EXCELSIOR MINING CORP.

ANNUAL INFORMATION FORM
For the year ended December 31, 2017

Suite 1240, 1140 West Pender St.
Vancouver, B.C. V6E 4G1

March 27, 2018

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PRELIMINARY NOTES

Effective Date of Information

The information contained in Excelsior Mining Corp.'s annual information form ("**AIF**" or "**Annual Information Form**") is presented as of December 31, 2017 unless otherwise stated herein. Unless the context otherwise requires, all references to the "**Company**", "**we**" or "**us**" shall mean Excelsior Mining Corp., together with its subsidiaries.

Currency

Unless specified otherwise, all references in the AIF to "dollars", "$" or to "US$" are to United States of America dollars and all references to "Canadian dollars" or to "Cdn$" are to Canadian dollars.

Metric Equivalents

For ease of reference, the following factors for converting metric measurements into imperial equivalents are provided:

To Convert From Metric	To Imperial	Multiply by
Hectares	Acres	2.471
Metres	Feet (ft.)	3.281
Kilometres (km.)	Miles	0.621
Tonnes	Tons (2000 pounds)	1.102
Grams/tonne	Ounces (troy/ton)	0.029

Special Note Regarding Forward-Looking Information

This AIF contains "forward-looking information" within the meaning of the U.S. Private Securities Litigation Reform Act and applicable Canadian securities laws concerning anticipated developments and events that may occur in the future. Forward-looking information contained in this AIF includes, but is not limited to, statements with respect to: (i) the estimation of mineral resources and mineral reserves; (ii) the market and future price of copper and related products; (iii) anticipated outcome of future exploration activities; (iv) permitting time lines; (v) requirements for additional capital; (vi) development, construction and production timelines and estimates; (vii) the results of the Feasibility Study including statements about estimated future production, future operating and capital costs, the projected IRR, NPV, payback period, construction timelines and production timelines for the Gunnison Project; (viii) the future effects of environmental compliance requirements on the business of the Company; and (ix) the statements under the heading "Outlook" in this AIF, including statements about progress on permitting, the integration of the Johnson Camp Mine, completion of the construction financing and the construction of the Gunnison Project.

In certain cases, forward-looking information can be identified by the use of words such as "plans", "expects" or "does not expect", "is expected", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates" or "does not anticipate", or "believes", or variations of such words and phrases or state that certain actions, events or results "may", "could", "would", "might" or "will be taken", "occur" or "be achieved" suggesting future outcomes, or other expectations, beliefs, plans, objectives, assumptions, intentions or statements about future events or performance. Forward-looking information contained in this AIF is based on certain factors and assumptions regarding, among other things, the estimation of mineral reserves and resources, the realization of resource estimates, copper and other metal prices, the timing and amount of future exploration and development expenditures, the estimation of initial and sustaining capital requirements, the estimation of labour and operating costs, the availability of necessary financing and materials to continue to explore and develop the Gunnison Project in the short and long-term, the progress of exploration and development activities, the receipt of necessary regulatory approvals and permits, the estimation of insurance coverage, and assumptions with respect to currency fluctuations, environmental risks, title disputes or claims, and other similar matters. While the Company considers these assumptions to be reasonable based on information currently available to it, they may prove to be incorrect.

Forward-looking information involves known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Company to be materially different from any future results, performance or achievements expressed or implied by the forward-looking information including, without limitation, the following risks and uncertainties referred to under the heading “Risk Factors” in this AIF:

- risks relating to the fact that the Company depends on a single mineral project;
- risks inherent in the exploration and development of mineral deposits, including risks relating to changes in project parameters as plans continue to be redefined including the possibility that mining operations may not commence at the Gunnison Project;
- risks relating to variations in mineral resources and reserves, grade or recovery rates resulting from current exploration and development activities;
- risks related to fluctuations in the price of copper as the Company’s future revenues, if any, are expected to be derived from the sale of copper;
- risks related to a reduction in the demand for copper in the Chinese market which could result in lower prices and demand for copper;
- financing, capitalization and liquidity risks, including the risk that the financing necessary to fund the development and construction activities at the Gunnison Project may not be available on satisfactory terms, or at all;
- the Company has no history of mining operations and no revenues from operations and expects to incur losses for the foreseeable future;
- risks related to the Company obtaining various permits required to conduct its current and anticipated future operations;
- risks related to disputes concerning property titles and interest;
- risks relating to the ability to access infrastructure;
- operational risks inherent in the conduct of mining activities, including the risk of accidents, labour disputes, increases in capital and operating costs and the risk of delays or increased costs that might be encountered during the development process;

- risks related to the significant governmental regulation that the Company is subject;
- environmental risks;
- climate change risks;
- reliance on key personnel;
- risks related to increased competition in the market for copper and related products and in the mining industry generally;
- cybersecurity risks;
- risks related to potential conflicts interests among the Company's directors and officers;
- exchange rate fluctuations between the Canadian and United States dollar;
- the absence of dividends;
- uncertainties inherent in the estimation of mineral resources;
- risks related to current global financial conditions;
- land reclamation requirements may be burdensome;
- risks associated with the acquisition of any new properties;
- the Company may become subject to legal proceedings; and
- risks relating to the Company's Common Shares.

Although the Company has attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in forward-looking information, there may be other factors that cause actions, events or results not to be as anticipated, estimated or intended. There can be no assurance that forward-looking information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such information. Accordingly, readers should not place undue reliance on forward-looking statements. The forward-looking information is made as of the date of this AIF.

Readers are cautioned that the foregoing lists of factors are not exhaustive. The forward-looking information contained in this AIF is expressly qualified by this cautionary statement. Except as required by applicable securities laws, the Company does not undertake any obligation to publicly update or revise any forward-looking information and readers should also carefully consider the matters discussed under the heading "Risk Factors" in this AIF.

Cautionary Note to U.S. Investors – Information Concerning Preparation of Resource and Reserve Estimates

This AIF has been prepared in accordance with the requirements of the securities laws in effect in Canada, which differ from the requirements of United States securities laws. Unless otherwise indicated, all resource and reserve estimates included in this AIF have been prepared in accordance with Canadian National Instrument 43-101 - *Standards of Disclosure for Mineral Projects* ("**NI 43-101**"), and the Canadian Institute of Mining and Metallurgy Classification System. NI 43-101 is a rule developed by the Canadian Securities Administrators which establishes standards for all public disclosure an issuer makes of scientific and technical information concerning mineral projects.

Canadian standards, including NI 43-101, differ significantly from the requirements of the United States Securities and Exchange Commission ("**SEC**"), and reserve and resource information contained herein may not be comparable to similar information disclosed by U.S. companies. In particular, and without limiting the generality of the foregoing, the term “resource” does not equate to the term “reserves”. Under U.S. standards, mineralization may not be classified as a “reserve” unless the determination has been made that the mineralization could be economically and legally produced or extracted at the time the reserve determination is made. The SEC’s disclosure standards normally do not permit the inclusion of information concerning “measured mineral resources”, “indicated mineral resources” or “inferred mineral resources” or other descriptions of the amount of mineralization in mineral deposits that do not constitute “reserves” by U.S. standards in documents filed with the SEC. U.S. investors should also understand that “inferred mineral resources” have a great amount of uncertainty as to their existence and great uncertainty as to their economic and legal feasibility. It cannot be assumed that all or any part of an “inferred mineral resource” will ever be upgraded to a higher category. Under Canadian rules, estimated “inferred mineral resources” may not form the basis of feasibility or pre-feasibility studies. Investors are cautioned not to assume that all or any part of an “inferred mineral resource” exists or is economically or legally mineable. Disclosure of “contained ounces” in a resource is permitted disclosure under Canadian regulations; however, the SEC normally only permits issuers to report mineralization that does not constitute “reserves” by SEC standards as in place tonnage and grade without reference to unit measures. The requirements of NI 43-101 for identification of “reserves” are also not the same as those of the SEC. Accordingly, information concerning mineral deposits set forth herein may not be comparable with information made public by U.S. companies subject to the reporting and disclosure requirements of the SEC.

NOTICE PURSUANT TO TREASURY DEPARTMENT CIRCULAR 230: NOTHING CONTAINED IN THIS AIF CONCERNING ANY U.S. FEDERAL TAX ISSUE IS INTENDED OR WRITTEN TO BE USED, AND IT CANNOT BE USED, BY A HOLDER, FOR THE PURPOSE OF AVOIDING U.S. FEDERAL TAX PENALTIES UNDER THE CODE (AS DEFINED BELOW). THIS SUMMARY WAS WRITTEN TO SUPPORT MATTERS ADDRESSED BY THIS DOCUMENT. EACH HOLDER SHOULD SEEK U.S. FEDERAL TAX ADVICE, BASED ON SUCH HOLDER’S PARTICULAR CIRCUMSTANCES, FROM AN INDEPENDENT TAX ADVISOR.

GLOSSARY

In the AIF, unless otherwise defined or unless there is something in the subject matter or context inconsistent therewith, the following terms have the meanings set forth herein or therein:

"**2014 Prefeasibility Study**" or "**2014 PFS**" means the prefeasibility study on the Gunnison Project that is the subject of the technical report entitled "Gunnison Copper Project NI 43-101 Technical Report, Prefeasibility Study", dated February 14, 2014;

"**2016 Prefeasibility Study**" or "**2016 PFS**" means the updated prefeasibility study on the Gunnison Project that is the subject of the technical report entitled "Gunnison Copper Project NI 43-101 Technical Report, Prefeasibility Study Update", dated March 23, 2016;

"**AIF**" or "**Annual Information Form**" means this annual information form and any appendices, schedules or attachments hereto;

"**AzTech**" means AzTech Minerals, Inc., an Arizona corporation, which, pursuant to the Business Combination described below, was merged with and into Excelsior Arizona;

"**BCBCA**" means the *Business Corporations Act* (British Columbia), C-57, as amended;

"**Business Combination**" means the business combination among Excelsior, Excelsior Arizona and AzTech pursuant to which AzTech shareholders received Common Shares or Non-Voting Shares of Excelsior on the basis of two Common Shares (or two Non-Voting Shares where an election was made by an AzTech shareholder to receive Non-Voting Shares rather than Common Shares) for each one AzTech common share held and AzTech was merged with and into Excelsior Arizona with Excelsior Arizona being the surviving entity of the merger of AzTech with and into Excelsior Arizona, on the terms and subject to the conditions set out in the Definitive Agreement described below, subject to any amendments or variations thereto;

"**Business Day**" means any day on which commercial banks are generally open for business other than a Saturday, Sunday or a day observed as a holiday (i) in Vancouver under the laws of British Columbia, (ii) in Toronto under the laws of Ontario, or (iii) under the federal laws of Canada;

"**Callinan**" means Callinan Royalties Corporation;

"**Callinan Agreement**" means the Share Purchase and Royalty Option Agreement dated July 19, 2013 between Excelsior, the Trust and Callinan. Pursuant to the terms of the Callinan Agreement, Callinan had the option to acquire certain gross revenue royalties ("**GRRs**") on the Gunnison Project. As of the date of this AIF, Callinan has the option to acquire a 0.5% gross revenue royalty for Cdn$5 million (subject to adjustment in certain circumstances) once Excelsior receives of all required permits and secures a firm commitment for 50% of the required capital required for mine construction on the Gunnison Project;

"**Code**" means the U.S. Internal Revenue Code of 1986, as amended;

"**Common Share**" means the common (voting) shares in the capital of Excelsior;

"**Company**" means, collectively, Excelsior, Excelsior Arizona and Excelsior JCM;

"**Control Person**" means any Person that holds or is one of a combination of Persons that holds a sufficient number of any of the securities of an issuer so as to affect materially the control of that issuer, or that holds more than 20% of the outstanding voting securities of an issuer except where there is evidence showing that the holder of those securities does not materially affect the control of the issuer;

"**Definitive Agreement**" means the agreement and plan of merger dated as of August 19, 2010 among Excelsior, Excelsior Arizona and AzTech, as amended from time to time;

"**Excelsior**" means Excelsior Mining Corp., a corporation incorporated under the laws of the Province of British Columbia;

"**Excelsior Arizona**" means Excelsior Mining Arizona, Inc., a company incorporated under the laws of Arizona, and which is a wholly-owned subsidiary of Excelsior;

"**Excelsior JCM**" means Excelsior Mining JCM, Inc., a company incorporated under the laws of Arizona, and which is a wholly-owned subsidiary of Excelsior;

"**Excelsior Stock Option Plan**" means the stock option plan of Excelsior, pursuant to which options to purchase Common Shares may be issued in accordance with the policies of the TSX;

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

"**Feasibility Study**" or "**FS**" means the feasibility study on the Gunnison Project that is the subject of the Technical Report;

"**Greenstone**" means Greenstone Excelsior Holdings L.P., an affiliate of Greenstone Resources;

"**Greenstone IR Agreement**" means the Investor Rights Agreement dated August 13, 2014 between Greenstone and Excelsior;

"**Greenstone No. 2**" means Greenstone Co-Investment No. 2 (Excelsior) L.P. an affiliate of Greenstone Resources;

"**Greenstone Resources**" means Greenstone Resources L.P.;

"**Greenstone Subscription Agreement**" means the Subscription Agreement dated September 29, 2016 between Greenstone, Excelsior, Excelsior Arizona and Excelsior JCM pursuant to which Greenstone subscribes for a total of 28,860,028 Common Shares at a purchase price of US$0.3465 (Cdn$0.45) per Common Shares for gross proceeds of US$10 million and Greenstone agreed to purchase a 1.0% gross revenue royalty on the Gunnison Project for a purchase price of US$3,995,000 and a 1.0% gross revenue royalty on JCM for a purchase price prices of US$5,000;

"**Greenstone No. 2 Subscription Agreement**" means the Subscription Agreement dated December 22, 2017 between Greenstone No. 2, and Excelsior pursuant to which Greenstone No. 2 subscribes for a total of 16,467,200 Common Shares at a purchase price of Cdn$1.00 per Common Shares for gross proceeds of US$12.800,000;

"**Gunnison Option Agreement**" means the Option to Purchase and Sale Agreement and Supplemental Escrow Instructions dated May 21, 2007, between AzTech and the Trust, pursuant to which AzTech is granted the sole and exclusive right to acquire 100% of Delta Exploration Holdings LLC and Delta Exploration Group LLC, and 100% of the remaining mineral rights held directly by the Trust, together constituting 100% of the Gunnison Project, as amended December 18, 2007, April 10, 2008, August 19, 2008, August 19, 2009, December 15, 2009, August 19, 2010 and November 14, 2012 by the parties.

"**Gunnison Option**" means the option for AzTech to acquire 100% of Delta Exploration Holdings LLC and Delta Exploration Group LLC, and 100% of the remaining mineral rights held directly by the Trust pursuant to the Gunnison Option Agreement;

"**Gunnison Project**" means the Gunnison Copper Project consisting of unpatented mining claims, private land, exploration permits, mineral leases and direct ownership of mineral rights in an area that encompasses approximately 10 square miles, located in Cochise County, Arizona, approximately 62 miles east of Tucson, Arizona in the Johnson Camp mining district;

"**IRS**" means the United States Internal Revenue Service;

"**JCM**" or "**Johnson Camp**" means the Johnson Camp Copper mine located immediately adjacent to the Gunnison Project;

"**JCM Purchase Agreement**" means the asset purchase agreement dated October 7, 2015 between Christopher G. Linscott (as court appointed receiver for the assets of Nord) and Excelsior JCM pursuant to which Excelsior JCM acquires all of the assets of Nord as they relate to the JCM for total consideration of US$8.4 million;

"**Non-U.S. Holder**" means any beneficial owner of Common Shares that is neither a U.S. Holder nor a partnership (including an entity treated as a partnership for U.S. federal income tax purposes).

"**Non-Voting Shares**" means the non-voting shares of Excelsior created in connection with the Business Combination;

"**Nord**" means Nord Resources Corporation;

"**North Star Deposit**" means the North Star Deposit of the Gunnison Project as identified on Figure 1-1 in this AIF;

"**Person**" or "**person**" means a company or individual;

"**South Star Deposit**" means the South Star Deposit of the Gunnison Project as identified on Figure 1-1 in this AIF;

"**Tax Act**" means the *Income Tax Act* (Canada), as amended, including the regulations promulgated thereunder;

"**Technical Report**" or "**Report**" means the technical report entitled "Gunnison Copper Project NI 43-101 Technical Report, Feasibility Study", dated effective December 17, 2016 prepared by Richard Zimmerman, SME-RM.; Neil Prenn, MMSA-QPM; Thomas Drielick, P.E; Dr. Ronald J. Roman, P.E., D.Sc.; Douglas Bartlett, R.G.; and Michael Gustin, P.G., Ph.D.;

"**Trust**" means the James L. Sullivan Trust dated November 24, 2004;

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

"**TSXV**" means the TSX Venture Exchange

"**U.S.**" or "**United States**" means the United States of America, any state thereof, and the District of Columbia;

"**U.S. Holder**" means a beneficial owner of Common Shares, that is, for U.S. federal income tax purposes: (i) a citizen or individual resident of the United States; (ii) a corporation (or other entity taxable as a corporation) organized under the laws of the United States, any state thereof or the District of Columbia; (iii) an estate whose income is subject to U.S. federal income taxation regardless of its source; or (iv) a trust that (1) is subject to the primary supervision of a court within the U.S. and the control of one or more U.S. persons for all substantial decisions or (2) has a valid election in effect under applicable Treasury Regulations to be treated as a U.S. person; and

Words importing the singular number, where the context requires, include the plural and vice versa and words importing any gender include all genders.

ABBREVIATIONS

In the AIF, unless otherwise defined or unless there is something in the subject matter or context inconsistent therewith, the following abbreviations have the meanings set forth herein or therein:

Abbreviation	Term
%	percent
ADEQ	Arizona Department of Environmental Quality
APP	Aquifer Protection Permit
ASCu	Acid-soluble copper
AzTech	AzTech Minerals, Inc.
BADCT	Best-Available Demonstrated Control Technology
cm	Centimeter
Cu	Copper
EIS	Economic Impact Study
ft	foot (feet)
GA	General Arrangement
gpl	gram per liter
gpm	gallons per minute
G&A	General & Administrative
Ha	hectares
HDPE	High Density Polyethylene
IRR	Internal Rate of Return
ISR	In Situ Recovery
km	kilometer
kV	kilovolt
lb	pound
lixiviant	liquid medium used for metal extraction
M	meter
M3	M3 Engineering & Technology Corp.
Ma	million years ago
MDA	Mine Development Associates
Mlb	million pounds
mm	millimeter
NI 43-101	Canadian National Instrument 43-101
NPV	Net Present Value
PLS	Pregnant Leach Solution
QA/QC	Quality Assurance/Quality Control
RC	reverse circulation drilling
SEC	U.S. Securities & Exchange Commission
SG	specific gravity
SX-EW	Solvent Extraction (SX) / Electrowinning (EW)
TCu	Total copper
UIC	Underground Injection Control
WTP	Water treatment plant

CORPORATE STRUCTURE

Name, Address and Incorporation

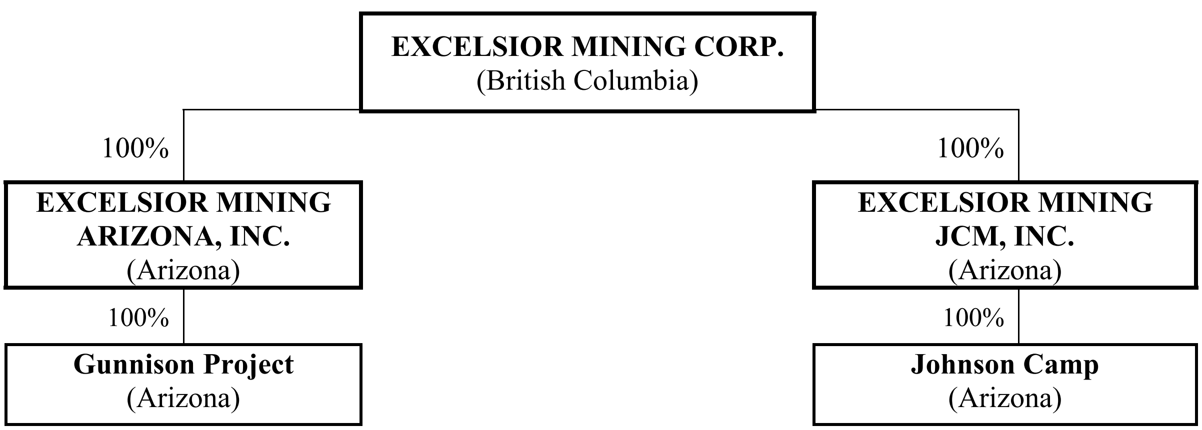
Excelsior was incorporated under the name "Excelsior Mining Corp." pursuant to the provisions of the BCBCA on June 9, 2005 with an authorized capital of an unlimited number of Common Shares without par value.

On October 14, 2010, a special resolution of shareholders was passed to create a new class of shares, the Non-Voting Shares. Also on October 14, 2010, Excelsior effected consolidation of its Common Shares on the basis of three pre-consolidation Common Shares for one post-consolidation Common Share. Presently, the authorized share capital of Excelsior consists of an unlimited number of Common Shares, without nominal or par value, and an unlimited number of Non-Voting Shares, without nominal or par value. The Non-Voting Shares are convertible into Common Shares on the basis of one Non-Voting Common Share for one Common Share at the election of the holder of such Non-Voting Common Shares. All Common Share numbers reported in this AIF are reported on a post-consolidation basis with a corresponding adjustment to Common Share price if applicable.

The Common Shares are listed on the TSX under the trading symbol "MIN" and trade on OTCQX International under the symbol "EXMGF" and on the Frankfurt Exchange under the symbol "3XS". Excelsior's head office is located at Concord Place, 2999 N. 44th St, Suite 300, Phoenix, AZ, USA 85018 and registered and records office is located at Suite 1240, 1140 West Pender Street, Vancouver, British Columbia, V6E 4G1, Canada.

Inter-corporate Relationships

As set out in the corporate structure chart below, Excelsior has two wholly-owned subsidiaries, Excelsior Mining Arizona, Inc., and Excelsior Mining JCM, Inc., both incorporated under the laws of Arizona.



DESCRIPTION AND GENERAL DEVELOPMENT OF THE BUSINESS

Three Year History

The principal business of Excelsior is the acquisition, exploration and development of copper mineral properties in Arizona. Significant business, operations and management developments for Excelsior over the three most recently completed fiscal years have been as follows:

Year Ended December 31, 2015 Developments

Exercise of Option and Acquisition of Gunnison Project

On January 7, 2015, Excelsior announced that it had formally exercised the Gunnison Option with the Trust and entities owned by the Trust, and acquired 100% of the mineral interests that comprise the Gunnison Project by making the final payment of US$50,000 to the Trust due under the terms of the Gunnison Option Agreement.

Excelsior also made a payment of US$246,205 to certain land holders of the Gunnison Project which became due on the exercise of the Gunnison Option. The US$246,205 consisted of a US$150,000 payment under the terms of a promissory note and a purchase price adjustment payment of US$96,205. These payments were obligations of the vendor of the Gunnison Project that were assumed by Excelsior Arizona on the exercise of the Gunnison Option.

Graduation to Tier 1 of the TSXV

On January 15, 2015, Excelsior announced that the TSXV had approved the graduation of Excelsior from Tier 2 issuer status to Tier 1 issuer status on the TSXV Excelsior's Common Shares began trading on Tier 1 of the TSXV, the premier tier on the TSXV on January 15, 2015.

Excelsior Named to 2015 TSX Venture 50

On February 11, 2015, Excelsior announced that it had been recognized by TSXV as one of the 2015 TSX Venture 50 companies, a ranking of the top performing companies listed on TSXV past year. Each year, the TSX Venture 50 ranks the top ten companies listed on TSXV across five major industry sectors: Oil and Gas, Mining, Technology & Life Sciences, Diversified Industries and Clean Technology. These companies have shown impressive results in key measures of market performance and were selected based on four equally weighted criteria: market capitalization growth, share price appreciation, trading volume and analyst coverage.

Completion of Hydrology Drill Program

On March 26, 2015, Excelsior announced the completion of a hydrology drill program at the Gunnison Copper Project in Arizona. The primary component of the hydrological program included 26 hydrology test and observation wells totalling approximately 28,000 feet. Extensive geophysical logging was completed on all holes. The objective of the program was to characterize the hydrological parameters of the mineralized rocks by measuring groundwater movement through the rocks. Results were used to construct a numerical groundwater flow model to simulate in-situ recovery operations and to assist with permit applications.

Completion of Hydrology Pump Tests for Feasibility Study

On June 9, 2015, Excelsior announced that feasibility level hydrological test work had been completed at the Gunnison Copper Project in Arizona.

A total of 26 hydrological test wells, totalling 25,870 feet of drilling, were used in the hydrological test program. The holes were drilled in various locations around the North Star deposit, representing a variety of fractured zones, rock types and mineralized areas. Of the 26 holes drilled, 18 were pump test holes and 8 were observation holes. The pump test holes were pumped for approximately five days and were surrounded by the new observation wells and by numerous pre-existing observation wells. In all, approximately 65 observation wells were monitored during the pump testing, generating a comprehensive high quality data set.

The data collected from this program will be used to characterize the various groundwater properties that determine the movement of fluids through the mineralized bedrock. This information will be used to produce 3D hydro-geological models for requisite permit applications and the feasibility study. The 3D hydro-geological models will simulate the planned in-situ recovery process and demonstrate hydraulic control during mining operations.

Updated Mineral Resource Estimate

On July 7, 2015, Excelsior announced an updated mineral resource estimate at the Gunnison Copper Project in Arizona. The prior North Star mineral resource, reported in January, 2014, was updated to include the results of 13 additional diamond drill holes, totalling 17,110 feet that were completed in December, 2014. The drill program was designed to convert a large part of the inferred mineral resource into the measured & indicated mineral resource categories. Refer to "Mineral Properties – Gunnison Project – Mineral Resource Estimate" for the details of the updated mineral resource estimate.

Metallurgical and Hydrological Test Results

On July 21, 2015, Excelsior announced final metallurgical results for the Gunnison Copper Project in Arizona. Results indicate that copper leaches rapidly and relatively uniformly across all rock types. On July 28, 2015, Excelsior announced comprehensive hydrological results for the Gunnison Copper Project in Arizona. The results generated hydrological conductivities in the range expected for typical fracture controlled deposits and show the deposit is suitable for in-situ recovery operations. Refer to "Mineral Properties – Gunnison Project – Mineral Processing and Metallurgical Testing" for the details of the metallurgical test results.

Johnson Camp Transaction

On October 8, 2015, Excelsior announced that it, through Excelsior JCM, had entered into the JCM Purchase Agreement to acquire all of the assets of Nord, as they relate to the JCM (the "**Johnson Camp Transaction**"). JCM is located immediately adjacent to the Gunnison Project.

Under the terms of the JCM Purchase Agreement, Excelsior acquired, through the court-appointed receiver (the "**Receiver**"), the JCM including all fee title property, all patented and unpatented mining claims, all improvements, equipment, certificates of deposit, reports and records. All assets were transferred to Excelsior free and clear of all liens, and all back-taxes were paid by the Receiver from the proceeds of sale. Excelsior acquired the Johnson Camp assets for total consideration of US$8.4 million under the following terms:

- US$5.2 million on closing (paid);
- US$1 million due on or before December 31, 2016 (paid); and
- US$2.2 million due on or before December 31, 2017 (paid).

The Johnson Camp mining claims are contiguous with the Gunnison Project. The property consists of 59 patented lode mining claims, 117 unpatented lode mining claims and fee simple lands. The existing facilities include a 4500 gallon per minute solvent extraction plant, a tank farm, an electrowinning plant with 88 electrowinning cells with capacity of 25 million pounds of copper cathode per annum, solution storage ponds, a truck shop, core storage building, offices, warehouse, laboratory, mechanical shop, a primary and secondary crusher, and various other equipment. Johnson Camp stopped mining operations in 2010 and has since been producing small amounts of copper from residual leach pads. The mine was put into receivership in 2014 and no copper is currently being produced.

The closing of the Johnson Camp Transaction was subject to several conditions including the receipt of a final and non-appealable order from the Superior Court of Arizona, receipt of all consents required for the transaction, all non-permitted liens on the assets being discharged and the receipt of all regulatory approvals, including the approval of the TSXV. On December 15, 2015, Excelsior announced that it had closed the Johnson Camp Transaction.

2015 Greenstone Financing

On October 8, 2015, Excelsior announced that it had entered into a binding term sheet with Greenstone for total gross proceeds of US$12.0 million in order to complete the Johnson Camp Transaction. The financing consisted of a private placement of Common Shares (the "**2015 Private Placement**") for gross proceeds of US$4 million and the sale of 2% gross revenue royalty on the Gunnison Project and the JCM (the "**2015 Royalty Financing**") for gross proceeds of US$8 million.

The 2015 Private Placement and 2015 Royalty Financing required shareholder approval under the rules and policies of the TSXV and applicable Canadian securities laws. Excelsior obtained shareholder approval for the 2015 Private Placement and 2015 Royalty Financing at an extraordinary meeting of shareholders held on November 17, 2015.

On December 1, 2015, Excelsior announced the closing of the first tranche of the 2015 Private Placement. Greenstone purchased 8,655,510 Common Shares at a price of US $0.1733 (Cdn$0.23) per Common Share in return for gross proceeds of US$1.5 million.

On December 15, 2015, Excelsior announced the closing of the 2015 Royalty Financing for gross proceeds of US$8 million and the closing of the second tranche of the 2015 Private Placement pursuant to which Greenstone purchased 14,425,852 Common Shares of Excelsior at a price of US$0.1733 (Cdn$0.23) per Common Share for total gross proceeds of US$2.5 million.

Year Ended December 31, 2016 Developments

Updated Prefeasibility Study and Permitting Process & Timeline

On February 9, 2016, Excelsior announced the results of the 2016 Prefeasibility Study on the North Star Deposit of the Gunnison Project and the supporting technical report was filed on March 28, 2016. The Prefeasibility Study updated the 2014 Prefeasibility Study. The 2014 PFS was completed as a result of the acquisition of JCM and the use of a staged production approach. Subsequently the 2014 PFS was superseded by the 2016 FS.

Permitting Process

An Aquifer Protection Permit ("**APP**") and Underground Injection Control Permit ("**UIC Permit**") are the two primary operating permits that Excelsior needs to acquire prior to commencing operations at the Gunnison Project. Excelsior has submitted permit applications to both the Arizona Department of Environmental Quality ("**ADEQ**") and to the Environmental Protection Agency ("**EPA**"). The ADEQ is responsible for issuing the APP and the EPA is responsible for issuing the UIC Permit.

On April 26, 2016, Excelsior announced that Administrative Completeness Review (ACR) ("**Administrative Review**") has been achieved for both the APP and UIC Permit. Administrative Review is the first stage of the permitting process. It confirms that the permitting application is administratively complete, meaning that all the required documentation and technical data are present. Excelsior is working closely with the State and Federal regulatory agencies to help advance the issuance of draft permits. With the completion of Administrative Review, Excelsior entered the technical review component of the permitting process.

On June 17, 2016, as part of the ADEQ's technical review process, Excelsior received a "Comprehensive Request for Information" from the ADEQ on June 17, 2016. Since this time, Excelsior's permitting team worked diligently to provide a detailed response to the ADEQ's request and this has now been successfully submitted. Excelsior has received a comparable document from the EPA and submitted a response.

2016 Greenstone Financing

Excelsior entered into the Greenstone Subscription Agreement with Greenstone for a financing for total gross proceeds of US$14.0 million. The financing consisted of a private placement of Common Shares (the "**2016 Private Placement**") for gross proceeds of US$10 million and the sale of a 1% gross revenue royalty on the Gunnison Project and JCM (the "2016 Royalty Financing") for gross proceeds of US$4 million.

The 2016 Private Placement and 2016 Royalty Financing required shareholder approval under the rules and policies of the TSXV and applicable Canadian securities laws. Excelsior obtained shareholder approval for the 2016 Private Placement and 2016 Royalty Financing at its annual general and special meeting of shareholders held on October 27, 2016.

On November 23, 2016, Excelsior announced the closing of the 2016 Royalty Financing for gross proceeds of US$4 million and the closing of the 2016 Private Placement pursuant to which Greenstone purchased 28,860,028 Common Shares of Excelsior at a price of US$0.3465 (Cdn$0.45) per Common Share for total gross proceeds of US$10 million.

Feasibility Study

On December 5, 2016, Excelsior announced the results of the comprehensive Feasibility Study on the North Star Deposit of the Gunnison Project and the supporting Technical Report dated December 17, 2017, was filed on January 17, 2017. The Feasibility Study updated the 2016 Prefeasibility Study and was completed by M3 Engineering & Technology Corporation of Tucson, AZ. Refer to "Mineral Properties – Gunnison Project" for the results of the Feasibility Study.

Year Ended December 31, 2017 Developments

Toronto Stock Exchange Listing

On January 31, 2017, Excelsior announced that it received final approval for its Common Shares to be listed and commence trading on the TSX at the opening of trading on Thursday, February 2, 2017. The Company retained its trading symbol of "MIN". Concurrently, Excelsior's Common Shares were delisted from the TSXV.

Permitting Process

On June 14, 2017, Excelsior announced that the ADEQ had issued a draft APP for the Gunnison Project that was subject to the public comment period.

On June 27, 2017, Excelsior announced that the ADEQ had issued an amended APP for JCM. On December 22, 2016, Excelsior filed an application to significantly amend its JCM APP to allow for the processing of fluids from future wellfield operations; the APP for JCM is effective as of June 26, 2017.

On September 8, 2017, Excelsior announced that the ADEQ has issued a Grant Letter for the APP for the Gunnison Project. The Grant Letter remained appealable under specific circumstances for 30 days. On

October 11, 2017 Excelsior announced that the ADEQ confirmed that the mandated 30-day appeal period has ended without appeal for the APP for the Gunnison Project.

On October 25, 2017, Excelsior announced that the EPA had issued a draft UIC Permit for the Gunnison Project that was subject to a public comment period.

Base Shelf Prospectus Filing

On November 16, 2017, Excelsior announced that it had filed a preliminary base shelf prospectus (the "**Shelf Prospectus**") with the securities regulatory authorities in each of the provinces of Canada (other than Quebec). The final Shelf Prospectus was filed on December 8, 2017. The Shelf Prospectus enables Excelsior to make offerings of up to US$30,000,000 of any combination of Common Shares, debt securities, subscription receipts, units, warrants and share purchase contracts, during the 25-month period that the Shelf Prospectus, including any amendments thereto, remains valid. The nature, size and timing of any such financings (if any) will depend, in part, on Excelsior's assessment of its requirements for funding and general market conditions. The specific terms of any future offering will be established in a prospectus supplement to the Shelf Prospectus, which supplement will be filed with the applicable Canadian securities regulatory authorities.

2017 Offering

On December 11, 2017, Excelsior announced that it was undertaking a non-brokered private placement to raise up to a total of C$26 million (approximately US$20.2 million) through the issuance of up to 26 million Common Shares at a price of C$1.00 per Common Share (the "**2017 Offering**"). On December 19, 2017, Excelsior announced that following oversubscriptions, the Offering has been increased to raise a total of C$38,635,200 million (approximately US$30 million) through the issuance of 38,635,200 million Common Shares at a price of C$1.00 per Common Share.

On December 21, 2017, Excelsior announced that it had closed the first tranche of the 2017 Offering. The Company has issued 22,168,000 Common Shares at a price of C$1.00 per Common Share for gross proceeds of C$22,168,000 (approximately US$17.2 million). All Common Shares issued in the first tranche of the Offering are subject to a statutory four month hold period that expires on April 22, 2018.

On December 22, 2018, Excelsior entered into the Greenstone No. 2 Subscription Agreement with Greenstone No. 2 with respect to the second tranche of the 2017 Offering pursuant to which Greenstone No. 2 will subscribe for 16,467,200 Common Shares at a price of C$1.00 per share for gross proceeds of C$16,467,200 (approximately US$12.8 million). The second tranche of the 2017 Offering closed in mid-January 2018.

Developments Subsequent to December 31, 2017 and Outlook

Closing of the Second Tranche of the 2017 Offering

On January 22, 2018, Excelsior announced that it closed the second tranche of the 2017 Offering. The second tranche resulted in the Company issuing to Greenstone No. 2, 16,467,200 Common Shares at a price of C$1.00 per Common Share for gross proceeds of C$16,467,200 (approximately US$12.8 million). The first and second tranches of the Private Placement resulted in the Company issuing 38,635,200 Common Shares for aggregate gross proceeds of approximately US$30 million.

On closing of the second tranche of the 2017 Offering, Greenstone No. 2 was issued 16,467,200 Common Shares (representing approximately 8.67% of Excelsior's current issued and outstanding Common Shares). Prior to the closing of the second tranche of the Offering, Greenstone Resources, through its affiliate, Greenstone, owned 84,410,897 Common Shares of Excelsior, representing approximately 44.45% of the issued and outstanding Common Shares. As a result of the closing of the second trance of the 2017 Offering, Greenstone Resources, through its affiliates Greenstone and Greenstone No. 2, holds a total of 100,878,097 Common Shares, which represents approximately 48.89% of Excelsior's issued and outstanding Common Shares. The Common Shares issued to Greenstone No. 2 in the Private Placement are subject to a statutory four-month plus one-day hold period expiring on May 20, 2018.

Permitting Process

On January 23, 2018, Excelsior announced that the EPA informed the Company that the public comment period for the UIC Permit had been extended in order to facilitate a public meeting scheduled for February 27, 2018 in Dragoon, Arizona. On March 8, 2018, Excelsior announced that the EPA had informed the Company that the public comment period for the UIC Permit had official ended. The EPA will now review and respond to all comments received and after the conclusion of this process the UIC Permit would be issued. The UIC Permit is the final permit required prior to starting construction and commencing production at the Gunnison Project.

Outlook

The next steps for Excelsior include obtaining the final UIC Permit for the Gunnison Project, completing the project financing required to commence construction and moving from construction into operations.

With respect to project financing, Excelsior has engaged Cutfield Freeman to act as an advisor with respect to the debt portion of the project financing. Excelsior is targeting the completion of the project financing by Q2, 2018 and, assuming the UIC Permit is received, construction would commence thereafter. Commercial copper production from the Gunnison Project is expected to begin nine months after construction is commenced.

Significant Acquisitions

The Company has made no significant acquisitions for which disclosure is required under Part 8 of National Instrument 51-102.

NARRATIVE DESCRIPTION OF THE BUSINESS

Summary of the Business

The Company is focused developing its core asset, the Gunnison Project located in Cochise County, Arizona.

Competitive Conditions

The mineral exploration and mining business is a competitive business. The Company competes with numerous other companies and individuals in the search for and the acquisition of attractive mineral properties. The success of the Company will depend not only on its ability to operate and develop its properties but also on its ability to select and acquire suitable properties or prospects for development or mineral exploration.

The mineral resource industry is intensely competitive in all of its phases, and the Company competes with other mineral resource companies in connection with the acquisition of properties, the recruitment and retention of qualified personnel and contractors, the supply of equipment and, ultimately, customers for any copper that may be produced from the Gunnison Project if it reaches production. Many of the companies the Company competes with have greater financial resources, operational experience and technical facilities than the Company. Consequently, the Company's future revenue, operations and financial condition could be materially adversely affected by competitive conditions. See also "Risk Factors".

Employees

The Company had 30 employees as of December 31, 2017. The Company's strategy has been consistent with that of many junior mineral exploration and development companies of largely operating through sub-contractors and consultants for the purposes of cost management. With the acquisition of Johnson Camp and as the Company moves toward production, it has commenced replacing its consultants with full-time employees.

Environmental Protection

The Company understands the importance of environmental protection. The Company's activities are subject to extensive federal, state and local laws and regulations governing environmental protection and employee health and safety. The Company is required to obtain government permits and comply with bonding requirements under environmental laws. All phases of the Company's operations are subject to environmental regulation. These regulations mandate, among other things, the maintenance of water quality standards and land reclamation. They also set forth limitations on the generation, transportation, storage and disposal of solid and hazardous waste. Environmental legislation is evolving in a manner which will require stricter standards and enforcement, increased fines and penalties for non-compliance, and more stringent environmental assessments of proposed projects. For further information related to environmental protection see "Mineral Properties – Gunnison Project – Mining Operations – Environmental and Permitting."

The environmental protection requirements affect the financial condition and operational performance and earnings of the Company as a result of the capital expenditures and operating costs needed to meet or exceed these requirements. These expenditures and costs may also have an impact on the competitive position of the Company to the extent that its competitors are subject to different requirements in other governmental jurisdictions. To date the effect of these requirements has been limited due to the pre-construction stage of the Company, but they are expected to have a larger effect in future years as the Company commences the construction of the Gunnison Project and moves toward production. There is no assurance that future changes in environmental regulation, if any, will not adversely affect the Company's operations.

Social and Environmental Policies

The Company places great emphasis on providing a safe and secure working environment for all of its employees and contractors, and it recognizes the importance of operating in a sustainable manner.

The Company's Code of Business Conduct and Ethics ("Code of Conduct") is the policy that sets out the standards which guide the conduct of the Company's business and the behaviour of its employees, officers and our Board of Directors. The Code of Conduct, amongst other things, sets out standards in areas relating to:

- Promotion and provision of a work environment in which individuals are treated with respect, provided with equal opportunity and is free of all forms of discrimination;

- Ethical business conduct and legal compliance, including without limitation prohibition against accepting or offering bribes; and

- Commitment to health and safety in our business operations, and the identification, elimination or control of workplace hazards.

The Company's commitment to safety is defined in its Safety Handbook. The Company is committed to developing and maintaining programs that meet and where practical, exceed the requirements of the law. The Company's ultimate goal is zero accidents and to earn the reputation of being a safety conscious operator.

MINERAL PROPERTIES

General

The Company's only material mineral property is the Gunnison Project.

Gunnison Project

The following represents the summary of the Technical Report dated effective December 17, 2016 prepared by Richard Zimmerman, SME-RM; Michael M. Gustin, P.G., Ph.D.; Dr. Ronald J. Roman, P.E., D.Sc.; Neil Prenn, MMSA-QPM; R. Douglas Bartlett, R.G.; and Thomas Drielick, P.E. Unless specifically noted otherwise, the following disclosure regarding the Gunnison Project has been prepared under the authority and supervision and with the consent of the authors, each a "qualified person" within the meaning of NI 43-101. The full Technical Report is incorporated by reference into this AIF and is available under Excelsior's corporate profile on SEDAR at www.sedar.com.

Summary

M3 Engineering & Technology Corporation ("**M3**") was commissioned by Excelsior to prepare the Feasibility Study in accordance with the Canadian NI 43-101, for the Gunnison Project in Cochise County, Arizona, USA. The Project utilizes in situ recovery ("**ISR**") methods to leach copper from a buried copper oxide deposit and extract the copper by conventional solvent extraction-electrowinning ("**SX-EW**") technology. The ISR process involves injecting leach solutions acidified with sulfuric acid into the oxidized mineralization to get soluble copper into solution. Recovery wells pump the copper-bearing pregnant leach solution ("**PLS**") to the surface for copper recovery by SX-EW into salable copper cathodes.

The Project envisages development in three production "stages" with capacities of 25 million pounds per annum ("**mppa**") in Stage 1, 75 mppa in Stage 2, and 125 mppa in Stage 3. The stages to ramp up production were meant to minimize capital at risk until the ISR process at the Gunnison Project is better understood. For Stage 1 operations, Excelsior will use the neighboring JCM that has a functional 25 mppa SX-EW plant north of the Gunnison Project wellfield on the north side of Interstate 10 that it purchased in 2015.

In the current mine plan, Stage 2 production will commence in Year 4 of the mine life and will utilize the JCM SX-EW plant, as well as a new 50 mppa Gunnison SX-EW plant which will be located on the south side of Interstate 10, next to the Gunnison wellfield. Stage 3 production will commence in Year 7 of the mine life by doubling the size of the Gunnison SX-EW plant.

The Gunnison Project is located about 62 miles east of Tucson, Arizona on the southeastern flank of the Little Dragoon Mountains in the Cochise Mining District. The property is within the copper porphyry belt of Arizona. The Gunnison Project contains copper oxide and sulfide mineralization with associated molybdenum, in potentially economic concentrations. The material deposit within the Project area is the North Star (formerly known as I-10) deposit.

Excelsior's method of extraction will be ISR of copper in oxidized, mineralized bedrock that lies 300 feet to 800 feet beneath of alluvial basin fill. The basin fill is typically above the water table and most of the oxidized mineralization is below the water table. The North Star copper deposit shows significant fracturing and jointing of the host rocks resulting in broken ground that is below the water table (saturated zone) and permeable. The copper silicates and oxides occur preferentially as coatings on the fracture planes and as veinlets or matrix fill to the broken fragments. This should result in preferential exposure of the copper minerals to leaching solution, thus reducing the amount of acid consumed by the un-exposed gangue rocks. The above features, combined with the large size of the deposit, suggest ISR is a viable approach to mining.

The techniques for ISR have evolved to the point where it is considered a controllable, safe, and environmentally friendly mining method with low capital and operating costs. The mining method has been demonstrated, with over 90% of uranium production in the United States coming from ISR operations. In addition to uranium, the technique has been successfully applied to the mining of oxide and sulfide copper, gold, sulfur, salt, phosphate and boron.

ISR is a closed-loop mining system, where ground water from the aquifer is utilized as the transport medium. Minerals or metals are dissolved in situ within the host formation using an appropriate lixiviant. Wells constructed in a distinct pattern are used to deliver (inject) the lixiviant to the ore horizon as it is drawn toward other (recovery) wells in the pattern, resulting in contact with the mineralization. The recovery wells are equipped with pumps that deliver the pregnant leach solution (PLS), which is the lixiviant plus dissolved metals, to the surface for processing. After processing, the solution is recycled to the wellfield to continue the leaching cycle, making ISR a continuous mining operation.

Several ISR operations for copper have operated or been permitted in Arizona including Miami (BHP-Billiton), San Manuel (BHP-Billiton), Silver Bell (ASARCO), Old Reliable (Ranchers Exploration), Santa Cruz (ASARCO et al.), Florence (BHP-Billiton), and Safford area (Kennecott Copper). Considerable expertise in copper oxide ISR mining is available in Arizona and elsewhere in the USA.

Excelsior selected M3 and other respected third-party consultants to prepare mine plans, resources/reserve estimates, process plant designs, and to complete environmental studies and cost estimates used for this report. All consultants have the capability to support the Project, as required and within the confines of their expertise. The costs are based on fourth quarter 2016 US dollars.

Key Data

The key results of the Feasibility Study are as follows.

- The average annual Stage 3 production is projected to be approximately 125 million pounds of copper. Total life of operation production is projected at approximately 2,165 million pounds of copper.

- The Project currently has 873 million short tons of measured and indicated oxide and transitional mineral resources (0.29% Total Copper Grade) at a 0.05% Total Copper cutoff grade, as well as 187 million short tons of inferred mineral resources (0.17% Total Copper Grade).

- The Project currently has a diluted mineral reserve of 782 million short tons of probable mineral reserves (0.29% Total Copper Grade).

- ISR is anticipated to recover 48.4% of the total copper with an average “sweep efficiency” of 74%.

- The average life-of-mine direct operating cost estimated to be $0.655 per pound of copper for the Base Case, which includes building a sulfuric acid plant that commences operation in Year 7 (Stage 3). The average life-of-mine direct operating cost for the Alternative Case (No acid plant) is $0.97 per pound of copper.

- The estimated initial capital cost is $46.9 million.

- The total life-of-operation sustaining capital cost for the Base Case is estimated to be $742 million while the total life-of-operation sustaining capital cost for the Alternative Case is $661 million.

- The total cost for reclamation and closure is estimated to be $51.9 million and averages $0.024 per pound of copper recovered.

- The economic analysis for the Base Case before taxes indicates an Internal Rate of Return (“**IRR**”) of 48% and a payback period of 4.6 years. Based on a copper price of $2.75 per pound, the Net Present Value (“**NPV**”) before taxes is $1,173 million at a 7.5% discount rate.

- The economic analysis for the Base Case after taxes indicates that the Project has an IRR of 40.0% with a payback period of 6.5 years. The NPV after taxes is $807 million at a 7.5% discount rate.

Property Description and Location

The Project is located in Cochise County, Arizona, approximately 62 miles east of Tucson and 1.5 miles southeast of the historic Johnson Camp mining district. Figure 1-1 is a general location map and property location near the US Interstate 10 (I-10) freeway. Total area is approximately 9,560 acres (3,869 hectares).

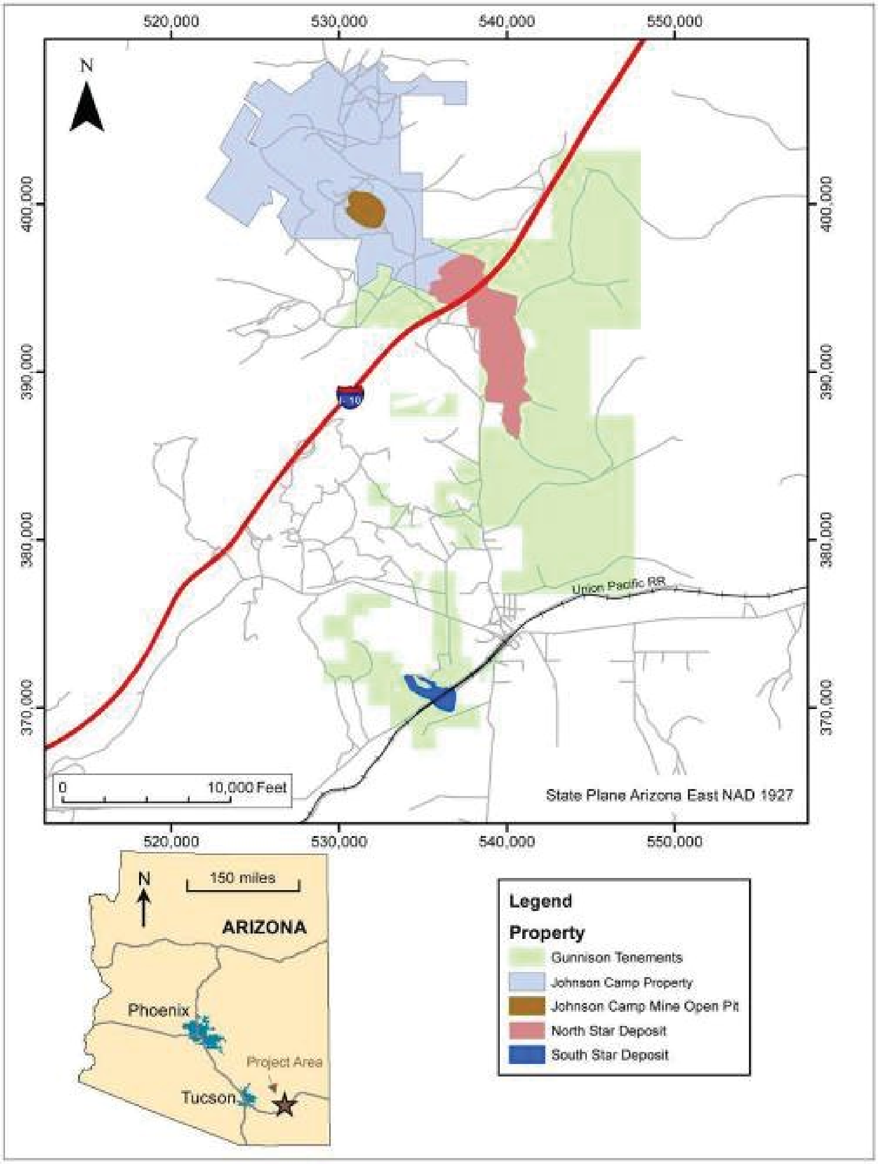


Figure 1-1: Project Location Map, North and South Star Deposits

The Project is held by Excelsior through is wholly-owned subsidiaries Excelsior Mining Arizona, Inc. ("**Excelsior Arizona**") and Excelsior Mining JCM, Inc. ("**Excelsior JCM**"). Acquisition of all mineral interest from the James L. Sullivan Trust was completed in January of 2015. These assets represent, among other things, the mineral rights to the North Star and South Star Copper deposits. Additionally, in December 2015 Excelsior purchased all assets of Nord Resources Corporation, as they relate to the JCM, through a court-appointed receiver.

Accessibility, Climate, Local Resources, Infrastructure and Physiography

The Project is located in a sparsely populated, flat to slightly undulating ranching and mining area about 62 road miles east of Tucson, Arizona. The Tucson metropolitan area is a major population center (approximately 1,000,000 persons) with a major airport and transportation hub and well developed infrastructure and services that support the surrounding copper mining and processing industry. The towns of Benson and Willcox are nearby and combined with Tucson can supply sufficient skilled labor for the Project.

Access to the Project is via the I-10 freeway from Tucson and Benson to the west or Willcox to the east. The North Star deposit can be accessed via good quality dirt roads heading approximately 1 mile east from the south side of "The Thing" travel center and roadside attraction on the Johnson Road exit from I-10.

The elevation on the property ranges from 4,600 to 4,900 feet above mean sea level in the eastern Basin and Range physiographic province of southeastern Arizona. The climate varies with elevation, but in general the summers are hot and dry and winters are mild.

Vegetation on the property is typical of the upper Sonoran Desert and includes bunchgrasses, yucca, mesquite, and cacti.

History

There is no direct mining history of the North Star deposit; however, the district has seen considerable copper, zinc, silver and tungsten mining beginning in the 1880's and extending to the present day. Modern mining and leaching operations at the Johnson Camp Mine, began in the 1970s by Cyprus Minerals. Successor owners and operators include Arimetco, North Star, Summo Minerals, and Nord Resources Corporation. Nord mined fresh material until mid-2010 and maintained leaching operations until late 2015, when the property was purchased by Excelsior.

In 1970, a division of the Superior Oil Company ("**Superior**") joint ventured into the northern half of the North Star deposit with Cyprus and the private owners. During the early 1970's, Superior did most of the drilling and limited metallurgical testing on North Star and by early 1974 had defined several million tons of low-grade acid-soluble copper mineralization.

Geological Setting and Mineralization

There are two oxide copper deposits controlled by Excelsior, North Star and South Star, both situated in the Mexican Highland section of the Basin and Range physiographic province. The province is characterized by fault-bounded mountains, typically with large igneous intrusives at their cores, separated by deep basins filled with Tertiary and Quaternary gravels.

The Gunnison Project (North Star) lies on the eastern edge of the Little Dragoon Mountains. The ages of the rocks range from 1.4 billion-year-old Pinal Group schists to recent Holocene sediments. The southern portion of the Little Dragoon Mountains consists predominately of the Tertiary Texas Canyon Quartz Monzonite whereas the Pinal Group schists and the Paleozoic sediments that host the regional copper mineralization dominate the northern half.

Copper sulfide mineralization has formed preferentially in the proximal (higher metamorphic grade) skarn facies, particularly along stratigraphic units such as the Abrigo and Martin Formations near the contact with the quartz monzonite and within structurally complex zones. Primary mineralization occurs as stringers and veinlets of chalcopyrite and bornite. Primary (unoxidized) mineralization remains "open" (undetermined limits) at depth and to the north, south, and east. Oxidation of the mineralization occurs to a depth of approximately 1,600 feet, resulting in the formation of dominantly chrysocolla and tenorite with minor copper oxides and secondary chalcocite. The bulk of the copper oxide mineralization occurs as chrysocolla, which has formed as coatings on rock fractures and as vein fill. The remainder of the oxide mineralization occurs as replacement patches and disseminations.

Deposit Types

The North Star deposit is a classic copper-bearing, skarn-type deposit. Skarn deposits range in size from a few million to 500 million tons and are globally significant, particularly in the American Cordillera. The North Star deposit is large, being at the upper end of the range of size for skarn deposits, and is associated with a mineralized porphyry copper system that has been virtually unexplored.

Exploration

Since North Star's discovery, numerous companies have explored the area. During this time period, extensive drilling and assaying, magnetic and IP geophysical surveys, metallurgical testing, hydrological studies, ISR tests, and preliminary mine designs and evaluations have occurred. The focus since the 1970's has been to utilize ISR or a combination of ISR and open pits as a potential mining strategy.

Stephen Twyerould first became involved with the Gunnison Project in mid-2005 and AzTech (Excelsior precursor) became involved in mid-2006. Since that time, significant work has been completed such as cataloguing, reviewing and compiling high-quality historical data spanning over thirty years of investigations by Superior Oil and Gas, Cyprus, Quintana, CF&I, Magma Copper Corporation, Phelps Dodge Corporation, and James Sullivan. Excelsior conducted detailed ground magnetics over the exploration targets in June 2011.

Excelsior initiated a re-logging program in December 2010 that was completed in the third quarter of 2011. In addition, a re-assaying program began in March 2011 during which all of the Magma holes were re-assayed. In May 2011, a re-assay program was initiated for the Quintana Minerals holes (DC, S, and T series) to include sequential copper analyses for acid-soluble copper ("**ASCu**"). Previous results only included total copper ("**TCu**") assays.

Drilling

The North Star deposit drillhole database includes 88 historical drillholes that were completed by several companies. These holes extend to a depth of approximately 2,450 ft below the surface at North Star and cover an area of approximately 310 acres, with additional drilling extending beyond this area. There is a slightly higher density of drilling along the central axis of the North Star deposit. The 88 holes drilled by previous owners include 5,585 assays for TCu and 2,754 assays for acid soluble copper as well as other assays for molybdenum, gold, silver, and tungsten.

Between 2010 and 2015, fifty-four diamond core holes have been drilled by Excelsior for a total of 78,615 feet of drilling. Fifteen of these holes were for metallurgical samples and the rest were drilled for resource definition or exploration purposes.

Sample Preparation, Analysis and Security

All of the drilling, sample preparation and analysis of the samples presented in this report was under the control of the previous property owners.

The laboratory sample preparation and analysis procedures used by the previous owners of the deposits are unknown; however, major commercial laboratories using best practices at the time completed the majority of analyses.

The data, information, samples and core from the deposits have been under the control and security of AzTech Minerals since November 2006 and then Excelsior since October 2010. The original Information and samples are stored at the Sullivan's core storage facility in Casa Grande, with numerous copies held by Excelsior at its Phoenix, Arizona office. It is the opinion of Mine Development Associates ("**MDA**"), the reviewer of the assay data for this report, that the sample procedures, processes and security are reasonable and adequate.

Data Verification

The verification of location and assay data in the drillhole database covers historic drilling and the verification of the data collected by Excelsior. No significant issues have been identified with respect to the data provided by Excelsior's quality assurance/quality control ("**QA/QC**") programs. QA/QC data are not available for the historical drilling programs at North Star, but Excelsior analyses dominate the assays used directly in the estimation of the mineral resources. Additionally, most of the historical data were generated by well-known mining companies, and the Excelsior drill data are generally consistent with the results generated by the historical companies.

Assaying and QA/QC procedures were industry standard. The TCu and ASCu assays used to estimate grades in the North Star model are acceptable for estimating mineral resources, based on MDA's review of the available data for repeat, check, duplicate, standard and blank assays, and on paired comparisons of assay data from different drilling campaigns.

Mineral Processing and Metallurgical Testing

There are two fundamental parameters to estimate overall copper recovery and acid consumption for a commercial- scale ISR operation: metallurgical recovery and sweep efficiency. In essence:

- Metallurgical recovery determines the amount and rate at which the copper dissolves from, and acid is consumed by, the rocks when contacted by the leach solution.

- Sweep efficiency determines how much of the copper in the ground will be effectively contacted by leach solution during the mining process.

In addition to historic testing, Excelsior has commissioned several rounds of varied metallurgical testing from as early as 2011 through 2015 that were intended to demonstrate the copper recovery and acid consumption which could be expected in an ISR operation for the Gunnison Project. The most recent testing was conducted at Mineral Advisory Group Research & Development, LLC ("**MAG**") in Tucson, Arizona under the direction and control of Dr. Ronald J. Roman, P.E. of Leach, Inc., Tucson, Arizona. The primary objectives of this most recent group of tests were to:

- Determine the amount of copper that could be leached from the different ore types,

- Determine the relationship between the percentage of copper leached and the acid consumption for the different ore types, and

- Establish ISR metallurgical parameters at a feasibility level of confidence.

In addition to these tests, several rinsing tests were conducted for the purpose of determining a rinsing protocol to be employed after a block of ore had been leached by the ISR technique.

New Column Testwork

Since the 2014 PFS, two additional test programs have been completed. In the first of these 19 modified column tests were run. The purpose of the new column testing was to determine how different ore samples would respond to the same leaching parameters to determine the variability of the ore with respect to the leachability.

Column tests were run on 51 to 52 kg of material crushed to minus 1 inch using 15 gram per liter ("**gpl**") sulfuric acid solution for up to 80 days. Separate columns were run for Lower Abrigo, Middle Abrigo, Upper Abrigo, and combined Martin/Escabrosa formations. The results show that the recovery of acid soluble copper ranges from 65% to +90% but was dependent on rock type with Lower Abrigo formation having the highest and shortest duration leach cycle and the Martin/Escabrosa column tests having the lowest recovery over the longest period. Nearly all of the column leach plots of recovery vs time had positive slopes at the end of leaching, indicating the leaching process had not completed in 80 days. As with prior test work, additional copper was recovered from the solubilization of minerals which do not report to the traditional ambient acid-soluble copper assay. These minerals include slowly soluble oxide copper minerals and transitional sulfides. Therefore the conventional “acid-soluble copper assay” gives a good, if not conservative, approximation of the amount of copper which can be leached from the ore in the presence of a weak sulfuric acid solution.

Core Tray Tests

The second new test program termed “Core Tray” tests was intended to more closely simulate the in-situ recovery process than the modified column tests. In the Core Tray test pieces of core were mounted in epoxy in a tray with only the natural fracture surface exposed to the leach solution flowing across the top through the core tray.

Initially, the leach solution contained approximately 1.0 gpl free acid. The free acid was increased in steps with time until it reached 15 gpl free acid. The data collected were recorded and an estimate of the following information about the response of the sample to leaching made:

- Incremental and cumulative recoverable copper, lbs/100 ft^2 of fracture surface
- Incremental and cumulative recoverable copper, wt%
- Incremental and cumulative gangue acid consumption, lbs/100 ft^2 of fracture surface
- Incremental and cumulative net acid consumption, grams of acid/gram of copper leached
- From these results the following were determined:
    - Recovery/time relationship
    - Acid Consumption/recovery relationship

The results of the Core Tray tests were stratified by rock type. Figure 1-2 is an example of the results for the Upper Abrigo formation. For all formations the time vs recovery curves still have positive slopes during the test times of up to 200 days. Figure 1-3 is the Core Tray acid consumption data for the Upper Abrigo formation that indicates that the acid consumption curve steepens with recovery as expected.

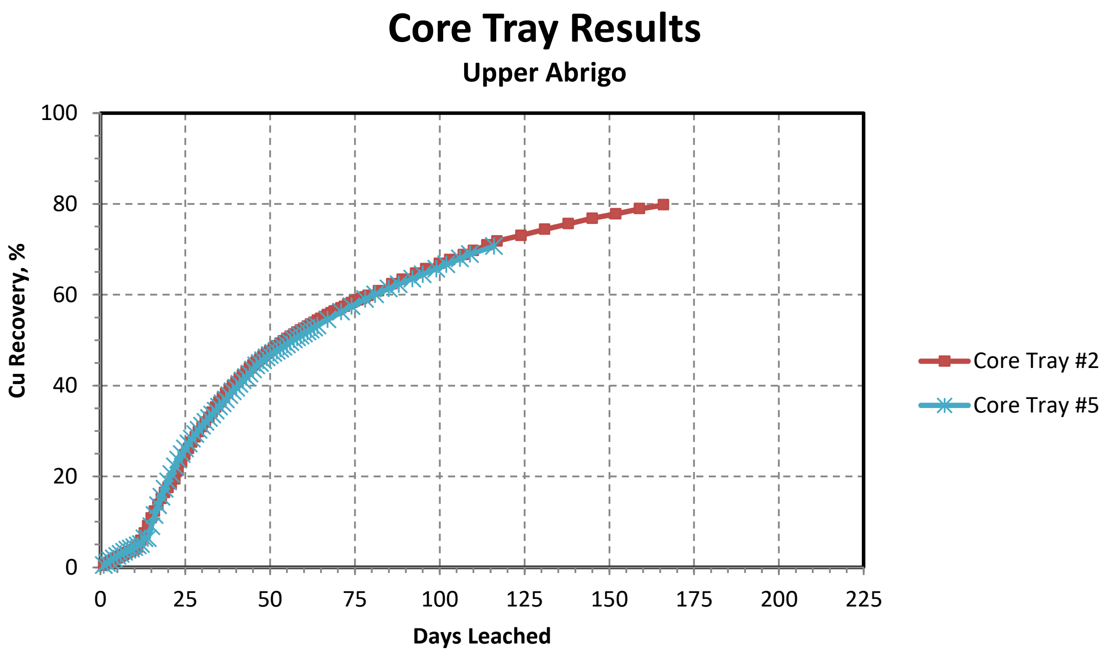


Figure 1-2: Core Tray Time vs Copper Recovery Results for Upper Abrigo Formation

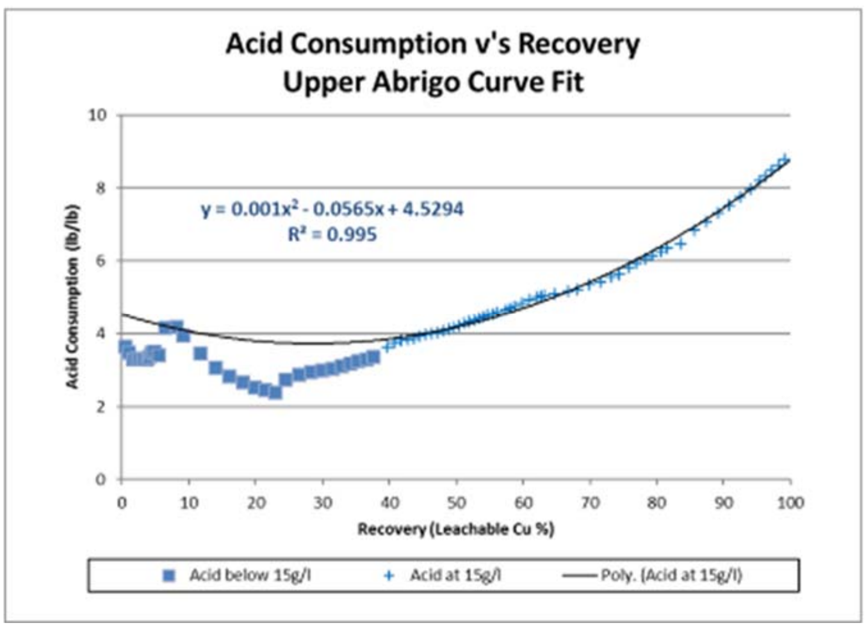


Figure 1-3: Core Tray Copper Recovery vs Acid Consumption Results for Upper Abrigo Formation

Sweep efficiency (or mining efficiency) for the North Star deposit is considered a function of fracture intensity. The most highly fractured rocks where the majority of pieces of core are 4" or less are considered to have a sweep efficiency of 100%. In contrast, rocks that exhibit very weak fracturing are considered to have a low sweep efficiency of approximately 20%. The rocks at North Star exhibit a continuum of fracture intensities from very low (Fracture Intensity value of 1), to very high (Fracture Intensity value of 5), as determined by geological logging, geophysics and three-dimensional interpretation and modeling. To reflect this continuum, a polynomial algorithm was used to derive a predictive relationship between sweep efficiency and fracture intensity of the rocks.

Combining sweep efficiency with metallurgical test results and modelling of copper recovery it is possible to estimate cumulative copper recovery and acid consumption over a period of time for a 5-spot well pattern. The results of such calculations are shown in Table 1-1 below. The overall effect is for a weighted average total copper recovery of approximately 48% (acid soluble recovery of 74%).

Table 1-1: Predictive Model for Sweep Efficiency Factored, Cumulative Acid Soluble Copper Recovery and Acid Consumption for a 5-Spot Well Field Pattern

Cumulative Acid Soluble Cu Recovery (%)	Year 1	Year 2	Year 3	Year 4
Martin	10.2	48.9	66.1	72.8
Upper Abrigo	26.2	65.1	72.9	74.5
Middle Abrigo	25.4	56.0	67.9	75.0
Lower Abrigo	35.5	62.2	70.4	74.6
Bolsa, TQM, other*	35.5	62.2	70.3	74.5
Weighted average	21.0	56.2	68.8	73.9
Cumulative Acid Consumption (lb/lb)*	**Year 1**	**Year 2**	**Year 3**	**Year 4**
Martin	17.5	7.5	8.1	9.7
Upper Abrigo	6.6	5.3	6.8	9.0
Middle Abrigo	7.4	6.8	8.2	10.0
Lower Abrigo	3.7	4.3	5.4	6.9
Bolsa, TQM, other*	3.7	4.3	5.4	6.9
Weighted average	8.2	6.2	7.4	9.1

Mineral Resource Estimate

The North Star deposit mineral resources reported by MDA have been updated to include resources on lands newly acquired by Excelsior with the purchase of the Johnson Camp property. Table 1-2 is a summary of the oxide, transitional, and sulfide mineral resources tabulated at a total copper cutoff of 0.05% for oxide and transitional and 0.30% for sulfide. Table 1-3 is a summary of the sulfide portion of the deposit at a 0.50% TCu cutoff. Measured and indicated oxide and transition mineral resources are inclusive of mineral reserves.

Table 1-2: North Star Oxide, Transition, and Sulfide Mineral Resource Summary Effective October 1, 2016

Resource Category	Short Tons (millions)	Total Cu (%)	Contained Copper (million pounds)
Measured	200.7	0.36	1,439
Indicated	710.8	0.27	3,875
Measured + Indicated	911.6	0.29	5,315
Inferred	240.9	0.22	1,070
0.05% TCu cutoff for oxide and transitional, 0.30% TCu cutoff for sulfide			

Table 1-3: North Star Sulfide Mineral Resource Summary
Effective October 1, 2016

	Short Tons	Total Cu	Contained Copper
Measured	0.2	0.55	2
Indicated	6.3	0.6	76
Measured + Indicated	6.5	0.6	78
Inferred	5.3	0.58	62
0.50% TCu cutoff			

Mineral Reserve Estimate

The mineral resource estimate discussed in Section 14 of the Technical Report is used to estimate the probable mineral reserve estimate for the North Star deposit. Table 1-4 shows the diluted Probable mineral reserve estimate as defined for the FS. The mineral reserves are in the Probable category. The estimate includes material from the measured and indicated categories of the mineral resource and excludes inferred mineral resources. It does not include material from the sulfide zone.

Table 1-4: Probable Diluted Reserve Estimate (October 2016)

Short Tons	782,153,183
TCu Grade (%)	0.29
TCu Contained Copper (lbs)	4,505,267,997
Average Total Copper Recovery (%)	48.4
Recoverable Copper (lbs)	2,179,489,338
*Probable reserves were defined from measured and indicated resources. Inferred resources were not converted into reserves.	

The Probable mineral reserve estimate summary prepared for the FS was created using data and input from MDA and Excelsior. It is based on MDA's resource estimate detailed in Section 14 of the Technical Report. It assumes the use of ISR as a mining method, which requires a wellfield (injection and recovery wells) and pumps pregnant leach solution to an SX-EW plant to recover the copper. The boundaries of the Probable mineral reserve were defined using economic parameters and then further modified to take into account lost production under the freeway and along some lease boundaries. Excelsior developed a wellfield / production schedule for the Project, and the mineral reserve estimate is the sum of the production schedule, which is discussed in Section 16 of the Technical Report.

Mining Method

Excelsior proposes to use the ISR method to extract copper from oxide mineralization located within the North Star Deposit (see location map on Figure 1-1). The ISR mining method was based on the fractured nature of the host rock, the presence of water-saturated joints and fractures within the ore body, copper mineralization that preferentially occurs along fracture surfaces, the ability to operate in the vicinity of Interstate 10, and to avoid the challenges of open pit mining in an area with alluvium overburden thickness ranging from approximately 300 feet to 800 feet.

The forecasted copper production for the Gunnison Project commences with an initial stage of 25 million pounds per annum (mppa) from Years 1 through 3, followed by a second stage of production of 75 mppa in Years 4 through 6, and followed a third stage reaching 125 mppa from Year 7 through Year 20 with a decline in production beginning in Year 21 through the end of the mine life in Year 24. The total amount of copper production forecast over the 24-year LOM is approximately 2,165 million pounds. The following inputs and assumptions were used to generate the copper extraction forecast:

- Key physical parameters from MDA's 100 foot x 50 foot resource block model such as rock type, specific gravity of each rock type, total copper percentage and acid soluble copper percentage, fracture intensity, ore thickness, water table elevation, ore greater than 0.05% total copper, and lease boundaries (see Section 14 of the Technical Report for details);

- Incremental acid soluble copper recovery curves over a 4 year recovery period and recovery factor (as discussed in Section 13.3 of the Technical Report); and

- Recovery well production rates described in Section 16.4.3 of the Technical Report.

ISR process injects a barren leach solution ("**lixiviant**") with weak sulfuric acid into the ore body using a series of injection wells. The acidified solution dissolves oxide copper minerals as it migrates through the joints and fractures within the mineralized bedrock. Recovery wells surrounding each injection well extract copper-bearing pregnant leach solution ("**PLS**") and combine to form the feed solution for the SX-EW process.

The SX-EW facility is designed to recover copper from PLS at a copper feed grade of 1.63 gram per liter ("**gpl**") (1.52 gpl net copper grade) to produce cathode-quality copper with 99.99% purity. The anticipated PLS flow rates are 3,800 gallons per minute ("**gpm**") for Stage 1, 11,500 gpm for Stage 2, and 19,500 gpm for Stage 3. The process solutions are piped to and from the SX-EW plants in high density polyethylene ("**HDPE**") piping. The process consists of the following elements (schematic representation in Figure 1-4):

- ISR wellfield

- Wellfield and drilling services building

- Lined PLS and raffinate ponds

- Solvent Extraction plant

- Tank Farm for handling process liquids;

- Electrowinning Tankhouse equipped with an Automatic Stripping Machine

- Electrical substation

- Sulfuric Acid Receiving/Storage

- Administration offices, Security Building, and a Change House

- Plant Warehouse, Laboratory, and Plant Maintenance buildings

- Water treatment plant with a Clean Water Pond, Evaporation Ponds, and Solids Impoundments

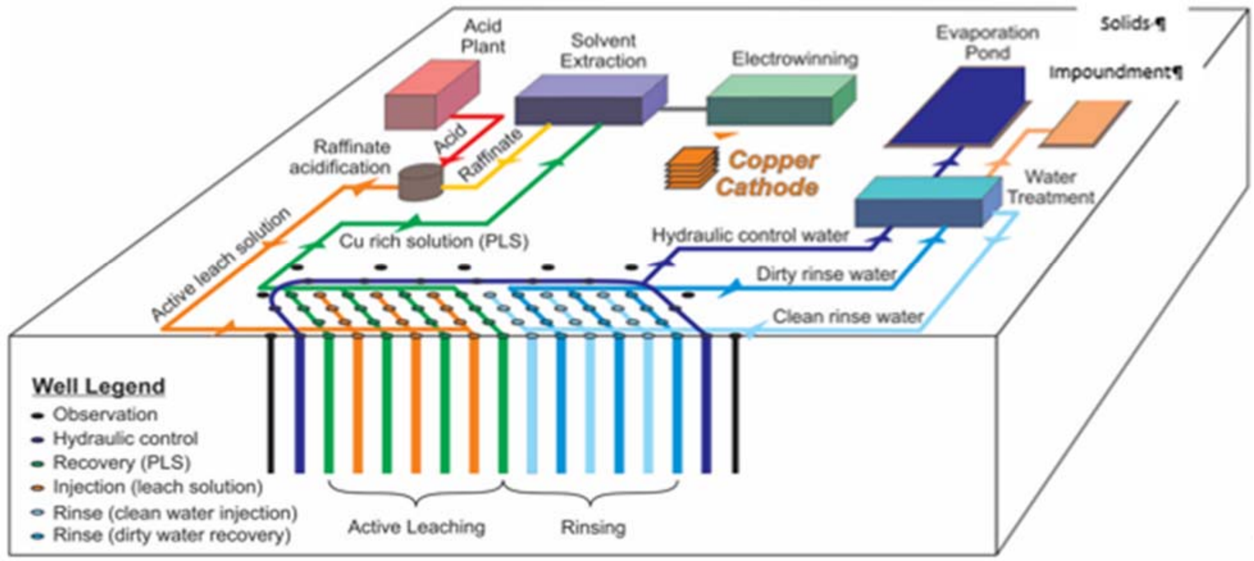


Figure 1-4: Recovery Process

Depleted portions of the mineralized zone are rinsed by injecting non-acidic (clean) water to flush out the leach solution and reduce the metals and other constituents to acceptable concentrations. A block of mineralization is considered depleted when the copper grade of the recovered PLS falls below an economic cut off. The rinsing process consists of a three-stage process consisting of an early rinse, rest period, and late rinse. Early rinsing flushes and dilutes the PLS remaining in the formation.

At a certain level of dilution, typically 90 percent, the wellfield is shut in allowing the intrinsic neutralization capacity of the formation to neutralize the acid in the diluted solution. The final stage of rinsing flushes out the neutralized solution until all regulated constituents are below stipulated concentrations. Injection and recovery wells are abandoned by grout injection from the bottom of the well when wellfield closure criteria have been satisfied.

Production wells will be designed to meet Underground Injection Control Class III requirements and will be constructed in accordance with the guidelines of ADEQ's Mining BADCT Guidance Manual. Boreholes will be drilled using air rotary, direct mud rotary, reverse circulation mud rotary, or casing advance drilling methods. Borehole diameters will be sufficient to allow for installation of casing that will accommodate the pumps. The cased portions of the boreholes will be 12-inch nominal (small diameter injection/recovery wells and hydraulic control wells), 15-inch nominal (large diameter injection/recovery wells), and 10-inch nominal (observation and POC wells). The open borehole sections within bedrock will be 5 and 7 inches in nominal diameter. Well screen may be used if the borehole is unstable. The outer annulus of the cased portions of Class III wells will be grouted to 100 feet above the basin fill/bedrock contact (or static groundwater level, whichever is shallower). The ISR operations do not require hydraulic fracturing of the mineralized formation.

Water Treatment Plant

The water treatment plant ("**WTP**") is planned for construction in Year 6 and 7, when the earliest producing wells are depleted and wellfield rinsing begins. The WTP is designed to provide treatment for mine-influenced water ("**MIW**") primarily composed of raffinate bleed, wellfield conditioning return, and rinse water return from the ISR recovery wellfield. The WTP is conceptually designed with a capacity of approximately 1,600 gpm. Rinse water, wellfield conditioning return, and excess raffinate produced in Years

1 through 7 will be re-used in the copper recovery process, with any excess going directly to the evaporation ponds.

Acid Generation Plant

Producing sulfuric acid (H_2SO_4) onsite from molten sulfur was evaluated against purchasing sulfuric acid delivered to site. The analysis is based on a long term delivered contract at a cost of $125 per (short) ton of sulfuric acid. The alternative of purchasing molten sulfur on a long term contract, also at $125 per ton and converting the sulfur to sulfuric acid onsite was determined to be more economical. Waste heat from the acid making process produces steam as a by-product to cogenerate electrical power which will be credited to the acid facility operating costs thereby lowering the effective cost of sulfuric acid to $46 per ton. Facilities required for onsite acid generation include molten sulfur rail unloading and storage facilities, sulfur burning plant, acid absorption area, steam turbine generation plant, water treatment, acid storage tanks, and cooling towers. The sulfuric acid plant is scheduled to be built in Year 6 as part of the Stage 3 expansion.

The results of the evaluation indicate that the IRR between purchasing acid and making acid onsite are the same but the increase in Net Present Value clearly favors making sulfuric acid onsite. For this reason, the sulfuric acid plant is considered as a component of the Base Case. Omitting the acid plant is termed the Alternative Case.

Acid requirements for the Project are approximately 9 pounds of acid per pound of copper produced. The proposed acid plant is a double-contact, double-absorption acid plant which will provide the highest conversion rate and lowest emission of sulfur dioxide gas, less than 500 parts per million by volume. The sulfur-burning sulfuric acid plant is sized for 1,625 tons per day (100% H_2SO_4), with the product acid strength of 98.5% H_2SO_4. Allowing for 2 weeks down time each year for maintenance, the acid plant operates at an average of 85% capacity.

Project Infrastructure

The primary access to the site will be from Interstate 10 via the Johnson Road exit between Benson and Willcox, Arizona. The mine access road to the Johnson Camp side of the property is approximately one mile long to the north. A new, asphalt paved access road to the Gunnison wellfield and plant site will head south and east from the Interstate exit for a distance of one mile.

The Johnson Camp mine, currently in care and maintenance mode, has existing plant facilities, ponds and infrastructure in operable condition. This site will be used for Stage 1, 2, and 3 production at its rated capacity of 25 mppa.

The Gunnison SX-EW plant will be constructed for Stage 2 production in Year 3 for operation in Year 4 at an initial rate of 50 mppa. The electrowinning building (tankhouse) will be a steel building with corrugated metal roofing and siding. It will contain 80 electrowinning cells on one end of the building and the Automatic Stripping Machine and the cathode handling equipment are on the other, with a paved cathode storage area outdoors. For Stage 3 production, 80 EW cells will be added to the opposite side of the building, mirroring the first 80 cells.

The Gunnison Tank Farm will be built for Stage 2 and have tankage added in Stage 3. It is uncovered and located downhill from the SX area and the tankhouse to facilitate gravity drainage of solutions to the Tank Farm. The Tank Farm has a concrete containment that drains to a sump with an oil-water separator to return spilled liquid to the proper location for recycling. There is a Plant Runoff Pond located downstream of the Tank Farm to capture any surface flows in the event of an upset condition at the plant.

Ancillary facilities needed to support the Gunnison Project include buildings, ponds, tanks, and trenches. Ancillary buildings include an Administration Building, Warehouse, Plant Maintenance building, Change House, Security Building (gatehouse), Wellfield Maintenance Building, Water Treatment Plant, and Sulfuric

Acid Plant-Cogeneration complex. Other facilities will include ponds, and tanks. The Gunnison Project will use the existing assay lab located at the Johnson Camp mine.

Power for the facility will be taken from an existing 69 kilovolt power line feeding the existing Johnson Camp Mine located on the north side of I-10. The existing power line is owned by the Sulfur Springs Valley Electric Cooperative Inc. located in Willcox, Arizona. The power line approaches the plant site along the eastern boundary of Section 31 shown on Figure 4-2. A tap will be taken from the existing power line and a short, 0.3-mile power line will be constructed to connect to the plant main electrical substation, located near the EW building.

Fresh well water will be taken from existing wells and mine shafts on the Johnson Camp property and pumped to an existing 500,000 gallon fresh water/fire water storage tank located on Water Tank Hill at the JCM site. The lower 300,000 gallons in the storage tank will be reserved for fire water. Process water for plant use will be taken from the storage tank above this reserve level for fire suppression. The JCM site has an existing potable water system. The Gunnison site will be served by an additional 7,000 gallon potable water tank and chlorination system, which will use a water supply well to be constructed east of the operation during Stage 2 development.

Market Studies and Contracts

No market study has been conducted for the Project and there are no contracts in place related to metal sales at the time of this report. No direct marketing has been done for the copper cathode that would potentially be produced at the Project and therefore no off-take agreements exist. These options will be reviewed in detail when the Project proceeds. The Project will produce high-purity copper (LME Grade A) cathodes which are suitable for use without further refining.

The Feasibility Study has selected $2.75/lb copper as the price for the Base Case, which is consistent with the price used in the 2016 PFS Update. It also agrees with the three-year trailing (historic) average for copper price, which was $2.62/lb at the time the Feasibility Study was prepared.

Environmental and Permitting

Environmental Studies

Anthropological and floral and faunal studies were carried out by Excelsior in 2010 over the wellfield area. There is no potential for U.S. Fish and Wildlife Service endangered, threatened, proposed, and candidate species (special- status species) to occur in the study area.

An archaeological study was conducted that showed no cultural resource sites in the mining area. Further archeological and floral/faunal studies were conducted by WestLand Resources for areas covered by infrastructure such as the SX-EW plant, evaporation ponds, sulfuric acid plant and railway facilities. No cultural resource sites were identified.

Groundwater Modeling

A groundwater model was constructed by Clear Creek Associates to cover the greater Gunnison project area of 87.8 square miles in support of the Aquifer Protection Permit and Underground Injection Control Permit applications. The model was constructed using a number of extensive datasets created by Excelsior, including a detailed mapping of fracture intensity, which is key to groundwater flow in the Project area.

The model demonstrates that control of mining solutions can be maintained with hydraulic control wells located around the wellfield. Predicted pumping rates for hydraulic control presently range from a total of 15 gpm to approximately 200 gpm in later years. Water produced during hydraulic control will be used in the process, recycled or evaporated.

Water Management

The Project's water management plan was designed to make the most efficient use of water resources and eliminate discharges. During Stage 1 of the Gunnison Project, existing lined ponds at JCM will be used. As production increases and Stage 2 and Stage 3 facilities are constructed south of Interstate 10, new solution and water management ponds will be constructed to support the project. These include: the PLS pond, Raffinate pond, Plant Runoff pond, Clean Water pond, Recycled Water pond, Evaporation ponds, and Solids Impoundments, which contain the precipitate from the Water Treatment Plant. With the exception of the Plant Runoff and Clean Water ponds, the ponds will be constructed with a double liner and a leak detection and recovery system between the liners according to prescriptive BADCT design.

Excess solutions will initially be routed to evaporation ponds where mechanical evaporators will be installed. During later stages of the Project, when the Water Treatment Plant is in operation, approximately 80% of the influent will be treated for reuse in the process or for rinsing, and it will report to the Clean Water Pond. The solids from the WTP process will be pumped to the Solids Impoundments as precipitated solids and the concentrate brine and filter backwash from the WTP will be pumped to the evaporation ponds. Groundwater produced from hydraulic control pumping will be conveyed to the Clean Water Pond or, if impacted by PLS, to the Evaporation Pond.

Geochemical Modeling

Geochemical modeling of raffinate and rinsing solutions indicates that the following 3-step closure strategy will result in concentrations of regulated constituents below Aquifer Water Quality Standards:

- Step 1: Rinsing 3 pore volumes
- Step 2: A rest phase (approximately 200 days or more) until near neutral pH conditions are attained
- Step 3: Rinsing at least 2 additional pore volumes
- Hydraulic control is maintained during rinsing

Community Relations

Excelsior has developed a broad-based community relations and stakeholder outreach program in support of the Gunnison Project. Elements of this program include:

- Targeted stakeholder outreach to government, community, business, non-profit and special interest groups, and leaders at the local, county and state level.
- Development of community relation and communication tools and resources (e.g. Project website, Project e- newsletter, and presentation materials);
- Public open houses and technical briefings when appropriate.

Crucial elements of Excelsior's community relations efforts will involve ensuring consistent and ongoing communication with all stakeholders, and providing opportunities for meaningful two-way dialogue and active public involvement. Excelsior will focus on ensuring the public benefits related to the Gunnison Project, such as employment opportunities, supplier services, infrastructure development and community investment are optimized for the local communities.

Economic Benefits

Excelsior commissioned an Economic Impact Study through Arizona State University's W. P. Carey School of Business which forecasts the increase in economic activity within Arizona during the construction phase and life of the mine. The economic impact of mine development to surrounding communities and the State in general:

- Over 800 direct and indirect new jobs;

- Employment benefits are distributed in mining, construction, professional & technical services, and government sectors as well as other sectors.

- The annual average value added to Arizona's Gross State Product ("**GSP**") during the entire Project life – pre- production, production and closure – is approximately $109 million with approximately $28 million added within Cochise County. The total addition to the GSP is $2.9 billion, with $757 million locally within Cochise County.

- Economically modeling predicts the Project will have an average annual impact on state revenues of $10.9 million for a total impact of $295 million.

Permitting

The Gunnison Project operations will require a number of Federal, state, and local government environmental permits. The environmental and permitting process involves, among other things, preparing a mine closure and reclamation plan for the Arizona State Mines Inspector. In addition, several permits must be obtained; the most important of which are an Aquifer Protection Permit ("**APP**") from the State of Arizona, an Underground Injection Control permit from the US Environmental Protection Agency ("**USEPA**") and the air quality permit from the State of Arizona. Currently, there are no known environmental liabilities for the Gunnison Project. The APP application was submitted to ADEQ on January 13, 2016 and it was found to be administratively complete. The UIC Permit application was received by USEPA on February 3, 2016.

The Project facilities regulated by APP are the ISR wellfield and nine impoundments: Solids Ponds 1a and 1b, 2a and 2b, and Solids Pond 3, Evaporation Ponds 1 and 2, the Recycled Water Pond, PLS Pond, Raffinate Pond and the Plant Runoff pond. BADCT for the wellfield includes the following elements: (1) balanced injection and recovery volumes, (2) hydraulic control pumping to maintain hydraulic gradients toward the wellfield, (3) operational controls regarding flow volumes and injection pressures, (4) well construction according to 40 CFR Subpart D, Section 146.30, (4) rinsing for closure, and (5) wellfield plugging and abandonment. The UIC Permit will focus on the design, construction, operation, and closure of the wellfield.

Table 1-5: Required Permits

Required Permits	Issuing Agency	Regulatory Program or Statute
Underground Injection Control (UIC) Permit (Application submitted February 2016)	United States Environmental Protection Agency (USEPA)	Safe Drinking Water Act
USEPA Identification Number (RCRA Subtitle C Site Identification Form 8700-12)	USEPA	Resource Conservation and Recovery Act (RCRA)
APP Individual Permit (for wellfield and impoundments) (Application submitted January 2016)	ADEQ	Environmental Quality Act – APP program
APP General Permits (for sewer system, other minor facilities)	ADEQ	Environmental Quality Act – APP program
Air Quality Permit	ADEQ	Clean Air Act
Drinking Water System Approval to Construct and Approval of Construction	ADEQ	Safe Drinking Water Act
Mined Land Reclamation Permit	Arizona State Mine Inspector	ARS. § 27-901
Intent to Clear Land	Arizona Department of Agriculture	ARS. § 3-904
Sewage System Permit	Cochise County Department of Health and Social Services	Environmental Quality Act – APP program
Encroachment Permit (for utility corridors under I-10)	Arizona Department of Transportation (ADOT)	AAC. R17-3-502
Dam Safety (for regulated impoundments)	ADWR	ARS. 45-1203 & 1206

Closure and Reclamation Costs

All closure activities, which are further described in Section 20 of the Technical Report, refer only to APP facilities. Non-APP facilities, such as buildings and infrastructure, will be reclaimed in accordance with the Mined Land Reclamation Program overseen by the Arizona State Mine Inspector's Office. This program requires the development of reclamation plans that will ensure safe and stable post-mining land use. The plans must include cost estimates and financial assurance for implementing the reclamation plans.

Prior to recovery operations, Excelsior will provide a bond to ensure future mine closure expenses will be met. The amount of the bond will be based on the closure-remediation-reclamation cost estimates. Final closure of operational infrastructure including the containment ponds, tanks, and plants will commence once copper recovery has ended.

Closure of the ISR wellfield requires rinsing and neutralization of the portions of the formation that have been exposed to leaching. Clean water for rinsing will be provided by water supply wells and water from the Water Treatment Plant. Extracted rinse water will be treated with greater than 80 percent returned for additional rinsing and the remainder being entrained in the Solids Impoundment or disposed of in the Evaporation Ponds.

Rinsing is considered complete when the concentrations of all constituents are at or below acceptance criteria. Wells that are accepted as being sufficiently rinsed will be abandoned in accordance with ADWR criteria and the UIC Permit.

Process ponds, including PLS, Raffinate, Recycled Water, and Evaporation Ponds will be closed in accordance with Arizona BADCT requirements.

Capital and Operating Costs

Capital and operating costs for the Gunnison Copper Project were estimated on the basis of a feasibility design, estimates of materials and labor based on that design, analysis of the process flowsheets and predicted consumption of power and supplies, budgetary quotes for major equipment, and estimates from consultants and potential suppliers to the Project.

Capital Cost

Capital cost ("**CAPEX**") is divided into initial and sustaining capital costs, as summarized in Table 1-6, below. Initial capital costs include separate estimates for wellfield development and improvements to the existing Johnson Camp plant to get the project into production, including the wellfield piping and electrical infrastructure, solution piping from the wellfield to the Johnson Camp plant and minor improvements to the Johnson Camp plant. The sustaining capital costs include the ongoing additions to the wellfield, the two stage development of the Gunnison SX-EW plant, the construction of a sulfuric acid plant, the installation of a railroad siding and railcar unloading facility at the sulfuric acid plant, the addition of the Water Treatment Plant, and capital equipment replacement. Estimates have been prepared to a Class 4 level as defined by Association for the Advancement of Cost Engineering.

Table 1-6: Summary of Capital Cost Spending Over the Life-of-Project

Stage	Copper Production	Description	Total ($000s)
Initial Capital (Stage 1)	25 mppa	Initial Wellfield Development; JCM SX-EW improvements, Pipelines between wellfield & JCM; Gunnison Evaporation Pond; Powerline rerouting.	$46,941
Stage 2 (Year 3)	75 mppa	Gunnison 50 mppa SX-EW; 80 EW cells; New PLS, Raffinate ponds; Gunnison ancillary bldgs.;	$117,030
Stage 3 (Year 6 & 7)	125 mppa	Wellfield Expansion; Gunnison 50 mppa SX-EW; 80 EW cells; Water Treatment Plant (WTP); Clean & Recycled Water Ponds; Solids Ponds 1A & 1B; Wellfield expansion; Railroad Siding & Railcar Unloading	$147,254
Acid Plant (Years 5 & 6)		Sulfuric Acid Plant, Molten Sulfur Handling, Cogen Plant; Boiler Water Treatment (Optional)	$81,246
Sustaining Capital		All wellfield drilling costs after Stage 1	$309,961
Sustaining Capital		All wellfield infrastructure expansion after Stage 1, Solids Impoundments 2 & 3.	$86,596
Total		**Initial & Sustaining Capital Cost**	**$789,028**

The capital cost estimates were based on general arrangement ("**GA**") drawings for all Project plant areas. M3 used both escalated original and updated capital equipment quotations. Plant piping, plant electrical, and plant instrumentation disciplines were estimated with material take-offs ("**MTOs**") based on piping and instrumentation diagrams ("**P&IDs**") in conjunction with the GAs. Long runs of field piping, wellfield piping, infrastructure, and overhead powerlines were also estimated using MTOs. MTOs for civil excavation and ponds, concrete, steelwork, and architectural disciplines were based on civil drawings and GAs. Construction labor hours and wages were adjusted for current Davis-Bacon prevailing wages in Arizona.

- Indirect capital costs were factored from the direct field cost.
- Indirect field mobilization is 1.5% of the direct field cost without mobile equipment.

- Temporary construction facilities are 0.5% of direct cost less mobile equipment.
- Construction power is 0.1% of direct cost less mobile equipment.
- Engineering Procurement and Construction management is 16.8% of the direct cost plus the indirect cost listed above.
- EPCM temporary facilities and utility setup were estimated as 0.5% of total constructed cost.
- Commissioning was estimated to cost 1% of plant equipment less mobile equipment.
- Vendor supervision is estimated as 1.5% of plant equipment costs during construction and 0.5% of plant equipment costs, each, for pre-commissioning and commissioning.
- Capital spare parts are estimated as 2.0% of plant equipment and commissioning spares are 0.5% of plant equipment.

Contingency for both wellfield development and plant improvements have been included at 20% of the total direct and indirect costs.

Owner's costs include items for the initial capital cost that fall into the Owner's responsibility. The Owner's costs are estimated to be $5.5 million of which the largest item is the first fills three months of sulfuric acid for the wellfield ($2.0 million or 36%). Other major costs include:

- Replacing the diluent and extractant for the Johnson Camp settlers
- Sulfuric acid for electrolyte make-up
- Staffing build-up and training
- Construction insurance
- Vehicle replacements

The accuracy range of the estimate is +15% to -15% suitable to support a feasibility study.

Sustaining capital costs include all capital expenditures that occur after production begins. For the Gunnison Project, major sustaining capital expenditures are planned for Year 3 when Stage 2 of the Project is constructed and Year 6 with Stage 3 of Project construction. Stage 2 includes construction of a 50 mppa SX-EW plant at the Gunnison site. Major facilities include a SX Facility with two extraction and one strip settlers; an 80-cell EW Tankhouse with an Automatic Cathode Stripping Machine; a Tank Farm to receive, store, process, and transfer process solutions; PLS and Raffinate Ponds, Sulfuric Acid Storage Tanks, a new Electrical Substation; and ancillary buildings including a Security Building with truck scale, Administration Building, Change House, Plant Warehouse, Plant Maintenance Building, and Wellfield Maintenance Building.

Stage 3 construction includes an 80 EW-cell expansion of the Gunnison SX-EW plant for an additional 50 mppa copper production (125 mppa total). Stage 3 also includes the installation of a Sulfuric Acid Plant with railroad siding/railcar unloading. The WTP will be added in Year 7. Separate capital cost build-ups were constructed for the Stage 2 and Stage 3 SX-EW plants, and the sulfuric acid plant. The WTP CAPEX was included in the Stage 3 expansion CAPEX. Indirect costs and 20% contingency were applied to the separate CAPEX build-ups but Owners Costs were only applied to the initial CAPEX.

Sustaining capital beyond Year 7 is primarily related to wellfield development, the installation of additional evaporation ponds and solids impoundments for water management and wellfield rinsing and abandonment.

Some of the costs and quantity estimates used by M3 were provided by others.

- Veolia provided capital equipment and operating cost information for the Water Treatment Plant to be constructed in Year 7 to treat water returned from rinsing operations in areas of the wellfield that have been depleted of economically recoverable copper. These costs were not changed.

- Kinley Exploration LLC, Overland Park, Kansas, prepared revised cost estimates in accordance with the FS production schedule for installation and development of extraction, injection, and hydraulic control wells, as well as well abandonment costs for existing wells and core holes and production wells that have been rinsed and are out of service.

- For the 2014 PFS, NORAM Engineering and Constructors Ltd. Vancouver, British Columbia, Canada, provided capital and operating cost for the acid plant to be constructed in Year 6. These costs were scaled up mathematically to increase the sulfuric acid plant from 1350 stpd to 1625 stpd capacity.

- MHF Services of Wexford, Pennsylvania estimated the capital costs to install a railroad siding off of the Union Pacific Southern Pacific railroad and rail transfer and unloading yard for deliveries of acid and/or sulfur.

Operating Cost

Operating costs for the Gunnison Project are separated into three basic categories: Wellfield, SX-EW, and General and Administrative ("**G&A**"). Operating costs for the Sulfuric Acid/Cogeneration Plant and Water Treatment Plant are also treated separately upon their addition to the Project.

ISR Wellfield Operating Cost

Wellfield operations involve injection of acidified raffinate from the SX-EW plant into injection wells, recovery of PLS from production wells, pumping the recovered PLS to a tank or pond for treatment in the SX-EW plant, maintenance of the wells and wellfield, reconfiguring well equipment, and revising piping and electrical equipment within the wellfield as required.

Wellfield drilling and development are capitalized and are not included as an annual expense. The operating costs for the wellfield include labor to manage solutions, power to run the pumps, acid, maintenance, and supplies and services, which are summarized in Table 1-7 below.

Table 1-7: ISR Wellfield Operating Cost Breakdown

Item	Stage 1 (Year 3)		Stage 2 (Year 6)		Stage 3 (Year 9)	
	Annual cost ($000s)	Cost per lb. Cu	Annual cost ($000s)	Cost per lb. Cu	Annual cost ($000s)	Cost per lb. Cu
Wellfield Labor	818	0.032	1,180	0.016	1,542	0.012
Electrical power	706	0.028	1,997	0.027	3,403	0.027
Sulfuric Acid (Wellfield Make-up)	13,813	0.538	41,502	0.555	26,006	0.206
Maintenance	1,046	0.041	1,834	0.025	1,882	0.015
Supplies & Services	66	0.003	198	0.003	331	0.003
Total Wellfield Operating Costs	**16,448**	**0.641**	**46,711**	**0.625**	**33,164**	**0.262**

SX-EW Operating Cost

The operating cost for the combined SX/EW facilities averages $26.0 million per year or $0.220 per pound of copper produced for Stage 3 (Years 7 thru 20), not including G&A, water treatment costs, or evaporation ponds. Stage 1 plant operating costs average $7.3 million or $0.327 per pound. Stage 2 plant operating costs average $18.3 million per year or $0.261 per pound. Table 1.8 gives example years within Stages 1, 2, and 3 showing the breakdown of SX operating cost by operating labor, reagents, power, maintenance labor and spare parts, and operating supplies.

Table 1.8: Summary SX/EW Operating Cost

Category	Stage 1 (Year 3)		Stage 2 (Year 6)		Stage 3 (Year 9)	
	Annual cost ($000s)	Cost per lb. Cu	Annual cost ($000s)	Cost per lb. Cu	Annual cost ($000s)	Cost per lb. Cu
Operating Labor	$1,546	$0.060	$2,930	$0.039	$3,020	$0.024
Reagents	$1,027	$0.040	$3,202	$0.043	$4,316	$0.034
Electric Power	$3,154	$0.123	$8,435	$0.113	$13,450	$0.106
Maintenance Parts & Services[1]	$1,746	$0.068	$3,855	$0.052	$5,618	$0.044
Operating Supplies & Services	$201	$0.008	$513	$0.007	$802	$0.006
Total Operating Cost	**$7,674**	**$0.299**	**$18,934**	**$0.253**	**$27,207**	**$0.215**

1 - Includes maintenance labor costs.

General and Administrative Operating Costs

G&A costs include labor and fringe benefits for administration and support personnel and other support expenses detailed in Section 25.5.3. G&A expenses are projected to increase slightly with Stages 2 and 3, but decrease in cost per pound of copper produced as shown in Table 1-9.

Table 1-9: Summary SX-EW Operating Cost ($000)

Cost Item	Stage 1		Stage 2		Stage 3	
	Annual cost ($000s)	Cost per lb. Cu	Annual cost ($000s)	Cost per lb. Cu	Annual cost ($000s)	Cost per lb. Cu
Production Basis (mppa)	25,648		74,773		126,433	
Labor & Benefits	$3,495	$0.136	$3,884	$0.052	$3,884	$0.031
Other G&A Expenses	$2,700	$0.106	$2,918	$0.039	$2,918	$0.023
Total G&A Cost	**$6,195**	**$0.242**	**$6,802**	**$0.091**	**$6,802**	**$0.054**

Water Treatment Plant Operating Costs

WTP operation is related to rinsing operations and is therefore not an operating expense for copper production. An estimate of annual OPEX has also been developed based on vendor data, previous estimates for similar treatment systems and plant operating experience. Major OPEX categories include labor, utility power, chemical reagents, process consumables, waste disposal and compliance sampling, analysis and reporting. Annual wages for operators and electrical power cost are site specific, and were provided by M3. Life-of-mine ("**LOM**") operating costs for the WTP are projected to total $103 million, or approximately $ 0.048 per pound of copper produced.

Sulfuric Acid Plant

Operating costs for the sulfuric acid plant, power cogeneration plant, and associated facilities is composed of labor, reagents, fuel (propane), power (which is a credit), maintenance, and operating supplies. Annual operating expenses are projected to average approximately $27.38 million or $46.45 per ton of sulfuric acid produced at a rate of approximately 589,500 tons per year. At average peak copper production of 125.4 mppa, the average acid production cost is approximately $0.22 per pound of copper.

Reclamation and Closure Cost

The reclamation and closure costs for the Project include reclamation and closure activities at both JCM and Gunnison plant sites, reclamation of legacy heaps and stockpiles at JCM, well abandonment and closure of the ISR wellfield, and bonding costs. ISR rinsing and water treatment activities are not included in this category. Much of the well abandonment will be conducted concurrently with production. Table 1-10 summarizes the total reclamation and closure costs for the Project. Details of the activities included in reclamation and closure are provided in Section 21.6. Approximately 50% ($24.2 million) of these expenses are projected to be made prior to the end of production.

Table 1-10: Summary of Reclamation and Closure Costs

Area	Reclamation & Closure Costs ($000s)
JCM Buildings, Ponds, Waste Dump & Heap	5,580
Well Abandonment	17,569
Gunnison Plant, Ponds	18,917
Bond Fees	8,334
Total	**50,400**

Economic Analysis

The financial evaluation presents the determination of the NPV, payback period (time in years to recapture the initial capital investment), and the IRR for the Project. Annual cash flow projections were estimated over the life of the operation based on the estimates of capital expenditures and production cost and sales revenue. The sales revenue is based on the production of a copper cathode.

The economic analysis was conducted on two cases: (1) a base case that includes the construction of a sulfuric acid plant in Year 7 of operation, lowering the price of acid from $125/ton to $46/ton (Base Case and (2) an alternate case that uses purchased sulfuric acid at $125/ton for the life of the operation (Alternate Case). Both cases use a copper price of $2.75/lb.

Table 1-11 compares the financial indicators for both the Base Case and the Alternate Case. The payback period does not represent the payback solely for initial CAPEX. Rather, it includes the accumulation of initial capital to start the Project using the existing Johnson Camp SX-EW plant and sustaining capital from two successive stages of construction for the Gunnison SX-EW plant, sulfuric acid plant, the rail spur, and water treatment plant. The payback period on initial capital, were Stage 2 is pushed out by three more years is 1.9 years pre-tax and 2.7 years after taxes.

Table 1-11: Financial Indicators

	Base Case	Alternate Case
	Base Case	**Alternate Case**
Years of Commercial Production	24	24
Total Copper Produced (million lbs)	2,165	2,165
LOM Copper Price (avg $/lb)*	$2.75	$2.75
Initial Capital Costs (million $)	$46.9	$46.9
Sustaining Capital Costs (million $)	$741.8	$660.6
Payback of Capital (pre-tax/post-tax)	4.5/6.4	4.4/4.9
Internal Rate of Return (pre-tax/post-tax)	48.4% / 40.2%	48.5% / 40.6%
Life of Mine Direct Operating Cost ($/pound Cu Recovered)	$0.65	$0.97
Life of Mine Total Production Cost ($/pound Cu Recovered)	$0.87	$1.18
Pre-tax NPV at 7.5% discount rate (million $)	$1173.1	$980.4

*Price provided by Excelsior

Table 1-12 provides a sensitivity analysis for the Base Case project financial indicators with the financial indicators when other different variables are applied. The results indicate that Project economics are impacted the most by fluctuation in the copper price. Fluctuation in the initial capital cost has the least impact on Project economic indicators.

Table 1-12: Base Case After – Tax Sensitivities ($millions)

	Copper Price		
	NPV @ 7.5%	IRR%	Payback (yrs)
Base Case	$ 808.0	40.2%	6.4
20%	$ 1,115.7	51.7%	4.0
10%	$ 962.4	46.0%	4.6
-10%	$ 651.6	34.2%	6.9
-20%	$ 495.3	28.2%	7.4
	Operating Cost		
	NPV @ 7.5%	IRR%	Payback (yrs)
Base Case	$ 808.0	40.2%	6.4
20%	$ 735.6	36.7%	6.7
10%	$ 771.8	38.4%	6.6
-10%	$ 843.3	41.9%	5.3
-20%	$ 878.0	43.6%	4.9
	Initial Capital		
	NPV @ 7.5%	IRR%	Payback (yrs)
Base Case	$ 808.0	40.2%	6.4
20%	$ 802.7	38.5%	6.5
10%	$ 805.4	39.3%	6.5
-10%	$ 810.6	41.1%	6.4
-20%	$ 813.1	42.1%	6.4

The Alternate Case economic after tax sensitivities are shown below.

Table 1-13: Alternate Case After – Tax Sensitives ($millions)

	Copper Price		
	NPV @ 7.5%	IRR %	Payback (yrs)
Base Case	$ 693.7	40.6%	4.9
20%	$ 1002.2	52.6%	4.0
10%	$ 848.0	46.7%	4.4
-10%	$ 536.3	34.1%	6.4
-20%	$ 378.4	27.3%	7.1
	Operating Cost		
	NPV @ 7.5%	IRR %	Payback (yrs)
Base Case	$ 693.7	40.6%	4.9
20%	$ 593.1	36.3%	6.3
10%	$ 643.7	38.5%	6.1
-10%	$ 742.4	42.6%	4.7
-20%	$ 791.0	44.6%	4.5
	Initial Capital		
	NPV @ 7.5%	IRR %	Payback (yrs)
Base Case	$ 693.7	40.6%	4.9
20%	$ 688.5	38.8%	5.0
10%	$ 691.1	39.6%	4.9
-10%	$ 696.3	41.6%	4.8
-20%	$ 698.8	42.7%	4.8

Adjacent Properties

The Gunnison Project lies within the porphyry copper metallogenic province of the southwestern United States. It is located in the Cochise Mining District, which is dominated by Cu-Zn skarns. With the acquisition of the Johnson Camp Mine, Excelsior now controls a majority of historical producing properties in the district. Tungsten and minor lead-silver-gold have been produced in adjacent properties in the district. In particular, tungsten has been historically produced in the area west of the Gunnison Project in the northern half of the Texas Canyon quartz monzonite stock before and during World War I. Lead-silver was also historically produced from Paleozoic limestones in the Gunnison Hills east of the Gunnison Project in the early 1900s. Mineralization on adjacent properties is not necessarily indicative of the mineralization on the Gunnison Project. The author has relied on reports by others (as referenced) for the information presented in this section and has been unable to verify the information.

Interpretation and Conclusions

A production schedule has been developed using input from independent consultants and existing Project data. The production schedule anticipates recovery of 48.4% of the mineral reserves resulting in production of 2,165 million pounds of cathode copper over a mine life of 25 years.

The base-case economic analysis indicates an after-tax NPV of $806.6 million at a 7.5% discount rate with a projected IRR at 41.4%. The Base Case includes a sulfuric acid plant constructed in Year 6 to supply the acid for ISR copper extraction. If the sulfuric acid plant is replaced by purchased sulfuric acid supplied by rail, the NPV at a 7.5% discount rate is $691.2 million with projected IRR of 40.5%. Payback is anticipated in 6.5 years of production for the acid plant case and in 4.9 years in the case using purchased sulfuric acid.

The economics are based on $2.75/lb long-term copper price, a staged production schedule of 25 mppa for Years 1-3, 75 mppa for Years 4-6 and a full production design copper production rate of 125 mppa for Years 7-16, decreasing in the final 8 years of the mine life. Direct operating costs are estimated at $0.66/lb of copper in the acid plant case and $0.97/lb of copper using purchased acid. Initial capital costs are estimated at $46.9 million. Sustaining capital costs of $741.8 million are projected in the sulfuric acid plant case and $660.6 million using purchased sulfuric acid.

Project Risks

Project-specific risks are identified in Section 25.2 along with the measures that Excelsior envisages to mitigate these risks. The risks are primarily associated with the ability of the ISR wellfield to deliver copper to the SX-EW plant(s) at the rate, grade, reagent cost, and well installation and operation costs as predicted in the financial model. These risks can be mitigated by operational flexibility, use of the acid plant to reduce the cost of reagents, and/or modification of the wellfield design. Permitting difficulties are a common issue for mine development projects in this era. The mitigation strategy is to develop support in the community and work closely with stakeholders, regulators, and community leaders to develop a realistic schedule for permit acquisition.

Project Opportunities

Several opportunities have been identified which could enhance the viability and economic attractiveness of the Project. Opportunities, detailed in Section 25.3, include higher copper recoveries than predicted, increases in the price of copper, identification of additional resources, wellfield optimization, and reductions to capital costs, particularly in the initial stage of operation.

Recommendations

Based on the results of the Feasibility Study, it is recommended that Excelsior proceed with development of the Project through basic and detailed engineering, once permitting has been obtained and financing is secured. The engineering for the project is relatively complete. The drilling, mineral resource estimation, wellfield mine planning, wellfield drilling and infrastructure development and the staged SX-EW plant have all been adequately defined. Until the initial wellfield is drilled and solution is pumped for processing, there is not much left to investigate. Additional work is recommended to advance the efforts to obtain the necessary environmental permits, refine the design and cost estimates for water treatment, and advance the design of the sulfuric acid/cogeneration plant to enable more conclusive evaluation of its economic benefit to later stages of the Project. Table 1-14 provides a proposed budget for the additional work recommended.

Table 1-14: Feasibility Budget for the Gunnison Project

Detail	Cost US$
Permitting Work	
Gunnison APP	$150,000
Gunnison UIC	$150,000
JCM APP Amendment	$100,000
Other Permits	$50,000
Subtotal Permitting Work	$450,000
Sulfuric Acid Plant	
Sulfuric Acid Plant proper (NORAM or other)	$350,000
Sulfuric Acid Storage	$50,000
Cogeneration Facilities	$50,000
Molten Sulfur Storage	$50,000
Railcar sulfur/sulfuric acid unloading	$50,000
Subtotal Sulfuric Acid Plant	$500,000
Total	**950,000**

Other Assets

The Company does not have any material assets other than those described above.

RISK FACTORS

Investing in our securities is speculative and involves a high degree of risk due to the nature of our business and the present stage of its development. The following risk factors, as well as risks currently unknown to us, could materially adversely affect our future business, operations and financial condition and could cause them to differ materially from the estimates described in forward-looking statements relating to the Company, or its business, property or financial results, each of which could cause purchasers of our securities to lose part or all of their investment. The risks set out below are not the only risks we face; risks and uncertainties not currently known to us or that we currently deem to be immaterial may also materially and adversely affect our business, financial condition, results of operations and prospects. You should also refer to the other information set forth or incorporated by reference in this AIF.

Risks Related to the Business of the Company

Excelsior depends on a single mineral project.

The Gunnison Project accounts for all of Excelsior's mineral resources and mineral reserves and exclusively represents the current potential for the future generation of revenue. Mineral exploration and development involves a high degree of risk that even a combination of careful evaluation, experience and knowledge cannot eliminate and few properties that are explored are ultimately developed into producing mines. Any adverse development affecting the Gunnison Project will have a material adverse effect on Excelsior's business, prospects, financial position, results of operations and cash flows.

The successful start of mining operations at, and the development of, the Gunnison Project into a commercially viable mine cannot be assured.

Development of mineral properties involves a high degree of risk and few properties that are explored are ultimately developed into producing mines. The commercial viability of a mineral deposit is dependent upon a number of factors which are beyond the Company's control, including the attributes of the deposit, commodity prices, government policies and regulation and environmental protection. Fluctuations in the market prices of minerals may render resources and deposits containing relatively lower grades of mineralization uneconomic.

There are numerous activities that need to be completed in order to successfully commence development and production at the Gunnison Project, including, without limitation: optimizing the mine plan; recruiting and training personnel; negotiating contracts for railway transportation and for the sale of copper; updating, renewing and obtaining, as required, all necessary permits, including, without limitation, environmental permits; and handling any other infrastructure issues. There is no certainty that Excelsior will be able to recruit and train personnel, have available funds to finance construction and development activities, avoid potential increases in costs, negotiate railway transportation or copper sales agreements on terms that would be acceptable to Excelsior or at all, or that Excelsior will be able to update, renew and obtain all necessary permits to start or to continue to operate the Gunnison Project. Most of these activities require significant lead times, and Excelsior will be required to manage and advance these activities concurrently in order to begin production. A failure or delay in the completion of any one of these activities may delay production, possibly indefinitely, at the Gunnison Project and would have a material adverse effect on Excelsior's business, prospects, financial position, results of operations and cash flows.

As such, there can be no assurance that Excelsior will be able to complete development of the Gunnison Project at all, or in accordance with any timelines or budgets that may be established due to, among other things, and in addition to those factors described above, the delivery and installation of plant and equipment and cost overruns, or that the current personnel, systems, procedures and controls will be adequate to support operations. Failure to successfully complete these events as expected would have a material adverse effect on Excelsior's business, prospects, financial position, results of operations and cash flows.

There is no assurance that Excelsior will ever achieve production or that Excelsior will ever be profitable if production is achieved.

Actual capital costs, operating costs and expenditures, production schedules and economic returns may differ significantly from those we have anticipated.

Our expected capital costs, operating costs and expenditures, All-In Costs, production schedules, economic returns and other projections for the Technical Report which are contained in the Technical Report are based on assumed or estimated future metals prices, cut-off grades, operating costs, capital costs and expenditures and other factors that each may prove to be inaccurate. Therefore, the Technical Report may prove to be unreliable if the assumptions or estimates do not reflect actual facts and events. For example, significant declines in market prices for copper or extended periods of inflation would have an adverse effect on the economic projections set forth in the Technical Report.

Any material reductions in estimates of mineralization or increases in capital costs and expenditures, or in our ability to maintain a projected budget or renew a particular mining permit, could also have a material adverse effect on projected production schedules and economic returns, as well as on our overall results of operations or financial condition. There is also a risk that rising costs for labour and material could have an adverse impact on forecasted construction costs and that shortages of labour and material could have a negative impact on any mine development schedule. An increase in any of these costs, or a lack of availability of commodities and goods, may have an adverse impact on our financial condition and results of operations.

The Company may be required to seek additional debt or equity capital in order to complete construction at the Gunnison Project and we may not be able to access capital on commercially reasonable terms or at all and, even if successful, we may not be able to raise enough capital to allow us to fully fund the capital costs required to complete construction at the Gunnison Project.

There is uncertainty relating to production estimates.

We have prepared estimates of future production and future production costs for the Gunnison Project. No assurance can be given that production estimates will be achieved. These production estimates are based on, among other things: the accuracy of reserve estimates; the accuracy of our assumptions as to future events and circumstances; metallurgical characteristics; and the accuracy of estimated rates and costs of mining and processing. Actual production may vary from estimates for a variety of reasons, including, among other things: actual ore mined varying from estimates of grade, tonnage, dilution, metallurgical and other characteristics; short-term operating factors relating to the ore reserves, such as the need for sequential development of ore bodies and the processing of new or different ore grades; risk and hazards associated with mining; natural phenomena, such as inclement weather conditions, underground floods, earthquakes, pit wall failures and cave-ins; and unexpected labour shortages or strikes. Failure to achieve production estimates could have an adverse impact on our future cash flows, earnings, results of operations and financial condition.

We have no mineral properties in production and the development of our properties will be subject to all of the risks associated with establishing new mining operations.

Development of our mineral properties will require the construction and operation of mines, processing plants and related infrastructure as well as the restarting and upgrading of the SX-EW plant at JCM. As a result, we are and will continue to be subject to all of the risks associated with establishing new mining operations and restarting operations in care and maintenance, including:

- the timing and cost, which can be considerable, of the construction of mining and processing facilities;
- the availability and cost of skilled labour, mining equipment and principal supplies needed for operations;
- the need to maintain necessary environmental and other governmental approvals and permits;
- the availability of funds to finance construction and development activities;
- potential opposition from non-governmental organizations, environmental groups, local groups or other stakeholders which may delay or prevent development activities; and
- potential increases in construction and operating costs due to changes in the cost of labour, fuel, power, materials and supplies.

Cost estimates may increase as more detailed engineering work is completed on a project. It is common in new mining operations to experience unexpected costs, problems and delays during construction, development and mine start-up. Accordingly, we cannot provide assurance that our activities will result in profitable mining operations at our mineral properties.

Mineral resource and mineral reserve calculations are only estimates.

Any figures presented for mineral resources and mineral reserves in this AIF and the Technical Report are only estimates. There is a degree of uncertainty attributable to the calculation of mineral reserves and mineral resources as they are determined based on assumed future prices, cut off grades and operating costs. Until mineral reserves or mineral resources are actually mined and processed, the quantity of metal and grades must be considered as estimates only and no assurances can be given that some or all of the indicated levels of metals will be produced. In making determinations about whether to advance any part of the Gunnison Project to development, Excelsior must rely upon estimated calculations as to the mineral reserves, mineral resources and grades of mineralization on the Gunnison Project.

Estimating mineral reserves and mineral resources is a subjective process that relies on the judgment of the persons preparing the estimates. Estimates of mineral resources are, to a large extent, based on the interpretation of geological data obtained from drillholes and other sampling techniques. This information is used to calculate estimates of the configuration of the mineral resource, expected recovery rates, anticipated environmental conditions and other factors. As a result, mineral resource estimates for the Gunnison Project may require adjustments or downward revisions based upon further exploration or development work or upon actual production experience, thereby adversely impacting the economics of the Gunnison Project. In addition, the grade of ore ultimately mined, if any, may differ from that indicated by drilling results. There can be no assurance that minerals recovered in small-scale tests will be duplicated in large-scale tests under on-site conditions or in production scale. Any material change in the quantity of mineralization or grade may render portions of the Company's mineralization uneconomic and result in reduced reported mineralization. Any material reductions in estimates of mineralization, or of the Company's ability to extract this mineralization, could have a material adverse effect on the Company's results of operations or financial condition.

Changes in the market price of copper, which in the past has fluctuated widely, will affect the projected results of Excelsior's operations, financial position and cash flows.

Excelsior's revenues in the future, if any, are expected to be derived in large part from the sale of copper. The price of this commodity has fluctuated widely in recent years and is affected by factors beyond the control of Excelsior including, but not limited to international economic and political trends, changes in industrial demand, currency exchange fluctuations, economic inflation and expectations for the level of economic inflation in the consuming economies, interest rates, global and local economic health and trends, speculative activities, the availability and costs of substitutes and changes in the supply of this commodity due to new mine developments and mine closures. All of these factors, which are impossible to predict with certainty, will impact the viability of the Gunnison Project.

Reduction in the demand for copper in the Chinese markets may negatively impact Excelsior's operations and financial condition.

China has been a significant driver of global demand for minerals and metals, including copper. A slowing in China's economic growth could result in lower prices and demand for copper. China is increasingly seeking strategic self-sufficiency in key commodities, including investments in existing businesses or new developments in other countries. These investments may adversely impact future copper demand and supply balances and prices.

Excelsior will require additional capital in the future, and no assurance can be given that such capital will be available at all or available on terms acceptable to Excelsior.

Excelsior currently has limited financial resources and no cash flow from production. Further development of the Gunnison Project depends upon Excelsior's ability to obtain financing through strategic partnerships, equity or debt financings, production-sharing arrangements or other dilutive or non-dilutive means. There is no assurance that Excelsior will be successful in obtaining required financing on acceptable terms, or at all. If Excelsior is unable to obtain additional financing it may consider other options, such as (i) selling assets, (ii) selling equity, or (iii) selling interests in the Gunnison Project. If Excelsior raises additional funding by issuing additional equity securities or other securities that are convertible into equity securities, such financings may substantially dilute the interest of existing or future shareholders. Sales or issuances of a substantial number of securities, or the perception that such sales could occur, may adversely affect the prevailing market price of the Common Shares. With any additional sale or issuance of equity securities, investors will suffer dilution of their voting power and may experience dilution in earnings per share. If Excelsior raises additional funding by entering into stream agreements, royalty agreements or other similar agreements, the Company may be required to deliver a portion of future metals production or revenue derived from operations. Such contractual obligations may have a negative effect on our future financial condition and results of operations and investors may suffer dilution in earnings per share. There is no assurance we will be able to negotiate acceptable terms for the sale of any interests in the Gunnison Project. Failure to obtain additional financing could result in an indefinite postponement of further exploration and development of the Gunnison Project and will have a material adverse effect on Excelsior's business, prospects, financial position, results of operations and cash flows.

Excelsior has no history of mining operations and no revenue from operations.

We have not commenced commercial production on any of our mineral resource properties. As such, we are subject to many risks common to such enterprises, including under-capitalization, cash shortages, limitations with respect to personnel, financial and other resources and lack of revenues. There can be no assurance that significant losses will not occur in the near future or that we will be profitable in the future. Our operating expenses and capital expenditures may increase in the future as consultants, personnel and equipment costs associated with advancing exploration, development and commercial production of our properties increase. We expect to continue to incur losses unless and until such time, if ever, we enter into commercial production and generate sufficient revenues to fund our continuing operations. The development of the Gunnison Project will require the commitment of substantial resources. There can be no assurance that we will generate any revenues. If we are unable to generate significant revenues at the Gunnison Project, we will not be able to earn profits or continue operations. We cannot provide investors with any assurance that we will ever develop a mine at the Gunnison Project.

Excelsior has a history of losses and expects to incur losses for the foreseeable future.

Excelsior has incurred losses since its inception and expects to incur losses for the foreseeable future. Excelsior expects to continue to incur losses unless and until such time as the Gunnison Project enters into commercial production and generates sufficient revenues to fund continuing operations. The development of the Gunnison Project will require the commitment of substantial financial resources. The amount and timing of expenditures will depend on a number of factors, including the progress of ongoing exploration, evaluation and development, the results of consultant analysis and recommendations, the rate at which operating losses are incurred, the execution of any agreements with strategic partners, and Excelsior's acquisition of additional properties. Some of these factors are beyond Excelsior's control. There can be no assurance that Excelsior will ever achieve profitability.

Excelsior requires various permits in order to conduct its current and anticipated future operations, and any delays in obtaining or a failure to obtain such permits, or a failure to comply with the terms of any such permits that Excelsior has obtained or will obtain, could have a material adverse impact on Excelsior.

Excelsior's current and anticipated future operations, including further exploration, evaluation and development activities and commencement of production on the Gunnison Project, require permits from various United States federal, state, and local government authorities. Obtaining or renewing governmental permits is a complex and time-consuming process. The duration and success of efforts to obtain and renew permits are contingent upon many variables not within Excelsior's control.

Shortage of qualified and experienced personnel in the various levels of government could result in delays or inefficiencies. Backlog within the permitting agencies could affect the permitting timeline of the Gunnison Project. Other factors that could affect the permitting timeline include (i) the number of other large-scale projects currently in a more advanced stage of development which could slow down the review process for the Gunnison Project and (ii) significant public response regarding the Gunnison Project that could lead to delays in the process or appeals of issued permits. There can be no assurance that all permits which Excelsior requires for its exploration and development activities and later construction of mining facilities and the conduct of mining operations will be obtainable or renewable on reasonable terms, or at all. Delays or a failure to obtain such permits, or the expiry, revocation or a failure to comply with the terms of any such permits that Excelsior has obtained, could have a material adverse impact on Excelsior.

Title and other rights to the Gunnison Project and the JCM cannot be guaranteed and may be subject to prior unregistered agreements, transfers or claims and other defects.

Excelsior cannot guarantee that title to the Gunnison Project or the JCM will not be challenged. Excelsior may not have, or may not be able to obtain, all necessary surface rights to develop, or all water rights needed to operate, the Gunnison Project. Title insurance generally is not available for mineral properties and Excelsior's ability to ensure that it has obtained secure claim to individual mineral properties or mining concessions comprising the Gunnison Project and the JCM may be severely constrained; however, Excelsior JCM does have title insurance for the portions of the JCM that are patented mining claims and fee title property. The Gunnison Project and the JCM may be subject to prior unregistered agreements, transfers or claims, and title may be affected by, among other things, undetected defects. Excelsior has not conducted surveys of all of the claims in which it holds direct or indirect interests. A successful challenge to the precise area and location of these claims could result in Excelsior being unable to operate on all or part of the Gunnison Project or the JCM as permitted or being unable to enforce its rights with respect to all or part of the Gunnison Project or the JCM. This could result in Excelsior not being compensated for its prior expenditures relating to the properties.

Excelsior needs to enter into contracts with external service and utility providers.

Mining, processing, development and exploration activities depend, to one degree or another, on adequate infrastructure. In order to develop a mine at the Gunnison Project, Excelsior will need to negotiate and conclude various agreements with external service and utility providers for power, water, transportation and shipping and these are important determinants that affect capital and operating costs.

There is no certainty that Excelsior will be able to conclude various agreements with external service and utility providers on economically feasible terms and this could have a material adverse effect on Excelsior’s results of operations, financial position and cash flows and render the development of a mine on the Gunnison Project unviable.

Mining operations generally involve a high degree of risk.

In the event that the Gunnison Project commences mining operations, there will be significant risks associated with those operations. Excelsior's mining operations will be subject to all of the hazards and risks normally encountered in the exploration for and development and production of metals, including, but not limited to: unusual and unexpected geologic formations, environmental hazards, seismic activity, structural collapse, fire, flooding, variations in grade, deposit size, density and other geological problems, hydrological conditions, metallurgical and other processing problems, mechanical equipment performance problems, industrial accidents, the unavailability of power, the unavailability of materials and equipment including reagents and fuel, labour force disruptions, unanticipated transportation costs, unanticipated regulatory changes, unanticipated or significant changes in the costs of supplies including, but not limited to, petroleum and reagents, and adverse weather conditions and other conditions involved in the drilling and removal of material, these and other hazards may cause damage to, or destruction of, all or part of the Gunnison Project and other facilities, injuries or death to employees, contractors or other persons at the Company's mineral properties, severe damage to and destruction of the Company's property, plant and equipment, and contamination of, or damage to, the environment, and may result in the suspension of the Company's exploration and development activities and any future production activities. Safety measures implemented by the Company may not be successful in preventing or mitigating future accidents.

In addition, from time to time the Company may be subject to governmental investigations and claims and litigation filed on behalf of persons who are harmed while at its properties or otherwise in connection with the Company's operations. To the extent that the Company is subject to personal injury or other claims or lawsuits in the future, it may not be possible to predict the ultimate outcome of these claims and lawsuits due to the nature of personal injury litigation. Similarly, if the Company is subject to governmental investigations or proceedings, the Company may incur significant penalties and fines, and enforcement actions against it could result in the closing of the Gunnison Project or the JCM. If claims and lawsuits or governmental investigations or proceedings are finally resolved against the Company, the Company's financial performance, financial position and results of operations could be materially adversely affected.

Although Excelsior maintains insurance to protect against certain risks, insurance will not cover all of the potential risks associated with the Company's operations. Excelsior also may be unable to maintain insurance to cover these risks at economically feasible premiums. Insurance coverage may not continue to be available or may not be adequate to cover any resulting liability. Moreover, insurance against risks such as environmental pollution or other hazards as a result of exploration and production is not generally available to Excelsior or to other companies in the mining industry on acceptable terms. Excelsior might also become subject to liability for pollution or other hazards against which it may not be insured or that Excelsior may elect not to insure against because of premium costs or other reasons. Losses from these events may cause Excelsior to incur significant costs that could have a material adverse effect upon its financial position, results of operations and cash flows.

Excelsior is subject to significant governmental regulation.

Excelsior's operations and exploration and development activities in the United States are subject to extensive federal, state and local laws and regulation governing various matters, including environmental protection, management and use of toxic substances and explosives, management of natural resources, exploration, development of mines, production and post-closure reclamation, exports, price controls, taxation, mining royalties, management of tailing and other waste generated by operations, labour standards and occupational health and safety, including mine safety, and historic and cultural preservation.

Failure to comply with applicable laws and regulations may result in civil or criminal fines or penalties or enforcement actions, including orders issued by regulatory or judicial authorities enjoining or curtailing operations or requiring corrective measures, installation of additional equipment or remedial actions, any of which could result in Excelsior incurring significant expenditures. Excelsior may also be required to compensate private parties suffering loss or damage by reason of a breach of such laws, regulations or permitting requirements. It is also possible that future laws and regulations, or a more stringent enforcement of current laws and regulations by governmental authorities, could cause Excelsior to incur additional expense, capital expenditures, restrictions on or suspensions of Excelsior's operations and delays in the development of the Gunnison Project.

The Canadian *Extractive Sector Transparency Measures Act* ("**ESTMA**"), which became effective June 1, 2015, requires public disclosure of payments to governments by mining companies engaged in the commercial development of minerals who are either publicly listed in Canada or with business or assets in Canada. Mandatory annual reporting is required for extractive companies with respect to payments made to foreign and domestic governments at all levels, including entities established by two or more governments, and including Aboriginal groups, although there is a two year moratorium on disclosure of Canadian First Nations. ESTMA requires reporting on the payments of any taxes, royalties, fees, production entitlements, bonuses, dividends, infrastructure improvement payments, and any other prescribed payment over C$100,000. Failure to report, false reporting or structuring payments to avoid reporting may result in fines of up to C$250,000 (which may be concurrent). If we find ourselves subject to an enforcement action or in violation of ESTMA, this may result in significant penalties, fines and/or sanctions imposed on us resulting in a material adverse effect on our reputation.

Excelsior's activities are subject to environmental laws and regulations that may increase Excelsior's costs of doing business and restrict the Company's operations.

All of Excelsior's exploration, potential development and production activities in the United States are subject to regulation by governmental agencies under various environmental laws, including with respect to, air emissions, discharges into water, management of waste, management of hazardous substances, protection of natural resources, antiquities and endangered species and reclamation of lands disturbed by mining operations. Environmental legislation, including with respect to climate change, in many countries is evolving and the trend has been towards stricter standards and enforcement, increased fines and penalties for non-compliance, more stringent environmental assessments of proposed projects and increasing responsibility for companies and their officers, directors and employees. Compliance with environmental laws and regulations may require significant capital outlays on behalf of Excelsior and may cause material changes or delays in Excelsior's intended activities. There can be no assurance that future changes in environmental regulations will not adversely affect Excelsior's business, and it is possible that future changes in these laws or regulations could have a significant adverse impact on some portion of Excelsior's business, causing Excelsior to re-evaluate those activities at that time. Failure to comply with applicable environmental laws, regulations and permitting requirements may result in enforcement actions thereunder, including orders issued by regulator or judicial authorities, causing operations to cease or to be curtailed, and may include corrective measures requiring capital expenditures, installation of additional equipment or remedial actions.

Environmental hazards may exist on the Gunnison Project or the JCM that are unknown to Excelsior at the present time and that have been caused by previous owners or operators or that may have occurred naturally. Excelsior may be liable for remediating such damage.

Climatic conditions can affect Excelsior future operations.

Arizona can be subject to periods of drought. Operations at the Gunnison Project and JCM will require water for normal operations. A lack of necessary water for a prolonged period of time could affect operations at the Gunnison Project and JCM, and materially adversely affect Excelsior’s results of operations. Arizona can also be subject to significant rainfall events which could result in flooding and materially adversely affect the Company’s results of operations.

Climate change is an international concern and as a result poses risk of both climate changes and government policy in which governments are introducing climate change legislation and treaties that could result in increased costs, and therefore, decreased future profitability at Excelsior’s operations.

Excelsior may experience difficulty attracting and retaining qualified management and technical personnel to meet the needs of its anticipated growth.

Excelsior is dependent on the services of key executives including Excelsior's Chief Executive Officer and Chief Operating Officer, and other highly skilled and experienced executives and personnel focused on managing Excelsior's interests and the advancement of the Gunnison Project, and on identifying new opportunities for growth and funding. Due to Excelsior's relatively small size, the loss of these persons or Excelsior’s inability to attract and retain additional highly skilled employees required for the development of Excelsior's activities may have a material adverse effect on Excelsior's business or future operations.

In addition, Excelsior anticipates that if it brings the Gunnison Project into production and where appropriate, acquires additional mineral rights, Excelsior will experience significant growth in its operations. Excelsior expects this growth to create new positions and responsibilities for management and technical personnel and to increase demands on its operating and financial systems. There can be no assurance that Excelsior will successfully meet these demands and effectively attract and retain additional qualified personnel to manage its anticipated growth. The failure to attract such qualified personnel to manage growth would have a material adverse effect on Excelsior's business, financial position, results of operations and cash flows.

Increased competition could adversely affect Excelsior's ability to attract necessary capital funding or acquire suitable producing properties or prospects for mineral exploration in the future.

The mining industry is intensely competitive. Significant competition exists for the acquisition of properties producing or capable of producing copper or other metals. Excelsior may be at a competitive disadvantage in acquiring additional mining properties because it must compete with other individuals and companies, many of which have greater financial resources, operational experience and technical capabilities than Excelsior. Excelsior also may encounter increasing competition from other mining companies in its efforts to hire experienced mining professionals. The Company's competitors may be able to respond more quickly to new laws or regulations or emerging technologies, or devote greater resources to the expansion of their operations, than the Company can. In addition, current and potential competitors may make strategic acquisitions or establish cooperative relationships among themselves or with third parties. Increased competition could adversely affect Excelsior's ability to attract necessary capital funding or to acquire suitable producing properties or prospects for mineral exploration in the future. If Excelsior is unsuccessful in acquiring additional mineral properties or services or qualified personnel it will not be able to grow at the rate it desires, or at all. The Company may not be able to compete successfully against current and future competitors, and any failure to do so could have a material adverse effect on the Company's business, financial condition or results of operations.

Excelsior may experience cybersecurity threats.

Excelsior relies on secure and adequate operations of information technology systems in the conduct of its operations. Access to and security of the information technology systems are critical to Excelsior's operations. To Excelsior's knowledge, it has not experienced any material losses relating to disruptions to its information technology systems. Excelsior has implemented ongoing policies, controls and practices to manage and safeguard Excelsior and its stakeholders from internal and external cybersecurity threats and to comply with changing legal requirements and industry practice. Given that cyber risks cannot be fully mitigated and the evolving nature of these threats, Excelsior cannot assure that its information technology systems are fully protected from cybercrime or that the systems will not be inadvertently compromised, or without failures or defects. Disruptions to Excelsior's information technology systems, including, without limitation, security breaches, power loss, theft, computer viruses, cyber-attacks, natural disasters, and non-compliance by third party service providers and inadequate levels of cybersecurity expertise and safeguards of third party information technology service providers, may adversely affect the operations of Excelsior as well as present significant costs and risks including, without limitation, loss or disclosure of confidential, proprietary, personal or sensitive information and third party data, material adverse effect on its financial performance, compliance with its contractual obligations, compliance with applicable laws, damaged reputation, remediation costs, potential litigation, regulatory enforcement proceedings and heightened regulatory scrutiny.

Conflicts of interest may arise among the Company's directors and officers as a result of their involvement with, or shareholdings in, other mineral resource companies.

Certain of Excelsior's directors and officers also serve as directors or officers for, or have significant shareholdings in, other companies involved in natural resource exploration and development or mining-related activities. To the extent that such other companies may participate in ventures in which Excelsior may participate in, or in ventures which Excelsior may seek to participate in, its directors and officers may have a conflict of interest in negotiating and concluding terms respecting the extent of such participation. In all cases where the Company's directors and officers have an interest in other companies, such other companies may also compete with Excelsior for the acquisition of mineral property investments. Such associations may give rise to conflicts of interest for Excelsior's directors and officers resulting in a material and adverse effect on the Company's profitability, results of operation and financial condition. As a result of these potential conflicts of interest, Excelsior may miss the opportunity to participate in certain transactions, which may have a material adverse effect on its financial position. The directors of the Company are required by law to act honestly and in good faith with a view to the best interests of the Company and its shareholders and to disclose any interest which they may have in any project or opportunity of the Company, but each officer or director has the identical obligation to other companies for which such officer or director serves as an officer or director.

Excelsior is exposed to exchange rate fluctuations because it raises funds in Canadian dollars and its costs are incurred in United States dollars.

Exchange rate fluctuations may affect the costs that Excelsior incurs in its operations. Excelsior has historically raised funds in Canadian dollars and its costs are incurred principally in United States dollars. Any appreciation of the US dollar against the Canadian dollar will reduce the purchasing power of each Canadian dollar raised, which could increase the risk that the Company would not be able to finance its operations and projects. The Company has assessed this risk and has not presently adopted an active currency hedging program given the current currency exchange rates.

Uncertainty exists related to inferred mineral resources.

There is a risk that inferred mineral resources referred to in this AIF cannot be converted into measured or indicated mineral resources as there may be limited ability to assess geological continuity. Due to the uncertainty that may attach to inferred mineral resources, there is no assurance that inferred mineral resources will be upgraded to resources with sufficient geological continuity to constitute proven and probable mineral reserves as a result of continued exploration.

General economic conditions may adversely affect Excelsior's growth, future profitability and ability to finance.

The unprecedented events in global financial markets that occurred during the 2008 global financial crisis have had a profound impact on the global economy. Many industries, including the mining industry, are impacted by these market conditions. Some of the key impacts that resulted from the 2008 global financial crisis included contraction in credit markets resulting in a widening of credit risk, devaluations, high volatility in global equity, commodity, foreign exchange and precious metal markets and a lack of market liquidity. A worsening or slowdown in the financial markets or other economic conditions, including but not limited to, consumer spending, employment rates, business conditions, inflation, fuel and energy costs, consumer debt levels, lack of available credit, the state of the financial markets, interest rates and tax rates, may adversely affect Excelsior's growth and ability to finance.

Land reclamation requirements for the Company's mineral properties may be burdensome.

Land reclamation requirements are generally imposed on mineral exploration companies (as well as companies with mining operations) in order to minimize long term effects of land disturbance. Reclamation may include requirements to:

- treat ground and surface water to drinking water standards;
- control dispersion of potentially deleterious effluents; and
- reasonably re-establish pre-disturbance land forms and vegetation.

In order to carry out reclamation obligations imposed on the Company in connection with exploration, potential development and production activities, Excelsior must allocate financial resources that might otherwise be spent on further exploration and development programs. In addition, regulatory changes could increase the Company's obligations to perform reclamation and mine closing activities. If the Company is required to carry out unanticipated reclamation work, its financial position could be adversely affected.

Risks inherent in the acquisition of new properties.

Excelsior may actively pursue the acquisition of exploration, development and production assets consistent with its acquisition and growth strategy. From time to time, Excelsior may also acquire securities of or other interests in companies with respect to which it may enter into acquisitions or other transactions. Acquisition transactions involve inherent risks, including but not limited to:

- accurately assessing the value, strengths, weaknesses, contingent and other liabilities and potential profitability of acquisition candidates;
- ability to achieve identified and anticipated operating and financial synergies;
- unanticipated costs;

- diversion of management attention from existing business;
- potential loss of key employees or key employees of any business acquired;
- unanticipated changes in business, industry or general economic conditions that affect the assumptions underlying the acquisition;
- decline in the value of acquired properties, companies or securities;
- assimilating the operations of an acquired business or property in a timely and efficient manner;
- maintaining the Company's financial and strategic focus while integrating the acquired business or property;
- implementing uniform standards, controls, procedures and policies at the acquired business, as appropriate; and
- to the extent that the Company makes an acquisition outside of markets in which it has previously operated, conducting and managing operations in a new operating environment.

Acquiring additional businesses or properties could place increased pressure on the Company's cash flow (if any) if such acquisitions involve a cash consideration. The integration of the Company's existing operations with any acquired business will require significant expenditures of time, attention and funds. Achievement of the benefits expected from consolidation would require the Company to incur significant costs in connection with, among other things, implementing financial and planning systems. The Company may not be able to integrate the operations of a recently acquired business or restructure the Company's previously existing business operations without encountering difficulties and delays. In addition, this integration may require significant attention from the Company's management team, which may detract attention from the Company's day-to-day operations. Over the short-term, difficulties associated with integration could have a material adverse effect on the Company's business, operating results, financial condition and the price of the Common Shares. In addition, the acquisition of mineral properties may subject the Company to unforeseen liabilities, including environmental liabilities, which could have a material adverse effect on the Company. There can be no assurance that any future acquisitions will be successfully integrated into the Company's existing operations.

Any one or more of these factors or other risks could cause Excelsior not to realize the anticipated benefits of an acquisition of properties or companies, and could have a material adverse effect on its financial condition.

Excelsior may become subject to legal proceedings.

Due to the nature of its business, the Company may become subject to regulatory investigations, claims, lawsuits and other proceedings in the ordinary course of its business. The results of these legal proceedings cannot be predicted with certainty due to the uncertainty inherent in litigation, including the effects of discovery of new evidence or advancement of new legal theories, the difficulty of predicting decisions of judges and juries and the possibility that decisions may be reversed on appeal. There can be no assurances that these matters will not have a material adverse effect on the Company's business.

Excelsior may be exposed to potential liabilities associated with the acquisition of JCM.

We conducted due diligence with respect to the JCM prior to our acquisition of such assets in December 2015; however, there is no certainty that our due diligence procedures revealed all of the risks and liabilities associated with the acquisition of JCM. There may be material environmental or other material liabilities that we are not aware of and, accordingly, the potential monetary cost of such liabilities is also unknown.

Failure to comply with the U.S. Foreign Corrupt Practices Act ("FCPA"), as well as the anti-bribery laws of the nations in which we conduct business (such as the Corruption of Foreign Public Officials Act of Canada ("CFPOA")), could subject us to penalties and other adverse consequences.

Our business is subject to the FCPA which generally prohibits companies and company employees from engaging in bribery or other prohibited payments to foreign officials for the purpose of obtaining or retaining business. The FCPA also requires companies to maintain accurate books and records and internal controls, including at foreign-controlled subsidiaries. In addition, we are subject to other anti-bribery laws of the nations in which we conduct business that apply similar prohibitions as the FCPA (such as the CFPOA and the OECD Anti-Bribery Convention). Our employees or other agents may, without our knowledge and despite our efforts, engage in prohibited conduct under our policies and procedures and the FCPA or other anti-bribery laws that we may be subject to for which we may be held responsible. If our employees or other agents are found to have engaged in such practices, we could suffer severe penalties and other consequences that may have a material adverse effect on our business, financial condition and results of operations.

Legislative actions, potential new accounting pronouncements, and higher insurance costs are likely to impact our future financial position or results of operations.

Future changes in financial accounting standards may cause adverse, unexpected revenue fluctuations and affect our financial position or results of operations. New pronouncements and varying interpretations of pronouncements are expected to occur in the future. Compliance with changing regulations of corporate governance and public disclosure may result in additional expenses. All of these uncertainties are leading generally toward increasing insurance costs, which may adversely affect our business, results of operations and our ability to purchase any such insurance, at acceptable rates or at all, in the future.

A period of significant growth can place a strain on management systems.

If we experience a period of significant growth in the number of our personnel this could place a strain upon our management systems and resources. Our future will depend in part on the ability of our officers and other key employees to implement and improve our financial and management controls, reporting systems and procedures on a timely basis and to expand, train and manage our employee workforce. There can be no assurance that we will be able to effectively manage such growth. Our failure to do so could have a material adverse effect upon our business, prospects, results of operation and financial condition.

Significant shareholders of the Company could influence our business operations and sales of our Common Shares by such significant shareholders could influence our Common Share price.

To the best knowledge of the Company, as of the date of hereof, Greenstone Resources, through its affiliates Greenstone and Greenstone No. 2, hold 100,878,097 Common Shares representing approximately 48.89% of our outstanding Common Shares. Greenstone has control over the passage of any resolution of our shareholders (such as would be required, to amend our constating documents or take certain other corporate actions).

Risks Related to our Securities

Future sales or issuances of debt or equity securities could decrease the value of any existing Common Shares, dilute investors' voting power, reduce our earnings per share and make future sales of our equity securities more difficult.

We may sell or issue additional debt or equity securities in offerings to finance our operations, exploration, development, acquisitions or other projects. Our significant shareholders, including Greenstone may also sell the Common Shares they hold in the future.

We cannot predict the size of future sales and issuances of debt or equity securities or the effect, if any, that future sales and issuances of debt or equity securities will have on the market price of the Common Shares.

Sales or issuances of a substantial number of equity securities, or the perception that such sales could occur, may adversely affect prevailing market prices for the Common Shares. With any additional sale or issuance of equity securities, investors will suffer dilution of their voting power and may experience dilution in the Company's earnings per share. Sales of our Common Shares by shareholders might also make it more difficult for us to sell equity securities at a time and price that we deem appropriate.

Our Common Share price has experienced volatility and may be subject to fluctuation in the future based on market conditions.

The market prices for the securities of mining companies, including our own, have historically been highly volatile. The market has from time to time experienced significant price and volume fluctuations that are unrelated to the operating performance of any particular company. In addition, because of the nature of our business, certain factors such as our announcements and the public's reaction, our operating performance and the performance of competitors and other similar companies, fluctuations in the market prices of our resources, government regulations, changes in earnings estimates or recommendations by research analysts who track our securities or securities of other companies in the resource sector, general market conditions, announcements relating to litigation, the arrival or departure of key personnel and the factors listed under the heading "Special Note Regarding Forward-Looking Information" can have an adverse impact on the market price of our Common Shares.

Any negative change in the public's perception of our prospects could cause the price of our securities, including the price of our Common Shares, to decrease dramatically. Furthermore, any negative change in the public's perception of the prospects of mining companies in general could depress the price of our securities, including the price of our Common Shares, regardless of our results. Following declines in the market price of a company's securities, securities class-action litigation is often instituted. Litigation of this type, if instituted, could result in substantial costs and a diversion of our management's attention and resources.

Future issuances of securities by us or sales by our existing shareholders may cause the price of our securities to fall.

The market price of our securities could decline as a result of issuances of securities by us or sales by our existing shareholders in the market, or the perception that these sales could occur. Sales of our Common Shares by shareholders might also make it more difficult for us to sell equity securities at a time and price that we deem appropriate. With an additional sale or issuance of equity securities, investors will suffer dilution of their voting power and may experience dilution in earnings per share.

Excelsior does not intend to pay dividends in the foreseeable future.

No dividends on the Company's Common Shares have been declared or paid by Excelsior to date. Excelsior does not currently anticipate that dividends will be declared in the foreseeable future. Payment of any future dividends, if any, will be at the discretion of Excelsior's Board of Directors after taking into account many factors, including Excelsior's operating results, financial condition and current and anticipated cash needs.

Non-U.S. Holders of Common Shares could be subject to U.S. federal income tax from the sale or other taxable disposition of Common Shares.

Excelsior believes that, pursuant to Section 7874 of the U.S. Internal Revenue Code of 1986 (the **Code**"), even though it is organized as a Canadian corporation, Excelsior should be treated as a U.S. domestic corporation for U.S. federal income tax purposes. The summary below assumes Excelsior is a U.S. domestic corporation for U.S. federal income tax purposes. However, no tax opinion or ruling from the IRS concerning the U.S. federal income tax characterization of Excelsior has been obtained and none will be requested. Thus, there can be no assurance that the IRS will not challenge the characterization of Excelsior as a domestic corporation, or that if challenged, a U.S. court would not agree with the IRS. If Excelsior is not treated as a U.S. domestic corporation, then the acquisition, ownership and disposition of the Common Shares would have materially different implications for Non-U.S. Holders.

In general, a Non-U.S. Holder of Common Shares will not be subject to U.S. federal income tax on a gain recognized from a sale, exchange, or other taxable disposition of such Common Shares unless:

- the gain is effectively connected with a U.S. trade or business carried on by the Non-U.S. Holder (and, where an income tax treaty applies, is attributable to a U.S. permanent establishment of the Non-U.S. Holder), in which case the Non-U.S. Holder will be subject to tax on the net gain from the sale at regular graduated U.S. federal income tax rates, and if the Non-U.S. Holder is a corporation, may be subject to an additional U.S. branch profits tax at a gross rate equal to 30% of its effectively connected earnings and profits for that taxable year, subject to any exemption or lower rate as may be specified by an applicable income tax treaty;

- the Non-U.S. Holder is an individual who is present in the United States for 183 days or more in the taxable year of disposition and certain other conditions are met, in which case the Non-U.S. Holder will be subject to a 30% tax on the gain from the sale, which may be offset by U.S. source capital losses; or

- Excelsior is or has been a "U.S. real property holding corporation" ("**USRPHC**") for U.S. federal income tax purposes at any time during the shorter of the Non-U.S. Holder's holding period or the 5-year period ending on the date of disposition of Common Shares; provided, with respect to the Common Shares, that as long as the Common Shares are regularly traded on an established securities market as determined under the Treasury Regulations (the "**Regularly Traded Exception**"), a Non-U.S. Holder would not be subject to taxation on the gain on the sale of Common Shares under this rule unless the Non-U.S. Holder has owned more than 5% of Common Shares at any time during such 5-year or shorter period (a "**5% Stockholder**"). In determining whether a Non-U.S. Holder is a 5% Stockholder, the Non-U.S. Holder's warrants may be included in such determination. In addition, certain attribution rules apply in determining ownership for this purpose. Excelsior has not made a determination as to whether it is currently a USRPHC and Excelsior can provide no assurances that it is not currently and will not become a USRPHC in the future. Excelsior can provide no assurances that the Common Shares will meet the Regularly Traded Exception at the time a Non-U.S. Holder purchases such securities or sells, exchanges or otherwise disposes of such securities. Non-U.S. Holders should consult with their own tax advisors regarding the consequences to them of investing in a USRPHC. As a USRPHC, a Non-U.S. Holder will be taxed as if any gain or loss were effectively connected with the conduct of a trade or business in the event that (i) such holder is a 5% Stockholder, or (ii) the Regularly Traded Exception is not satisfied during the relevant period.

We may be treated as a "passive foreign investment company" under the U.S. Internal Revenue Code, which could result in adverse U.S. federal income tax consequences for U.S. investors.

U.S. investors in our Common Shares should be aware that they could be subject to certain adverse U.S. federal income tax consequences in the event that we are classified as a passive foreign investment company ("**PFIC**") for U.S. federal income tax purposes. The determination of whether we are a PFIC for a taxable year depends, in part, on the application of complex U.S. federal income tax rules, which are subject to differing interpretations, and the determination will depend on the composition of our income, expenses and assets from time to time and the nature of the activities performed by our officers and employees. Prospective investors in our Common Shares should consult their own tax advisers regarding the likelihood and consequences of the Company being treated as a PFIC for U.S. federal income tax purposes, including the advisability of making certain elections that may mitigate certain possible adverse U.S. federal income tax consequences but may result in an inclusion in gross income without receipt of such income. We believe we were a PFIC for the 2015 financial year. We expect to be classified as a PFIC for the 2016 financial year and may also be treated as a PFIC in some or all subsequent years.

There is no assurance of a sufficient liquid trading market for the Company's Common Shares in the future.

Shareholders of the Company may be unable to sell significant quantities of Common Shares into the public trading markets without a significant reduction in the price of their Common Shares, or at all. There can be no assurance that there will be sufficient liquidity of the Company's Common Shares on the trading market, and that the Company will continue to meet the listing requirements of the TSX or achieve listing on any other public listing exchange.

DIVIDENDS

Excelsior has not, since the date of its incorporation, declared or paid any dividends on its Common Shares and does not currently have a policy with respect to the payment of dividends. For the immediate future, Excelsior does not envisage any earnings arising from which dividends could be paid. The payment of dividends in the future will depend on Excelsior's earnings, if any, Excelsior's financial condition and such other factors as the directors of Excelsior consider appropriate.

DESCRIPTION OF CAPITAL STRUCTURE

The authorized share capital of Excelsior consists of an unlimited number of Common Shares and an unlimited number of Non-Voting Shares. As of the date of this AIF, 206,349,152 Common Shares and no Non-Voting Shares were issued and outstanding as fully paid and non-assessable shares.

The holders of the Common Shares are entitled to receive notice of and to attend and vote at all meetings of the shareholders of Excelsior and each Common Share confers the right to one vote in person or by proxy at all meetings of the shareholders of Excelsior. The holders of the Common Shares, subject to the prior rights, if any, of any other class of shares of Excelsior, are entitled to receive such dividends in any financial year as the Board of Directors of Excelsior may by resolution determine. In the event of the liquidation, dissolution or winding-up of Excelsior, whether voluntary or involuntary, the holders of the Common Shares are entitled to receive, subject to the prior rights, if any, of the holders of any other class of shares of Excelsior, the remaining property and assets of the Company.

The Non-Voting Shares are restricted securities within the meaning of National Instrument 51-102. Non-Voting Shares do not carry the right to vote at any meetings of the shareholders. Non-Voting shares may be converted at the option of the holder into Common Shares on the basis of one (1) Non-Voting Share for one (1) Common Share of Excelsior. As the Non-Voting Shares are convertible into Common Shares, pursuant to Multilateral Instrument 62-104, a take-over bid for the Common Shares must also be made to the holders of the Non-Voting Shares.

MARKET FOR SECURITIES

Market

Excelsior's Common Shares are listed on the TSX under the trading symbol "MIN" and trade on the OTCQX International under the symbol "EXMGF" and on the Frankfurt Exchange under the symbol "3XS".

Trading Price and Volume

The following table sets out the monthly high and low trading prices and the monthly volume of trading of the Common Shares of Excelsior on the TSXV during the month of January, and the TSX for the remaining months in the most recently completed financial year:

	High (Cdn$)	Low (Cdn$)	Volume
January 2017	0.87	0.60	2,764,918
February 2017	0.94	0.75	2,644,669
March 2017	0.90	0.77	1,986,812
April 2017	0.88	0.80	1,398,880
May 2017	0.89	0.66	1,920,892
June 2017	0.92	0.79	2,346,743
July 2017	1.19	0.87	2,186,045
August 2017	1.41	1.02	4,097,007
September 2017	1.48	1.07	2,932,716
October 2017	1.30	1.13	2,383,296
November 2017	1.27	0.98	4,650,203
December 2017	1.35	0.93	4,312,918

Prior Sales

The following summarizes the Common Shares issued by Excelsior during the most recently completed financial year.

Date	Description	Number of Securities	Price per Share / Exercise Price ($)
February 14, 2017	Common Shares issued pursuant to the exercise of stock options	100,000	$0.30
September 7, 2017	Common Shares issued pursuant to the exercise of stock options	150,000	$0.30
December 21, 2018	Common Shares issued pursuant to the exercise of stock options	100,000	$0.30
December 21, 2018	Common Shares issued pursuant to a non-brokered private placement	22,168,000	$1.00

ESCROWED SECURITIES AND SECURITIES SUBJECT TO CONTRACTUAL RESTRICTION ON TRANSFER

As at December 31, 2017, Excelsior has no escrowed securities or securities subject to contractual restriction on transfer.

DIRECTORS AND OFFICERS

The names and provinces or states and countries of residence of the directors and officers of Excelsior as at December 31, 2017, positions held by them with Excelsior and their principal occupations for the past five years are as set forth below. The term of office of each of the present directors expires at the next annual general meeting of shareholders. After each such meeting, the Board of Directors appoints the Company's officers and committees for the ensuing year.

Name, Province or State and Country of Ordinary Residence of Nominee(1) and Present Positions with Excelsior	Principal Occupation during the last Five Years(1)	Period from which person has been a Director or Officer	Number of Common Shares Held(2)
Mark Morabito Director, Chairman British Columbia, Canada	Chairman and Chief Executive Officer of King & Bay West Management Corp. since December 2009.	April 4, 2007	1,922,166
Stephen Twyerould(6) Director, President, CEO Arizona, USA	President and Chief Executive Officer of Excelsior since October 14, 2010.	October 14, 2010	4,676,876
Jay Sujir(3)(4) Director British Columbia, Canada	Partner in the law firm of Farris, Vaughan, Willis & Murphy LLP since June 2015; Partner in the law firm of , Anfield Sujir Kennedy & Durno LLP from 1991 to May 2015.	May 14, 2010	88,889

Name, Province or State and Country of Ordinary Residence of Nominee[1] and Present Positions with Excelsior	Principal Occupation during the last Five Years[1]	Period from which person has been a Director or Officer	Number of Common Shares Held[2]
Colin Kinley[4][6] Director Kansas, USA	Currently Director and Senior Advisor, President and CEO of Kinley Exploration LLC from 2007 to present; Director; COO of Eco Oil and Gas Ltd. from 2011 to present; President CEO of Manx Energy Inc. 2009 to present.	October 14, 2010	Nil
Jim Kolbe[5] Director Arizona, USA	Senior Advisor, McLarty Associates, Strategic Consulting Firm since March 2007.	February 15, 2012	Nil
Steven Lynn[3][4][5] Director Arizona, USA	Business consultant. Formerly Vice President and Chief Customer Officer at UniSource Energy Corporation and Tucson Electric Power Company from 2000 to 2011.	February 15, 2012	Nil
Michael Haworth[3][6] Director United Kingdom	Managing Partner with Greenstone Capital LLP since August, 2013, Managing Partner with Strata Capital LLP from January 2006 to August 2013.	September 9, 2014	Nil[7]
Lord Robin Renwick[5] Director United Kingdom	Director, Stonehage Fleming since August 2000; Vice Chairman, Investment Banking Europe, JP Morgan from August 2000 to May 2014; Non-Executive Director of BHP Billiton PLC from 1997 to 2005.	October 20, 2014	Nil
Roland Goodgame Chief Operating Officer Colorado, USA	Executive Vice President of Excelsior since May 22, 2014; Vice President, Exploration of Excelsior from October 14, 2010 to May 22, 2014.	October 14, 2010	817,182
Mark Distler Chief Financial Officer Arizona, USA	Chief Financial Officer of the Company since April 27, 2016; Financial Manager of Agnico Eagle Mining from April 2015 to March 2016; Chief Financial Officer of Mercator Minerals Ltd. from January 2011 to March 2015	April 27, 2016	Nil

Name, Province or State and Country of Ordinary Residence of Nominee[(1)] and Present Positions with Excelsior	Principal Occupation during the last Five Years[(1)]	Period from which person has been a Director or Officer	Number of Common Shares Held[(2)]
JJ Jennex VP Corporate Affairs British Columbia, Canada	Strategic Advisor, King & Bay West Management Corp. since May 2010.	April 25, 2011	150,834
Rebecca Sawyer VP Sustainability Arizona, USA	Vice President Sustainability of Excelsior since December 1, 2014; Senior Environmental Coordinator, Freeport McMoRan from April 2008 to November 2013.	December 1, 2014	6,100
Sheila Paine Corporate Secretary British Columbia, Canada	Corporate Secretary of King & Bay Management Corp. since December 2009.	May 17, 2010	Nil

(1) The information as to city and province of residence and principal occupation, not being within the knowledge of Excelsior, has been furnished by the respective directors individually.

(2) Common Shares beneficially owned, directly and indirectly, or over which control or direction is exercised, at the date hereof, based upon the information furnished to Excelsior by individual directors and officers. Unless otherwise indicated, such Common Shares are held directly. These figures do not include Common Shares that may be acquired on the exercise of any stock options held by the respective directors or officers.

(3) Current Member of the Audit Committee of Excelsior.

(4) Current Member of the Compensation Committee of Excelsior.

(5) Current Member of the Corporate Governance and Nominating Committee of Excelsior.

(6) Current Member of the Project Steering Committee of Excelsior.

(7) Michael Haworth is a Managing Member of Greenstone Capital LLP and a Director of Greenstone Management Ltd., the General Partner to Greenstone Resources. Greenstone Resources, through its affiliates Greenstone and Greenstone No. 2, is the beneficial owner of 100,878,097 Common Shares representing approximately 48.89% of the issued and outstanding Common Shares.

The directors, nominees, officers and other members of Management of Excelsior, as a group beneficially own, directly or indirectly, 7,662,047 Common Shares of Excelsior representing 3.71% of the total issued and outstanding Common Shares of Excelsior

Cease Trade Orders, Bankruptcies, Penalties or Sanctions

Other than as disclosed below, no director or executive officer of Excelsior is, or has been in the last 10 years, a director, chief executive officer or chief financial officer of any company (including Excelsior) of an issuer that, while that person was acting in that capacity,

(a) was the subject of a cease trade order or similar order or an order that denied the issuer access to any exemptions under Canadian securities legislation, for a period of more than 30 consecutive days; or

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

Other than as disclosed below, no director or executive officer or shareholder holding a sufficient number of securities of Excelsior to materially affect the control Excelsior:

(a) is, as at the date of this AIF, or has been within the 10 years before the date of this AIF, a director or executive officer of any company (including Excelsior) that while that person was acting in that capacity, or within a year of that person ceasing to act in the 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; or

(b) has, within 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.

Other than as disclosed below, no director or officer of Excelsior or a shareholder holding a sufficient number of Common Shares to affect materially the control of Excelsior has been subject to:

(a) 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

(b) 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.

Mr. Sujir, a director of Excelsior, was an independent director of Norwood Resources Ltd. ("**Norwood**") from May 2008 until January 2011. In the last quarter of 2010, the board of directors of Norwood determined that delays through the last quarter of 2010 had made Norwood insolvent and believed that Norwood was not financeable, and determined that the interests of stakeholders would best be protected by an assignment into bankruptcy. Norwood declared bankruptcy on January 19, 2011. Mr. Sujir resigned as a director of Norwood on January 19, 2011.

Mark Distler, an executive officer of the Company, was an officer of Mercator Minerals Ltd. when it filed a Notice of Intention to Make a Proposal under the Bankruptcy and Insolvency Act (Canada) on August 26, 2014. Mr. Distler ceased to be an officer of Mercator Minerals Ltd. on August 26, 2014. Mercator Minerals was deemed to have filed an assignment in bankruptcy on September 5, 2014.

Conflicts of Interest

Certain directors and officers of Excelsior are also directors, officers or shareholders of other companies that are similarly engaged in the business of acquiring, developing and exploiting natural resource properties. Such associations to other public companies in the resource sector may give rise to conflicts of interest from time to time. As a result, opportunities provided to a director of Excelsior may not be made available to Excelsior, but rather may be offered to a company with competing interests. The directors and senior officers of Excelsior are required by law to act honestly and in good faith with a view to the best interests of Excelsior and to disclose any personal interest which they may have in any project or opportunity of Excelsior, and to abstain from voting on such matters.

The directors and officers of Excelsior are aware of the existence of laws governing the accountability of directors and officers for corporate opportunity and requiring disclosure by the directors of conflicts of interests and Excelsior will rely upon such laws in respect of any directors' and officers' conflicts of interest or in respect of any breaches of duty by any of its directors and officers.

Michael Haworth is a Managing Member of Greenstone Capital LLP and a Director of Greenstone Management Ltd., the General Partner to Greenstone Resources. Mr. Haworth has disclosed to Excelsior that he has an interest in any transaction between the Company and Greenstone Resources, Greenstone or Greenstone No. 2.

LEGAL PROCEEDINGS AND REGULATORY ACTIONS

The Company and its properties are not subject to any legal or other actions, current or pending, which may materially affect the Company's operating results, financial position or property ownership. During the most recently completed financial year, (i) no penalties or sanctions were imposed against the Company by a court or regulatory body and (ii) no settlement agreements were entered into by the Company with a court or a securities regulatory authority.

PROMOTERS

No person has acted as a promoter of Excelsior during the last two most recently completed financial years or during the current financial year.

INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS

Other than as set forth below and other than transactions carried out in the ordinary course of business of the Company, none of the directors or executive officers of Excelsior, any shareholder directly or indirectly beneficially owning, or exercising control or direction over, more than 10% of the outstanding Common Shares, nor an associate or affiliate of any of the foregoing persons has had, during the three most recently completed financial years of the Company or during the current financial year, any material interest, direct or indirect, in any transactions that materially affected or would materially affect the Company.

Greenstone Resources, through its affiliates Greenstone and Greenstone No. 2, is the beneficial owner of 100,878,097 Common Shares representing approximately 48.89% of the issued and outstanding Common Shares. Mr. Haworth is a Managing Member of Greenstone Capital LLP and a Director of Greenstone Management Ltd., the General Partner to Greenstone Resources. The details of Greenstone's strategic investments in Excelsior are described under "Description and General Development of the Business – Three Year History – Year Ended December 31, 2015 Developments – Greenstone Financing", "Description and General Development of the Business – Three Year History – Year Ended December 31, 2016 Developments – Greenstone Financing", "Description and General Development of the Business – Three Year History – Year Ended December 31, 2017 Developments – Private Placement" and "Developments Subsequent to December 31, 2017 and Outlook - Closing of the Second Tranche of the 2017 Offering".

TRANSFER AGENT AND REGISTRAR

Excelsior's registrar and transfer agent is TSX Trust Company. with its office located at 2700 – 650 West Georgia Street, Vancouver, British Columbia, V6B 4N9.

MATERIAL CONTRACTS

The Company has entered into the following material contracts:

(a) Definitive Agreement, as amended, as described in this AIF under "Glossary".

(b) Management Services Agreement dated as of May 17, 2010 between King & Bay West Management Corp. ("**King & Bay West**") and the Company pursuant to which King & Bay West provides the Company with administrative and management services, including shared facilities, geological, technical, accounting, investor relations, legal and corporate development services. The fees for these management services are determined and allocated to the Company based on the cost or value of the services provided to the Company as determined by King & Bay West, and the Company reimburses King & Bay West for such costs on a monthly basis.

(c) Callinan Agreement, as described in this AIF under "Glossary".

(d) Greenstone IR Agreement as described in this AIF under "Glossary".

(e) JCM Purchase Agreement as described in this AIF under "Glossary" and "Description and General Development of the Business – Three Year History – Year Ended December 31, 2015 Developments – Johnson Camp Transaction".

(f) Amending Agreement to the Greenstone IR Agreement dated January 19, 2018 between the Company, Greenstone and Greenstone No. 2 pursuant to which certain rights granted to Greenstone under the Greenstone IR Agreement were amended to permit the joint or several exercise by Greenstone and Greenstone No. 2.

INTEREST OF EXPERTS

The disclosure with respect to the Gunnison Project contained in this AIF is based on the Technical Report jointly prepared by Richard Zimmerman, SME-RM; Michael M. Gustin, P.G., Ph.D.; Dr. Ronald J. Roman, P.E., D.Sc.; Neil Prenn, MMSA-QPM; R. Douglas Bartlett, R.G.; and Thomas Drielick, P.E., each a qualified person as defined in NI 43-101. Each of Messrs. Zimmerman, Gustin, Roman, Prenn, Bartlett and Drielick has reviewed and approved the scientific and technical disclosure with respect to the Gunnison Project contained in this AIF.

To the best knowledge of the Company, none of the qualified persons referenced above, or any director, officer, employee or partner thereof, as applicable, received or has received a direct or indirect interest in the property of the Company or of any associate or affiliate of the Company. As at the date hereof, the aforementioned persons, and the directors, officers, employees and partners, as applicable, of each of the aforementioned companies and partnerships beneficially own, directly or indirectly, in the aggregate, less than one percent of the securities of Excelsior. None of the qualified persons referenced above is or is expected to be elected, appointed or employed as a director, officer or employee of the Company or any associate or affiliate of the Company.

With respect to the auditors of the Company, PricewaterhouseCoopers LLP has advised the Company that it is independent within the meaning of the Code of Professional Conduct of the Chartered Professional Accountants of British Columbia.

ADDITIONAL INFORMATION

Additional information on the Company may be found on SEDAR at www.sedar.com. Additional information, including directors' and officers' remuneration and indebtedness to Excelsior, principal holders of the securities of Excelsior and securities authorized for issuance under equity compensation plans, is contained in Excelsior's management information circular for its most recent annual general meeting, which is filed on SEDAR. Additional financial information is provided in Excelsior's audited consolidated financial statements for the year ended December 31, 2017 and the related management's discussion and analysis of financial conditions and results of operations, both of which are available on SEDAR.

AUDIT COMMITTEE

Pursuant to the provisions of National Instrument 52-110 Audit Committees ("**NI 52-110**"), reporting issuers are required to provide disclosure with respect to its audit committee, including the text of the audit committee's charter, composition of the committee, and the fees paid to the external auditor. Accordingly, the Company provides the following disclosure with respect to its Audit Committee.

Audit Committee Charter

Excelsior has adopted a Charter of the Audit Committee of the Board of Directors, which is attached as Schedule A to this AIF.

Composition of the Audit Committee

Excelsior's Audit Committee is comprised of three directors Steven Lynn, Michael Haworth and Jay Sujir. As defined in NI 52-110, Messrs. Lynn and Sujir considered "independent" and are "financially literate". Mr. Haworth is "financially literate"; however, as a nominee of Greenstone Resources he is not considered "independent".

Relevant Education and Experience

All of the members of the Audit Committee are senior level executive business persons with extensive experience in financial matters; each has a broad understanding of accounting principles used to prepare financial statements and varied experience as to general application of such accounting principles, as well as the internal controls and procedures necessary for financial reporting, garnered from working in their individual fields of endeavour. In addition, each of the members of the Audit Committee have knowledge of the role of an audit committee in the realm of reporting companies from their years of experience as directors and/or senior officers of public companies other than Excelsior.

Mr. Lynn recently retired from his position as Vice President and Chief Customer Officer at both UniSource Energy Corporation (NYSE: UNS) and Tucson Electric Power Company (TEP). Mr. Lynn joined UniSource Energy and TEP in 2000. Prior to that, he spent sixteen years as CEO and owner-partner at Nordensson Lynn & Associates, Inc., one of Arizona's leading marketing and communications firms based in Tucson, Arizona. Mr. Lynn holds a B.A. and M.A. from the University of Arizona.

Mr. Haworth co-founded Greenstone Resources in 2013 after a 16 year career in the mining sector. Mr. Haworth, with his co-founder, oversees all aspects of the management of Greenstone Resources. He also services as a director of Greenstone Management Ltd., Greenstone Resource's General Partner and is a member and co-Chairman of Greenstone Resources' Investment Committee. Prior to founding Greenstone Resources, Mr. Haworth founded and subsequently listed, and is a director of both Zanaga Iron Ore Company (AIM) and Ncondezi Coal Company (AIM). Until 2006 he held the positions of Managing Director and Head of Mining and Metals Corporate Finance of JP Morgan in London, United Kingdom. Mr. Haworth obtained a Bachelor of Commerce from University of Witwatersrand, South Africa in 1988 and his Chartered Accountant designation from the South African Institute of Chartered Accountants in 1992. Mr. Haworth is a non-practicing Chartered Accountant.

Mr. Sujir is a securities and natural resource lawyer, who has considerable experience in advising and assisting public companies. He obtained his B.A. from the University of Victoria in 1981 and obtained his L.L.B. in 1985. Currently, he is a partner in the law firm of Farris, Vaughan, Wills & Murphy LLP. Previously Mr. Sujir was a lawyer in the law firm of Anfield Sujir Kennedy & Durno and its predecessor from August 1986 to May 2015 and a partner of that firm from 1991 to May 2015.

Reliance on Certain Exemptions

At no time since the commencement of the Company's most recently completed financial year, has the Company relied on any of the exemptions contained in the followings sections of NI 52-110: section 2.4 (*De Minimis Non-audit Services*), section 3.2 (*Initial Public Offerings*), section 3.4 (*Events Outside Control of Member*), section 3.5 (*Death, Disability or Resignation of Audit Committee Member*) or an exemption from NI 52-110, in whole or in part, granted under Part 8 (*Exemptions*) of NI 52-110.

Reliance on Exemption in Subsection 3.3(2) or Section 3.6

As a result of Michael Haworth being a Managing Member of Greenstone Capital LLP and a Director of Greenstone Management Ltd., the General Partner to Greenstone Resources, the Company is relying on the exemption contained in subsection 3.3(2) (*Controlled Companies*) of NI 52-110. Neither Greenstone Capital LLP nor Greenstone Management Ltd. have securities trading on a marketplace. Mr. Haworth's background as a Chartered Accountant allows him to provide valuable oversight and analysis as a member of the Audit Committee. Mr. Haworth is also able to exercise the impartial judgement necessary for him to fulfill his responsibilities as an Audit Committee member, and his appointment is required by the best interests of the Company and its shareholders.

At no time since the commencement of the Company's most recently completed financial year, has the Company relied on the exemptions contained section 3.6 (*Temporary Exemption for Limited and Exceptional Circumstances*) of NI 52-110.

Reliance on Section 3.8

At no time since the commencement of the Company's most recently completed financial year, has the Company relied on section 3.8 (*Acquisition of Financial Literacy*) of NI 52-110.

Audit Committee Oversight

At no time since the commencement of the Company's most recently completed financial year, has the Company's Board of Directors failed to adopt a recommendation of the Audit Committee to nominate or compensate an external auditor.

Pre-Approval Policies and Procedures

The Audit Committee has not adopted specific policies and procedures for the engagement of non-audit services. Subject to the requirements of NI 52-110, the engagement of non-audit services is considered by the Audit Committee, on a case-by-case basis.

External Auditor Service Fees

In the following table, "audit fees" are fees billed by Excelsior's external auditor for services provided in auditing Excelsior's annual financial statements for the subject year and include audits of its subsidiaries and interim reviews of quarterly financial statements.

"Audit-related fees" are fees not included in audit fees that are billed by the auditor for assurance and related services that are reasonably related to the performance of the audit or review of Excelsior's financial statements. During the Company's fiscal years ended December 31, 2017 and December 31, 2016, there were no fees billed in this category.

"Tax fees" are fees billed by the auditor for professional services rendered for tax compliance, tax advice, corporate acquisitions, corporate reorganization and structuring. For the fiscal years ended December 31, 2017 and December 31, 2016 these fees related to Canadian and US tax compliance services, general tax consultations on matters related to Federal, Provincial, Payroll, Sales and US taxes.

“All other fees” are fees billed by the auditor for products and services not included in the foregoing categories.

The fees paid by Excelsior to its auditor during the Company’s fiscal years ended December 31, 2017 and December 31, 2016, by category, are as follows:

Year Ended	Audit Fees	Audit Related Fees	Tax Fees	All Other Fees
December 31, 2017	US$58,243	Nil	US$40,759	Nil
December 31, 2016	US$60,854	Nil	US$77,583	Nil

SCHEDULE A

AUDIT COMMITTEE CHARTER

As of April 29, 2014

The following Audit Committee Charter was adopted by the Audit Committee of the Board of Directors and the Board of Directors of Excelsior Mining Corp. (the "**Company**"):

Mandate

The primary function of the audit committee (the "**Committee**") is to assist the Company's Board of Directors in fulfilling its financial oversight responsibilities by reviewing the financial reports and other financial information provided by the Company to regulatory authorities and shareholders, the Company's systems of internal controls regarding finance and accounting and the Company's auditing, accounting and financial reporting processes. Consistent with this function, the Committee will encourage continuous improvement of, and should foster adherence to, the Company's policies, procedures and practices at all levels. The Committee's primary duties and responsibilities are to:

- serve as an independent and objective party to monitor the Company's financial reporting and internal control system and review the Company's financial statements;

- review and appraise the performance of the Company's external auditors; and

- provide an open avenue of communication among the Company's auditors, financial and senior management and the Board of Directors.

Composition

The Committee shall be comprised of a minimum three directors as determined by the Board of Directors, all of whom shall be free from any relationship that, in the opinion of the Board of Directors, would interfere with the exercise of his or her independent judgment as a member of the Committee.

All members of the Committee shall have accounting or related financial management expertise. All members of the Committee who are not financially literate will work towards becoming financially literate to obtain a working familiarity with basic finance and accounting practices. For the purposes of this Audit Committee Charter, the definition of "financially literate" is the ability to read and understand a set of financial statements that present a breadth and level of complexity of accounting issues that are generally comparable to the breadth and complexity of the issues that can presumably be expected to be raised by the Company's financial statements.

The members of the Committee shall be elected by the Board of Directors at its first meeting following the annual shareholders' meeting. Unless a Chair is elected by the full Board of Directors, the members of the Committee may designate a Chair by a majority vote of the full Committee membership. The position description and responsibilities of the Chair are set out in Schedule "A" attached hereto.

Meetings

The Committee shall meet a least quarterly, or more frequently as circumstances dictate. As part of its job to foster open communication, the Committee will meet at least annually with the Chief Financial Officer and the external auditors in separate sessions. The Committee may ask members of management of the Company or others to attend meetings or to provide information as necessary.

Quorum for the transaction of business at any meeting of the Committee shall be a majority of the number of members of the Committee or such greater number as the Committee shall by resolution determine.

Meetings of the Committee shall be held from time to time as the Committee or the Chair shall determine upon 48 hours' notice to each of its members. The notice period may be waived by unanimous resolution of the Committee.

The Committee shall keep minutes of its meetings which shall be submitted to the Board. The Committee may, from time to time, appoint any person who need not be a member, to act as a secretary at any meeting.

Any matters to be determined by the Committee shall be decided by a majority of votes cast at a meeting of the Committee called for such purpose. Actions of the Committee may be taken by an instrument or instruments in writing signed by all of the members of the Committee, and such actions shall be effective as though they had been decided by a majority of votes cast at a meeting of the Committee called for such purpose. The Committee shall report its determinations to the Board at the next scheduled meeting of the Board, or earlier as the Committee deems necessary.

Responsibilities and Duties

To fulfill its responsibilities and duties, the Committee shall:

1. Documents/Reports Review

(a) review and update this Audit Committee Charter as required; and

(b) review the Company's financial statements, MD&A and any annual and interim earnings press releases before the Company publicly discloses this information and any financial reports or other financial information (including quarterly financial statements), which are submitted to any governmental body, or to the public, including any certification, report, opinion, or review rendered by the external auditors.

2. External Auditors

(a) review annually, the performance of the external auditors who shall be ultimately accountable to the Company's Board of Directors and the Committee as representatives of the shareholders of the Company;

(b) obtain annually, a formal written statement of external auditors setting forth all relationships between the external auditors and the Company, consistent with the professional standards for the external auditors;

(c) review and discuss with the external auditors any disclosed relationships or services that may impact the objectivity and independence of the external auditors;

(d) take, or recommend that the Company's full Board of Directors take appropriate action to oversee the independence of the external auditors, including the resolution of disagreements between management and the external auditor regarding financial reporting;

(e) recommend to the Company's Board of Directors the selection and, where applicable, the replacement of the external auditors nominated annually for shareholder approval;

(f) recommend to the Company's Board of Directors the compensation to be paid to the external auditors;

(g) at each meeting, consult with the external auditors, without the presence of management, about the quality of the Company's accounting principles, internal controls and the completeness and accuracy of the Company's financial statements;

(h) review and approve the Company's hiring policies regarding partners, employees and former partners and employees of the present and former external auditors of the Company;

(i) review with management and the external auditors the audit plan for the year-end financial statements and intended template for such statements; and

(j) review and pre-approve all audit and audit-related services, and any non-audit services, and the fees and other compensation related thereto provided by the Company's external auditors in accordance with the Audit Committee Pre-Approval Policy.

3. Financial Reporting Processes

(a) in consultation with the external auditors, review with management the integrity of the Company's financial reporting process, both internal and external;

(b) consider the external auditors' judgments about the quality and appropriateness of the Company's accounting principles as applied in its financial reporting;

(c) consider and approve, if appropriate, changes to the Company's accounting principles and practices as suggested by the external auditors and management;

(d) review significant estimates and judgments made by management in the preparation of the financial statements and the view of the external auditors as to appropriateness of such estimates and judgments;

(e) following completion of the annual audit, review separately with management and the external auditors any significant difficulties encountered during the course of the audit, including any restrictions on the scope of work or access to required information;

(f) review any significant disagreement among management and the external auditors in connection with the preparation of the financial statements;

(g) review with the external auditors and management the extent to which changes and improvements in financial or accounting practices have been implemented;

(h) review any complaints or concerns about any questionable accounting, internal accounting controls or auditing matters;

(i) establish a procedure for the receipt, retention and treatment of complaints received by the Company regarding accounting, internal accounting controls or auditing matters;

(j) establish a procedure for the confidential, anonymous submission by employees of the Company of concerns regarding questionable accounting or auditing matters; and

(k) review with management the Chief Executive Officer and Chief Financial Officer certificates prepared in connection with the annual and interim continuous disclosure regulatory filings.

4. Other Responsibilities

(a) review and approve any related-party transactions in accordance with the Company's Delegation of Authority Policy;

(b) the Committee shall perform any other activities consistent with this Audit Committee Charter and governing law, as the Committee or the Board deems necessary or appropriate.

Authority

The Committee shall have the authority to:

(a) engage independent counsel and other advisors including accounting or other consultants or experts as it determines necessary to carry out its duties;

(b) set and pay the compensation for advisors employed by the Committee;

(c) communicate directly with the external auditors;

(d) access, on an unrestricted basis, the books and records of the Company; and

(e) conduct any investigation appropriate to its responsibilities, and it may request the external auditors, as well as any officer of the Company, or outside counsel for the Company, to attend a meeting of the Committee or to meet with any members of, or advisors to, the Committee;

(f) the Committee shall have the authority to engage the external auditors to perform a review of the interim financial statements.

SCHEDULE "A"

Position Description for the Chair of the Audit Committee

I. Purpose

The Chair of the Audit Committee of the Board shall be a director who is elected by the Board to act as the leader of the Committee in assisting the Board in fulfilling its financial reporting and control responsibilities to the shareholders of the Company.

II. Who may be Chair

The Chair will be selected from amongst the directors of the Company who have a sufficient level of financial sophistication and experience in dealing with financial issues to ensure the leadership and effectiveness of the Committee.

III. Responsibilities

The following are the primary responsibilities of the Chair:

- chairing all meetings of the Committee in a manner that promotes meaningful discussion;
- ensuring adherence to this Audit Committee Charter and that the adequacy of it is reviewed as required;
- providing leadership to the Committee to enhance the Committee's effectiveness, including:
    - providing the information to the Board relative to the Committee's issues and initiatives and reviewing and submitting to the Board an appraisal of the Company's independent auditors and internal auditing functions;
    - ensuring that the Committee works as a cohesive team with open communication, as well as ensuring open lines of communication among the independent auditors, financial and senior management and the Board of Directors for financial and control matters;
    - ensuring that the resources available to the Committee are adequate to support its work and to resolve issues in a timely manner;
    - ensuring that the Committee serves as an objective party to monitor the Company's financial reporting process and internal control systems, as well as to monitor the relationship between the Company and the independent auditors to ensure independence;
    - ensuring that procedures are in place to assess the audit activities of the independent auditors; and
    - ensuring that procedures are in place for dealing with complaints received by the Company regarding accounting, internal controls and auditing matters, and for employees to submit confidential anonymous concerns regarding questionable accounting or auditing matters.
- managing the Committee, including:

- adopting procedures to ensure that the Committee can conduct its work effectively and efficiently, including committee structure and composition, scheduling, and management of meetings;

- preparing the agenda of the Committee meetings and ensuring pre-meeting material is distributed in a timely manner and is appropriate in terms of relevance, efficient format and detail;

- ensuring meetings are appropriate in terms of frequency, length and content;

- obtaining and reviewing with the Committee an annual report from the independent auditors, and arranging meetings with the auditors and financial management to review the scope of the proposed audit for the current year, its staffing and the audit procedures to be used;

- overseeing the Committee's participation in the Company's accounting and financial reporting process and the audits of its financial statements;

- ensuring that the auditors' report directly to the Committee, as representatives of the Company's shareholders; and

- annually reviewing with the Committee its own performance.