

# SHAREATE



Sishen - S. Africa

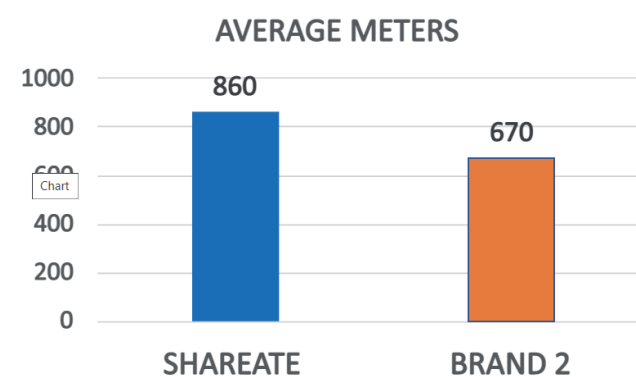


## Mine Description

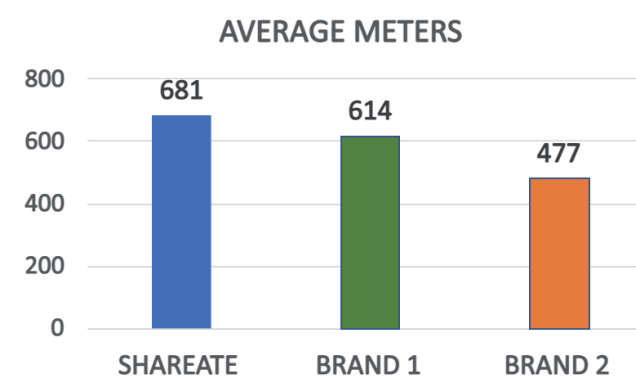
The Sishen mine is a large iron mine located in central South Africa in Kathu, Northern Cape. It is owned by Kumba Iron Ore Company, a subsidiary of Anglo American. Sishen represents one of the largest iron ore reserves in South Africa and in the world having estimated reserves of 2.43 billion tonnes of ore grading 58.6% iron metal.

## Rotary Drill Bit Performance (Controlled Bit Trials)

Average performances of bit trials at Kumba's Sishen Mine, comparing Shareate's sealed bearing bits with two well known, big-brand names of rotary air bit supply.



Shareate: 9.7/8" SGA645R IADC 645  
Brand 2: 9.7/8" Air Bit



Shareate: 12.1/4" SGA745R IADC 745  
Brands 2 & 3: 12.1/4" Air Bits

**Shareate's sealed bearing bits outperform standard air bits.  
Longest distance, and lowest TDC.**

# SHAREATE



Salobo - Brazil

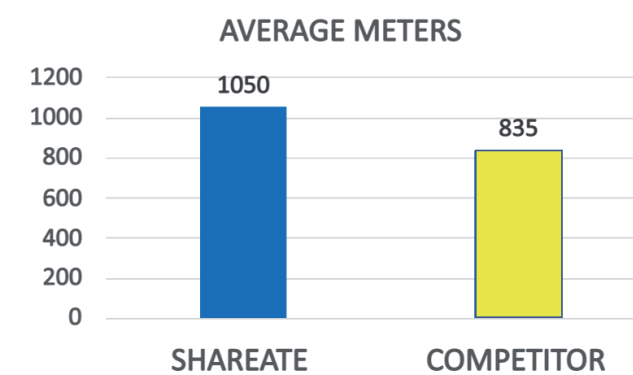


## Mine Description

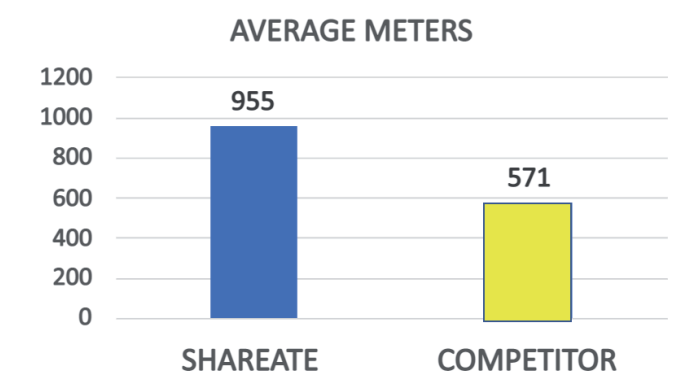
The Salobo mine is located in Marabá, in the southeast of Pará, Brazil, and went into operation in November 2012. The venture has an estimated nominal capacity of 100,000 tons of concentrated copper per year. With the Salobo II mine expanding this operation, the enterprise's production capacity will double to 200,000 tons. Salobo involves the integrated operation of open-pit mining, processing, transportation and shipment.

## Rotary Drill Bit Performance (Controlled Bit Trials - 12.1/4" & 13.3/4")

Average performances from rotary bit trials at Vale's Salobo Mine, are presented, comparing Shareate's 12.1/4" and 13.3/4" sealed bearing bits with a leading brand of air bits:



Shareate: 13.3/4" SGA635R IADC 635  
Competitor: 13.3/4" Air Bit



Shareate: 12.1/4" SGA645R IADC 645  
Competitor: 12.1/4" Air Bit

**Shareate's sealed bearing bits outperform standard air bits.  
More meters per bit and the lowest TDC.  
40% share at Vale's Sossego/Salobo mines.**



# SHAREATE



Kennecott - Utah, USA



Mine Description

Rio Tinto’s Kennecott mine is a world-class, integrated copper mining operation located just outside Salt Lake City, Utah, in the United States of America. Kennecott has been mining and processing minerals from the rich ore body of the Bingham Canyon Mine since 1903, and it still remains today, one of the top producing mines in the world.

Rotary Drill Bit Performance

In a huge operation like Kennecott, dollar savings quickly add up. When Shareate Tools Ltd. tried out against the big brand incumbents, and delivered class-leading performance, Rio Tinto was quick to seize on the opportunity. Starting from the sidelines, Shareate has since ascended to the top of the supplier rankings and now enjoys the exclusive rotary drill bit business of Rio Tinto’s Kennecott Bingham Creek Mine. Shareate supplies the mine with sealed-bearing, SGA series air bits, in IADC codes ranging 515 thru 615, and in 7.7/8”, 9.7/8”, 10.5/8”, and 12.1/4” diameters.

**Shareate’s sealed bearing bits outperform standard air bits.**  
**More meters per bit and the lowest TDC.**  
**Best of the Best.**  
**100% Share at Rio Tinto’s Kennecott Copper Mine**

# SHAREATE



Carajás Mine - Brazil



Mine Description

The Carajás Mine is the largest iron ore mine in the world. It is located in the municipality of Parauapebas, state of Pará in the Carajás Mountains of Northern Brazil. The mine is operated as an open-pit mine, and is estimated to contain roughly 7.2 billion metric tonnes of iron ore, plus gold, manganese, bauxite, copper, and nickel. The mine is run by Vale (formerly the Companhia Vale do Rio Doce) and was previously part-owned with US Steel. The mine is located in the mining concession area of the Carajás National Forest, which "contains known reserves of 18 billion tons with an average grade of 65.4 % Fe.

Rotary Drill Bit Performance (Controlled Bit Trials)

Average performances from rotary bit trials at Vale’s Carajás Mine, comparing Shareate’s 9.7/8” SGA635 sealed bearing bit with the big brand names of air bits:

Supplier	Meters (Rounded)	ROP (M/hr)
Leading Brand 1	5500	42
Leading Brand 2	5000	43
Leading Brand 3	3900	41
Shareate	5500	47

**Carajás Bit of Choice: Shareate 9.7/8” SGA635G Sealed Bearing Bit**  
**More meters per bit, best ROP and lowest TDC.**





S11D Eliezer Batista - Brazil



Mine Description

Vale’s SD11 Project in Brazil is located in Serra dos Carajás, in the South-Eastern Pará State of Brazil. The site has one of the world's richest ore bodies, with over 4 billion tonnes of reserves and a ferrous content around 66%. It is the largest iron ore mine project in the world, at 90 million tonnes per year. The mine is a highly technological operation, which functions with Long Distance Belt Conveyors (LDBC), a truckless system of 64 kms of belts that transport the ore to the plant.

Rotary Drill Bit Performance

In October of 2020, mine owner Vale and contractor Drillco celebrated a milestone at the S11D mine when a Shareate 9 7/8” SGA635RF drilled a distance record of 12,814m. Achieving a Penetration Rate of 79 m/hr, this is the highest life, and the lowest TDC ever achieved by any tricone drilling bit in the mine since its opening in 2017. The record breaking performance was celebrated by Vale’s S11D Drill & Blast Team, Drillco Brazil, and Shareate Tools Ltd..



From left to right:  
Itamar Pereira (Drillco Field Technician), Antônio Santos (Vale Tool Technician), and Rafael Cabral (Vale Mechanical Technician).

**Record-Breaking Bit:**  
**Shareate 9 7/8” SGA635RF**  
**Longest recorded meters.**



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 10 5/8” SGA535**





GLENCORE                      Liddell Open Cut Coal Mine – Australia

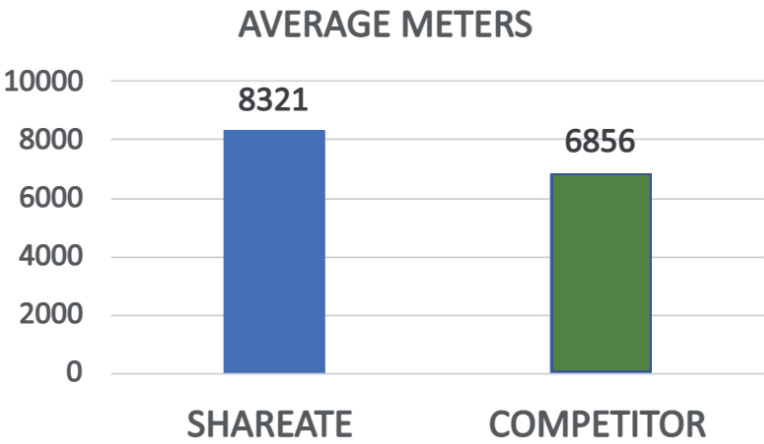


**Mine Description**

Liddell Open Cut Mine is located within the Hunter Coalfields at Ravensworth in the Upper Hunter Valley of New South Wales. The mine produces up to 8 million tonnes of ROM coal per annum. Liddell Open Cut is owned through a joint venture between Glencore (67.5%) and Mitsui Matsushima Australia Pty Limited (MMA) (32.5%).

**Rotary Drill Bit Performance (Controlled Bit Trials)**

Average performances of bit trials conducted during 2021, at Liddell Open Cut Mine, to compare Shareate’s 9” SGV435 sealed bearing bit with a well known brand name of rotary air bit supply.



**Shareate’s sealed bearing bits outperform standard air bits.  
More meters per bit, and the lowest TDC.**



**BHP** GLENCORE **Teck**                      Antamina - Peru



**Mine Description**

The Antamina mine in the Andes Mountains and 270km north of Lima, Peru, is one of the largest copper/zinc mines in the world. It also produced molybdenum. It is an open pit mine located at an altitude of 4,300 meters above sea level. The primary partners in Antamina mine are BHP (34%), Glencore (34%), Teck (22%). With a mine life estimated at fifteen years, Antamina has produced up to 500,000 tons of copper concentrate annually.

**Rotary Drill Bit Performance**

Shareate entered into the Antamina Mine in 2015, to compete against two of the most respected brands in the blasthole bit business. Controlled bit trials proved Shareate’s class-leading performance, averaging 4,000-4,500m per bit. Market shares have been re-ordered to reflect the value being delivered. Shareate now enjoys an 80% share of the rotary bit business at the Antamina Mine, supplying SGA-series, sealed-bearing bits in 12.¼” diameter and IADC615-625.

**Antamina’s Preferred Choice for 12.¼” Rotary Bits:**

**Shareate SGA-Series Sealed-Bearing Bits.**

**More meters per bit, best ROP and lowest TDC.**

**Outperforming the big-brand air bits.**

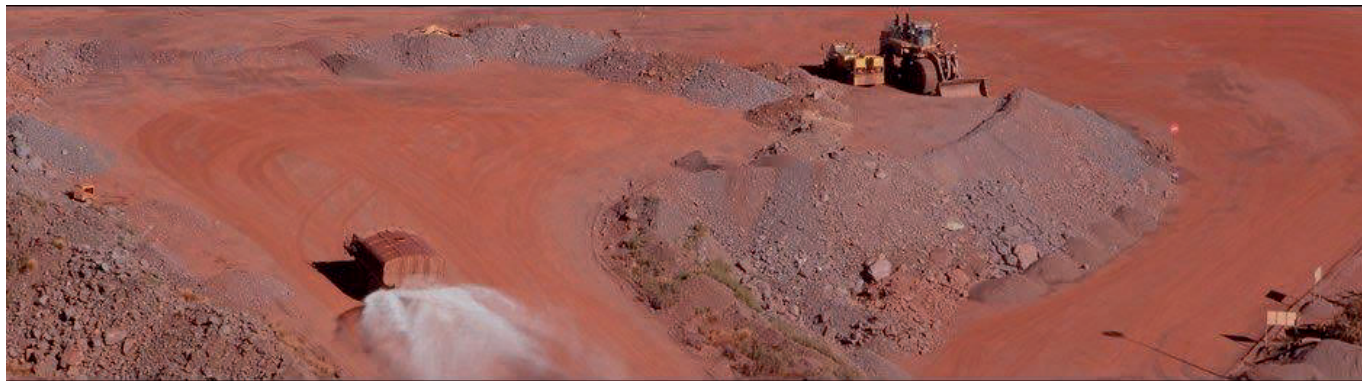
**80% Share Reward.**





**BHP**

Pilbara Iron Mine – W. Australia

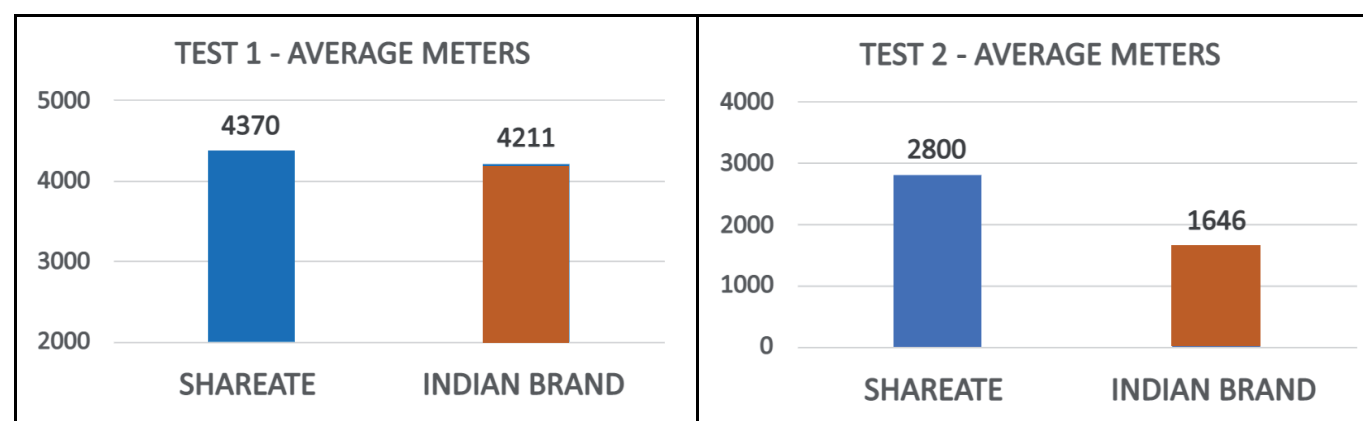


#### Mine Description

Western Australia Iron Ore (WAIO) is an integrated system of four processing hubs and five mines, connected by more than 1,000km of rail infrastructure and port facilities in the Pilbara region of northern Western Australia. This region of Australia accounts for approximately 29% of the world's iron ore reserves, and is the world's primary supply of iron ore, accounting for approximately 40% of all global supply.

#### Rotary Drill Bit Performance (Controlled Bit Trials)

Average performances of bit trials conducted at Pilbara mines, comparing Shareate's 9.7/8" SGV645 sealed bearing bit with a well known brand name of rotary air bit supply.



**Shareate's sealed bearing bits outperform standard air bits.  
More meters per bit and the lowest TDC.**



**VALE**

Sossego – Brazil

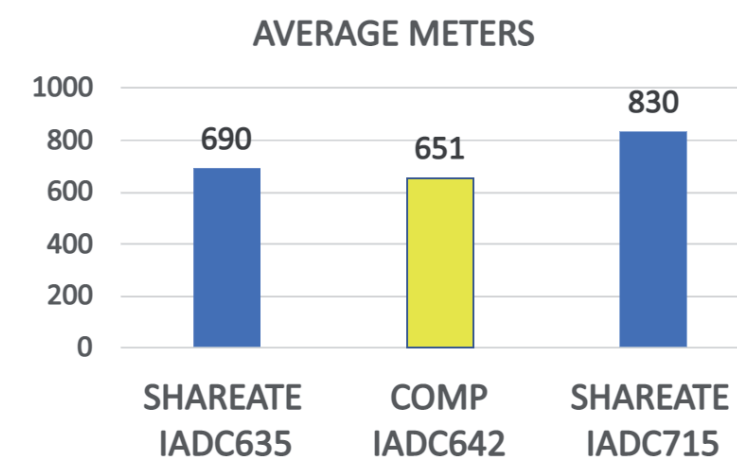
**DRILLCO**



#### Mine Description

The Sossego Mine Complex consists of two open-pit mines, Sossego and Sequeirinho, located in the Carajás region in the southeastern portion of Pará State in Brazil. Sossego was the first copper project taken into operation by Vale and has been producing copper concentrate since 2004. Copper ore is mined using the open-pit method. In 2020, the Sossego mine produced 87,700 tonnes of copper and Vale reported an updated reserves estimate for Sossego totaling 98.3 million tonnes grading 0.69% copper and 0.19 g/t gold.

#### Rotary Drill Bit Performance (Controlled Bit Trials – 12.1/4")



Average performances of bit trials at Vale's Sossego Mine, comparing Shareate's sealed bearing bits with a well known, big-brand name of rotary air bit supply.

**Shareate's sealed bearing bits outperform standard air bits.  
More meters per bit and the lowest TDC.  
40% Share at Vale's Sossego/Salobo mines.**