

SHAREATE

FREEMPORT-McMoRAN



Mine Description

Freeport-McMoRan's Cerro Verde operation consists of an open-pit, porphyry copper mine. It is located approximately 35km southwest of Arequipa, Peru. The concentrator facilities are the world's largest, and are capable of handling up to 409,500 metric tons of ore per day. The annual production is approximately 600 million pounds of copper and 15 million pounds of molybdenum.

Rotary Drill Bit Performance

Shareate entered Cerro Verde in 2012, quickly gaining a market share of 20%. Numerous bit trials in the years since have proven the value of Shareate's product. In every formation tested, Shareate delivered lower cost per meter than the established incumbent brand. Shareate's sealed-bearing rotary bits now account for 80% of the total bit consumption at Cerro Verde, and the cost saving is estimated to be in excess of \$1.5M annually. The following table reports on performances from carefully controlled trials that compared Shareate's SGA535 with a well known manufacturer:

Formation	Brand	Meters	Hours	ROP	TDC
Trial 1 - Hard Formation	Leading Brand	842	22	38.3	\$15.98
	Shareate	870	24	36.3	\$14.02
Trial 2 - Medium Formation	Leading Brand	1312	27	48.6	\$11.70
	Shareate	1745	35	49.9	\$10.21
Trial 3 - Soft Formation	Leading Brand	2323	31	74.9	\$7.50
	Shareate	2324	32	27.6	\$7.14

Cerro Verde's Bit of Choice: Shareate 10⁵/₈" SGA535