

February 29, 2008

# Mineral Project Disclosure Standards: Understanding NI 43-101

Sponsored by



OSC  
Ontario Securities Commission



# Mineral Project Disclosure Standards: Understanding NI 43-101

**Craig Waldie, P.Geol.**

*Senior Geologist, Ontario Securities Commission*

**Robert Holland, P.Geol.**

*Chief Mining Advisor, BC Securities Commission*

**Ian McCartney, P.Eng.**

*Senior Geologist, BC Securities Commission*

PDAC 2008 - Toronto, February 29, 2008

OSC

ONTARIO SECURITIES COMMISSION



BCSC

- The views expressed in this presentation are our own, and they do not bind the OSC, BCSC, or their staff.
- These materials are provided for general information purposes only and do not constitute legal advice.
- Information has been summarized and paraphrased for presentation purposes. Please refer to the original documents for clarification.



## Morning Agenda

### 9:00 – Session 1

- Overview
- NI 43-101 Basics
- Materiality and Disclosure
- Mineral Resources and Reserves
- Questions

### 10:30 – Coffee

### 10:45 – Session 2

- Disclosing Other Estimates
- TSX – Compliance and Disclosure
- Questions

### 12:00 – End of Morning



# Overview

OSC

ONTARIO SECURITIES COMMISSION



## Canadian Regulatory Landscape

- 13 Provincial Securities Regulators
  - Responsible for investor protection and regulating fair and efficient markets
- Self-Regulatory Organizations – SROs
  - Overseen by the securities commissions
  - Regulation Services (RS) - regulates trading and disclosure
  - Investment Dealers Association (IDA) - regulates broker compliance
  - Mutual Fund Dealers Association (MFDA) - regulates mutual funds
- Stock Exchanges (TSX, TSXV, CNQ)
  - Responsible for listing, oversight, trades

ONTARIO SECURITIES COMMISSION

OSC



## Canadian Securities Commissions

- Securities Commissions administer the securities act in each Province
- Work under Canadian Securities Administrators (CSA) to promote coordinated oversight and consistency
- Deal with all issues related to securities (shares) of companies by applying the securities acts

## Technical Review by Commission Staff

- Prospectus review
  - Compare prospectus content and use of proceeds to the technical report
    - No material differences
    - Compliance with NI 43-101
- Continuous disclosure review
  - Current technical reports on all material properties
  - Overall disclosure NI 43-101 compliant

## Mining Disclosure Rules

- Canadian Securities Administrators
  - National Instrument 43-101 Standards of Disclosure for Mineral Projects
- Toronto Venture Exchange (TSXV)
  - Policy 3.3 Timely Disclosure
  - Appendix 3F Mining Standards Guidelines
- Toronto Stock Exchange (TSX)
  - Appendix B Disclosure Standards for Companies Engaged in Mineral Exploration, Development and Production

## Additional Guidelines

- CIM Exploration Best Practice Guidelines
- CIM Definition Standards on Mineral Resources and Reserves
- CIM Guidelines for the Reporting of Diamond Exploration Results
- GSC Paper 88-21 Coal Resource/Reserve Reporting

## Why Do We Need All These Rules?

- Mining and mineral exploration requires access to large amounts of risk capital
- Investor confidence is critical to investment and capital markets
- The industry has a history of attracting unscrupulous players and mining promotions
- Bre-X

*Rules alone cannot prevent scandals and fraud – but – they create markets in which all those involved understand that the playing field is level*

OSC

ONTARIO SECURITIES COMMISSION



## Not Just Bre-X

Examples of other mining scandals

- Naxos (May 1996) – proprietary assaying
- Cartaway (May 1996) – visual estimates
- Timbuktu (June 1996) – salting
- Delgratia (March 1997) – salting/proprietary assaying
- Golden Rule/Hixon Gold (May 1997) – salting
- Southwestern? (July 2007) – assay data tampering?

OSC

ONTARIO SECURITIES COMMISSION



## Regulator's Dilemma

- How to get tough on the bad actors without ruining the party for the majority
  - Rules alone will not prevent another Bre-X
  - Booming mining markets attract people who don't always play by the rules
  - Industry vigilance and due diligence are even more important now

OSC



## Education vs Enforcement

- When education and facilitation alone don't work, we are forced to consider other measures
  - First approach may be to facilitate a solution
    - Correct minor issues on a going forward basis
    - Issue a clarifying news release
    - Defaulting Issuer list
    - File corrected disclosure ASAP
  - Repeat offenders could face
    - Issue a retracting news release
    - Defaulting Issuer list or cease trade order
    - Potential delay/refusal of prospectus offering
    - Increased scrutiny for future filings
    - Compliance or enforcement investigations

OSC



# Basics of National Instrument 43-101 (NI 43-101)

OSC

ONTARIO SECURITIES COMMISSION



## NI 43-101: Standards of Disclosure for Mineral Projects

- Implemented:
  - Feb 1, 2001, amended Dec 30, 2005
- Purpose:
  - Enhance the accuracy and integrity of disclosure in the mining sector
- Result:
  - Provides a level of investor protection by ensuring the right information is coming from the right individuals

ONTARIO SECURITIES COMMISSION

OSC



## Components of NI 43-101

- National Instrument 43-101
  - Mineral project disclosure and filing rules that must be followed
- Companion Policy 43-101CP
  - Our views on how certain provisions of NI 43-101 are to be interpreted and applied
- Form 43-101F1
  - Specific requirements for the preparation and content of a technical report that must be filed with securities regulators

All professionals in exploration and mining need to know the requirements of NI 43-101

## Application of NI 43-101

- Applies to disclosure by all Canadian issuers
  - Not limited to reporting issuers
  - Not limited to material properties
  - Not just what gets filed with securities commissions or stock exchange
- Oral statement and written disclosure
  - Conference calls, speeches, company websites, Not just for material properties or material information

Any disclosure intended to be, or reasonably likely to be made available to the Canadian public

## Desired Outcome of NI 43-101

- Investors have sufficient information to make an informed investment decision
- Information that is not misleading
- Promotes balanced disclosure with context
- Understand the significance of the results
- Able to compare similar projects
- Understand risks and limitations of data
- Confidence in those that prepared the technical information for disclosure

## Five Fundamental Principles of NI 43-101

1. Involvement of qualified person (QP)
2. Standard terminology and definitions
3. Prohibits misleading disclosure
4. Facilitates disclosure with context and caution
5. Technical report supporting disclosure

## 1. Qualified Person (QP)

- It is a regulatory concept, not a license
  - If you meet the requirements, you are a QP
- Must be an individual, not a firm or company
- QP defined as:
  - Engineer or geoscientist with minimum 5 years industry experience
  - Member in good standing of recognized “professional association”
  - Relevant experience in the subject matter

**Just because you are a P.Geo. or P.Eng. does not mean you are automatically a QP**



## Professional Association

- Recognized by statute in Canada or
- Recognized foreign association and designation listed in Appendix A of NI 43-101
- Requirements:
  - Admit members primarily based on academic qualifications and experience
  - Require compliance with professional standards of competence and ethics
  - Disciplinary powers to suspend or expel members

**Professional Associations are very important in the regulation of QPs**



## Role of the Qualified Person

- Section 2.1 of Instrument
  - All disclosure of scientific or technical information must be based upon information prepared by or under the supervision of a qualified person.
- Section 2.1 of Companion Policy
  - The qualified person is responsible for preparing the technical report and providing scientific and technical advice.
  - Issuers are strongly urged to have the qualified person review disclosure that summarizes or restates the technical report or the technical advice or opinion to ensure that the disclosure is accurate.



## Role of the Qualified Person

- Section 3.1 of Instrument
  - Company must disclose name and relationship of the qualified person in all written disclosure of a scientific or technical nature.
- Section 3.2 of Instrument
  - The issuer must state whether a qualified person has verified the data or opinions being disclosed and explain any failure to verify the data.



## Role of the Qualified Person

- Section 5.1 of Instrument
  - A technical report must be prepared by or under the supervision of one or more qualified persons.
- Section 5.2 of Instrument
  - A technical report must be signed, (sealed), and dated by each responsible qualified person.
- Section 6.2 of Instrument
  - Qualified Person preparing technical report must perform a personal inspection of the property.



## Role of the Qualified Person

- Section 6.4 of Instrument
  - The QP must not disclaim responsibility for, or reliance on, that portion of the report the qualified person prepared or supervised.
- Section 8.1 of Instrument
  - Qualified Person must sign a Certificate that is filed with the technical report.
- Section 8.3 of Instrument
  - Qualified Person must consent to the filing and use the technical report and certify that technical disclosure fairly and accurately represents the information in the technical report



## Other Responsibilities of the QP

- Comply with professional practice and industry standards
  - eg. CIM Best Practices Guidelines
- Comply with professional code of ethics (APGO, APEGBC, etc.)
  - Uphold truth, honesty and trustworthiness
  - Protect public interest
  - Advise client of possible consequences
  - Report unethical or illegal professional practises
  - Make sure qualified to do assignments
  - Ensure opinions based on adequate knowledge and honest conviction



## Naming Qualified Person

- All written disclosure of scientific and technical information on a material mineral project
  - Name and relationship to the company of qualified person that prepared information
- Written disclosure includes news releases, investor sheets, websites, etc
- May include third party newsletters and analysts reports if the company disseminates or refers to



## Asia Gold Corp. News release – Jan. 10, 2006

*“David C. Owens, president, and Richard Gosse, vice-president exploration, both qualified persons as defined by National Instrument 43-101, supervised the preparation of the technical information in this release.”*

## Naming QP – Another Example

*“The technical information contained in this document has been reviewed and approved by John Smith, P. Geo., VP Exploration for Alpha Resources, a qualified person as defined by NI 43-101.”*

## 2. Standardized Terms and Definitions

- Disclosure
- CIM resource and reserve categories
- Preliminary assessment, pre-feasibility and feasibility study
- Historical estimate
- Technical report
- Producing issuer
- Development property

## 3. Prohibited Disclosure

- Undermines credibility of the market
- Potentially confusing and misleading
  - Grade and tonnes of a deposit that has not been classified as a current CIM estimate
  - Results of an economic analysis that includes inferred resources

## 4. Facilitates Disclosure

- Certain basic disclosure outside the acceptable requirements is possible if made according to strict provisions
  - Exploration target - may disclose tonnes and grade (as a range) of a potential deposit with cautionary language that it is only a target
  - Preliminary assessment - may include inferred resources in an economic analysis with cautionary language that it may not be realized

## 5. Technical Report

- Provides current summary of scientific and technical information on a mineral property
- Supports company's disclosure and assists public in making investment decisions
- Must follow Form 43-101F1 which provides for a standardized report
- Triggered by specific disclosure or offering document on a material property
- Certain technical reports require an independent QP (i.e. 1st time disclosure)

# Materiality and Disclosure

OSC

ONTARIO SECURITIES COMMISSION



## Materiality

- Fundamental to application of NI 43-101
  - Trigger for technical reports
  - Many requirements apply only to a company's material mineral properties
- Material property
  - Determined in the context of a company's overall business
  - At least one property will be material
- Material information (material change)
  - Information which would reasonably be expected to effect company's share price

ONTARIO SECURITIES COMMISSION

OSC



## Material Properties

- Which mineral properties are material?
  - Determined by management of the company
  - No bright-line test (10% book value test removed)
  - In relation to other properties
  - Stage of development of the project
  - What the company is telling investors
  - Current and proposed work programs
  - Related financings

*s.2.4 of the Companion Policy*

OSC

ONTARIO SECURITIES COMMISSION



## Securities Regulators View of Materiality

- How a company presents information to investors will influence the regulator
- Expect securities regulators to question claims that the property isn't material if:
  - Investors told mineral property is significant to the business plans of the company
  - Management are "extremely excited" about the exploration results
  - Use of proceeds in a financing are allocated to the property

OSC

ONTARIO SECURITIES COMMISSION



## Requirements for All Disclosure

- Required if property is material or not
- s.2.2 – Resources and Reserves
  - (a) Use only CIM categories of resources and reserves
  - (b) Report each category separately
  - (c) Don't add inferred to other categories
  - (d) If contained metal is disclosed state the grade and tonnes for each category

## Requirements for All Disclosure

- s.2.3 Prohibited Disclosure
  - (1a) Grade and tonnes of a deposit without a current CIM resource or reserve estimate
  - (1b) Economic analysis that includes inferred resources
- But – Allowance for disclosure of above with context and cautionary language:
  - (2) Exploration target
  - (3) Preliminary assessment

## Disclosure - Responsibility of the Company

- 2.1 of the Companion Policy
  - Disclosure is the responsibility of the company and its officers and directors
  - The proper use of the technical report and other scientific and technical information provided by the qualified person is the responsibility of the company and its officers and directors
  - Company is strongly urged to have qualified person review the technical disclosure to make sure it is accurate and not misleading

## Website Disclosure

- NI 43-101 applies!
- Remember - All written disclosure made by, or on behalf of a company about a mineral project
  - Name the QP and relationship to the company
  - Provide the required and cautionary language for historical estimate, exploration target, etc.
- Keep website up to date
- One of the first places investors and regulators will go

## Analyst Reports and Third Party Newsletters

- Question: May a company distribute these or post to its website?
- NP 51-201 Disclosure Standards  
Part 5.2 Analyst Reports
  - Could be seen to endorse a particular report
  - Avoid redistributing or posting analysts' reports
  - If you name of one analyst- name them all
- Newsletters are often paid ads or thinly disguised promotions for or on behalf of company

*Companies that disseminate analysts reports or newsletters may be held responsible for non-compliant or misleading disclosure in these documents*

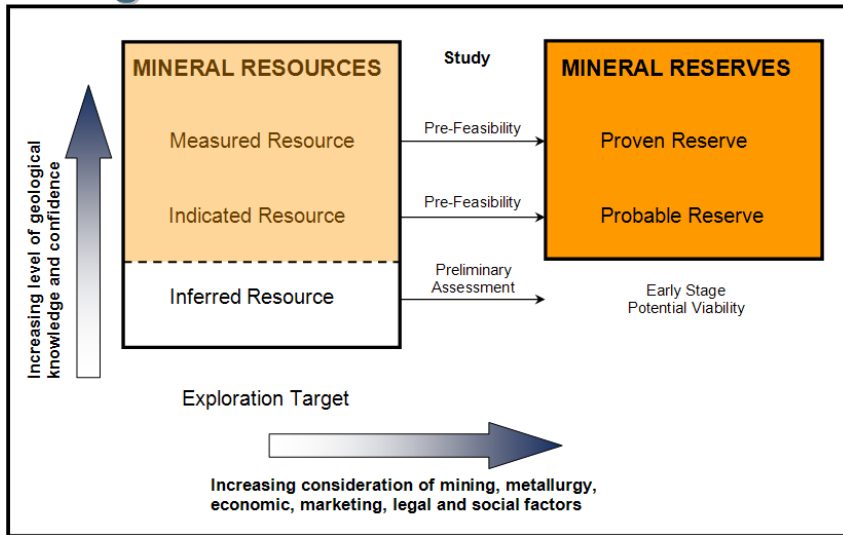
## Disclosing Mineral Resources and Mineral Reserves

# Mineral Resources and Reserves

- Mineral Resource
  - Concentration of material of economic interest in such a form, quality and quantity that it has a reasonable prospect of economic extraction
  - Classified as inferred, indicated and measured
- Mineral Reserve
  - Economically mineable part of a measured and/or indicated resource demonstrated by at least a prefeasibility study
  - Classified as probable and proven



# Relationship Between Exploration Target, Resources and Reserves



## Accepted Reporting Codes

- CIM Definition Standards
  - Adopted by CIM Council, Dec. 2005
- Foreign Codes
  - JORC (Australia)
  - SAMREC (South Africa)
  - IMMM (United Kingdom)
  - SEC Industry Guide 7 (USA)
- QP must reconcile to CIM categories in the technical report
- Russian and Chinese codes not accepted

## Resource and Reserve Disclosure

- Effective date of each estimate
- Report quantity and grade of each category separately
  - Use only the five allowed CIM categories
  - OK to add measure/indicate and proven/probable
  - Always keep inferred separate
  - Contained metal only with category, tonnes & grade
  - Round-off estimates to reflect uncertainty
- Disclose key assumptions, parameters, methods
- Name QP who prepared the estimate
- Discuss issues that impact estimates

## Resource and Reserve - Example

Golden Fire Mining Corp.

Mineral Resource Estimate - June 15, 2007

Mineral Resource Category	Tonnes	Grade (g/t Au)	Au (oz)
Measured	14,510,000	2.82	1,313,400
Indicated	31,460,000	1.81	1,832,800
Measured & Indicated	45,970,000	2.13	3,146,200
Inferred	47,474,000	2.02	3,088,100

Mineral resources estimated according to CIM definition standards (2005) based on 570 diamond drill holes. Gold grades determined using ordinary kriging into a 3D block model with primary dimensions of 20m along the strike and 10m vertically. A 1.0 g/t Au cut-off was used with high-grade values capped at 32g/t Au. Assumed gold price is US\$450/oz, exchange rate of 1.05 Cdn\$/US\$ and mill recovery of 94%.

The independent QP responsible for the mineral resource estimate is Joe Bloggs, P.Geo. of ABC Consulting reported in the June 15, 2007 technical report.

Mineral resources which are not mineral reserves do not have demonstrated economic viability. The estimate of mineral resources may be materially affected by environmental, permitting, legal, marketing, or other relevant issues.

ONTARIO SECURITIES COMMISSION

OSC



## CIM Mineral Resources and Mineral Reserves Best Practice Guidelines

- Economic parameters
- Cut-off grade or economic limit used to define a mineral resource must provide "reasonable prospects for economic extraction"
- Cut-off grade must realistically reflect the location, deposit scale, continuity, mining method, metallurgical processes, costs and reasonable long-term metal prices appropriate for the deposit
- Assumptions should be clearly defined

ONTARIO SECURITIES COMMISSION

OSC



## Zero Cut-off Grade Estimates

- Reporting zero cut-off grade estimates is discouraged
  - May be misleading to public
  - Potential red-flag to regulators
- May not qualify as a mineral resource
  - Remember - requires reasonable prospect of economic extraction

## Metal Equivalents

- Use with caution - may be misleading
- Must also present individual grades
- State assumptions for metal equivalent
  - Metal prices and date
  - Recovery factor for each metal
  - Any other relevant conversion factors

# Metal Equivalents – Example

Inferred Mineral Resource – May 2005

Cutoff Cu <sub>Eq</sub> %	Tonnes	Grade					Contained Metal	
		Cu %	Au (g/t)	Ag (g/t)	Cu <sub>Eq</sub> %	Au <sub>Eq</sub> (g/t)	Cu (M lbs)	Au (M oz)
0.30	90,810,000	0.894	0.699	2.167	1.390	2.160	1790.11	2.041
0.50	78,950,000	0.991	0.774	2.399	1.539	2.391	1725.18	1.965
0.70	68,700,000	1.082	0.845	2.619	1.679	2.609	1639.05	1.866
0.90	58,670,000	1.181	0.922	2.860	1.830	2.844	1527.83	1.739
1.20	45,880,000	1.324	1.035	3.228	2.049	3.184	1339.43	1.527

- Inferred resource based on cut-off grade of 0.70% Cu<sub>Eq</sub>
- Metal prices: Cu \$US 1.00/lb, Au \$US 400/oz, Ag \$US 7.25/oz
- Assumed metal recovery: Cu 90%, Au 90%, Ag 75%

## Questions

## Disclosing Other Estimates (Historical Estimates, Exploration Targets)

OSC

ONTARIO SECURITIES COMMISSION



### Historical Resource Estimates

- What qualifies as “historical”?
  - Prepared prior to Feb.1, 2001
- Usually related to acquisition of mineral property
- S.2.4 required disclosure
  - Identify source
  - Comment on relevance and reliability
  - Compare to CIM categories
    - May not have sufficient information for this
    - Down-grade reserves to resources
- Must disclose more recent estimates or data

ONTARIO SECURITIES COMMISSION

OSC



## Disclosure of Historical Estimates

- May trigger a technical report
  - S.4.2(1)(j) does not distinguish between historical and current resources
  - CP s.2.9(1) provides guidance on this issue
- May be able to avoid technical report
- Use s.4.2(2) cautionary language
  - Have not verified historical estimate
  - Not treating as current resource estimate
  - Should not be relied upon
- Include s.2.4 and 4.2(2) in all disclosure of estimates
- Don't treat as a current estimate

## Treating as Current Resources/Reserves

- CP s.2.9(5) provides guidance
- We will conclude treating as current if:
  - Add to current resources
  - Say are increasing or building on
  - Including in economic analysis or production decision
  - Do not report according to s.2.4
- Risk triggering independent technical report

## General Application of S.4.2(2)

- Included to avoid technical report trigger
- Consider including in all historical estimate disclosure
  - Clarifies not current
  - Discloses limitations of estimates
  - Discloses there are risks associated with unverified estimates

## Historical Estimates What are the Possibilities?

*"I have a property with a historical resource estimate – now what do I do?"*

- Company must determine the most appropriate outcome for the historical estimate
- 4 possible outcomes
  1. Disclose as a historical estimate
  2. Disclose as an exploration target
  3. Reclassify as current mineral resource
  4. Don't disclose the historical estimate

## Disclosure of Historical Estimate -Possible Outcome 1.

### Disclose as a historical estimate

- Comply with s.2.4 and 4.2(2)
  - Provide date and source of the estimate
  - Relevance, reliability, comparison to current categories (if possible)
  - QP has not done sufficient work to verify the historical estimate
  - Company is not treating it as current resource estimate
  - Estimate should not be relied upon

## Historical Estimate - Example

*"The historical resource estimate of 10Mt at 6.8g/t Au is based on data and reports prepared by previous operators in the 1970's and information provided by the State. The Company has not completed the work necessary to have the historical estimate verified by a QP. The Company is not treating the estimate as a current NI 43-101 defined resource and the historical estimate should not be relied upon. The property will require considerable future exploration which the Company and their consultants intend to carry out in due course."*

## Historical Estimate - Example of Relevance And Reliability

*"The Company has a copy of the ABC Mining report from 1983 that includes the historical resource estimate but does not have the original assay sheets or details of the estimation method used. Therefore, the Company cannot verify the resource or comment on whether the estimate, used categories presently required under NI 43-101 or whether the estimate is in compliance with current standards. The Company is not relying on these estimates."*

## Disclosure of Historical Estimate -Possible Outcome 2.

### Disclose as an exploration target

- Conceptual but realistic, supported by data and geological model
- Comply with s.2.3(2)
  - Disclose as range of tonnes and grade
  - Provide basis for tonnes and grade
  - Include cautionary statement
    - Potential tonnes/grade conceptual in nature
    - Insufficient exploration to define a mineral resource
    - Uncertain if further exploration will result in a mineral resource

## Historical Estimate - Example Exploration Target

*"Based on previous work, the Company has estimated an exploration target of 550,000 to 650,000 oz Au contained within 1.2 to 1.6 Mt grading 0.4 to 0.5 oz/t Au. The potential tonnages and grades are conceptual in nature and are based on previous drill results that defined the approximate length, thickness, depth and grade of the portion of the historic resource estimate. There has been insufficient exploration to define a current resource and the Company cautions that there is a risk further exploration will not result in the delineation of a current resource."*

## Disclosure of Historical Estimate -Possible Outcome 3.

### Reclassify as a current mineral resource estimate

- Comply with s.2.2, 2.3(1), and 3.4
  - Use only CIM categories
  - Don't add inferred to other categories
  - Report category, tonnes and grade
  - Disclose key assumptions, parameters, methods
- File supporting independent technical report
- Independent qualified person must have sufficient time and access to sufficient data and methods in order to reclassify the estimate

## Historical Estimate – Example Reclassification

*“ABC Consulting concludes that, following this review of the historical resource estimate completed in 1979 on the Big Zone, the historical estimate can be classified as an Inferred Resource as per CIM guidelines (2005). This is based on auditing of the calculation methodology, assumptions, geological continuity, density of drilling, check assays and inter-hole continuity:*

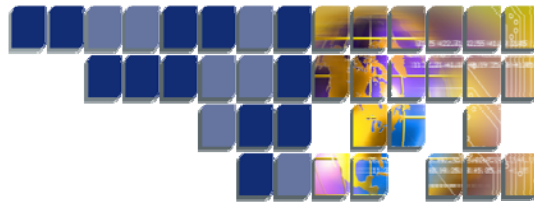
*Inferred Resource:  
20.2Mt at 0.034% U3O8”*

## Disclosure of Historical Estimate -Possible Outcome 4.

### Don't disclose historical estimate

- Company must decide whether historical estimate is suitable for public disclosure
- If estimate can't be supported or is unrealistic – don't disclose it

# TSX Compliance & Disclosure



Scott Ainslie, Manager Compliance & Disclosure

Fran Manns, Manager Compliance & Disclosure, Mining

February 29, 2008

This information is provided for information purposes only. Neither TSX Group Inc. nor any of its affiliated companies guarantees the completeness of the information contained in this presentation and we are not responsible for any errors or omissions in or your use of, or reliance on, the information.

© 2008 TSX Inc. All rights reserved. Do not copy, distribute, sell or modify this document without TSX Inc's prior written consent.

TORONTO stock  
EXCHANGE



## Agenda

- **Corporate Governance**
- **Timely Disclosure Policy**
- **The Market Maker/SecureFile**
- **Why is Toronto the centre of the universe?**



## Corporate Governance Requirements

- Each listed issuer subject to National Instrument 58-101 *Disclosure of Corporate Governance Practices* must provide disclosure on Form F1
- TSX continues to monitor corporate governance disclosure of listed issuers



## Corporate Governance – Highlights of TSX's 2007 Study

- Reviewed disclosure of 30 issuers
- 20 issuers did not provide full disclosure in accordance with 2 or more of the requirements
- Identity of independent directors was provided by each issuer in sample
- Board Assessment disclosure requirement was the least fully addressed
- *Guide to Good Disclosure* is on our web site, [www.tsx.com](http://www.tsx.com), and TSX is planning to continue with our Corporate Governance disclosure workshops later this year



## Timely Disclosure Policy ("TDP") – Objectives



## TDP – What is Material Information?

- **“Material information is any information relating to the business and affairs of a company that results in or would reasonably be expected to result in a significant change in the market price or value of any of the company’s listed securities”.** Section 407 of TSX Company Manual
- **Material information consists of both material facts and material changes**

## TDP – Requirements

- **Immediate disclosure of material information**
- **Update previously disclosed developments**
- **Must issue news release in response to rumour containing truth which is influencing trading activity**
- **Pre-file all material news releases with Market Regulation Services Inc.**



## TDP – Role of Market Regulation Services Inc. ("RS")

- **RS administers TSX Timely Disclosure Policy**
- **RS is there to help the issuer**
- **RS has the authority to halt trading**
  - **Trading is normally halted for the dissemination of material news**
  - **Halts are normally short and does not reflect upon the reputation of management of the company or its securities**



## TDP – Common Issues

- Failure to pre-file material news release with RS – can result in the roll back of trades by RS
- Issuer not aware of trading hours – 9:30am to 5:00pm
- Failure to update the market regarding previously disclosed event
- Speaking to the media or others, in confidence, prior to the release of material information
- Not responding to inquiries from RS in a timely manner



## Blackout Periods

- A period when insiders, officers and employees are unable to trade the issuer's stock.
- Typically around the release of financial statements.
- Implement around potential material events – M&A activity, corporate announcements.
- Protects integrity/reputation of the company.
- Canadian Investor Relations Institute has created a model disclosure policy.



# Technical Issues

- Fran Manns



# Web sites are useful investor relations tools, but precautions are required

- Information on web sites is not considered widely disseminated
- Posting of analyst reports and other third party information such as trade publications and newspapers is not encouraged
- Website must comply with National Instrument 43-101 and Appendix "B"
- Need to update



## Timely vs. Continuous Disclosure

- Material facts and material changes must be disclosed by timely news release

### **Annual and Quarterly Reports – constitute 'continuous disclosure'**

- As complete as possible and in compliance with Appendix 'B'
  - and NI 43-101
- Even if not material explain -
  - Discontinued work
  - Dropped properties
  - Undisclosed results



## TDP - Appendix 'B' - TSX Company Manual - Toronto Stock Exchange Disclosure Standards for Companies Engaged in Mineral Exploration, Development & Production

- **Nine (9) pages that highlight what is required in a mining industry news release from grass roots to production**
- **Written before National Instrument 43-101, to assist timely disclosure**
- **Parallel to current NI 43-101**



## TDP Requirements – Mining Specific Issues

- **Mining news releases – apply Appendix 'B' of the TSX Company Manual**
  - **Headline documented in text**
  - **Balance**
  - **Proper format for MRMR**
  - **Laboratory for grass roots**
  - **QP has read and approved**



## Other Disclosure Issues

- **Unusual circumstances**
  - **'Bonanza' Grade –**
    - **Is today's 5 ounces worth the same as yesterday's 5 ounces?**
    - **Every case is different – just ask RS**
  - **Visible gold (vg)**
    - **May be very important to disclose because there can be rumours**
      - **Give an estimate of turn around time and follow with assays**
  - **Metal equivalents – not to be used for an early stage exploration project**
    - **Advanced project include recoveries and all assumptions**



## Communications with Analysts

- Only provide non-material and previously disclosed information
- At least two company representatives should be present
- Keep notes and prepare
- Do not disclose significant data, and in particular information such as sales forecasts and profit figures
- Do not confirm that an analyst's estimate is "on target."
- Avoid redistributing analysts reports



## The Market Maker

- Every issuer has one assigned upon listing
- Two roles
  - Minimum guaranteed fill - Supply a retail fill at the market – odd lots, small trades – say under 1,500 – 2,000 shares
  - Maintain a spread goal
    - Keep a stock from large moves on small trades
    - Maintain liquidity in an orderly manner
- Other issues
  - The Market Maker does not price at the open or control the trade
  - Can assist with information – but with care...



## SecureFile

- Paper free
- Keep the TSX web site information current
- News releases can be filed with RS
- Several persons in your Company will have PIN numbers
- Only monthly filing is Form 1: changes in share position



## Mine Financings up to Dec 31, 2007

- |                   |       |          |
|-------------------|-------|----------|
| • Total Companies | 1,373 | \$19.0 B |
| • TSX             | 341   | \$11.8 B |
| • TSX – Venture   | 1,032 | \$7.2 B  |



## Why is Canada the centre of the mining universe?

- **Intellectual infrastructure for mining**
  - Geologists and engineers are 'world class'
  - Universities are 'world class'
  - Legal support is world's most experienced - we have mining engineers who practice law
  - The financial community contains engineers and geologists who understand the business
  - Exchanges and Commissions
  - All of the above



## Resources

- **TSX Company Manual**
  - Appendix 'B' – TSX Manual
  - TSX Timely Disclosure Policy
  - Electronic Communications Disclosure Guidelines
- **Canadian Investor Relations Institute (CIRI) – Standards And Guidance For Disclosure**
- **National Policy 51-201 Disclosure Standards**
- **Web site [www.tsx.com](http://www.tsx.com)**



That is what we discuss at an issuer education session...

- **The goal is to demystify the TSX**
- **All listed issuers can call any time to arrange a meeting to go over all these aspects of our relationship**



Questions

February 29, 2008

# Mineral Project Disclosure Standards: Understanding NI 43-101

Sponsored by



OSC  
Ontario Securities Commission



## Afternoon Agenda

- |  |   |
|--|---|
| <p>1:00pm – Session 3</p> <ul style="list-style-type: none"><li>▪ Good Disclosure Practices</li><li>▪ Technical Reports</li><li>▪ Questions</li></ul> <p>3:00pm – Coffee</p> | <p>3:15pm – Session 4</p> <ul style="list-style-type: none"><li>▪ Metal Prices</li><li>▪ Certificates and Consents</li><li>▪ Prospectus Due Diligence Failures – Round 2</li><li>▪ Questions</li></ul> <p>4:30pm – Finish</p> |
|--|---|

ONTARIO SECURITIES COMMISSION

OSC



## Good Disclosure Practices

OSC

ONTARIO SECURITIES COMMISSION

### Principles of News Release Disclosure

- All material information must be released immediately
- Factual and balanced
- Must contain sufficient information to enable investor to appreciate the nature, relevance and impact
- Unfavourable news must be disclosed as promptly and completely as favourable
- Monitor continuous disclosure record
- Guidance – TSX-V Appendix E

ONTARIO SECURITIES COMMISSION

OSC



## Example

*"The Company also wishes to announce that its option agreement with XYZ Gold Inc. entitling XYZ Gold to earn an interest in the Company's Nunavut gold property has been terminated. As previously reported on May 12, 2007, the drill results from a nine-hole diamond drill program completed in early 2007, while intersecting wide zones of gold mineralization, did not define a significant deposit in the area. As a result, XYZ Gold has opted to terminate the option agreement."*

## Example

*"In total five discrete electromagnetic (EM) geophysical targets were drill-tested. No kimberlite was intersected. The targets were explained by a thick layer of glacial-lacustrine clays within the overburden sequence. In addition to the drilling program, ground EM surveys were conducted over priority airborne anomalies. The surveys performed did not produce compelling drill targets and no further work is contemplated on these anomalies. The property is located approximately 320 km northeast of Yellowknife, NWT. As a result the Company has elected to terminate the option agreement on the Property."*

## Disclosing Sample Results Level Of Detail Expected

- Samples
  - Number of samples, type, location, spacing
  - Analytical values, sample width (table form)
  - State true widths; if unknown – state that
  - Provide average or range of values – not just “values up to...”
- Context
  - General geology and mineral occurrences
  - Summarize and interpret results, don't just report numbers
  - Provide nature and scale of future work
  - Name of laboratory and analytical method
  - Discuss QA/QC procedures
  - Name and relationship of the QP

## Disclosing Sample Values

*“Forty-two percent of the 100 grab samples collected to date contain greater than 0.10 grams/tonne (g/t) gold with concentrations up to 18 g/t gold.”*

*“Grab samples are selected samples collected to determine the presence or absence of mineralization and are not intended to be representative of the material sampled. Channel sampling or drilling are required to determine representative grades.”*

## Disclosing Sample Results - Examples

- Number, type, values, widths, spacing  
"A total of 15 channel samples were collected from along the 50 metre vein exposure at the Silver Bullet showing with an average grade of 11.8 gpt gold.

Channel samples were collected by making two passes with a rock saw perpendicular to the strike of the vein ... Sample lengths varied according to the vein width from 0.4 to 1.3 metres. ... Where exposed, the vein was sampled at three metre intervals along the vein."

## Disclosing Sample Results - Examples

- Laboratory, analytical procedures, QA/QC program, check assays

*"Samples consist of half NQ, NTW and BTW-size diamond core that are split by diamond saw on site, prepared at the ALS Chemex laboratory in Ecuador and assayed by 50g fire assay with an ICPAES or gravimetric finish at ALS Chemex, Vancouver.*

*The QA-QC program of the Company includes insertion of certified standards every 20 samples, blanks at least every 20 samples and field or lab duplicates every 20 samples. Samples from significant drill intercepts are sent to two additional laboratories to verify gold and silver analyses. The remaining half core is retained onsite for verification and reference purposes."*

## Referencing Previously Disclosed Information

s.3.5 - Exception for written disclosure already filed

- Reference the title and date of a previously filed document
- Applies only to:
  - s.3.2 – Data Verification
  - s.3.3 – Exploration Information
  - s.3.4 – Resources and Reserves (date, assumptions, relative issues)

## Contained Metal & Metal Equivalents

Contained Metal Content

- s.2.2(d)
  - State grade and quantity for each category disclosing the quantity of contained metal
- s.3.4(b)
  - Disclose quantity and grade of each category

Metal Equivalents

- Must also present individual grades
- State assumptions for metal equivalent
  - Metal prices
  - Recovery factor for each metal

## Metal Equivalent Disclosure

Drill Hole Number	From M	To M	Width M	Gold g/t	Silver g/t	Copper %	Gold Equiv g/t	Copper Equiv %
G08-465	37	61	24	0.30	5.4	0.69	1.52	0.92
	94	147	53	0.26	8.8	1.20	2.36	1.43

Note: Gold and Copper equivalent calculations use long-term average metal prices of US\$575/oz for gold, US\$9.50/oz for silver and US\$2.10/lb for copper. Gold and Copper equivalent calculations reflect gross metal content and have not been adjusted for metallurgical recoveries.

## Gross Metal Value and Worse

- Examples
  - Total in-situ metal value of deposit
  - Gross metal value per tonne
  - Contained metal or values per share
- Misleading because:
  - Large meaningless numbers
  - Doesn't include costs and recoveries
  - Doesn't include future share dilution
  - Very explicit and proximate cautionary language required

*Red flag to regulators - don't disclose!*

## Historical Estimate Disclosure Options

- Disclose as a historical estimate
  - s.2.4 and s.4.2(2).
- Disclose as an exploration target
  - s.2.3(2)
- Reclassify as a current mineral resource
  - May take time to verify and reclassify
  - Will trigger a technical report
- Don't disclose at all
  - May not be realistic or supportable
  - Consider if suitable for public disclosure

## Exploration Target

- Potential mineral deposit targeted for further exploration
  - Conceptual but realistic - supported by data
- Disclosed as per s.2.3(2)
  - Expressed as range of potential tonnes / grade
  - Include proximate cautionary language:
    - Potential quantity and grade is conceptual
    - Insufficient exploration to define a resource
    - Uncertain if further exploration will result in delineation of a resource
- Discuss basis for target size and grade

## Exploration Target - Example

*"Previous exploration has outlined an exploration target of 550,000 to 650,000 oz Au contained within 1.2 to 1.6 Mt grading 0.4 to 0.5 oz/t Au. The potential tonnages and grades are conceptual in nature and are based on previous drill results that defined the approximate length, thickness, depth and grade of the portion of the historic resource estimate. There has been insufficient exploration to define a current resource and the Company cautions that there is a risk further exploration will not result in the delineation of a current resource."*

## Exploration Target - Example

*"Available data, including compilation of 5000 historical holes, indicate the presence of a large tonnage, porphyry gold type deposit that offers a potential for 90 to 110 million tonnes grading between 1.00 g/t and 1.35 g/t Au, yielding a potential resource of 3.2 to 4.3 million ounces gold."*

*The above-quoted figures are reported as an exploration target, based on reasonable assumptions made from compiled data. These figures should not be construed to reflect a calculated resource (inferred, indicated or measured) under standards of NI 43-101. The potential quantities and grades reported above are conceptual in nature and there has been insufficient work to date to define a NI 43-101 compliant resource. Furthermore, it is uncertain if additional exploration will result in discovery of an economic mineral resource on the property."*

## Economic Analysis of an Exploration Target

- Not allowed!
- s.2.3(1)(b)
  - Can't disclose economic analysis of inferred resource
  - Exploration target less confident than inferred resource
- s.2.3(1)(a)
  - Can't disclose tonnes and grade of a deposit that has not been classified as a mineral resource
  - Exploration target has not been classified as a resource

## Economic Studies

- Preliminary Assessment (Scoping Study)
  - Potential viability of resources at early stage
  - Costs based on comparison to similar projects
- Preliminary Feasibility Study
  - Comprehensive study of viability of a project
  - Sufficient to estimate mineral reserves
  - Costs based on reasonable assumptions
- Feasibility Study
  - Comprehensive study of the viability of a project in sufficient detail to make final production decision
  - Costs priced in detail for all aspects

## Cost of Mine Development?

- Petaquilla copper project to cost US\$3.5 billion
  - *"...project will cost US\$3.5 billion to develop, more than double an earlier estimate from a year ago..."*
- Snap Lake project gets billion dollar write down
  - *"...US\$965 million write down due to the increased value of the Canadian dollar and increased costs and construction challenges..."*
- Tahera Diamond has Can\$143.1 million loss
  - *"...one-time asset impairment charge against the carrying value of the Jericho Diamond Mine of \$73 million because of the rise of the Canadian dollar and oil and relatively modest diamond price increases."*
- Galore Creek project development suspended
  - *"...cost forecast balloon to \$5 billion at Galore Creek blamed on rising expenses and the high Canadian dollar."*

## Preliminary Assessment

- Economic analysis of mineral resources
  - Commonly referred to as a scoping study
  - Potential viability at early stage of project
  - Prior to preliminary feasibility study
- May include inferred resources - s.2.3(3)
  - Only if NO part of the property has advanced to pre-feasibility stage
  - Only if results of economic analysis would be material to company
  - Must include cautionary language in disclosure
- CP2.3(2) guidance
  - Any economic analysis done after a pre-feasibility study is not a preliminary assessment

## Preliminary Assessment

- Required language for all preliminary assessments - s.3.4(e)
  - Mineral resources that are not mineral reserves do not have demonstrated economic viability
- Required cautionary statements if inferred resources included - s.2.3(3)
  - Preliminary assessment is preliminary in nature
  - Includes inferred resources that are considered too speculative geologically to have economic considerations applied to them that enable them to be categorized as mineral reserves
  - No certainty preliminary assessment will be realized

## Preliminary Assessment Example

*"The Preliminary Assessment includes inferred mineral resources which are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves. Furthermore, there is no certainty that the results projected in the Preliminary Assessment will be realized and actual results may vary substantially."*

## Preliminary Assessment Example

*"Preliminary Assessment is based on resources calculated in March 2006 using a 0.5g/t cut off that consist of 36.8Mt grading 1.6g/t Au (1.9Mozs) indicated and 27.7Mt grading 1.7g/t Au (1.5Mozs) of inferred resources. Mineral resources that are not mineral reserves do not have demonstrated economic viability.*

*Based on the economic parameters, including a gold price of \$475/oz and fuel price of \$50/bbl, the open pit captures 40.5Mt of resources, grading 2.0g/t Au for 2.4Moz. The project has an IRR of 4.7% and cash costs of \$265/oz. Capital costs have been estimated at \$321.4 million (+/- 25%) to build a 5.4Mtpa CIL plant that will produce an average of 311,000 ounces of gold per year over an eight year mine life. The stripping ratio is 5.4:1."*

## Discount Rates for Economic Analyses

- Avoid disclosing undiscounted NPV or cash flows
  - Cumulative cash flow may be more accurate
- Discount rates must be realistic
  - Reflect all material project risk factors
  - Reflect the cash cost of money
  - Projects highly sensitive to discount rates
  - Low rates may be misleading to investors
  - Red flag to regulators

## “Reasonable Prospects for Economic Extraction”

- Mineral Resource must be in such form, quantity and grade that it has reasonable prospects for economic extraction
- s.3.4(c) – include details of the key assumptions, parameters and methods used to estimate mineral resources
- Problem:
  - No clear statement of assumptions used to determine cut-off grade
  - Assumptions that do not appear to have a reasonable basis
  - Assumptions that are unreasonable



## Presenting Different Cut-off Grades

Cutoff Cu Eq %	Tonnes > Cutoff (tonnes)	Grade > Cutoff						Contained Product In-situ	
		Cu %	Au (g/t)	Ag (g/t)	Pd (g/t)	Cu Eq %	Au Eq (g/t)	Cu (M lbs)	Au (M ozs)
0.30	90,810,000	0.894	0.699	2.167	0.106	1.390	2.160	1790.11	2.041
0.50	78,950,000	0.991	0.774	2.399	0.114	1.539	2.391	1725.18	1.965
<b>0.70</b>	<b>68,700,000</b>	<b>1.082</b>	<b>0.845</b>	<b>2.619</b>	<b>0.119</b>	<b>1.679</b>	<b>2.609</b>	<b>1639.05</b>	<b>1.866</b>
0.90	58,670,000	1.181	0.922	2.860	0.122	1.830	2.844	1527.83	1.739
1.20	45,880,000	1.324	1.035	3.228	0.126	2.049	3.184	1339.43	1.527

**NOTES**

- Metal Prices Used: Copper \$US 0.85/lb, Gold \$US 375/oz, Silver \$US 5.25/oz and Palladium \$US 200/oz.
- Assumed Metal Recovery: Copper 90%, Gold 90%, Palladium 74%, and Silver 75%.
- Not all tonnage will be recovered in mining, nor will all metal be recovered in milling and processing.



## Coal Resources and Reserves

- Coal deposits in Canada
- Can prepare estimates using
  - Paper 88-21 of Geological Survey of Canada:
  - A Standardized Coal Resource/Reserve Reporting System for Canada
- Must report coal estimates using
  - equivalent CIM mineral resource or mineral reserve categories
- Potential, Speculative, Hypothetical categories not allowed

## Disclosing Quantity/Grade/Value of Kimberlite

- S.2.3(1)(a) prohibits disclosure of tonnes and grade of a deposit that has not been categorized as a mineral resource
- Extreme nugget effect makes grade estimates difficult until bulk sample stage
- Large parcel required to estimate value of diamonds
- Volume/tonnage of kimberlite can be well known

**Estimated Tonnage and Diamond Potential – Renard 2, 3, 4 and 9**

The drilling data derived to date from Renard 2, 3, 4 and 9, when combined with assumptions about the shape of the bodies at depth, suggest that these bodies may contain 23.2 to 27.5 million tonnes of kimberlitic material. As summarized in the table below, using the estimated diamond content of the samples analyzed thus far, these bodies could potentially contain 18.6 to 22.0 million carats of diamonds.

**Summary of Estimated Tonnage and Diamond Results – Renard 2, 3, 4 and 9**

Kimberlitic Body	Deepest Drill Intersection (metres below surface)	Estimated Tonnage (million tonnes) (Note 1)			Total	DMS Results – May 2004 to Present		Estimated Number of Carats (millions)
		Drill-Indicated	Projected			Weight of Sample (tonnes)	Estimated Diamond Content of Sample (cpht) (Note 2)	
			Low	High				
Renard 2	565	6.5	3.4	5.9	9.9 to 12.4	173	92	9.1 to 11.4
Renard 3	360	1.7	0.3	0.4	2.0 to 2.1	160	124	2.5 to 2.6
Renard 4	302	6.1	1.6	2.9	7.7 to 9.0	178	46	3.5 to 4.1
Renard 9	364	3.2	0.4	0.8	3.6 to 4.0	12.2	97	3.5 to 3.9
<b>Totals</b>		<b>17.5</b>	<b>5.7</b>	<b>10</b>	<b>23.2 to 27.5</b>			<b>18.6 to 22.0</b>

Note 1: Tonnage estimated by Wardrop Engineering Inc.

Note 2: "cpht" means number of carats per hundred tonnes, diamonds larger than 1.18 mm using a square mesh screen. .../2

The estimated tonnage of Renard 2, 3, 4 and 9 and the estimated number of carats contained in these bodies are conceptual in nature, and do not conform to the definition of a "mineral resource" established by National Instrument 43-101. The drill-indicated tonnage reflects the drill spacing by assuming an area of influence of five to ten metres around each drill hole. The projected tonnage, which is presented as a range, was determined by projecting the walls of the four bodies to their respective maximum kimberlitic intersection depths. The high estimate of the projected tonnage was determined assuming near-vertical walls, and the low estimate was determined assuming that the walls taper inward at a greater inclination from vertical. In both cases, any non-kimberlitic drill intersections were taken into account. The number of carats was calculated by multiplying the average diamond content of the samples collected thus far from each body by the estimated tonnage of the body. The results derived from these calculations may not accurately reflect the total number of carats that the four bodies contain because: (i) the estimated tonnage does not constitute a mineral resource; (ii) further exploration will not necessarily provide the basis for determining a mineral resource; and (iii) the diamond content of the samples collected to date may not be representative of the overall diamond content of these bodies given a number of factors including the location of the drill holes and the small size of the samples. The joint venture anticipates that the data generated during the collection of a large bulk sample should significantly enhance the level of confidence in the estimated tonnage and diamond content of the four bodies.

**Foxtrot Property Exploration**

The discovery of the Hibou dyke and the other kimberlitic dykes reported on October 13 reinforces the exploration potential of the Foxtrot property. The 2006 program will include further assessment of the Lynx and Hibou dyke systems, each of which is strategically located near the Renard bodies. This is expected to include an investigation of their potential tonnage. In addition the joint venture will continue to focus on the investigation of unexplained indicator mineral anomalies and kimberlitic boulder occurrences and the testing of geophysical targets on the property to identify new kimberlitic bodies. Further details of the exploration activities planned for 2006 on the Foxtrot property will be announced following approval of the program by the joint venture.

# Technical Reports

## Meeting Regulatory Requirements

OSC

ONTARIO SECURITIES COMMISSION

## Technical Report Triggers

Section 4.1(1) of NI 43-101

- First time reporting in Canada

Section 4.2(1) of NI 43-101

- Annual Information Form (AIF)
- First time disclosure of mineral resources, mineral reserves, or preliminary assessment
- Material change to mineral resources, mineral reserves, or preliminary assessment
- Preliminary long form prospectus
- Preliminary short form prospectus

ONTARIO SECURITIES COMMISSION

OSC



## Technical Report Triggers

### Section 4.2(1) of NI 43-101

- Offering memorandum
- Rights offering
- TSX Venture (Short Form) offering
- Information or proxy circular concerning mineral property acquisition (shares offered)
- Take-over bid that discloses mineral resources/reserves or preliminary assessment (where shares offered)
- Valuation required under Canadian securities law (almost never required)

## Timing for Technical Reports

- Must be filed with the disclosure document it supports with some exceptions
- Disclosure of resources, reserves, and preliminary assessments
  - 45 days from date of disclosure
- AIF disclosure for a property that became material less than 30 days before AIF filing
  - 45 days from date became material
- Director's circular
  - Not less than 3 business days before take-over bid expires

## Independent Technical Report Triggers

Section 5.3(1) of NI 43-101

- First-time reporting issuer in Canada
- Preliminary long form prospectus
- Valuation
- First time disclosure of mineral resources, mineral reserves, or preliminary assessment
- Greater than 100% change to mineral resources or mineral reserves
  - Exemption from independent report requirement for producing mining companies (for last two bullets only)

## Technical Report

Purpose of technical reports

- Permits public and analysts to have information that will assist with making investment decisions
- Supports Company's disclosure of mineral exploration, development and production activities
- Summarizes the material technical information to support the conclusions and recommendations

*As much as possible – written in plain language understandable by the public*

## Basics of Technical Reports

Technical reports must be:

- Prepared on material mineral properties (s.4.2)
- Addressed to the company (s.8.2)
- Prepared according to the Form (s.4.3)
- Prepared by a qualified person (s.5.1)
- Based on all relevant available data (s.6.1)
- Prepared on a property basis not a project basis (s.1.1)
- Signed and dated (s.5.2)

## Requirements of Form F1

- Use specific headings set out in Form F1
  - Subheadings okay if needed
  - Stick to the order as much as possible
  - Include information where most appropriate
- Provide all information required
- Figures must be legible at page size
- Must comply with NI 43-101

## Mineral Project vs. Mineral Property

- Mineral Project
  - Any mineral exploration, development, or production activity, including a royalty or similar interest
- Mineral Property
  - Mineral claims, permits, licenses, leases, or other mineral tenure on which the mineral project is located
  - Usually will include contiguous claims controlled by company
  - May include company's other claims in same area if likely to use same infrastructure

## Mineral Properties with Multiple Deposits

- Can a company file separate technical reports for different deposits on the same property?
  - Generally speaking, no
- Technical Report must:
  - s.1.1 - include all material scientific and technical information about a mineral property
  - s.6.1 – be prepared based on all relevant available data
  - Other deposits are relevant because likely to use the same infrastructure and likely to impact the potential viability and scale of the development

## Relying on Previously Filed Technical Report - Section 4.2(8)

- You don't have to file a new technical report under s.4.2(1) if:
  - Have previously filed a report on property
  - Report meets the requirements of s.5.3(1), if applicable
  - Report is still current
  - File updated certificates and consents of each QP

## Is the Technical Report Still Current?

- New technical information on the property
  - Drilling, assays, metallurgical test work
- Change of assumptions
  - Mineral resources/reserves
  - Economic analysis
- Recommendations
  - Consistent with what Company telling investors?
  - Consistent with use of proceeds in offering document?

## Can You Use Another Company's Technical Report?

- If Company A triggers report; cannot rely on Company B's technical report on same property
- Each company must have own, complete public disclosure record
- s.8.2 of NI 43-101: "Addressed to Issuer"
  - Company's name on title page
  - Specify Company in Item 4(a) Introduction
  - QP's certificate and consent must name Company

## Item 5 – Reliance on Other Experts

### Purpose:

- QP has relied on a report, opinion, or statement of a legal or other expert, who is not a QP, for legal, environmental, political, or other issues
  - Should not include scientific and technical information normally prepared by a QP
- Requirements - Identify the:
  - Report, opinion, or statement relied upon
  - Maker of that report, opinion, or statement
  - Extent of reliance
- Good practice:
  - Identify where in the report that expert's opinion is used

## Example of Reliance on Other Experts

*"The authors have relied, and believe there is a reasonable basis for this reliance, upon the following reports:*

### *Mineral Tenure*

*AMEC has relied upon Minera Andes experts for this information through the following documents:*

*Letter, dated 28 February 2006 entitled "Update on our report dated February 28, 2005, regarding the "Verification of Title and Legal Status of Mining Properties pertaining to the San José Project held by Minera Santa Cruz S.A." by Brons and Salas, Solicitors, Buenos Aires, Argentina (Section 4.5 of this report)."*

OSC

ONTARIO SECURITIES COMMISSION



## Use of Historical Data and Work of Other QP's

- You may rely on historical data and the work of other QP's, if it is reasonable for you to do so
- You should conduct appropriate due diligence
  - Make a reasonable effort to verify quality and integrity
  - Identify and discuss any deficiencies or areas of concern
  - recommend on how to remedy these problems
- You may not disclaim responsibility for this information

OSC

ONTARIO SECURITIES COMMISSION



## Relying on Previous Resource Estimates

- Mineral resources/reserves by another QP from a previously filed technical report – one of the current QPs must take responsibility for those estimates
- Make whatever investigations necessary to reasonably rely on that information
- Alternatively
  - Include new certificate of QP from previous technical report
  - Take responsibility for mineral resources/reserves

## Previous Resource Estimates – Example

*"The following section is taken from Section 15 of the October 10, 2007 Technical Report by ABC Consulting Inc. For the purpose of the Technical Report, the qualified person responsible for the mineral resource estimate contained in this section is Joe Bloggs, P. Geo, General Manager, ABC Consulting Inc. Mr. Bloggs is independent of the Company within the meaning of section 1.4 of NI 43-101."*

(Consent and certificate of Joe Bloggs filed with technical report)

## Previous Resource Estimates - Example

*"I have reviewed the methodology and classification and found that the work by ABC Consulting, in terms of their geostatistical analysis and parameters for resource classification and interpolating or estimating grades into the block models, were reasonable and appropriate, and consistent with my knowledge on the style of mineralization at Good Gold. I am satisfied that the mineral resource estimate outline in the following subsections is in compliance with the requirements set out in NI 43-101."*

## Item 16 - Data Verification

- Not just data entry verification
- State what was done to verify data
- Reasons for failure to verify
  - Lack of documentation of procedures
  - Lack of archiving of original data
  - Not within scope of study or time constraints are not acceptable reasons
- Make recommendations to confirm data, if necessary

## Examples of Data Verification

- Site visit (personal inspection)
- Sampling methods, assay protocols and methods
- Access and infrastructure
- Mineralized exposures
- Geology, mineralization and exploration model
- Drilling
- Drill collars, core,
- Assay lab, QAQC, database, assay certificates
- Independent sampling

## Importance of Personal Inspection

Purpose:

- Due diligence
- Data verification
- Evidence of previous work done
- Familiarize with property
- Access
- Practicality of recommended work

## Item 19 - Mineral Resource and Mineral Reserve Estimates

- State effective date and QP responsible
- Round-off numbers – they are estimates
- (a) Use CIM Definition Standards
- (c) Inferred resources not added to other categories
- (f) Basis for assumptions, parameters, methods
- (j) If inferred resources included in an economic analysis include required disclosure s.2.3(3)
- (k) When economic analysis on resources is disclosed include required language s.3.4(e)



## CIM Resource/Reserve Best Practice Guidelines

Economic parameters:

- The cut-off grade or economic limit used to define a Mineral Resource must provide “reasonable prospects for economic extraction”
- In establishing the cut-off grade, it must realistically reflect the location, deposit scale, continuity, assumed mining method, metallurgical processes, costs and reasonable long-term metal prices appropriate for the deposit
- Assumptions should be clearly defined



## Key Assumptions, Parameters and Methods

Type of information we are looking for:

- Key assumptions
  - Cut-off grade and basis; cutting factors
  - Geological model
  - Conceptual mine method, recoveries, production rate
- Parameters
  - Search distances, minimum samples/block
  - Interpolation distances and directions
- Methodology
  - Polygonal, cross-sectional, block-model
  - Geostatistical methods

## Missing Information

- No clear statement of assumptions used to determine cut-off grade
  - Open-pit vs. underground
  - Assumed processing and recoveries
  - Assumed capital and operating costs
  - Long-term metal prices or exchange rates
- Stated assumptions do not appear to have a reasonable basis
  - Arbitrary or insufficient technical support
  - Parameters based on mines that are not analogous
- Stated assumptions are unreasonable
  - Unrealistic long-term metal prices
  - Unreasonably low-operating and capital costs

# Questions

OSC

ONTARIO SECURITIES COMMISSION

## Metal Price Assumptions

Used in:

- Cut-off grade for mineral resources
  - Reasonable over the life of mine
- Cut-off grade for mineral reserves
  - Higher than price used for resources
- Metal equivalent calculation
  - Consistent with price used in resources/reserves
- Economic analysis
  - Metal price may vary over life of mine
    - Near term production vs. year ~3-10

ONTARIO SECURITIES COMMISSION

OSC



## Assumed Metal Prices

### Canada

- Must be reasonable over life of project
  - Metal price and cut-off grades should be comparable to industry peers

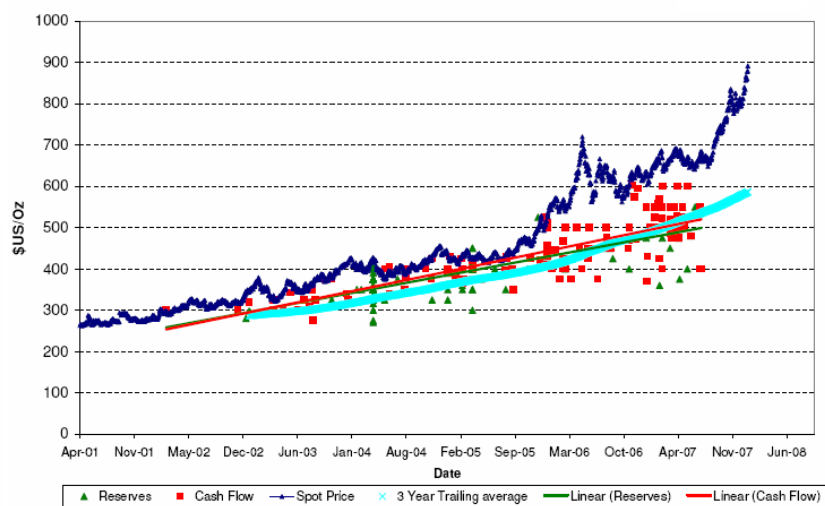
### USA

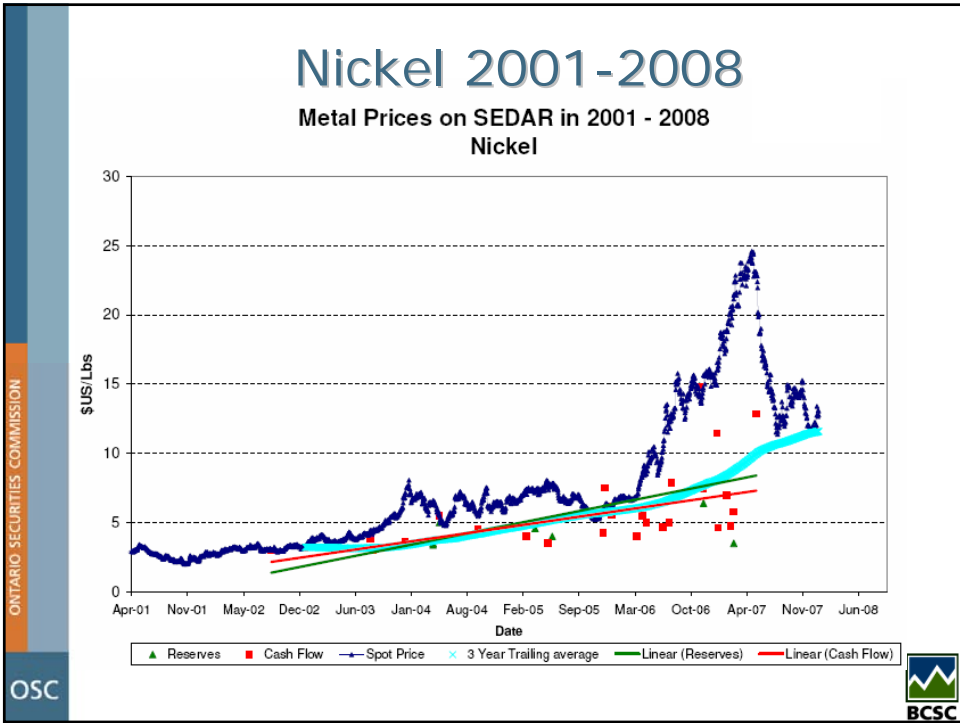
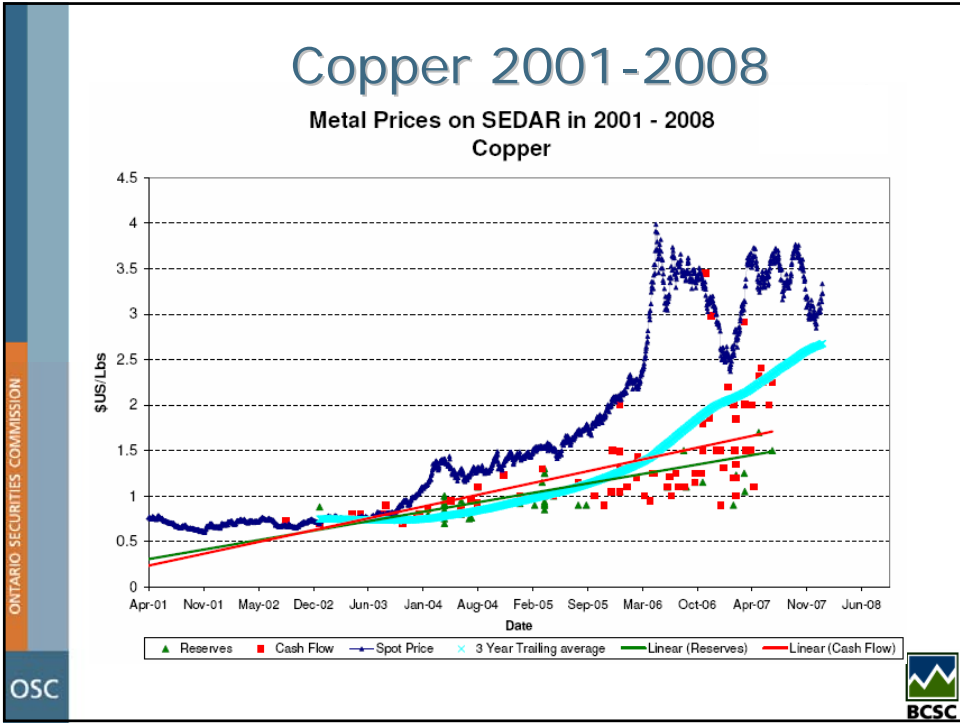
- 3-year trailing average at time of study
  - As defined by LME or COMEX
  - Recognizes some mines receive a premium
  - Must have documentation of how cut-off grade was determined
  - Cut-off grade by comparison to other project not allowed

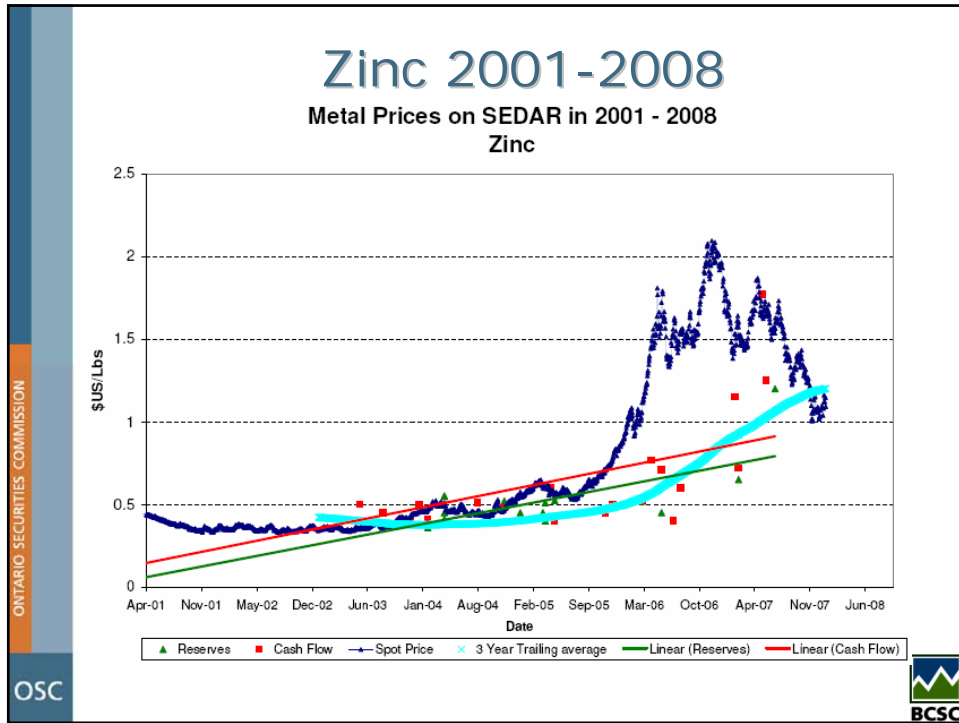
## Gold 2001 - 2008

Metal Prices on SEDAR in 2001 - 2008

Gold







## Certificate of Qualified Person

### S.8.1(2) of NI 43-101

- Requirements changed Dec. 30, 2005
- Do not include a consent in the certificate
- Be aware of these changes:
  - Title and date of technical report
  - Brief summary of relevant experience
  - Whether independent as described in s.1.4
  - That, as of the date of the certificate, to the best of my knowledge, information and belief, the technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

## Certificate of Qualified Person

### Purpose:

- Establishes the authors as qualified persons
- Sets out the QP's responsibility for the technical report
- Establishes whether the QP is independent
- Confirms the site visit
- Certifies the technical report is current
- Certifies the technical report is prepared according to NI 43-101

## Consents of Qualified Persons

- Do not use the previously template
  - Required statements changed Dec. 30, 2005
- Addressed to the securities regulatory authority (each provincial securities commission)
- Filed by the Company – not by the QP or engineering firm
- Purpose:
  - Consents to filing of technical report
  - Consents to extracts or a summary of report in a particular document
  - Confirms QP read specific document filed with securities commission
  - Confirms it fairly and accurately represents the information in the technical report that supports the disclosure

## Consents of Qualified Persons

### S.8.3 of NI 43-101

- An issuer must, when filing a technical report, file a statement of each qualified person responsible for preparing or supervising the preparation of each portion of the technical report, addressed to the securities regulatory authority, dated, and signed by the QP
- (a) consenting to the public filing of the technical report and to extracts from, or a summary of, the technical report in the written disclosure being filed; and
- (b) confirming that the qualified person has read the written disclosure being filed and that it fairly and accurately represents the information in the technical report that supports the disclosure.

## Disclaimers in Consents of QPs

- Don't include disclaimers in consents
- Disclaimers in consents are not acceptable
  - Must file Consents on SEDAR
  - Disclaimer is contrary to purpose of consent
  - Public must be able to rely on consent
  - Can't disclaim statutory liability
  - Can't disclaim professional responsibility

## How Big is Too Big?

- Too big if it can't be easily downloaded
- Try to keep under 10 MB
- Causes of large file sizes
  - Scanning images and maps
  - Too much high resolution and detail
  - Too many sections, logs, assay sheets
  - Too many colour graphics and photos
  - Inclusion of large appendices

## Prospectus Due Diligence Failures Round 2

## History and Background

- Spring 2006 – initial assessment of short form prospectus filings
  - Technical review of 20 prospectuses
  - Five case studies with material deficiencies
    - Non-compliant disclaimers of responsibility
    - Missing or deficient certificates and consents
    - Obviously deficient technical reports
    - Technical reports don't support prospectus
    - Unsupported use of proceeds

## History and Background

Initial results raised BCSC staff concerns about:

- Serious mistakes or deficiencies in the filing documents
- Issuers apparently relying on staff to review documents and catch mistakes
- The pre-filing due diligence role of agents and professional advisors
- The amount of staff time needed to review prospectus filings

## Prospectus Review Study

- Complete study of recent mining prospectus filings
  - Assess compliance and quality
  - Focus on obvious deficiencies not requiring technical expertise
  - Identify potential key indicators of quality
  - Analyze results in context of key indicators

## Key Indicators

- Filing counsel
- Agent or underwriter
- Agent/underwriters counsel
- Qualified person
- Auditor
- Issuer groups/Management Affiliation
- Offering type and size
- Exchange listing
- Property Stage

## Summary of Database

- Effective date of November 29, 2007
- Included prospectuses:
  - Received after March 31, 2006
  - Filed before October 31, 2007
  - 54 short-forms – 93 technical reports
  - 82 IPOs – 102 technical reports
- Included 15 IPO filings still in progress
- Excluded three rights offerings and one outlier short-form

## Grading Criteria

- The technical report is the basic unit of measure
  - Supports technical disclosure
- Considered:
  - 31 grading factors
  - Grouped into ten grading categories for scoring
    - 1 to 6 factors per category
  - Grouped by four document types
- Scores based on grading categories

## Grading and Scoring

- Each technical report assessed based on the 31 grading factors
- Each category assigned score of 1 or 0
  - Must pass all grading factors for each category to score 1
- Total report score out of 10
- Considered up to 3 technical reports per file
- Average the technical report scores for file score

## Grading Categories

- Technical reports
  1. Report authors
  2. Basic format
  3. Compliance with Form 43-101F1
  4. Disclosure compliance with NI 43-101
- Certificates of Qualified Person
  5. Compliance with basic format

## Grading Categories

- Consent of Qualified Persons
  6. Compliance with basic format
  
- Preliminary prospectus & AIF
  7. Use of proceeds
  8. All technical reports filed
  9. Consistency with technical reports
  10. Relevant management mining expertise

## Grading Factors Technical Report

1. Report authors
  - Are qualified persons
  - Responsible for all sections of report
  - Current site visit
  - Independent if required
  
2. Basic format
  - Signed, dated, addressed to issuer
  - Headings and basic information
  - Information on all areas of property

## Grading Factors Technical Report

### 3. Compliance with Form

- Is current
- legible maps and figures
- data verification
- Recommendations and breakdown of costs
- Economics and engineering for reserves
- Item 25 for Development/Production

## Grading Factors Technical Report

### 4. Compliance with NI 43-101 Disclosure

- Required cautionary language
- Required details for mineral resources and mineral reserves
- No inappropriate disclaimers of responsibility or reliance

## Grading Factors Certificates and Consents

5. Certificate of Qualified Person
  - Signed, dated, and filed for each QP
  - All statements required by s.8.1(2)
6. Consents of Qualified Person
  - Signed, dated, and filed for each QP
  - Consents to filing and use of report
  - Certifies has read prospectus or AIF

## Grading Factors Prospectus/AIF

7. Use of proceeds
  - Consistent with recommendations and costs
  - No large amounts of unallocated working capital
8. Technical reports filed
  - Current report for all material properties
  - Prospectus/AIF refers to supporting report

## Grading Factors Prospectus/AIF

9. Consistency with technical report
  - Cautionary language
  - Property description
  - Mineral resources and reserves
  - Economic analysis and production forecasts
  - Interpretation, conclusions, recommendations
10. Other
  - Relevant management mining expertise

## Caution about Results

- High score does not necessarily mean a good quality technical report or prospectus filing
  - Only suggests appropriate due diligence
- Individual scores not statistically significant:
  - Subjectivity of analysis
  - Low numbers for each indicator
  - Large number of other variables in play
- Useful in identifying areas of concern and potential poor performers

## Arbitrary Rating of File Scores

Low	High	Rating
9.0	10.0	Good
8.0	8.9	Acceptable
7.0	7.9	Below Expectations
6.0	6.9	Poor
4.0	5.9	Very Poor

## Summary of File Scores

- 54 Short Forms – Avg. file score 8.2
  - 33 files (61%) scored 8.0 or better
  - 10 files (19%) scored less than 7.0
  - Lowest score 4.0 (2)
- 82 IPOs – Avg. file score 7.5
  - 40 files (49%) scored 8.0 or better
  - 21 files (26%) scored less than 7.0
  - Lowest score 4.0 (2)

## Summary of Report Results

Category	Short Form	IPO
1. Report Authors	78%	86%
2. Basic Report Format	90%	72%
3. Compliance with Form	71%	56%
4. Compliance with NI 43-101	69%	61%
5. Certificate of Qualified Person	87%	63%
6. Consent of Qualified Person	71%	68%
7. Use of Proceeds	72%	78%
8. Technical Reports Filed	92%	94%
9. Consist with Technical Report	90%	87%
10. Relevant Mining Expertise	100%	93%
Average Report Score	8.2	7.6

ONTARIO SECURITIES COMMISSION

OSC



## Short Form Prospectus Technical Report Problem Areas

- Deficient or missing consents (29%)
- Doesn't support use of proceeds (25%)
- No recommendations or cost breakdown (24%)
- Disclaimers (20%)
- Non-compliant resources or reserves (14%)
- QP not taking responsibility (13%)
- Deficient or missing certificates (13%)

ONTARIO SECURITIES COMMISSION

OSC



## IPO Prospectus Technical Report Problem Areas

- Deficient or missing certificates (37%)
- Deficient or missing consents (32%)
- Disclaimers (25%)
- Figures missing or illegible (21%)
- Not in required form (19%)
- Non-compliant resources (17%)
- Report not current (16%)
- No Data Verification (15%)
- Doesn't support Use of Proceeds (14%)



## Professional Advisors

Aggregated summary of individual professional advisor scores

Advisor	No.	Avg. Score		
		Low	Median	High
Filing Counsel	23	6.5	7.9	9.7
Agent	21	6.5	7.8	9.2
Agent Counsel	16	5.7	8.0	8.6
Mining Consultant	16	5.7	8.3	9.5
Individual QP	14	5.0	7.1	9.5
Auditors	17	6.3	7.5	9.7

## Exchange Listing

No significant differences in the average Short Form scores or times between TSX and TSX-V

### IPO Prospectuses

Exchange	No. IPOs	Median Days	Range Days	Avg. Score	Avg. Offering (MM)
TSX	5	49	45 – 75	8.3	\$19.07
TSX-V	60	73	15 – 297	8.1	\$2.43
CNQ	15	147	41 – 408	6.9	\$0.43

## Offering Size

No significant differences in the average Short Form scores or times based on offering size

### IPO Prospectuses

Offering Size (MM)	IPOs	Median Days	Range Days	Avg. Score
\$5.00 plus	14	63	36 – 141	7.4
\$2.00 – 4.99	17	65	15 – 299	8.0
\$1.00 – 1.99	19	83	29 – 260	6.8
\$0.50 – 0.99	18	91	29 – 297	7.4
\$0 – 0.49	14	141	27 – 408	7.0

## Property Development Stage

Property Stage	Short Form	Avg. Score	IPO	Avg. Score	Avg. Both
Production	22	8.8	0	-	8.8
Development	25	8.0	0	-	8.0
Advanced	23	8.2	1	8.0	8.2
Resource	16	7.9	9	7.9	7.9
Drill	7	9.1	30	8.2	8.4
Early	0	-	62	7.2	7.2

## Conclusions

- No firms, or individuals stand out as responsible for non-compliance
- But some firms and individuals appear to be doing better than others
- Apparent low performers will be monitored and may be contacted to discuss concerns
- Small IPOs and CNQ listings more problematic
- Overall results indicate room to improve in certain areas

## Conclusions

- Better due diligence should pick up errors before filing
- Improvements in filing quality should lead to quicker turnarounds and receipts
- Consistently poor filers will receive greater scrutiny and longer review times.
- Substandard files may be rejected without a full review

## Potential Outcome of Deficient Filings

*"Regrettably, the Company has recently discovered material errors in the Independent Persons Report as filed with the Canadian regulatory authorities. The Company's management and Board are investigating the errors and conducting a detail analysis of the Independent Persons Report's financial assumptions and projections, with a view of clarifying the report's financial integrity."*

*"The events as detailed above have resulted in the Company deciding to withdraw the Offering."*

## Thank You

Craig Waldie                      416-593-8308  
cwaldie@osc.gov.on.ca

Robert Holland                  604-899-6719  
rholland@bcsc.bc.ca

Ian McCartney                  604-899-6519  
imccartney@bcsc.bc.ca

Fran Manns                      416-947-4447  
francis.manns@tsx.com

Scott Ainslie                    416-947-4767  
scott.ainslie@tsx.com