



## PRESS RELEASE

CZN-TSX  
CZICF-OTCBB

FOR IMMEDIATE RELEASE  
September 21, 2010

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- **VATUKOULA GOLD MINES FOURTH QUARTER AND YEAR END OPERATIONAL RESULTS**

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Vancouver, British Columbia, September 21, 2010 - Canadian Zinc Corporation (TSX: CZN; OTCBB: CZICF) reports that Vatukoula Gold Mines Plc, has announced preliminary unaudited operational results from its 100% owned Vatukoula Gold Mine in Fiji for the fourth quarter and fiscal year ended 31 August 2010.

Vatukoula Gold Mines plc ("VGM") is a UK company, listed on the AIM Market of the London Stock Exchange, (AIM: VGM) which owns and operates the Vatukoula Gold Mine located in Fiji.

Canadian Zinc holds 628 million shares of VGM representing approximately 15% of VGM's shares.

*The following information and commentary has been derived from VGM's announcement dated September 20, 2010.*

### Operational Highlights

- **Gold recovered increased to 59,658 ozs for the Twelve Months (2009: 33,757 ozs) and 21,107 ozs for the Fourth Quarter (Q3: 13,306 ozs).**
- **Gold sales of 54,642 ozs for the Twelve Months (2009: 33,246ozs) and 19,251 ozs for the Fourth Quarter (Q3: 11,299 ozs).**
- **Mine net operating earnings for the Twelve Months increased to £12.9 million compared to a loss of £3.3 million for the same period in 2009 (*unaudited*).**
- **Cash costs per ounce of gold recovered was US\$664/oz for the Twelve Months and US\$647/oz for the Fourth Quarter, compared to US\$881/oz for 2009 and US\$751/oz in the Third Quarter (*unaudited*).**
- **New exploration programme initiated to explore the extensive Vatukoula properties with a new drilling program planned to commence in January 2011.**

<b>Production Summary</b>	<b>June2010- Aug 2010 Q4</b>	<b>Mar 2010- May 2010 Q3</b>	<b>12Months to Aug 2010</b>	<b>12Months to Aug 2009</b>
<b>Underground Mining / Sulphide Processing</b>				
Ore mined (t)	<b>81,943</b>	<b>71,534</b>	<b>261,188</b>	<b>212,536</b>
Development (metres)	<b>2,650</b>	<b>2,371</b>	<b>8,721</b>	<b>5,755</b>
Sulphide Ore delivered (t)	<b>72,444</b>	<b>65,944</b>	<b>240,024</b>	<b>188,421</b>
Sulphide head grade (g/t)	<b>8.81</b>	<b>5.87</b>	<b>7.44</b>	<b>6.28</b>
<b>Oxide Plant</b>				
Ore delivered (t)	<b>54,279</b>	<b>56,856</b>	<b>198,507</b>	<b>32,095</b>
Oxide head grade (g/t)	<b>2.24</b>	<b>1.87</b>	<b>2.01</b>	<b>1.78</b>
<b>Total (Sulphide + Oxide)</b>				
Ore processed (t)	<b>126,688</b>	<b>123,372</b>	<b>438,691</b>	<b>220,439</b>
Average ore head grade (g/t)	<b>5.99</b>	<b>4.07</b>	<b>5.00</b>	<b>6.27</b>
<b>Total Recovery (%)</b>	<b>86.29%</b>	<b>82.20%</b>	<b>84.42%</b>	<b>75.71%</b>
Gold recovered (oz) *	<b>21,107</b>	<b>13,306</b>	<b>59,658</b>	<b>33,757</b>
Gold shipped (oz)	<b>19,251</b>	<b>11,299</b>	<b>54,642</b>	<b>33,246</b>
<b>Cash Costs</b>				
Cash cost / recovered ounce** (US\$) (unaudited)	<b>647</b>	<b>751</b>	<b>664</b>	<b>881</b>
Cash cost / tonne*** (US\$) (unaudited)	<b>108</b>	<b>81</b>	<b>88</b>	<b>135</b>
Average realised gold price (US\$ / oz)	<b>1,199</b>	<b>1,161</b>	<b>1,150</b>	<b>881</b>
Mine net operating earnings (loss) (£ ,000) (unaudited)	<b>5,551</b>	<b>1,496</b>	<b>12,926</b>	<b>(3,332)</b>

\* includes gold which has been partially processed, but not produced as gold dore or shipped

\*\* excludes amortization and depreciation, unrealised foreign exchange rate movements, provisions, and gold stock movements

\*\*\* only includes mining and milling plus royalties

## **Underground Mining and Development**

Ore mined for 2010 increased to 261,188 tonnes from 212,536 tonnes in the previous year. The ramp up in underground production has shown a steady increase in underground ore mined over the past four quarters. This has increased from 45,105 tonnes in the first quarter, to 62,606 tonnes in the second, 71,534 tonnes in the third and 81,943 tonnes in the final quarter.

The overall increase in the delivered grade from underground sources for Q4 and the full 12 months can be attributed to a number of factors, including;

- increased mining from the Philip section with a higher than average grade;
- increased availability of stopes with higher grades;
- higher grades from R1, Cayzer and Smith mining sections at various intervals over the quarter.

Underground development increased steadily from 1,664 meters, 2,036 meters, 2,371 meters in the first second and third quarters, respectively, to 2,650 meters in the Fourth Quarter.

## **Milling operations**

The Vatukoula Treatment Plant (“VTP”) continued to operate satisfactorily during the period and progress continues with the equipment refurbishment programme. For 2010 the VTP processed a total of 438,691 tonnes of combined sulphide and oxide ores at an average grade of 5.00 g/t, which was a significant increase in total tonnes treated from 220,439 tonnes in 2009. This increase in milled ore over the year can be attributed to a full year of oxide ore milling. In Q4 the VTP treated a total of 126,688 tonnes ore which represented an increase of 2.7% over the previous quarter.

During 2010, 59,658 ounces of gold were recovered of which 54,642 ounces were shipped and sold. For the fourth quarter 21,107 ounces of gold were recovered and 19,251 ounces shipped and sold.

## **Financial results and Operating Costs (unaudited)**

For the year ended August 31, 2010, the Company recorded mine net operating earnings of £12.9 million (unaudited), compared to a loss of £3.3 million recorded in the previous year.

Mine net operating earnings for Q4 were recorded at £5.5 million (unaudited) up from £1.50 million (unaudited) in Q3. The variation in earnings between the third and fourth quarters is primarily due to the increased gold production and an increased realised gold price.

Cash operating costs per ounce of gold recovered were US\$664 per ounce for 2010, down from US\$881 in the same period last year. For Q4 the operating cash cost decreased to US\$647 per ounce of gold recovered, a 14% decrease over the previous quarter cash cost of US\$751 per ounce. This was a result of higher tonnes and grades mined and processed.

The average gold price realised for 2010 was US\$1,150 per ounce, up very significantly from US\$881 per ounce realised in the previous year.

## **Exploration**

VGM has proposed an exploration programme to:

- identify high-grade areas within the current mining infrastructure;
- identify new areas in close proximity to the mine to enable mine expansion; and
- undertake exploration over the special prospecting licenses.

Preliminary results from the initial studies have identified several exploration targets. Vatukoula anticipates that the new drilling program to explore both surface and underground targets will commence in January 2011.

**Cautionary note:** *The historic and forward-looking information presented above with regard to the operations of Vatukoula Gold Mines Plc has been summarized from VGM’s publicly announced documents.*

For further information: [www.vatukoulagoldmines.com](http://www.vatukoulagoldmines.com)

### **About Vatukoula Gold Mines plc:**

Vatukoula Gold Mines plc is a UK company, listed on the AIM Market of the London Stock Exchange, which currently owns and operates the Vatukoula Gold Mine located in Fiji.

The Vatukoula Gold Mine has an operational history of over 70 years during which time it is reported to have produced some seven million ounces of gold and over two million ounces of silver from the treatment of around 22,500,000 tonnes of ore. Production at the mine was suspended by the previous owners in 2006.

VGM acquired the Vatukoula Gold Mine in April 2008 and has since then re-established gold mining operations. Current planning is to restore mine operations to a rate of 100,000 ounces per year. VGM has reported that the Mine has a Proven and Probable Reserve of 680,000 ounces of gold and a Measured, Indicated and Inferred resource of 4.30 million ounces of gold. (These reserve and resource figures have been prepared in accordance with the JORC reporting standards and are not in compliance with National Instrument 43-101). VGM has no forward gold sales and no bank debt.

### **About Canadian Zinc:**

Canadian Zinc holds 628.6 million shares of Vatukoula Gold Mines plc, representing approximately 15% of VGM's outstanding shares.

Canadian Zinc's principal focus is its efforts to advance the Prairie Creek Mine, a zinc/lead/silver property located in the Northwest Territories of Canada, towards production. The Prairie Creek Mine is partially developed with an existing 1,000 tonne per day mill and related infrastructure.

#### **Cautionary Statement - Forward Looking Information**

*This press release contains certain forward-looking information, including, among other things, estimates relating to production volumes and related costs of production at the Vatukoula Gold Mine. This forward looking information includes, or may be based upon, estimates, forecasts, and statements as to management's expectations with respect to, among other things, future production and sales volumes at the Vatukoula Gold Mine, the timing and availability of capital equipment, the size and quality of mineral resources, future trends for the company, progress in development of mineral properties, capital costs, mine production costs, demand and market outlook for metals, future metal prices and treatment and refining charges, the outcome of legal proceedings, the timing of exploration, development and mining activities, acquisition of shares in other companies and the financial results of the company. There can be no assurances that such statements will prove to be accurate and actual results and future events could differ materially from those anticipated in such statements. The Company does not currently hold a permit for the operation of the Prairie Creek Mine. Mineral resources that are not mineral reserves do not have demonstrated economic viability. Inferred mineral resources are considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as mineral reserves. There is no certainty that mineral resources will be converted into mineral reserves.*

#### **Cautionary Note to United States Investors**

*The United States Securities and Exchange Commission ("SEC") permits U.S. mining companies, in their filings with the SEC, to disclose only those mineral deposits that a company can economically and legally extract or produce. We use certain terms in this press release, such as "measured," "indicated," and "inferred" "resources," which the SEC guidelines prohibit U.S. registered companies from including in their filings with the SEC.*

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