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Trading Symbol: TSXV: BMC  
Shares Outstanding: 150,898,545

News Release No. 22-11  
November 28, 2011

## **BUCHANS MINERALS ANNOUNCES LEACH RECOVERIES OF UP TO 96% FOR THE PLYMOUTH MANGANESE DEPOSIT, WOODSTOCK NEW BRUNSWICK**

**Buchans Minerals Corporation (BMC-TSX-V)** ("Buchans Minerals" or the "Company") is pleased to announce that Thibault & Associates Inc. ("Thibault"), chemical processing engineers, have completed the first portion of an extensive bench scale metallurgical test program consisting of a series of leach tests on a composite sample ("Composite Sample") from the Company's recently completed 5 hole drilling program on the historic Plymouth manganese deposit near Woodstock, New Brunswick (see news release dated September 7<sup>th</sup>, 2011). Thibault further report that they have achieved manganese recoveries for the Composite Sample of up to **89% using a sulphuric acid leach** and up to **96% using a reducing acid leach**. Further tests are on-going to optimize the leach conditions and recoveries. There were a total of 32 batch leach tests completed that covered a wide range of conditions. However, from these tests there were three sulphuric acid leach tests and four reducing acid leach tests considered representative of a typical process design. Of these representative tests, sulphuric acid leach recoveries averaged 87.4% (ranging from 85.9% to 89.4%) while the reducing acid leach tests averaged 93.7% (ranging from 91.7% to 96.4%). The average weighted grade of the Composite Sample calculated from the aforesaid drilling results is 11.07% manganese and 15.25% iron.

A bench scale test program is also in progress to refine the purity of manganese sulphate in the leach solutions. A two stage precipitation process has been identified to remove a majority of the iron and other heavy metal impurities as the initial stage of refining manganese in solution.

Planning is underway for a third purification stage bench-scale test program using a solvent extraction process to produce a high purity manganese solution suitable to feed an EMM (electrolytic manganese metal) or EMD (electrolytic manganese dioxide metal) electrolytic cell.

Warren MacLeod, President and CEO of Buchans Minerals stated. *"These are landmark findings for our manganese project. The results are very much above our expectations, particularly the recovery using sulphuric acid as such a process is metallurgically less complex and offers an operating cost advantage over alternative hydrometallurgical processing technologies. The response of the Plymouth deposit to sulphuric acid leaching suggests a strong similarity to the Chinese low grade manganese carbonate ores from which 97%<sup>(1)</sup> of the worlds' EMM is produced. The average grade of Chinese manganese carbonate ores in 2010 was reported to be about 14% and dropping at a rate of 1% every two years<sup>(1)</sup>. Overall manganese recovery from such ores is reported as 72%<sup>(2)</sup>."*

### **Electrolytic Manganese Metal Market<sup>(1)</sup>:**

The Chinese currently dominate the EMM market with production of approximately 97% of worlds EMM, comprising 2.646 billion pounds out of a total market of 2.734 billion pounds of EMM. The EMM market began to significantly expand in 2000 when stainless steel production began to make use of EMM as a replacement for nickel with great success. Since 2002 the development of chrome-manganese stainless steel production has been swift, dramatically increasing the demand for manganese and

accelerating the development of the EMM industry, particularly in China. Output rose from 0.463 billion pounds in 2002 to 2.734 billion pounds in 2010, a 590% increase in 8 years.

The vast majority of EMM production originates from low grade manganese carbonate ores in China. Outside of China, there are currently only two small EMM plants that utilize oxide ores to produce EMM. These plants are located in South Africa and Gabon and only account for approximately 3% of world EMM production. The remainder of the world's EMM production is from low grade manganese carbonate deposits processed in China.

There are currently a number of factors affecting the Chinese EMM industry that highlight an opportunity for the launch of foreign EMM production outside China. These factors include diminishing tonnages and grades of Chinese manganese carbonate deposits, high electricity tariffs for EMM producers and increasing environmental standards that are unattainable by the vast majority of small processors in China. The Shanghai Metals Market identify in their "China Manganese Industry Chain Analysis Annual Report for 2010" that they believe the production of Chinese carbonate ores will face increased restrictions of production for the reasons identified above. Given the development restrictions facing EMM producers in China and the declining tonnages and grades of Chinese manganese carbonate ores, the Company believes a window of opportunity now exists to develop manganese carbonate deposits to produce EMM and other high grade manganese products outside of China.

#### **Location / Background / Historical Resources:**

The Woodstock property hosts three deposits of sediment-hosted-manganese-iron mineralization discovered in 1957 by Strategic Manganese Corporation. These historic deposits include the Plymouth and two Hartford deposits (North & South) located 5 kilometres west of the town of Woodstock. The project possesses excellent infrastructure, including railway lines (16 km west) as well as the TransCanada Highway and major electrical transmission lines located less than 5 kilometres to the east. The Plymouth deposit is located less than 10 kilometres east of the US border and highway Route 95 (an extension of US Interstate 95) passes less than a kilometre south of the deposit.

In 1957, Strategic Manganese Corporation reported that the Plymouth deposit extends from surface to depths of at least 500 feet (152 metres) and reported a **non-43-101 compliant, historic, uncategorized resource estimate of <sup>(3)</sup> 51.2 million tons (46.5 million tonnes) averaging 10.9% Mn (manganese) and 13.3% Fe (iron)**. The property is also host to historic resource estimates for the Hartford North and South deposits, also compiled by Strategic Manganese Corporation in 1957, located less than 2 kilometres on strike to the north of the Plymouth deposit. Historic uncategorized resource estimates for these deposits by Strategic Manganese were reported to have relied on a combination of results obtained from diamond drilling and associated gravimetric data. These resource estimates include **50 million short tons (45 million tonnes) grading 8% Mn and 12% Fe at the <sup>(4)</sup> North Hartford deposit and an additional resource of 50 million short tons grading 8% Mn and 12% Fe at the <sup>(4)</sup> South Hartford deposit**.

Quoted historical resource estimates are based on data obtained and prepared by previous operators and Buchans Minerals has not located the original assay sheets or details of the estimation methodology completed, nor has Buchans Minerals undertaken the work necessary to verify or classify the mineral resource estimate. Buchans Minerals is not treating the mineral resource estimate as a NI 43-101 defined resource verified by a qualified person, and the estimate should not be relied upon. Verification and classification of the resource will require considerable further evaluation, the scope of which is currently being assessed by the Company's management.

#### **References:**

<sup>(4)</sup> China Manganese Industry Chain Analysis, 2010, Annual Report, Shanghai Metals Market.

<sup>(2)</sup> Presentation by Nico Bezuidenhout, Golder Associates, 13<sup>th</sup> Feb, 2011.

<sup>(3)</sup> Historic resource estimate from an article written by K.O.J. Sidwell, 1957: The Woodstock, N.B., Iron-Manganese Deposits. Transactions of the Canadian Institute of Mining and Metallurgy, Volume LX, 1957, p.231-236. The article reports the resource is compiled from data acquired from a total of 17,388 feet (5,300 metres) of drilling.

<sup>(4)</sup> Historic resource estimates (North Hartford and South Hartford deposits) from an article written by K.O.J. Sidwell, 1957: The Woodstock, N.B., Iron-Manganese Deposits. Transactions of the Canadian Institute of Mining and Metallurgy, Volume LX, 1957, p.231-236. The article reports the North Hartford resource estimate was compiled from data acquired from a total of 13 drill holes totaling 5,381 feet (1,640 metres) of drilling as well as gravimetric geophysical data. The article reports the South Hartford resource estimate was compiled from data acquired from a total of 9 drill holes (footage undisclosed) as well as gravimetric geophysical data.

#### **Qualified Person and QAQC:**

J.Dean Thibault, P. Eng., Senior Process Chemical Engineer and Principal of Thibault & Associates Inc. of Fredericton, New Brunswick, is acting as a Qualified Person in compliance with National Instrument 43-101, with respect to the metallurgical technical information contained in this release and has reviewed the contents for accuracy.

Paul Moore, MSc, PGeo (NL), Vice-President Exploration for Buchans Minerals Corporation, is acting as a Qualified Person in compliance with National Instrument 43-101 with respect to the geological technical information contained in this release and has reviewed the contents for accuracy. Much of the geological information contained herein is, however, historical in nature and relies entirely on data provided by other sources which have not and cannot be independently verified at this time. As such, the historical resource data discussed herein should not be relied upon, but are presented as an indication of the exploration and development potential of the mineralization described.

#### **About Buchans Minerals:**

Buchans Minerals is an Atlantic Canada based resource company focused on exploring and developing mineral properties in New Brunswick and the historic Buchans mining camp in central Newfoundland, Canada.

#### **Forward Looking Statements:**

Certain information contained herein may constitute forward-looking statements within the meaning of applicable securities laws. Forward-looking statements may include estimates, plans, expectations, opinions, forecasts, projections, guidance or other statements that are not statements of fact. Although the Company believes the expectations reflected in such forward-looking statements are reasonable, they can give no assurance that such expectations will prove to have been correct. The Company cautions that actual performance will be affected by a number of factors, many of which are beyond their control, and that future events and results may vary substantially from what the Company currently foresees. The Company's forward looking statements are expressly qualified in their entirety by this cautionary statement.

#### **FOR FURTHER INFORMATION, PLEASE CONTACT:**

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