Photo From Dakota Salts First Core Analysis

APPENDIX E

Dakota Salts, LLC

-Potash and Energy-

Dakota Salts, LLC

Dakota Salts, LLC is an endeavor working to maximize the value of North Dakota's salt, potash and energy storage capabilities in strategically commercial areas.

- A Fully Owned Subsidiary of Sirius Exploration, a London Based Diversified Holding Company with Multi-National Interests and Expertise, Publicly Traded on the London AIM Exchange (SXX) and via American Depository Receipts (SRUXY).
- Dakota Salts has Completed a Geological and Geophysical Review of North Dakota's Salt and Potash Deposits, is Advancing its Current Holdings, and Anticipates Drilling Core Tests as Early as Possible.
- Dakota Salts Holds Minerals and Pore Space in North Dakota for the Purpose of Potash and Salt Resource Development, Compressed Air Energy Storage, Natural Gas Storage, and CO2 Sequestration.

Global Industry Outlook

What is Potash

Potash is the term used to describe Potassium (K) bearing minerals and chemicals – it's mainly used in fertilizer production.

Potash Landscape

50% of the world's known potash reserves are in Canada (75B Tons). Other countries with significant reserves include:

- Russia
- Belarus
- Germany

A Global Market

- The top 8 Potash producers control 82% of the world production
- U.S. imports 90% of potash to produce fertilizer
- China is the largest producer/distributor of fertilizer – U.S. is the second largest.

A Growing Need

The International Fertilizer Association (IFA) estimates that demand for potash will continue to grow at 3.7% per annum.

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Increased Demand Factors

1. **Global Population Growth** - The U.N. has forecast the world's population to grow 40%, to 9.2 billion people, by the year 2050.
2. **Decreasing Supply of Arable Land** - In addition to increasing pressures for ever greater agricultural productivity, the global supply of arable land is decreasing at a rate of -1% per annum.
3. **Emergence of Biofuels Technologies** - Along with rising oil prices, demand for biofuels is growing exponentially due to substantial environmental and political pressures concerning fossil fuels.
4. **Shift to High-Protein Diets** - A rising level of affluence in many of the world's emerging economies is driving increased demand for higher protein consumption.
5. **Lack of New Potash Supply** - The majority of the world's global potash supply comes from mines built in the 1960s and 1970s. Since this time, a relatively low focus on the development of new sources of potash supply has resulted in an industry unprepared to meet future demand for potash.

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Domestic Potash Production

Key Data Points

- The United States accounts for only 2.5% of the Global Potash Production – while it accounts for 19% of it's consumption…
- Potash producing states in the U.S. include:
  - New Mexico (75% of the U.S. Production)
  - Utah
  - Michigan (Solution Mining Operation)

- In 2005, the Government passed the *Potash Royalty Reduction Act of 2005* to encourage domestic exploration and production of the mineral.
  - Reduced royalties on all Federal Lands from 2% to 1% for a 5 year period.
  - The Act requires that half the funds are held in reserve to ensure successful post-mining land reclamation.

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North Dakota Potash Mining

Technique

- Via Solution Mining which will enable horizontal drilling

Location

- Northwest North Dakota – Burke County

Opportunities

- Williston Basin – Contains 33% of the worlds Potash reserve
- Domestic Production from the purest Potash formation in the world
- 20 – 50 billion tons of recoverable mineral
- Salt bed thickness – up to 550’ feet

Challenges

- Potash purity & grade has yet to be confirmed
- Mineral Depths
- Higher mineral processing costs

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New Mexico Potash Landscape

Majority of mining occurs on Federal Lands – 1% Federal Royalty is in effect.

STATE LAND LEASES: New Mexico has established minimum royalty rates for potash on state owned lands depending upon the grade and the specific product mined.

- For lower grade potash - 2% minimum royalty rate
- Higher grade potash - 5% minimum royalty rate
- All rates are based on gross revenue model (gross value after processing).

TAXATION

- Severance tax: 2.5%, net proceeds.
- Severance tax royalty deductions include the actual cost of hoisting, crushing, and loading.
- Resources excise tax: New Mexico has a 0.5% severers tax or a 0.125% processors tax.

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Utah Potash Landscape

Majority of mining occurs on Federal Lands – 1% Federal Royalty is in effect.

STATE LEASES: Depending upon the state agency responsible for leasing state lands for potash mining, Utah has established:

- Either a 5% royalty rate with no competitive leasing requirement or
- An ad hoc royalty rate with a competitive leasing requirement—a gross revenue royalty.
- Rent paid is credited against the royalty.

TAXATION

- No Severance Tax: The State of Utah can also justify a higher royalty rate as the State of Utah has no severance tax on potash or its byproducts.

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Michigan Potash Landscape

Mining occurs on State and Public Lands – 1% Federal Royalty is NOT in effect.

STATE LEASES

- Michigan has established a 4% royalty rate with competitive leasing for potash.

TAXATION

- Michigan has no severance tax for potash.

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Recommendations for North Dakota

- In light of these higher costs and historically no interest in potash mining, the State of North Dakota should establish a royalty rate that encourages, not dissuades potash development.

- As Royalty Tax and Severance Tax are inextricably linked, the State of North Dakota may wish to establish policies for both simultaneously.

- Dakota Salts suggests a total compensation model to equal 5% (Royalty and combined Severance Tax).

- New Mexico has the most established and mature Taxation/Royalty polices, Dakota Salts suggest following this model closely…

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