

# Strategic Metals & Rare Earths Letter

## INTERNATIONAL

*the independent information and advisory publication on investing in Strategic Metals & Rare Earths*

**Special Situation – August 2017**

[www.cruzcobaltcorp.com](http://www.cruzcobaltcorp.com)



**Cruz Cobalt Corp. (C\$ 0.20)**

TSX.V : CUZ

H + L prices (12 months) : Cdn\$ 0.31 – 0.11

Net shares issued : 60.3 million

Fully diluted shares : 90.1 million

Market Capitalization : C\$ 12.06 million

**First price target: C\$ 0.40**

### **Company profile**

**Cruz Cobalt** (“Cruz”) currently has 9 cobalt projects located throughout North America, comprising of 4 located in Ontario, Canada, 3 in British Columbia, Canada, one in Idaho, US and one in Montana, US. The Company’s 4 separate Ontario projects are all located in the Cobalt camp.

**Cruz’s** Ontario projects include the 900-acre **Coleman Cobalt prospect**, the 900-acre **Johnson Cobalt prospect**, the 5,500-acre **Hector Cobalt prospect** and the 1,480-acre **Bucke Cobalt prospect**. The Company’s 4,935-acre **War Eagle Cobalt prospect** in British Columbia covers a past-producing mine.

**Cruz** has more than sufficient cash on hand to undertake the multiple planned work programs. On August 15, 2017, the Company announced to have completed the airborne work program as the first of several work programs that are being formulated.

### **► Cobalt market**

Cobalt is currently surging with the rise of lithium-ion (Li-on) batteries (approximately 75% of these batteries use cobalt), as cobalt offers the highest energy density of the various Li-on battery formulas, and is therefore very popular in electric vehicles.

The International Energy Agency estimates a global increase to 40 million hybrid cars by 2024, with the batteries of all these cars requiring 7 kilos of cobalt. This alone would push the demand for cobalt to 280,000 tonnes by that time, which represent two times today’s global cobalt production.

In 2016, the cobalt price started to rise responding to increased demand and reduced supply. It was rising from its low around US\$ 10/lb to around US\$ 15/lb by year-end, for about a 50% rise and is expected to more than double to US\$ 30/lb by year-end 2017. The current cobalt price is around US\$ 26/lb.

### Top-10 cobalt mine producers (in tons)

	2016E	2015	Reserves
Congo (Kinshasa)	66,000	63,000	3,400,000
China	7,700	7,700	80,000
Canada	7,300	6,900	270,000
Russia	6,200	6,200	250,000
Australia	5,100	6,000	1,000,000
Zambia	4,600	4,600	270,000
Cuba	4,200	4,300	500,000
Philippines	3,500	4,300	290,000
Madagascar	3,300	3,700	130,000
New Caledonia *	3,300	3,680	64,000
Other countries	11,800	15,620	746,000
<b>World total</b>	<b>123,000</b>	<b>126,000</b>	<b>7,000,000</b>

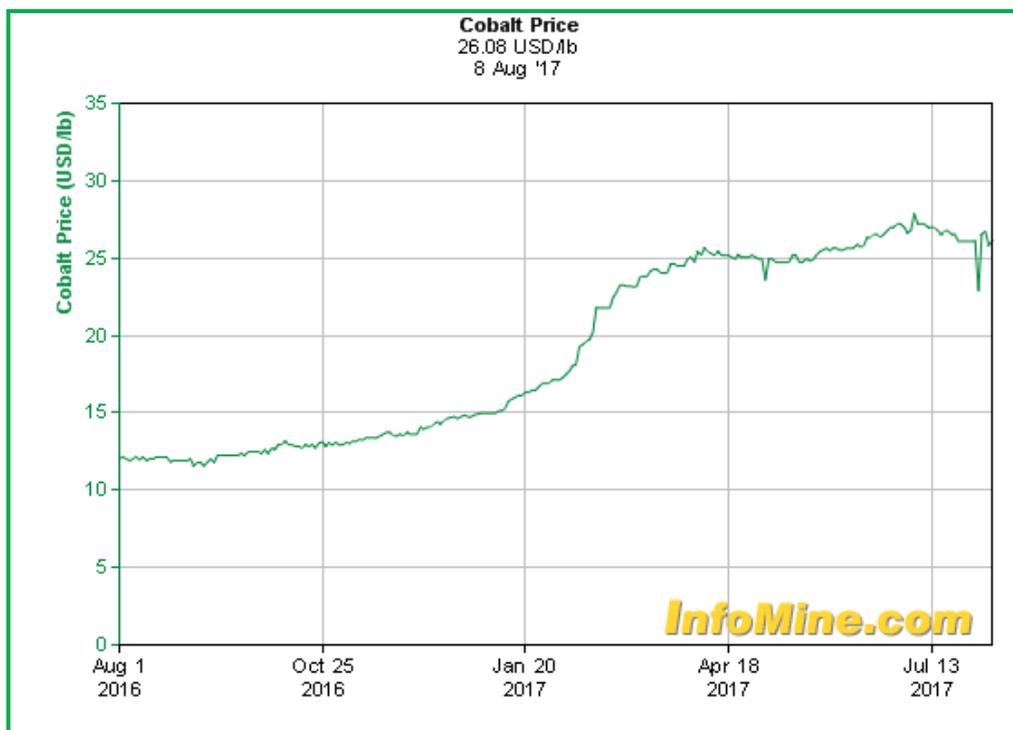
\* Overseas territory of France

Many traditional nickel, cobalt oxide, manganese (NCM) batteries, which are typically used in power tools and many electric cars are in energy storage use one-third equal parts nickel, cobalt and manganese.

China is the world's leading producer of refined cobalt and the leading supplier of cobalt imports to the United States. Much of China's production is from ore and partly refined cobalt imported from Congo (Kinshasa); scrap and stocks of cobalt materials also contribute to China's supply.

In 2015 and 2016, China's State Reserve Bureau purchased cobalt for its stockpile, increasing its grip on the global cobalt market.

Tesla, the world's largest electric car producer, uses NCA (nickel-cobalt-aluminium) lithium batteries in their electric vehicles (EVs). The raw material by cost for NCA batteries is higher for cobalt than for lithium and are usually a combination of 80% nickel, 15% cobalt sulphides and 5% aluminium. NCA has the highest specific energy or power per kilogram.



## Cobalt Projects



### Canada

#### ➤ Bucke Cobalt Prospect - Ontario

The Bucke Cobalt Prospect consists of approximately 1,480 acres in the Larder Lake mining division of Ontario. According to the Province of Ontario mineral file, the property returned assays grading 13% cobalt and 240 g/t silver on this cobalt-focused prospect.

The Bucke Cobalt Prospect is one of 4 **Cruz** has in Ontario, which is believed to have good exploration potential based on the Ontario mineral documents on file.

The Company will start a work program shortly to test the Property and to follow-up on historical information provided by the Province of Ontario, relating to the property area.

#### ➤ Coleman Cobalt Prospect - Ontario, Canada

The Coleman Cobalt Prospect, comprising approximately 900 contiguous acre, is located in the Larder Lake mining division of Ontario. According to the Province of Ontario mineral file, the Property returned grades of up to 13% cobalt and appears to be an extension of the Tretheway veins.

#### ➤ Johnson Cobalt Prospect – Kirkland Lake mining district of Ontario

The Johnson Cobalt Prospect consists of approximately 900 acres in the Kirkland Lake mining district of Ontario. According to the Province of Ontario mineral file from 1980, grab assays over 300 metres returned up to 10.5% cobalt, 69 g/t silver, 12% nickel and 0.4% copper.

**Cruz** plans to commence work to fully assess this Property shortly.

#### ➤ War Eagle Cobalt Prospect – British Columbia

The War Eagle Cobalt Prospect has a mine life citing a report from 1948 showing surface samples of 6.41% cobalt, 3.59% nickel and 7.25% copper. Old workings include a tunnel and some test pits, and the character of the ore body is in a fissure vein which outcrops almost continuously for 3,000 feet.

Because these numbers cannot be verified or relied upon at this time, **Cruz** plans to dispatch crews to the Property shortly to start operations on the prospect.



### United States

#### ➤ Idaho Star Cobalt Prospect – Idaho

The Idaho Star Prospect is located approximately 9 miles southwest of Saltese, Montana and 19 miles south-east of Wallace, Idaho. This new prospect consists of 44 contiguous claims within the prolific Idaho Cobalt Belt.

Geological data was gathered showing this prospect area to have been active for mining of cobalt, silver and copper in the past.

## ➤ **Chicken Hawk Cobalt Prospect – Dear Lodge County, Montana**

The Chicken Hawk Cobalt Prospect, consisting of 64 contiguous lode claims covering approximately 1,300 acres, are located on the Western edge of the Boulder Batholith and east of the Cordilleran Fold and Thrust Belt in south-western Montana. The 8 current claims are in the vicinity of a total of four volcanic rock suites.

**Cruz** believes that the cobalt trend in the western USA snakes its way through Idaho into Montana and up into southern British Columbia, Canada.

### **Current developments**

On July 17, 2017, **Cruz** announced that the drill permit for the **Bucke Cobalt prospect** has been approved by the Ministry of Northern Development and Mines.

On August 1, 2017, **Cruz** announced that it had secured the services of Eagle Geophysics which has extensive knowledge of the area around the town of Cobalt, to conduct the airborne program over the Company's Ontario cobalt properties.  
The airborne survey is the first of several work programs that are being formulated.

### **Finance**

At April 30, 2017, **Cruz** had C\$ 1.94 million in cash and cash equivalents and a working capital of C\$ 1.33 million.

Exploration and evaluation assets increased from C\$ 97.319 as at July 1, 2016 to C\$ 1.65 million as at April 30, 2017 due mainly to the acquisition of cobalt projects in British Columbia, Ontario and Montana.

During the 9 months ended April 30, 2017, the Company received gross proceeds of C\$ 1.1 million for the exercise of warrants and stock options.

Subsequent to April 30, 2017, 573,000 share purchase warrants were exercised at C\$ 0.15 per share and 50,000 share purchase warrants were exercised at C\$ 0.05 per share; and 1.42 million stock options were exercised at C\$ 0.20 per share.

### **Management**

**James Nelson – President, Secretary and Director**, was an independent Director of Turbo Capital. He has been involved in various capacities with several TSX Venture Exchange listed companies, both as a director and a consultant, specializing in investor relations, financing, and corporate communications. Mr. Nelson is a director of TAD Mineral Exploration and an officer of Canasia Industries, both of which are listed on the TSX Venture Exchange.

**Seth Kay – Director** Mr. Seth Kay is on the Board of Directors at Makena Resources, Inc. and Cruz Cobalt Corp. Mr. Kay was previously employed as Vice President-Corporate Communications by Cruz Cobalt.

**Gregory Thomson – P.Geo, B.Sc (Geo), Director**, founder and Principal Executive Officer of Millington Mining. He has over 35 years of mineral exploration experience, primarily as a project geologist, with the majority of his career focused on gold exploration, mainly in British Columbia. Mr. Thomson has also participated in or managed exploration programs in Alaska (Pogo gold deposit), Mexico and Mongolia. He was a senior project geologist for Teck Exploration from 1989 to 2000. His most recent experience (2010 to 2012) was with Huakan International Mining where he carried out geological supervision, permitting and implementation of underground diamond drilling programs for the J&L massive sulphide (gold, silver, lead, zinc) deposit located north of Revelstoke, B.C..

## Investment comments:

### Violation of human rights in DRC, controlling close to 60% of global cobalt supply, stimulates exploration boom in Western world located cobalt projects

The DRC mined an estimated 67,700 tons (tonnes) of cobalt in 2016, representing close to 60% of the world's total production of 122,000 – 125,000 tonnes last year. This represents a decrease of approximately 3,000 tonnes compared to 2015, mainly due to lower production from nickel operations. Approximately 20% of DRC's cobalt production is mined by unregular "artisanal" miners and according to a 2014 estimate by UNICEF, about 40,000 of these miners are children. Dealing with this violation of human rights there is a growing tendency to be less dependent on the supply from DRC cobalt, resulting in intensifying the search for cobalt in Western countries, led by the United States, Canada and Australia.

Cobalt is not a stand-alone metal as it mostly is a by-product from copper and nickel mining and its production consequently dependent from the market prices of these major metals.

Not only the number of cobalt companies is growing (see overview of listed cobalt companies), but also a consolidation process has commenced, including the recently announced amalgamation of First Cobalt and Cobalt One, creating the largest listed Western cobalt exploration company with a focus on the Cobalt camp in Ontario, Canada. The amalgamated company has a transaction value of approximately C\$ 140 million. In addition, **Cobalt 27** raised C\$ 200 million with the intention to acquire and hold physical cobalt and closed royalty agreements for the aggregate amount of C\$ 85 million.

**Although it is too early to value the growing number of cobalt exploration companies on their investment merits, considering the preceding booming lithium equity market this is an illustrative example of the potentially high leverage potential cobalt exploration companies are offering at today's small market valuations, and a number of these companies having already started to distinguish themselves.**

One of these cobalt exploration companies is **Cruz Cobalt** with 7 projects located in Canada of which 4 in the prolific Cobalt camp of Ontario, and 2 in the US, well represented to benefit from the strongly growing search for cobalt in Western countries to replace future cobalt supply from DRC.

Undertaking multiple planned work programs to commence in the next few months, for which the Company has C\$ 1.94 million in cash and cash equivalents on hand as at April 30, 2017, positive exploration results offer a high investment leverage potential to **Cruz**.

My first price target is C\$ 0.40.

## Largest cobalt-producing companies in 2016 (in tonnes)

### Glencore (LSE – GLEN) – total production 21,506 tonnes

**Glencore** was the world's largest cobalt producer by a long shot last year, achieving total production of 21,506 tonnes. Right now, cobalt accounts for \$ 1.5 billion of the Company's revenue at the spot price, with every 10% rise adding \$ 156 million to its earnings.

Earlier this year, the company upped its involvement in the cobalt and copper markets after paying Fleurette Group \$ 960 million to increase its stakes in two copper-cobalt operations, Mutanda Mining and Katanga Mining, in the DRC.

Fleurette Group had a total production of 7,595 tonnes in 2016.

On 6 July 2017, it was announced that **Glencore** has signed a large cobalt deal to sell up to 20,000 tonnes of cobalt products to Contemporary Amperex Technologies ("CATL") of China that will help Volkswagen to secure batteries for its electric cars.

**National Electric Vehicle Sweden (NEVS)** has signed a strategic framework agreement with CATL to secure the battery supply for NEVS 9-3 EV in the Chinese market.

### ► China Molybdenum (HKEV – 3993) – total production 9,314 tonnes

In 2016, **China Molybdenum** paid \$ 2.65 billion for the Tenke mine in the DRC. The mine contains one of the world's largest concentrations of cobalt and is said to offer security of critical battery material for decades to come. Most of Tenke's supply is consumed by China.

### ► Vale (NYSE – VNLR) – total production 5,278 tonnes

Brazil's **Vale** reported net derived revenues of \$ 29.36 billion from production of 5,278 tonnes in 2016, 14.7% higher than in 2015.

In Canada, **Vale** is active in Ontario's Sudbury Basin, one of its biggest operational sites. Together, six underground mines produce mainly nickel, but also copper, cobalt, PMG's, gold and silver.

The Company's Thomson Complex, located in Manitoba, also produces cobalt, although nickel is the primary metal mined.

Additionally, **Vale** operates the Goro open-pit mine in New Caledonia, where it produces cobalt as a by-product of nickel.

### ► Gécamines – total production 4,167 tonnes

**Gécamines**, a state-controlled mining company, has minority interests in a number of major DRC mines with companies including Glencore, Freeport McMoran (NYSE – FCX) and Canada's Ivanhoe Mines (TSX – IVN) having controlling stakes and operating projects. Gécamines has faced criticism in recent years from the International Monetary Fund and advocacy groups, including Global Witness, for selling assets in non-transparent procedures.

## ► Glencore flags exposure to raw materials that power electric vehicles

Speaking after the release of Glencore's first half interim results on August 10, 2017, Ivan Glasenberg, chief executive, has become a keen advocate of the lithium ion batteries industry. With the electric vehicle revolution underway this year, its impact is felt faster than expected according to Mr. Glasenberg.

Forecasts suggest a growth of about 30% of the vehicle fleet by 2030. Based on that figure, there would be a need for an extra 3 million tonnes of copper, 1.2 million tonnes of nickel and 260,000 tonnes of cobalt.

To put these numbers in perspective, global **copper** demand is currently 23 million tonnes, nickel 2.1 million tonnes and cobalt approximately 123,000 tonnes.

**Glencore** is one of the world's largest global diversified natural resources companies and a major producer and marketer of more than 90 commodities, the world's largest producer of cobalt, a key component in lithium-ion batteries and is a large miner of nickel as well as copper, metals that are needed in battery powered vehicles, as well as the charging points. The Company's operations comprise around 150 mining and metallurgical sites, oil production assets and agricultural facilities.

In H1 2017 Glencore reported pre-tax profits of \$ 2.45 billion, up from a loss of \$ 369 million last year, generated by significantly better commodity prices and the favourable cost structures embedded across the portfolio. Adjusted EBITDA jumped 68% from \$ 4.02 billion in H1 2016 to \$ 6.74 billion in H1 2017.

Revenues jumped 45% to \$ 100 billion on the back of higher coal, copper, cobalt and zinc prices.

Notable average period over period increases in commodity prices were cobalt (115%), coal (57%), zinc (49%), lead (28%) and copper (22%).

Net debt dropped \$ 15.5 billion at year-end 2016 to \$ 13.9 billion at June 30, 2017. (57%)

In February 2017, Glencore acquired the remaining 31% in Mutanda with its tier-1 copper/cobalt operations in the Democratic Republic of Congo (DRC).

The Company also has an 86.3% interest in TSX-listed company Katanga Mining, which operates a large-scale project with substantial high-grade mineral reserves and integrated operations in the DRC. Katanga holds a 75% stake in two joint ventures with Gécamines, a state-owned mining company in the DRC.