

Mineral Reserve statement for Bisha Main and Harena deposits, Eritrea, effective 31 December 2016

Category	Quantity (000's t)	Grade				Contained Metal			
		(% Zn)	(% Cu)	(g/t Au)	(g/t Ag)	'000 lbs Zn	'000 lbs Cu	'000 Ozs Au	'000 Ozs Ag
Proven									
Supergene	12		2.57	0.71	17		675		7
Primary	1,047	7.43	1.05	0.76	46	171,583	24,248	26	1,535
Total Proven	1,059					171,583	24,923	26	1,541
Probable									
Supergene									
Primary	8,532	6.00	1.05	0.68	45	1,128,788	196,688	186	12,293
Total Probable	8,532					1,128,788	196,688	186	12,293
Total Reserve (P&P)									
Supergene	12		2.57	0.71	17		675		7
Primary	9,579	6.16	1.05	0.69	45	1,300,371	220,936	212	13,827
Total	9,591					1,300,371	221,611	212	13,834

Notes to be read in conjunction with the Mineral Reserve tables:

- (1) NSR cut-off (\$US/t): Supergene ore \$39.12 and Primary ore, \$37.22 at Bisha Main, and \$39.78 at Harena. Mineral Reserves are defined within a mine plan, with phase designs guided by Lerch-Grossman (LG) Pit Shells, generated using commodity prices for copper, zinc, gold and silver of \$2.70/lb, \$1.00/lb, \$1,200/oz, \$18.00/oz respectively. The reference mining cost was \$2.27/t, plus \$0.015/t/5 m bench for ore and waste below reference elevations of 540 m amsl for Bisha Main. The total ore-based cost (process, G&A, stockpile and rehandle) is \$39.12/t for supergene and \$37.22/t primary ores. Harena ore-based costs include an additional \$2.56/t overland ore haulage cost. Overall pit slopes varied from 38° to 44° for Bisha Main and from 29° to 36° for Harena.
- (2) Economic values for multi-metal, multi zones were modelled using Net Smelter Return values. Each block NSR value was calculated using diluted grades, commodity prices, recoveries and appropriate smelter terms and downstream costs. Metallurgical recoveries, supported by metallurgical testwork, were applied as follows:
 - a. Bisha Main primary zone: Two concentrates are produced from primary ore, copper and zinc concentrates. For copper concentrate recoveries of 70%, 15% and 27% were applied for copper, gold and silver respectively. For zinc concentrate a 77% recovery has been applied to zinc.
 - b. Copper concentrate grade is 20%.
 - c. Zinc concentrate grade is 50%
 - d. Harena primary zone: recoveries to copper concentrate of 85%, 36% and 29% were applied for copper, gold and silver respectively. A zinc recovery to zinc concentrate of 85% was applied.
- (3) Mineral Reserves are reported within Bisha Main and Harena ultimate pit designs, using NSR block grade, where the marginal cut-off is the total ore based cost stated above. Tonnages are rounded to the nearest 1,000 tonnes. Grades for contained metals are rounded to two decimal places.
- (4) Rounding as required by reporting guidelines may result in apparent summation differences between tonnes, grade and contained metal content.
- (5) Tonnage and grade measurements are in metric units. Contained gold and silver ounces are reported as troy ounces, contained copper and zinc pounds as imperial pounds.
- (6) The life of mine strip ratios (by weight) for Bisha Main and Harena are 7.1:1 and 7.2:1 respectively.
- (7) 0.5 m "skin" of dilution is applied at ore/waste contacts.
- (8) 2% mining losses adjustments are made.
- (9) The end of December 2016 topography was used for this calculation.