



## Russia's Mineral Resources

*Prognoz Camp, Siberia Russia*

Russia's improving economic and investment climate have contributed to an increased pace in Micon's consulting assignments in Russia. Ten years ago, the interest of Western mining companies was focused almost exclusively on gold and most of Micon's work was related to independent due diligence on their behalf.

For Western companies, investment in gold properties was relatively straight forward from a technical point of view and it was possible to finance these investments through the markets, principally in London and Toronto. Companies were hungry for opportunities in a new jurisdiction while, within Russia, benefits were realized in building up gold reserves and generating foreign exchange.

Evidence of something of a sea change taking place was evident in a series of assignments that Micon has undertaken over the past several years on behalf of Norilsk Nickel. First was the development of a production model on a Windows-based platform. This was followed by a review of the resource and reserve estimation procedures for Norilsk operating mines and undeveloped deposits for purposes of potential international financing. Micon has undertaken reserve audits of the Polar and Pechenga division mineral properties directly for the company.

Another trend is for Russian-owned or majority Russian-owned companies to commission Western consulting and engineering firms to undertake feasibility studies for new

projects and for expansion or reopening of existing facilities. Again, the driving force behind this trend is the desire to access Western capital markets. In order for the completed study to be financeable externally, the mineral resource and mineral reserve estimates have to be presented in conformance with recognized Western definitions (CIM definitions, JORC code and others), and prepared or audited by an appropriately qualified individual. Generally, therefore, the auditing, if not the preparation of the primary estimates, has to be undertaken by a Western firm. There has been increasing demand for the overall project management and responsibility for the completed study to be undertaken by Western consulting companies. One of the issues in those studies is the wholly-understandable desire to have as much work done as possible within Russia by Russian engineering firms. This adds a layer to the project management function and challenges the desire of all parties that the study progresses according to schedule.

Amendments to Russia's Subsoil Law remain pending. While positive changes are proposed to the mineral licensing system, the possibility that foreign investment may be curtailed in mineral deposits that are deemed strategic may slow the pace of development. The criteria for declaring subsoil resources strategic are based on rarity within Russia (for example, uranium, diamonds, pure quartz and yttrium-bearing minerals), the size of a deposit (more than 150 million tonnes of oil and over 1 trillion cubic metres of natural gas, and over 10 million tonnes of copper). The final criterion relates to the location of resources in areas where their development may affect national defence and security interests. In the case of oil and gas, the criterion of size apparently relates to off-shore rather than on-shore resources. A two-stage procedure is proposed to grant rights to investors. Successful participants in tenders held at the regional level will be permitted to participate in auctions at the federal level. Of concern is the possibility that entities

that are not majority Russian-owned may be precluded from bidding on deposits that are considered strategic. The debate may not be confined to oil and gas and metals, however, since there are potentially large potash deposits that may also be tendered within the coming year. In October, 2005, the list was reported to include only the Titov and Trebs oil fields in western Siberia, the Chayandinskoye oil and gas field in Yakutia, the Sukhoi Log gold deposit in Irkutsk and the Udokan copper deposit in eastern Siberia.

All of the recent developments, including the recently-announced joint venture between Rio Tinto and Norilsk, suggest a fundamental change is taking place in the way business is done in Russia, at least in the minerals sector. There is a sense of increased openness to Western ideas, Western technology and Western capital. This can only yield benefits, both for Russia itself and for the international mining industry at large.

## Amendments to Canadian National Instrument 43-101



National Instrument 43-101 (NI 43-101) and its companion policy (NI 43-101CP) have governed the disclosure of scientific and technical information for mineral projects in Canada since February 1, 2001. The instrument was designed,

post the Bre-X incident, to establish standards for all written and oral disclosure on such projects. Among other things it established the concept of the Qualified Person (QP) who would take responsibility for the disclosure, required the use of certain standard reporting codes for mineral resources and mineral reserves (principally the definitions approved by the Canadian Institute of Mining, Metallurgy and Petroleum (CIM)) and established certain situations in which the disclosure must be backed up by a Technical Report prepared by, or under the supervision of, the QP who may or may not be required to be independent of the issuer.

The Canadian Securities Administrator's (CSA) have recently approved a number of changes to the instrument which came into effect on December 30, 2005. The changes were made principally to keep NI 43-101 consistent with other recent changes to securities law such as the new statutory liability in the secondary securities market and to make adjustments to certain sections of the instrument which were not working to the CSA's expectations after their first 5 years of experience with it.

The following are selected highlights of the new instrument.

### Acceptable Foreign Professional Associations

NI 43-101 now includes a prescriptive list of Foreign Professional Associations (Appendix A) membership in which is acceptable as a qualification for QP status.

### Form of the Technical Report

The required form of a Technical Report (NI 43-101F1) under the instrument has been modified. There have been changes made to the required declarations in the QP's certificate to be attached to the report. Additionally the inclusion of disclaimers for liability and use of the report have been clarified and limited.

### Disclosure of Historical Estimates

Guidelines for the disclosure of historical mineral resource and mineral reserve estimates have changed and the term "historical estimate" has been defined in the instrument. Clarification has been made in the requirements for the disclosure of an historical estimate which the QP has determined not to be a current estimate. A Technical report is no longer required to support such disclosure provided that certain proximate cautionary statements are made.

### Mineral Projects to Include Royalty Interests

The CSA have expanded the definition of a mineral project to include royalty interests in an exploration, development or production property. This means that holders of royalty interests will be subject to NI 43-101 just as mining issuers who hold ownership interests in mineral projects are. Under certain circum-

---

stances a royalty interest could trigger the need to file a Technical Report. Limited exemptive relief is available for certain of the requirements of NI 43-101F1 if the issuer finds it impossible to gain access from the operator of the project to all of the required information in the Technical Report.

### Definition of Independence for the Qualified Person

Under certain conditions described in NI 43-101 the disclosure of scientific and technical information must be made by a QP who is independent of the issuer. Previously the definition of independence was a prescriptive one with a list of conditions which needed to be

met. The new definition is more general and involves a simple "reasonable person" test involving any situation which would interfere with the QP's judgement. The companion policy provides a list of guidelines as to what these situations may be but is not a complete list of non-independence situations.

Micon's clients are encouraged to read the instrument and companion policy for details and seek legal advice before acting. NI 43-101, NI 43-101F1 and NI 43-101CP are available for download on the internet at the various Provincial Securities Commissions. Links to the various commission websites are available at the CSA's website. <http://www.csa-acvm.ca/>

## Appointments

Chris Lattanzi, President since Micon was founded in 1988, handed that position to Ian Ward, Micon's Principal Metallurgist in mid-2005. Chris remains a Principal and a Director of the firm. Richard Gowans, Terry Hennessey and Stan Bartlett have been appointed Vice Presidents. Stan also assumes the role of Managing Director of Micon's United Kingdom office.

### New Faces and New Offices

Geologist, Bill Lewis and John Scott, a project manager, have joined us in Toronto. Geologists, Jonny Steedman and Dibya Kanti ("DK") Mukhopadhyay have joined the Norwich office.

Micon has opened a new office in Vancouver in mid-2005, managed by Vic Bryant, a metallurgist who comes to us from Fluor. A third Canadian office will become operational in the first quarter in Montreal and will be run by Daniel Goffaux, a mining engineer. In Johannesburg, Rudi Kersten has recently opened a representative office for Micon.

**Bill Lewis** has 20 years experience with both exploration and mining projects, including 10 years of experience in production, mineral resource estimation, ore reserve reporting and grade control in underground mines. Prior to joining Micon, he was the Chief Geologist at the New Britannia Mine in Snow Lake, Manitoba and part of the management team responsible for the successful operation of this low-grade mine.

**Jonny Steedman** has operating experience in copper mining in central Africa where he was the site geologist and, subsequently, provided mine planning consulting services. His expertise is in mine design and scheduling using software packages relating to borehole databases, geostatistics, block modeling, open pit optimization, mine design and scheduling.

**John Scott** is a civil engineer by training with extensive experience in engineering design, and construction and project management in mining and other heavy industrial projects. He has managed major feasibility studies and EPCM contracts for mining developments and, while with mining contracting company, provided design and technical support in shaft sinking and mine development projects. In addition to his experience in gold and base metals, John has extensive experience in coal projects and operations and has worked in North and South America, Europe and Africa.

**Vic Bryant** has extensive international experience in gold, copper and zinc plant operations and management, and in engineering. This includes experience in plant commissioning, project management, plant optimisation, trouble shooting, process design and feasibility studies. His mineral processing expertise includes conventional crushing, high pressure roll crushing, screening, conventional and SAG/AG milling, flotation (conventional, differential, reverse and column technology), fluosolids roasting and exposure to copper smelting and refining.

---

**DK Mukhopadhyay** has experience in project appraisal and evaluation, orebody definition and modelling, sampling and assay quality control, support for metallurgical studies, grade control systems and open-pit and underground mine production. His operating experience was gained in India, Armenia and Tanzania and, prior to joining Micon, he held the position of Mineral Resource Geologist at the Bulyanhulu gold mine operated by Kahama Mining Corporation Limited, a subsidiary of Barrick Gold Corporation. DK is a specialist Datamine and Surpac mining software systems operator and has extensive experience in creating mineral resource block models.

**Daniel Goffaux** joins Micon from Breakwater Resources with which he recently managed two large mines in Tunisia and Nicaragua. He has varied operating experience at mines in Ontario and Quebec including the management of feasibility studies, transition from open pit to underground mining, productivity improvement and project start-up.

**Rudi Kersten** represents Micon in South Africa and provides liaison with a group of South African consultants in geology, mining engineering and mineral processing. Rudi is a consultant in rock mechanics and has more than 30 years experience in the mining industry. He has been involved in the design and maintenance of both open pit and underground mines in a variety of operating environments. As well as experience in the South African gold industry, he has also worked in manganese, copper, chrome, platinum, andalusite and silica operations and in copper, gold and manganese mines in Brazil, Kazakstan, Uzbekistan, Zambia, Zimbabwe and Tanzania.

## Toronto

Harry Burgess, P.Eng., *Vice President*  
Richard Gowans, P.Eng., *Vice President*  
Terry Hennessey, P.Geo., *Vice President*  
Christopher Jacobs, C.Eng., *Senior Consultant*  
Christopher Lattanzi, P.Eng., *Principal*  
Bill Lewis, P.Geo., *Senior Geologist*  
Reno Pressacco, P.Geo., *Senior Geologist*  
John Scott, P.Eng., *Senior Project Manager*  
Jane Spooner, P.Geo., *Principal*  
Ian Ward, P.Eng., *President*

900 – 390 Bay Street, Toronto, Ontario M5H 2Y2  
tel +1 416 362 5135 fax +1 416 362 5763  
mail@micon-international.com

## Norwich

Stan Bartlett, P.Geo., *Vice President, Managing Director*  
Jonathan Steedman, M.Sc., *Mineral Resource Geologist*  
David Wells, C.Eng., *Senior Metallurgist*

Suite 10, Keswick Hall, Keswick, Norwich UK NR4 6TJ  
tel +44 (0)1603 501501 fax +44 (0)1603 507007  
office@micon-international.co.uk

## Vancouver

Victor Bryant, *Senior Metallurgist*  
tel +1 604 515 0380 fax +1 416 362 5135  
vbryant@micon-international.com

## Montreal

Daniel Goffaux, *Senior Mining Engineer*  
tel +1 514 234 8592 fax +1 514 878 4427  
dgoffaux@micon-international.com

## Johannesburg Representative Office

Rudiger Kersten  
tel +27 (0) 11 7262831  
rkersten@mweb.co.za

---

For further information, check our web site (<http://www.micon-international.com>) or contact:

TORONTO HEAD OFFICE  
Suite 900, 390 Bay Street  
Toronto Ontario, Canada M5H 2Y2  
Tel: 1 416 362 5135  
Fax: 1 416 362 5763  
mail@micon-international.com

UNITED KINGDOM OFFICE  
Suite 10, Keswick Hall, Keswick, Norwich  
Norfolk, United Kingdom NR4 6TJ  
Tel: 44 1603 501 501  
Fax: 44 1603 507 007  
office@micon-international.co.uk

---