



EXCELSIOR MINING CORP.

ANNUAL INFORMATION FORM
For the year ended December 31, 2015

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

April 26, 2016

**EXCELSIOR MINING CORP.
ANNUAL INFORMATION FORM
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**ANNUAL INFORMATION FORM
EXCELSIOR MINING CORP.**

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, 2015, unless otherwise stated herein. Unless the context otherwise requires, all references to the "Company" 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 Prefeasibility 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 the completion of a feasibility study, progress on permitting and the integration of the Johnson Camp Mine.

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;
- reliance on key personnel;
- risks related to increased competition in the market for copper and related products and in the mining industry generally;
- 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;

“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. See “Description and General Development of the Business – Three Year History – Year Ended December 31, 2013 Developments – Callinan Transaction”;

“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;

“Computershare” means Computershare Investor Services Inc.;

“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 TSXV;

“Exchange” or **“TSXV”** means the TSX Venture Exchange;

“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 Resources” means Greenstone Resources L.P.;

“Greenstone Subscription Agreement” means the Subscription Agreement dated October 21, 2015 between Greenstone, Excelsior, Excelsior Arizona and Excelsior JCM pursuant to which Greenstone subscribes for a total of 23,081,362 Common Shares at a purchase price of US\$0.1733 per Common Shares for gross proceeds of US\$4,000,000, and Greenstone agrees to purchase a 2.0% gross revenue royalty on the Gunnison Project for a purchase price of US\$7,990,000 and a 2.0% gross revenue royalty on the JCM for a purchase price prices of US\$10,000;

“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 65 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 or Warrants, as applicable, 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;

“Prefeasibility Study” or **“PFS”** means the updated prefeasibility study on the Gunnison Project that is the subject of the Technical Report;

“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, Prefeasibility Study Update”, dated effective January 28, 2016 prepared by Conrad E. Huss, P.E., Ph.D.; Neil Prenn, MMSA-QPM; Thomas Drielick, P.E; Dr. Ronald J. Roman, P.E., D.Sc.; R. Douglas Bartlett, R.G.; and Michael M. Gustin, P.G., Ph.D.;

“Transfer Agent” means Computershare Investor Services Inc. at its office in Vancouver, British Columbia;

“Trust” means the James L. Sullivan Trust dated November 24, 2004;

“TSXV” or **“Exchange”** 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 or Warrants, as applicable, 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

“Warrants” means the common share purchase warrants of Excelsior, with each whole Warrant entitling the holder thereof to acquire one Common Share at a price of Cdn\$0.45 until June 27, 2016.

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
PFS	Prefeasibility Study
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

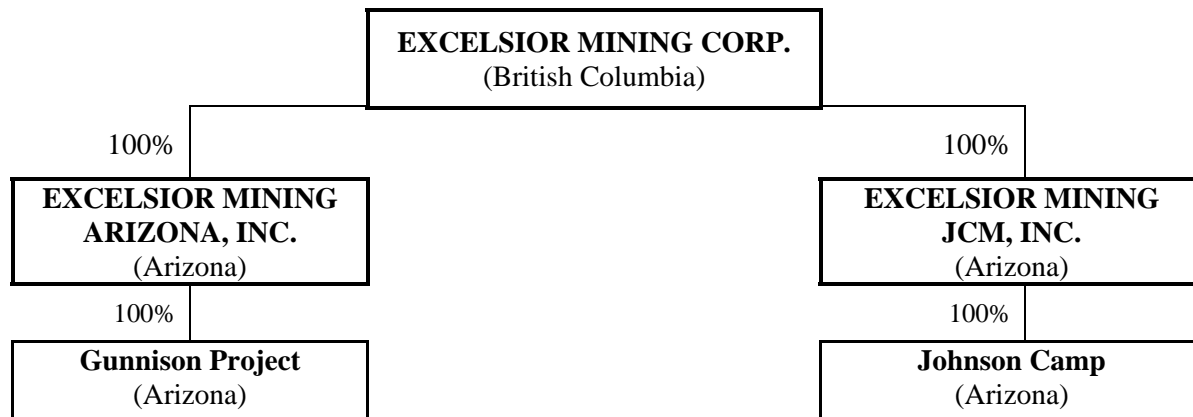
Excelsior was incorporated under the name “Excelsior Mining Corp.” pursuant to the provisions of the BCBCA on June 9, 2005 with an authorized capital of an unlimited number of common shares without par value.

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 TSXV 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, 2013 Developments

Hydrology and Metallurgical Testing and Resource Upgrade

During 2013, Excelsior announced the results from hydrological and metallurgical tests conducted on the Gunnison Project. The tests were done to validate Excelsior's 3D structural geological model and generate additional hydrological and metallurgical data for future technical reports. Excelsior also completed an upgrade to its mineral resource estimate. The results of these tests, and the mineral resource estimate upgrade, were ultimately incorporated into the 2014 Prefeasibility Study and subsequent Prefeasibility Study.

Callinan Transaction

On July 23, 2013, Excelsior announced that it had entered into the Callinan Agreement. Under the terms of the Callinan Agreement, Callinan invested Cdn\$1 million in Excelsior by way of a non-brokered private placement, and up to a further Cdn\$21 million through the purchase of a staged gross revenue royalty ("GRR") on the Gunnison Project.

Under the terms of the Callinan Agreement, Callinan purchased 6,250,000 Common Shares of Excelsior at a price of Cdn\$0.16 per Common Share for gross proceeds of Cdn\$1 million. Concurrently, Callinan acquired a 0.5% GRR on the Gunnison Project (the "**Initial GRR**") for consideration of Cdn\$2 million. Callinan has the option to invest up to an additional Cdn\$19 million in Excelsior in exchange for a further 2.5% GRR on the Gunnison Project based on development milestones (1.5%) and a construction option (1%).

The 1.5% additional GRR is staged and based upon Excelsior meeting specific development milestones leading up to the construction of a mining facility including completion of a prefeasibility study and successful raise of additional financing from other sources, completion of hydrology and metallurgy models to feasibility study level and successful administrative review of the key permits (Aquifer Protection Permit and the Underground Injection Control and Aquifer Exemption Permit). Upon the completion of each milestone, Callinan has the option to purchase an additional 0.5% GRR for Cdn\$3 million each. As of the date of this AIF, Callinan has exercised the first of these royalty options and decided not to exercise the second of these royalty options (see – Year Ended December 31, 2014 Developments – Exercise of Cdn\$3 Million Royalty Option by Callinan).

The construction option gives Callinan the right to purchase a 1% GRR for Cdn\$10 million following completion of the feasibility study, receipt of all required permits and Excelsior securing a firm commitment for 50% of the required capital required for mine construction on the Gunnison Project. One-quarter (0.25%) of the construction option will vest with each Cdn\$3 million paid by Callinan to Excelsior pursuant to the initial investment or upon the exercise of any of the royalty options.

The exercise price of the construction option may be adjusted if the feasibility study recommends the construction of a plant with capacity lower than 80 million pounds of copper per year based on an agreed upon schedule.

Year Ended December 31, 2014 Developments

Prefeasibility Study

On January 18, 2014, Excelsior announced results of the 2014 PFS a comprehensive prefeasibility study on the North Star Deposit of the Gunnison Project. The 2014 PFS was completed by M3 Engineering &

Technology Corporation (“**M3**”) of Tucson, Arizona. Subsequently the 2014 PFS was superseded by the PFS.

Bought Deal Financing

On June 6, 2014, Excelsior announced that it had entered into an agreement with Dundee Securities Ltd. (the “**Underwriter**”), pursuant to which the Underwriter purchased, on a “bought deal” basis by way of a short form prospectus, 16,000,000 units of Excelsior (the “**Units**”) at a price of Cdn\$0.25 per Unit for total gross proceeds of Cdn\$4,000,000 (the “**2014 Offering**”). The Underwriter was also granted the over-allotment option to purchase up to an additional 15% of the 2014 Offering, exercisable in whole or in part at any time up to 30 days after the closing of the Offering.

Each Unit consists of one Common Share of Excelsior and one-half of one Warrant. Each whole Warrant entitles the holder thereof to acquire one Common Share of Excelsior at a price of Cdn\$0.45 per Common Share for a period of 24 months following the closing of the Offering. The Units were offered in all provinces of Canada (except Quebec) by way of a short form prospectus.

In connection with the 2014 Offering, the Underwriter received a cash commission equal to 6.0% of the gross proceeds raised under the 2014 Offering and that number of non-transferable broker warrants equal to 6.0% of the number of Units sold. Each broker warrant is exercisable into one Common Share of Excelsior for a period of 24 months following closing of the 2014 Offering at a price of Cdn\$0.45 per Common Share.

The 2014 Offering closed on June 27, 2014. The Underwriter did not exercise the over-allotment option within thirty days of closing of the 2014 Offering.

Exercise of Cdn\$3 Million Royalty Option by Callinan

On July 29, 2014, Excelsior announced that Callinan had exercised the first royalty option under the Callinan Agreement. As a result of the exercise of the first royalty option Callinan paid Excelsior Cdn\$3.0 million and in return received a 0.5% GRR on the Gunnison Project. Combined with the Initial GRR that Callinan acquired in July 2013, Callinan now holds a 1.0% GRR on the Gunnison Project. For further details see “– Year Ended December 31, 2013 Developments – Callinan Transaction”.

Greenstone Transaction

On August 13, 2014, Excelsior announced that it had entered into an agreement with Greenstone, whereby Greenstone would purchase, by way of a treasury offering, Common Shares of Excelsior at a price of Cdn\$0.34 per common share for total gross proceeds of US\$10 million. Greenstone and the Company also entered into an Investor Rights Agreement (the “**Greenstone IR Agreement**”) pursuant to which Greenstone was granted certain rights including the right to nominate directors to Excelsior’s Board of Directors and to participate in future financing to maintain its pro-rata ownership position.

On September 5, 2014, the first tranche of the financing closed, whereby Greenstone purchased 20,580,000 Common Shares, equal to approximately 19.9% of the issued and outstanding Common Shares of Excelsior, at a price of Cdn\$0.34 per Common Share in return for gross proceeds of US\$6,393,341.64. In connection with this transaction, Mr. Michael Haworth joined the Board of Directors as the first nominee director of Greenstone.

On October 20, 2014, the second tranche of the financing closed whereby Greenstone purchased 11,889,507 Common Shares at a price of Cdn\$0.34 per Common Share for gross proceeds of

US\$3,606,658.36. In connection with the transaction, Lord Robin Renwick, Lord Renwick of Clifton, joined the Board of Directors on October 20, 2014 as the second Greenstone nominee.

Metallurgy Drill Program

On September 15, 2014, Excelsior announced that a metallurgical drill program had commenced at the Gunnison Project. The program included ten diamond-drill holes totalling 6,400 feet of diamond drilling (11,900 feet total). The samples collected were used to conduct extensive metallurgical testing, including column tests and acid consumption tests. The goal of the program was to further enhance the understanding of the leaching behaviors of the deposit and reduce uncertainties concerning rates, recoveries and costs. Specific areas targeted for investigation were sweep efficiency, copper recovery rates, acid consumption rates, and rinsing procedures and rates.

On November 5, 2014, Excelsior announced that the metallurgy drill program had been completed. A total of 23 samples were submitted for metallurgical testing to be conducted by the independent laboratory Mineral Advisory Group. The results of the metallurgical tests were used to determine copper extraction rates, acid consumption rates and rinsing procedures and rates. The results of the metallurgical testing will be used for both the permitting application process and the feasibility study for the Gunnison Project.

New Economic Impact Study

On October 7, 2014, Excelsior announced the results of a new Economic Impact Study (“EIS”) for the Gunnison Project. The EIS, completed by researchers at the L.W. Seidman Research Institute, W.P. Carey School of Business, Arizona State University, Tempe, AZ, illustrates that the Gunnison Project will generate significant positive economic benefit at both the State and County levels.

Highlights of the Gunnison Project Economic Impact Study include:

- Creation of an average of **819 jobs** annually state-wide;
 - 108 direct, on-site jobs; 711 in-direct or “secondary” jobs;
- **US\$2.94 billion** added to Arizona’s Gross State Product;
- **US\$319.9 million** in State revenue generated directly from the project;
- **US\$756.8 million** in economic activity generated in Cochise Country alone.

The numbers and dollar values quoted above are all based on Excelsior building its own acid plant and span the entire life of the Gunnison Project.

Resource Upgrade Drill Program

On October 15, 2014, Excelsior announced that a resource upgrade drill program had commenced at the Gunnison Project. The resource upgrade drill program included 13 diamond drill holes totalling approximately 16,890 feet.

Hydrological Drill Program

On October 28, 2014, Excelsior announced that a hydrological drill program had commenced at the Gunnison Project. The primary component of the hydrological program consists of 26 hydrology test wells, totalling approximately 28,000 feet. Extensive geophysical logging and long term pump tests were conducted on all holes with the objective of characterizing aquifer properties and the variations that

control the movement of fluids through the mineralized bedrock. Results will be used to construct a numerical groundwater flow and transport model to simulate the planned in-situ recovery operations, and to demonstrate hydraulic control during operations. Additional long-term aquifer testing was also conducted on previously constructed wells. Hydrological data and modeling will be used for both the permitting application process and the feasibility study for the Gunnison Project.

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 Exchange. 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 the 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 will be used to construct a numerical groundwater flow model to simulate in-situ recovery operations and to assist with permit applications. Additional long-term aquifer testing will also be conducted on previously constructed wells.

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 current 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;
- US\$1 million due on or before December 31, 2016; and
- US\$2.2 million due on or before December 31, 2017.

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.

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 Private Placement and 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.

As result of the closing of both tranches of the Private Placement, Greenstone now holds a total of 55,550,869 Common Shares, which represents approximately 40.14% of Excelsior’s issued and outstanding Common Shares. Greenstone has agreed that it will not, for a period of one year, dispose of the Common Shares it acquired pursuant to the Private Placement.

Callinan Royalty Option Update

On October 8, 2015, Excelsior provided an update with respect to Callinan Agreement between Excelsior and Callinan. Excelsior provided notice to Callinan, now a wholly-owned subsidiary of Altius Minerals Corporation (“**Altius**”), that the milestones for the second royalty option under the Callinan Agreement had been achieved. Altius, on behalf of Callinan, has provided notice that it will not be exercising the second royalty option. See “ – Year Ended December 31, 2013 Developments – Callinan Transaction” and “ – Year Ended December 31, 2014 Developments – Exercise of Cdn\$3 Million Royalty Option by Callinan”.

Developments Subsequent to December 31, 2015 and Outlook

Updated Prefeasibility Study and Permitting Process & Timeline

On February 9, 2016, Excelsior announced the results of the comprehensive 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 PFS was completed as a result of the recent acquisition of the JCM and the use of a staged production approach. The PFS was completed by M3 Engineering & Technology Corporation of Tucson, AZ. Refer to “Mineral Properties – Gunnison Project” for the results of the Prefeasibility Study.

Excelsior also provided an update on the permitting process. An Aquifer Protection Permit (“**APP**”) and Underground Injection Control Permit (“**UIC**”) 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. Excelsior is working with both the ADEQ and the EPA and expects to receive draft permits by early 2017. Subsequent to a public review period, Excelsior anticipates receiving all operating permits by mid-2017.

Outlook

The next steps for Excelsior include completing a feasibility study and completing the permitting process for the Gunnison Project.

Specifically, the results from the updated Prefeasibility Study, all the recently completed field activities, as well as the technical data previously acquired and newly collected data will be used to optimize all aspects of the Gunnison Project, including well field design and production ramp-up. The Company expects to complete the feasibility study before the end of 2016. Furthermore, the Company will assess how to best integrate the Johnson Camp Mine assets with the Gunnison Project.

Excelsior is working with both the ADEQ and the EPA and expects to receive draft permits by early 2017. Subsequent to a public review period, Excelsior anticipates receiving all operating permits by mid-2017.

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

Prior to December 15, 2015, the Company had no employees. However, as a result of the Johnson Camp Transaction, the Company had 14 employees as of December 31, 2015. 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 will be 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.

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 January 28, 2016 prepared by Conrad E. Huss, P.E., Ph.D.; Neil Prenn, MMSA-QPM; Thomas Drielick, P.E; Dr. Ronald J. Roman, P.E., D.Sc.; R. Douglas Bartlett, R.G.; and Michael M. Gustin, P.G., Ph.D. 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.

M3 Engineering & Technology Corporation ("M3") was commissioned by Excelsior to prepare an update of the 2014 PFS of the process and infrastructure design, capital cost, operating cost, and an independent Technical Report, prepared in accordance with NI 43-101 standards for reporting mineral properties, for the Gunnison Copper Project (the "**Gunnison Project**" or the "**Project**") in Cochise County, Arizona, USA. The requirement for an updated PFS was due to the new mine and capital spending plan to "stage" production into three copper cathode production capacities: 25 million lbs per year (MM lbs/yr), 75 MM lbs/yr, and 125 MM lbs/yr. The stages to ramp up production were meant to minimize capital at risk until the in situ leaching process at the Gunnison Project is better understood.

In addition, since the 2014 PFS, Excelsior purchased the neighboring Johnson Camp Mine, a copper heap leach operation located due north of the Gunnison Project wellfield on the north side of Interstate 10. The JCM has not been mining new material for the leach pads since mid-2010 but the existing SX-EW plant is capable of producing 25 MM lbs/yr with minimal upgrades, thereby satisfying the requirements for Stage 1 production.

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 MM lb/yr 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 Johnson Camp 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 preferred alternative to open pit or underground mining is In Situ Recovery ("**ISR**") of mineralization in the subsurface via a wellfield of injection and extraction wells. Copper-bearing rocks lie beneath 300 feet to 800 feet of alluvial basin fill, making open pit mining methods unattractive.

The North Star copper deposit shows significant fracturing and jointing of the host rocks resulting in broken ground that is below the water table (water saturated) 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 any lixiviant (the liquid medium used for metal extraction), 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. Patterns of screened and cased bore holes, or wells, are used to deliver the lixiviant to the ore horizon enabling it to contact the mineralization whilst passing through the aquifer. Similarly, patterns of recovery or extraction wells fitted with pumps deliver the pregnant leach solution (the lixiviant plus dissolved metals) to the surface for processing. After processing, the fluid is recycled to the wellfield to beginning the leaching cycle again. Thus, ISR takes place on a continuous closed-loop mining basis.

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 2015 dollars.

Key Data

The key results of this 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 2,160 million pounds of copper.
- The Project currently has 866 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 172.8 million short tons of inferred mineral resources (0.17% Total Copper Grade).
- The Project currently has a diluted mineral reserve of 775 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 70%.
- The average life-of-mine direct operating cost estimated to be \$0.70 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 \$1.02 per pound of copper.

- The estimated initial capital cost is \$45.9 million.
- The total life-of-operation sustaining capital cost for the Base Case is estimated to be \$731 million while the total life-of-operation sustaining capital cost for the Alternative Case is \$657 million.
- The total cost for reclamation and closure is estimated to be \$62.8 million and averages \$0.029 per pound of copper recovered.
- The economic analysis for the Base Case before taxes indicates an Internal Rate of Return (“**IRR**”) of 58% and a payback period of 3.7 years. Based on a copper price of \$2.75 per pound, the Net Present Value (“**NPV**”) before taxes is \$1,203 million at a 7.5% discount rate.
- The economic analysis for the Base Case after taxes indicates that the Project has an IRR of 46.0% with a payback period of 4.3 years. The NPV after taxes is \$829 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).

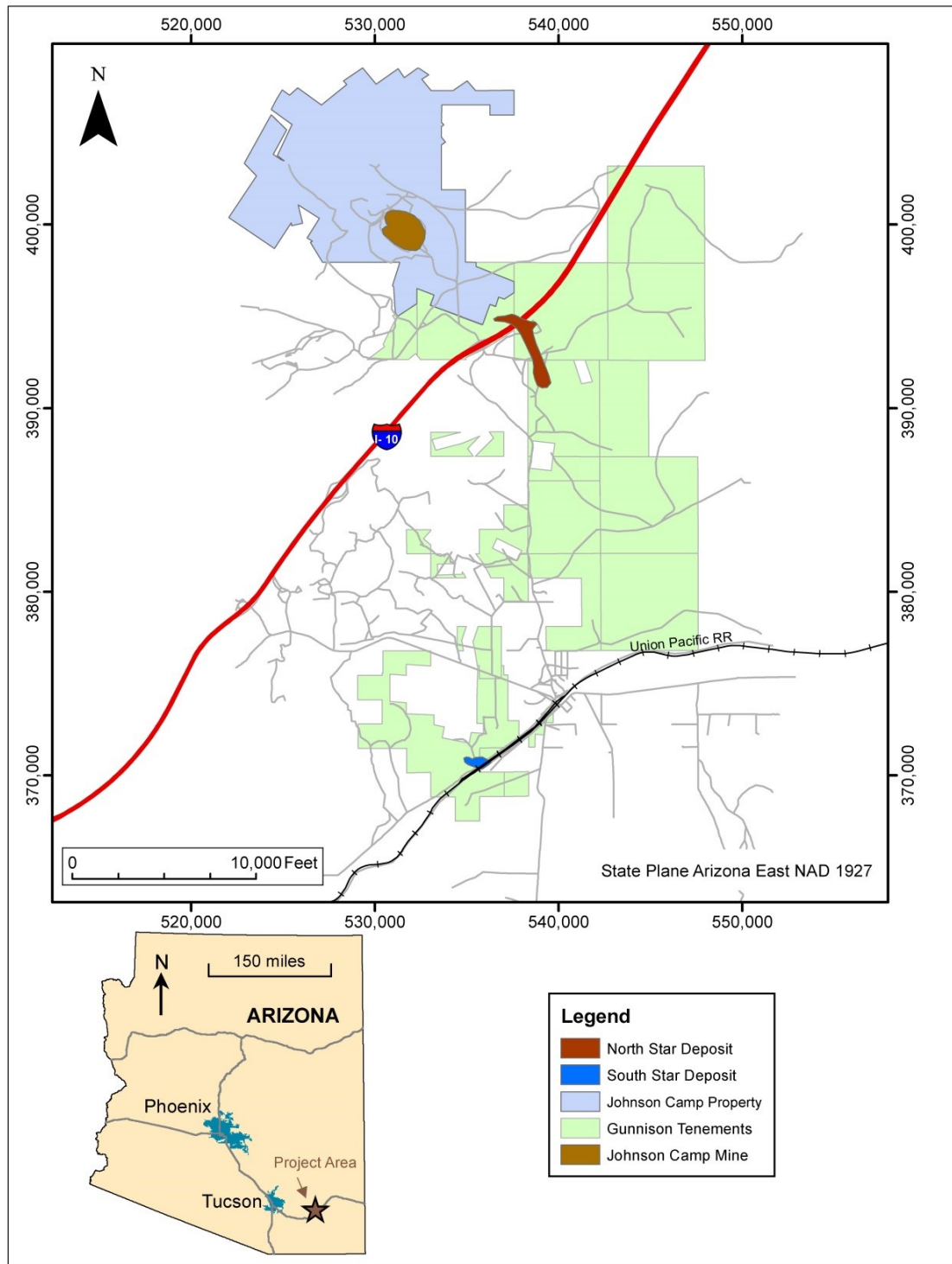


Figure 1-1: Project Location Map, North and South Star Deposits

The Project is held by Excelsior through its wholly-owned subsidiaries Excelsior Arizona and 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 (the Gunnison Project). 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 65 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 joint ventured into the northern half of the North Star deposit with Cyprus and the private owners (J. Sullivan, pers. com.). 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 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 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 addition 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 g/l 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 leach 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 ft² of fracture surface
- Incremental and cumulative recoverable copper, wt%
- Incremental and cumulative gangue acid consumption, lbs/100 ft² 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 specific to 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.

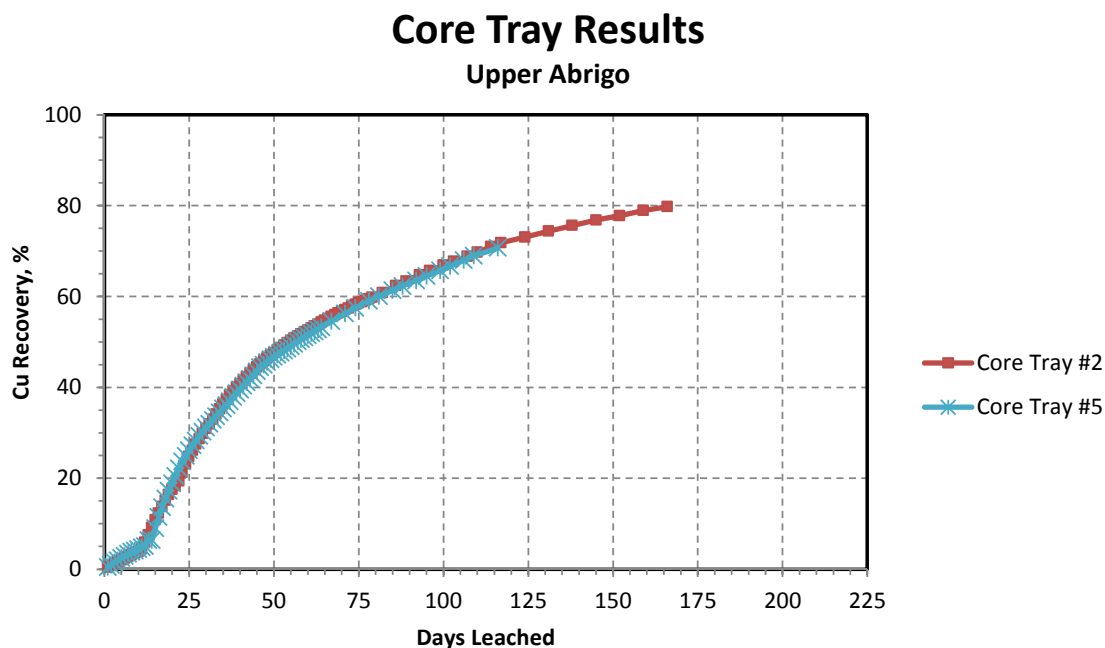


Figure 1-2: Core Tray Time vs Copper Recovery Results for Upper Abrigo Formation

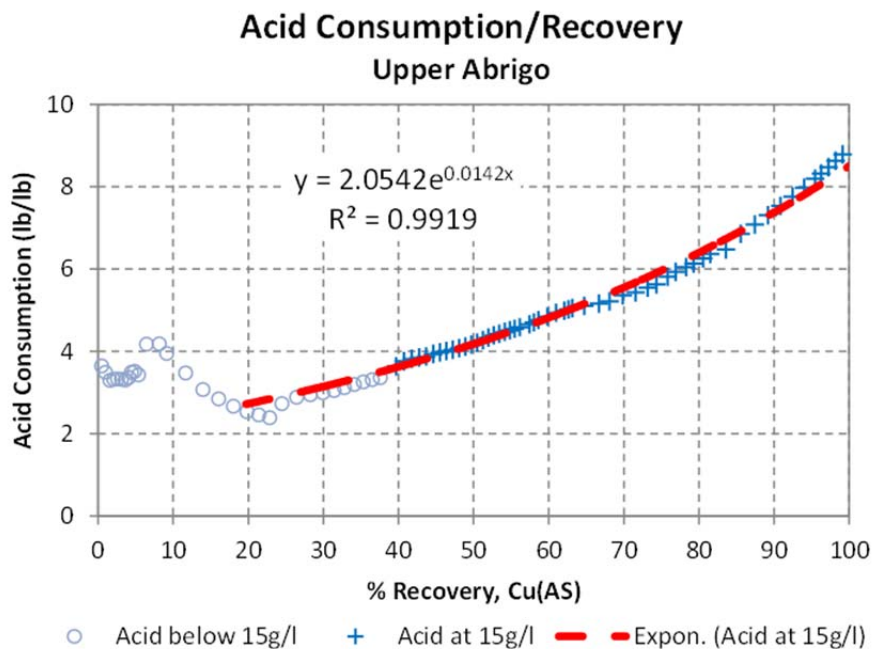


Figure 1-3: Core Tray Copper Recovery vs Acid Consumption Results for Upper Abrigo Formation

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 0-1: 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	40.2	55.8	65.9	72.8
Upper Abrigo	43.5	58.7	68.2	75.0
Middle Abrigo	42.0	57.6	67.6	74.9
Lower Abrigo	43.6	58.8	67.3	74.5
Bolsa, TQM, other*	43.6	58.7	67.2	74.4
Weighted average	41.9	57.3	67.0	74.0
Cumulative Acid Consumption (lb/lb)	Year 1	Year 2	Year 3	Year 4
Martin	5.2	6.8	8.6	10.1
Upper Abrigo	4.7	6.0	7.5	8.9
Middle Abrigo	5.1	6.9	8.6	10.2
Lower Abrigo	3.7	5.0	5.8	6.9
Bolsa, TQM, other*	4.5	4.6	4.9	5.2
Weighted average	4.8	6.4	7.9	9.3

* The Bolsa Quartzite, TQM and other minor host rocks make up less than 2% of the Probable Reserve and were not tested but are expected to perform similar to or better than the Lower Abrigo.

Mineral Resource Estimate

The North Star deposit mineral resource reported by MDA (2015) has been updated to include the results of the 23 holes drilled by Excelsior in 2014-15 for resource definition, updated geologic interpretations and to incorporate a fracture intensity model.

Table 1-2 is a summary of the oxide plus transition mineral resource tabulated at a total copper cutoff of 0.05%. Table 1-3 is a summary of the sulfide portion of the deposit at a 0.30% TCu cutoff. Measured and indicated oxide and transition mineral resources are inclusive of mineral reserves.

**Table 1-2: North Star Oxide/Transition Mineral Resource Summary
0.05% Total Copper Cutoff and Effective June 1, 2015**

Resource Category	Million Short Tons	Grade % Total Cu	Contained Copper (million pounds)
Measured	199.1	0.36	1,427
Indicated	666.9	0.26	3,525
Measured + Indicated	866.0	0.29	4,953
Inferred	172.8	0.17	576

**Table 1-3: North Star Sulfide Mineral Resource Summary
0.30% Total Copper Cutoff and Effective June 1, 2015**

Resource Category	Tons (in millions)	Grade % Total Cu	Contained Copper (pounds in millions)
Measured	1.6	0.39	12
Indicated	36.8	0.42	308
Measured + Indicated	38.4	0.42	320
Inferred	53.7	0.41	440

Mineral Reserve Estimate

The mineral resource estimate discussed 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 PFS. 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 (June 2015)

Tons	775,443,837
TCu Grade (%)	0.29
TCu Contained Copper (lbs)	4,462,569,962
Average Total Copper Recovery (%)	48.4
Recoverable Copper (lbs)	2,160,167,781
<i>*Probable reserves were defined from measured and indicated resources. Inferred resources were not converted into reserves.</i>	

The Probable mineral reserve estimate summary prepared for the PFS was created using data and input from MDA and Excelsior. It is based on MDA's resource estimate. 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.

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). 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 year from Years 1 through 3, followed by a second stage of production of 75 million pounds per year in Years 4 through 6, and followed a third stage reaching 125 million pounds per year 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 2,160 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 weak sulfuric acid 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 combined 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 gpm for Stage 1 (Years 1 through 3), 11,500 gpm for Stage 2 (Years 4 through 6), and 19,500 gpm for Stage 3 (Years 7 through 20). The process fluids are piped to and from the process plant in trunk and lateral 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 (SX) plant
- Tank Farm for handling process liquids;
- EW Tankhouse with 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

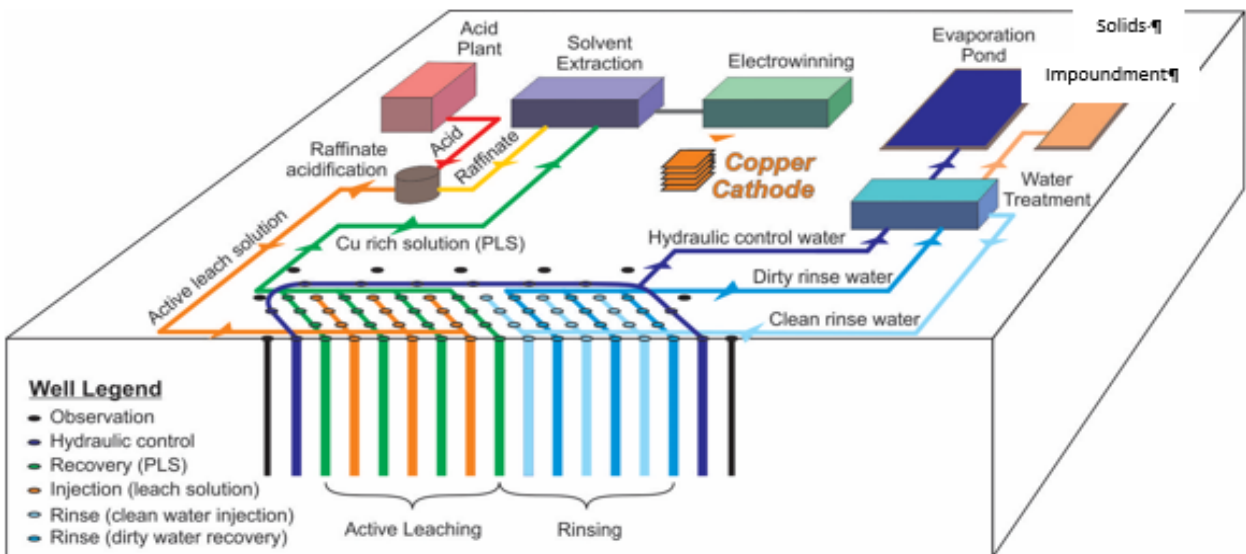


Figure 1-4: Recovery Process

Depleted portions of the mineralized zone are rinsed by injecting non-acidic 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 down, which will allow the intrinsic neutralization capacity of the formation to neutralize the remaining 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 (2004). 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-inch nominal. 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 fracking of the rocks.

Water Treatment Plant

The water treatment plant (“WTP”) is planned for construction in Year 6 and 7, when the earliest producing wells are mined out and wellfield rinsing begins. The WTP is designed to provide treatment for mine-influenced water 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 2,800 gpm for operational Years 8 through 29 with an expansion to 3,800 gpm for Years 19 through 29. Rinse water, wellfield conditioning return, and excess raffinate produced in Years 1 through 7 will be directly 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 contract at a cost of \$125 per ton of sulfuric acid delivered to site. The alternative of purchasing molten sulfur on a long term contract, also at \$125 per ton, and convert 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/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 nine 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 (SO_2), 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 MM lb/yr.

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 MM lb/yr. The electrowinning building (tankhouse) will be a pre-engineered 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 EW tankhouse to facilitate gravity drainage of fluids 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 (kV) 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. 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. The lower 300,000 gallons in the storage tank will be reserved for fire water. Fresh water for plant use will be taken from the storage tank above this reserve level for fire suppression. An additional 10,000 gallon potable water tank will be provided to service the potable water system.

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 to the feasibility stage. That being said, copper is a commonly needed commodity which is priced on the open, world markets and for which, Gunnison production will represent a very small percentage of the total world copper market. Additionally, the Project will produce high-purity copper cathodes which are suitable for use without further refining.

The PFS has selected \$2.75/lb copper as the study price for the Base Case, which is consistent with the price used in the 2014 PFS. It also agrees with the current three-year trailing (historic) average for copper price, which is \$2.89/lb.

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 (2014) 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 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 WTP 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 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 the APP from the State of Arizona, the UIC 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 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 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 Project were estimated on the basis of the prefeasibility 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

Estimates have been prepared to a Class 4 level as defined by AACE (Association for the Advancement of Cost Engineering).

Capital cost (“CAPEX”) is divided into initial and sustaining capital costs. 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.

The capital cost estimates were based on general arrangement 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 factored from capital equipment costs by Area. Long runs of field piping, wellfield piping, infrastructure, and overhead powerlines were estimated by preparing materials take-offs. Materials take-offs for civil excavation and ponds, concrete, steelwork, and architectural disciplines were estimated from general arrangement drawings. Construction labor hours and wages were adjusted for current Davis-Bacon prevailing shop wages in Arizona.

Indirect capital costs were factored from the direct field cost. These factors are listed in Section 21 of the Technical Report. Some of the larger factors include:

- Engineering Procurement, Construction Management and Commissioning were factored as 16.8% of the direct cost.
- Capital spare parts are 4.5% of plant equipment; commissioning spares are 0.5% of plant equipment.
- Vendor representative during construction and commissioning totals 2.5%.

Contingency was applied at 20% of the direct and indirect cost noted above; and an allowance for the initial stock of reagents was included as an Owners cost. The accuracy range of the estimate is +20% to -20% suitable to support a Prefeasibility Study.

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

- For the 2014 PFS, Golder 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 (“**Kinley**”), Overland Park, Kansas, revised the 2014 PFS cost estimates 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, Ypsilanti, Michigan, 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.

Initial Capital Cost

Initial capital cost for the Gunnison Project is divided into the ISR wellfield and wellfield infrastructure improvements to deliver PLS to the Johnson Camp SX-EW plant. The wellfield costs include installation, development, and equipping the injection and recovery wells, the perimeter hydraulic control well, the observation wells and the abandonment of exploration drillholes. Wellfield infrastructure includes the installation of trunk and lateral HDPE pipes, the installation of a pump station to deliver solution to Johnson Camp, PLS, raffinate, and other pipelines that extend from the Gunnison pump station, beneath Interstate 10 and up to the Johnson Camp plant, a substation by the Gunnison wellfield, and a single Header House from which piping, cabling, field instrumentation, and communications equipment are installed to control the wells. Improvements to the Johnson Camp SX-EW include the replacement of rectifiers, minor improvements to the Tank Farm and repurposing of the Johnson

Initial wellfield drilling and development cost for Years 1 through 3 were estimated using an all-in contractor drilling and completion cost of \$104.34 per foot which is based on actual costs incurred during exploration and development. Initial wellfield drilling costs for the Year -1 total \$9.4 million.

After Stage 1, drilling costs reverted to estimated costs by Kinley for Owner furnished equipment and drilling crews.

The cost of replacement of drilling and support equipment has been included in the sustaining capital costs.

Non-drilling related direct initial capital costs total \$21.2 million. The largest direct items in this category are wellfield infrastructure costs (\$7.6 million), Johnson Camp solution pond improvements including the Gunnison wellfield pump station (\$3.5 million), the replacement of the Johnson Camp Tankhouse rectifiers (\$4.1 million) and the installation of a 5000-ton sulfuric acid storage tank (\$1.9 million).

Owners costs for initial CAPEX totals \$5.3 million with the largest contribution coming from the first fill of sulfuric acid, covering three months of wellfield acid requirements (\$2.0 million). The total Stage 1 initial capital costs for the Gunnison Project are \$45.9 million, including contingency.

Sustaining Capital Cost

Sustaining capital costs include all capital expenditures that occur after production begins. For the Gunnison Project, major sustaining capital expenditures include annual wellfield drilling and infrastructure expansion, the construction in Year 3 of the 80 EW cell Gunnison SX-EW plant for Stage 2 production, the construction in Year 6 of an 80 EW cell expansion of the Gunnison SX-EW plant for Stage 3 production, the installation of the sulfuric acid plant and railroad siding/railcar unloading in Year 6 to coincide with Stage 3 production. The Water Treatment Plant 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 Water Treatment Plant 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, wellfield rinsing and abandonment, and the expansion of the Water Treatment Plant.

Table 1-6 summarizes sustaining capital expenses over the life-of-mine.

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

Stage	Copper Production	Description	Total (\$000s)
Initial Capital (Stage 1)	25 MM lb/yr	Initial Wellfield Development; JCM SX-EW improvements, Pipeline between wellfield & JCM;	\$45,885
Yrs 1 & 2	25 MM lb/yr	Wellfield expansion;	\$21,453
Stage 2 (Year 3)	75 MM lb/yr	Gunnison 50 MM lb/yr SX-EW; 80 EW cells; New PLS, Raf, Evap ponds; Gunnison ancillary bldgs.; Wellfield expansion	\$123,415
Yrs 4 & 5	75 MM lb/yr	Wellfield expansion; Gunnison Evap Pond #1	\$23,480
Stage 3 (Year 6 & 7)	125 MM lb/yr	Wellfield Expansion; Gunnison 50 MM lb/yr SX-EW; 80 EW cells; Water Treatment Plant (WTP); Clean & Recycled Water Ponds; Solids Ponds 1A & 1B; Wellfield expansion; Railroad Siding & Railcar Unloading	\$145,970
Acid Plant (Years 5 & 6)		Sulfuric Acid Plant, Molten Sulfur Handling, Cogen Plant; Boiler Water Treatment (Optional)	\$81,246
Yrs 7 thru 29	125 MM lb/yr thru Year 20;	Wellfield expansion, wellfield rinsing; well abandonment, Gunnison Evap Pond #2; Solids Pond 2A & 2B, Solids Pond 3; WTP expansion	\$335,614
		Total Initial & Sustaining Capital Cost	\$777,064

Operating Cost

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	0.033	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	0.554	41,502	0.554	26,006	0.207
Maintenance	1,046	0.042	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	0.659	46,711	0.623	33,164	0.265

SX-EW Operating Cost

The operating cost for the SX-EW facility includes the Johnson Camp and Gunnison SX-EW plants, only. The operating costs vary by Stage from approximately \$0.34/lb Cu in Stage 1 to \$0.26/lb in Stage 2, to \$0.22/lb in Stage 3. The decrease in plant operating cost with increasing copper production is largely due to the relatively small additions of labor with increasing plant output. The SX-EW operating costs are summarized in Table 1-8 below.

General & Administrative costs (“G&A”) are a flat \$6.4 million per year (\$0.070 per lb copper) for most of the mine life. Of that total \$3.6 million covers G&A labor and fringes.

The Water Treatment Plant operation is related to rinsing operations, not directly to copper production. Most of the water must be treated later in the mine life and after copper leaching has been completed. The total operating cost of water treatment is 138.2 million (\$0.064 per lb copper) over the life-of-mine.

Table 1-8: Summary SX-EW Operating Cost (\$000)

Cathode Copper Produced	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	\$1,749	\$0.070	\$3,325	\$0.044	\$3,871	\$0.031
Reagents	\$4,138	\$0.166	\$9,661	\$0.129	\$14,590	\$0.116
Electric Power	\$1,009	\$0.040	\$3,031	\$0.040	\$5,072	\$0.040
Maintenance Parts & Services ¹	\$1,265	\$0.051	\$2,816	\$0.038	\$3,503	\$0.028

Operating Supplies & Services	\$197	\$0.008	\$514	\$0.007	\$797	\$0.006
Total Operating Cost	\$8,359	\$0.335	\$19,346	\$0.258	\$27,833	\$0.222
¹ Includes maintenance labor costs.						

Sulfuric Acid Plant

The annual operating costs for the sulfuric acid plant, power plant, and associated facilities is \$27.4 million or \$46.45 per ton sulfuric acid. The acid plant operating costs are summarized in Table below.

Table 1-9: Acid Plant Operating Costs

Annual Sulfuric Acid Production		589,475	tons / year
Annual Copper Production		85,650,000	lbs. / year
Category	Annual Cost (\$000)	Cost \$ / ton Acid	Cost \$ / lb. Copper
Labor	1,803	3.06	\$0.02
Reagents	24,090	40.87	\$0.28
Fuels (Propane)	631	1.07	\$0.01
Power (Credit)	(7,032)	(11.93)	(\$0.08)
Maintenance	4,486	7.61	\$0.05
Operating Supplies	3,403	5.77	\$0.04
Total	27,381	46.45	\$0.32

Reclamation and Closure Cost

The reclamation and closure cost of the Project is estimated at \$62.8 million. Table 1-10 summarizes the reclamation and closure costs by Area. The reclamation and closure cost includes dismantling all buildings and equipment and removing from the site. Above ground concrete will be demolished and removed from site or buried on site. Below ground concrete will remain and covered. Solution ponds will be drained and the top lining removed to inspect the bottom lining for leaks. If there is evidence of leaks, the bottom lining must be removed, the soil at the leak tested for contamination, and any required remediation performed before the pond can be covered. If no evidence of leaks is found, the top lining can be folded over in place and the pond covered. The ponds must be filled to form a mound to prevent storm water from collecting over the pond and migrating into the pond. The plant site will be regarded to drain surface water. Sludge ponds will need to be closed in place without draining with a soil cover on accumulated sludge. Roads will be left in place; however, asphalt will be removed. The plant site and solution and evaporation ponds will be hydro-seeded for plant growth.

Table 1-10: Summary of Reclamation and Closure Costs

Area	Reclamation & Closure Costs (\$000s)
JCM Buildings, Ponds, Waste Dump & Heap	\$ 5,084
Well Abandonment	\$ 20,647
Gunnison Plant, Ponds	\$ 24,647
Bond Fees	\$ 12,421
Total	\$ 62,798

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.

The economic analysis for the Base Case before taxes indicates an IRR of 58% and a payback period of 3.7 years. The pre-tax NPV is \$1,203 million at a 7.5% discount rate.

The economic analysis for the Base Case after taxes indicates that the Project has an IRR of 46% with a payback period of 4.3 years. The after-tax NPV taxes is \$829.1 million at a 7.5% discount rate.

The payback period is a little misleading since it includes the accumulation of initial capital to start the mine using the existing Johnson Camp SX-EW plant and the sustaining capital from successive stages to build 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 compares the financial indicators for the Base Case and the Alternate Case.

Table 1-11: Financial Indicators

	Base Case	Alternate Case
Years of Commercial Production ²⁶	24	24
Total Copper Produced (million lbs)	2,160	2,160
LOM Copper Price (avg \$/lb)*	\$2.75	\$2.75
Initial Capital Costs (million \$)	\$45.9	\$45.9
Sustaining Capital Costs (million \$)	\$731.2	\$657.0
Payback of Capital (pre-tax/post-tax)	3.7/4.3	3.8/4.2
Internal Rate of Return (pre-tax/post-tax)	58.1% / 46.0%	58.3% / 46.3%
Life of Mine Direct Operating Cost (\$/pound Cu Recovered)	\$0.70	\$1.02
Life of Mine Total Production Cost (\$/pound Cu Recovered)	\$0.89	\$1.20
Pre-tax NPV at 7.5% discount rate (million \$)	\$1,203.0	\$1,002.4
Post-tax NPV at 7.5% discount rate (million \$)	\$829.1	\$705.9

*Price provided by Excelsior

Table 1-12 compares the Base Case project financial indicators with the financial indicators when other different variables are applied. By comparing the results it can be seen that fluctuation in the copper price has the most dramatic impact on Project economics. 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	\$ 829.1	46.0%	4.3
20%	\$ 1,142.8	60.6%	3.6
10%	\$ 986.0	53.2%	3.8
-10%	\$ 670.5	38.7%	6.5
-20%	\$ 511.8	31.6%	7.1
Operating Cost			
	NPV @ 7.5%	IRR%	Payback (yrs)
Base Case	\$ 829.1	46.0%	4.3
20%	\$ 753.5	41.8%	5.0
10%	\$ 791.3	43.9%	4.6
-10%	\$ 865.8	48.0%	4.0
-20%	\$ 902.5	50.1%	3.9
Initial Capital			
	NPV @ 7.5%	IRR%	Payback (yrs)
Base Case	\$ 829.1	46.0%	4.3
20%	\$ 824.0	43.6%	4.4
10%	\$ 826.5	44.7%	4.3
-10%	\$ 831.6	47.3%	4.2
-20%	\$ 834.0	48.8%	4.1

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	\$ 705.9	46.3%	4.2
20%	\$ 1,020.7	61.4%	3.6
10%	\$ 863.5	53.9%	3.8
-10%	\$ 547.9	38.6%	4.8
-20%	\$ 388.3	30.8%	6.6
Operating Cost			
	NPV @ 7.5%	IRR %	Payback (yrs)
Base Case	\$ 705.9	46.3%	4.2
20%	\$ 601.8	41.5%	4.5
10%	\$ 653.8	43.9%	4.3
-10%	\$ 757.6	48.7%	4.0
-20%	\$ 809.0	51.0%	3.9
Initial Capital			
	NPV @ 7.5%	IRR %	Payback (yrs)
Base Case	\$ 705.9	46.3%	4.2
20%	\$ 700.9	43.8%	4.3
10%	\$ 703.4	45.0%	4.2
-10%	\$ 708.4	47.7%	4.1
-20%	\$ 710.9	49.3%	4.1

Adjacent Properties

The Gunnison Project lies within the porphyry copper metallogenic province of the southwestern United States. Since the 2014 PFS, Excelsior expanded its mineral holdings by acquiring Johnson Camp Mine which includes the Burro Pit, the Copper Chief pit, and numerous sulfide exploration targets. The property also contains potential for industrial minerals including chemical-grade calcium carbonate, aggregate, limestone for cement and/or lime production.

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 2,160 million pounds of cathode copper over a mine life of 24 years.

The base-case economic analysis indicates an after-tax NPV of \$829.1 million at a 7.5% discount rate with a projected IRR at 46.0%. 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 \$705.9 million with projected IRR of 46.3%. Payback is anticipated in 4.3 years of production for the acid plant case and in 4.2 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 MM lb/yr for Years 1 through 3, 75 MM lb/yr for Years 4 through 6 and a full production design copper production rate of 125 MM lb/yr for Years 7 through 20, decreasing in the final 4 years of the mine life. Direct operating costs are estimated at \$0.70/lb of copper in the acid plant case and \$1.02/lb of copper using purchased acid. Initial capital costs are estimated at \$45.9 million. Sustaining capital costs of \$731.2 million are projected in the sulfuric acid plant case and \$657.0 million using purchased sulfuric acid.

Project Risks

The following Project-specific risks have been identified along with the measures that Excelsior envisages to mitigate the risk.

1. **Copper recovery.** The ISR process for recovering copper from oxidized mineralization in fractured bedrock has not been tested at this site. Metallurgical testing has established that mineralization is amenable to copper leaching and recovery. Laboratory testing results have been used to approximate results of ISR in bedrock, they may not reflect eventual performance. Potential deviations include:
 - Recovery rates that are slower than predicted
 - Hydrological conditions at depth resulting in reduced copper recoveries
 - Short-circuiting of leaching solutions along major fractures resulting in reduced “sweep efficiency”
 - Reduced acid strength due to neutralization by gangue (non-copper) minerals
 - Low fracture density resulting in poor contact of leach solution with copper oxides

Mitigation. Many of these risks can be addressed by developing operational strategies during both the development and operation of the wellfield. This will include producing detailed local geological/structural and hydrological models while the wellfield is being emplaced to further aid

in placement of final well locations. Operational strategies will involve predetermining flowrates and acid strengths based on these models for initiating the wellfield in order to maximize quick breakthrough and economic PLS grades. The average copper recovery estimate of 48 percent of total copper has been reduced from metallurgical testing maximums to address these uncertainties.

2. **Reagent consumption/cost.** This Project relies on reagents, especially large volumes of sulfuric acid to accomplish the mobilization of copper from the subsurface and to produce a saleable product and lime to neutralize excess solutions in the water treatment plant. Increases in the price of reagents would have a negative impact on the economics of the Project.

Mitigation. The Project has two options for obtaining sulfuric acid: purchasing liquid acid and making acid from molten sulfur. Since sulfuric acid is used extensively in the production of copper worldwide, a significant increase in the price of sulfuric acid or sulfur would likely be accompanied by an increase the price of copper, partially compensating for higher reagent costs, mitigating the impact.

3. **Well design and spacing.** The well design consists of a borehole cased through the alluvial material into the mineralized bedrock with an open borehole through the productive portion of the mineralized material. Problems may arise in the construction of these wells that would increase drilling costs that are part of initial and sustaining capital costs. Borehole instability could require perforated casing to keep the borehole open, potentially resulting in a larger borehole and additional costs for the materials, labor, and drilling.

Borehole spacing is presently on 100-foot centers with a 50-foot offset resulting in 71 feet between an injection well and its nearest recovery wells. Drilling costs per pound of copper produced would increase, if this spacing proves to be too wide.

Mitigation. The proposed well design can be tested in the next phase of investigation to evaluate the adequacy of construction method and borehole stability to minimize potential problems during implementation and reduce uncertainty concerning well field construction costs. Aquifer testing in the pre-production stage should provide additional data with which to evaluate the optimum borehole spacing.

4. **Gypsum formation/rinsing.** Mineralized areas with significant carbonate content may reach saturation and cause precipitation of calcium sulfate (gypsum) in the formation. Precipitates forming in fractures could reduce flow rates in the formation, retarding the leaching of copper oxides with a consequent reduction in the rate of copper recovery. Gypsum precipitates in the formation might also reduce the rinsing rate, causing an increase in water treatment costs.

Mitigation. The Box tests or fracture simulation tests clearly indicated that the precipitation of gypsum did not alter flow rates however, noting the possible impact in flow reduction and rinsing volume requirements should provide greater confidence in the copper recovery and rinsing projections. Leaching schedules have already been lengthened, pumping rates and porosity reduced through time in this prefeasibility study to compensate for uncertainties associated with these types of issues.

5. **Permitting difficulties.** Permitting for mining projects in the western US and Arizona in particular has been an arduous and unpredictable task in the recent past. Public opposition can be mobilized from outside of the local community by groups that tend to obstruct mining projects. Permitting the sulfuric acid plant may be more difficult in the future due to its air quality

implications when compared to the well field/plant issues that are already mitigated somewhat by the presence of SX-EW operations in the immediate vicinity.

Mitigation. Permitting difficulties can be mitigated by developing support within the local community, identifying and fixing potential areas of contention before they arise, getting support from community leaders in advance of applying for permits. Another measure is developing realistic permitting schedules that incorporate time to deal with challenges which also helps minimize deleterious consequences.

Project Opportunities

Several opportunities have been identified which could enhance the viability and economic attractiveness of the Project. Many of these opportunities may be realized by removal of risk and uncertainty that are present at the prefeasibility level.

1. **Copper recoveries.** The anticipated copper recovery of 48 percent of total copper is an estimate based on the best interpretation of existing test work. This copper recovery could be exceeded in practice. Recovery increases could improve the rate of recovery as well as increase total copper recovered. Improvements in the rate of recovery would mean lower flows from the wellfield for the same level of copper production, lowering operational costs, or that the increased grade could result in higher copper production (revenue) for the same operating cost. Improvements in total copper recovered have the obvious benefit of increasing total revenue during the life of the mine.
2. **Increased copper price.** The current financial analysis is based on a copper price of \$2.75 per pound. This price is higher than present copper prices, but lower than those experienced over the past four years, which average higher than \$3.00. Global demand increases for copper have the potential to drive copper prices higher, thereby increasing the economic (revenue) outlook for the Project.
3. **Additional resources.** Section 14 of the Technical Report reports 172.8 million tons of inferred mineral resources at an average grade of 0.17% total copper. It is uncertain if further exploration will result in this mineralization being delineated as an indicated or measured mineral resource. However, if these inferred mineral resources can be converted to the measured or indicated categories they have the potential to increase the mineral reserve and improve the economic outlook of the Project.
4. **Well Field Optimization.** No effort has been made to optimize well spacing for the Project. Increasing the spacing between wells would result in fewer wells and lower initial and sustaining capital costs for the Project. Operator experience in over the life of operation also has the potential to also increase well spacing distances and reduce capital costs.
5. **Reduced Capital Costs.** Several modifications to the Stage 1 initial capital cost estimate have been reviewed. The JCM plant is essentially ready to operate at the nameplate capacity of 25 MM lbs/yr. Wellfield components (e.g., wells, tanks, pipelines, power) are necessary to conduct ISR at the Gunnison site. However, there are a few items included in the Stage 1 CAPEX that look forward to expansion to Stages 2 and 3 or are intended to ensure reliable operations. These items include the following.
 - Installing only one tunnel casing under Interstate 10 for piping between Gunnison and JCM instead of installing two tunnels and pre-stringing all of the pipe segments required under the freeway at the beginning of the project.

- Eliminating the segmentation of JCM's PLS Pond No. 3 to handle clean water, supplemental raffinate, and PLS receiving. Clean water can be distributed from the existing JCM Process/Fire Water Tank and demand for high acid-raffinate is not anticipated until Stage 2 has been constructed, eliminating the need for the JCM Supplemental Raffinate pond. PLS can be sent directly to the JCM PLS (formerly ILS Pond) or the entire existing PLS Pond No. 3 can be used for PLS handling. These changes also eliminate several pumps, tanks, and pipelines.
- Eliminating replacement of the JCM rectifiers. Existing rectifiers are serviceable, but are not expected to last through the life of the operation. The CAPEX for Stage 1 includes replacement of the rectifiers with new units that are expected to serve the entire operating life.
- The aggregate CAPEX savings for the above modifications is \$12.5 million, lowering the initial CAPEX requirement to \$33.4 million.

Recommendations

Based on the results of this Prefeasibility Study, it is recommended that Excelsior proceed with the Project and conduct the technical work necessary to complete a feasibility study. The following recommendations are considered to be appropriate steps to advance the design, engineering, and permitting to the feasibility level.

Wellfield Recommendations

A detailed monthly production schedule should be compiled for the first 3 years of production using the detailed models described below. This will help predict expected cash flows that will help determine appropriate working capital levels.

As part of the production schedule the initial starting wellfield area must be determined based on a number of economic criteria including but not limited to CuAS grades, thickness of the ore, fracture intensity, acid consumption and hydrological characteristics. Detailed hydrological modelling and simulations must be conducted on the initial wellfield to predetermine the expected conditions of the wellfield. In addition, detailed geochemical modelling of the initial wellfield needs to be conducted in order to optimize Cu recovery and ensure a quick start for Cu production.

Wellfield development risks can be addressed by developing operational strategies during both the development and operation of the wellfield. This will include producing detailed local geological/structural and hydrological models while the wellfield is being emplaced to further aid in placement of final well locations. Operational strategies will involve predetermining flowrates and acid strengths based on these models for initiating the wellfield in order to maximize quick breakthrough and economic PLS grades. A certain amount of gypsum may form during leaching and this has been accounted for in the production model; however, consideration should be given to laboratory test work designed to limit or reduce the amount of potential gypsum formation. This could involve alternative acids and/or lixiviate additives during leaching or post leach rinsing, a pre-leach treatment or using membrane technology to treat raffinate that is highly efficient at excluding divalent cations (Ca⁺⁺).

Process Recommendations

The Stage 1 SX-EW plant is a fully functional plant that has been operated and is presently in care and maintenance and does not require additional work for the feasibility evaluation. However, additional work is required to bring the wellfield and supporting systems up to feasibility-level design. The work needs to focus on the solution transfer systems that bring solutions to the plant and return them to the wellfield for

leaching operations. Feasibility design will focus on tanks, ponds, pumps, and piping systems necessary to efficiently move solutions between the JCM plant and the Gunnison wellfield. Additional work will also include advancing the engineering on electrical supply, communications, and header house design.

An opportunity identified in Section 25.3 of the Technical Report is the possibility of expanding the JCM plant to increase its copper production capacity. A plant expansion design is recommended so that capital and operating costs can be estimated and integrated into the financial model to evaluate its impact on net revenue and net present value. Additional evaluation is recommended to identify which aspects of the potential expansion would be best implemented prior to restarting the JCM plant to mitigate disruptions to production.

Plant design and engineering may be necessary to keep up with changes in permitting considerations, production goals, or in response to findings of proposed metallurgical testing. Details of the piping, controls, and containment for the wellfield collection and distribution system need to be worked out.

Water Treatment

Additional work on the water treatment process is not an immediate concern because construction of the WTP is not expected until formation rinsing is fully implemented. At that point, the composition and character of WTP influent can be used as the basis for a design and sizing of the water treatment process. The present level of water treatment investigation is sufficient to establish that water treatment processes are available to achieve the goal of recycling rinse water and that the processes are economically viable.

Estimates of the composition of water to be treated are sufficient to continue evaluation of treatment processes. Evaluation of water treatment technologies and strategies is recommended during the feasibility study. Water treatment technology for mine-influenced water is advancing at a rapid pace. Small improvements in water treatment costs and reductions in volumes of waste liquids and solids produced can have a significant economic impact with respect to the large volumes of rinse water that will need to be treated.

Permitting

An Arizona APP issued by the ADEQ and a Class III UIC permit issued by the USEPA are the most significant permits that must be obtained for the Stage 1 Gunnison ISR operation. Applications for both of these permits have been submitted to the respective agencies. Ongoing work will be required responding to agency requests for additional information, meetings with agency personnel, and modifications to the project in response to agency requests.

Budget for Additional Work

Excelsior has proposed a list and budget for additional technical work that will support the upcoming feasibility study. The feasibility study is scheduled to commence in the second quarter of 2016 and will conclude in the first quarter of 2017. Table 1-14 below defines the scope of the technical activities.

Table 1-14: Feasibility Budget for the Gunnison Project

Detail	Cost US\$
Wellfield Design & Schedule	
Production Schedule	-
Wellfield Design	25,000
Wellfield Installation	25,000
Wellfield Infrastructure and piping	136,930
Wellfield Consultant	51,000
Feasibility Study	
SX-EW	41,650
Ponds	76,380
Water Treatment Facility	37,840
Acid Plant and Acid Handling	24,200
Infrastructure (Power, Railway)	33,110
Reclamation / Closure	15,525
Operating and Capital Estimates	57,030
Financial Modeling	8,100
Project Management and Reporting	132,341
Total	664,106

Other Assets

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

RISK FACTORS

An investment in the securities of the Company may be regarded as highly speculative due to the nature of the Company's business and Company's stage of development. The following risk factors, as well as risks currently unknown to the Company could materially affect the Company's future results and could cause them to differ materially from those described in forward-looking information relating to the Company. Investors should give careful consideration to all of the information contained in this AIF and, in particular, to the following risk factors:

Risks Relating 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: completing a feasibility study, 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 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.

Mineral resource and mineral reserve calculations are only estimates.

Any figures presented for mineral resources and mineral reserves in this AIF, the documents incorporated by reference herein 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 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 and exploration 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 Excelsior's 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. 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.

Excelsior has no history of mining operations and to date has generated no revenue from operations. As such, Excelsior is 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 is no assurance that it will successfully produce copper, generate revenue, operate profitably or provide a return on investment in the future. Other factors mentioned in this AIF may also prevent Excelsior from successfully operating a mine.

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. 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 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 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 are significant risks associated with these mining operations. Excelsior's mining operations are 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 materials and equipment including 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 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.

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.

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 Executive Vice President, 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.

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 (as more particularly described under "Directors and Officers – Conflicts of Interest"). 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.

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.

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. See "Cautionary Note to U.S. Investors".

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

The unprecedented events in global financial markets in the past several years 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 of the current financial market turmoil include 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.

Risks Relating to Excelsior's Common Shares

Excelsior's securities are subject to price volatility.

In recent years, the securities markets in the United States and Canada have experienced a high level of price and volume volatility, and the market prices of securities of many companies have experienced wide fluctuations that have not been necessarily related to the operating performance, underlying asset values or prospects of such companies such as, the extent of analyst coverage available to investors concerning the business of the Company may be limited if investment banks with research capabilities do not follow Excelsior's securities; lessening in trading volume and general market interest in Excelsior's securities. There can be no assurance that fluctuations in Excelsior's share price will not occur. It may be anticipated that any quoted market for the Common Shares will be subject to market trends generally, notwithstanding any potential success of the Company in creating revenues, cash flows or earnings. The value of Common Shares may be affected by such volatility. A substantial decline in the price of the Common Shares of Excelsior that persists for a significant period of time could cause Excelsior's Common Shares to be delisted from an exchange, further reducing market liquidity.

Securities class-action litigation often has been brought against companies following periods of volatility in the market price of their securities. Excelsior may in the future be the target of similar litigation.

Securities litigation could result in substantial costs and damages and divert management's attention and resources.

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

Excelsior believes that, pursuant to Section 7874 of 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 and Warrants would have materially different implications for Non-U.S. Holders.

In general, a Non-U.S. Holder of Common Shares or Warrants 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 or Warrants 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 or Warrants; 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 or Warrant 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 or Warrants 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.

Future sales or issuances of equity securities could decrease the value of any existing Common Shares, dilute investors' voting power and reduce Excelsior's earnings per share.

Excelsior may sell additional equity securities in subsequent offerings and may issue additional equity securities to finance its operations, exploration, development, acquisitions or other projects. Excelsior cannot predict the size of future sales and issuances of equity securities or the effect, if any, that future sales and issuances of 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 Excelsior's earnings per share. A decline in the market prices of Excelsior's securities could Excelsior's ability to raise additional capital through the sale of securities should Excelsior desire to do so.

Future sales by existing shareholders could cause Excelsior's share price to fall.

Future sales of Common Shares by Greenstone or other shareholders could decrease the value of the Common Shares. Excelsior cannot predict the size of future sales by Greenstone or other shareholders, or the effect, if any, that such sales will have on the market price of the Common Shares. Sales of a substantial number of Common Shares, or the perception that such sales could occur, may adversely affect prevailing market prices for the Common Shares.

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, 138,403,924 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 TSXV 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 most recently completed financial year:

	<u>High (Cdn\$)</u>	<u>Low (Cdn\$)</u>	<u>Volume</u>
January 2015	0.265	0.195	2,006,732
February 2015	0.26	0.19	1,080,208
March 2015	0.25	0.20	2,558,126
April 2015	0.29	0.21	2,710,191
May 2015	0.295	0.25	2,091,949
June 2015	0.39	0.245	3,123,763
July 2015	0.39	0.25	2,610,532
August 2015	0.30	0.215	1,072,895
September 2015	0.25	0.215	1,475,184
October 2015	0.27	0.22	1,116,262
November 2015	0.26	0.205	670,275
December 2015	0.235	0.20	719,217

Prior Sales

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

<u>Date</u>	<u>Description</u>	Number of Securities	Price per Share / Exercise Price (\$)
July 3, 2015	Common Shares issued pursuant to the exercise of stock options	450,000	Cdn\$0.25
July 9, 2015	Common Shares issued pursuant to the exercise of stock options	71,000	Cdn\$0.265
November 30, 2015	Common Shares issued pursuant to a non-brokered private placement	8,655,510	\$0.1733
December 14, 2015	Common Shares issued pursuant to a non-brokered private placement	14,425,852	\$0.1733

ESCROWED SECURITIES AND SECURITIES SUBJECT TO CONTRACTUAL RESTRICTION ON TRANSFER

As at December 31, 2015, Excelsior has no escrowed securities or securities subject to contractual restriction on transfer except as set out in the table below:

Designation of class	Number of securities held in escrow or that are subject to a contractual restriction on transfer	Percentage of class
Common	23,081,362 ⁽¹⁾⁽²⁾	16.68%

(1) These Common Shares are registered in the name of Greenstone.

(2) Pursuant to the terms of the Greenstone Subscription Agreement, while Greenstone agrees that it will not dispose of any of the 23,081,362 Common Shares for a period of 12 months following the Subsequent Closing Date (as defined in the Greenstone Subscription Agreement), being December 14, 2016.

DIRECTORS AND OFFICERS

The names and provinces or states and countries of residence of the directors and officers of Excelsior as at December 31, 2015, 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	2,660,666

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⁾
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
Colin Kinley ⁽³⁾⁽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 ⁽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.	October 20, 2014	Nil
Roland Goodgame Executive Vice President 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	1,317,182

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⁾
Carlo Valente Chief Financial Officer British Columbia, Canada	Executive Vice President, King & Bay West Management Corp. since March 2012; Managing Director, PricewaterhouseCoopers LLP from June 6, 2006 to February 2012.	December 1, 2014	20,000
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	Nil
Sheila Paine Corporate Secretary British Columbia, Canada	Corporate Secretary of King & Bay Management Corp. since December 2009.	May 17, 2010	3,000

(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 Warrants or 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 affiliate Greenstone, is the beneficial owner of 55,550,869 Common Shares representing approximately 40.14% 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, 8,917,447 Common Shares of Excelsior representing 6.44% 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.

Jay Sujir, a director of Excelsior, is a director of Rio Silver Inc. (formerly Escape Gold Inc. formerly Escape Group Inc.) which has been subject to cease-trade orders in British Columbia and Alberta for extended periods of time for failure to file financial statements. Mr. Sujir had no association with the company whatsoever at the time the financial statements became overdue or when the cease trade orders were made, and he became a director solely to assist with the resurrection of Rio Silver.

Mr. Sujir was also 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.

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 or Greenstone.

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 affiliate Greenstone, is the beneficial owner of 55,550,869 Common Shares representing approximately 40.14% 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, 2014 Developments – Greenstone Transaction" and "Description and General Development of the Business – Three Year History – Year Ended December 31, 2015 Developments – Greenstone Financing".

TRANSFER AGENT AND REGISTRAR

Excelsior's registrar and transfer agent is Computershare Investor Services Inc. with its office located at 3rd Floor, 510 Burrard Street, Vancouver, British Columbia, V6C 3B9.

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” and “Description and General Development of the Business – Three Year History – Year Ended December 31, 2013 Developments – Callinan Transaction”.
- (d) Greenstone IR Agreement as described in this AIF under “Glossary” and “Description and General Development of the Business – Three Year History – Year Ended December 31, 2014 Developments – Greenstone Transaction”.
- (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”.

INTEREST OF EXPERTS

The disclosure with respect to the Gunnison Project contained in this AIF is based on the Technical Report jointly prepared by Conrad E. Huss, P.E., Ph.D of M3 Engineering & Technology Corporation (“**M3**”); Thomas Drielick, P.E. of M3; Dr. Ronald J. Roman, P.E., D.Sc. of Leach Inc.; Neil Prens, MMSA-QPM of MDA; Michael M. Gustin, P.G., Ph.D. of MDA; and R. Douglas Bartlett, R.G. of Clear Creek Associates., each a qualified person as defined in NI 43-101. Each of Messrs. Huss, Drielick, Roman, Prens, Gustin and Bartlett 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 Rules of Professional Conduct of the Institute of 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, 2015 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 Colin Kinley, Michael Haworth and Jay Sujir. As defined in NI 52-110, Messrs. Kinley and Sujir considered "independent" and are "financially literate". Mr. Haworth is "financially literate"; however, as a nominee of Greenstone 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. Kinley spent 26 years as an executive for Layne Christensen Company specializing in engineered drilling and resource development projects and for the past five years formed his own specialized exploration group. Mr. Kinley is currently the CEO of Manx Energy and independently developing 140,000 acres of heavy oil in Canada; a director and senior advisor of Adira Energy Ltd. (ADL: TSX-V) developing oil offshore in Israel; a founder and director of Eco Atlantic Oil and Gas (EOG: TSX-V) exploring for oil offshore Namibia; and is the President and CEO of Kinley Exploration LLP.

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.

Audit Committee Oversight

During the most recently completed financial year, Excelsior's Board of Directors has not failed to adopt a recommendation of the Audit Committee to nominate or compensate an external auditor.

Reliance on Certain Exemptions

During the most recently completed financial year, Excelsior has not relied on the exemptions contained in section 2.4 or under part 8 of NI 52-110. Section 2.4 provides an exemption from the requirement that the audit committee must pre-approve all non-audit services to be provided by the auditor, where the total amount of fees related to the non-audit services are not expected to exceed 5% of the total fees payable to the auditor in the fiscal year in which the non-audit services were provided. Part 8 permits a company to apply to a securities regulatory authority for an exemption from the requirements of NI 52-110, in whole or in part.

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, 2015 and December 31, 2014, 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, 2015 and December 31, 2014 these fees related to Canadian and US tax compliance services, general tax consultations on matters related to Federal, Provincial, Payroll, Sales and US taxes and for December 31, 2015 with respect to tax structuring advice with respect to the Johnson Camp acquisition and concurrent financing.

“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, 2015 and December 31, 2014, by category, are as follows:

Year Ended	Audit Fees	Audit Related Fees	Tax Fees	All Other Fees
December 31, 2015	US\$36,588	Nil	US\$61,930	Nil
December 31, 2014	Cdn\$55,000	Nil	Cdn\$5,000	Nil

Exemption

Excelsior is relying on the exemption provided by section 6.1 of NI 52-110 which provides that Excelsior, as a venture issuer, is not required to comply with Part 3 (Composition of the Audit Committee) and Part 5 (Reporting Obligations) of NI 52-110.

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 at 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.