price of \$13.30 per Common Share announced on November 29, 2011 and terminated on December 13, 2011;

**"Short-Form Offering Underwriters"** means collectively, BMO Nesbitt Burns Inc., Dundee Securities Ltd., Scotia Capital Inc., Canaccord Genuity Corp., Clarus Securities Inc., and Laurentian Bank Securities Inc.;

**"Subscription Agreement"** means the subscription agreement dated January 10, 2013 and entered into between the Corporation and GSFC;

**"Subsurface Minerals"** means all natural mineral salts of boron, calcium, lithium, magnesium, potassium, sodium, bromine, chlorine, fluorine, iodine, nitrogen, phosphorus and sulphur, and their compounds, occurring more than two hundred feet below the surface of the land, and any other mineral substance that may be declared a "subsurface mineral" within the meaning of Saskatchewan Regulations 541/67 under *The Mineral Resources Act, 1959* by the Lieutenant Governor in Council;

"**sylvinite**" means a rock containing sylvite, in varying mixtures with halite and insoluble material;

"**sylvite**" means the natural mineral form of potassium chloride;

"**Tax Act**" means the *Income Tax Act* (Canada), together with any amendments thereto and where applicable, includes all regulations promulgated thereunder;

"**TiO<sub>2</sub>**" means titanium dioxide;

"**tonne**" means a metric ton, equal to 1,000 kilograms;

"**Township**" means the principal unit of the rectangular survey system. A township is a square with six-mile (9.66 km) sides consisting of 36 sections with an area of 36 square miles (93.24 square kms);

"**TPY**" means tonnes per year;

"**TSX**" or "**Exchange**" means the Toronto Stock Exchange;

"**US**" or "**United States**" means the United States of America, its territories or possessions, any state of the United States and the District of Columbia;

"**USGS**" means United States Geological Survey;

"**US Patent Office**" means United States Patent and Trademark office;

"**White Bear Marker Bed**" means a layer between the Belle Plaine Member and the Esterhazy Member, not generally containing minable volumes of sylvinite or carnallite, but used by geologists to determine the location of the other zones;

"**Wynyard Carnallite Project**" means the potash exploration and development project of the Corporation on the Karnalyte Property; and

"**\$**" and "**dollars**" means Canadian dollars.

## FORWARD LOOKING INFORMATION

Certain statements in this AIF may constitute "forward-looking" statements which involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Corporation, or industry results, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. Forward-looking statements may include, but are not limited to, statements regarding:

- Impact of recent global potash market on the Corporation's ability to develop the Wynyard Carnallite Project;
- Future plans to develop magnesium production and magnesium alternate co-products;
- future extraction and exploitation of mineral deposits;
- capital expenditure requirements;
- future commodity prices;
- expectations regarding prices and costs;
- development of Mineral Resources and Mineral Reserves and mineral extraction processes;
- expectations regarding the Corporation's ability to subsequently raise capital;
- expenditures to be made by the Corporation to meet certain work commitments;
- work plans to be conducted by the Corporation;
- reclamation and rehabilitation obligation and liabilities;
- treatment under governmental regulatory regimes with respect to environmental matters;
- treatment under governmental taxation regimes;
- impact of foreign governments and regulation on the Corporation's operations;
- future development of infrastructure;
- government regulation of mining operations;
- dependence on personnel; and
- competitive conditions.

In certain cases, forward-looking statements can be identified by the use of such words as "may", "would", "could", "will", "intend", "expect", "believe", "plan", "anticipate", "estimate" and other similar terminology. These statements reflect the Corporation's current expectations regarding future events and operating performance and speak only as of the date of this AIF.

Forward-looking statements in this AIF include statements regarding:

- the Corporation's ability to obtain financing for the Wynyard Carnallite Project;
- the Corporation's strategies to effect cost-controls;
- the Corporation's ability to commence and ramp up production from 625,000 to 2.125 million TPY of potash;
- the Corporation's ability achieve an annual production of 100,000 tonnes of MgCl<sub>2</sub> brine and 104,000 tonnes hydromagnesite;
- the Corporation's intentions to develop magnesium production plans and alternate co-products;
- the production of potash and production of magnesium co-products;
- the Lease and Permit KP 360A contain sufficient reserves to further develop the Wynyard Carnallite Project;
- the costs related to the operation of the plant and facilities will be consistent with other solution mining operations subject to differences in the Corporation's mineral body and processing;
- the use of solution mining process;
- further seismic exploration and drilling;

- production run rates achieving 625,000 TPY within 10 months following the completion of the processing plant;
- future increases in global fertilizer demand and consumption;
- total CAPEX for a 625,000 TPY of potash mine of \$593 million and for a 2.125 million TPY of potash mine of \$2,002 million;
- total OPEX per tonne for a 625,000 TPY mine of \$129.12 and for a 2.125 million TPY of potash mine of \$125.45;
- total CAPEX for the 100,000 TPY  $MgCl_2$  brine and 104,000 TPY basic magnesium carbonate production of \$155.98 million;
- total OPEX for the 100,000 TPY  $MgCl_2$  brine and 104,000 TPY basic magnesium carbonate production for  $MgCl_2$  at \$6.32/tonne of product and hydromagnesite at \$319.00/tonne of product;
- anticipated results of development and extraction activities and estimated future development;
- the Corporation's ability to produce sufficient potash to meet its obligations under the Offtake Agreement;
- the Corporation's ability to obtain additional financing on satisfactory terms;
- the Corporation's ability to develop markets for its magnesium co-products;
- the market prices for potash and magnesium co-products;
- the Corporation's ability to replace a significant volume of currently imported  $MgCl_2$  to western provinces of Canada;
- the Corporation's ability to pump the waste underground as brine to eliminate surface salt tail piles;
- the Corporation's ability to economically extract and process mineralized material into potash and magnesium co-products;
- the improvements that the Corporation has developed for the solution mining process are as effective as expected by the Corporation; and
- the extension of potash and magnesium mineralization to the remainder of Permit KP 360A.

Such forward-looking statements are based on a number of material factors and assumptions, including, that:

- the stabilization of the global potash industry and market;
- the Corporation is able to successfully develop and market alternate magnesium co-products;
- the Corporation obtains additional financing in the future;
- the Corporation executes its project development plans in a manner consistent with its 2012 Technical Report;
- the Corporation executes its discounted cash flow model assumptions;
- estimates of Mineral Resources and Mineral Reserves are accurate;
- full potash production is reached to produce the required amounts of magnesium co-products resulting in the Mineral Reserves estimates;
- the Corporation continues to have title to the Karnalyte Property, and such title is not challenged or impacted in any material manner;
- the Corporation is able to obtain required approvals, licenses and permits, in a timely manner;
- the Corporation's key senior management continue in their respective roles with the Corporation;
- the Corporation's intellectual property is not challenged;
- the Corporation does not become subject to litigation;
- the risks associated with the enforcement of the Corporation's material agreements, including the Offtake Agreement;
- the Corporation's ability to meet its offtake obligations;

- environmental and other applicable law and other regulations are not amended, repealed or applied in a manner that impacts the development and operation of the Wynyard Carnallite Project as currently anticipated;
- there is no adverse changes to price of potash that would adversely affect the prospects for developing and operating the Wynyard Carnallite Project, or making it inadvisable or uneconomic to proceed with development;
- the future mining operations operate in the normal course;
- the Corporation's ability to maintain and develop positive relationships with foreign governments and future business partners;
- the Corporation is able to maintain and develop the infrastructure required to export, store and transport its potash and magnesium co-product production;
- the continued availability and high cost of transportation of magnesium co-products in North America;
- there are no comparable mining companies targeting carnallite in North America;
- the magnesium products facility is integrally linked to the potash production facility in respect of availability of feedstock and to provide administrative and support functions; and
- the continued existence and operations of the primary potash production facility.

Forward-looking statements involve significant risks and uncertainties, should not be read as guarantees of future performance or results, and will not necessarily be accurate indications of whether or not such results will be achieved. A number of factors could cause actual results to differ materially from the results discussed in the forward-looking statements, including, but not limited to, the factors discussed immediately under "Risk Factors" elsewhere in this AIF. Although the forward-looking statements contained in this AIF are based upon what management of the Corporation believes are reasonable assumptions, the Corporation cannot assure investors that actual results will be consistent with these forward-looking statements. These forward-looking statements are made as of the date of this AIF and are expressly qualified in their entirety by this cautionary statement. Subject to applicable securities laws, the Corporation assumes no obligation to update or revise them to reflect new events or circumstances.

All forward-looking statements contained in this AIF are expressly qualified by this cautionary statement. Further information about the factors affecting forward-looking statements is available in Karnalyte's MD&A and audited annual financial statements for the year ended December 31, 2013 which have been filed with Canadian provincial securities commissions and are available on the System for Electronic Document Analysis and Retrieval ("**SEDAR**") at [www.sedar.com](http://www.sedar.com).

## **KARNALYTE RESOURCES INC.**

### **Name, Address and Incorporation**

The Corporation was incorporated pursuant to the ABCA on November 16, 2007. Effective April 9, 2008, Karnalyte's articles were amended by a Certificate of Amendment to increase the minimum number of directors from one to three, and to remove the restrictions on share transfers.

The Corporation's head office is located at 104 - 26 Crystalridge Drive, Okotoks, Alberta, T1S 2C3. The Corporation's registered office is located at 1600, 333 - 7th Avenue S.W., Calgary, Alberta, T2P 2Z1.

The Corporation has no subsidiaries.

## GENERAL DEVELOPMENT OF THE BUSINESS

### Three Year History

#### 2011

On January 13, 2011, the Corporation closed the over-allotment option in connection with its IPO of an additional 470,000 Common Shares at a price of \$8.60 per share for additional gross proceeds of \$4,042,000. In connection with the closing of the over-allotment option, the Corporation granted Compensation Options entitling the IPO Underwriters to acquire an additional 28,200 Common Shares.

On January 19, 2011, the Corporation entered into a contract with Foster Wheeler Canada, part of Foster Wheeler's global engineering and construction group, to perform the Corporation's feasibility study. Under the terms of the contract, Foster Wheeler Canada also coordinated preparation of the Corporation's EIS to be advanced concurrently with the feasibility study. The Corporation engaged Geo Engineers Inc. to perform environmental and geotechnical engineering services for the feasibility study and ERCOSPLAN was engaged to perform the mining engineering services for the underground mining portion of the feasibility study.

On February 28, 2011, the Saskatchewan Ministry granted the Corporation the Lease, which converted approximately 15,680 acres of the area covered by Permit KP 360 to the Lease and includes an additional approximate 1,145 acres of land not previously included in the Permit Area for road allowances, the conversion of certain Crown holdings and the grant of certain additional continuous parcels to Karnalyte by the Saskatchewan Ministry. On February 14, 2011, the Saskatchewan Ministry replaced the Corporation's original Permit KP 360 with Permit KP 360A.

On April 7, 2011, the Corporation announced that it had received seven drilling licenses from the Province of Saskatchewan, permitting additional drilling and exploration on the area covered by Permit KP 360A and Lease.

On September 1, 2011, the Corporation received the 2011 Resource Report prepared by ERCOSPLAN and North Rim.

On October 24, 2011, the Corporation received a positive feasibility study in respect of potash for the Wynyard Carnallite Project prepared by Foster Wheeler Canada and ERCOSPLAN. Portions of the feasibility study are included within the 2011 Technical Report also received by the Corporation on October 24, 2011, which report was prepared by ERCOSPLAN and North Rim.

On October 31, 2011, the Corporation submitted its revised EIS to the MOE, in respect of the possible environmental impact of constructing the Initial Facility at the Wynyard Carnallite Project. The MOE reviewed the EIS, and provided additional comments to the Corporation on January 5, 2012. The Corporation responded to the comments received from the MOE.

On November 29, 2011, the Corporation entered into an agreement with a syndicate of underwriters led by BMO Capital Markets, whereby the underwriters agreed to purchase 8,650,000 Common Shares of the Corporation on a bought-deal basis, at a price of \$13.30 per Common Share for aggregate gross proceeds of \$115,045,000.

On December 13, 2011, the Corporation announced that it would not be proceeding with the Short-Form Offering announced on November 29, 2011 due to comments received from the securities regulators in respect of the 2011 Technical Report.

On December 19, 2011 the Corporation engaged the Bank of Montreal to act as its exclusive financial advisor in assisting the Corporation to structure project debt financing to fund a portion of the anticipated development, construction and start-up capital costs for its Wynyard Carnallite Project.

## *2012*

Over the course of the first few months of 2012, the Corporation responded to the comments received from the securities regulators in respect of the 2011 Technical Report. On March 30, 2012, the Corporation filed the Amended and Restated Technical Report for the Karnalyte Property dated effective March 30, 2012, which report was prepared in response to the comments received from the securities regulators on the 2011 Technical Report. The Amended and Restated Technical Report was prepared by ERCOSPLAN, North Rim and Foster Wheeler Canada.

On June 27, 2012, the Corporation received a preliminary feasibility study for the Wynyard Carnallite Project for magnesium compounds prepared by Lyntek. Portions of the preliminary feasibility study are included within the 2012 Technical Report also received by the Corporation on June 27, 2012, which report was prepared by ERCOSPLAN, North Rim, Foster Wheeler Canada and Lyntek. The 2012 Technical Report includes portions of the positive feasibility study in respect of potash for the Wynyard Carnallite Project received by the Corporation in October of 2011. See "Description of the Business and Operations – Description of the Karnalyte Property – 2012 Technical Report."

On September 6, 2012, the Corporation entered into an EPCM Services Agreement with Foster Wheeler Canada, pursuant to which Foster Wheeler Canada will provide EPCM services for the Wynyard Carnallite Project.

On October 9, 2012, the Corporation was awarded patent number 8,282,898 by the US Patent Office, in respect of its patent application number 12/623,636, originally filed with the US Patent Office on November 23, 2009.

On October 19, 2012, the Corporation filed a final short form base shelf prospectus with the securities commissions in the provinces of British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Nova Scotia, New Brunswick, Prince Edward Island and Newfoundland and Labrador. This final short form base shelf prospectus will allow the Corporation to issue up to \$350 million Common Shares, units, preferred shares in series and notes or other types of unsecured debt securities during the 25-month period that the final short form base shelf prospectus remains effective.

On December 4, 2012, the Corporation was awarded patent number 8,323,371 by the US Patent Office, in respect of its patent application number 12/539,688, originally filed with the US Patent Office on August 12, 2009.

On December 12, 2012, the Corporation announced that the MOE was in the process of scheduling a public review period to consider the Wynyard Carnallite Project EIS, which review period took place from December 22, 2012 to January 28, 2013.

## *2013*

On January 10, 2013, the Corporation announced that it had reached an agreement with GSFC, whereby GSFC would make a strategic investment of approximately \$45 million in the Corporation at a price of \$8.15 per Common Share, which will result in GSFC holding a 19.98% ownership interest in the Corporation. GSFC and the Corporation also entered into the Offtake Agreement for the purchase of approximately 350,000 TPY, of potash from Phase I of the Wynyard Carnallite Project, increasing to

600,000 TPY with the commencement of Phase II of the Wynyard Carnallite Project. Pursuant to the terms of the Subscription Agreement entered into between GSFC and the Corporation, GSFC had the right to appoint one nominee to the Board of Directors. Additionally, pursuant to the Side Letter entered into between the Corporation and GSFC, GSFC has agreed to commit approximately \$15 million in the next rounds of public equity financing by the Corporation to finance the construction of Phase 1 of the Wynyard Carnallite Project.

On February 11, 2013, the Corporation announced that MOE approved the EIS submitted by the Corporation in September 2012 for the Corporation's Wynyard Carnallite Project in accordance with the Environmental Assessment Act.

On March 7, 2013, the Corporation announced the closing of its previously announced non-brokered private placement to GSFC. Karnalyte issued GSFC approximately 5,490,000 Common Shares at a price of \$8.15 per Common Share for total gross proceeds of approximately \$44.7 million. In connection with the closing, Mr. Vishvesh Nanavaty, the General Manager of Finance of GSFC, was appointed to the Board of Directors of the Corporation.

On June 18, 2013, the Corporation was awarded patent number 2,638,521 by the Canadian Patent Office, in respect of its patent application number 2,638,521, originally filed with the Canadian Patent Office on August 1, 2008.

On June 14, 2013, the Corporation entered into an engagement letter pursuant to which BNP Paribas and Natixis, New York Branch, were engaged on an exclusive basis, to act as lead arrangers for a senior secured project finance facility of up to US\$300 million, intended to fund the construction and commissioning of the Wynyard Carnallite Project.

On June 17, 2013, the Corporation announced that it had entered into an agreement with Whiting Equipment Canada Inc. ("Whiting") for the engineering and design of evaporators, potash crystallizers and auxiliary equipment (the "Agreement") at the planned Wynyard Carnallite Project. Under the terms of the Agreement, Whiting will provide engineering and design services related to the major equipment components used in Karnalyte's planned potash processing operations.

On August 9, 2013, the Corporation announced that the MOE was satisfied with the brine disposal injectivity test, which was one of the conditions of the Wynyard Carnallite Project EIS approval dated February 7, 2013. In addition, on September 19, 2013, the Corporation announced that it had received notice from the MOE that it had met an additional condition of the Wynyard Carnallite Project's EIS dated which enables the Corporation to proceed to the construction permitting process in respect of the project.

On September 16, 2013 received the permit "Construct a Pollutant Control Facility" based on meeting all EIS conditions, for the Project from the MOE.

On December 12, 2013, the Corporation announced that it had received the Water Rights Licence to Use Ground Water and Approval to Operate Works from the Wynyard Carnallite Project's source water well from the Saskatchewan Water Security Agency. The license allows the Corporation the right to withdraw brackish water from the Blairmore formation to support the solution mining process for the Wynyard Carnallite Project.



2014

Due to the breakup of the BPC in July 2013, the global potash market experienced a state of serious decline, with potash prices hitting a four year low. The significant downturn in share prices of potash companies in general has created a challenging environment to raise the capital required to advance the Wynyard Carnallite Project. The uncertainty around long-term potash pricing has caused management of the Corporation to formulate a strategy to manage costs and maintain a strong capital position moving forward. One strategy the Corporation is employing is to consolidate its two existing offices. It is expected that the Corporation's office functions will be moved from Okotoks, Alberta to Saskatoon, Saskatchewan.

The Corporation continues to investigate the possibility of magnesium production for alternate magnesium co-products from the Wynyard Carnallite Project. This investigation includes product development, independent testing of product and discussions with key industry players. The Corporation has identified other potentially economically product lines and is determining how to pursue these potential product lines to enhance shareholder value.

## **DESCRIPTION OF THE BUSINESS AND OPERATIONS**

### **Business of Karnalyte**

#### *General*

The Corporation is engaged in the business of exploration and development of high quality agricultural and industrial potash and magnesium products. The Corporation intends to develop and extract a carnallite - sylvite mineral deposit through a known solution mining process, at competitive cost and with minimal environmental impacts. Once additional financing is secured, using a staged approach to potash plant construction, the Corporation plans to operate the Initial Facility that will initially produce 625,000 tonnes of potash per year, increasing to 2.125 million tonnes of potash per year.

The Corporation has identified other potentially economical product lines and is determining how to pursue these potential product lines to enhance shareholder value. The Corporation continues to investigate the possibility of magnesium production from its property, including product development, independent testing of product and discussions with key industry players.

The Corporation owns a 100% interest in Permit KP 360A located near Wynyard, Saskatchewan, which is comprised of 68,301 acres of land located in South Central Saskatchewan. The Corporation has also converted 16,825 acres of land into the Lease. The Karnalyte Property comprises a total of 85,126 acres of land, which includes the area covered by Permit KP 360A and the Lease.

The Corporation's potash exploration and development project on the Wynyard Carnallite Project is within a dominant zone of carnallite and sylvite mineralization. In 2011, the Corporation drilled two geotechnical drill holes and seven new exploration drill holes on the Wynyard Carnallite Project. These are in addition to the two previous exploration drill holes drilled by the Corporation in 2009 and the two historical drill holes located on the Karnalyte Property. To date, the Corporation has conducted advanced exploration on approximately 17,544 acres or 20% of the Karnalyte Property.

### **Description of the Karnalyte Property**

The 2012 Technical Report is available for review at the Corporation's profile on SEDAR at [www.sedar.com](http://www.sedar.com).

### *Location and Property Description*

The Karnalyte Property is located in central Saskatchewan approximately 175 km east of Saskatoon and some 65 km east of the PCS Lanigan mine. The historic Permit KP 360 was transferred by Mr. Robin Phinney to Karnalyte on October 24, 2008. On February 14, 2011 the west area of Permit KP 360 was converted to a subsurface mineral lease, and the remainder was converted to the Permit KP 360A exploration permit. Crown mineral rights between the Lease and Permit KP 360A cover an aggregate area of approximately 85,126 acres in portions of Townships 31 and 32 and Ranges 14 to 17 over Sections 1 to 36. The dimensions of the project area are approximately 18 miles (29 km) east to west and 8 miles (12.8 km) north to south.

The date of expiry for Permit KP 360A, is March 12, 2015, as long as all provisions are met and the permit term can be extended to March 12, 2016.

The exploration Lease was issued February 14, 2011 (effective September 8, 2010) and is subject to rentals and exploration assessment rates prescribed herein. The acreage of the Lease is approximately 16,825 acres.

### *Geological Setting and Mineralization*

The Karnalyte deposit is located in the Prairie Evaporite which is part of the Elk Point Group of Devonian Age. Within the properties, potash occurs in more or less horizontal lying beds in the Esterhazy, the Belle Plaine and the Patience Lake Members of the Prairie Evaporite.

Based on evaluation of historical exploration data (2 drill holes, for which DH10 was duplicated in the recent campaign), two exploration drill holes from 2009, and 9 new drill holes drilled in 2011, combined with a re-interpretation of the 3D seismic surveys commissioned by Karnalyte in 2008 and 2009, North Rim refined the geologic model for the property. Within the Lease and the western part of Permit KP 360A, potash occurs in the Esterhazy Member mainly as Sylvite (KCl) mineralization and mainly as Carnallite (KCl•MgCl<sub>2</sub>•6(H<sub>2</sub>O)) mineralization in the Belle Plaine and Patience Lake Members of the Prairie Evaporite. MgCl<sub>2</sub> occurs within the Lease and the western part of Permit KP 360A in the Carnallite bearing Belle Plaine and Patience Lake Members and usually in negligible amounts in the Sylvite dominated Esterhazy Member.

Three different Intervals are discussed in this report for each of the three potash members.

*The Geology Interval* – This interval represents the first and last occurrence of sylvite and carnallite mineralization as the potash beds transition to Halite.

*The Mineral Resource Interval* – This interval represents a refinement of the geology interval. For the purpose of the mineral resource estimation the upper and lower bounds of the members were determined using a grade cut-off from the assay results.

*The Mineral Reserve Interval* – This interval represents a further refinement of the mineral resource interval, to ensure that the average production brine composition used in the feasibility study can be achieved during the mining operation. The upper and lower bounds of the Members have been defined using grade cut off as well as operational requirements.

The following summarizes the geology based on the Mineral Resource Interval:

- The Patience Lake Member has an average thickness around 9.3 m and a weighted average KCl grade of 18.3% and MgCl<sub>2</sub> grade of 17.8%, mainly as Carnallite and is separated from the underlying Belle Plaine Member by a salt interbed of about 8.43 m thickness, which contains only minor amounts of potash.
- The Belle Plaine Member can be divided into a Lower Belle Plaine and an Upper Belle Plaine. The Upper Belle Plaine has an average thickness around 10.4 m and a weighted average KCl grade of about 17.8% and MgCl<sub>2</sub> grade of 22.3%, mainly as Carnallite. The Lower Belle Plaine has an average thickness of 4.7 m and a weighted average KCl grade of approximately 12.4% and MgCl<sub>2</sub> grade of 10.3%. The Belle Plaine is separated from the underlying Esterhazy Member by another salt interbed of about 35 m, which contains only minor amounts of potash.
- The Esterhazy Member has a thickness in the range of 16.5 m for the geological interval, but within this thickness there are one or two horizons which have a high enough KCl grade to be considered part of the Mineral Resource Interval. The average thickness of the combined higher grade zones is 8.8 m with an average KCl grade of 17.6% and an MgCl<sub>2</sub> grade of 3.0%

The following mineralized zones, mineable with solution mining have been defined based on the Mineral Reserve Intervals:

- Patience Lake solution mining horizon with an average thickness of 7.7 m and a weighted average grade of about 19.8% KCl and MgCl<sub>2</sub> grade of 22.3% present in all holes drilled;
- Upper Belle Plaine Member solution mining horizon with an average thickness of 9.5 m and a weighted average grade of about 19.1% KCl and MgCl<sub>2</sub> grade of 23.9% present in all holes drilled;
- Upper solution mining horizon within the Esterhazy Member with an average thickness of 2.5 m and a weighted average grade of about 25.8% KCl and negligible MgCl<sub>2</sub> grade present in 10 of the holes drilled; and
- Lower solution mining horizon within the Esterhazy Member with an average thickness of 2.6 m and a weighted average grade of about 26.2% KCl negligible MgCl<sub>2</sub> grade present in 6 of the holes drilled.

Furthermore the Lower Belle Plaine Member will be used for undercut leaching and this brine will be recycled into the solution mining operation. The lower Belle Plaine Member has an average thickness of 4.7 m and a weighted average grade of about 12.1% KCl and MgCl<sub>2</sub> grade of 10.3% present in all holes drilled.

The layering of the salt dips slightly to the southwest as undisturbed beds of with nearly continuous grade and thickness of the members, except near collapse features, where based on seismic information it is assumed that the potash bearing members have been partly dissolved.

#### *Exploration Concept and Status*

The exploration started with a program of two holes in 2009 to extend the resource base defined on the basis of two existing historical holes. In 2011, nine new holes have been drilled, seven of which were defined as exploration holes, and two as geotechnical holes, to extend the area with verifiable information about thickness and grade of the deposit and to provide core material required for rock mechanical investigations and dissolution test work. Based on the data from the new drill holes the existing 3D

seismic survey, covering most of the Lease and part of Permit KP 360A was re-interpreted to better define the mineralized members and collapse features. With the data from the historical, the 2009 and the seven 2011 exploration holes the 2011 Resource Report was prepared in August 2011. Since August 2011, the two geotechnical holes have now been sampled and analysed and the results thereof are included in the resource estimate of 2012 Technical Report.

#### *Data Verification*

Certain exploration results and potash mineral resources referred to in the 2012 Technical Report must be considered historical in nature, as calculations of weighted-average grade, thickness etc. is dependent upon original data that has not been duplicated. A review of the assay program was undertaken by ERCOSPLAN, who found that the North Rim data for the Belle Plaine and Patience Lake Members contained internal laboratory standards and duplicate samples, which showed good agreement indicating good quality, accurate and reproducible results for the analysis. A comparison between the analysis of samples for overlapping intervals from historical and North Rim data, show high consistency, suggesting that also the historical data are of good quality. A good correlation between historical and new assay results and thus the results are taken by the authors of the 2012 Technical Report to be reliable and representative.

As in all historical assays, data quality will vary and this may slightly affect the estimation of the grade and tonnage of mineral resources. Missing assays and/or intervals where no sample was collected or no assay completed will have an impact on the resource estimation.

The authors of the 2012 Technical Report are able to provide verification of the 2009, 2010 and 2011 exploration program and all associated geochemical data as they were involved in the sampling process and carried out quality control measures to ensure the security and integrity of the core. The sampling and assaying procedures detailed in the 2012 Technical Report were of the highest quality and are compatible with procedures typically undertaken in industry.

#### *Mining and Processing Methods*

The Corporation's 2012 Technical Report uses a combination of hot leaching from high grade parts of the carnallite layers of the Belle Plaine and Patience Lake Members and cold leaching from high grade parts of the Esterhazy Members in dual well caverns to obtain production brine with an average KCl content of 115 g/l. This requires that the brine used to dissolve the carnallite has a pre-concentration of 20 to 25 g/l KCl from mixing of water with brines from preparation leaching in the Lower Belle Plaine Member and the upper layer of the Esterhazy Member.

The production brine is processed in the plant using evaporation and crystallisation to a final pellet product with a 97% KCl grade.

The magnesium preliminary feasibility study uses the  $MgCl_2$  endbrine from potash production to produce a saleable high grade  $MgCl_2$  brine and basic magnesium carbonate (hydromagnesite). This endbrine is the product from evaporation and crystallisation of a production brine to a 97% KCl grade product as described in the potash feasibility study. The production brine is obtained using a combination of hot leaching from high grade parts of the carnallite layers of the Belle Plaine and Patience Lake Members and cold leaching from high grade parts of the Esterhazy Members in dual well caverns to obtain a production brine with an average KCl content of 115 g/l and a  $MgCl_2$  content of 121.5 g/l.

A part of the potash production endbrine is diluted with process water to a 32%  $MgCl_2$  brine and cooled to 30°C to prevent precipitation of  $MgCl_2$  from the brine during transportation.

The production of the hydromagnesite involves treating the brine with epsom salt to remove any calcium from the brine through precipitation of gypsum. This pre-treated brine is diluted with some process water and ammoniated in an absorption tower. Carbonation of this brine results in the precipitation of hydromagnesite which is filtered from the spent brine, washed to remove adhering ammonia, dewatered and dried in a holo-flite drier to produce dry hydromagnesite ( $4\text{MgCO}_3 \cdot \text{Mg}(\text{OH})_2 \cdot 4\text{H}_2\text{O}$ ). In parallel a limestone calcination process is operated to produce the  $\text{CO}_2$  required for carbonation. The lime produced is slaked by adding process water and the slaked lime is fed in an ammonia stripping column which drives the ammonia back in a gaseous anhydrous form, which can be recycled in the process. This part of the operation is similar to the well-known Solvay process for producing soda ash from sodium chloride brine.

In the opinion of the authors of the 2012 Technical Reports the mining and processing as defined within the report shows that the mineralized material can be economically extracted and processed to potash and magnesium products and constitutes a "Mineral Reserve" as defined by NI 43-101 and the CIM.

### *Mineral Resource Estimates*

The potash mineralization is classified in terms of measured, indicated and inferred resources as defined by NI 43-101 in CIM. This reflects the level of confidence in the extent and grade of the identified potash mineralization. For the resources estimations the historical wells DH11, DH20 and DH21, the two geotechnical holes as well as the seven new exploration wells have been used. The allocation of resources (using a polygon method) is as follows:

#### Measured Mineral Resource:

- Inside the 3D area: Within 1.0 km of a cored and assayed well in the Esterhazy interval, Patience lake and Belle Plaine intervals.
- Outside the 3D area: Within 0.8 km area of a cored and assayed well in the Esterhazy interval, Patience lake and Belle Plaine intervals.

#### Indicated Mineral Resource:

- Inside the 3D area: Between 1.0 km and 2.2 km from a cored and assayed well in the Patience Lake and Belle Plaine interval, and between 1.0 km and 1.6 km for the Esterhazy Interval.
- Outside the 3D area: Between 0.8 km and 1.6 km from a cored and assayed well for all intervals.

#### Inferred Mineral Resource:

- Inside the 3D area: Between 2.2 km and 6 km from a cored and assayed well for the Patience Lake and Belle Plaine interval, and between 1.6 km and 6.0 km maximum radius for the Esterhazy interval.
- Outside the 3D area: Between 1.6 km and 6.0 km from a cored and assayed well for all intervals.

The 1.0 km for "Measured" and the 1.6 km Radius of Influence ("**ROI**") for "Indicated" was chosen to reflect the good quality dataset in the Esterhazy interval and is in line with other resource estimates for KCl in Saskatchewan. The quality of the dataset for the Patience Lake and Belle Plaine Member shows a consistency in grade and thickness of the mineralization in the project area. The 3D seismic for these members allows definition of a Carnallite probability in these members (which is not possible for Sylvite)

and for this reason a larger ROI for the "Measured" category of 1 km and for the "Indicated" category of 2.2 km is possible for areas with 3D seismic coverage.

Based on these ROI, confidence polygons were constructed around each drill hole for the resource categories, taking into account the presence of collapse features as defined from the 3D seismic survey. Further deductions of the area around each drill hole were made to account for the presence of anomalous zones at a size below the resolution of the 3D seismic. A 10% deduction has been made in areas with 3D seismic coverage and a 25% reduction has been made for areas with no 3D seismic coverage. For the categories "Indicated" and "Measured" resources these areas were used to estimate mineral reserves.

The Inferred Resource has been calculated for two different areas for the Wynyard Carnallite Project: (1)"ROI Areas" and (2)"Restricted Areas". The "ROI Areas" includes the areas in the ROIs described above as suitable for the Inferred Resource category. For this project there are areas of "Indicated" and "Measured" Resources that have been defined technical exclusion zones for the reserve estimate because of their proximity to the highway and the processing site. These areas are denoted as "Restricted Areas". Near the end of the mining and processing operation, enough experience will exist to evaluate the effects of subsidence over the brine field, therefore the Restricted Areas are attributed to the Inferred Resource, as it is reasonable to assume that the economical mining and processing of some of these resources may eventually be possible near the end of the mine life.

For the Inferred Resource in both these areas the broad definition of solution mining horizons has been applied as eventual economical mining of the relatively low grade parts is possible, depending on the future potash price. The respective area is transformed to resource tonnage the volume (mineralized interval) for each area and zone is calculated by multiplying the net area by the thickness of the potential solution mining intervals present in the Patience Lake, Belle Plaine and Esterhazy Members. The volume is multiplied by a density factor being calculated from the mineral composition of the carnallite and sylvinitic rock as determined from assays, typically in the range of 1.8 to 2.1 t/m<sup>3</sup>, respectively for the in-situ sylvinitic and carnallite tonnage.

The "Inferred Resources" amount to

	Average KCl Grade (%) <sup>1</sup>	Average MgCl <sub>2</sub> Grade (%) <sup>1</sup>	In-Place Tonnage (MMT)	Total Extraction Tonnage (MMT) <sup>2</sup>	Net KCl Tonnage (MMT)	Net MgCl <sub>2</sub> Tonnage (MMT)	Net KCl Product (MMT) <sup>3</sup>	Net MgCl <sub>2</sub> Product (MMT)
Total Carnallite	13.6	14.9	4,794.2	1,318.4	179.6	196.5	161.7	11.4
Total Sylvinitic	17.6	3.0	1,699.6	509.9	89.7	15.3	80.7	0.9
<b>TOTAL</b>			6,493.8	1,828.3	269.3	211.8	242.4	12.3

- (1) "Average KCl grade" and "Average MgCl<sub>2</sub> Grade" refer to weighted averages
- (2) Variable Extraction Ratio (27.5% for the Patience Lake and Belle Plaine, 30% for Esterhazy Member)
- (3) "Net Product" for KCl and MgCl<sub>2</sub> represent current plant design considerations and includes a plant recovery of 90% for KCl from the production brine and 5.8% recovery for MgCl<sub>2</sub> from the production brine

#### *Mineral Reserve Estimates*

In the opinion of the authors of the 2012 Technical Report, "Proven Reserves" can be estimated from the areas with "Measured Resources" and "Probable Reserves" can be estimated from the areas with "Indicated Resources" for the potash feasibility study. For the MgCl<sub>2</sub>, the engineering is at a preliminary feasibility level and therefore according to the CIM guidelines only "Probable Reserves" can be estimated for MgCl<sub>2</sub> from "Measured Resources" and "Indicated Resources". The Measured Resource and Indicated

Resource areas have been reduced by the "Restricted Areas", where mining should not take place to avoid any problems at the surface due to potential subsidence. Mineral Reserves have been estimated by placing caverns over the license area in grid as defined by the mining method. For each drill hole a typical cavern recovery of mineralized material at given grade has been estimated. This amount was reduced by 10% to account for any anomalies below the resolution of 3D seismic. Reserves were estimated for the potash feasibility study by counting the number of caverns in the "Measured" and "Indicated" Resource areas for each drill hole and multiplying this number with the typical cavern recovery.

This results in following "Proven Reserves":

<b>PROVEN RESERVES</b>	<b>Mineralized Material (million tonnes)</b>	<b>Average KCl Grade (% KCl)</b>	<b>Mineable KCl Tonnage (million tonnes)</b>	<b>Total Product Tonnage (million tonnes)*</b>
Total Carnallite	261.6	18.7	49.0	45.5
Total Sylvinite	52.7	26.3	13.9	12.7
<b>TOTAL</b>	<b>314.3</b>		<b>62.9</b>	<b>58.2</b>

\*assuming 90% plan recovery and 97% KCl grade in product

and the following "Probable Reserves":

<b>PROBABLE RESERVES</b>	<b>Mineralized Material (million tonnes)</b>	<b>Average KCl Grade (% KCl)</b>	<b>Mineable KCl Tonnage (million tonnes)</b>	<b>Total Product Tonnage (million tonnes)</b>
Total Carnallite	416.0	18.5	77.0	71.4
Total Sylvinite	58.2	25.8	15.0	13.9
<b>TOTAL</b>	<b>474.2</b>		<b>92.0</b>	<b>85.3</b>

Total amount of KCl product that can be made from the reserves at 97% KCl and 90% plant efficiency is 144 million tonnes, which suggest a lifetime of the project at 2.125 million tonnes annual production of 68 years.

For  $MgCl_2$ , only a portion of the  $MgCl_2$  mined during the potash production is transformed into a saleable product, the remainder is considered waste. The total amount of  $MgCl_2$  products that can be produced is not dependent on the available reserves but on the capacity of the plant and the market. The  $MgCl_2$  reserves can be increased, without further exploration, by investment in a plant expansion and identification of a market for the additional product. Based on the brine composition from the 2012 Technical Report, about 191,000 TPY of  $MgCl_2$  in feed brine, to the magnesium product facility is required for the planned annual production of 100,000 tonnes  $MgCl_2$  brine and 104,000 tonnes hydromagnesite, which translates to 141,000 tpy of  $MgCl_2$  in the final products. This amounts to 19.7% of the annual amount of  $MgCl_2$  mined from Sylvite and Carnallite to produce 625,000 TPY of potash product, or 5.8% of the annual amount of  $MgCl_2$  mined from Sylvite and Carnallite to produce 2.125 million TPY of potash product.

Assuming that during the first years of potash production only  $MgCl_2$  brine will be produced and only when full potash production is reached will hydromagnesite be produced resulting in the following  $MgCl_2$  "Probable Reserves":

<b>PROBABLE RESERVES</b>	<b>Mineralized Material (million tonnes)</b>	<b>Average <math>MgCl_2</math> Grade (%<math>MgCl_2</math>)</b>	<b>Mineable <math>MgCl_2</math> Tonnage (million tonnes)</b>	<b>Total Product Tonnage (million tonnes)</b>
Total Carnallite	677.7	21.7	147.1	7.6

In the opinion of the authors of the 2012 Technical Report, the investigated part of Lease and Permit KP 360A contain sufficient reserves to further develop the Wynyard Carnallite Project.

It is also the opinion of the authors of 2012 Technical Report that it is reasonable to conclude that potash mineralization as identified in the drill holes may extend to the remainder of the Permit KP 360A and that further drilling to confirm the mineralization and further seismic work to delineate the structure of the deposit is warranted.

The authors see risks to the potash project that are considered to be within the estimate accuracy:

- Project funding, which according to the 2012 Technical Report must be secured,
- EIS approval by the Saskatchewan MOE,
- Scope changes during engineering, procurement and construction execution,
- Land purchase and right of way issues,
- Schedule may be impacted due to the delay of obtaining EIS approval, permits for construction and operations, shipping delays of critical equipment, utilities installation delays, and
- Availability of resources, especially site labour. A labour and logistics survey was performed as part of the feasibility study.

For the magnesium product project (that relies on the potash project) the potash project risks apply and further risks identified in the magnesium preliminary feasibility study that are:

- Brine quality from the potash production plant, especially with regard to sulfate, iron and  $\text{CaCl}_2$  levels, which might negatively influence the product quality,
- Market size and pricing structure for the use of hydromagnesite as a  $\text{TiO}_2$  extender, and
- Source and pricing magnesium sulphate as an important reagent for the hydromagnesite process. This risk is relatively small as the process can be redesigned for the use of sodium sulfate.

The Mineral Reserve estimation has over the resource area and a 10% reduction of amount of potash and  $\text{MgCl}_2$  that can be extracted from a cavern taken into account all known geological reasons for excluding areas from the reserve estimate. Known reasons that might affect the Reserve estimate are:

- Permitting, if Karnalyte is given a permit with restrictions for mining near certain infrastructure areas (highway, railroad) and Wynyard village, which go beyond the 0.5 mile presently used in the report, there will be a reduction of the number of caverns that can be mined. This would materially affect the reserve estimate.
- Environmental issues, the mining area contains several wetlands, in which construction of a drilling platform or pipeline routes are not desirable. Because of the flexibility given by the directional drilling used for cavern preparation there is the opportunity to relocate drilling pad and pipeline routes, in the opinion of the authors this should not materially affect the resource estimate.
- Legal/political issue, the drilling of a well within 2000 feet of the boundary of a lease or permit area requires written permission of the minister. If this approval is not given it might materially affect the reserve estimate.



- Capacity and market for magnesium products beyond the present design capacity of the  $MgCl_2$  processing facility and the market.

*Summary of Economic Analysis*

The potash feasibility study of the Corporation has estimated the CAPEX and the OPEX for the mining and processing of the Mineral Resources in the Karnalyte Property for an original case with annual 625,000 TPY of 97% KCl product at  $\pm 15\%$  accuracy ("**Case 1**") and has expanded this with 2 stages of expansion of 750,000 TPY to a total annual production of 2.125 million tonnes ("**Case 2**"). The CAPEX for the project include brine field, plant, infrastructure, as well as product loading and has been estimated at:

Case 1: \$593 million,  
Case 2: \$2,002 million.

The OPEX of the operation from mining to loading in rail cars has been estimated at:

Case 1: \$129.12/tonne of product,  
Case 2: \$125.45/tonne of product.

For Case 1 about 19.5% of the endbrine from potash production would be used in the magnesium product facility. For Case 2 about 5.8% of the endbrine from potash production would be used in the magnesium product facility. The magnesium preliminary feasibility study has estimated CAPEX and OPEX for the processing of the potash plant endbrine to 100,000 TPY of  $MgCl_2$  brine at 32%  $MgCl_2$  concentration and 104,000 TPY of 99% hydromagnesite product. The CAPEX for the magnesium product project includes plant, reagent unloading and product loading and assumes that  $MgCl_2$  endbrine and some infrastructures are provided by the potash production facility. The CAPEX for the magnesium facility ( $\pm 25\%$  accuracy) contain a contingency of 25% on direct & indirect costs and 10% owner costs and are estimated at \$155.98 million CAD.

The OPEX for the magnesium facility for the processing of the potash endbrine to loading the products in rail cars or trucks has been estimated ( $\pm 25\%$  accuracy) at:

$MgCl_2$  Brine \$ 6.32 CAD/tonne of product,  
hydromagnesite \$319.00 CAD/tonne of product,

with a contingency of 10% and 15% on the OPEX estimate respectively for  $MgCl_2$  brine and hydromagnesite.

Karnalyte plans to market its potash product mainly in the North American market. Due to the relatively high grade and superior handling qualities at a competitive price compared to conventional compacted granular and standard product a share of the North American market may be obtained.

Karnalyte plans to develop markets for its magnesium co-products, mainly in the North American market. There are several potential markets, including: a market for high quality precipitated basic magnesium carbonate, which is presently imported; a market for an alternative to precipitated calcium carbonate in the paper industry and eventually the plastic industry; and a market for an extender for titanium oxide in paint pigments.

A discounted cash flow model for Case 2 potash production (based on the input parameters and assumptions outlined below) provides the following favourable economic modelling results:

Net Present Value after tax at 10% discount rate of \$1.694 billion  
 Internal Rate of Return after tax of 21.4%  
 Return on Investment after tax of 173%

A discounted cash flow model for the magnesium project (based on the input parameters and assumptions outlined below) provides favourable economic modelling results:

Net Present Value after tax at 11% discount rate of \$261.5 million  
 Internal Rate of Return after tax of 34.6%  
 Return on Investment after tax of 295%

Based on the detailed geological work and engineering in this 2012 Technical Report, the potash feasibility study and the preliminary feasibility study for magnesium products the authors consider the project technically and economically feasible.

#### *Summary of Economic Analysis - Potash Project*

The discounted cash flow model for potash production uses the following input parameters and is based on the assumptions as described below:

- Financial provision for closure must be made during operation. The amount of closure provision is estimated for facilitation according to World Bank standards as 10% of the CAPEX, which results in \$200 million. This corresponds to experiences from the German potash industry. This closure provision has been included into the financial model at the final year of the projection.
- Annual sustaining capital has been estimated at 4% of brine field CAPEX and 2% of process facility CAPEX per year.
- The estimated OPEX includes \$45.00 per tonne for transport and marketing and \$5 per tonne for administrative and general expenditures.
- Only the first 60 years of mine lifetime were considered for the valuation. The "probable and proven reserves" are adequate to sustain the project at the planned production capacity for 68 years.
- For taxation the model incorporates the Resource Surcharge, and the royalty and mining taxes as described in the 2012 Technical Report.
- The determination of the discount rate basically depends on the project-related risks. These relate to the stage of project development (early exploration, feasibility study, producing mine) as well as to the respective country risk or regional risk. These factors are added to the interest rate of a long-term risk-free asset giving the following formula for the Corporation's project:

Interest rate of risk-free bond (Govt. of Canada marketable bonds, avg. yield: +10 year, rate of September 15, 2011).....	2.3%
Project risk (based on the Corporation's potash feasibility study).....	5.0%
Country risk Canada (low political or economic risk).....	<u>1.5%</u>
Project specific discount rate at 100% equity financing.....	8.8%

Since a mining project is usually financed with a share of equity and debt financing of less than 30:70, the discount rate could even be slightly reduced. The risk factors noted above are based on the opinions of authors of the 2012 Technical Report and, when compared to Karnalyte's peers, who have filed technical reports, appear reasonable. Although there are no directly comparable mining companies targeting Carnallite in North America this is not considered a significant risk. Project conditions are well defined and hence the reserve risk, which is usually the most decisive risk of a mineral project, is comparably low, as are the mining, process, construction and environmental risks.

The authors of the 2012 Technical Report reviewed common discount rates for similar projects in North America rather than attempting to compare to the weighted average cost of capital ("WACC") of established producers as this would not result in a valid comparison to the Corporation's project. The discount rate commonly used in NI 43-101 compliant technical reports, ranging from scoping level studies to feasibility level studies, for potash developers with assets in North America is 10%. Further, potash developers with assets in North America have used a 10% discount rate in their NI 43-101 compliant technical reports filed on SEDAR, including rates for studies with lower levels of engineering confidence than Karnalyte's potash feasibility study.

Based on the above comparison, the authors of the 2012 Technical Report used a discount rate of 10% for the net present value calculation.

The product price of \$480 per tonne as used in the DCFM is based on the average price for MOP granular FOB bulk Vancouver used by a consensus of analysts. An annual price rise of 2% was included.

#### *Sensitivity Table - Potash*

The following table evaluates sensitivities based on a reduction in potash price, increase in OPEX, increase in CAPEX and the decrease in planned production. The major factor to jeopardize the economic viability of the Project is falling potash prices.

	<b>NPV (\$ millions)</b>	<b>IRR (%)</b>
Base Discounted Cash Flow Model	1,694	21.4
10% Decrease in Product Prices	1,196	18.3
15% Increase in OPEX	1,471	20.1
15% Increase in CAPEX	1,572	19.5
10% Decrease in Sales Volume (planned production)	1,222	18.5

#### *Estimated Development CAPEX and OPEX - Potash*

The following tables provide an estimate for CAPEX and OPEX costs. The capital cost estimate for the Initial Facility, a 625,000 TPY operation (Phase I), and the capital cost estimate for a 2.125 million TPY operation (Phases II and III) from the potash feasibility study of the Corporation has been made at  $\pm 15\%$ .

The total estimate for Phase II, was \$717 million with a  $\pm 25\%$  level of accuracy. A portion of this total, \$422 million, was made with the same methodology as the 625,000 TPY facility estimate with quantity take-offs and is considered  $\pm 15\%$  level of accuracy. The process area within Phase II was estimated at \$294 million, which was factored from the 625,000 TPY estimate to the 750,000 TPY capacity. Since the capacities are fairly close and the layouts were made with a modular approach, this warrants a representative price with adjusted contingency. In order to move this portion of the estimate to  $\pm 15\%$  level of accuracy, a contingency of \$14.4 million was added. The adjusted Phase II total is \$731 million.

The total estimate for Phase III was \$633 million. As with Phase II, a portion of the estimate for Phase III, \$321 million, was made with the same methodology as the 625,000 TPY facility estimate and can be considered  $\pm 15\%$ . The process area within Phase III was estimated at \$311 million, which was factored in the same way as was done for Phase II. Thus, in order to move this portion of the estimate to  $\pm 15\%$  level of accuracy, the same contingency of \$14.4 million was added as well. The adjusted Phase III total is \$647 million.

	<b>625k Facility (\$000s)</b>	<b>2.125 M Facility (\$000s)</b>
Estimated Direct Costs	427,990	1,500,301
Estimated Indirect Costs (EPCM and Field Indirects)	59,377	148,462
<b>Subtotal - Direct + Indirects</b>	<b>487,367</b>	<b>1,648,763</b>
Other Costs		
PST Tax	11,411	30,487
Miscellaneous	1,761	5,692
Escalation	18,674	133,666
Contingency	26,873	122,732
Owner Costs	46,986	60,997
<b>Subtotal - Other Costs</b>	<b>105,705</b>	<b>353,574</b>
<b>TOTAL ESTIMATED COST</b>	<b>593,072</b>	<b>2,002,337</b>
<b>CAPEX PER TONNE OF CAPACITY</b>	<b>948.92</b>	<b>942.28</b>

Note: A conversion rate of US\$1.04 to \$1.00 was used in the estimate.

<b>Description</b>	<b>625k Facility (\$ millions)/yr</b>	<b>Per Tonne KCl (\$/tonne)</b>	<b>2.125 M Facility (\$ millions)/yr</b>	<b>Per Tonne KCl (\$/tonne)</b>
Personnel	6.84	10.94	16.22	7.63
Natural Gas	27.14	43.42	92.26	43.42
Electricity	9.70	15.52	32.99	15.53
Brine Field Expansion	20.70	33.12	70.38	33.12
Maintenance & Spare Parts	7.83	12.54	26.64	12.54
Blanket Oil Replacement	3.99	6.38	13.57	6.38
Other	4.50	7.20	14.52	6.83
Total OPEX	80.70	129.12	266.58	125.45

The authors of the 2012 Technical Report therefore consider the Wynyard Carnallite Project to be economically feasible.

#### *Summary of Economic Analysis - Magnesium Project*

The discounted cash flow model for the magnesium project uses the following input parameters and is based on the assumptions as described below.

- Capital costs estimates for magnesium products facility have been made at an accuracy of  $\pm 25\%$ . Specifically, all major equipment has been selected and budget level pricing obtained. All other costs are included as factors based on the equipment costs. Factors have been determined from industry standard figures as well as data extracted from archives.

- The total capital cost estimate for the 100,000 TPY MgCl<sub>2</sub> Brine and 104,000 TPY basic magnesium carbonate production is estimated at \$155.98 million which includes a total contingency of \$28.2 million, calculated at 25% on all direct and indirect costs, and at 10% contingency on owners costs.
- A 15% and 10% contingency has been included in the OPEX used in the financial model based on engineering judgement given the individual risks for hydromagnesite and MgCl<sub>2</sub> brine production, respectively.
- Financial provision for closure must be made during operation. The amount of closure provision is estimated for facilitation according to World Bank standards as 10% of the CAPEX, which results in \$15.6 million.
- Annual sustaining capital has been estimated at 1.5% of the equipment CAPEX.
- The estimated OPEX includes \$65.00 per tonne for transport and marketing.
- No escalation has been included for either the operating costs or the commodity prices.
- For taxation the model incorporates the Resource Surcharge and the royalty and mining taxes as described in the 2012 Technical Report.
- Only the first 60 years of mine lifetime were considered for the valuation.
- The determination of the discount rate basically depends on the project-related risks.

These relate to the stage of project development (early exploration, magnesium feasibility study, producing mine) as well as to the respective country risk. These factors are added to the interest rate of a long-term risk-free asset giving the following formula for Karnalyte's magnesium project:

Interest rate of risk-free bond (Bank of Canada risk-free rate of September 15, 2011 .....	2.3%
Project risk (based on the Corporation's magnesium preliminary feasibility study).....	7.0%
Country risk Canada (low political or economic risk) .....	<u>1.5%</u>
Project specific discount rate at 100% equity financing .....	10.8%

The MgCl<sub>2</sub> price point of \$30 per tonne used in the DCFM brine imports is based on a review of pricing information obtained from statistics Canada and letters of interest received by the Corporation in consideration of production volumes.

Two price points of \$600 per tonne for use as pre-precipitated calcium carbonate replacement and \$1,800 per tonne as an extender in the titanium dioxide ("TiO<sub>2</sub>") market were used in the DCFM. The price points were based on the expected value of the product for each intended use, in consideration of production volumes and the early stage of the markets. A 50/50 split between these two price points has been used in the DCFM.

*Sensitivity Table - Magnesium*

The following table evaluates sensitivities based on a reduction in magnesium price, increase in OPEX, increase in CAPEX and the decrease in planned production.

	NPV (\$ millions)	IRR(%)
Base Discounted Cash Flow Model	261.5	34.6
10% Decrease in Magnesium Prices	212.0	30.7
15% Increase in OPEX	241.3	33.0
10% Increase in CAPEX	252.4	32.1
20% Decrease in Sales Volume (planned production)	190.6	28.9

Note: Based on 2011/2012 costs and assumes parity between US\$ and CAD\$.

*Estimated Development CAPEX and OPEX - Magnesium*

The following tables provide an estimate for CAPEX and OPEX costs. The Corporation's preliminary feasibility study for magnesium compounds provides an estimate of the production level for the 100,000 TPY MgCl<sub>2</sub> brine and 104,000 TPY basic magnesium carbonate production with a  $\pm$  25% level of accuracy and contains a contingency of 25% on direct & indirect costs and 10% on Owner costs. A 10 % contingency for brine and a 15% contingency for hydromagnesite OPEX is also included.

Pre-requisite for the estimate is that the magnesium products facility is integrally linked to the potash production facility, not only in terms of the availability of feedstock, but also to provide ongoing administrative and support functions. Capital cost, operating cost and life of mine estimates therefore assume the existence and operation of the primary potash production facility. The CAPEX for the magnesium product project include plant, reagent unloading and product loading and assume that MgCl<sub>2</sub> endbrine and some infrastructures are provided by the potash production facility. Capital allowance is included for tie in and expansion for infrastructures in the owner costs. Power and natural gas distribution is assumed to be available on site and is incorporated into the potash production facility cost estimates.

The total direct and indirect CAPEX of \$155.98 million for the magnesium product operation is considered reasonable by the author of the 2012 Technical Report and can be used for an economic evaluation of the magnesium project, with the assumption that the potash production facility is in operation.

Estimated Direct Costs	\$79,618,000
Estimated Indirect Costs	\$23,342,000
Owner Costs	\$24,800,000
Contingency (25% Direct & Indirect Costs, 10% Owner Costs)	\$28,220,000
<b>Total Base Estimate of Process Capital Cost</b>	<b>\$155,980,000</b>

The OPEX for the magnesium facility has been estimated based on the utility requirements from the material balances and equipment consumption in the plant and brine field in full operation.

	<b>MgCl<sub>2</sub> Brine</b>		<b>Hydromagnesite</b>	
	<b>Annual (\$000s)</b>	<b>(\$/tonne)</b>	<b>Annual (\$000s)</b>	<b>(\$/tonne)</b>
Electric Power	1.9	0.02	727	6.99
Maintenance (5% of Equipment Capital)	8.7	0.09	3,440	33.10
Natural Gas	0.0	0.00	5,020	48.22
Reagents	0.0	0.00	13,500	130.14
Process Water	0.5	0.0	154	1.48
Administration	0.0	0.00	1,560	14.97
Labor	563.7	5.64	4,420	42.49
Contingency (10% Brine, 15% hydromagnesite)	57	0.59	4,330	41.61
<b>TOTAL</b>	<b>632.4</b>	<b>6.32</b>	<b>33,200</b>	<b>319.00</b>

### *Recommendations*

The authors of the 2012 Technical Report recommend continuing with the Wynyard Carnallite project by taking the following steps:

- Complete value engineering for the project;
- Obtain environmental approval;
- Begin detailed engineering and advance it to a point where equipment packages can be awarded; and
- Perform detail engineering to support preparation of construction license application.

The costs for this stage are estimated at \$30 to 40 million and these costs are included in the development CAPEX of approximately \$593 million for the 625,000 TPY facility. Additionally full project financing (approximately \$593 million) has to be secured.

The authors of the 2012 Technical Report further recommend continuing with the magnesium project to feasibility study level taking the following steps:

Step 1: extensive laboratory and pilot testing program<sup>1</sup> consisting of tests for:

- Exact composition of the potash production end brine;
- Ammonia brine dissolution and brine dilution in the selected absorption tower;
- Ammonia reclamation in selected column;
- Carbon Dioxide dissolution to properly size equipment; and
- hydromagnesite dewatering and drying tests.

Concurrent with the test-program the basic engineering required for the feasibility study can be completed. Furthermore base line studies for the Corporation's magnesium EIS should be conducted and a magnesium EIS, finalised with the market and pricing of the hydromagnesite as TiO<sub>2</sub> extender

<sup>1</sup> As set out in the 2012 Technical Report, pilot testing is understood to be a continuous (as opposed to batch) test to be conducted either in a third party independent laboratory or a manufacturer's laboratory with the specific intent of deriving the required design parameters to allow detailed engineering of the individual unit operations during the feasibility study phase.

established. The total costs for this step are estimated at \$2 million, and are included in the CAPEX estimate as part of the owner's costs.

Conditional upon a favourable outcome of step 1, step 2 can be initiated which consists of

- detailed engineering and advance it to a point where equipment packages can be awarded; and
- performing detailed engineering to support preparation of construction license application.

The costs for this stage are estimated at \$12 to \$14 million and these costs are included in the development CAPEX. Additionally, full project financing (approximately \$156 million) for the magnesium product project has to be secured before construction, although there is an option to get the MgCl<sub>2</sub> brine plant constructed earlier. The magnesium products facility would be built south of the potash production plant.

It is also the opinion of the authors of the 2012 Technical Report that it is reasonable to conclude that potash and magnesium mineralization as identified in the drill holes may extend to the remainder of Permit KP 360A and that further drilling to confirm the mineralization and further seismic work to delineate the structure of the deposit is warranted.

#### *Qualified Persons*

The principal author of the 2012 Technical Report is Dr. Henry Rauche EurGeol, of ERCOSPLAN. Further authors are Dr. Sebastiaan van der Klauw EurGeol of ERCOSPLAN, Ms. Lola Piché P. Geo. of North Rim, Mr. Arun Balakrishnan, M.B.A., P. Eng of Foster Wheeler Canada, and Douglas K. Maxwell, P.E. and Roderick Charles Smith, M.B.A., P.E., P. Eng. of Lyntek. The authors are Qualified Persons under NI 43-101 and have reviewed, verified and approved the scientific and technical information contained in this AIF as it pertains to the sections of the 2012 Technical Report for which they are responsible.

#### **Proprietary Protection**

The Corporation relies upon various intellectual property rights to maintain proprietary control over its improvements to the industry standard solution mining process and the formulation of the Corporation's anticipated products. The Corporation maintains proprietary concepts, inventions and technology as confidential information and generally only discloses them to third parties under the protection of confidentiality agreements.

The Corporation filed three Canadian trademark applications in respect of certain logos and branding of the Corporation with the Canadian Intellectual Property Office in September 2011 and three trademark applications with the United States Patent and Trademark Office in March 2012. The Corporation has been granted allowances for all trademarks (with the final allowance granted on January 2014) from the Canadian and United States trademark authorities for the filed applications.

The Corporation also relies on common law trademark rights to protect its corporate identity. The Corporation uses the name Karnalyte for its business in the jurisdictions where it operates. The Corporation has also registered the following domain name which it uses in connection with its business: [www.karnalyte.com](http://www.karnalyte.com).

Patent applications have been filed by the Corporation in Canada and the United States for improvements on various portions of the industry standard solution mining process and for the formulation of anticipated



products. See "Forward-Looking Statements". The following table summarizes the patent applications that have been filed by the Corporation.

The Corporation has been granted the following patents for the following inventions:

<b>Jurisdiction</b>	<b>Patent Application Number</b>	<b>Patent Number</b>	<b>Filing Date</b>	<b>Proposed Patent Name</b>	<b>Description</b>
USA	12/539,688	8,232,371	December 4, 2012	Process for synthesizing a compacted product	A method forming a potassium chloride particle from potassium chloride powder having resistance to moisture absorption and shrinkage is set forth. The original feedstock comprises potassium chloride in a size distribution of 30 mesh to 100 mesh as well as a gluten based binder. The technology incorporates granulation processing.
USA	12/623,636	8,282,898	October 9, 2012	Process for the formulation of potassium chloride from a carnallite source	A process for formulating high purity potassium chloride from a carnallite source. The process takes advantage of solubility differences and saturation levels in a multiple salt system generated upon dissolution of carnallite. In the system, the sodium chloride is kept in solution and the $MgCl_2$ present in the system is controlled to be in a concentration range of between 12% and 25% by weight. This avoids co-precipitation of sodium chloride with the potassium chloride during crystallization and therefore prevents the sodium chloride from contaminating the potassium chloride. The result is high grade potassium chloride.
Canada	2,638,521	2,638,521	August 1, 2008	Method of selectively dissolving minerals from a carnallite or sylvinitic source	A method for producing high grade potassium chloride from a source of carnallite. The method solubilizes and purifies the carnallite to produce potassium chloride having low levels of contaminants and resistance to hygroscopic behaviour

The Corporation has pending patent applications for the following inventions:

<b>Jurisdiction</b>	<b>Patent Number</b>	<b>Filing Date</b>	<b>Proposed Patent Name</b>	<b>Description</b>
Canada	2,638,704 US13/692,470	August 13, 2008 December 3, 2012	Process for synthesizing a compacted product	A method forming a potassium chloride particle from potassium chloride powder having resistance to moisture absorption and shrinkage is set forth. The original feedstock comprises potassium chloride in a size distribution of 30 mesh to 100 mesh as well as a gluten based binder. The technology incorporates granulation processing.
Canada	2,720,371	August 12, 2009	Process for the formulation of potassium chloride from a carnallite source	A process for formulating high purity potassium chloride from a carnallite source. The process takes advantage of solubility differences and saturation levels in a multiple salt system generated upon dissolution of carnallite. In the system, the sodium chloride is kept in solution and the MgCl <sub>2</sub> present in the system is controlled to be in a concentration range of between 12% and 25% by weight. This avoids co-precipitation of sodium chloride with the potassium chloride during crystallization and therefore prevents the sodium chloride from contaminating the potassium chloride. The result is high grade potassium chloride.
Canada	2,703,276	May 5, 2010	Method for improving ore extraction	The patent application teaches a method of augmenting ore extraction from a solution mine having caverns. The method provides at least a pair of opposed caverns containing ore to be extracted. Ore is extracted from one cavern of the cavern pair to exhaust the one cavern. The tailings from the ore exhausted cavern are deposited in the exhausted cavern. This allows for more efficient solution mining where more ore can be extracted without any difficulties being presented by the tailings.

## **Competitive Conditions**

### *The Potash Industry*

#### Overview

Potash is the common name given to a group of potassium-bearing minerals such as potassium carbonate and various mined and manufactured salts that contain the element potassium. While there are a number of such minerals, only those that are water-soluble are of significant commercial interest. The most common commercial product is potassium chloride (KCl), also known as muriate of potash (MOP) or sylvite, a naturally occurring pink, salty mineral of which Canada is the leading producer and exporter. Since the amount of potassium contained in potash varies, the industry has established a common standard of measurement by defining a product's potassium content in terms of equivalent percentages of

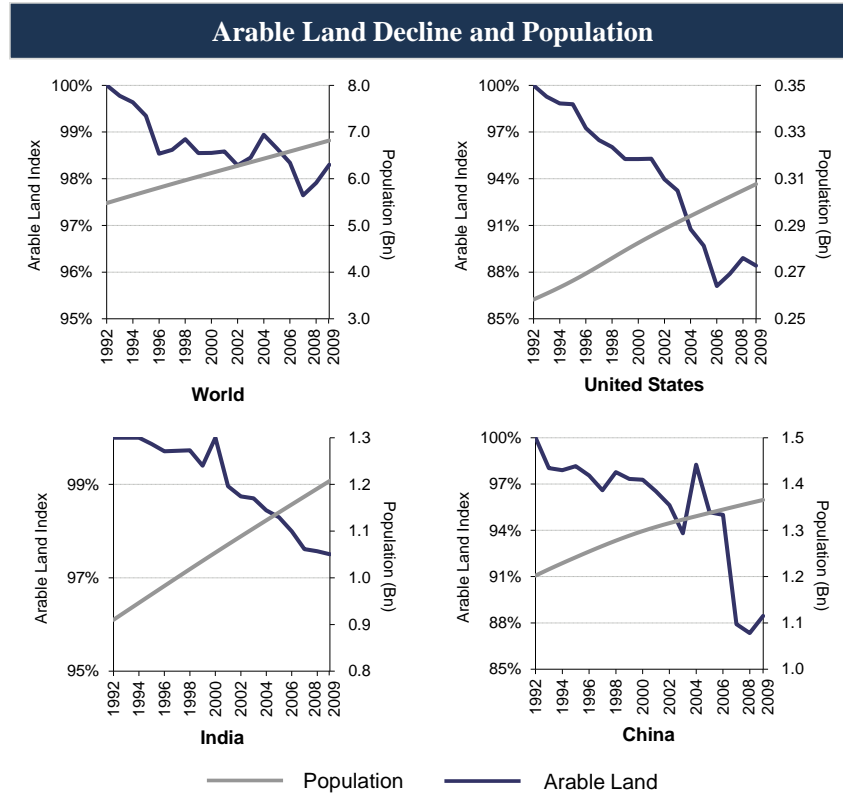
potassium oxide ( $K_2O$ ). For example, carnallite typically contains approximately 17%  $K_2O$  equivalent and sylvite contains approximately 63%  $K_2O$  equivalent.

According to the USGS , approximately 90 to 95% of world potash production is used for agricultural fertilizer. Plants deficient in potassium are less resistant to pests and disease, and have poor size, shape, colour, taste and shelf life. Most virgin soils contain adequate potassium to allow farmers to produce average crops. The agricultural cycle of growing and harvesting crops depletes the soil of potassium, nitrogen and phosphate, which need to be replenished in consistent ratios if the soil is to remain fertile (hence the historical agricultural practice of leaving land fallow for a number of years in order to replenish itself). Fertilizers replace the nutrients that crops remove from the soil, thereby sustaining or enhancing the yield of crops. Farmers determine the types, quantities and proportions of fertilizer to apply depending on crop, soil, quality, weather conditions, regional farming practices and fertilizer and crop prices. The functions potassium performs cannot be carried out by other nutrients and potash has no commercially viable substitute as a potassium fertilizer source. The remaining potash consumption is made up of the manufacture of potassium bearing chemicals, detergents, ceramics and pharmaceuticals, as well as water conditioner and de-icing salt.

Potash demand depends on the demand for fertilizer, which is based on the total planted acreage, crop mix, fertilizer application rates and farmer economics. Each of these factors is affected by current and projected grain stocks and prices, governmental agricultural policies, improvements in efficiency and fertilizer application and weather. According to the FAO, world potash fertilizer demand is expected to be 33.2 million tonnes in 2016 with an annual per annum growth of 3.7% over 2012.

There are a number of factors that have led to the steady increase in fertilizer consumption over the past 50 years and that some industry observers expect to continue, and possibly accelerate, this trend. The root of these factors is the need to produce increasing amounts of food from shrinking amounts of arable land per capita due to development. These factors include (i) world population growth, (ii) shrinking arable land per capita, (iii) changes in diet worldwide (such as increased protein consumption resulting in increased demand for grain and other animal feed) and (iv) the growth in alternative fuels that use crops as feedstock.

Global population has been rising in recent years and diet has been improving, while arable land per capita has been decreasing. The United Nations estimates that the world population will reach 8.9 billion by 2050. From 1990 to 2009, arable land per person decreased by an average of approximately 1.4% per year. The decline in arable land per capita is expected to continue, as a result there will be less land per person in the future from which food can potentially be produced, requiring a need for increased crop productivity. The United Nations projects that 90% of the increase in global crop production over the next 30 years will come from improved yields and increasing cropping intensities.



Source: United Nations - FAO and Population Division

The increasing global demand for fertilizer has also been accelerated by the burgeoning ethanol and biofuel industry. Due to the historically high prices of oil in recent years and the increasing governmental support for clean alternative sources of energy, many countries have put in place energy self-reliance programs with the intent of using ethanol and biofuels to supplement fossil fuels consumption. Global ethanol production is expected by the FAO and the Organization for Economic Co-Operation and Development to grow from approximately 114 billion litres in 2012 to approximately 168 billion litres in 2022.

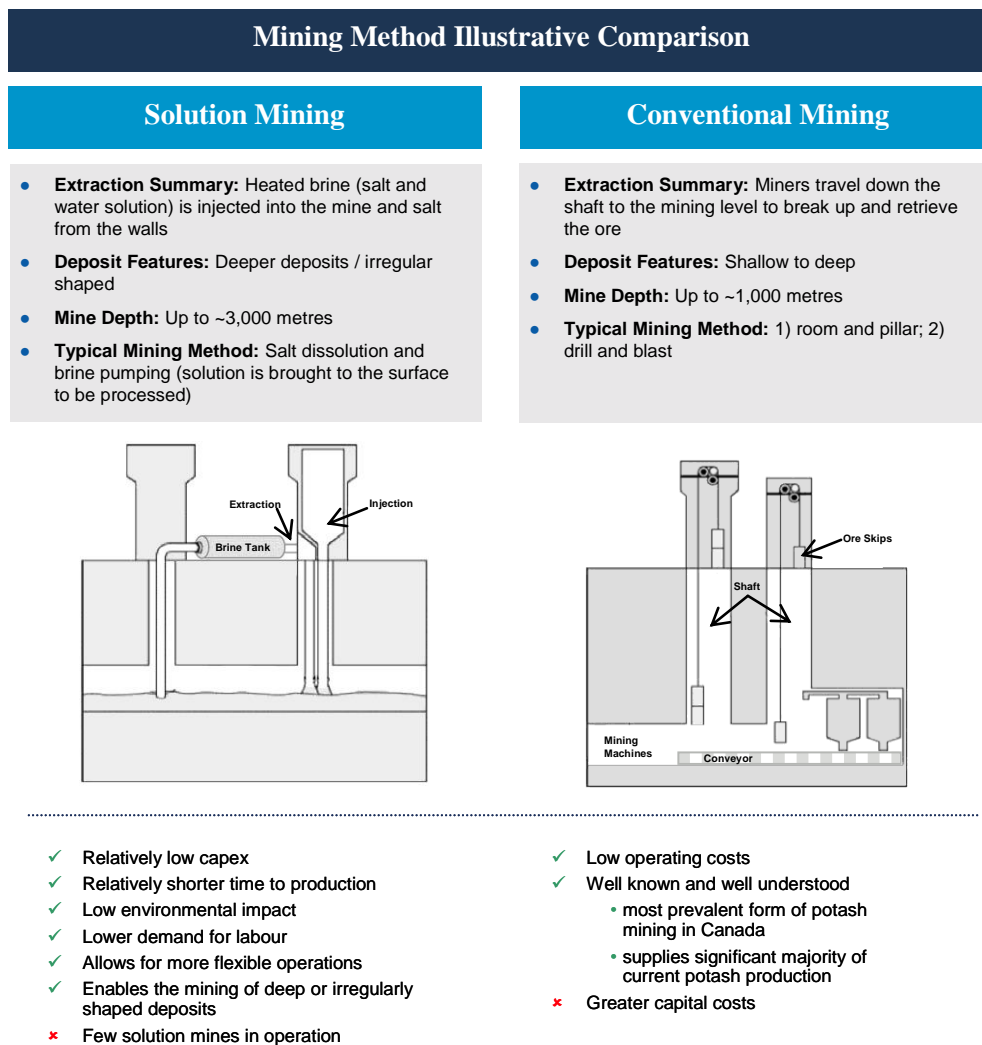
### Mining Methods

Potash ore is extracted from two major ore deposit types:

1. Deeply buried marine evaporite deposits that typically range from 400 metres to greater than 1,000 metres below the surface such as those typically found in Canada and Russia. Most potash is sourced from buried deposits using conventional mechanized underground mining methods, although solution mining methods also are employed. The land area affected is typically confined to the immediate area of the shaft, plant and waste disposal but may be up to several square kilometres. The Karnalyte Property falls into this category.
2. Surface brine deposits are associated with saline water bodies such as the Dead Sea in the Middle East and the Great Salt Lake in the US. These types of ore deposits are exploited using solar evaporation ponds to concentrate and precipitate the potash. The evaporation ponds are extensive, with some operations covering in excess of 90 square kilometres of land area.

A conventional mechanized underground mining operation is the most widely used method for the extraction of potash ore. A variety of mining techniques and equipment may be employed depending on factors such as ore body depth, geometry, thickness and consistency, the geological and geotechnical conditions of the ore and surrounding rock, and the presence of overlying aquifers. Methods in widespread use include variations of room-and-pillar, longwall, cut and fill, and open stope techniques. At great depths, conventional room-and-pillar mining for potash faces technical challenges and can be cost prohibitive primarily due to the significant costs associated with sinking deep shafts and the increasing likelihood of water infiltration.

An alternative mining method, is solution mining. The principle of solution mining involves drilling large-diameter boreholes to the bottom of the lowest mineralized layer. Heated water is then introduced into the well. A small volume of oil is injected to control upward vertical dissolution and the layers of rock salt assist in creating a connection between two wells to form a dual well cavern as well as lateral dissolution of the highly soluble carnallite salt layer. Once a diameter of approximately 100 metres is achieved, the leaching tubes are retracted or perforated thereby developing a working solution mining cavern.

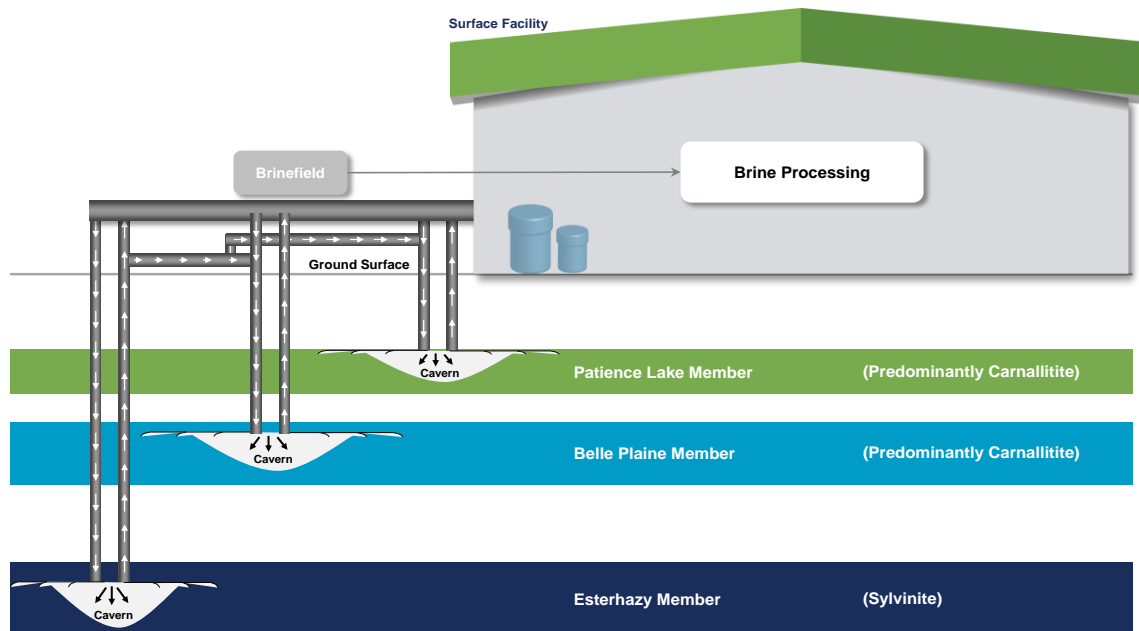


Source: Equity Research

For the Wynyard Carnallite Project, it is planned to mine two production zones in the Belle Plaine Member. One mining cut will be in the Halite interbed between Belle Plaine and Patience Lake Members and one mining cut will be used in the Patience Lake Member. The Esterhazy Member will be mined in one or two separate cuts, depending on the local geology, each with a preparation phase and a single mining cut production phase.

Each cavern will be served by two wells drilled from centralized well pads. Production wells and waste brine injection will be completely cased and continuously grouted from the top of the deep carnallite beds to the ground surface. Because the carnallite resource beds and deep waste brine injection horizons are physically and hydro-geologically isolated from the lowest aquifer, and because of the reliability of the well construction and sealing technology that will be employed, no further leak prevention measures are planned for the subsurface.

The potassium rich brine is pumped from the production wells to the processing plant. The first step of the potash production process is the removal of "insolubles" from the production brine. This is accomplished using flocculants and an inclined plate separator. Once insolubles removal is completed, the production brine flows into the evaporation and crystallization process. In this process, the water is evaporated and the concentration of  $MgCl_2$  in the brine increases and super saturates the  $KCl$  and  $NaCl$  (the "solid salts") causing them to precipitate out. The residual co-product  $MgCl_2$  brine is pumped to a disposal tank which is eventually disposed of in the Deadwood Formation or spent caverns.



Source: *Feasibility study of the Corporation*

### Potash in Saskatchewan

According to the Natural Resources Canada (2012), Canada has 46% of global potash reserves and 32% of the mineral's total global production - making Canada the leading world producer and exporter. In 2010, 11 potash mines and processing plants operated in Canada, 10 in Saskatchewan and one in New Brunswick. Significant Canadian potash producers are, in descending order of capacity, PCS, Mosaic and Agrium. The first conventional mine started production in 1962, and in 1964, the first solution mine was started near Belle Plaine. By 1971, all ten existing mines in Saskatchewan were in operation. All

necessary potash mining infrastructure is currently available in Saskatchewan due to the operation of a large number of potash mines.

### Potash Supply and Price Environment

Potash prices refer to the delivered cost of potash and are usually negotiated between suppliers and consumers based on delivery contracts. Sales contracts often vary in terms from geographic market to geographic market, and may be structured as large sales contracts with fixed prices, contracts negotiated on a monthly or annual basis with terms conditional on minimum orders for the year, and ad hoc "spot" purchases.

Management of the Corporation understands that premium grades of potash include coarse and granular material in which the particle sizes are larger (1 - 4 mm), and soluble industrial products that are generally purer than 98% KCl. In international markets, granular and coarse potash are generally priced at a premium.

According to the FAO, global potash production capacity was estimated at 43.3 million tonnes in 2011. By 2016, the total capacity is expected to be 61.4 million tonnes, with the increase in capacity concentrated in: North America (48%), Eastern Europe and Central Asia (39%), Latin America and Caribbean (13%) and East Asia (7%). Between 2011 and 2016, approximately 68% of additional potash capacity is expected to come from brown field projects in Canada, Russia and Belarus, along with Chile and China. The remaining 32% of potash capacity is expected in green field projects in Argentina, Canada and Russia. The bulk of new potash capacity will be in the form of MOP. According to the FAO, after considering operating rates, world supply of potash was estimated at 38.8 million tonnes in 2011. An increase is expected annually and by 2016, the total supply may be 52.8 million tonnes. According to Fertecon Potash Outlook, as a result of increased capacity, the impact of over-supply has been keenly felt over the last few years, and the excessive capacity has impacted the market.

The breakup of the BPC in July 2013 had a significant impact on the global potash market, which experienced a state of serious decline with potash prices hitting a four year low, and resulted in the significant downturn in share prices of potash companies in general. Accordingly, some expansion projects have been deferred, while others appear to have been abandoned entirely. Overall economic conditions have led many companies to cut costs and temper expansion plans and capital expenditure. Through the second half of 2013 very few contracts were entered into as buyers awaited price deterioration and stabilization. This effectively resulted in an environment of spot pricing over the period and a serious decline in potash prices from prior periods. Recently, the global potash market appears to be in slow recovery with the signing of recent new supply contracts to China and other regions in the world. News of contracts and sales into Brazil and North America are showing signs of some recovery but again there appears to be no consensus at present as to the level of recovery or the timeline.

### *The Magnesium Industry*

#### Overview

Magnesium is the eighth most abundant element in the Earth's crust and the third most plentiful element dissolved in seawater. Magnesium and magnesium compounds are recovered from seawater, wells and lake brines, and bitterns, as well as from minerals such as magnesite, dolomite, and olivine.

In contrast to potash, the uses for magnesium products are varied and the sources for magnesium compounds range from Mg bearing salts such as carnallite, bischofite and magnesium sulfates, natural occurring magnesite (MgCO<sub>3</sub>), serpentinite, sea water and lake and well brines.

According to the USGS Mineral Commodities Summary, 2014, in 2013 about 53% of the magnesium compounds consumed in the United States were used for refractories and the remaining 47% were used in agricultural, chemical, construction, environmental and industrial applications. In recent years several companies throughout the world have made acquisitions to secure supplies of magnesium compounds, as well as expanding existing operations, trends which were expected to continue because demand was projected to increase in many end uses.

### Magnesium Chloride Brine

According to the USGS Mineral Commodity Summaries (January 2013), resources from which magnesium compounds can be recovered range from large to virtually unlimited and are globally widespread. Identified world resources of magnesite total 12 billion tons, and of brucite, several million tons. Resources of dolomite, forsterite, magnesium-bearing evaporite minerals, and magnesia-bearing brines are estimated to constitute a resource in billions of tons. Magnesium hydroxide can be recovered from seawater.

According to the authors of the 2012 Technical Report, standard trade statistics provide limited information on the market for  $MgCl_2$  brine. Market studies combine statistics on different grades, and across a diverse range of  $MgCl_2$  products. Statistics on the import and export volumes, and regional sales or consumption figures, are not readily available for specific products.

### Magnesium Chloride Brine Market

Potential customers for magnesium chloride brine include road service contractors, municipalities and counties (roads), mining industry participants, mineral supplement producers for salt blocks, and drilling contractors for oil well drilling fluids.

Uses for magnesium chloride brine include, dust control for gravel roads (summer), de-icing agent for roads (winter), sewage treatment, textiles and paper, components in cements, and drilling mud / completion fluid

According to the authors of the 2012 Technical Report, available price data is averaged across a wide variety of products and are not specific to  $MgCl_2$  brine.

General trade statistics do, however, show a long term trend of regular imports of  $MgCl_2$  brine and flakes into Canada from the USA. Regular imports of brine into the four western provinces of Canada are approximately \$3.4 million per year, with the sales quantities showing stability in terms of both tonnages as well as value, with a positive trend in both for 2011.

According to the authors of the 2012 Technical Report, as brines contain a significant volume of water, shipping costs are significant, and limit the sale of brine to markets reasonably close to the plant. The Corporation's current sales estimates are therefore based on the markets in the four western provinces. The primary market for the  $MgCl_2$  brine anticipated to be produced by the Corporation is expected to be for de-dusting and de-icing of roads, and is therefore the center of focus for the initial sale of brine. Other markets will be developed, and production can be increased to meet demand.

### Magnesium Carbonate

Magnesite ( $MgCO_3$ ) is a naturally occurring mineral used in a wide range of applications, the most significant of which is as feedstock for magnesia production. Synthetic magnesium carbonate is used to produce high purity magnesium compounds for the paint and printing industries as well as in fireproofing,



fire-extinguishing, flooring, polishing compounds, and as fillers and smoke suppressants in the paper, plastics and rubber industries. High purity magnesium carbonate is also used as an anti-caking agent in salt, as a bulking compound in powder formulations and as an antacid. According to the authors of the 2012 Technical Report, the magnesium carbonate that will be produced at the magnesium products plant will be a precipitated synthetic basic magnesium carbonate.

The market for synthetic or precipitated magnesium carbonate is a specialized market which is very closely correlated to the product quality, and is not included in general market reports. According to the authors of the 2012 Technical Report pricing currently available for high quality precipitated basic magnesium carbonate range from US\$500 per ton to US\$1,200 per ton ex-works China. The potential to achieve prices in the upper part of this range is good as the equivalent MgO content of the Karnalyte hydromagnesite significantly exceeds the highest values quoted for the magnesium carbonates referenced above, but the planned production volumes of the magnesium products plant will potentially suppress prices by a margin. Lower shipping costs into Canada and the USA could provide additional pricing advantages. Even when considering the lower price range, according to the authors of the 2012 Technical Report, it appears likely that the product will withstand a reasonable transportation charge and yet allow moderate profitability.

The lack of publicly available manufacturing data is indicative of the specialized nature of this product and the confidentiality of typical trade contracts. The material properties are, however, such that the hydromagnesite produced are anticipated to allow other market sectors to be exploited.

### **Employees**

As at December 31, 2013, Karnalyte had a total of 19 full-time and one part-time employee. In addition, as at December 31, 2013, Karnalyte employed the services of one consultant.

### **RISK FACTORS**

The Corporation's business in mineral exploration and development is inherently risky in nature due to, its formative stage of development, its current financial position and its lack of an earnings record. As a result, the securities of the Corporation must be considered speculative. A prospective investor in Karnalyte should carefully consider the following risk factors.

**The Corporation cannot guarantee that the Wynyard Carnallite Project will become a commercially viable mine, or that it will discover any commercially viable potash deposits which in turn cannot guarantee the production of the estimated magnesium co-products.**

Potash exploration, development, and operations are highly speculative and are characterized by a number of significant inherent risks, which even a combination of careful evaluation, experience and knowledge may not eliminate and may result in the inability to develop a project. These risks include, among other things, unprofitable efforts resulting not only from the failure to discover additional potash Mineral Resources or Mineral Reserves but from finding potash Mineral Resources and Mineral Reserves, which, though present, are insufficient in quantity and quality to return a profit from production or to develop saleable magnesium co-products. In addition, the brine quality from the potash production plant, may negatively influence the product magnesium product quality. Only a part of the magnesium chloride mined together with the potash is transformed into a saleable product, the remaining part is considered waste, and therefore, MgCl<sub>2</sub> reserves are dependent on the size of the magnesium products plant and the market for such products. Few properties that are explored are ultimately developed into producing mines. Unusual or unexpected formations, formation pressures, flooding, fires, power outages, labour disruptions and the inability to obtain suitable or adequate machinery, equipment or labour are other risks involved in

mining operations and the conduct of exploration and development programs, as well as the inability to obtain required capital. There is no assurance that the foregoing risks will not occur and inhibit, delay or cease the development of the Wynyard Carnallite Project or other exploration or development activities, all of which could have an adverse impact on the Corporation's business, results of operations and financial condition.

Substantial expenditures are required to establish Mineral Resources and Mineral Reserves, to develop processes to extract potash and magnesium from Mineral Reserves and to investigate the economic feasibility of construction of extraction and processing facilities and infrastructure at any site chosen for mining. No assurance can be given that potash Mineral Reserves will be of sufficient quantities or grades or in appropriate geological structures, to justify commercial operations or that the funds required for exploration and development can be obtained on a timely basis.

Estimates of Mineral Resources and Mineral Reserves are, to a large extent, based upon the interpretation of geological data obtained from drill holes and other sampling techniques and technical report studies. This information is used to calculate estimates of the capital costs, operating costs other financial parameters based upon anticipated tonnage and grades of ore to be mined and processed, the configuration of the Mineral Resource or Mineral Reserve, as applicable, expected recovery rates, comparable facility and equipment operating costs anticipated climatic conditions and other factors. As a result, it is possible that the actual capital cost, operating costs, other economic parameters and economic returns of any proposed mine may differ from those estimated and such differences could have a material adverse effect on the Corporation's business, financial condition, results of operations and prospects. There can be no assurance that the Corporation will be able to complete development of the Wynyard Carnallite Project or any other potash development project including the development of magnesium co-products on time, on budget or at all due to, among other things, and in addition to those factors described above, the further decline of potash prices; changes in the economics of the Wynyard Carnallite Project; delays in receiving required consents, permits and licenses; the delivery and installation of plant and equipment; changes in the anticipated magnesium co-product prices, cost overruns; governmental and bank regulations, including regulations relating to prices, taxes, royalties, infrastructure, land use, importing and exporting of commodities and environmental protection; or that the Corporation's personnel, systems, procedures and controls will be adequate to support operations. Should any of these events occur, it would have a material adverse effect on the Corporation's business, financial condition, results of operations and prospects.

#### **The Corporation may not successfully execute its project plans**

In July 2013, the breakup of the BPC created significant market uncertainty which resulted in reduced prices and cautious purchasing behavior in the global potash market. This uncertainty has had an adverse impact on the Corporation's ability to access the capital required to proceed with the construction of the Wynyard Carnallite Project as planned.

The Corporation has identified other potentially economical product lines and is determining how to pursue these potential product lines to enhance shareholder value. The Corporation continues to investigate the possibility of magnesium production from its property. If the Corporation is unable to execute plans to develop potential alternate product lines, it may be unable to develop the Wynyard Carnallite Project on time, on budget or at all.

#### **The Corporation may encounter delays in the execution of its project plans**

Project delays may delay the expected commencement of commercial production and expected revenues from operations. Significant project cost over-runs could make the Wynyard Carnallite Project

uneconomic. The Corporation's ability to execute projects and market potash or magnesium co-products will depend upon numerous factors beyond the Corporation's control, including the availability of processing capacity, the availability of storage capacity, the supply of and demand for potash, the supply and demand of magnesium products, the availability of alternative fertilizer products, the effects of inclement weather, the availability of drilling and related equipment, unexpected cost increases, accidental events, currency fluctuations, changes in regulations, the availability and productivity of skilled labour, and the regulation of the mining industry by various levels of government and governmental agencies.

As a result of the foregoing factors, the Corporation may be unable to develop the Wynyard Carnallite Project on time, on budget or at all, and may not be able to effectively market the potash or magnesium products that it produces.

The magnesium chloride brine and hydromagnesite production estimates are based on and dependent upon the estimated production of potash. Therefore the potash project risks will influence to the production and saleability of the magnesium chloride brine and hydromagnesite.

### **Estimates of Mineral Resources and Mineral Reserves are uncertain**

The figures for Mineral Resources and Mineral Reserves contained in this AIF are estimates only and no assurance can be given that the anticipated tonnages and grades will be achieved, that the indicated level of recovery will be realized or that Mineral Reserves will be mined or processed profitably. Such estimation is a subjective process, and the accuracy of any Mineral Resource or Mineral Reserve estimate is a function of the quantity and quality of available data and of the assumptions made and judgments used in engineering and geological interpretation. However, such figures are estimates, and no assurance can be given that the indicated level of Mineral Reserves will be produced. There are numerous uncertainties inherent in estimating Mineral Resources or Mineral Reserves, including many factors beyond the Corporation's control. Fluctuations in the price of potash, magnesium or co-products may render Mineral Resources or Mineral Reserves containing lower grades of mineralization uneconomic. Market price fluctuations of potash, magnesium may render the present Mineral Resources or Mineral Reserves unprofitable for periods of time. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.

Fluctuation in potash prices, results of drilling, metallurgical testing and production and the evaluation of mine plans subsequent to the date of any estimate may require revision of such estimate. Any material reductions in estimates of Mineral Resources or Mineral Reserves, or of the Corporation's ability to extract these Mineral Resources or Mineral Reserves, could have a material adverse effect on the Corporation's operations and financial condition.

### **The Corporation currently has no production revenues and future revenues may be uncertain**

To date, the Corporation has not recorded any revenues from operations nor has the Corporation commenced commercial production on at the Wynyard Carnallite Project. The Corporation does not expect to generate revenues from operations in the foreseeable future. The Corporation expects to continue to incur losses until such time as Wynyard Carnallite Project enters into commercial production and generates sufficient revenues to fund its continuing operations. The exploration and development of the Karnalyte Property will require the commitment of substantial resources to conduct time-consuming development programs. There can be no assurance that the Corporation will generate any revenues or achieve profitability. There can be no assurance that the underlying assumed levels of expenses will prove to be accurate and that significant additional losses will not occur in the near future. The amounts and timing of expenditures will depend on the progress of ongoing exploration and development, the

results of consultants' analysis and recommendations, the rate at which operating losses are incurred, the execution of any joint venture agreements with strategic partners and other factors, many of which are beyond the Corporation's control.

**The Corporation will need additional financing in the future, and cannot assure that such financing will be available**

The Corporation will need additional financing through the issuance of equity or debt to continue and complete the development of its Karnalyte Property and there can be no assurance that such financing will be available or, if available, will be on reasonable terms. The 2012 Technical Report estimates the total capital cost to build the Initial Facility at \$593 million. Any future funding that is obtained by issuing Common Shares from treasury, and may result in a change of control of the Corporation and owners of Common Shares may suffer additional dilution. The failure of the Corporation to raise additional funds and complete the construction of the Initial Facility would have material adverse consequences on the business, prospects and financial condition of the Corporation.

The Corporation has limited financial resources, has not earned any revenue since commencing operations, has no source of operating cash flow and there is no assurance that additional funding will be available to it for further exploration and development of the Karnalyte Property and the Wynyard Carnallite Project or to fulfill its obligations under any applicable agreements. Failure to obtain such additional financing could result in delay or indefinite postponement of further exploration and development of the Karnalyte Property and the Wynyard Carnallite Project.

In July 2013, the breakup of the BPC created significant market uncertainty which resulted in reduced prices and cautious purchasing behavior in the global potash market. This uncertainty has had an adverse impact on the Corporation's ability to access the capital required to proceed with the construction of the Wynyard Carnallite Project as planned.

To the extent financing is not available, lease expiry dates, work commitments, rental payments and option payments, if any, may not be satisfied and could result in a delay or indefinite postponement of development or production on the Karnalyte Property and the Wynyard Carnallite Project, or in a loss of property ownership or earning opportunities by the Corporation.

The continued operation of the Corporation will be dependent upon its ability to generate operating revenues and to procure additional financing. There can be no assurance that any such revenues can be generated or that other financing can be obtained. The Corporation currently has no source of funding for the financing of the capital needs of its business and future activities, other than by the issuance of additional securities of the Corporation. If the Corporation is unable to generate revenues or obtain additional financing, any investment in the Corporation may be lost. In such event, the possibility of resale of the Common Shares purchased would be diminished.

**Current global financial conditions adversely affect the Corporation's financial position**

Current financial conditions globally, and in particular in the global potash market, continue to be subject to increased volatility with increasing global market concerns. Access to financing has been negatively impacted by the serious decline in potash prices and the resulting impact on share prices of potash companies as well as by the liquidity crisis and economic uncertainties resulting from the inability of certain governments to meet their debt payment obligations. These factors may impact the ability of the Corporation to obtain equity and/or debt financing in the future and, if obtained, on terms favourable to the Corporation. If these increased levels of volatility and market turmoil continue, the Corporation's operations could be adversely impacted and/or the Corporation may not be able to secure appropriate debt

or equity financing, any of which could affect the trading price of the Corporation's securities in an adverse manner.

**The Corporation currently has no developed markets for its magnesium products**

As a large volume producer, Karnalyte would need to develop new markets for its precipitated magnesium co-products, beyond traditional markets for these products. The diversity of potential markets and the apparent material properties of the magnesium co-products produced to date do however offer a reasonable expectation that such markets can be developed. These indications of market provide an insight to the potential economic value of the magnesium products. However, a more comprehensive analysis will be required to better delineate products quality, demand, potential sales regions, transportation costs, and pricing variables. Such market analysis will need to be completed with products produced in continuous testing in the feasibility study phase of the magnesium project.

**The Corporation has a limited operating history on which to base future performance**

The Corporation has a very limited history of operations and the Wynyard Carnallite Project is still in the exploration and development stage. As such, the Corporation is subject to many risks common to such enterprises, including under-capitalization, cash shortages, limitations with respect to personnel, financial and other resources and the lack of revenues. There is no assurance that the Corporation's business will be successful or profitable and the likelihood of success must be considered in light of its early stage of operations.

**The Corporation depends on a single property and any adverse change to that property would materially impact the Corporation**

The Corporation's primary asset is a 100% interest in the Permit KP 360A, the Lease and the Wynyard Carnallite Project. Any material adverse development affecting the progress of this property will have a material adverse effect on the Corporation's business, financial performance, results of operations and prospects.

**Solution mining of carnallite deposits has not been proven in Saskatchewan**

Although the process of solution mining of carnallite deposits has been undertaken outside North America, the scale of those projects are not as large as the solution mining process planned for the Wynyard Carnallite Project. Solution mining of carnallite deposits in Saskatchewan has not been previously undertaken and there can be no assurance that the Corporation's process will be economically viable. The failure of the Corporation's process of solution mining of carnallite deposits to be economically viable will have a material adverse effect on the Corporation's business, financial performance, results of operations and prospects.

**The Corporation will require approvals, licenses and permits, that it currently does not have, in order to commence mining operations, and for its current exploration and development activities**

The future mining operations of the Corporation will require approvals, licenses and permits from various governmental authorities that the Corporation does not currently have. While the Corporation has obtained certain licenses required to progress its business, there can be no assurance that the Corporation will be able to obtain all necessary licenses and permits that may be required to carry out future mining operations, as well as exploration and development at the Wynyard Carnallite Project or otherwise on the Karnalyte Property.

To the extent such approvals, licenses and permits are required and not obtained, the Corporation may be curtailed or prohibited from proceeding with planned exploration, development or operation of the Karnalyte Property and the Wynyard Carnallite Project. Failure to comply with applicable laws, regulations and permitting requirements may result in enforcement actions thereunder, including 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. Parties engaged in mining operations, and parties that were engaged in operations in the past, may be required to compensate those suffering loss or damage by reason of such mining activities and may have civil or criminal fines or penalties imposed for violations of applicable laws or regulations.

Amendments to current laws, regulations and permits governing operations and activities of mining companies, or the more stringent implementation thereof, could have a material adverse impact on the Corporation and cause increases in exploration expenses, capital expenditures or production costs, reduction in levels of production at producing properties, or abandonment or delays in development of new mining properties.

**The Corporation does not have the necessary permits to commercially develop the Mineral Reserves or Mineral Resources on the Karnalyte Property**

To date, the Corporation has obtained one permit to explore for potash and certain other minerals and there is no assurance that any additional permits will be issued. Although Permit KP 360A allows for certain exploration activities to be conducted within the Permit Area, it does not allow for the development of any Mineral Resources or Mineral Reserves. In order to commercially develop the Mineral Reserves and Mineral Resources found within the Permit Area, the Corporation must apply for and obtain a lease which will allow for the development of the Mineral Resources and Mineral Reserves. The Lease granted by the Saskatchewan Ministry covers approximately 16,825 acres of the Corporation's land. Any additional lease to commercially exploit Mineral Resources and Mineral Reserves will only be granted if the underlying permit is in good standing. There is no assurance that a lease will be granted by the Government of Saskatchewan for the remaining area of the Karnalyte Property. The initial term of Permit KP 360A expires on March 12, 2016. Subject to the Corporation's compliance with the terms of the permit and any applicable regulations, Permit KP 360A may only be extended by application for not more than three extension periods of one year each. The Corporation has obtained an extension to the expiry of the term of Permit KP 360A to March 12, 2015. The initial term of the Lease expires on August 26, 2031. Subject to the Corporation's compliance with the terms of the lease and any applicable regulations, the Lease may be renewed for successive terms of 21 years each. Failure by the Corporation to secure any necessary extensions to the terms of either Permit KP 360A or the Lease could result in a delay or indefinite postponement of the development of the Wynyard Carnallite Project.

**Title to the Corporation's mineral projects cannot be assured**

The acquisition of title to mineral properties is a very detailed and time-consuming process. Title to, and the area of, mineral rights may be disputed and additional amounts may have to be paid to surface rights owners in connection with any development of mining activity. The properties may also be subject to prior unregistered agreements of transfer or aboriginal land claims, and title may be affected by undetected defects. Although the Corporation believes it has taken reasonable measures to ensure proper title to its properties, there is no guarantee that title to its properties will not be challenged or impaired.

Under Saskatchewan law, the Corporation is required to make certain payments, take certain actions and meet certain required expenditures in order to keep Permit KP 360A and the Lease in good standing. If the Corporation defaults with respect to making payments or completing assessment and expenditure work as required, the Corporation may lose its rights to Permit KP 360A and the Lease.

The Corporation has purchased land to build a plant above its Lease area, and intends to continue to expand development of its properties beyond what it has already purchased. The Corporation would have to make arrangements with all free-hold property owners if it were to explore further within its permit area.

### **India's regulatory regime may affect the Corporation's risks and expenses in doing business**

The Corporation has entered into the Offtake Agreement with GSFC, which is an Indian state government controlled company. Therefore, certain matters relating to the implementation and conduct of operations under the Offtake Agreement may be subject, under certain circumstances, to government of India consent. Shifts in political conditions in India could adversely affect our business in India and the ability to obtain requisite government approvals in a timely fashion or at all. Karnalyte must maintain satisfactory working relationships with the Indian government. There is no guarantee that Karnalyte will be able to satisfy its obligation under the Offtake Agreement, nor that it will be able to successfully enforce its rights under the Offtake Agreement to negotiate additional offtake contracts on economically viable terms. This regulatory environment and possible delays inherent in that environment may increase the risks and costs associated with the Corporation's exploration and production activities and may have an effect on Karnalyte's financial position or prospects.

### **The Corporation relies on key personnel**

The development of the Karnalyte Property and the Wynyard Carnallite Project will require specialized skills with respect to the exploration and project management. There is no assurance that the Corporation will be able to retain the required specialized skills and knowledge to meet its business objectives relating to the Karnalyte Property. As a result of the Corporation's plans to consolidate its two existing offices, key personnel may determine not to move from its Okotoks office to its Saskatoon office, and as a result may not continue with the Corporation. The Corporation's Executive Vice-President and Chief Financial Officer, Ronald Love, has indicated he does not plan to move to Saskatoon.

The Corporation's success will depend in large measure on the performance of its management and other key personnel. The loss of the services of any of such persons could have a material adverse effect on the Corporation's business, financial condition, results of operations and prospects. The Corporation does not have key person insurance in effect for management, and has no current plans to do so. The contributions of these individuals to the immediate operations of the Corporation are likely to be of central importance. In addition, the competition for qualified personnel in the mining industry is intense and there can be no assurance that the Corporation will be able to continue to attract and retain all personnel necessary for the development and operation of its business. Investors must rely upon the ability, expertise, judgment, discretion, integrity and good faith of the management of the Corporation.

### **The Corporation relies on technical experts**

Exploration and development involves securing the services of and reliance on technical experts particularly in areas of drilling, assay testing and analysis, metallurgy, geology, resource analysis and reporting. The Corporation's inability to obtain or maintain the services of such technical experts may have a material adverse effect on the Corporation's ability to proceed with its exploration and development plans.

### **The Corporation may rely on a limited number of suppliers**

The Corporation will be able to purchase all of its mining and production equipment only from a limited number of contractors and/or suppliers. Any interruption in the operations of its suppliers and/or the

inability to obtain timely delivery of key equipment of acceptable quality or any significant increases in the prices of such equipment could result in material production delays, increased costs and reductions in shipments of potash and magnesium products, any of which could increase the Corporation's operating costs or could have a material adverse effect on the Corporation's business, financial condition or results of operations.

### **The Corporation depends on adequate infrastructure**

The Corporation's activities will depend, to one degree or another, on adequate infrastructure. Reliable roads, bridges, power sources and water supply are important determinants which affect capital and operating costs. Unusual or infrequent weather phenomena, government or other interference in the maintenance or provision of such infrastructure, or sabotage could adversely affect the Corporation's operations, financial condition and result of operations. Adequate infrastructure development will also be required in any country in which the Corporation operates or transacts. The limited infrastructure available, the need for future development of infrastructure and the cost associated with such development may affect the Corporation's ability to explore and develop its property and to export, store and transport its potash or magnesium by-products. There can be no assurance that future instability in one or more of the countries in which Karnalyte operates or intends to operate in the future, actions by government or by companies doing business there, or actions taken by the international community will not have a material adverse effect on the countries in question and in turn on the Corporation's financial conditions or operations.

### **The future trading price of the Common Shares will be subject to the price volatility associated with publicly traded securities**

Securities of mining companies have experienced, and continue to experience, substantial volatility often based on factors unrelated to the financial performance or prospects of the companies involved. These factors include the impact of the breakup of the BPC on the global potash industry, macroeconomic developments in North America and globally, and market perceptions of the attractiveness of particular industries. As a result of any of these factors, the market price of the securities of the Corporation at any given point in time may be subject to market trends and macroeconomic conditions generally, notwithstanding any potential success of the Corporation in developing the Karnalyte Property and the Wynyard Carnallite Project, creating revenues, cash flows or earnings and may not accurately reflect the long-term value of the Corporation. There can be no assurance that the continual fluctuations and the sustained decline in the trading price of the Common Shares will not continue.

### **Shareholders may suffer dilution in the future**

The Corporation may make future acquisitions or enter into financings or other transactions involving the issuance of securities of the Corporation which may be dilutive to existing security holders. In connection with the Subscription Agreement, GSFC may be issued an additional 555,555 Common Shares pursuant to a purchase price adjustment mechanism, if commercial production has not commenced on or before October 1, 2016 which may be dilutive to existing shareholders.

### **The Corporation has significant shareholders**

As of the date hereof, GSFC owns and controls an aggregate of 5,490,306 Common Shares, representing approximately 19.98% of the current issued and outstanding Common Shares. Pursuant to the terms of the Subscription Agreement, GSFC may be issued an additional 555,555 Common Shares pursuant to a purchase price adjustment mechanism if commercial production has not commenced on or before October



1, 2016. Accordingly, subject to applicable law and the fiduciary duty of the Corporation's directors and officers, GSFC may be able to exercise influence over matters requiring shareholder approval.

**The Corporation has no intention to pay dividends in the near future**

The Corporation has not paid dividends in the past and has no plans to pay dividends for the foreseeable future. The future dividend policy of the Corporation will be determined by the Board.

**Protection of intellectual property may be necessary for maintaining the Corporation's competitive advantage, but cannot be assured**

The Corporation relies on various intellectual property rights to maintain proprietary control over its improvements to the industry standard solution mining process and the formulation of the Corporation's anticipated products.

The success of Karnalyte may depend, in part, on its ability to maintain trade secret protection and operate without infringing the proprietary rights of third parties. In certain cases where management considers that a patent will be an effective means of maintaining its competitive advantage, Karnalyte has made or may make application for patents in the appropriate jurisdictions. Karnalyte has also made applications to Canadian and United States trademark offices for the protection of its logos and branding.

There can be no assurance that the Corporation's patent applications will be valid, or that patents will issue from the patent applications that Karnalyte has filed or may file. Additionally, there can be no assurance that the scope of any claims granted in any patent will provide the Corporation with adequate protection for its improvements to the industry standard solution mining process and the formulation of the Corporation's anticipated products currently or in the future. Karnalyte cannot be certain that the creators of its technology were the first inventors the improvements covered by patent applications or that they were the first to file. Accordingly, there can be no assurance that the patent application will be valid or will afford Karnalyte with protection against competitors with similar improvements.

The products developed by Karnalyte may also incorporate technology and processes that will not be protected by any patent and are capable of being duplicated or improved upon by competitors. Accordingly, the Corporation may be vulnerable to competitors which develop competing technology, whether independently or as a result of acquiring access to the proprietary information of Karnalyte and trade secrets. In addition, effective patent protection may be unavailable or limited in certain foreign countries and may be unenforceable under the laws of certain jurisdictions. Policing unauthorized use of Karnalyte's improvements could prove to be difficult, and there can be no assurance that the steps taken by the Corporation will prevent misappropriation of its improvements. In addition, litigation may be necessary in the future to enforce Karnalyte's intellectual property rights, to protect its patents, to determine the validity and scope of the proprietary rights of others, or to defend against claims of infringement or invalidity. Such litigation could result in substantial costs and diversion of resources and could have a material adverse effect on the Corporation's business, operating results or financial condition.

Although the Corporation does not believe that its improvements infringe on the proprietary rights of any third parties, there can be no assurance that infringement or invalidity claims (or claims for indemnification resulting from infringement claims) will not be asserted or prosecuted against Karnalyte or that any such assertions or prosecutions will not materially adversely affect Karnalyte's business, financial condition or results of operations. Irrespective of the validity or the successful assertion of such claims, Karnalyte could incur significant costs and diversion of resources with respect to the defence

thereof which could have a material adverse effect on Karnalyte's business, financial condition or results of operations.

**The Corporation may become subject to litigation, the results of which may have a material and adverse impact on the Corporation's business, financial position and prospects**

The Corporation may become involved in, named as a party to, or the subject of, various legal proceedings, as well as contract disputes, regulatory proceedings, tax proceedings and legal actions relating to intellectual property, product liability, property damage, property taxes, land rights, and the environment. The outcome with respect to outstanding, pending or future proceedings cannot be predicted with certainty and may be determined adversely to Karnalyte and as a result, could have a material adverse effect on Karnalyte's assets, liabilities, business, financial condition and results of operations. Even if the Corporation prevails in any such legal proceedings, the proceedings could be costly and time-consuming and would divert the attention of management and key personnel from Karnalyte's business operations, which could adversely affect the Corporation's financial condition.

**The Corporation does not insure against all possible risks**

Although the Corporation may obtain liability insurance in an amount which management considers adequate, the nature of the risks for mining companies is such that liabilities might exceed policy limits, the liabilities and hazards might not be insurable, or the Corporation might not elect to insure itself against such liabilities due to high premium costs or other reasons. Should such liabilities occur, the Corporation could incur significant costs that could have a material adverse effect upon its financial condition.

**The Corporation has negative operating cash flow**

For the year ended December 31, 2013, the Corporation had negative operating cash flow. The Corporation's ability to generate positive operating cash flow will depend upon a number of factors, including, among others, its ability to successfully construct and operate at the Wynyard Carnallite Project, the quantity of potash product that will be produced and the price at which the Corporation can sell the potash product produced from the Wynyard Carnallite Project. If positive operating cash flow is not achieved in a timely fashion, the Corporation may be required to raise additional funds through the issuance of additional equity or debt securities. These financings may be on terms less favourable to the Corporation than those obtained previously.

**Future operational and marketing risks may affect the Corporation**

There is a risk that the Initial Facility, when constructed, may not be or continue to be profitable or successful. There can be no assurance that the Initial Facility will commence commercial operation on schedule or at all, or that the Initial Facility will operate at planned production capacity. The delay or cancellation of any of planned plan expansion may affect the Corporation's ability to satisfy customer orders.

There are also many risks associated with the operating facilities, including the ability to secure materials and components, utility prices, the failure or substandard performance of equipment, hiring and maintain a productive and reliable workforce, labour disputes, natural disasters, suspension of operations and compliance with existing and new governmental statues, regulations, and policies. The occurrence of material operational problems, including but not limited to any of the events described above, could have a material adverse effect on the Corporation's business, prospects, financial position, financial condition and/or results of operations.

Achieving market success will require substantial marketing efforts and the expenditure of significant funds to inform potential customers and third party distributors of the distinctive characteristics and benefits of Karnalyte's products. The Corporation's long-term success may also depend, to a significant extent, on its ability to expand its present internal marketing organization. The Corporation will, among other things, have to attract and retain experienced marketing and sales personnel. No assurance can be given that the Corporation will be able to attract and retain qualified or experienced marketing and sales personnel or that any efforts undertaken by such personnel will be successful.

The Corporation does not currently have any contracts in place for the sale of any future production. To the extent that future customers or third parties delay, reduce or cancel orders or are unable or refuse to pay for products and services purchased in a timely fashion or at all, the Corporation's business, prospects, financial condition, financial position, and results of operations may be affected.

**Environmental regulations may impact the development and operation of the Wynyard Carnallite Project and increase the Corporation's costs**

All phases of the Corporation's operations are subject to environmental regulation. Environmental legislation is becoming stricter, with increased fines and penalties for non-compliance, more stringent environmental assessments of proposed projects and a heightened degree of responsibility for companies and their officers, directors and employees. There can be no assurance that environmental regulation will not adversely affect the Corporation's operations. Environmental hazards may exist on the Karnalyte Property which are unknown to the Corporation at present which have been caused by previous or existing owners or operators of the property.

Environmental legislation provides for restrictions and prohibitions on spills, releases or emissions of various substances produced in association with certain mining industry operations, which could result in environmental pollution. A breach of such legislation may result in the imposition of fines and penalties. In addition, certain types of operations require the submission and approval of environmental impact assessments. Environmental legislation is evolving in a manner which means stricter standards, and enforcement, fines and penalties for non-compliance are more stringent.

Environmental assessments of proposed projects carry a heightened degree of responsibility for companies and directors, officers and employees. The cost of compliance with changes in governmental regulations has a potential to reduce the profitability of operations. There is no assurance that future changes in environmental regulation, if any, will not adversely affect the Corporation's operations.

**Governmental and regulatory requirements could adversely impact the development of the Corporation's projects**

The current exploration and development activities, and future operations of the Corporation are and will be governed by laws and regulations governing mineral concession acquisition, prospecting, development, mining, production, exports, taxes, labour standards, occupational health, waste disposal, toxic substances, land use, environmental protection, mine safety and other matters. Companies engaged in exploration activities and in the development and operation of mines and related facilities may experience increased costs and delays in production and other schedules as a result of the need to comply with applicable laws, regulations and permits. Permits are subject to the discretion of government authorities and there can be no assurance that the Corporation will be successful in obtaining all required permits. Amendments to current laws and regulations governing the operations and activities of the Corporation or more stringent implementation thereof could have a material adverse effect on the Corporation's business, financial condition and results of operations. Further, there can be no assurance that all permits which the Corporation may require for future exploration, construction of mining facilities

and conduct of mining operations will be obtainable on reasonable terms or on a timely basis, or that such laws and regulations would not have an adverse effect on any project which the Corporation may undertake.

Failure to comply with applicable laws, regulations and permits may result in enforcement actions thereunder, including the forfeiture of claims, orders issued by regulatory or judicial authorities requiring operations to cease or be curtailed, and may include corrective measures requiring capital expenditures, installation of additional equipment or costly remedial actions. The Corporation may be required to compensate those suffering loss or damage by reason of its mineral exploration and development activities and may have civil or criminal fines or penalties imposed for violations of such laws, regulations and permits. Existing and possible future laws, regulations and permits governing operations and activities of exploration companies, or more stringent implementation thereof, could have a material adverse impact on the Corporation and cause increases in capital expenditures or require abandonment or delays of the Corporation's operations. Changes to tax laws may also have an adverse effect on the Corporation's future earning potential.

### **The cyclical nature of the potash markets may adversely affect the Corporations financial position**

The market for potash, tends to move in cycles. Periods of high demand, increasing profits and high capacity utilization lead to additional capacity through expansion of existing mines and investment in new mines which results in increased production. This growth increases supply until the market is over-saturated, leading to declining prices and declining capacity utilization until the cycle repeats. This cyclicity in prices can result in supply/demand imbalances and pressures on potash prices and profit margins which may impact Karnalyte's financial results and price for the Common Shares. In July 2013, the breakup of the BPC created significant market uncertainty which resulted in reduced prices and cautious purchasing behavior in the global potash market. This uncertainty has had an adverse impact on the Corporation's ability to access the capital required to proceed with the construction of the Wynyard Carnallite Project as planned.

The potash, industry is dependent on conditions in the economy generally and the agriculture sector, both in North America and offshore. The agricultural sector can be affected by adverse weather conditions, cost of inputs, commodity prices, animal diseases, the availability of government support programs and other uncertainties that may affect sales of fertilizer products. The Corporation is not currently producing and selling any mineral products; however, a decrease in the interest of investors in potash (which has been impacted by recent global events and may be caused by decreased commodity prices) could have a material adverse effect on the Corporation's ability to obtain ongoing financing and future additional off-take partners.

### **Adverse changes in the price of potash would adversely affect the future revenues of the Corporation and its ability to develop and operate the Wynyard Carnallite Project**

The potential economic viability of the Corporation's operations, and the corresponding value of the Common Shares, will be significantly affected by changes in potash prices. As a result of Uralkali's decision to leave the Belarusian Potash Company marketing agency, management of the Corporation believes the potential exists for potash prices to remain at low levels for some time. The economics of the Wynyard Carnallite Project are highly sensitive to a decrease in potash prices. Potash prices can fluctuate widely and are affected by numerous factors beyond the Corporation's control. The market prices for potash are affected by rates of production of potash from mining to availability of supply, and may be affected by a variety of unpredictable international economic, monetary and political considerations. Macroeconomic considerations include: expectations of future rates of inflation; the strength of, and confidence in, the US dollar, the currency in which the price of potash is generally quoted, and other

currencies; interest rates; global or regional economic events; and, competition from other types of fertilizers.

**The Corporation's future mining operations are subject to the normal risks associated with mine operations**

The Corporation's future mining operations are subject to the risks normally incident to extraction of minerals, including explosions and other accidents, fires, flooding, discharge of toxic chemicals and other hazards, all of which could result in personal injuries, loss of life, damage to the property of the Corporation and others, environmental damage, delayed production, increased production costs, unexpected capital costs, and possible legal liability for any and all damages. The occurrence of any such risks or such liabilities may have a material adverse effect on the Corporation's financial position and prospects.

**Competition in the mining industry may adversely affect the Corporation**

The potash mining industry is intensely competitive. The Corporation competes with other mining companies, most of which have greater resources and experience. Competition in the potash and magnesium product industry is primarily for properties which can be developed and can produce economically; the technical expertise to find, develop, and operate such properties; the labour to operate the properties; and the capital for the purpose of funding such properties. Many competitors not only explore for and mine potash, but conduct refining and marketing operations on a worldwide basis. Such competition may result in the Corporation being unable to acquire desired properties, to develop and integrate new technologies, to recruit or retain qualified employees or to acquire the capital necessary to fund its operations and develop its properties. The Corporation's inability to compete with other mining companies for these resources would have a material adverse effect on the Corporation's business and results of operations.

In the future, the Corporation may also compete with other mining companies in marketing its potash to foreign and domestic markets. Any inability to compete with established competitors for markets would have a material adverse effect on the Corporation's business and results from operations.

**The Corporation may be subject to risks associated with foreign operations**

International operations are subject to political, economic and other uncertainties including, among others, risk of war, risk of terrorist activities, border disputes, expropriation, renegotiations or modification of existing contracts, restrictions on repatriation of funds, import, export and transportation regulations and tariffs, taxation policies including royalty and tax increases and retroactive tax claims, exchange controls, limits on allowable levels of production, currency fluctuations, labour disputes, sudden changes in laws, government control over potash and magnesium pricing and other uncertainties arising out of foreign government impact over the Corporation's future international operations. The governments and other regulatory agencies in the foreign jurisdictions in which Karnalyte intends to operate in the future may make sudden changes in laws relating to taxation or impose higher tax rates which may affect Karnalyte's operations in any significant manner. Furthermore, in the event of a dispute arising from international operations, the Corporation may be subject to the exclusive jurisdiction of foreign courts or may not be successful in subjecting foreign persons to the jurisdiction of courts in Canada. There can be no assurances that Karnalyte will be successful in protecting itself from the impact of such risks.

### **Currency fluctuations may adversely impact the financial position of the Corporation**

Karnalyte has entered into the Offtake Agreement with GSFC for the sale of certain of its potash production. Sales under the Offtake Agreement are denominated in US dollars. Karnalyte may sell additional potash to the US or other foreign markets in the future. Net income from sales into the US and other foreign markets may be denominated in US dollars, and resulting fluctuations in the currency exchange rate between the Canadian dollar and the US dollar may have an impact on the Canadian dollar amount of net income realized from future potential sales to foreign markets.

### **Weather patterns may affect future demand**

Anomalies in regional weather patterns can have a significant and unpredictable impact on the demand for the Corporation's products and services, and may also have an impact on prices and as result, may impact future revenue. The Corporation's future customers have limited windows of opportunity to complete required tasks at each stage of crop cultivation. Should adverse weather occur during these seasonal windows, the Corporation could face the possibility of reduced revenue in the season without the opportunity to recover until the following season.

### **Forward-looking information may prove inaccurate**

Investors are cautioned not to place undue reliance on forward-looking information. By its nature, forward-looking information involves numerous assumptions and known and unknown risks and uncertainties, of both a general and specific nature, that could cause actual results to differ materially from those suggested by the forward-looking information or contribute to the possibility that predictions, forecasts or projections will prove to be materially inaccurate.

## **DIVIDEND POLICY**

The Corporation has not declared or paid a dividend. Other than pursuant to the TSX's policies and the requirements of the ABCA, there are no restrictions on the Corporation that would prevent it from paying a dividend. However, the board of directors intends to retain future earnings for reinvestment in the Corporation's business, and therefore, has no current intention to declare or pay dividends on the Common Shares in the foreseeable future. The Corporation's dividend policy will be reviewed from time to time in the context of its earnings, financial condition and other relevant factors.

## **GENERAL DESCRIPTION OF CAPITAL STRUCTURE**

The authorized share capital of the Corporation consists of an unlimited number of Common Shares and an unlimited number of Preferred Shares issuable in series. The following is a summary of the rights, privileges, restrictions and conditions attaching to each class of shares of Karnalyte.

### **Common Shares**

The holders of Common Shares are entitled to receive notice of, and to vote at every meeting of the Karnalyte shareholders and have one vote for each Common Share held. Subject to the rights, privileges, restrictions and conditions attaching to any preferred shares of the Corporation, the holders of Common Shares are entitled to receive such dividends as the directors of Karnalyte from time to time, by resolution, declare. Subject to the rights, privileges, restrictions and conditions attached to any preferred shares of the Corporation, in the event of the liquidation, dissolution or winding-up of the Corporation or upon any distribution of the assets of Karnalyte among Karnalyte shareholders being made (other than by

way of dividend out of monies properly applicable to the payment of dividends), the holders of Common Shares are entitled to share in the proceeds pro rata.

### Preferred Shares

The Corporation is also authorized to issue an unlimited number of preferred shares without nominal or par value, of which, as at the date hereof, none have been issued. The preferred shares of Karnalyte may be issued in one or more series and the directors are authorized to fix the number of shares in each series and to determine the designation, rights, privileges, restrictions and conditions attached to the shares of each series. The preferred shares of Karnalyte rank on a parity with the preferred shares of every other series and are entitled to a priority over the Common Shares, and any other class of shares ranking junior to the preferred shares of the Corporation with respect to the payment of dividends and the distribution of assets upon the liquidation of the Corporation.

### MARKET FOR SECURITIES

The Common Shares are listed and posted for trading on the TSX under the trading symbol "KRN". The following table sets forth certain trading information in respect of the Common Shares on the TSX for the periods indicated.

#### Common Shares

	Trading Price (\$)	Price Range (\$)		Trading
	Close (Average)	High	Low	Volume
<b>2013</b>				
January	8.03	9.65	6.93	621,204
February	8.12	8.50	7.53	295,564
March	7.94	8.44	7.66	376,172
April	7.37	8.26	6.31	277,703
May	6.97	7.46	6.53	207,901
June	6.82	7.24	6.15	393,272
July	5.58	6.24	2.80	1,337,164
August	2.25	3.20	1.85	3,584,689
September	1.99	2.19	1.84	1,365,684
October	1.88	2.21	1.51	1,875,825
November	1.52	1.69	1.40	1,272,316
December	1.51	1.88	1.17	2,073,024

### DIRECTORS AND OFFICERS

The following table sets out the names and municipalities of residence of the directors and executive officers of the Corporation, their present position(s) and offices with the Corporation, their principal occupations during the last five years and their holdings of Common Shares as at the date hereof.

The term of office of the directors expires annually at the time of the Corporation's annual shareholder meeting or when or until their successor is duly appointed or elected. The term of office of the Corporation's executive officers expires at the discretion of the Corporation's directors. As at December 31, 2013, the Corporation's directors and executive officers as a group beneficially own, directly or indirectly, or exercise control or direction over, an aggregate of 4,654,131 of the issued and outstanding Common Shares representing 16.94% of the Common Shares outstanding at December 31, 2013. As of the date of this AIF, the Corporation's directors and executive officers as a group beneficially own, directly or indirectly, or exercise control or direction over, an aggregate of 4,654,131 of the issued and

outstanding Common Shares representing 16.94 % of the Common Shares outstanding. None of the directors or executive officers have non-compete or nondisclosure agreements with the Corporation.

<u>Name and Municipality of Residence</u>	<u>Position with the Corporation</u>	<u>Principal Occupation for Past Five Years</u>	<u>Number of Common Shares Owned Directly or Indirectly<sup>(9)</sup></u>
Robin L. Phinney <sup>(4)</sup> Okotoks, Alberta	President, Chief Executive Officer and Director since November 16, 2007	President, Chief Executive Officer and a founder of the Corporation since November 2007. Prior thereto co-founder and Vice President of Engineering with Whitemud Resources Inc. from 2003 to 2007.	4,012,249 <sup>(5)</sup>
Ronald Love <sup>(4)</sup> Calgary, Alberta	Executive Vice-President, since May 11, 2012, Chief Financial Officer since May 1, 2010 and Director since February 4, 2010	Executive Vice-President since May 11, 2012. Prior thereto Vice-President, Finance of the Corporation since May 1, 2010. Prior thereto, Vice-President Finance, Administration and Treasury, with The Churchill Corporation from November 2009 to April 2010. Prior thereto, Chief Financial Officer and Vice-President Finance of Whitemud Resources Inc. from 2006 to 2009. Prior thereto, Vice-President and Controller of Altalink L.P. from 2004 to 2006.	80,623 <sup>(6)</sup>
Bruce Townsend <sup>(1)</sup> Venice, Florida, USA	Director since September 1, 2009 and Chairman since June 4, 2010	Retired since 2009. Prior thereto, Director, Financial Analysis Nitrogen Operations with PCS from 2001 to July 2009.	135,000
Ian Brown <sup>(2)(3)</sup> Calgary, Alberta	Director since April 9, 2010	Independent businessman and corporate director since January 2006. Prior thereto, Mr Brown was a Senior Managing Director of Raymond James Ltd. from 1995 to 2005.	19,291
Mark Wayne <sup>(2)(3)</sup> Calgary, Alberta	Director since April 28, 2010	Vice President of MGI Securities Inc. since January 2005, Chief Financial Officer of Antares Minerals Inc. from 2004 to December 2010, and Chief Financial Officer of Regulus Resources Inc. from January 2011 to present. Prior thereto, co-founder and Chief Executive Officer of Lightyear Capital Inc. from 2001 to 2004, and Chief Financial Officer of QGX Ltd. from 1996 to 2006.	31,291
Siu Ma <sup>(4)</sup> Edmonton, Alberta	Vice-President, Engineering, Research and Development since July 1, 2010	Vice President Engineering, Research and Development of the Corporation since July 1 2010. Prior thereto, Senior Associate Process Engineer from 2004 to June 2010 with Syncrude. Prior thereto, Senior Process Engineer for Dynatec Corporation, 1996 to 2004.	185,156
Robert T. Macgillivray Nanton, Alberta	Vice-President, Marketing since February 2010	Vice-President, Marketing of the Corporation since February 2010. Prior thereto, a founder and consultant to the Corporation since 2007. Prior thereto, the CEO of Hub Commodities from 1995 to 2007.	190,521 <sup>(7)</sup>
Martin Hall <sup>(3)</sup> Calgary, Alberta	Director since November 14, 2013	Semi – retired Chartered Accountant. From 2003 acted as corporate director and financial consultant to various public and private corporations. Prior thereto served as Chief Financial Officer of Tesco Corporation, an oilfield service company	Nil



<b>Name and Municipality of Residence</b>	<b>Position with the Corporation</b>	<b>Principal Occupation for Past Five Years</b>	<b>Number of Common Shares Owned Directly or Indirectly<sup>(9)</sup></b>
Raymond C. Floyd <sup>(1)(4)</sup> Houston, Texas, USA	Director since December 19, 2011	Retired since September 2012. Prior thereto, Senior Vice-President of Suncor Energy from 2008 to 2012. Prior thereto, Global Manager of Exxon Mobil Corporation from 1981 to 2003.	Nil
Vishvesh D. Nanavaty <sup>(2)(3)(4)</sup> Gujarate State, India	Director since March 7, 2013	General Manager of Finance of Gujarat State Fertilizers and Chemicals Limited since 2002.	Nil <sup>(8)</sup>
Mukund Purohit	Vice-President, International Business Development since May 24, 2013	Currently a Director of N-Viro Fertilizer India Pvt. Ltd, Neopolitan Pizza Pvt Ltd., Indo-Canadian Business Chamber and advisor to the Saskatchewan Ministry of the Economy. Prior thereto, served on the board of Panorama India from 2007 to 2011. Prior thereto, an Executive Trade Committee member to Indo-Canada Chamber of Commerce from 2002 to 2003.	Nil

**Notes:**

- (1) Member of the Environmental, Health and Safety Committee.
- (2) Member of the Compensation and Corporate Governance Committee.
- (3) Member of the Audit Committee.
- (4) Member of Capital Investment Committee. The Capital Investment Committee is comprised of members of management, directors and external experts responsible for the implementation of Phase 1 of the Wynyard Carnallite Project.
- (5) This amount includes 3,250,000 Common Shares held by 1385659 Alberta Ltd., a private company controlled by Robin L. Phinney. This amount includes 2,779 Common Shares held by Mr. Phinney's spouse.
- (6) This amount includes 1,455 Common Shares held by Mr. Love's spouse.
- (7) This amount includes 5,000 Common Shares held by Graintrade.com Inc., a private company owned by Mr. Macgillivray and his spouse. This amount includes 47,080 Common Shares held by Mr. Macgillivray's spouse.
- (8) This amount does not include the 5,490,306 Common Shares held by GSFC.
- (9) As of the date of this AIF.

**Cease Trade Orders**

Other than as disclosed below, to the knowledge of Karnalyte, no director or executive officer is, as of the date of this AIF, or was within 10 years prior to the date of this AIF, a director, chief executive officer or chief financial officer of any company (including Karnalyte) that: (i) was subject to a cease trade order, an order similar to a cease trade order or an order that denied Karnalyte access to any exemption under securities legislation and which order was in effect for a period of more than 30 consecutive days while he was acting in the capacity as director, chief executive officer or chief financial officer of such company; or (ii) was subject to any of the foregoing orders for a period of more than 30 consecutive days after he ceased to be a director, chief executive officer or chief financial officer of such company and which resulted from an event that occurred while he was acting in such capacity.

Martin Hall was a director and Chief Financial Officer of Turnkey E&P Inc. ("**Turnkey**"), a TSX listed company. Mr. Hall resigned as a director of Turnkey on August 12, 2008 due to a dispute over financial policies. On November 17, 2008, Turnkey's principal operating subsidiary in the United States filed for protection under Chapter 11 of the United States Bankruptcy Code and the bankruptcy was subsequently converted to Chapter 7 and was liquidated by a Bankruptcy Trustee. Turnkey was the subject of a cease trade order issued by the Alberta Securities Commission on December 14, 2009 and by other securities commissions in Canada subsequent to that date for failing to file interim unaudited financial statements, interim management discussion and analysis and certification of interim filings for the interim period

ended September 30, 2009. Turnkey was moved from the TSX to the NEX, and was ultimately delisted from the NEX in June 2010.

Mr. Hall was appointed a director of Canadian Oilfield Solutions Corp ("**COSC**") on March 13, 2013. On April 25, 2013, a cease trade order was issued against COSC by the Alberta Securities Commission prohibiting all trading or purchasing of its securities and on May 17, 2013, a cease trade order was issued against the Corporation by the British Columbia Securities Commission. The cease trade orders were issued on the basis that the COSC's financial reports for the interim periods ended March 31, 2012, June 30, 2012 and September 30, 2012 were not prepared in accordance with Alberta securities laws. On December 3, 2013, the Alberta and British Columbia securities Commissions revoked their respective cease trade orders as COSC had refiled its 2012 financial reports and filed financial reports up to and including the interim period ended September 30, 2013.

### **Bankruptcies**

Other than as disclosed herein, to the knowledge of Karnalyte, no director, executive officer or shareholder holding a sufficient number of securities to affect materially the control of Karnalyte, is, as of the date of this AIF, or was within 10 years prior to the date of this AIF, a director or executive officer of any company that, while such person was acting in that capacity, or within a year of that person ceasing to act in that capacity, became bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver-manager or trustee appointed to hold its assets.

Mark Wayne was a director of Railpower Technologies Corp. ("**Railpower**"), a TSX listed company, from February 2, 2002 until June 1, 2008 when Mr. Wayne did not stand for re-election as a director at the Railpower annual shareholder meeting. In February 2009, Railpower made an application for protection under the *Companies' Creditors Arrangement Act* (Canada). In June 2009, Railpower was purchased by R. J. Corman Railroad Group, LLC.

To the knowledge of Karnalyte, no director or executive officer of Karnalyte, or shareholder holding a sufficient number of securities to affect materially the control of Karnalyte has, within the 10 years before the date of this AIF, become bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency, or become subject to or instituted any proceedings, arrangement or compromise with creditors, or had a receiver, receiver manager or trustee appointed to hold the assets of the director, executive officer or shareholder.

### **Penalties or Sanctions**

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

### **Conflicts of Interest**

V.E. Dale Burstall, the Secretary of the Corporation, is a partner with Burstall Winger LLP, which provides legal services to the Corporation on a fee for services basis.

There are potential conflicts of interest to which the directors and officers of the Corporation will be subject in connection with the operations of the Corporation. Conflicts, if any, will be subject to the procedures and remedies available under the ABCA. The ABCA provides that in the event that a director has an interest in a contract or proposed contract or agreement, the director shall disclose his interest in such contract or agreement and shall refrain from voting on any matter in respect of such contract or agreement unless otherwise provided by the ABCA.

### **PROMOTER**

Robin L. Phinney, the President, Chief Executive Officer and a director may be considered to be the promoter of the Corporation because he took the initiative in founding and organizing the business of the Corporation. As of December 31, 2013, Mr. Phinney owned 4,012,409 Common Shares representing 14.6% of the issued and outstanding Common Shares (on a non-diluted basis) as at December 31, 2013, of which 3,250,000 Common Shares are held by 1385659 Alberta Ltd., a private company which Mr. Phinney controls. In addition, as at December 31, 2013, Mr. Phinney had 377,000 Options.

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

Management of Karnalyte is not aware of any legal proceedings to which the Corporation is or was a party or of which any of its property is or was the subject of, during the financial year ended December 31, 2013, nor are any such proceedings known to the Corporation to be contemplated.

There were no penalties or sanctions imposed against the Corporation by a court relating to provincial and territorial securities legislation or by a securities regulatory authority, during the financial year ended December 31, 2013, nor have there been any other penalties or sanctions imposed by a court or regulatory body against the Corporation, and the Corporation did not enter into any settlement agreements before a court relating to provincial and territorial securities legislation or with a securities regulatory authority.

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

Other than the entering into the Offtake Agreement, Side Letter and Subscription Agreement between the Corporation and GSFC and the concurrent nomination of Vishvesh Nanavaty, as nominee of GSFC, to the Board of Directors as disclosed herein. There were no material interests, direct or indirect, of any director or executive officer of the Corporation, any person or company that beneficially owns, or controls or directs, directly or indirectly, more than 10% of the outstanding Common Shares, or any associate or affiliate of any of such persons or companies, in any transaction within the three years most recently completed financial years that has materially affected or is reasonably expected to materially affect the Corporation or a subsidiary of the Corporation.

### **AUDITORS, REGISTRAR AND TRANSFER AGENT**

The auditors of the Corporation are KPMG LLP, Chartered Accountants, at their principal office in Calgary, Alberta.

The transfer agent and registrar for the Common Shares is Olympia Trust Company at its principal office in Calgary, Alberta and its office in Toronto, Ontario.

## MATERIAL CONTRACTS

The only material contracts entered into by the Corporation or on its behalf, in the most recently completed financial year, other than contracts entered into in the ordinary course of business, are the following:

1. The Offtake Agreement;
2. The Subscription Agreement; and
3. The Side Letter.

Copies of these agreements are available on SEDAR [www.sedar.com](http://www.sedar.com).

## AUDIT COMMITTEE

Pursuant to the provisions of National Instrument 52-110 - *Audit Committees* ("**NI 52-110**"), the Corporation is required to disclose certain information concerning its audit committee including the audit committee's charter, the composition of the audit committee and its relationship with its independent auditors. Such information is set forth below. The charter of the Corporation's audit committee is attached as Appendix A to this AIF.

### Composition of Audit Committee

The audit committee is comprised of Ian Brown (Chairman), Bruce Townsend, Mark Wayne, Vishvesh Nanavaty and Martin Hall. Each of Ian Brown, Mark Wayne, Vishvesh Nanavaty and Mark Hall are financially literate" and "independent" within the meaning of NI 52-110. The relevant education and experience of each audit committee member is outlined below.

#### *Ian Brown, CA*

Mr. Brown is a Chartered Accountant with over 20 years of financial and capital markets experience. Mr. Brown is currently an independent businessman and corporate director. Mr. Brown was a Senior Managing Director of Raymond James Ltd. from 1995 to 2005. Prior thereto, he held the position of Executive Vice Present of the Alberta Stock Exchange from 1986 to 1995. Mr. Brown is presently an active board member of a number of public and private companies, including Bonavista Energy Trust, Cathedral Energy Services Ltd., Petrobank Energy and Resources Ltd., PetroBakken Energy Ltd. and the Canadian Investor Protection Fund. Mr. Brown has also previously served on the boards of the TSX Group and Market Regulation Services. Mr. Brown receives his Bachelor of Arts degree from McMaster University in 1979, his Bachelor of Commerce degree from University of Windsor in 1980, and his Chartered Accountant designation in 1983.

#### *Mark Wayne*

Mr. Wayne has over 20 years' experience in corporate finance and related matters. He was a securities lawyer in Calgary for seven years before entering the investment industry in 1987. He has helped raise early rounds of capital for several public and private companies over the years, in a variety of sectors including oil and gas, mining and technology. Currently, Mr. Wayne is the Vice-President of MGI Securities Inc., and Chief Financial Officer of Regulus Resources Inc. Mr. Wayne was the co-founder and Chief Executive Officer of Lightyear Capital Inc. from 2001 to 2004, and served as Chief Financial Officer of QGX Ltd. from 1996 to 2006 and as Chief Financial Officers of Antares Minerals Inc. from 2004 to December 2010. He has served and is currently serving as a board member on several public and private companies.

*Vishvesh Nanavaty*

Mr. Nanavaty has been the General Manager of Finance of GSFC since 2002. Prior to joining GSFC, Mr. Nanavaty was Senior Finance Manager and Company Secretary at Johnson Pump (India) Ltd. from 1992 to 2002. Mr. Nanavaty is a chartered accountant and has a First Class Commerce degree from the Gujarat University. Mr. Nanavaty has also received designations from the Institute of Cost and Works Accountants of India and the Institute of Company Securities of India.

*Martin Hall*

Mr. Hall qualified as a Chartered Accountant in 1978 and has been involved in the oilfield services sector since 1994. From 1994 to April 2003 he was the Vice President Finance and Chief Financial Officer and Secretary of Tesco Corporation, a company listed on the TSX engaged in the manufacture, sale and rental of drilling equipment domestically and internationally. Since 2004, he has held various board positions including Drillers Technology Corporation, a drilling contractor listed on the TSX (chairman and chair of the audit committee); Saxon Energy Services, a drilling contractor (financial consultant); Wellco Energy Services Trust, a diversified oilfield services trust (director and chair of the audit committee and corporate governance committee); Turnkey E&P Inc., a TSX listed exploration and production Corporation and drilling contractor (director and part-time Chief Financial Officer); and HSE Integrated Ltd., a TSX listed health, safety and environmental service company (director and chair of the audit committee) and Canadian Oilfield Solutions Corp., a TSX Venture Exchange oil and gas service company (director, chair of the audit committee and member of the corporate governance and nominating committee)

**Audit Committee Oversight**

At no time since incorporation was a recommendation of the audit committee to nominate or compensate an external auditor not adopted by the Board of Directors of the Corporation.

**Reliance on Certain Exemptions**

At no time since the commencement of the Corporation's most recently completed financial year has the Corporation relied on the exemptions in Section 2.4 of NI 52-110 in relation to "De Minimus Non-Audit Services" or any exemption provided by Part 8 of NI 52-110.

**Pre-Approval Policies and Procedures**

The Audit Committee has adopted a policy in relation to the engagement of non-audit services whereby the Audit Committee pre-approved certain services from its auditors of up to \$50,000 in aggregate. Any services by the auditor above these thresholds must be brought to the Audit Committee for approval.

**External Auditor Service Fees**

The following table provides information about the fees billed to the Corporation, respectively, for professional services rendered by KPMG LLP, Chartered Accountants, during the years ended 2012 and 2013:

<b>KPMG LLP</b>	<b>2013</b>	<b>2012</b>
	<b>(\$)</b>	<b>(\$)</b>
Audit Fees <sup>(1)</sup>	119,500	143,500
Audit Related Fees <sup>(2)</sup>	7,000	28,855
Tax Fees <sup>(3)</sup>	51,800	20,145
All Other Fees <sup>(4)</sup>	Nil	Nil
<b>Total<sup>(5)</sup></b>	<b>178,300</b>	<b>\$192,500</b>

**Notes:**

- (1) Audit fees were for professional services rendered by the auditors for the audit of the Corporation's annual financial statements and review of the interim financial statements.
- (2) Audit-related fees are for services performed by the Corporation's auditors related to and in connection with regulatory filings and assistance with due diligence of potential strategic partners.
- (3) Tax fees are for tax compliance, tax advice and tax planning.
- (4) All other fees for services performed by the Corporation's auditors.
- (5) These fees only represent professional services rendered and do not include any out-of-pocket disbursements or fees associated with filings made on the Corporation's behalf. These additional costs are not material as compared to the total professional services fees for each year.

**INTERESTS OF EXPERTS**

The Corporation's auditors are KPMG LLP, Chartered Accountants, who have confirmed they are independent in respect of Karnalyte within the meaning of the relevant rules and related interpretations prescribed by the professional bodies in Canada and any applicable legislation or regulations.

ERCOSPLAN, North Rim, Foster Wheeler Canada and Lyntek collectively prepared the 2012 Technical Report. Neither ERCOSPLAN, North Rim, Foster Wheeler Canada nor Lyntek nor any associate or affiliate of ERCOSPLAN, North Rim, Foster Wheeler Canada or Lyntek owns, directly or indirectly, any Common Shares. No director, officer or employee of ERCOSPLAN, North Rim, Foster Wheeler Canada or Lyntek is expected to be elected, appointed or employed as a director, officer or employee of the Corporation or any of its associates or affiliates.

**ADDITIONAL INFORMATION**

Additional information relating to Karnalyte may be found on SEDAR at [www.sedar.com](http://www.sedar.com). Additional information regarding directors' and officers' remuneration and indebtedness, principal holders of Karnalyte's securities and securities authorized for issuance under equity compensation plans is contained in Karnalyte's management information circular prepared in respect of its annual general meeting held on June 20, 2013. Additional financial information is provided in Karnalyte's audited annual financial statements, together with the accompanying report of the auditor and MD&A for the year ended December 31, 2013.

**Effective Date**

Unless otherwise specifically herein provided, the information contained in this AIF is stated as at March 26, 2014.

## **APPENDIX "A"**

### **KARNALYTE RESOURCES INC.**

#### **AUDIT COMMITTEE CHARTER**

##### **OVERALL ROLE AND RESPONSIBILITY**

The primary role and responsibilities of the Audit Committee shall be to:

- (a) assist the Board of Directors in its oversight role with respect to:
  - (i) the quality and integrity of financial reporting and information;
  - (ii) the independent auditor's performance, qualifications and independence;
  - (iii) the performance of the Corporation's internal audit function, if applicable; and
  - (iv) the Corporation's compliance with legal and regulatory requirements and
- (b) prepare such reports of the Audit Committee required to be included in any documents in accordance with applicable laws or the rules of applicable securities regulatory authorities;
- (c) assess the processes related to the determination and mitigation of risks and the maintenance of an effective control environment; and
- (d) strengthen the role of the outside directors by facilitating in depth discussions between the directors on the Audit Committee, management and independent auditors.

##### **MEMBERSHIP AND MEETINGS**

The Audit Committee shall consist of three or more Directors of the Corporation appointed by the Board of Directors, all of whom in the opinion of the Board shall be independent to the Corporation and as such shall not be officers (other than a non-executive Chairman or Corporate Secretary who is not an employee of the Corporation) or employees of or have a meaningful business relationship with the Corporation or any of the Corporation's affiliates or be an immediate family member of any of the foregoing, to the extent required by applicable laws governing the Corporation. Each of the members of the Audit Committee shall satisfy the applicable independence and financial literacy of the laws governing the Corporation, the applicable stock exchanges on which the Corporation's securities are listed and applicable securities regulatory authorities.

The Board of Directors shall designate one member of the Audit Committee as the Committee Chair. Each member of the Audit Committee shall be financially literate as such qualification is interpreted by the Board of Directors in its business judgment.

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

## **STRUCTURE AND OPERATIONS**

The affirmative vote of a majority of the members of the Audit Committee participating in any meeting of the Audit Committee is necessary for the adoption of any resolution. In case of an equality of votes, the Chairman of the meeting shall be entitled to a second or casting vote.

The Chair will preside at all meetings of the Audit Committee, unless the Chair is not present, in which case the members of the Audit Committee that are present will designate from among such members the Chair for the purposes of the meeting.

The Audit Committee shall meet as often as it determines, but not less frequently than quarterly. A quorum for meetings of the Audit Committee will be a majority of its members and the rules for calling, holding, conducting and adjourning meetings of the Audit Committee will be the same as those governing the Board of Directors unless otherwise determined by the Audit Committee or the Board of Directors.

The Chief Financial Officer will attend meetings of the Audit Committee where matters relating to the functions of the Audit Committee are dealt with, unless otherwise excused from all or part of any such meeting by the Chairman. The Audit Committee may invite such officers, directors and employees of the Corporation as it sees fit from time to time to attend at meetings of the Audit Committee and assist in the discussion and consideration of the matters being considered by the Audit Committee.

The Audit Committee will meet with the external auditor at least once per year (in connection with the preparation of the year-end financial statements) and at such other times as the external auditor and the Audit Committee consider appropriate. The Audit Committee is expected to establish and maintain free and open communication with management and the independent auditor and shall periodically meet separately with each of them.

Agendas, approved by the Chairman, will be circulated to the Audit Committee members along with background information on a timely basis prior to the Audit Committee meetings. Minutes of all meetings of the Audit Committee will be taken. The minutes of the Audit Committee will be recorded and maintained and the Audit Committee shall report to the Board of Directors on its activities after each of its meetings at which time minutes of the prior Audit Committee meeting shall be tabled for the Board.

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

## **SPECIFIC DUTIES**

### **Oversight of the Independent Auditor**

- Make recommendations to the board for the appointment and replacement of the independent auditor.
- Responsibility for the compensation and oversight of the work of the independent auditor (including resolution of disagreements between management and the independent auditor regarding financial reporting) for the purpose of preparing or issuing an audit report or related work. The independent auditor shall report directly to the Audit Committee.
- Authority to pre-approve all audit services and permitted non-audit services (including the fees, terms and conditions for the performance of such services) to be performed by the independent auditor.



- Evaluate the qualifications, performance and independence of the independent auditor, including (i) reviewing and evaluating the lead partner on the independent auditor's engagement with the Corporation, and (ii) considering whether the auditor's quality controls are adequate and the provision of permitted non-audit services is compatible with maintaining the auditor's independence.
- Obtain from the independent auditor and review the independent auditor's report regarding the management internal control report of the Corporation to be included in any documents as required by the laws governing the Corporation, the applicable stock exchanges on which the Corporation's securities are listed and applicable securities regulatory authorities.
- Ensure the rotation of the lead (or coordinating) audit partner having primary responsibility for the audit and the audit partner responsible for reviewing the audit as required by law (currently at least every 5 years).
- When there is to be a change in the auditor, review all issues relating to the change, including any reportable events, and all information to be included in the required notice to securities regulators of such change.

### **Financial Reporting**

- Review and discuss with management and the independent auditor, as applicable:
  - prior to the annual audit the scope, planning and staffing of the annual audit,
  - the annual audited financial statements,
  - the Corporation's annual and quarterly disclosures made in management's discussion and analysis,
  - approve any reports for inclusion in the Corporation's Annual Report, as required by applicable legislation,
  - the Corporation's quarterly financial statements, including the results of the independent auditor's review of the quarterly financial statements and any matters required to be communicated by the independent auditor under applicable review standards,
  - significant accruals, reserves or other estimates such as the ceiling test calculation,
  - accounting treatment of unusual or non-recurring transactions,
  - compliance with covenants under loan agreements,
  - disclosure requirements for commitments and contingencies,
  - adjustments raised by the external auditors, whether or not included in the financial statements,
  - significant variances with comparative reporting periods.
  - significant financial reporting issues and judgments made in connection with the preparation of the Corporation's financial statements,

- any significant changes in the Corporation's selection or application of accounting principles,
  - any major issues as to the adequacy of the Corporation's internal controls and any special steps adopted in light of material control deficiencies, and
  - other material written communications between the independent auditor and management, such as any management letter or schedule of unadjusted differences.
- Discuss with the independent auditor matters relating to the conduct of the audit, including any difficulties encountered in the course of the audit work, any restrictions on the scope of activities or access to requested information and any significant disagreements with management.
  - Review the financial statements, prospectuses, management's discussion and analysis, annual information form and all public disclosure containing audited or unaudited financial information (including, without limitation, annual and interim press releases and any other press releases disclosing earnings or financial results) before release and prior to Board approval. The Audit Committee must be satisfied that adequate procedures are in place for the review of the Corporation's disclosure of all other financial information and will periodically access the accuracy of those procedures.
  - Conduct an investigation sufficient to provide reasonable grounds for believing that the financial statements, management's discussion and analysis and any public disclosure documents containing financial information are complete in all material respects and consistent with the information known to Audit Committee members, and assess whether the financial statements reflect appropriate accounting principles.

### **Risk Assessment and Risk Management**

- Discuss with Corporation management guidelines and policies governing the risk assessment and risk management processes.
- Review with Corporation's management and the independent auditors, significant risks and exposures, including management's plans and processes to minimize these risks such as insurance coverage.
- Evaluate whether Corporation's management is adequately communicating the importance of internal control to all relevant personnel.
- Periodically privately consult with the independent auditor about internal controls and the completeness and accuracy of the Corporation's financial statements.
- Review whether the internal control recommendations made by the independent auditor are being implemented by the Corporation's management and, if not, why not.

### **Other Responsibilities**

- Periodically, as the Audit Committee deems appropriate, review the President, Chief Executive Officer and Chief Financial Officers' expenses and perquisites.
- Review all consulting fees paid by the Corporation to any organization where such fees exceed \$25,000 annually.

- Institute special investigations, if necessary, and hire special counsel or experts to assist, if appropriate.
- Establish, and review annually, a procedure for:
  - the receipt, retention, and treatment of complaints received by the Corporation regarding accounting, internal accounting controls, or auditing matters;
  - and the confidential, anonymous submission by employees of the Corporation of concerns regarding questionable accounting or auditing matters and resolution of such concerns, if any.
- To comply with the procedure above, the Audit Committee shall ensure that the Corporation advises all employees, by way of a written code of business conduct and ethics (the "Code"), or if such Code has not yet been adopted by the Board of Directors, by way of written or electronic notice, that any employee who reasonably believes that questionable accounting, internal accounting controls, or auditing matters have been employed by the Corporation or their external auditors is strongly encouraged to report such concerns by way of communication directly to the Chair of the Corporation Governance Committee of the Corporation.
- Review with the Board, any issues that arise with respect to the quality or integrity of the Corporation's financial statements, the Corporation's compliance with legal or regulatory requirements and the performance and independence of the Corporation's independent auditors.
- Perform other oversight functions as requested by the Board.

#### **AUDIT COMMITTEE'S ROLE**

The Audit Committee has the oversight role set out in this Charter. The Audit Committee shall review and assess the adequacy of this Charter periodically and, where necessary, will recommend changes to the Board of Directors for its approval.

Management, the Board of Directors, the independent auditor and the internal auditor (if any) all play important roles in respect of compliance and the preparation and presentation of financial information. Management is responsible for compliance and the preparation of financial statements and periodic reports. Management is responsible for ensuring the Corporation's financial statements and disclosures are complete, accurate, in accordance with generally accepted accounting principles and applicable laws. The Board of Directors in its oversight role is responsible for ensuring that management fulfills its responsibilities. The independent auditor, following the completion of its annual audit, opines on the presentation, in all material respects, of the financial position and results of operations of the Corporation in accordance with Canadian generally accepted accounting principles.

#### **FUNDING FOR THE INDEPENDENT AUDITOR AND RETENTION OF OTHER INDEPENDENT ADVISORS**

The Corporation shall provide for appropriate funding, as determined by the Audit Committee, for payment of compensation to the independent auditor for the purpose of issuing an audit report and to any advisors retained by the Audit Committee. The Audit Committee shall also have the authority to retain such other independent advisors as it may from time to time deem necessary or advisable for its purposes and the payment of compensation therefore shall also be funded by the Corporation.

## **APPROVAL OF AUDIT AND REMITTED NON-AUDIT SERVICES PROVIDED BY EXTERNAL AUDITORS**

Over the course of any year there will be two levels of approvals that will be provided. The first is the existing annual Audit Committee approval of the audit engagement and identifiable permitted non-audit services for the coming year. The second is in-year Audit Committee pre-approvals of proposed audit and permitted non-audit services as they arise.

Any proposed audit and permitted non-audit services to be provided by an external auditor to the Corporation or its subsidiaries must receive prior approval from the Audit Committee, in accordance with this protocol. The Chief Financial Officer shall act as the primary contact to receive and assess any proposed engagements from an external auditor.

Following receipt and initial review for eligibility by the primary contacts, a proposal would then be forwarded to the Audit Committee for review and confirmation that a proposed engagement is permitted.

In the majority of such instances, proposals may be received and considered by the Chair of the Audit Committee (or such other member of the Audit Committee who may be delegated authority to approve audit and permitted non-audit services), for approval of the proposal on behalf of the Audit Committee. The Audit Committee Chair will then inform the Audit Committee of any approvals granted at the next scheduled meeting.

## **PROCEDURE GOVERNING ERRORS OR MISSTATEMENTS IN FINANCIAL STATEMENTS**

In the event a director or an officer of the Corporation has reason to believe, after discussion with management, that a material error or misstatement exists in financial statements of the Corporation, that director or officer shall forthwith notify the Audit Committee and the auditor of the error or misstatement of which the director or officer becomes aware in a financial statement that the auditor or a former auditor has reported on.

If the auditor or a former auditor of the Corporation is notified or becomes aware of an error or misstatement in a financial statement on which the auditor or former auditor has reported, and if in the auditor's or former auditor's opinion the error or misstatement is material, the auditor or former auditor shall inform each director accordingly.

When the Audit Committee or the Board is made aware of an error or misstatement in a financial statement the Board shall prepare and issue revised financial statements or otherwise inform the shareholders of the Corporation and file such revised financial statements as required.

## **LIMITATION ON AUDIT COMMITTEE MEMBERS' DUTIES**

Nothing in this Charter is intended, or may be construed, to impose on any member of the Audit Committee a standard of care or diligence that is in any way more onerous or extensive than the standard required by law.