

# Presentation Precious Metals Summit

September 20-22, 2018



### **Cautionary Statements**

#### **Cautionary Note Regarding Forward Looking Statements:**

Statements made regarding matters which are not historical facts, are "forward looking statements" within the meaning of the U.S. Private Securities Litigation Reform Act of 1995 and Canadian securities legislation. These include statements regarding the El Quevar project, including the results of the updated resource estimate and the PEA, future activities at El Quevar-and the likelihood of future expansion of the deposit and the possibility of future development; expectations related to the Santa Maria property, including planned exploration and other evaluation work and the possibility of increasing the size of the existing resource estimate as well as the timing and expectations regarding the 43-101 resource estimate and the PEA; the use of funds from the sale of the Celaya property and the Company's expectations regarding its advancement of the El Quevar property and other exploration properties in Mexico with such funds; the Rodeo property, including estimates of mineral resources and the possibility of the property providing a future source of material for our oxide mill; and the anticipated revenue from the Velardeña oxide plant lease. These statements are subject to risks and uncertainties, including, but not limited to, lower than anticipated revenue from the oxide plant lease as a result of delays or problems at Hecla's mine or the oxide plant; earlier than expected termination of the lease or other causes; reasonability of the economic assumptions at the basis of the results of the El Quevar resource estimate and PEA and the anticipated update to the Santa Maria 43-101 resource estimate and PEA; changes in interpretations of geological, geostatistical, metallurgical, mining or processing information and interpretations of the information resulting from future exploration, analysis or mining and processing experience; new information from drilling programs or other exploration or analysis; unexpected variations in mineral grades, types and metallurgy; fluctuations in silver and gold metal prices; failure of mined material or veins mined to meet expectations; increases in costs and declines in general economic conditions and continued excessive inflation in Argentina; fluctuations in exchange rates and changes in political conditions, in tax, royalty, environmental and other laws in Mexico and Argentina; financial market conditions and the availability of external financing, if required.

#### **Exploration Results:**

This presentation includes information regarding selected drill and sampling results on certain of our exploration properties. Complete drill and sampling results may be viewed by visiting our website at <a href="https://www.goldenminerals.com">www.goldenminerals.com</a>.

#### Cautionary Note to U.S. Investors Regarding Estimates of Measured, Indicated and Inferred Resources:

Certain terms in this presentation, such as "measured", "indicated" and "inferred" resources, are defined in Canadian National Instrument 43-101; however, these terms are not recognized under SEC Industry Guide 7. The SEC normally permits issuers to report mineralization that does not constitute SEC Industry Guide 7 compliance "reserves" as in-place tonnage and grade without reference to unit measures. US investors are cautioned not to assume that any or all of measured, indicated, inferred or potential resources are economically or legally mineable or that these resources will ever be converted into Guide 7 reserves. "Inferred mineral resources" have a high degree of uncertainty as to their existence and it cannot be assumed that all or any part of an inferred mineral resource will ever be upgraded to a higher category. U.S. investors are urged to consider closely the disclosure in our Form 10-K and other SEC filings. You can review and obtain copies of these filings from the SEC's website at http://www.sec.gov/edgar.shtml.



### **Business Strategy**

- Establish Golden Minerals as a mid-tier precious metals producing mining company, with focus primarily in Mexico and Argentina
- Advance the El Quevar Project (Salta, Argentina)
- Explore properties selected for high grades, low development costs and near-term production
- Priority to properties within haulage distance of Golden's Velardeña mills
- Acquire advanced or operating properties, primarily in Mexico



### Recent Developments

#### **El Quevar**

- Announced updated resource estimate, Feb. 2018
- Positive initial PEA results, Sept. 2018
- Goal is to expand the resource through drilling in 2018, within exploration budget limits

#### **Santa Maria**

- Announced results of 2017-2018 drill program in Q2 2018
- Updating resource; will issue revised PEA

#### Celaya

 Closed the sale of our remaining interest in the property to a wholly-owned subsidiary of The Electrum Group for \$3M in Aug. 2018. Additional cash will allow Golden to advance El Quevar and Mexico properties in the near term without the need to raise more capital.





Stock Symbol	NYSE American and TSX: AUMN
Corporate Headquarters	Golden, Colorado
Stock Price (9/17/18), 52-Wk Hi/Lo (US)	\$0.25 (\$0.53/\$0.21)
Shares Outstanding (9/17/18)	95.6 M
Warrant Shares Outstanding	11.5 M
Options & Restricted Stock Units	2.3 M
KELTIP* Units	1.6 M
Shares Outstanding - Fully Diluted	111.0 M
One Month Avg. Daily Volume (as of 9/17/18)**	219,000
Debt (06/30/18)	\$0.0 M
Cash (06/30/18)	\$2.5 M



### Why Invest in AUMN?

Income	<ul> <li>\$4.5M annual net operating margin from plant lease in Mexico</li> <li>Expected duration at least through 2020</li> <li>\$0.05 per share per year</li> </ul>				
Resources	<ul> <li>M&amp;I resources: 78M oz AgEq¹</li> <li>Inferred resources: 39M oz AgEq</li> <li>Total resource: 1.2 AgEq oz in the ground per share of AUMN</li> </ul>				
Value	<ul> <li>El Quevar PEA \$45M NPV (2018)<sup>2</sup></li> <li>Santa Maria PEA \$6M NPV (2017) – update in progress</li> <li>Velardeña mine &amp; 300 tpd sulfide plant on stand-by</li> </ul>				
Cash	\$2.5M (as of 6/30/18), +\$3M from Celaya sale				
Debt	Zero				
<b>Project Pipeline</b>	Mexico: Yoquivo, Mogotes, Flechas, Navegantes				
Experience	Experienced management and directors; strong technical staff				

<sup>&</sup>lt;sup>1</sup> AgEq calculated based on Ag and Au resources where 1 oz Au equals 72 oz Ag

<sup>&</sup>lt;sup>2</sup> Amec Foster Wheeler E&I Services Inc., Aug. 2018. NPV calculated at 5% discount for El Quevar, 8% discount for Santa Maria and Velardeña

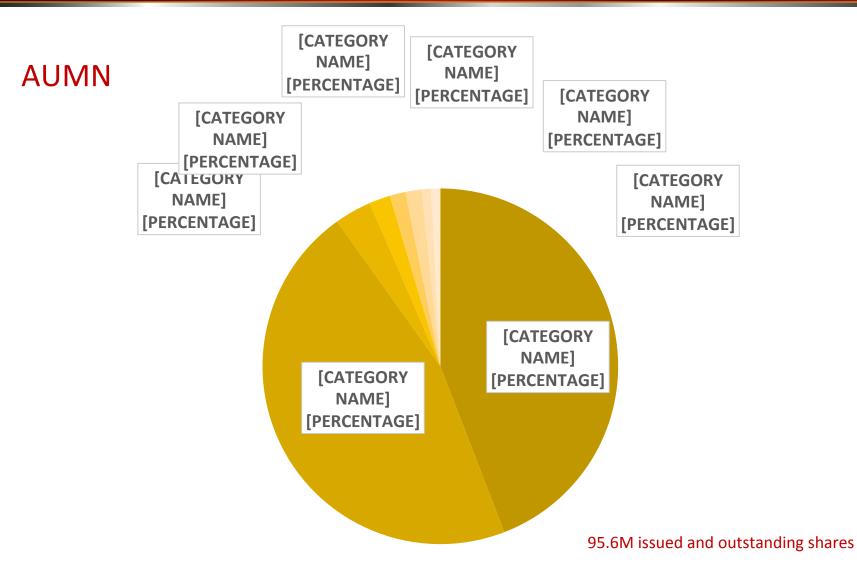


#### 3 Year AUMN and Silver





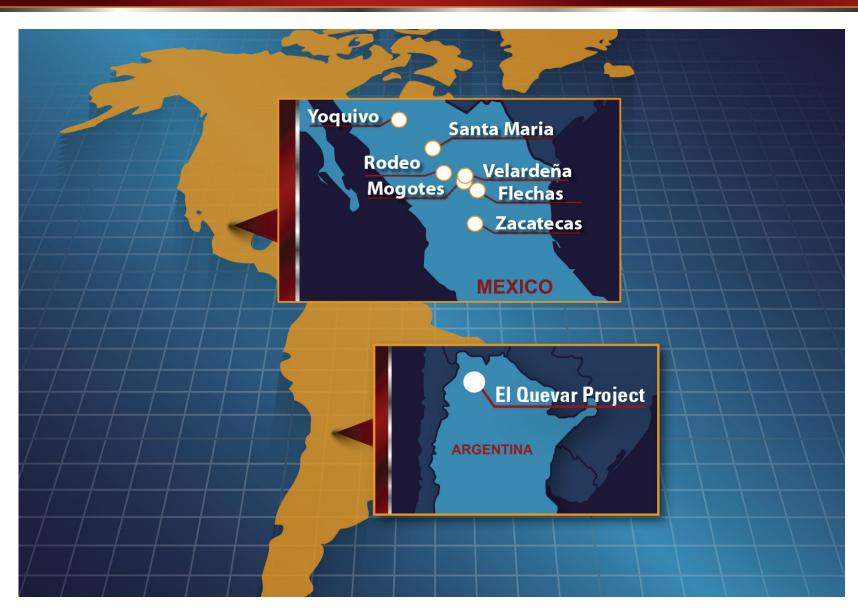
### Strong Shareholder Base



Figures per most recent public filings or other available records; Lincoln Park holding - as of May 9, 2018

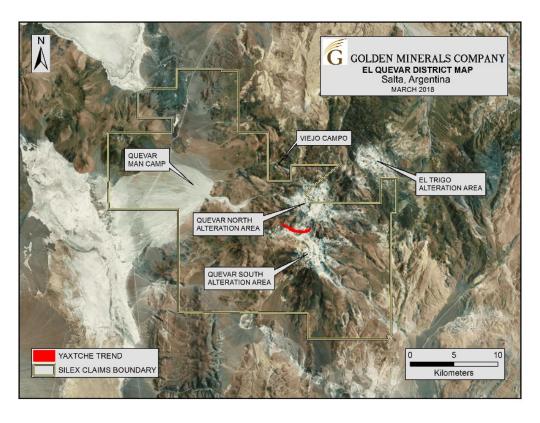


### Precious Metals Focus in Mexico and Argentina





#### El Quevar - District Potential

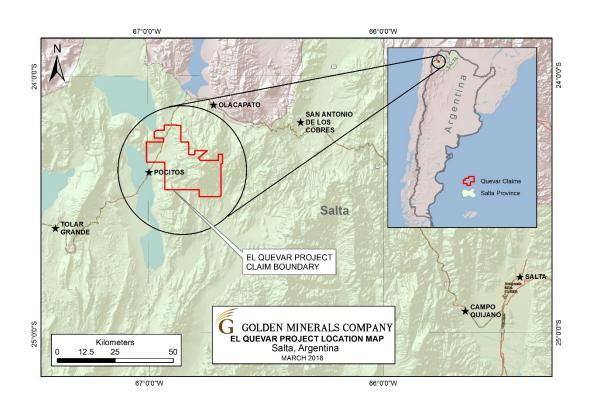


- Silver project in Salta Province,
   57,000 ha
- Existing resource covers only the Yaxtché deposit – 2km strike length deposit within much larger property
- Much of the area outside
   Yaxtché remains under-explored
- Deposit open to the east and west
- Additional high-grade silver targets have been identified by drilling and through geophysical studies



### El Quevar – Significant Exploration to Date

- >1,200 m underground exploration
- >400 drill holes, ~100,000 m
- Numerous drill holes outside of resource with strong Ag values
- 2012 43-101 resource for Yaxtché – envisioned open pit on east side, underground mining on west side
- Q1 2018 new 43-101
   resource based on 2012 drill
   data but modeled to delineate
   higher-grade mineralization



2018 43-101 presents a high-grade resource with potential for an underground mine within Yaxtché



#### El Quevar – 2018 Resource Estimate

## Recent re-model project achieved resource goal of 3M tons of >400 g/t Ag

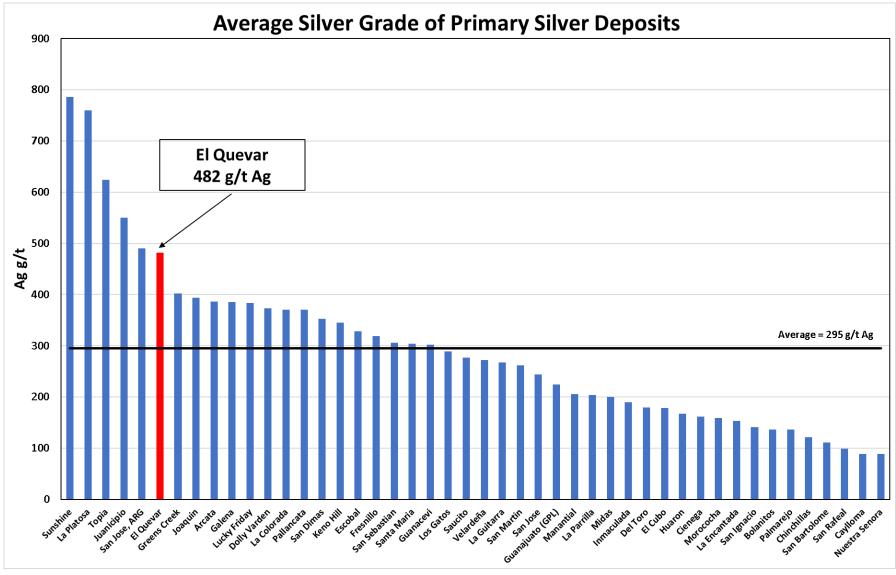
- Based on new indicator model using tighter controls and modeling approach designed to better delineate the higher-grade mineralization
- Used 250 g/t Ag cutoff
- New estimate retains 80% of the Ag oz at 3x the grade of the 2012 resource estimate

Classification	Cut-off Ag (g/t)	Tonnes (M)	Ag Grade (g/t)	Ag (M oz)
Indicated				
Sulfide	250	2.63	487	41.1
Oxide	250	0.30	434	4.2
Inferred				
Sulfide	250	0.31	417	4.1

<sup>-</sup> See Appendix notes for accompanying resource estimate information



### El Quevar: High Grade Resource



Weighted average Ag grade of reserves and measured and indicated resources of selected representative silver deposits in Western Hemisphere, from published data compiled internally.



#### PEA Results El Quevar

#### PEA results:

- ➤ 4.8 million oz Ag annual production
- ➤ 487 g/t Ag M&I resource grade
- > \$9.45 per oz Ag AISC
- > \$45 million NPV5
- Significant potential to expand through further exploration

Project is very sensitive to silver price. An increase in silver price will greatly enhance the economics of the project.

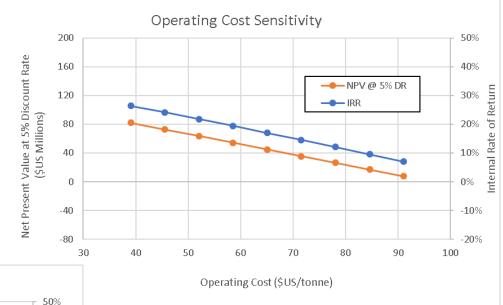


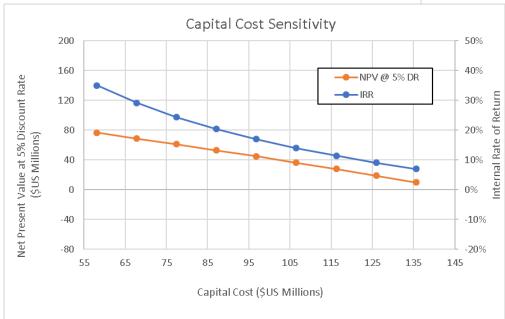
Based on underground mining of sulfide material at 1,200 tpd and producing a single product flotation concentrate containing 11.5 kg/t Ag over a 6-year mine life. \$97 M initial capital cost including \$16M in contingency. Three year trailing average Ag price used: \$16.66 /oz.



### PEA Results El Quevar

- Operating costs calculated using exchange rate of 28:1 Arg. Peso to \$US
- Current exchange is 38:1
- Labor is 40% of operating cost
- Operating costs in \$US terms will decrease if the new exchange rate persists

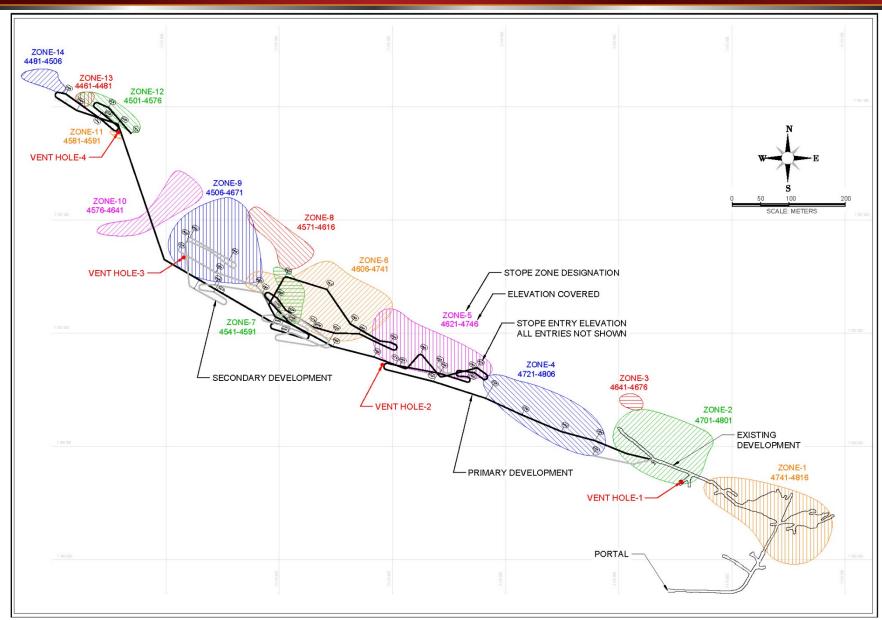




- Capital costs are estimated conservatively
- Reasonable prudence in purchasing and construction management may decrease capital estimate

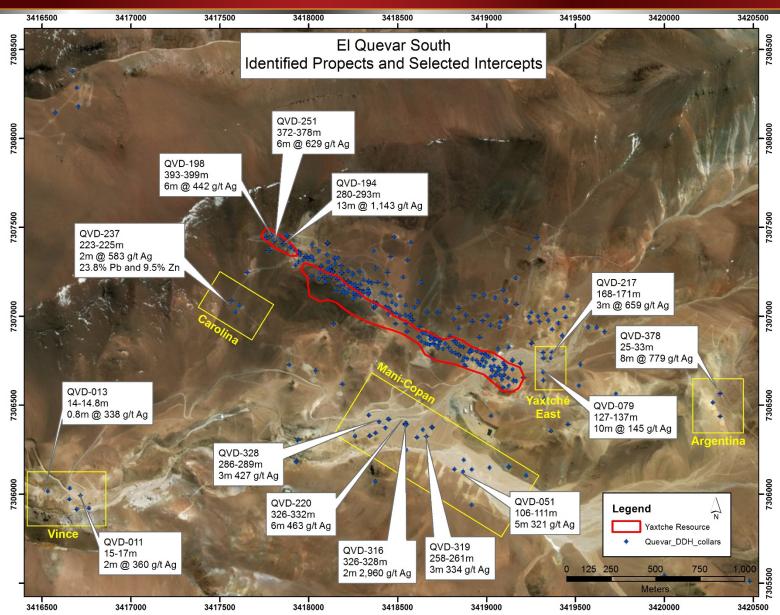


### Mine Plan El Quevar



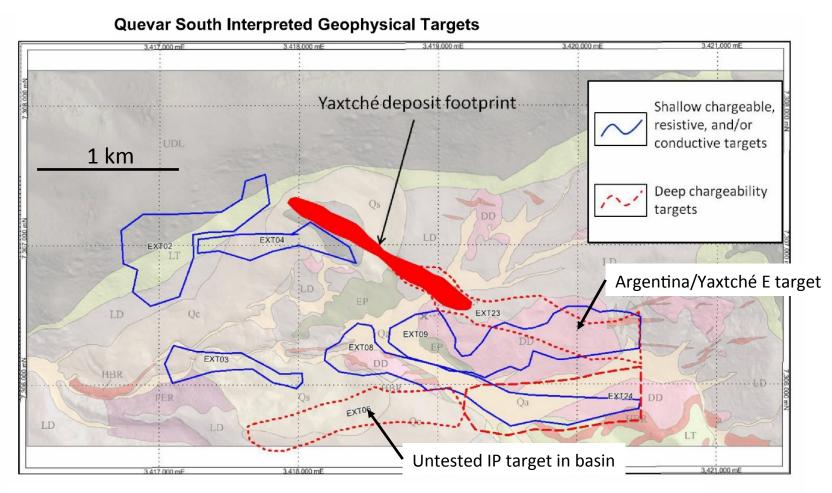


### El Quevar - Exploration





### El Quevar - Exploration



From new inversion of existing IP data. Results of new study have identified new targets.



### Principal Projects - Mexico

#### **SANTA MARIA**

- PEA and updated NI 43-101 resource reported March 2017
- Acquired additional 77 ha claims on strike and downdip, Q317
- Completed ~4850 m drilling program, 2017-18, with goal of expanding resource
- Updating resource followed by new PEA; in progress Q3 2018
- Test mined: 7,500 tonnes mined and processed since 2015 with average grades of 338 g/t Ag and 0.7 g/t Au

#### **CELAYA**

- 6,200 ha silver and gold project
- On Guanajuato silver trend SE of Naranjillo discovery (Plata Latina)
- Sold remaining interest in the Celaya property to Electrum for \$3.0 million



#### **VELARDEÑA**

- Oxide plant leased to Hecla (\$4.5M net oper. margin 2017)
- Hecla has secured the right to use the plant through 2020
- Sulfide plant available for ore processing
- Ample equipment on hand to support new mine operation
- 2 silver and gold underground mines now on care & maintenance

#### **RODEO**

- Near-surface gold deposit
- Potential source of material for Velardeña oxide mill after Hecla lease concludes (2020)
- NI 43-101 resource reported Jan. 2017



#### Velardeña - Overview



Sulfide plant

Tonnes			Au	AgEq	Ag	Au
Classification	(M)	Ag (Moz)	(Moz)	(Moz)	g/t	g/t
Measured	0.4	4.3	0.1	8.9	321	4.9
Indicated	1.0	9.5	0.1	18.4	311	4.1
Inferred	1.6	16.4	0.2	33.2	320	4.7

- Resources per Tetra Tech NI 43-101 resource estimate effective Feb. 27, 2015
- Assumes prices current as of Dec. 2014 of \$17/oz Ag and \$1,250/oz Au
- Silver equivalents are calculated at 60:1

- 560 ha Ag/Au property
  with two underground
  mines and two processing
  plants; oxide plant leased
  to Hecla since mid-2015
- Mines on care and maintenance until current metals prices and mine plans indicate sustainable positive operating margin
- NI 43-101 PEA (Feb. 2015;
   Tetra Tech) in place



#### Velardeña – Lease of Oxide Plant

- Source of cash: ~\$4.5M annual operating margin, comprised of fixed and variable fees
- Aug. 2017: Hecla purchased (for \$1M) an option to secure its use of the plant through 2020
- Q2 2017: Hecla completed tailings impoundment expansion



Oxide plant



### **Total Company Resources**

Classification	Tonnes (M)	Silver (Moz)	Gold (Koz)	AgEq. (Moz)	Silver g/t	Gold g/t
<u>VELARDEÑA</u>						
Measured	0.4	4.3	65.0	8.9	321	4.9
Indicated	1.0	9.5	126.0	18.4	311	4.1
Inferred	1.6	16.4	239.0	33.2	320	4.7
<u>EL QUEVAR</u>						
Indicated	2.9	45.3	-	45.3	482	n/a
Inferred	0.3	4.1	-	4.1	417	n/a
SANTA MARIA						
Indicated	0.2	1.7	8.1	2.3	304	1.4
Inferred	0.1	1.4	3.9	1.6	343	1.0
RODEO				Gold Eq. (Koz)		
Indicated	0.4	0.2	46.0	47.8	11	3.3

- Velardeña resources per Tetra Tech NI 43-101, February 27, 2015. Silver equivalents calculated at 70:1.
- El Quevar resources per Amec Foster Wheeler E&C Services, Inc., a Wood Group PLC company, NI 43-101, Feb. 2018. Cutoff grade 250 gpt Ag.
- Santa Maria resources per Tetra Tech NI 43-101, March 30, 2017. Silver equivalents calculated at 70.6:1.
- Rodeo resources per Tetra Tech NI 43-101, January 25, 2017. Silver equivalents calculated at 72:1.



### **Appendix**

#### ACCOMPANYING NOTES TO EL QUEVAR 2018 RESOURCE TABLE SHOWN ON PG. 11

- The Company retained Amec Foster Wheeler E&C Services, Inc., a Wood Group PLC company ("Wood"), to complete an updated Mineral Resource estimate in accordance with Canadian National Instrument 43-101 ("NI 43-101"). The estimate is based on the same drilling data as the 2012 technical report prepared by RPMGlobal (formerly Pincock Allen & Holt; "RPM") but uses updated geologic controls and a modeling approach designed to delineate the higher-grade mineralization.
- The 2018 El Quevar model was constructed using a hybrid approach that combined the efficiency of implicit modeling with the fine-tuning capabilities of probability-assigned constrained kriging (PACK). Structural trends were first constructed to define the orientation of the mineralization. These trends were then imported into implicit modeling software to construct wireframes that defined the limits of the silver mineralization. PACK was then used to estimate tonnes and grades within the wireframes through initially outlining the economic mineralization using indicator blocks, and then estimating grade within the blocks using ordinary kriging.
- The independent Qualified Person who prepared the Mineral Resource estimate is Gordon Seibel, a Registered Member of the Society for Mining, Metallurgy and Exploration, RM SME, who is a Principal Geologist with Wood.
- The effective date of the estimate is February 26, 2018. Mineral Resources are estimated using the CIM Definition Standards for Mineral Resources and Reserves (2014).
- Reported Mineral Resources contain no allowances for hanging wall or footwall contact boundary loss and dilution. No mining recovery has been applied.
- Rounding as required by reporting guidelines may result in apparent differences between tonnes, grade and contained metal content.



#### **Contact Information**

#### **INVESTOR RELATIONS**

Karen Winkler, Director of Investor Relations

Phone: 303.839.5060

Email: investor.relations@goldenminerals.com

#### **CORPORATE HEADQUARTERS**

350 Indiana Street, Suite 800 Golden, Colorado 80401 Tele. 303.839.5060

www.goldenminerals.com

https://www.linkedin.com/company/golden-minerals-company/

#### **TRANSFER AGENT**

Computershare
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