Golden Minerals Co
Form 10-K
February 27, 2015

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

(Mark One)

x ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2014

OR

o TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from to

Commission file number 1-13627

GOLDEN MINERALS COMPANY

(Exact Name of Registrant as Specified in its Charter)

DELAWARE	**26-4413382**
(State of Incorporation or Organization)	(I.R.S. Employer Identification No.)
350 Indiana Street, Suite 800 **Golden, Colorado**	**80401**
(Address of principal executive offices)	(Zip Code)

(303) 839-5060

(Registrant s telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	**Name of each exchange on which registered**
Common Stock, $0.01 par value	NYSE MKT

Securities registered pursuant to Section 12(g) of the Act: **None**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes o No x

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes o No x

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes x No o

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes x No o

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant s knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. o

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of large accelerated filer, accelerated filer and smaller reporting company in Rule 12b-2 of the Exchange Act.

Large accelerated filer o	Accelerated filer o
Non-accelerated filer o	Smaller reporting company x

Do not check if a (smaller reporting company)

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes o No x

Indicate by check mark whether the registrant has filed all documents and reports required to be filed by Section 12, 13, or 15(d) of the Securities Exchanges Act of 1934 subsequent to the distribution of securities under a plan confirmed by a court. Yes x No o

The aggregate market value of the voting and non-voting common equity held by non-affiliates as of June 30, 2014 was approximately $37.2 million, based on the closing price of the registrant s common stock of $1.15 per share on the NYSE MKT on June 30, 2014. For the purpose of this calculation, the registrant has assumed that its affiliates as of June 30, 2014 included all directors and officers and one shareholder that held approximately 22.3% of its outstanding common stock. The number of shares of common stock outstanding on February 25, 2015 was 53,162,833.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant s Definitive Proxy Statement to be filed with the Securities and Exchange Commission pursuant to Regulation 14A in connection with the 2015 Annual Meeting of Stockholders are incorporated by reference in Part III of this annual report on Form 10-K.

References to Golden Minerals, the Company, our, we, or us mean Golden Minerals Company, its predecessors and consolidated subsidiaries, or any one or more of them, as the context requires. Many of the terms used in our industry are technical in nature. We have included a glossary of some of these terms below.

FORWARD-LOOKING STATEMENTS

Some information contained in or incorporated by reference into this annual report on Form 10-K may contain forward-looking statements and forward-looking information (collectively, forward-looking statements) within the meaning of the United States Private Securities Litigation Reform Act of 1995 and other applicable securities laws. These statements include statements relating to our plans, expectations and assumptions concerning the Velardeña Properties (as defined below), the El Quevar project and certain properties in our exploration portfolio, the timing and budget for costs related to our Velardeña Properties, our El Quevar project and our exploration properties, our expected cash needs, and statements concerning our financial condition, business strategies and business and legal risks.

We use the words anticipate, continue, likely, estimate, expect, may, could, will, project, should, believe and similar expre negative and grammatical variations) to identify forward-looking statements. Statements that contain these words discuss our future expectations and plans, including plans for mining and processing at the Velardeña Properties and planned exploration activities, and contain projections of 2015 expenditures or other matters, or state other forward-looking information. Although we believe the expectations and assumptions reflected in those forward-looking statements are reasonable, we cannot assure you that these expectations and assumptions will prove to be correct. Our actual results could differ materially from those expressed or implied in these forward-looking statements as a result of various factors described in this annual report on Form 10-K, including:

- Higher than anticipated costs or interruptions related to optimizing mining and processing at the Velardeña Properties in Mexico;

- Risks related to our Velardeña Properties, including variations in the nature, quality and quantity of any mineral deposits that may be located there, our ability to extract and sell minerals from the mines successfully or profitably at current silver and gold prices, mining or processing problems, decreases in expected silver and gold prices, our ability to obtain and maintain any necessary permits, consents, or authorizations for mining and processing at the Velardeña Properties, accidents and other unanticipated events and our ability to raise the necessary capital required to finance future mining and processing at the Velardeña Properties;

- Risks related to the El Quevar project in Argentina, including whether we will be able to find a joint venture partner to advance the project, feasibility and economic viability and increased costs associated with maintaining the project;

- The results of future exploration at our exploration properties and our ability to further advance certain exploration properties;

- Our ability to retain key management and mining personnel necessary to optimize mining and processing at our Velardeña Properties and to successfully run and grow our business;

- Economic and political events affecting the market prices for silver, gold, zinc, lead and other minerals which may be found on our exploration properties;

- Political and economic instability in Mexico and Argentina and other countries in which we may conduct our business and future actions of any of these governments with respect to nationalization of natural resources or other changes in mining or taxation policies; and

- The factors set forth under *Risk Factors* in Item 1A of this annual report on Form 10-K.

Many of these factors are beyond our ability to control or predict. Although we believe that the expectations reflected in our forward-looking statements are based on reasonable assumptions, such expectations may prove to be materially incorrect due to known and unknown risk and uncertainties. You should not unduly rely on any of our forward-looking statements. These statements speak only as of the date of this annual report on Form 10-K. Except as required by law, we are not obligated to publicly release any revisions to these forward-looking statements to reflect future events or developments. All subsequent written and oral forward-looking statements attributable to us and persons acting on our behalf are qualified in their entirety by the cautionary statements contained in this section and elsewhere in this annual report on Form 10-K.

CAUTIONARY STATEMENT REGARDING MINERALIZED MATERIAL

Mineralized material as used in this annual report on Form 10-K, although permissible under the United States Securities and Exchange Commission s (SEC) Industry Guide 7, does not indicate reserves by SEC standards. We cannot be certain that any deposits at the Velardeña Properties or any part of the Yaxtché deposit at the El Quevar project will ever be confirmed or converted into SEC Industry Guide 7 compliant reserves . Investors are cautioned not to assume that all or any part of the disclosed mineralized material estimates will ever be confirmed or converted into reserves or that mineralized material can be economically or legally extracted.

CONVERSION TABLE

In this annual report on Form 10-K, figures are presented in both United States standard and metric measurements. Conversion rates from United States standard measurement systems to metric and metric to United States standard measurement systems are provided in the table below. All currency references in this annual report on Form 10-K are to United States dollars, unless otherwise indicated.

U.S. Unit	Metric Measure	Metric Unit	U.S. Measure
1 acre	0.4047 hectares	1 hectare	2.47 acres
1 foot	0.3048 meters	1 meter	3.28 feet
1 mile	1.609 kilometers	1 kilometer	0.62 miles
1 ounce (troy)	31.103 grams	1 gram	0.032 ounces (troy)
1 ton	0.907 tonnes	1 tonne	1.102 tons

GLOSSARY OF SELECTED MINING TERMS

Assay means to test ores or minerals by chemical or other methods for the purpose of determining the amount of valuable metals contained.

Base Metal means a classification of metals usually considered to be of low value and higher chemical activity when compared with the precious metals (gold, silver, platinum, etc.). This nonspecific term generally refers to the high-volume, low-value metals copper, lead, tin, and zinc.

Breccia means rock consisting of fragments, more or less angular, in a matrix of finer-grained material or of cementing material.

Calcareous Clastic means sedimentary rock composed of siliciclastic particles usually of conglomerate, sand, or silt-size and cemented by calcium carbonate in the form of calcite.

Claim means a mining interest giving its holder the right to prospect, explore for and exploit minerals within a defined area.

Concentrates means the clean product of ore or metal separated from its containing rock or earth by froth flotation or other methods of mineral separation.

Concession means a grant or lease of a tract of land made by a government or other controlling authority in return for stipulated services or a promise that the land will be used for a specific purpose.

Core Drill means a rotary type of rock drill that cuts a core of rock and is recovered in long cylindrical sections, two centimeters or more in diameter.

Deposit means an informal term for an accumulation of minerals.

Development Stage means a project with an established resource, not in production, engaged in the process of additional studies preparing for completion of a feasibility study or for commercial extraction.

Diorite means a grey to dark grey intermediate intrusive igneous rock composed principally of plagioclase feldspar (typically andesine), biotite, hornblende, and/or pyroxene.

Doré means gold and silver bullion that remains in a cupelling furnace after the lead has been oxidized and skimmed off.

Epithermal Calcite-Quartz means deposits, typically occurring in veins, of calcite-quartz from hydrothermal fluids at shallow depths under conditions in the lower ranges of temperature and pressure.

Euhedral means a well-developed degree of which mineral grains show external crystal faces (fully crystal-faced).

Exploration Stage means a project that is not yet in either the Development Stage or Production Stage.

Feasibility Study means an engineering study designed to define the technical, economic, and legal viability of a mining project with a high degree of reliability.

Felsic means igneous rocks that are relatively rich in elements that form feldspar and quartz.

Flotation means the separating of finely crushed minerals from one another by causing some to float in a froth and others to remain in suspension in the pulp. Oils and various chemicals are used to activate, make floatable, or depress the minerals.

Formation means a distinct layer of sedimentary rock of similar composition.

Fracture System means a set or group of contemporaneous fractures related by stress.

Grade means the metal content of ore, usually expressed in troy ounces per ton (2,000 pounds) or in grams per ton or metric tonnes which contain 2,204.6 pounds or 1,000 kilograms.

Hypabyssal rock means an intrusive igneous rock that originates at medium to shallow depths within the crust, and has intermediate grain size and often porphyritic texture between that of volcanic and plutonic rocks.

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

Laramide Orogeny means a period of mountain building in western North America, which started in the Late Cretaceous age, 70 to 80 million years ago, and ended 35 to 55 million years ago.

Mineralization means the concentration of metals within a body of rock.

Mineralized Material means a mineralized body that has been defined by appropriate drilling and/or underground sampling to establish continuity and support an estimate of tonnage and an average grade of the selected metals.

Mining means the process of extraction and beneficiation of mineral reserves or mineral deposits to produce a marketable metal or mineral product. Exploration continues during the mining process and, in many cases, mineral reserves or mineral deposits are expanded during the life of the mine activities as the exploration potential of the deposit is realized.

Monzodiorite means coarse-grained igneous rock consisting of essential plagioclase feldspar, orthoclase feldspar, hornblende and biotite, with or without pyroxene, with plagioclase being the dominant feldspar making up 6% to 90% of the total feldspar and varying from oligoclase to andesine in composition. The presence of the orthoclase feldspar distinguishes this rock from a diorite.

National Instrument 43-101 or **43-101** means the standards of disclosure for mineral projects prescribed by the Canadian Securities Administrators.

Net Smelter Return Royalty means a defined percentage of the gross revenue from a resource extraction operation, less a proportionate share of transportation, insurance, and processing costs.

Open Pit means a mine working or excavation open to the surface.

Ore means material containing minerals that can be economically extracted.

Outcrop means that part of a geologic formation or structure that appears at the surface of the earth.

Oxide means mineralized rock in which some of the original minerals have been oxidized (i.e., combined with oxygen).

Precious Metal means any of several relatively scarce and valuable metals, such as gold, silver, and the platinum-group metals.

Preliminary Economic Assessment or **PEA** means a study, other than a pre-Feasibility or Feasibility Study, that includes an economic analysis of the potential viability of mineral resources.

Probable Mineral Reserves means mineral reserves for which quantity and grade and/or quality are computed from information similar to that used for Proven Mineral Reserves, but the sites for inspection, sampling and measurement are farther apart or are otherwise less adequately spaced. The degree of assurance, although lower than that for Proven Mineral Reserves, is high enough to assume continuity between points of observation.

Production Stage means a project that is actively engaged in the process of extraction and beneficiation of mineral reserves or mineral deposits to produce a marketable metal or mineral product.

Proven Mineral Reserves means mineral reserves for which (a) quantity is computed from dimensions revealed in outcrops, trenches, workings or drill holes; grade and/or quality are computed from the results of detailed sampling and (b) the sites for inspection, sampling and measurement are spaced so closely and the geologic character is so well defined that size, shape, depth and mineral content of reserves are well established.

Reclamation means the process of returning land to another use after mining is completed.

Recovery means that portion of the metal contained in the ore that is successfully extracted by processing, expressed as a percentage.

Mineral Reserves means that part of a mineral deposit that could be economically and legally extracted or produced at the time of mineral reserve determination.

Sampling means selecting a fractional part of a mineral deposit for analysis.

Sediment means solid fragmental material that originates from weathering of rocks and is transported or deposited by air, water, or ice, or that accumulates by other natural agents, such as chemical precipitation from solution or secretion by organisms, and that forms in layers on the earth s surface at ordinary temperatures in a loose, unconsolidated form.

Sedimentary means formed by the deposition of Sediment.

Silver Equivalent means silver and gold only, with gold converted to silver equivalents at a 70 to 1 ratio.

Skarn means a coarse-grained metamorphic rock formed by the contact metamorphism of carbonate rock often containing garnet, pyroxene epodite and wollastonnite.

Stock means discordant igneous intrusion having a surface exposure of less than 40 square miles.

Sulfide means a compound of sulfur and some other element.

Tailings Pond means a low-lying depression used to confine tailings, the prime function of which is to allow enough time for heavy metals to settle out or for cyanide to be destroyed before water is discharged into the local watershed.

Tertiary means the first period of the Cenozoic Era (after the Cretaceous of the Mesozoic Era and before the Quaternary) thought to have covered the span of time between 2 to 3 million years ago and 65 million years ago.

Vein means a fissure, fault or crack in a rock filled by minerals that have traveled upwards from some deep source.

Waste means rock lacking sufficient grade and/or other characteristics of Ore.

PART I

ITEMS 1 AND 2: BUSINESS AND PROPERTIES

Overview

We are a mining company, and we own the Velardeña and Chicago precious metals mining properties (the Velardeña Properties) in the State of Durango, Mexico, the El Quevar advanced exploration property in the province of Salta, Argentina, and a diversified portfolio of precious metals and other mineral exploration properties located primarily in or near historical precious metals producing regions of Mexico. The Velardeña Properties and the El Quevar advanced exploration property are our only material properties. Our management team is comprised of experienced mining professionals with extensive expertise in mineral exploration, mine construction and development and mine operations. Our principal offices are located in Golden, Colorado at 350 Indiana Street, Suite 800, Golden, CO 80401, and our registered office is the Corporation Trust Company, 1209 Orange Street, Wilmington, DE 19801. We also maintain an office at the Velardeña Properties in Mexico and exploration offices in Argentina and Mexico.

We recommenced mining activities at the Velardeña Properties in July 2014 and began processing material from the Velardeña mine in November 2014. Our decision to restart mining activities followed an extensive evaluation period, which began after the shutdown of the Velardeña Properties in June 2013 and included a 9,000-meter drill program that concluded in June 2014.

We are primarily focused on efforts to optimize mining and processing activities at our Velardeña Properties in order to achieve positive net cash flows at the Velardeña Properties. We are focused on establishing a second group of mining assets, which may include those recently acquired assets in the Parral District in Chihuahua Mexico, and obtaining oxide feed from outside sources to enable us to restart the oxide plant, in order to generate sufficient revenue, along with revenue from our Velardeña Properties, to fund our continuing business activities.

We are continuing our exploration efforts on selected properties in our portfolio of approximately 30 exploration properties located primarily in Mexico, including our Celaya property in the State of Guanajuato Mexico. We continue to hold our El Quevar property on care and maintenance and to reduce holding costs until we can find a partner to further advance the project. We reduced general and administrative expenses in 2014 by approximately 17% over 2013 expenses. We expect this reduced level of spending to continue in 2015. We also are reviewing strategic opportunities, focusing primarily on development or operating properties in North America, including Mexico.

No Proven or Probable Mineral Reserves/Exploration Stage Company

We are considered an exploration stage company under SEC criteria since we have not demonstrated the existence of proven or probable mineral reserves at our Velardeña Properties or any of our other properties. In Industry Guide 7, the SEC defines a reserve as that part of a mineral deposit which could be economically and legally extracted or produced at the time of the reserve determination. Proven or probable mineral reserves are those reserves for which (a) quantity is computed and (b) the sites for inspection, sampling, and measurement are spaced so closely that the geologic character is defined and size, shape and depth of mineral content can be established (proven) or the sites are farther apart or are otherwise less adequately spaced but high enough to assume continuity between observation points (probable). Mineral Reserves cannot be considered proven or probable unless and until they are supported by a feasibility study, indicating that the mineral reserves have had the requisite geologic, technical and economic work performed and are economically and legally extractable.

Prior to suspending mining and processing at the Velardeña Properties in June 2013, we had revenues from the sale of silver, gold, lead and zinc products from the Velardeña and Chicago mines. We have not completed a feasibility study with regard to all or a portion of any of our properties to date. Any mineralized material discovered or extracted by us should not be considered proven or probable mineral reserves. As of December 31, 2014, none of our mineralized material met the definition of proven or probable mineral reserves. We expect to remain an exploration stage company for the foreseeable future, even though we were extracting and processing mineralized material. We will not exit the exploration stage until such time, if ever, that we demonstrate the existence of proven or probable mineral reserves that meet the guidelines under SEC Industry Guide 7.

Company History

We were incorporated in Delaware under the Delaware General Corporation Law in March 2009, and we are the successor to Apex Silver Mines Limited (Apex Silver) for purposes of reporting under the Securities Exchange Act of 1934, as amended (the Exchange Act). From March 2009 through September 2011, we focused on the advancement of our El Quevar silver project in

Argentina. On September 2, 2011, we completed a business combination transaction with ECU Silver Mining Inc. (ECU) and now own the Velardeña and Chicago silver, gold and base metals mines located in the Velardeña mining district in the State of Durango, Mexico as further described under *Velardeña Properties* . Since the business combination with ECU, we have focused primarily on the further advancement and improvement of the Velardeña Properties.

Corporate Structure

Golden Minerals Company, headquartered in Golden, Colorado, is the operating entity through which we conduct our business. Following our September 2, 2011 business combination, ECU became a wholly-owned subsidiary of Golden Minerals, and three of ECU s wholly-owned Mexican subsidiaries hold the assets and rights associated with the Velardeña Properties. We have a number of other wholly-owned subsidiaries organized throughout the world, including in Mexico, Central America, South America, the Caribbean and Europe. We generally hold our exploration rights and properties through subsidiaries organized in the countries in which our rights and properties are located.

Our Competitive Strengths and Business Strategy

Our business strategy is to establish Golden Minerals as a mid-tier precious metals mining company, focusing on mining in Mexico, mining and processing activities at the Velardeña Properties, establishing a second group of mining assets, which may include our recently acquired exploration properties, obtaining oxide feed for our oxide plant and continued exploration efforts on selected properties in our exploration portfolio. We also are focused on strategic opportunities, primarily on development or operating properties in North America, including Mexico.

Velardeña Properties. On July 1, 2014 we restarted mining at the Velardeña Properties and began processing material from the mine on November 3, 2014. During 2014 we generated payable metals totaling approximately 42,000 silver equivalent ounces (equivalents calculated at 70:1 silver to gold) and included approximately 29,000 ounces of silver and 194 ounces of gold. We are focused on optimizing mining and processing at the Velardeña Properties in order to ramp up to the 285 tonnes per day (tpd) rate, which we expect to achieve late in the first quarter 2015. We expect feed material grades to gradually increase through the second quarter of 2015 as new stopes in the mine are developed and access to the Terneras vein increases. In the first quarter 2015, the engineering firm Tetra Tech updated our estimate of mineralized material at the Velardeña Properties, and also plans to complete a Preliminary Economic Assessment and a technical report pursuant to Canadian National Instrument 43-101 in respect of the Velardeña Properties.

El Quevar Project. We continue to hold our El Quevar property on care and maintenance and to reduce holding costs until we can find a partner to fund further exploration.

Exploration Focus. We are focused on establishing a second group of mining assets, which may include our Los Azules property and our Santa Maria property, each of which contains a small underground mine located in the Parral District in Chihuahua, Mexico. We completed drill programs at each of the Los Azules and Santa Maria properties during 2014 and expect to release reports on these results in the first quarter 2015. During 2015 we plan to focus our exploration efforts primarily on these properties in the Parral District, and exploration on certain other properties, including our Celaya project in the State of Guanajuato Mexico. We expect our expenditures for the exploration program in 2015 to be approximately $3.1 million.

Experienced Management Team. We are led by a team of mining professionals with approximately 130 years of combined experience in exploration, project development, construction and operations all over the world. Our executive officers have held senior positions at various large mining companies including, among others, Cyprus Amax Minerals Company, Phelps Dodge Corporation, Barrick Gold Exploration and Noranda Exploration. Our executive team has a proven ability to manage large projects in challenging environments.

Velardeña Properties

Location, Access and Facilities

The Velardeña Properties are comprised of two underground mines and two processing plants within the Velardeña mining district, which is located in the municipality of Cuencamé, in the northeast quadrant of the State of Durango, Mexico, approximately 65 kilometers southwest of the city of Torreón, Coahuila and approximately 140 kilometers northeast of the city of Durango, which is the capital of the State of Durango. The mines are reached by a seven kilometer road from the village of Velardeña which is reached by highway from Torreón and Durango. The Velardeña mining district is situated in a hot, semi-arid region.

Of the two underground mines comprising the Velardeña Properties, the Velardeña mine includes five different major vein systems including the Terneras, Roca Negra, San Mateo, Santa Juana and San Juanes systems. During 2014 we were mining from the

San Mateo, Terneras and Roca Negra vein systems as well as the Santa Juana vein system to augment grades as mining and processing rates ramped up. During 2015 we plan to mine primarily from the Terneras, Roca Negra and San Mateo veins with some feed coming from the Santa Juana vein. The Chicago mine is located approximately two kilometers south of the Velardeña property. We did not mine from the Chicago mine during 2014, and do not have current plans to mine from the Chicago mine during 2015.

We own a 300 tonne per day flotation sulfide mill situated near the town of Velardeña, which accounted for approximately 100% and 42% of our revenue from saleable metals during 2014 and 2013, respectively. The mill includes lead, zinc and pyrite flotation circuits in which we can process the sulfide ore to make lead, zinc and pyrite concentrates. In 2014 most of the silver and gold was contained in the lead concentrate. In 2013 most of the silver was contained in the lead concentrate and most of the gold was contained in the pyrite concentrate. During 2014 we processed all our mined material through the sulfide plant.

We also own a conventional 550 tonne per day cyanide leach oxide mill with a Merrill-Crowe precipitation circuit and flotation circuit located adjacent to our Chicago mine, which accounted for approximately 58% of our revenue from saleable metals during 2013. We currently are not processing material through the oxide plant. We previously used the mill to process oxide and mixed sulfide/oxide material from the Velardeña Properties and during the first half of 2013, generated silver and gold bearing precipitates and lead concentrates that were sold to third party refineries. We continue to search for oxide feed from outside sources, which could enable us to restart the oxide plant. There is also a small refinery at the oxide plant capable of matching the throughput of the oxide plant up to about 300 tpd, or slightly more than half the maximum capacity of the oxide plant to make doré silver and gold bars. We did not make any doré in 2013 or 2014.

Ore is trucked from the Velardeña mine to the sulfide plant, which has its own tailings ponds. In January 2012 we completed a tailings pond expansion at the sulfide plant, which is fully permitted and has capacity to treat tailings for approximately four years at the processing rate of 285 tpd. For the oxide plant, we completed the first stage of a new tailings pond during May 2013. If oxide mining activities resume, the first stage provides capacity to treat tailings for approximately one year at the processing rate of 500 tpd. We would expect to complete the second stage approximately six months after the resumption of oxide mining activities, which would provide tailings treatment capacity for approximately an additional two years at 500 tpd. Completion of the third stage would provide tailings treatment capacity for approximately an additional 14 years at the 500 tpd processing rate.

Power for all of the mines and plants is provided through substations connected to the national grid. Water is provided for all of the mines by wells located in the valley adjacent to the Velardeña Properties. We hold title to three wells located near the sulfide plant and hold certificates of registration to three wells located near the oxide plant. We are licensed to pump water from all six wells up to a permitted amount. We are currently only using water from two wells near the sulfide plant and one well near the oxide plant. Under our current mining plan, we may need additional water to run the sulfide plant, which we can truck from the two unused wells near the oxide plant or obtain from outside sources, both of which will increase our water costs. To avoid these higher water costs, we plan to construct a pipeline to transport water from the two unused wells near the oxide plant. We are waiting on certain environmental permitting and expect to have this pipeline complete by the end of 2015.

The following map shows the location of the Velardeña Properties.

Property History

Exploration and mining in the Velardeña district extends back to at least the late 1500s or early 1600s, with large scale mining beginning in 1888 with the Velardeña Mining and Smelter Company. In 1902, the mining properties were acquired by ASARCO, who mined the property until 1926 when the mines were closed. For the next 35 years, the mines were operated from time to time by small companies and local miners. The property was nationalized in 1961, and in 1968 the sulfide processing plant was built by the Mexican government. In 1994, William Resources acquired the concessions comprising the Velardeña Properties. In 1997, ECU Gold (the predecessor to ECU Silver Mining Inc.) purchased from William Resources the subsidiaries that owned the concessions. ECU built the oxide processing plant in 1998.

Title and Ownership Rights

We hold the concessions comprising the Velardeña Properties through our wholly-owned Mexican subsidiaries Minera William S.A. de C.V. and BLM Minera Mexicana S.A. de C.V. At present, a total of 29 mineral concessions comprise the Velardeña Properties. The Velardeña Properties encompass approximately 557 hectares. The mineral concessions vary in size, and the concessions comprising each mineral property are contiguous within each of the Velardeña and Chicago properties. We are required to pay annual concession holding fees to the Mexican government to maintain our rights to the Velardeña mining concessions. In 2014, we made such payments totaling approximately $12,000 and expect to pay approximately $12,000 in 2015.

The Velardeña Properties are subject to the Mexican ejido system requiring us to contract with the local communities, or ejidos, surrounding our properties to obtain surface access rights needed in connection with our mining and exploration activities. We currently have contracts with two ejidos to secure surface rights for our Velardeña Properties with a total annual cost of approximately $35,000. The first contract is a ten-year contract with the Velardeña ejido, which provides surface rights to certain roads and other infrastructure at the Velardeña Properties through 2021. The second contract is a 25-year contract with the Vista Hermosa ejido signed in March 2013, which provides exploration access and access rights for roads and utilities for our Velardeña Properties. In 2012 we entered into an agreement with the Vista Hermosa ejido to purchase the surface rights to the 144 hectares area that contains the oxide plant, tailings area and access to the Chicago mine, along with surface lands that may be required for potential plant

expansions. The title for the purchase has been issued by the National Agrarian Registry (RAN) and is in the process of being transferred to us.

The following Velardeña Properties exploitation concessions are identified below by name and number in the Federal government Public Registry of Mining.

Mine/Area	Name of Exploitation Concession	Concession Number
Velardeña	AMPL. DEL ÁGUILA MEXICANA	85580
	ÁGUILA MEXICANA	168290
	LA CUBANA	168291
	TORNASOL	168292
	SAN MATEO NUEVO	171981
	SAN MATEO	171982
	RECUERDO	171983
	SAN LUIS	171984
	LA NUEVA ESPERANZA	171985
	LA PEQUEÑA	171988
	BUEN RETIRO	172014
	UNIFICACIÓN SAN JUAN EVANGELISTA	172737
	UNIFICACIÓN VIBORILLAS	185900
	BUENAVENTURA No. 3	188507
	EL PÁJARO AZÚL	188508
	BUENAVENTURA 2	191305
	BUENAVENTURA	192126
	LOS DOS AMIGOS	193481
	VIBORILLAS NO. 2	211544
	KELLY	218681
Chicago	SANTA TERESA	171326
	SAN JUAN	171332
	LOS MUERTOS	171986
	EL GAMBUSINO	171987
	AMPLIACIÓN SAN JUAN	183883
	MUÑEQUITA	196313
	SAN AGUSTÍN	210764
	EL PISTACHÓN	220407
	LA CRUZ	189474

We hold water concessions in wells that provide water for the Velardeña Properties. In Mexico water concessions are granted by the National Commission of Water (CNA). Currently no new water concessions are being granted by the CNA; however companies can acquire water concessions through purchase or lease from current concession holders. We hold title to three wells located near the sulfide plant and hold certificates of registration to three wells located near the oxide plant. We are licensed to pump water from all six wells up to a permitted amount. We are required to make annual payments to the CNA to maintain our rights to these wells. In 2014 we made such payments totaling approximately $28,000 and expect to pay approximately the same amount in 2015. We are required to pay a fine to the CNA each year if we use too much water from a particular well or alternatively if we do not use a minimum amount of water from a particular well. During 2014 we paid fines of approximately $20,800 for our overuse of one well and approximately $3,000 for our underuse of another well.

Geology and Mineralization

The Velardeña district is located at the easternmost limit of the Sierra Madre Occidental on the boundary between the Sierra Madre Oriental and the Mesa Central sub-provinces. Both of these terrains are underlain by Paleozoic and possibly Precambrian basement rocks.

The regional geology is characterized by a thick sequence of limestone and minor calcareous clastic sediments of Cretaceous age, intruded by Tertiary plutons of acidic to intermediate composition. During the Laramide Orogeny, the sediments were folded into symmetrical anticlines and synclines that were modified into a series of asymmetrical overturned folds by a later stage of compression.

A series of younger Tertiary stocks have intruded the older Cretaceous limestone over a distance of approximately 15 kilometers along a northeast to southwest trend. The various mineral deposits of the Velardeña mining district occur along the northeast southwest axis and are spatially associated with the intrusions and their related alteration.

An important northwest southeast fracture system is associated with these intrusions and, in many cases, acts as the main focus of mineralization. The Velardeña Properties are underlain by a thick sequence of limestone that corresponds to rocks of the Aurora and Cuesta del Cura formations of Lower Cretaceous age.

Several types of Tertiary intrusive rocks are present in the Velardeña district. The largest of these rocks outcrops on the western flank of the Sierra San Lorenzo and underlies a portion of the Velardeña Properties. It is referred to as the Terneras pluton and forms a northeast oriented, slightly elongated body, considered to represent a diorite or monzodiorite that outcrops over a distance of about 2.5 kilometers. The adjacent limestone has been altered by contact metamorphism (exoskarn), and locally the intrusive has been metamorphosed (endoskarn).

The following is a description of the individual geological characteristics and mineralization found on each of the properties comprising the Velardeña Properties.

Velardeña Mine

The Santa Juana, Terneras, San Juanes and San Mateo vein deposits on the Velardeña property are hosted by Aurora Formation limestone, the Terneras intrusion and related skarn. The limestone is intruded by a series of multiphase diorite or monzodiorite stocks (Terneras intrusion) and dikes of Tertiary age that outcrop over a strike length of approximately 2.5 kilometers.

Two main vein systems are present on the Velardeña property. The first is a northwest striking system as found in the Santa Juana deposit, while the second is east-west trending and is present in the Santa Juana, Terneras, San Juanes and San Mateo deposits.

In the Santa Juana deposit, two main sets of vein trends are observed. The most significant is a steeply northeast dipping, northwest trending set that has acted as the main conduit for the mineralizing fluids in the Santa Juana deposit. This direction includes both linear and curved northwest vein sets.

The Terneras, San Juanes and San Mateo veins all strike east-west and dip steeply north. The most extensive of these is the Terneras vein, which was mined in the past over a strike length of 1,100 meters. All of these veins are observed to have extensive strike lengths and vertical continuity for hundreds of meters. The mineralogy of the east west system is somewhat different in that it contains less arsenic than the northwest Santa Juana veins.

Mineralization in the deposits located at the Velardeña mine belongs primarily to epithermal calcite quartz veins with associated lead, zinc, silver, gold and copper mineralization, typical of the polymetallic vein deposits of northern Mexico. The veins are usually thin, normally in the 0.2 meter to 0.5 meter range, but consistent along strike and down dip. Coxcomb and rhythmically banded textures are common.

Chicago Mine

On the Chicago property, the oldest rocks outcropping are Cretaceous limestone of the Aurora Formation which are highly folded. This limestone is locally metamorphosed by the intrusion of the Tertiary dioritic stocks and dykes. The general geology of the Chicago property is very similar to the geology of the Velardeña property. The Chicago veins strike northeast and dip steeply southeast. Chicago ore tends to be higher in lead and zinc and lower in arsenic than the Santa Juana ore. Vein widths at Chicago are variable and tend to be narrower than at the Santa Juana deposit, especially in the skarn host.

2014 Technical Report

During the first quarter 2015, the engineering firm of Tetra Tech (Tetra Tech) completed an estimate of mineralized material at the Velardeña Properties, set forth in the following table:

Mineralized Material	Tonnes (in thousands)	Silver (Ag) Grade (Grams per tonne)	Gold (Au) Grade (Grams per tonne)	Lead (Pb) Grade %	Zinc (Zn) Grade %
Mineralized Material at December 31, 2014					
Velardeña Mine					
Oxide and mixed	572	295	4.1	1.34	1.07
Sulfide	1,032	274	3.9	1.11	1.42
Chicago Mine					
Oxide and mixed	91	208	3.2	3.77	2.8
Sulfide	98	165	2.8	2.97	3.49
Total Mineralized Material at December 31, 2014	1,793	272	3.8	1.42	1.49

Note: Results may not tie precisely due to rounding. Additionally, silver ounces, zinc pounds and leads pounds are rounded to the nearest thousand and gold ounces are rounded to the nearest ounce and tonnes. The variance in rounding different commodities and units is for convenience and does not reflect any differences in the level of accuracy of the calculated mineralized material estimate.

The Tetra Tech mineralized material estimate assumed a silver price of $25 per troy ounce, a gold price of $1,446 per troy ounce, and a cutoff grade of a net smelter return (NSR) of $100 per tonne.

The following table shows the commodity prices and metallurgical recoveries used to determine the cutoff grade.

Metal		Metal Prices*	Sulfide Metallurgical Recovery %	Oxide Metallurgical Recovery %	Mixed Metallurgical Recovery %
Silver	$	25 (oz)	89	68	50
Gold	$	1,446 (oz)	68	71	29
Lead	$	0.96 (lb)	83		25
Zinc	$	0.91 (lb)	83		37

* Amounts represent three-year average prices.

The cutoff grade of $100 NSR per tonne of mineralized material was determined by adding the estimated average costs of mining ($53 per tonne), processing ($27 per tonne) and general and administration ($20 per tonne). The average cost estimates are the same for both the Velardeña and Chicago mines. The NSR value of mineralized material was determined for each type of mineralized material (sulfide, mixed, and oxide) by multiplying a fractional factor that represents an estimated combination of metallurgical recovery, treatment charges, penalties and payment terms by the unit value of each metal and then multiplying by the expected amount of that metal in each block of inventoried material.

The following table shows the recovery rates for silver, gold, lead and zinc at each of our processing facilities for 2013 and 2014.

	2013	2014(1)
Oxide plant recovery		
Silver	78.0%	%
Gold	40.1%	%
Sulfide plant recovery		
Silver	72.1%	56.6%
Gold	61.2%	29.0%
Lead	62.3%	51.7%
Zinc	82.2%	45.6%

(1) Recoveries were low in 2014 due to the buildup of in-process inventories in the sulfide plant associated with the start-up of processing activities in November 2014.

For further detail regarding mineralized material, see *CAUTIONARY STATEMENT REGARDING MINERALIZED MATERIAL* .

Velardeña Properties and Plans

In June 2013 we suspended mining and processing at the Velardeña Properties. In July 2014 we recommenced mining activities at the Velardeña Properties and began processing material from the mines in November 2014. During the fourth quarter

2014, the processing facilities generated payable metals totaling approximately 42,000 silver equivalent ounces (equivalents calculated at 70:1 silver to gold) and included approximately 29,000 ounces of silver and 194 ounces of gold. Payable silver equivalents include only silver and gold equivalent ounces. Also, during the fourth quarter 2014, the processing facilities generated approximately 111,000 pounds of payable lead and 135,000 pounds of payable zinc. The following table shows actual silver, gold and silver equivalent payables for the first six months of 2013 and the fourth quarter 2014.

	Payable Metal	
	2013(1)	**2014(2)**
Silver (oz)	252,256	28,746
Gold (oz)	2,349	194
Silver equivalent (AgEq)(oz)(3)	416,686	42,326

(1) Mining and processing activities were suspended at the Velardeña Properties on June 19, 2013.

(2) Mining activities at the Velardeña Properties recommenced on July 1, 2014 and processing activities recommenced on November 3, 2014.

(3) Equivalents calculated at 70:1 silver to gold.

The table below sets forth the mining and processing statistics of our Velardeña Properties for the first six months of 2013 and the last six months of 2014.

	The Year Ended December 31,	
	2013(1)	**2014(2)**
Tonnes Milled		
(includes stockpiles)		
Oxide plant	41,383	
Sulfide plant	30,680	14,322
	72,063	14,322
Combined plant grades		
(Grams per tonne)		
Silver	163	119
Gold	2.56	1.57
Combined plant recovery (3)		
Silver	75.8%	56.6%
Gold	48.7%	29.0%
Contained Metals (3)		
(includes stockpiles)		
Silver ounces	286,394	30,615
Gold ounces	2,885	209
Silver equivalent ounces (70:1)	488,344	45,245
Lead - pounds (000)	564	124
Zinc - pounds (000)	836	155
Payable Metals (3)		