

# Mining Disclosure: What you need to know

Roundup Short Course 2018

**Presented by:**

**British Columbia Securities Commission, BCSC**

**TSX Venture Exchange, TSX-V**

**Investment Industry Regulatory Organization of Canada, IIROC**

**Dentons**

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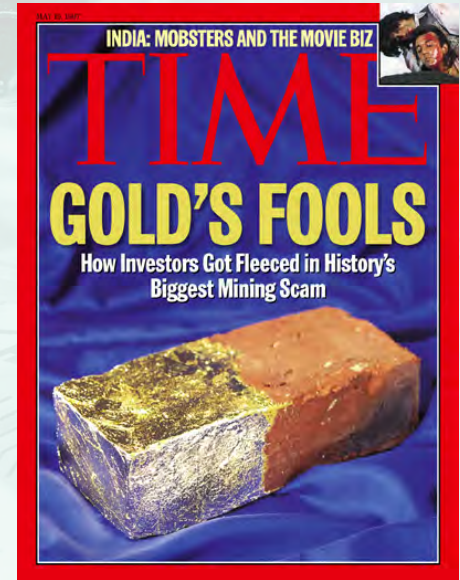
BRITISH COLUMBIA  
SECURITIES COMMISSION

# **Canadian Securities Regulatory Environment for Mining Disclosure**

**Chris Collins, MBA, P. Geo.  
Chief Mining Advisor**

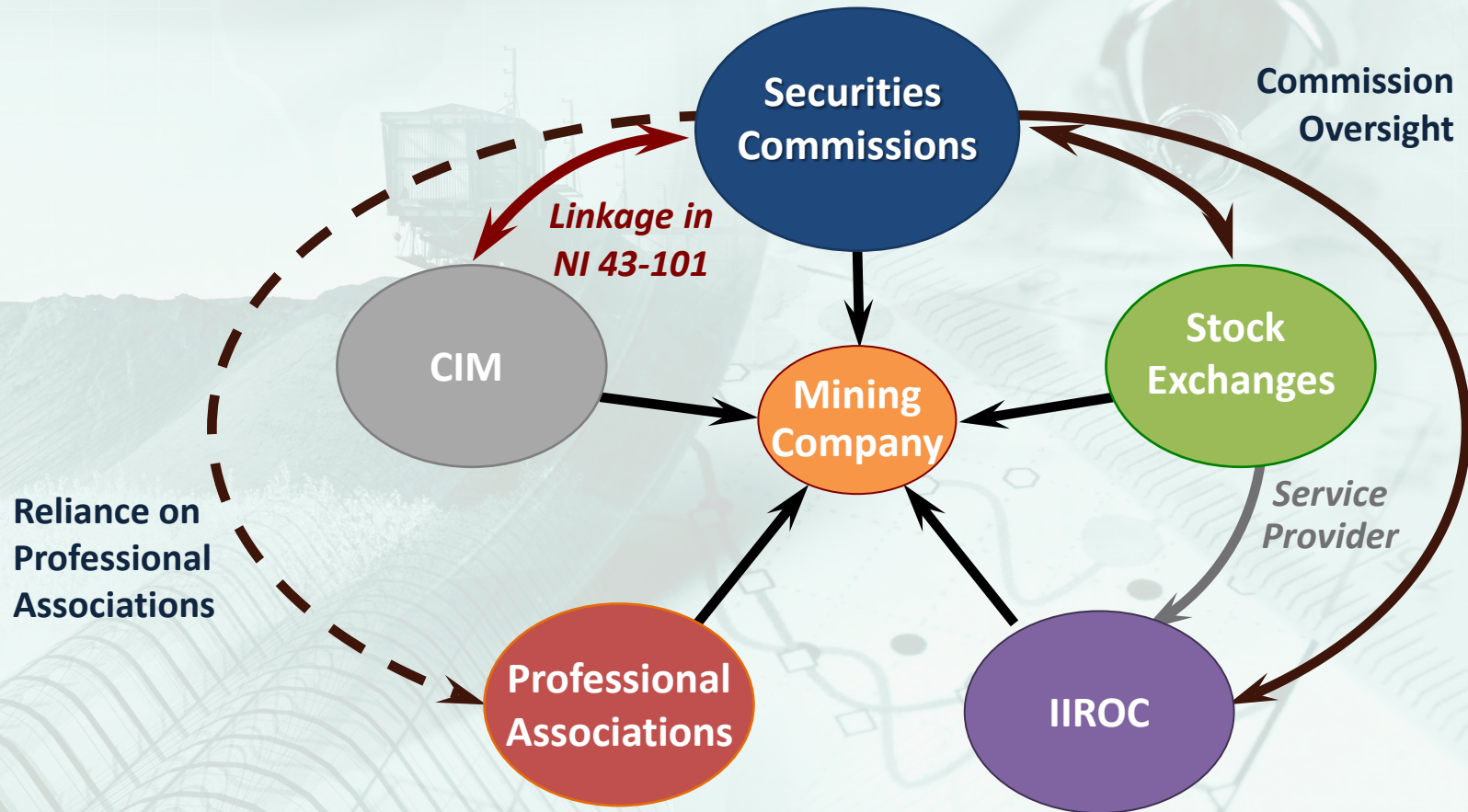
# Why do we need mining disclosure rules?

- **Investor Confidence**
  - Companies need access to risk capital
  - Investors rely on company information
  - Mining has many intrinsic risks
  - Being misled is unacceptable risk
- **Regulate Disclosure**
  - Protect investors
  - Maintain integrity of capital markets



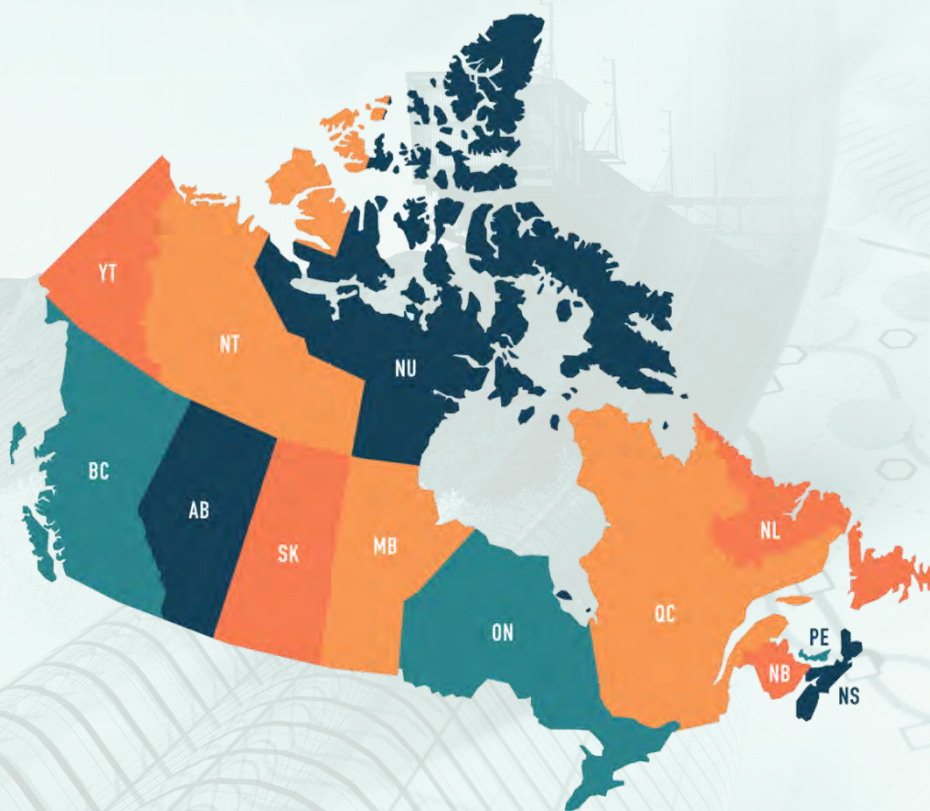
Cover Credit: PHOTOGRAPH FOR  
TIME BY RED DOG STUDIO

# Mining Securities Regulatory Framework





# Provincial Securities Commissions



## 13 Provincial/Territorial Agencies

- Report to finance ministries
- Self funded
- British Columbia, Alberta, Ontario, Quebec regulate majority
- Issuers have a “principal regulator”

## Canadian Securities Administrators

- Umbrella organization
- Coordinates & harmonizes
- “Passport” system

# Components of the law

- **Securities Act**
  - **Democratic pieces – passed by Provincial Legislatures**
    - Defines terms
    - Sets powers of enquiry and offences
    - Establish liability and defences for liability
    - Delegates power to make rules
- **Securities Rules**
  - **Bureaucratic pieces – under authority of the Act**
    - Corporate and fund disclosure rules
    - Register brokers and advisors
    - Regulate capital markets
    - Report insider trades
- **“National Instruments” rules adopted by all province**



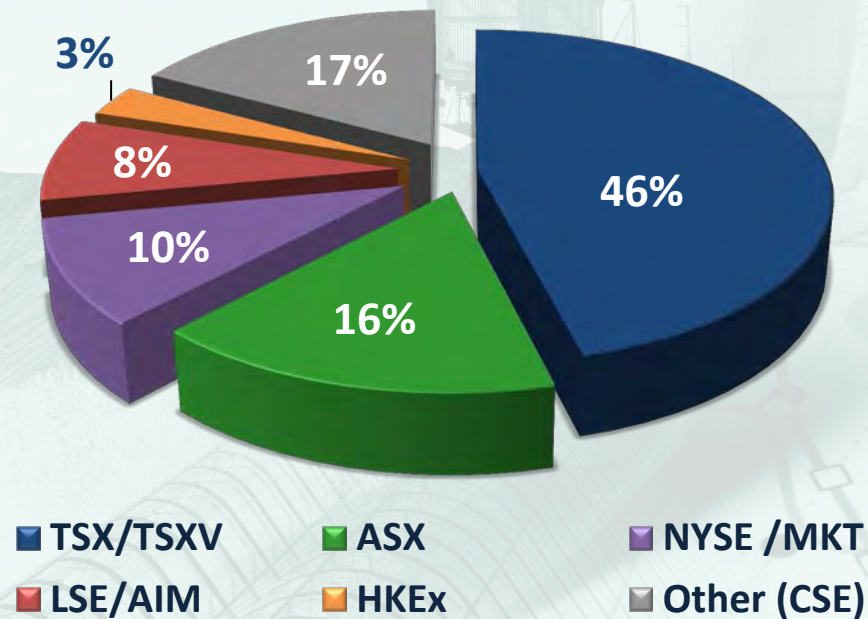
# Important rules

- **Distribution Rules: NI 41-101**
  - Require a prospectus to distribute securities
  - Companies become “reporting issuers”
  - Prospectus exemptions (NI 45-106)
- **Continuous Disclosure Rules: NI 51-102**
  - Required periodic disclosure;
    - quarterly financial statements
    - management discussion and analysis
  - Timely disclosure of “material changes”
    - news that may affect share price
- **Industry-Specific Rules**
  - NI 43-101, Standards of Disclosure for Mineral Projects
  - NI 51-101, Standards of Disclosure for Oil and Gas Activities

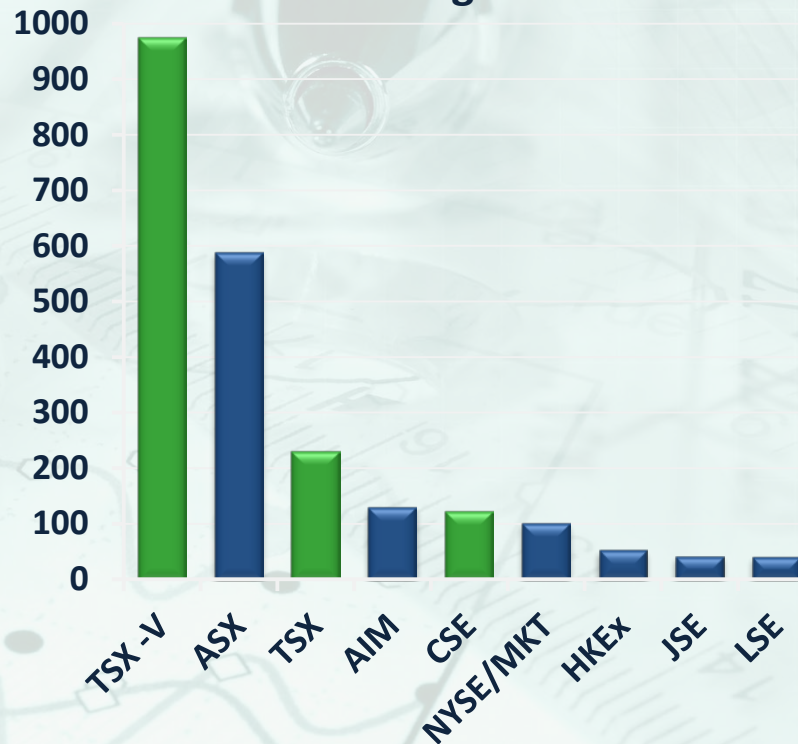


# Canada's role in mining capital formation

**\$92B mining equity capital  
raised (2012 to 2016)**



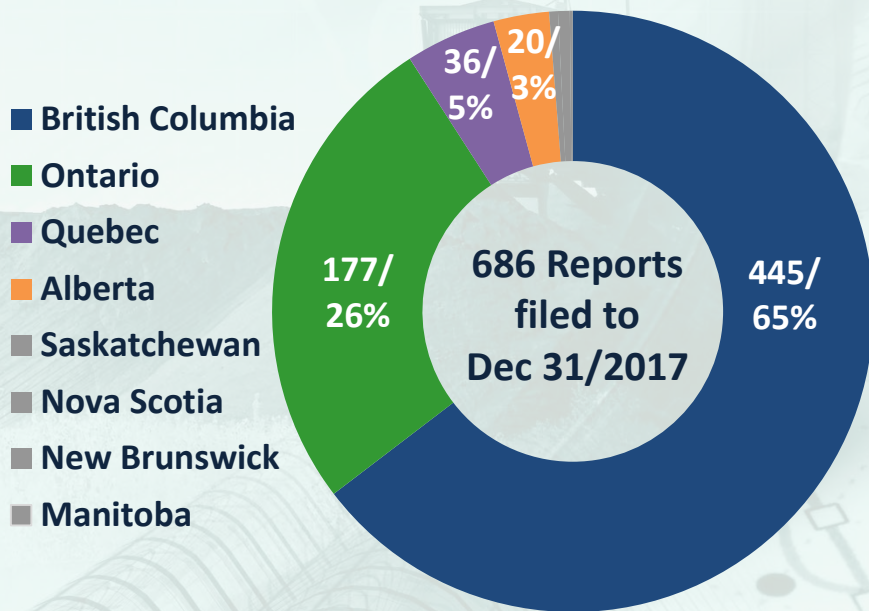
**Listed Mining Issuers 2016**



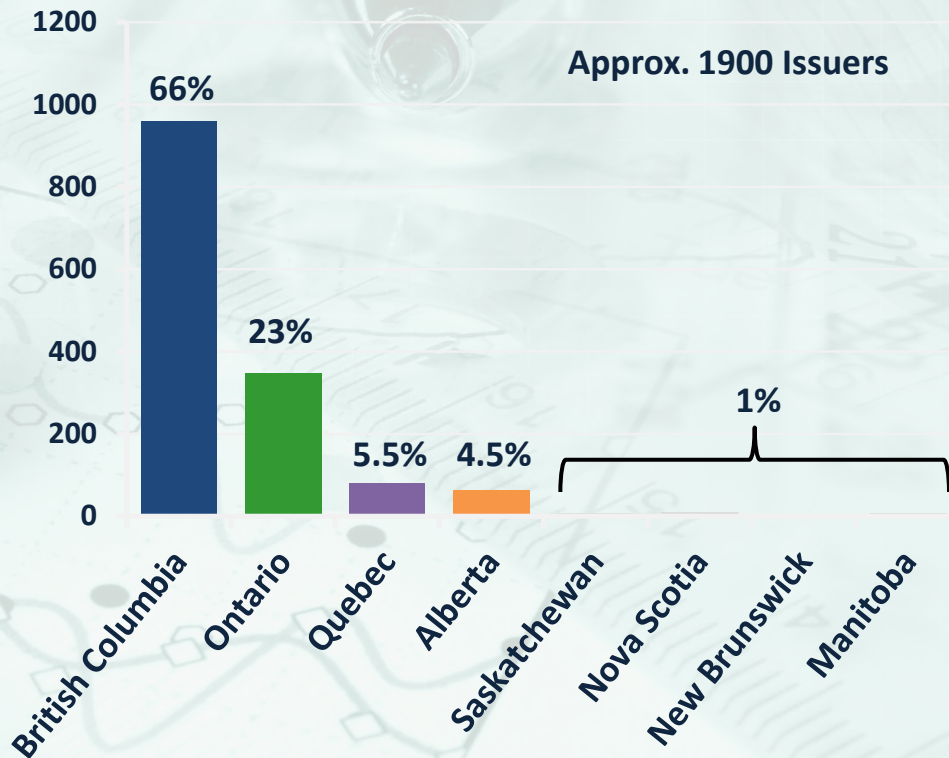
Sources: S & P Capital IQ, TSX/TSX-V Market Intelligence Group /Canadian Securities Exchange

# BCSC's role in mining capital formation

Technical Reports filed (December 31, 2017)



Reporting Issuers by Principal Regulator





# National Instrument 43-101



# The Pillars of NI 43-101



***Qualified  
Person***



***Standards &  
Best Practice***



***Technical  
Report***



# What Is It and What It Is Not!

## A Disclosure Rule !

- **Public Reporting of Technical information:**
  - Balanced and not misleading
  - Objective and Unbiased
  - Uses standard definitions
  - Reasonable assumptions clearly explained
  - Signed off by a qualified person (QP)
- **Not a guarantee of work quality**
  - Issuer selects the right QP – QP does it correctly
- **Not a 'recipe' for resource estimation**
  - Sets disclosure requirements – not methodology
- **Not a regulatory vetting process**

# From data to disclosure

## Data

- Geochemistry
- Geophysics
- Drilling
- Assays
- Metallurgy
- Bulk Density
- Economic factors

Data

Analysis &  
Evaluation

**EIM**  
**ICM**

NI 43-101

Qualified Person

BOD & Management

Material  
Information

## Disclosure

- New release
- Technical Report
- MD&A
- AIF
- Offering document
- Website
- Presentation
- Social media



# **Material Information**

**Rod Young, P. Geo.**

**Senior Manager, Geologist**

**Compliance & Disclosure, TSX Venture Exchange**

# Material Information - Definitions

## TSX-V Exchange Policy:

**“Material Information”** is any information relating to the business and affairs of an Issuer that results in or would reasonably be expected to result in a significant change in the market price or value of any of the Issuer’s Listed Shares, and includes Material Facts and Material Changes

*[TSX-V Exchange Policy 3.3 – emphasis added]*



# Material Information - Definitions

## BC Securities Act:

**Material Fact** - "...a fact that would reasonably be expected to have a significant effect on the market price or value of the securities..."

**Material Change** - "...a change in the business, operations or capital of the issuer that would reasonably be expected to have a significant effect on the market price or value of a security of the issuer..." (or a decision to implement a change)

Definitions of "material fact" and "material change" under securities legislation are based on a market impact test

(see NP 51-201, Part 4 for more guidance on 'Materiality')

# What Information is Material?

- It is the responsibility of the issuer to make the initial determination on if the information is material
- What information is material varies based on issuer
- Reviewing with Exchange/IIROC/Commission does not remove this responsibility
- Final determination on if the information is material is an objective test

No Disclosure = Not Material

Don't Think: I don't want to disclose » Therefore Not Material



# What to consider?

- Company size
- Market volatility in your industry sector (commodity/location)
- What measures do analysts use to evaluate your company?
- What information has affected your stock in the past?
- What questions do investors ask about your company?

***- Rule of thumb -***

If in doubt, put it out!

# External Events

- Impact of external events (political, environmental, etc.) on company may require disclosure
- Will external event have material effect on company?

## AND

Is impact of external event uncharacteristic compared to other companies in the same industry?

- Explain specific impact of external event on company
- Be proactive (not reactive) to avoid misunderstandings regarding how an external event may affect the company



# Events Deemed Material in Nature

## (TSX-V Exchange Policy – Mining Related)

- TSX-V Exchange Policy lists specific events deemed to be material in nature and require immediate disclosure
  - Exploration results & developments (**Positive or Negative**)
  - Significant property acquisition **or disposition**, JV agreements
  - Significant litigation
  - Significant labour/major contractor dispute
  - Significant change in capital investment plans or corporate objectives

[& any other development that would reasonably be expected to affect the market price or have significant influence on a reasonable investor's investment decisions]

(see TSX-V Exchange Policy 3.3, Sec. 3.8 (a)-(y) for **FULL** List)

# When can Material Information be kept confidential?

- When immediate disclosure would be unduly detrimental to the interests of the company
  - Provide competitors with significant benefit (e.g. loss of corporate opportunity)
  - Impair the ability of the company to complete a transaction (e.g. raise the acquisition price, invite competitive bids)
- NOT because stock likely to drop with the announcement!
- Only allowed in isolated and restricted circumstances, and in accordance with Securities Laws



# How to handle Confidential Material Information

- Have policies and procedures to keep information confidential
- Insider trading blackout until publicly disclosed
- Strict Prohibitions against tipping
- Determine if Confidential Material Change Report filing with Commission required (send copy to Exchange and IIROC)
- Advise IIROC (in cases when no confidential material change report required)
- Short term – Can't be confidential forever
- IIROC may require disclosure if market unexpectedly changes

# Market Rumours

- If rumours significantly impact trading, statement from company may be requested by IIROC
- “No material developments” statement is often sufficient
- If rumour true, in whole or in part, material information must be disclosed immediately
- Stock may be halted until information disseminated (if IIROC can’t contact the Company, a “halt pending contact” or “halt pending clarification of news” may be imposed)

# Disclosure Policies

- Have the 'right size' policies for your company
- Have written Disclosure Policies  
(*TSX-V Exchange Policy 3.1, Sec. 9*)
  - Ensure Material Information disclosed in timely fashion
  - Educate Directors, Management, etc. on disclosure issues
  - Restrict/control/monitor access to Material Information
  - Implement Blackout period for all insiders when appropriate
- Disclosure committee (if appropriate)
- Limit number of company spokespersons



# Timing and Dissemination

- Disclosure of Material Information should be:
  - Prompt (Subject to pre-filing with IIROC) ← Responsibility of Company
  - Simultaneous ← Responsibility of commercial news disseminator
  - Thorough
- Material Information must be disclosed “immediately” (however, ‘reasonable’ time allowed to prepare disclosure)
- News release must be distributed via **full text** commercial news release dissemination service
- Follow-up news release must receive the **same** or **greater** dissemination
- Request Halt when disclosing **significant** Material Information during trading hours (contact IIROC)

## Qualified Persons

**Stefan Lopatka, M.Sc.A., P. Geo.**  
**Senior Manager, Geologist**

# Qualified Person



- The QP is one of the four pillars of NI 43-101
- Effectively, the QP (or a group of QPs) provide the professional & ethical assurance that the information disclosed can be relied upon



# QP's and Responsibility

- **For all technical disclosure a QP takes responsibility for the data, including:**
  - Verification of technical and scientific data and how it was verified
  - Reviewing company disclosure
  - Common law liability to company and investors
- **In addition, for a Technical Report, the QP will take responsibility for:**
  - Site visits (to confirm reported work and completeness)
  - Certificate and consent accepting responsibility
  - Reasonable reliance on other experts (legal, political, environmental, or tax matters)
  - Statutory liability for report

# Technical Oversight (NI 43-101)

**Section 2.1: All disclosure of scientific or technical information made by an issuer...concerning a mineral project on a property material to the issuer, must be:**

- based upon information prepared by or under the supervision of a qualified person; or**
- approved by a qualified person**



# Technical Oversight (NI 43-101)

**Section 3.1: when “an issuer discloses in writing scientific or technical information about a property material to the issuers, the issuer must include in the written disclosure the name and the relationship to the issuer of the Qualified Person who:**

- (a) prepared or supervised the preparation of the information that forms the basis of the written disclosure; or**
- (b) approved the written disclosure”**

**N.B. This includes technical disclosure in news releases, technical reports, websites, blogs, twitter feeds, presentations, conference materials, etc.**

# Technical Oversight (NI 43-101)

**Section 5.1: A technical report must be prepared by or under the supervision of one or more qualified persons**



# Certificate of Qualified Person

- the name, address, and occupation of the qualified person;
- the title and effective date of the technical report to which the certificate applies;
- the qualified person's qualifications, including a brief summary of relevant experience, the name of all professional associations to which the qualified person belongs, and that the qualified person is a "qualified person" for purposes of this Instrument;
- the date and duration of the qualified person's most recent personal inspection of each property, if applicable;
- the item or items of the technical report for which the qualified person is responsible;
- whether the qualified person is independent of the issuer as described in section 1.5;
- what prior involvement, if any, the qualified person has had with the property that is the subject of the technical report;
- that the qualified person has read this Instrument and the technical report, or part that the qualified person is responsible for, has been prepared in compliance with this Instrument; and
- that, at the effective date of the technical report, to the best of the qualified person's knowledge, information, and belief, the technical report, or part that the qualified person is responsible for, contains all scientific and technical information that is required to be disclosed to make the technical report not misleading

# Consent of Qualified Person

## 8.3 Consents of Qualified Persons

- An issuer must, when filing a technical report, file a statement of each qualified person responsible for preparing or supervising the preparation of all or part of the technical report, dated, and signed by the qualified person
- **Example given in Appendix B of 43-101CP**
- **QP must:**
  - Consent to the public filing of the report
  - Name the disclosure document (e.g. Prospectus, Information Circular) that summaries or extracts of the technical report maybe disclosed in
  - Certify that they have read the disclosure document and the information in that disclosure document (e.g. **Prospectus, Information Circular**) represents the information in the sections of the technical report
- **Consents are only filed with the original technical report**



# Technical Oversight (NI 43-101)

Section 6.2: Before an issuer files a technical report, the issuer ***must have*** at least one qualified person who is responsible for the technical report complete a current inspection on the property that is the subject of the technical report

# Current Personal Inspection



- **If a Company has done work since the last technical report, the QP will most likely have to complete a current site inspection**
  - Can delay review of transactions
  - Usually applies when a Company is trying to sell a property – disclosure is up-to-date for Vendor (Tech Report, News Releases) but not for Issuer
- **At least one Independent QP on the report must have a current site inspection of the property**
  - Property familiarity
  - Due diligence
  - Verification of currency and completeness
- **Can be less recent if no material changes**
  - Demonstrate actions taken to ensure current and complete reporting
- **Waiver limited:** (only early stage exploration properties – no resources or reserves; no drilling or trenching recommended)
  - The site is inaccessible due to seasonal weather conditions
  - Site inspection must be completed as soon as possible
  - QP discloses approximately when the inspection will be completed



# What is a Qualified Person or QP?

## Ethics

**Professional Association  
recognized by law in Canada**

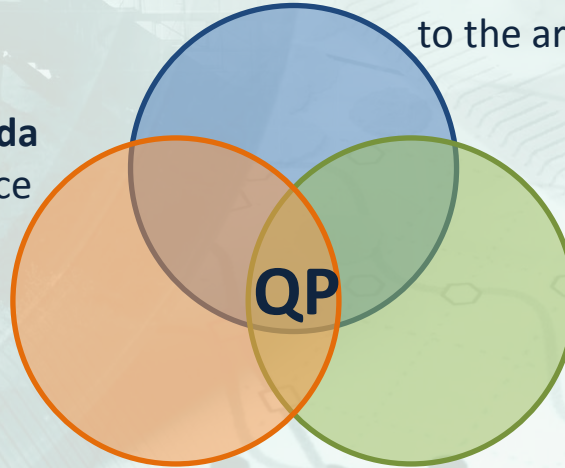
- Professional competence
- Ethical Standards
- Accountability

## Education

Academic qualifications relevant  
to the area of practice

## Experience

Relevant to the subject matter of  
the mineral project and the  
technical report



# What is a Qualified Person or QP?

**Person who meets the definition under NI 43-101, Section 1.1:**

- **Has an engineering or geoscience degree related to mineral exploration or mining**
- **At least 5 years experience in mineral exploration, mine development or operations or mineral project assessment**
- **Has experience in the subject matter of the mineral project or Technical Report**
- **In good standing with a professional association\***

\* A complete list of Accepted Foreign Associations & *Membership Designations* can be found in 43-101CP, Appendix A





# Acceptable Foreign Associations

Appendix A of the Companion Policy 43-101CP

NI 43-101 Part 1 - “professional association”

(a)(ii) - test to determine what constitutes an acceptable foreign association

- Considers the reputation
- Substantially similar to a Canadian professional association
- An issuer may make a submission to add an association to the list
- A “foreign” QP requires both:
  - Member of Acceptable Association
  - Appropriate Membership Designation

**If your disclosed credentials are not on the list – you are not a ‘qualified person’**



# Accepted Foreign Associations

	Foreign Association	Membership Designation
United States	American Institute of Professional Geologists (AIPG)	Certified Professional Geologist (CPG)
	The Society for Mining, Metallurgy and Exploration, Inc. (SME)	Registered Member
	Mining and Metallurgical Society of America (MMSA)	Qualified Professional (QP)
	Any state in the United States of America	Licensed or certified as a professional engineer
Europe	European Federation of Geologists (EFG)	European Geologist (EurGeol)
	Institute of Geologists of Ireland (IGI)	Professional Member (PGeo)
	Institute of Materials, Minerals and Mining (IMMM)	Professional Member (MIMMM), Fellow (FIMMM), Chartered Scientist (CSi MIMMM), or Chartered Engineer (CEng MIMMM)
Australasia	Geological Society of London (GSL)	Chartered Geologist (CGeol)
	Australasian Institute of Mining and Metallurgy (AusIMM)	Fellow (FAusIMM) or Chartered Professional Member or Fellow [MAusIMM (CP), FAusIMM (CP)]
	Australian Institute of Geoscientists (AIG)	Member (MAIG), Fellow (FAIG) or Registered Professional Geoscientist Member or Fellow (MAIG RPGeo, FAIG RPGeo)
	The Institution of Engineers Australia <sup>1</sup> (Engineers Australia)	Chartered Professional Engineer (CPEng)
South Africa	The Institution of Professional Engineers New Zealand <sup>2</sup> (Engineers New Zealand, IPENZ)	Chartered Professional Engineer (CPEng)
	Southern African Institute of Mining and Metallurgy (SAIMM)	Fellow (FSAIMM)
	South African Council for Natural Scientific Professions (SACNASP)	Professional Natural Scientist (Pr.Sci.Nat.)
	Engineering Council of South Africa (ECSA)	Professional Engineer (Pr.Eng.) or Professional Certificated Engineer (Pr.Cert.Eng.)
Chile	Comisión Calificadora de Competencias en Recursos y Reservas Mineras (Chilean Mining Commission)	Registered Member
Russia	Russian Society of Subsoil Use Experts <sup>3</sup> (OERN)	Expert

# QP's and Independence

- If a QP is signing off on Company technical disclosure (e.g. news releases) they **do not** have to be Independent
- A QP **usually has** to be independent for most Technical Reports (s. 5.3 Independent Technical Report)

# QP Independence (43-101CP)

**Ask yourself, would someone on the street believe you were independent?**

**Examples of when the CSA would consider that a qualified person is not independent (43-101CP, Part 1.5):**

- QP is an employee, insider, or director of the issuer or a related party of the issuer
- QP holds or expects to get securities in the issuer, vendor or adjacent property etc.
- QP has or expects to have ownership, royalty or other interest in the property or adjacent property
- QP has received the majority of their income, either directly or indirectly, in the three years preceding the date of the technical report from the issuer or a related party of the issuer

**\*\* not a complete list of non-independence situations\*\***



# The TSX-V and QP Independence

- In certain situations, the TSX Venture Exchange may require a Geological Report that is not triggered under NI 43-101
- In those circumstances, we do require the Geological Report to be written by a QP Independent of the vendor, and property

See TSX-V Corporate Finance Manual, Appendix 3F, Table 1 for more information

# Avoiding Liability in NI 43-101 Reporting

Brian Abraham, QC, P. Geo.

# Qualified Persons

- **Definition – NI 43-101**
  - Engineer or Geoscientist
  - Degree
  - Self-Regulation Organization (SRO)
  - 5 years relevant experience
  - Subject matter experience
- **Competent Person under Joint Ore Resources Committee (JORC)**
- **AIM – Competent Person**
- **SEC – Proposed Qualified Person**
- **Independence**
- **Appendix A, Companion Policy**



# Certificate Contents

- **Name, address**
- **Title, date of report**
- **Brief summary of experience**
- **Date of personal inspection**
- **Independence**
- **Prior involvement**
- **Knowledge of NI 43-101**
- **Complete and not misleading**
- **Problem areas:**
  - QP Qualifications
  - “Contributions”
  - Responsibility for sections, multiple authors



# Consents

- Required on report filing
- Identifies the document
- Consents to extracts
- Accurately represents information
- Other consent matters
  - NI 41-101 9.1(a)(vi)(A), consent under 10.1(a) named as Incorporated By Reference
  - NI 44-101 4.2(a)(vii) Short Form Prospectus



# Consent Issues

- **General Consent**
- **Specific Consent**
- **Liability for Consents**
- **Websites**
- **Updated consents**
- **Articles & Presentations**

# Prior Reports

- **Only one current report on a project**
- **Incorporation into new report**
  - Prior data summaries
  - Methods, separate sections, clarity
- **Knowledge**
- **Reliance on other reports**
- **Risk**



# Disclaimers

## What can you disclaim?

- **Tax, legal, political, environmental and socioeconomic matters**
  - Source of data
  - Extent of reliance
  - Portions of report
- **Requirement to comment on above matters in disclosure**

## Limitations on disclaimers

- **If in report, can't be disclaimed, even if prepared by others**
- **Can't limit use or publication of report**

# Engineering and Geoscientists Act – British Columbia

## Act

- **Statutory**
- **Practice of Professional Engineering**
  - Geological
- **Practice of Professional Geoscience**
  - Discovery and development of oil, natural gas, coal, metallic or non-metallic materials, precious stones, other natural resources or water, or the investigation of surface or sub-surface geological conditions
  - Professional application of geology, geophysics or geochemistry

# Engineering and Geoscientists Act – British Columbia (cont'd)

## S. 22

- Except as permitted in the Act, individual, corporation, partnership or other legal entity must not
  - Engage in practice of professional engineering or professional geoscience
  - Assume P.Eng or P.Geo title
  - Advertise
  - Act like a P.Eng or P.Geo
  - Cannot use word “geologist” or “engineer”
  - Cannot practice in British Columbia

## S. 24

- Unless registered, can't collect fees

## S. 29 – 33 Complaints and Investigations

- Investigation committee
- Discipline committee
- Inquiry
- Action
- Review process



# Engineering and Geoscientists Act – British Columbia (cont'd)

## Bylaws

- **S. 17**
  - Disclose if you have insurance and if you disclose whether it covers the intended work
- **S. 14**
  - Establishes Code of Ethics

# APEGBC Code of Ethics

- “1)** Hold paramount the safety, health and welfare of the public, the protection of the environment and promote health and safety within the workplace;”
- “9)** Report to their association or other appropriate agencies any hazardous, illegal or unethical professional decisions or practices by members, licensees or others;”

## **Standards and Guidelines for Resources and Reserves**

- Best practice guidelines
  - Estimation of mineral resources and reserves
  - Mineral processing
  - Reporting lithium brine resources and reserves
  - Exploration best practices
  - Reporting diamond exploration results



# Liability

- **Defaulting Issuers List**
- **Cease Trade Order**
- **Boily, OSC Decision – March 28, 2013**
- **George**
- **Foreman**
- **Weicker**

# Securities Act Liability

- **Civil Liability**
- **Civil Liability Limitations**
- **Liability for Misrepresentation**
- **Secondary Market Liability**

# Criminal Liability

## Southwestern Gold case

- John Paterson
- January, 2013
- 6 year sentence
- \$300,000,000 market collapse



# Correspondence from Regulators

- **Cooperation with Regulators**
- **Deal with specific concerns**
- **Response times**
- **Additional assistance**
- **Involve client in process**
- **Unrealistic timelines**
- **Disclosure of non-reliance**
- **Meetings with regulators**

# Dreaded Letter from Regulators

- **Review**
  - Please explain, comment on
  - Deficiencies
  - Withdraw reports / disclosure
- **No reliance**
- **Website**
- **New Reports**
- **Non-compliance on issuer's disclosure**
- **Presentations**
- **Conferences**

# Risk Table

## Initial exploration report

- Low risk relatively innocuous

## Resources

- Methodology
- Pit designs
- Prices
- Reasonable prospect of extraction
- Foreign codes





# Risk Table (cont'd)

## Preliminary Economic Analysis

- First disclosure of economics
- Not a CIM definition
- Can use inferred resources
- Subject of 43-307 CSA Notice



# Risk Table (cont'd)

## Pre-feasibility Study

- Reserves

## Feasibility Study

- Permits required – Guide 7
- Reasonably certain that permits will be obtained



# Professional Regulatory Issues

- Professional Duties – E & G Act
- Sanctions
- Mobility





# BC Securities Commission – January 29, 2013

- **Summary**
- **Non-compliant disclosure of resources**
- **Key assumptions, parameters & methodologies in resources**
- **Reasonable prospects for economic extraction**

# Ontario Securities Commission – June 27, 2013

- **Resource estimates**
- **Environmental studies, social and community aspects**
- **Capital and operating costs**
- **Economic analysis, tax implications**

# Resource and Reserve Disclosure under Different Regimes

- **CIM**
- **Guide 7, SEC**
  - Proposed Regulation S-K subpart 1300
- **JORC**
- **SAMREC**
- **CRIRSCO**
- **China Disclosure Policy**
- **Russia Disclosure Policy**



# **Timely Disclosure**

**Darcy Krohman, P. Geo., CPA, CA**  
**Surveillance Officer & Geologist**

# IIROC's Responsibilities

## IIROC Market Surveillance Role

- Regulation Services



**Contracted by Provider  
Canadian Exchanges**

- Do not have legal  
authority



**Cannot grant exemptions  
from the legislation**

- Monitoring of securities trading price, volumes, source and disclosure content (principally news releases)
- Risk based monitoring of news release content
- Coordination of “timely” disclosure  
After market v. open market dissemination of material information

# Relevant Legislation, Exchange Policy & CIM Best Practices Guidelines

**National Instrument 51-102**

**National Instrument 43-101**

**TMX Venture**

**TMX Company Manual**

**CIM**

**Exploration Best Practices Guidelines (BPGs)**

**Estimation of Mineral Resources & Mineral Reserves BPGs**

*Continuous Disclosure Obligations*

*Standards of Disclosure for Mineral Projects*

Companion Policy 43-101CP

Form 43-101F1

**Exchange Policy 3.3 – Timely Disclosure**

**Part IV Maintaining a Listing — General Requirements**

**B. Timely Disclosure**



# Relevant Legislation, Exchange Policy & CIM - continued

## TMX Venture Exchange Policy 3.3 – Timely Disclosure

2. Material Information

3. Timing of Disclosure

**4. Filing – Pre-Notification to the Regulation Services Provider** (i.e. IIROC surveillance):

(d) FOFI or other operating projections (i.e. PEA, PFS and FS);

(e) mineral reserves/resources

### **8. Content of News Release**

- 8.1 Announcements of Material Information should be factual and balanced, neither over-emphasizing favourable news nor under-emphasizing unfavourable news...
- 8.2 ...news releases must contain sufficient detail to communicate clearly and accurately the nature of the information, without including unnecessary detail, exaggerated reports or editorial commentary designed to colour the investment community's perception of the announcement one way or another...


### **9. Resource Issuers**

- 9.1 All mining Issuers must comply with NI 43-101
- 9.3 NR's must not contain estimates of...nor disclose mineral reserves without prior consent of IIROC

# Overly Promotional

**Title must reflect the content of the news release:**

**Example:** “XXX Company says Final Airborne Report Lights up like a Christmas tree”

- “Visible Gold”; “Bonanza”; “Shovel ready”; “Game Changer” etc.
- Superlatives – biggest, spectacular, world class etc.
- Comparison to major deposits with insufficient data
- Repetitively disclosing positive results in future NR’s
- Forward Looking Information
- “Confirmed” and “verified”
- CEO comments  common offender!
- “Excited” CEO’s



# Overly Promotional - Example #1

“Having a deposit that is quite literally a hill of graphite, with the potential of a zero or even negative strip ratio, gives ??? a significant cost advantage”

**A NEGATIVE STRIP RATIO???**



# Selective Disclosure

- **Reporting only highest values or grades “up to”**
- **Not reporting most recent results**
- **Omitting results & / or other material information**
- **Gross revenue without costs of production**

MUST BE supported by an economic analysis in a “mining study”  
(i.e. PEA, PFS or FS)

- **Disclosing only positive results**
- **“Burying” bad news at end of news release**

# Selective Disclosure (continued)

## Ex - Reporting only highest values and omission of >560 values!!

### Original Disclosure:

- Bedrock Sample Assays up to 277 g/t associated with ??? Zone Deposit
- Detailed geological mapping located a mineralized quartz vein...which returned assays of 277 g/t and 25.6 g/t from...grab samples. Additional bedrock samples...returned of 10 g/t and 11.5 g/t

### Revised Disclosure:

- A recently completed geological mapping and sampling program collected 1,620 rock samples of which 569 samples were sent for assay. Assay results range from trace to 277 g/t Au and located a mineralized quartz vein east of the ??? Zone Deposit which returned assays ranging from 2.82 g/t Au to 277 g/t Au from surface bedrock grab samples. Additional bedrock samples from an area approximately 800m south returned assays ranging from 2.92 g/t Au to 11.5 g/t



# Misleading Disclosure

- **Misrepresentations & Omissions**
- **Vague & / or hard statements**
  - **use of “confirmed”; “validated”; “proved”**
  - even at the production stage mineral reserves and other technical information is based on geostatistical “estimates” **Proven reserve may represent <1/1,000,000 of sampled interval**
- **Unreasonable comparisons with major or “world class” deposits**
- **Unreasonable & / or unsupported disclosure**
  - especially any projected economic results (i.e. cash flow; NPV; IRR; Payback period etc.) without a PEA, PFS or FS
  - Excessive reliance upon **Forward-Looking Information** disclaimer
- **Adding “modifiers” to defined terms**
  - Ex: **Open pittable** inferred resources – suggests economic viability (open pittable; potential etc.) – use “near-surface” or “pit-constrained” if pit shell has been applied
  - Ex: **Definitive Feasibility Study; Bankable Feasibility Study**



# Misleading Disclosure - Example #1

## ??? ANNOUNCES POSITIVE PRELIMINARY ECONOMIC ASSESSMENT FOR PROJECT

**Study supports potential to develop a low-cost project**

“Company is **very encouraged with the outcome of the PEA**”, said ??? Resources’ President. “The results of the PEA **validate the concept that the ??? Project represents a potential profitable, low-cost investment with an anticipated future upturn in metal prices**”

### **BASE CASE OPERATING HIGHLIGHTS AND PROJECT PERFORMANCE:**

<b>Metal Price:</b>	US\$3.00/lb Cu, US\$1250/oz. Au, US\$10/lb Mo, US\$18/oz. Ag
<b>Mill Feed*:</b>	5 Mt @ 0.37% Cu Eq (0.25% Cu, 0.13 g/t Au, 0.016% Mo, 2.3 g/t Ag)
<b>Resource Quality:</b>	94% Measured, 6% Indicated Classification
<b>Production:</b>	325 M lb Cu, 186 K oz Au, 16 M lb Mo, 3 M oz Ag
<b>Mine Life:</b>	12 years
<b>Initial CAPEX:</b>	C\$82 million (including contingency)
<b>NPV @ 5% (after tax)**:</b>	C\$252 million
<b>IRR (after tax):</b>	76%
<b>Payback:</b>	1.1 years
<b>Resilience:</b>	36% IRR at US\$2.25/lb Cu

# Misleading Disclosure - Example #1 (continued)

*The PEA is premised on the use of the ??? Mine assets (located adjacent to the Company's ??? Project) after the completion of mining operations. **It does not include any acquisition cost of ??? Mine assets.** Further, as the Company does not have an agreement with the owners of the ??? Mine to acquire those assets or otherwise combine operations following the completion of mining, there can be no assurances as to whether the Company would be able to acquire the ??? Mine assets or otherwise combine its assets and operations with the ??? Mine on commercially acceptable terms or at all.*



# Incomplete Information & Omissions

## Undisclosed:

- **Ownership percentage**
  - Including any carried costs – common in developing nations
- **Payment &/or option obligations & other commitments**
- **Restricted/limited access**
- **Contingent liabilities**
  - reclamation & other closure costs;
  - outstanding lawsuits;
  - may have to be added to the acquisition cost!



# Hypothesizing (FLI ?)

- “Management believes...”
- “Forward Looking Information” – NI 51-102, Part 4
- “CEO comments” - often the source of overly promotional language

Ex #1: “**Could be** processed at nearby mill”

Ex #2: **??? is fast tracked to production:** Electric car producer Tesla Motors is planning to build a \$6-billion lithium-ion battery ‘Gigafactory’ in 2017, doubling the 2013 global output of lithium ion batteries and **creating a massive shortage of graphite – unless new mines come on line**

# Forward-Looking Information (FLI)

**(3) Forward-Looking Information** – Part 4 of National Instrument 51-102 Continuous Disclosure Obligations (NI 51-102) sets out the requirements for disclosing forward-looking information. Frequently, scientific and technical information about a mineral project includes or is based on forward-looking information. **A mining issuer must comply with the requirements of Part 4A of NI 51-102, including identifying forward-looking information**, stating material factors and assumptions used, and providing the required cautions. **Examples of forward-looking information include metal price assumptions, cash flow forecasts, projected capital and operating costs, metal or mineral recoveries, mine life and production rates, and other assumptions used in preliminary economic assessments, pre-feasibility studies, and feasibility studies.**

*NI 51-102, Part 4, disclosure does not exempt the disclosure required by NI 43-101 including the Form F1 requirements for a PEA, PFS or FS NI 43-101 “supplements” the disclosure per Companion Policy 43-101CP, General Guidance (2)*



# FLI – Example #1

Numerous statements and representations by ???, *CEO that he states to be “positive conclusions” however he also qualifies as “Forward Looking Statements and Forward Looking Information”* including:

- simplification of flowsheet
- reduce capex, operating costs and improve project economics (including cash flows)
- *sensitive areas could be reinstated thereby permitting inclusion of up to 240 oz. of oxide/transitional material to the current mineral resource*
- overall mine plan
- plan to mine
- this additional mineralization was not available to be converted into mineral reserves
- resource/reserve models
- pit planning and scheduling
- life of mine plan
- very shallow orebody
- low strip ratio
- free digging, no drill and blast with simple grade control
- several pits within which to operate, allowing the higher grade to be processed in the earlier years of operation
- flexibility of fleet



# FLI – Example #1 (continued)

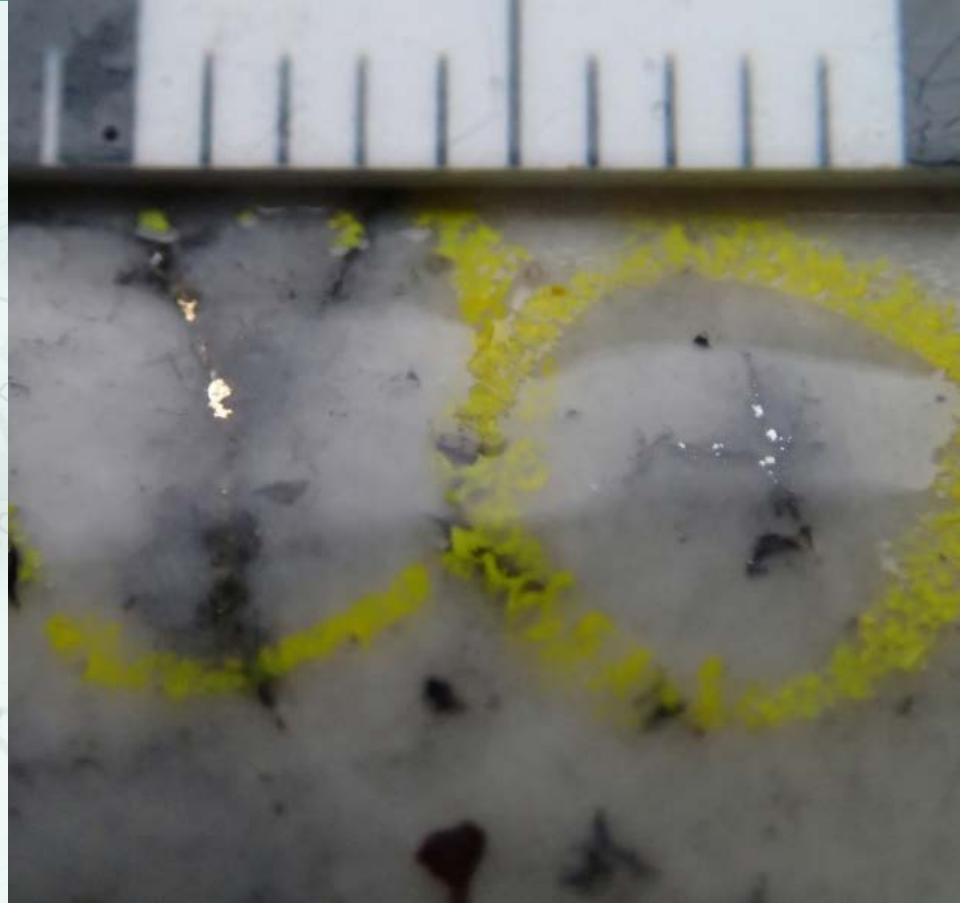
- “flexibility of fleet”
- “advance the project to construction”
- “Greatly simplify the development of the project”
- “likely reduce capital and improve operating costs as well as all in sustaining costs”
- “mining process can use smaller and more economical load an haul equipment”
- “plan to mine the oxide and transitional material is also expected to have very positive impact on the process flowsheet”
- “existing flowsheet was a combined Heap Leach and Carbon in Leach (“CIL”) circuit”
- “should reduce capital...resulting in improved overall project economics”
- “update to feasibility study”

# **Common Disclosure Deficiencies - Specific industry, legislation & exchange requirements:**

- 1. Assay stretching**
- 2. Suggest production without a PEA or “Mining Study”**
- 3. “Non NI 43-101 compliant”**
- 4. True Widths v. Drill Hole Intersections**
- 5. Metal “Equivalents”**
- 6. Disclosure of Economic Results**
- 7. Cautionary Language**
- 8. Non-Fire Assay Results**

# 1. Assay Stretching

- High-grade intercept given undue influence
- Making a deposit appear bulk-mineable
- Be careful with disclosure of composites prior to resource estimation





# 1. Assay Stretching (continued)



## 2. Production Without a “Mining Study”

- **ISSUE:** Forward Looking Information (FLI including FOFI) regarding production without a supporting current economic analysis in a PEA or “mining study” (PFS or FS) will not satisfy NI 43-101 reporting requirements (see NI 51-102, Part 4 requirements)
- **CANNOT** quantify recovered metals or mine life, or make any suggestion of production, costs, revenues, profitability, NPV, IRR, Pay back period, cash flow etc.
- **Companion Policy 43-101CP, 4.2(6) – Production Decision** without establishing mineral reserves – very significant risks!  
**Example:** Rubicon



### 3. “Non NI 43-101 Compliant”

- **CANNOT appear in news releases or an issuer’s CD record!!**
- NI 43-101 & CIM are very specific as to defined/legal terms i.e. mineral resources; mineral reserves, mining studies (PFS & FS per CIM) etc.
- May be an opportunity to disclosure as a:
  - “historical estimate” per NI 43-101, s. 2.4 or
  - “exploration target” per NI 43-101, s. 2.3(2)  
use of an “exploration target” as a proxy for an inferred resource!
  - These are “**NI 43-101 Compliant**”

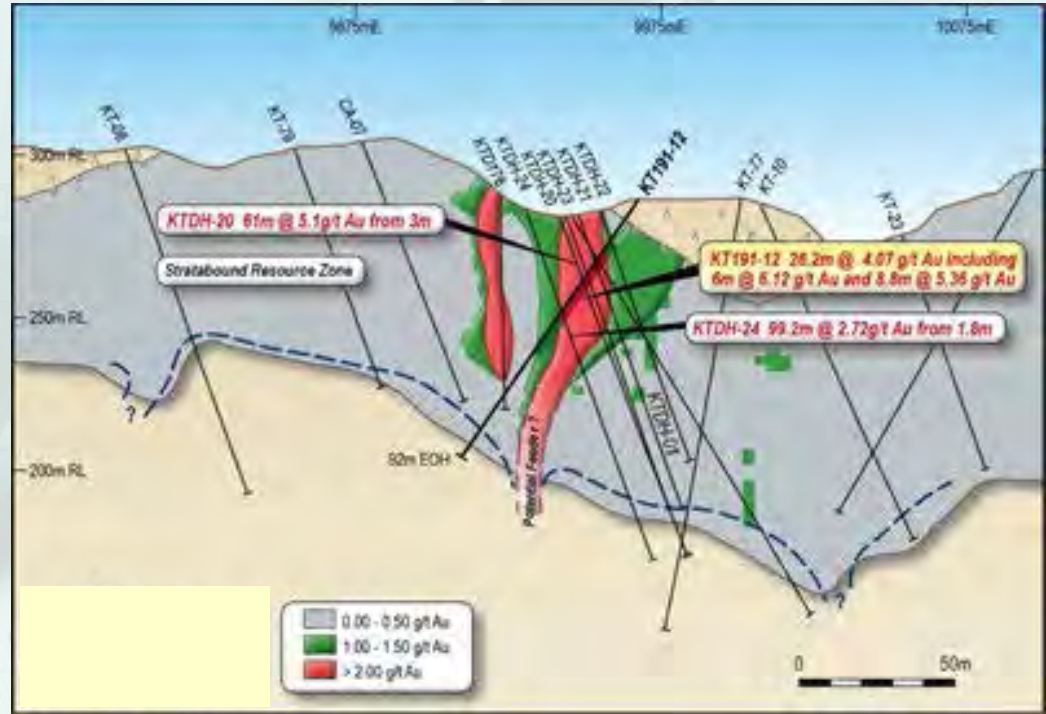


# 4. True widths v. Drill Hole Intersections

## Required disclosure

NI 43-101, Part 3.3(2)(c)

- A summary of the relevant analytical values, widths, and the extent known, the true widths of the mineralized zone
- If difference is **>10%** it's probably material!



## 4. True widths v. Drill Hole Intersections Example – Core/bedding angle



## 4. True widths v. Drill Hole Intersections “Metal Factors”; Continuous GT”; “Grade x Thickness” etc.

### Example:

- 42 page news release
- Inferred mineral resource based on 82 Drill holes
- Additional 24 drill holes completed subsequent to disclosure of resource estimate;
- **Drill hole intersections “30% to 50% of true width”**
- Independent resource estimate established “hard boundaries”

Company chose to disclose “Continuous GT” based on drill hole intervals *even after*:

- (i) estimate of true widths established by an independent QP;
- (ii) hard boundaries established for use in a mineral resource estimate; and
- (iii) mineral resource had been estimated



# 5. Metal “Equivalents” (AuEq; AgEq; CuEq)

## ??? Reports PEA Results and New Resource on ??? Project

*Pre-Tax IRR 61% and 5% NPV of US\$104 million; **Average Annual Production of 3.2 M Oz Ag Equivalent\***;  
All-In Cash Costs of \$12.72 oz. Ag Equivalent; Significant Resource Increase*

Vancouver, B.C. – ??? is pleased to announce the **results of a Preliminary Economic Assessment** (“PEA”) and new resource estimate prepared pursuant to National Instrument 43-101 (“NI 43-101”) on its projects. Highlights of the PEA, using a **US\$19.91 per ounce silver base case**, include:

- Production of 24.3 million ounces of silver equivalent (after milling and smelting recoveries);
- Average annual production of 3.2 million ounces of silver equivalent over a 7.5 year mine life;
- Initial capital cost (“CAPEX”) of US \$36.3 million, including \$6 million of working capital;
- **Estimated all-in cash costs of US \$12.72/oz. silver equivalent** (including site operating costs, smelter costs, sustaining capital and NSR payments ); and
- Pre-tax payback of 1.6 years after start-up, and 2.3 years after-tax payback.
- At a 150 g/t Ag equivalent cut-off, the new resource estimate for all veins is:
- Indicated– 1.1Mt at 76.5 g/t Ag, 2.5% Pb and 6.4%Zn = 423 g/t Ag equiv. or 15.2 Moz Ag equiv.
- Inferred – 3.3Mt at 64.8 g/t Ag, 1.9% Pb and 4.9% Zn = 326 g/t Ag equiv. or 34.3 Moz Ag equiv.

**ISSUE:** Silver contributes only 19% to the resource base - this is a lead/zinc deposit not a silver deposit  
Does not comply with TSX Company Manual (Appendix B – Part 6)

# 6. Disclosure of Economic Results

## Disclosure of Economic Results/Mining Studies:

### Preliminary Economic Assessment or PEA

not “Scoping Study” (industry term but no legal definition)

- defined by NI 43-101, 1.1 not CIM

### Preliminary Feasibility Study

- must be based upon mineral reserves

### Feasibility Study

- not “bankable”; “definitive”; “optimized”

### Pre Tax v. After Tax Economic Results:

- » OSC Staff Notice 43-705 Report on Staff’s Review of Technical Reports by Ontario Mining Issuers – June 27, 2013

### Don’t disclose “Forward Looking Information” as economic results

- FLI disclosure stating or suggesting positive economic results



# 6. Disclosure of Economic Results (continued)

## 6(c) Use of Non-GAAP/IFRS Financial Measures in reporting production/operating costs (including former Gold Institute unit cost definitions):

- (i) Cash Costs
- (ii) Total Cash Costs
- (iii) Sustaining costs
- (iv) All-In Sustaining Costs (AISC's)  
“adjusted” AISC ??
- (v) C1 & C2 Costs
- (vi) **EBITDA / EBITA / “Adjusted” EBITDA ??**  
corporate financial measure not a project financial measure

Industry terms that must be reconciled to the most appropriate Canadian GAAP/IFRS  
Financial Measure



# 7. Cautionary Language

## Required for disclosure of:

- inferred mineral resources;
- PEA (NI 43-101, 2.3(3) – Restricted Disclosure);
- Targets (NI 43-101, 2.3(2) – Restricted Disclosure);
- **Forward Looking Information (NI 51-102, Part 4A)**
  - Reasonable basis
  - Excessive use/reliance on disclaimer
  - **NOT AN EXEMPTION FROM THE REQUIREMENTS OF NI 43-101**
  - FOFI & Financial Outlooks (NI 51-102, Part 4B)  
does not apply for disclosure that is subject to the requirements of NI 43-101
- Production without establishing mineral reserves  
(Companion Policy 43-101CP, 4.2(6) – Production Decision)

Don't use disclaimer: **“should not be relied upon”**

→ **if the information isn't “reliable” don't disclose it**

# 8. Non-Fire Assay Results

- **TMX Venture Exchange - Appendix 3D**
  - **Fire assay v. AA v. leach v. neutron activation**
  - **“Other” analytical techniques:**
    - Atomic Absorption
    - Cyanide leach
    - XRF Analysis – not effective for Au analysis
  - **Limitation on detection limits / element**
  - **Addresses use of non-Canadian laboratories & non-fire assay techniques require**
  - **Requires additional disclosure**
    - Method(s) used
    - Name of lab
    - Results of fire assay QA/QC
  - **Disclosure deficiencies can result in a halt in trading pending clarification**



# 9. Other disclosure “issues”

- **Repetitive disclosure** – repeating positive results in several NR’s
- **Data Verification (NI 43-101, 3.2)**
  - **Ex:** ??? has not done the work necessary to verify any mineral resources **currently present at ore postulate for the Properties**
- **Qualified Person (NI 43-101, 2.1 and 3.1)**
  - **Ex:** The technical information in this press release has been prepared, reviewed and approved by ??? P.Geol, an **“approved person”** pursuant to the requirements of NI 43-101”
- **PEA as a proxy for PFS or FS**
- **Exploration target as a proxy for a mineral resource**



# Ugly Disclosure - Example #1

## ??? Receives 1,000 Tonne Per Day Throughput Estimates On The ??? Project

The “**Company**” or “**???**”, is pleased to report that ???, has confirmed being on track for plant expansion build out completion, that will increase throughput capacity to 1,000 tonnes per day.

Chairman & CEO said: “Our team is passionate about the ??? project! We are pleased to see the project advancing on schedule, with the plant operational, by this November. We are also glad to see the continual growth in the price of Gold since the acquisition of the project.”

While all project objectives and estimates have been done on a *non-43-101 compliant* basis, for project planning purposes and based on the increased production capacity, the company is using the following updated targeted yields:

??? Project	
Estimated Tonnage	1,200,000 Metric Tonnes
Gold Price	\$1,275
Estimated Gold / Tonne	2.06 grams
Estimated Silver / Tonne	3.9 grams
Recovery Rate Gold	76%
Recovery Rate Silver	45%
Commercial Production (CP)	30,000 Tonnes per month
Free Cash Flow – Pretax / Quarter (CP)	\$3,014,500 USD
Life of Project (assumes no additional ore feed)	3.5 years
Total Free Cash Flow Generated (Pre-tax)	\$42,203,000

# Ugly Disclosure - Example #1 (continued)

- \* **The ??? report does not comply with National Instrument 43-101, *Standards of Disclosure For Mineral Projects*, a qualified person has not done sufficient work to classify the historical estimate as a current mineral resource or reserve and the Company is not treating the historical estimate as a current mineral resource or reserve**
- \*\* Based on work done in January 2012 by ???, A historical estimate was completed by ??? on Jan. 20, 2012, titled “Perforacion y Muestreo en Presa de Estimation Volumetrica, Tonelaje y Ley Promedio.” The ??? report estimated a probable reserve of 1.25 million tonnes averaging 2.06 gpt gold. The assumptions for this estimate were based on 58 auger samples, 2.45 m to 3 m in length from 24 drill holes.
- \*\*\* Based on work done in March 2012 by ???, and, with the oversight of ??? P.Eng., in November 2016 by ??? Lab, and in January 2017 by ???
- \*\*\*\* Under the direction of ???, and with the help of???, based on work done in January 2017 by ???
- \*\*\*\*\* **??? P.Geo., is a director of the Company and a qualified person as defined by National Instrument 43-101. Mr. ??? has not verified any of the data disclosed in this news release.**



# Good Disclosure – Example #1

## New Study Finds Significant Further Gains for ??? Project

??? announced today the results of a Preliminary Economic Assessment (the “PEA”) for its 100%-owned ??? project located in northern British Columbia, Canada. Unlike the updated Preliminary Feasibility Study (the “2016 PFS”) announced on XXX, 2016, the PEA takes a different approach to developing the ??? Project by incorporating the XX Zone and the YY Lower Zone into a conceptual project design.

Cost Summary:						
Operating Costs Per Oz of Gold (life of mine)	-\$179	\$277	\$32	\$404	-\$319	\$183
Total Cost Per Ounce of Gold Produced	\$358	\$673	\$553	\$787	\$218	\$580
Copper Credits Per Oz Gold Included in Costs	-\$1,328	-\$795	-\$1,104	-\$636	-\$1,449	-\$868
Silver Credits per Oz Gold Included in Costs	-\$83	-\$71	-\$97	-\$80	-\$117	-\$100
Initial Capital (includes pre-production mining)	\$5.5 billion	\$5.0 billion	\$5.3 billion	\$4.8 billion	\$5.5 billion	\$5.0 billion
Sustaining Capital	\$10.0 billion	\$5.5 billion	\$9.7 billion	\$5.3 billion	\$10.0 billion	\$5.5 billion
Unit Operating Cost On-site (US\$/tonne)	\$11.61	\$12.36	\$11.17	\$12.09	\$11.61	\$12.36



# Good Disclosure – Example #2

## ??? Project PEA Indicates \$136M After-Tax NPV and 39% IRR at \$1,150/oz. Gold with \$51M Initial Capital Cost

- Estimated average annual production of 55,000 oz. of gold and 679,000 oz. of silver for 11 years
- LOM all-in sustaining costs of \$599/oz. gold (net of silver byproduct at \$16/oz. silver price)
- After-tax NPV<sub>5%</sub> of \$136 million and 39% IRR at \$1,150/oz. gold price and \$16/oz. silver price
- Low initial capital of \$51 million required to achieve production
- Payback occurs 3.1 years from first production

XXX, 2015 – “???” or the “Company” is pleased to report the results of a positive Preliminary Economic Assessment (“PEA”) carried out on the Company’s recently optioned ??? project (“???”) located in western Nevada. ??? holds a 30-month option to purchase 100% of ???

# Admin & Practical Issues

- Required pre-filing of FOFI (including PEA, PFS and FS's) & mineral resources and reserves (TSX-V Policy 4.2)
- Consider pre-filing draft news releases & revise prior to dissemination
- Ensure the issuer's QP **REALLY** has prepared, supervised the preparation and/or approved (not 'reviewed') the scientific and technical content in the NR!



**It's obvious when a QP has not!**

- Correspond by email ([prwest@iiroc.ca](mailto:prwest@iiroc.ca))
- If disseminating material information during market hours call IIROC for a brief trading halt
  - IIROC will not take trading halt "reservations"
- Monday's and first 2 hours from opening (6:00 to 8:00 am PST) and last hour before closing (12:30 to 1:30 pm PST) of the market are busiest periods



# Remedies Available to IIROC

**IIROC DOES NOT have legal authority**



**Cannot grant exemptions from the legislation**

***IIROC cannot forward comments or “endorse” disclosure that are contrary to securities legislation***


**If the NR has been disseminated remedies will be applied considering additional factors:**

- Materiality of the disclosure
- Market activity – price changes and/or trading volume
- Other content in the release
- Previous regulatory history of the issuer




# Remedies Available to IIROC (continued)

## Regulatory Remedies may include:

- Comments “for future reference” & monitoring of trading
- Clarifying news release and/or retraction of disclosure
- Halt of trading pending clarification of news
- Referral to IIROC Enforcement
- Referral to appropriate exchange
-  violation of exchange agreement
- Referral to principal regulator (i.e. BCSC, OSC, etc.)
  - » Defaulting Issuer List
  - » Cease Trade Order – Management CTO
  - » Commission enforcement

# Final Word – Please Don't:

- suggest that that peer company(ies) reported in this manner so your company should be entitled to
- assume IIROC staff are familiar with your company's earlier news releases and CD record – there are 2000 reporting resource issuers in Canada and in excess of 100 news release are reviewed in any given day
- argue that specific disclosure was “previously approved by IIROC” in earlier news releases
  - **IIROC does not “approve” disclosure**
  - Context of disclosure changes with each news release
  - IIROC has limited resources and significant time constraints
- pre-file with the intent of obtaining a “rubber stamp” precedent for future (or previous) filings
- pre-file a 42 page news release @ 1:22 pm PST
- pre-file a 50 page executive summary with 20 pages of JORC Appendix's and Competent Persons Statement as a NR for purposes of a Canadian securities legislation
- **pre-file a news release @ 4:30 am and then disseminate at 4:58 am with 20+ significant statements qualified as Forward Looking Statements**
- **pre-file a news release at 5:14 am PST when the news release was disseminated at 11:04 pm PST, the previous day!**
- **calling IIROC surveillance officers “!@#\$\$%& #\$\$%#@’s” during correspondence**  
 **does not generally help the process**



BRITISH COLUMBIA  
SECURITIES COMMISSION

# **Voluntary Disclosure Websites, Corporate Presentations & Social Media**

**Darin Wasylik, P. Geo.  
Senior Geologist**



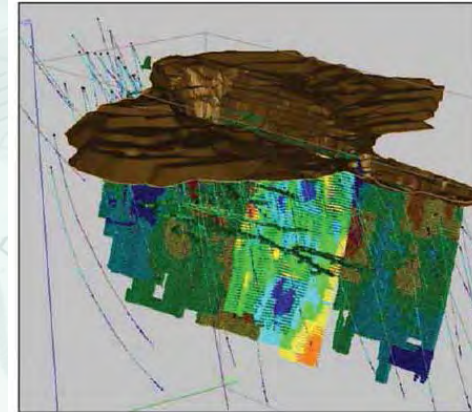
# Disclosure Definitions

## Disclosure



# Disclosure Definitions

## Written Disclosure





# Types of Disclosure

## Investor relations materials

– Provides a powerful tool for companies to communicate with investors

- Investor presentations
- Fact sheets
- Brochures
- Media articles
- Corporate Videos
- Interviews
- Links to third party content
- Social Media –Twitter, Facebook, LinkedIn, SlideShare, Giphy etc...
- President's Messages
- Blogs

# Applicable Rules

- PART 2 REQUIREMENTS APPLICABLE TO **ALL DISCLOSURE**
- PART 3 ADDITIONAL REQUIREMENTS FOR **WRITTEN DISCLOSURE**

# Report Trigger

- **PART 4 OBLIGATION TO FILE A TECHNICAL REPORT**
  - See 4.2 (1)(j)
- **Part 2.4(5) of Companion Policy**
  - Treating a Historical Resource as Current

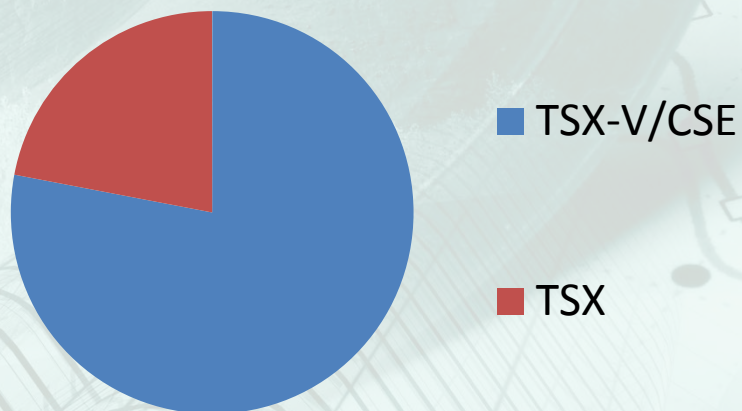


# CSA Staff Notice 43-309 (April 9, 2015)

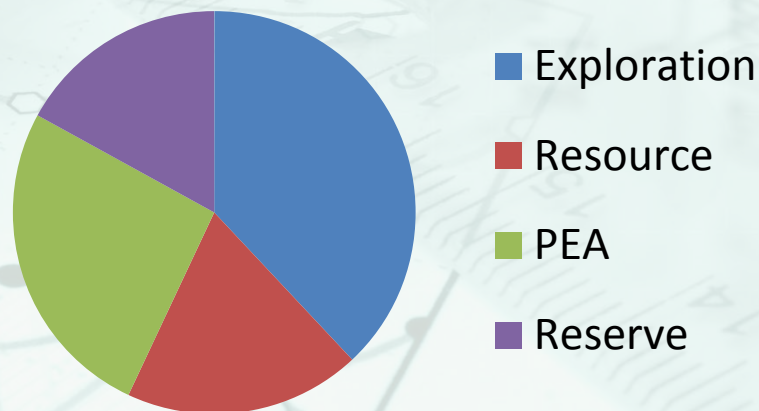
## Scope of Review: 130 website investor presentations

- BC, Ontario and Quebec
- Pre-production stage

**Exchange Listing %**

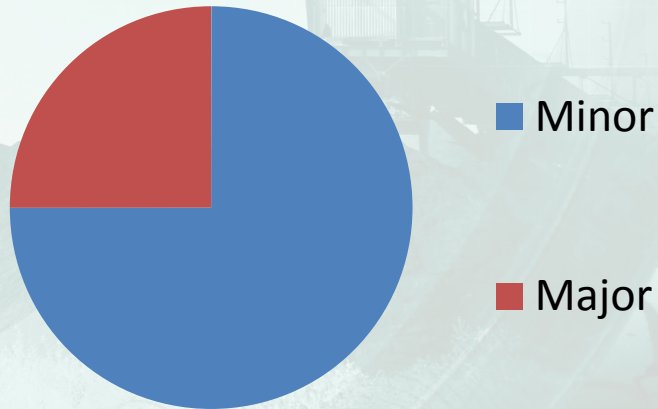


**Development Stage %**



# Findings of Review

Non-compliance %



## Important observation:

Major non-compliance dropped to **15%** for presentations which appeared to be **reviewed by a QP\***

*\* QP was named in the presentation (only 42% of presentations)*

# Website Disclosure – Pitfalls (0% non-compliance)

- ✗ Exploration targets (79%)
- ✗ Historical estimates (60%)
- ✗ Naming the QP (58%)
- ✗ PEAs (56%)
- ✗ Mineral resources and mineral reserves (50%)



# Summary

**Voluntary disclosure**, less likely to comply

**ALL** disclosure must comply

Companies are responsible for **everything**

***“If you couldn’t put the disclosure in a news release,  
DON’T include it in ‘other’ forms of disclosure”***

# Tip: Make use of section 3.5

- **Exception for written disclosure already filed**
- **Note – only applies to the following disclosure:**
  - s. 3.2 – Data verification
  - s. 3.3 – Exploration information
  - parts of s. 3.4 – Mineral resources and reserves
    - (a) Effective date
    - (c) Key assumptions
    - (d) Known risks



# **Technical Report Triggers CSA (NI 43-101) v. TSX-V**

**Stefan Lopatka, M.Sc.A., P. Geo.  
Senior Manager, Geologist**



# Disclosure of Scientific and Technical Information for Mineral Projects

- Disclosure, in any form, of Scientific and Technical information on a Mineral Project is governed by National Instrument 43-101: *Standards of Disclosure for Mineral Projects*
- Regardless of the purpose, trigger, or nature of the information; it must always comply with NI 43-101

Why are some Technical Reports reviewed by the Securities Commission...?



Some by a Stock Exchange...??

And most of the time, I don't get any comments at all...?

**WHAT IS THE REPORT FOR...(TRIGGER)**



# Technical Report Triggers NI 43-101

## **NI 43-101 section 4:**

- On becoming a reporting issuer
- Disclosure about Material Mineral Projects
  - IPO
  - First time resource and economic analysis
  - Material change in Resource or economic analysis
  - Information circular for share acquisition of property
  - Financing circulars
  - Valuation

**Common feature, technical disclosure thru life cycle of project and company (advancement)**



# TSX-V “Geological Report” Triggers

- **TSX-V corporate Policy Manual:**
  - Initial Listing: to demonstrate property meets Listing Requirements (ILR)
  - Reverse Takeover /Change of Business/ Qualifying Transaction: Support new property acquisition (ILR)
  - Reviewable /Fundamental Acquisitions:
- **Common feature, technical disclosure for new project (acquisition)**

# CSA v. TSX-V

- This difference in report triggers dictates the slightly differing needs of each Organization (the CSA and the TSX-V) for technical report
- Requirements of CSA have been described in detail through this workshop, so let us quickly look at the Exchanges requirements

# Geological Report

- Within the context of the TSX Venture Exchange, a Geological Report is one of several disclosure documents required to be publicly filed in support of the Issuer's transaction under Exchange Policy
- Definition\*: a report prepared in accordance with National Instrument 43-101 – *Standards of Disclosure for Mineral Projects* or any successor instrument

\* TSX-V Corporate Policy Manual (TSX-V-CPM) Policy 1.1



# Geological Report Guidelines

## TSX-V-Corporate Policy Manual: Appendix 3F MINING STANDARDS GUIDELINES

- Incorporates and expands upon the standards prescribed by Securities Laws (NI 43-101)

### NI 43-101 Section 4.3 Required Form of Technical Report:

- A technical report that is required to be filed ... must be prepared in accordance with Form 43-101F1

#### As such,

- NI 43-101 dictates that a technical report must follow Form 43-101F1, and
- TSX-V Appendix 3F provides Exchange specific guidance on the disclosure for the Exchange

# Qualified Person & Independence

- **Under CSA: independent of Issuer**
- **Under TSX-V, relationship to Vendor in transaction becomes more important**
- **QP interest in Vendor and property become paramount in considering independence of report**

# Use of Geological Reporting – Listing Transaction

## A. Determination of Initial Listing Requirements (ILR) (Policy 2.1)

1. Ownership & Obligations
2. Approved Expenditure (Prior Exploration)
3. Recommended program and Budgets
  - Requirements defined in TSX-V-CPM Policy 2.1;
  - Based on Tier Level

## B. Supports technical/ scientific disclosure in listing document (Prospectus, Information Circular, Filing Statement)

## C. Additional Support for:

- Mineral title documentation requirements
- Evidence of Value requirements
- Relation between parties (Non-Arm's Length)



# Initial Listing Requirements (ILR)

Requirement	Tier 2	Tier 1
Ownership	Significant Interest (50%)	Material interest
	Have or right to earn	Operatorship
Previous Exploration	>\$100,000* over last 3 years	Minimum current resource
	By Issuer ( or vendor**)	
Recommended program	>\$200,000 Phase 1 non contingent	>\$500,000 Drilling
		Economic Study

\* Must meet approved expenditure definition

\*\* By Vendor for RTO, COB, QT

# ILR: Ownership

## Ownership & Obligations

- **Disclosure of present mineral tenure**
- **Disclosure of agreement for Issuers acquisition**
- **Obligations:**
  - ❖ Agreement obligation
  - ❖ Nature of mineral tenure and ability to transfer tenure
  - ❖ Legal Title Opinion
  - ❖ Prior agreements
  - ❖ Government
  - ❖ Description of significant factors and risks that may affect access, title, or right or ability to perform work on the property
- **43-101F1 Item 4(c), (d) & (h)**



# ILR: Tier 2 – Approved Expenditures

- ❖ **Detail breakdown of exploration work on property**
- ❖ **By years**
- ❖ **Magnitude of work**
- ❖ **Presented in manner so costs can be estimated**
- ❖ **Clear indication of who carried out work (Issuer v. Vendor v. Others)**

## **Definition of Approved Expenditures (Policy 1.1)**

- any exploration expenditures resulting or arising from, or relating to, geological and scientific surveys conducted on a mineral property where such surveys advanced a mineral project or enhanced the Issuer's geoscientific database
- but does not include any of the following costs or expenses: general and administrative, land maintenance, public affairs, required property payments, staking, property or project acquisition, flight expenditures of personnel where the project or property is non-domestic, tax and HST

**Form 43-101F1 Items 9 & 10**



# ILR: Tier 2 – Approved Expenditures

(continued)

## Approved Expenditures

- **Listing Application** (initial listing on Exchange, IPO)
  - ❖ Exploration work carried out by Issuer prior to Listing
- **Listing of Spin-out (seasoned asset)**
  - ❖ Exploration work carried out by Parent prior to Listing
- **Reverse Take-Over, Change of Business, or Qualifying Transaction (CPC),**
  - ❖ Exploration work carried out by Vendor/ Target prior to transaction

# ILR: Tier 1

## Tier 1 (Prior Exploration):

- **previous exploration & initial phase of drilling**
  - ❖ 43-101F1 Item 9 & 10
- **At Minimum; a current resource for the issuer**
  - ❖ 43-101F1 Item 14
- **Dangers of “Vendors Report” (definition of Historical Estimate)**

# ILR: Recommended Work Program

## Recommended Program and Budgets

### ➤ Minimum Requirements Based on Tier Level of Listing

- ❖ **Tier 1:** a minimum \$500,000 Phase 1 drilling program for the property based on the merits of previous exploration results (or an economic study)
- ❖ **Tier 2:** a work program with an initial phase of no less than \$200,000, as recommended in a Geological Report

\* Basis of unallocated working capital calculation



# Use of Geological Report – Non Listing Transaction

**Primary purpose to ensure disclosure document for new property for Issuer on public record (SEDAR)**

**Supporting document for determination of:**

- **Mineral title (Legal Title Opinion) Item 3**
- **Underlying agreements and obligations Item 4**
- **Evidence of Value (deferred Exploration Expenditures) Items 9 & 10**
- **Financial Plan (Recommended Program) Item 26**
- **Relation between parties (Non-Arm's Length) Items 2 & 4**

**(Form 43-101F1 References)**

# **Top Mistakes when filing Geological Report with the Exchange** (in support of an Acquisition)

- 1. The report is not made out to the Issuer (Vendor's report)**
- 2. The issuer's rights to the property lacks details**  
(agreement details and consideration, legal title opinion, relationship among parties)
- 3. QP not independent**
- 4. QP independence of Vendor, property not disclosed**



# Geological Reports: Common Considerations

## For the QP:

- **Know the purpose of the Geological Report**, including transaction type
- **Know the requirements of both NI 43-101 and TSX-V Policy Appendix 3F**
- **Ensure that Geological Report contains sufficient information** for the Exchange to make required determination
- **Do not rely on Issuer** for “no material work” since last site inspection

## For the Issuer:

- **Ensure report is prepared for you**, the Issuer; not a Vendor’s report
- **Ensure QP meets necessary independence** requirements of Appendix 3F
  - QP that prepares a Geological Report **must be independent of the property and the property vendor, in addition to the Issuer**
- The Exchange may not require that a QP be independent of the Issuer acquiring the property for certain limited transactions (Appendix 3F)



# For Reverse Takeovers, Change of Business, Qualifying Transactions:

QP	Must be independent of both Vendor and Issuer
History: (43-101F1, Item 8)	This refers to the history of the PROPERTY that is the subject of the report
Exploration, Drilling, Sampling methods and preparation: (43-101F1, Item 12, 13, 14, 15)	Looking for information on what the VENDOR has done on the property
Data Verification (43-101F1, Item 16)	Refers to verification of the sampling done by the QP (e.g. samples taken by the QP, not data verification done by Company)
Mineral Processing (43-101F1, Item 18)	Refers to work done by the VENDOR
Resources/Reserves (43-101F1, Item 19)	This is a resource done for the ISSUER *Resource by Independent QP

# For Listing Applications:

QP	Must be independent of the Issuer
History: (43-101F1, Item 8)	This refers to the history of the PROPERTY that is the subject of the report
Exploration, Drilling, Sampling methods and preparation: (43-101F1, Item 12, 13, 14, 15)	Looking for information on what the ISSUER has done on the property
Data Verification (43-101F1, Item 16)	Refers to verification of the sampling done by the QP (e.g. samples taken by the QP, not data verification done by Company)
Mineral Processing (43-101F1, Item 18)	Refers to work done by the ISSUER
Resources/Reserves (43-101F1, Item 19)	This is a resource done for the Issuer *Resource by Independent QP



# For Acquisitions:

QP	Must be independent of the Issuer and Vendor
History: (43-101F1, Item 8)	This refers to the history of the PROPERTY that is the subject of the report
Exploration, Drilling, Sampling methods and preparation: (43-101F1, Item 12, 13, 14, 15)	Looking for information on what the VENDOR has done on the property
Data Verification (43-101F1, Item 16)	Refers to verification of the sampling done by the QP (e.g. samples taken by the QP, not data verification done by Company)
Mineral Processing (43-101F1, Item 18)	Refers to work done by the VENDOR
Resources/Reserves (43-101F1, Item 19)	This is a resource done for the Issuer *Resource by Independent QP



# For Tier Move:

QP	Can be non-independent of Issuer, BUT must be independent of Vendor
History: (43-101F1, Item 8)	This refers to the history of the PROPERTY that is the subject of the report
Exploration, Drilling, Sampling methods and preparation: (43-101F1, Item 12, 13, 14, 15)	Looking for information on what the Issuer or Vendor (if applicable) has done on the property
Data Verification (43-101F1, Item 16)	Refers to verification of the sampling done by the QP (e.g. samples taken by the QP, if acquiring property from a Vendor)
Mineral Processing (43-101F1, Item 18)	Refers to work done by the Issuer or Vendor (if applicable) has done on the property
Resources/Reserves (43-101F1, Item 19)	This is a resource done for the Issuer *Resource by Independent QP



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# **Technical Reports & Exploration Disclosure**

**Victoria Yehl, M.Sc., P. Geo.  
Senior Geologist**

# Technical Reports

Provides a ***summary*** of material information about a mineral project, as determined by a qualified person



**Why file? Because the law requires it**

**Disclosing Exploration Information:**

Geological, geophysical, geochemical, sampling, drilling, assays etc.

These requirements apply anywhere & anytime you disclose this information





# Format for a Technical Report

## Technical Report:

Required form of Technical Report: s. 4.3 of NI 43-101

A required report *must be prepared* in accordance with **Form 43-101F1**

### 1) Early Stage

Use headings: ***all of* Items 1-14 & 23-27**

### 2) Advanced Property

has reserves or resources;  
where potential economic viability  
is supported by a mining study;  
or in production (with or w/o reserves)

Use ***all headings***: Items 1-27

# Elements of a Title Page

NI 43-101 Technical Report  
on the  
**New Exploration Gold-Silver-Zinc-Lithium Property**  
in  
**Province of Country**  
*sometimes*  
*Mapsheet or Coordinates etc.*

For  
**The Issuing Company**

By Josephine Smithsonite, P. Geo.  
and  
Geoffrey Eiffel, P. Eng.  
Best Ever Global Geologic Services Ltd.

**Effective Date: December 31, 2017**

1. Title

2. Location

3. Issuer

4. Name & Prof.  
Designation of  
QP

5. Effective Date

# Item 3: Reliance on Other Experts



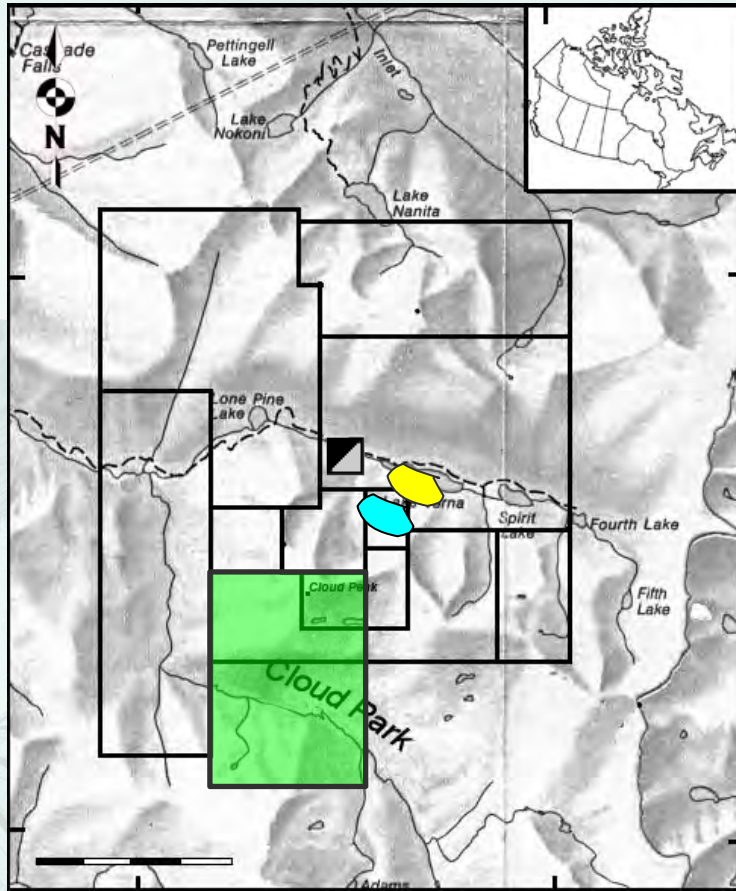
- May disclaim Title (Legal), Political, Tax, & Environmental, (some) Pricing information
- The QP must state the following about the reliance:
  - Source of information – including date, title and author
  - Extent of reliance
  - What portion(s) of the report is this used



- Cannot disclaim responsibility for part of report that QP prepared or supervised
- Cannot disclaim responsibility for data and opinions within area of expertise (expected to verify relied on geological data)
- Additional limits on disclaimers found in s. 6.4 of NI 43-101 (cannot limit filing on SEDAR etc.)



# Item 4: Property Description & Location



## LEGEND

---	Roads	▣	Shaft
=	Power lines	▣	Tailings
⛏	Prospect	▣	Waste
▣	Protected Bird haven		

## Often omitted:

- Issuer's rights to the property
- Legal access, surface rights
- Environmental liabilities
- Significant issues that may affect title, access or ability to do work  
e.g. Indigenous rights, bird sanctuary etc.

# Item 6: History

- Include prior ownership, ownership changes, past production, etc.
- Be clear about what historical information is on the issuer's property and what is not
- **This is where Historical Estimates belong**





# Historical Estimates - s. 2.4 NI 43-101

- 1) Provides the ORIGINAL Source & Date of the estimate s. 2.4(a)
- 2) States the Relevance & Reliability s. 2.4(b)
- 3) Provide Key Assumptions etc. (if known) s. 2.4(c)
- 4) Gives Classification/Categories and/or compares to s. 2.4(d)
- 5) Includes any more recent estimates s. 2.4(e)
- 6) Work to be done s. 2.4(f)
- 7) No QP work & 'not current' resource statements s. 2.4(g)

**Guidance for disclosing historical estimates is  
in *Part 2.4 of Companion Policy 43-101CP***





# Historical Estimates – Common Pitfalls

- Using terms such as “**not NI 43-101 compliant**”
- No **source, date & original classification** (inc. grade & tonnage) including misuse of “**ore**” as a classification
- **Lack of required cautionary language**
- **Adding** historical estimate to current estimates
- Disclosing an **economic analysis** based on a historical estimate (restricted disclosure under s. 2.3)



# Historical Estimates – Example

**The Blue Sky deposit reportedly contains an unclassified historical resource of 490,000 tonnes grading 410 g/t gold**

*The Blue Sky historical estimate does not comply with CIM Definition Standards on Mineral Resources and Mineral Reserves as required by NI 43-101 and has no comparable resource classification.*

*The historical estimate was reported by XYZ Minerals in a 1984 company report entitled “Review of 1982-83 Exploration Program of the Blue Sky Project”.*

*The historical estimate was prepared using a cross sectional method based on 20 drill holes and additional underground channel sampling but no cut-off grade was provided.*

*The reliability of the historical estimate is considered reasonable but a qualified person has not done sufficient work to classify the historical estimate as a current mineral resource and the Company is not treating the historical estimate as a current mineral resource.*

*The Company plans on conducting an exploration program, including twinning of historical drill holes, to verify the historical estimate as a current mineral resource.*





# Item 8: Deposit Types

***Describe*** the mineral deposit type(s) being investigated or explored for

- Just stating what deposit type is being explored for is not enough
- A technical report is intended for the investing public and their advisors, who in most cases are not geoscientists or engineers; provide a **written description** of deposit type



# Item 9: Exploration

The ***Issuer's work*** is disclosed here; or may include previous issuer's work if you believe it is relevant to the project

Not Drilling (Item 10)

Procedures and parameters relating to surveys and investigations

e.g. number of samples collected in rock/soil surveys, number of line-kilometres in geophysical surveys, etc.

Significant results & interpretations



# Exploration Information

**Written disclosure is subject to all of:**

Sections **3.2**, **3.3**, & **3.4** of NI 43-101

- s. 3.3:**
- (1a) material results
  - (1b) interpretations
  - (1c) QA/QC
  - (2a-f) how results must be given





# Item 10: Drilling

- The **Issuer's work** is disclosed here
  - and/or*– include relevant drilling related to resource estimate

## Include

- **Type of drilling** (diamond, r/c, backpack, etc.)
- **Collar location, azimuth, & dip of holes**
- **Relevant assays & depth of samples**
- **Higher grade intervals within lower grade intercepts**
- **True widths/thicknesses** (as known)

S 3.3





# Item 11: Sample Preparation, Analyses & Security

- For all sampling discussed in **Item 9: Exploration** or in **Item 10: Drilling**
- **QA/QC belongs here**

Field sampling procedures

Sampling process – for each type of sample program

Security measures to ensure the validity and integrity of samples

Laboratory analyses

Post sampling handling and analysis

Identify Lab (name/where) and certification(s) of

**Is the Lab independent of the issuer?**

Discussion of the QA/QC measures applied (Lab & Company)



# Sampling Results - s. 3.3

## Required Information:

- Type of samples
- Location of samples
- Significant results and interpretation of results
- Which/Where/Accreditation/Relationship - Laboratory
- What Analytical Method(s)
- What QA/QC Program
- QP opinion on sampling



# Sampling Results - Pitfalls

- **Visual estimates**
- **Giving/relying on field instrument analysis alone**
- **Omitting QA/QC**
- **Failing to name the lab & relationship**
- **Overly promotional**





# QA/QC, Lab, & Data - Pitfalls & Tip

- ✗ Omitting the QA/QC program details
- ✗ Not naming the lab and relationship to the company
- ✗ Not stating what the QP did to verify
- ✓ Use the provisions of s. 3.5 to refer to a previously filed document for:
  - 1) *data verification (s. 3.2)*
  - 2) *exploration information (s. 3.3)*



# Item 12: Data Verification

**Data Verification** *is **what the QP** did to confirm the information*

- As the QP is relying on various geological data, that data must be verified by the QP
- Any limitations or failure to conduct such verification and why (cannot access the sites/samples etc.)
- QP's opinion on the adequacy of the data for the purposes used in the report – is it reliable? If not, say so (what can be done going forward)

**The level of data verification needs to reflect what the data supports** (e.g. early v. resource)



# Item 13: Mineral Processing & Testing

- This should only include metallurgical work done by the Issuer on the property
- If the report is **required by the Exchange** only for a transaction such as Qualifying Transaction, Reverse Take-over or Change of Business, then the **Vendor's work** should be disclosed here



## Data verification procedures applied by the QP

- Were the samples representative?
- Any processing factors or deleterious elements that could have a serious effect on potential economic extractions

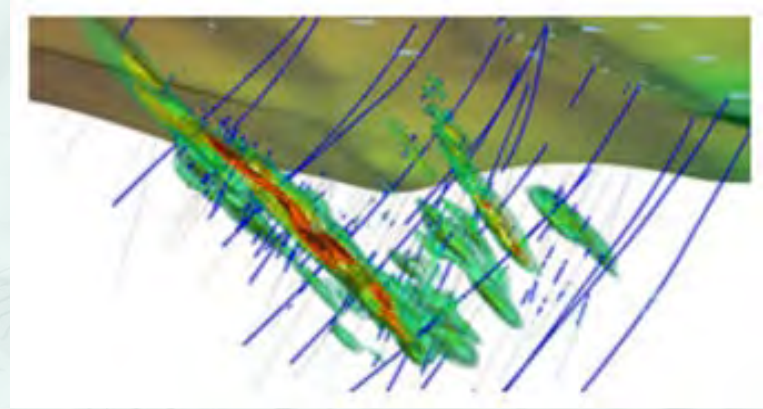
**N.B. If a resource report, the recovery rates from metallurgical work should be included in calculation** – if not, explain why not





# Item 14: Mineral Resource Estimates

- With a few drill holes and 3D software, many QPs **want to** include a resource
- Follow the **Form 43-101F1** & refer to **s. 2.2** to meet resource disclosure requirements
- If there is no mineral resource, simply say that



# Item 14: Mineral Resource Estimates

A current resource as defined in s. 1.2 of NI 43-101 an is one of:

1. inferred mineral resource
2. indicated mineral resource
3. measured mineral resource

**These classification have meanings ascribed by CIM**  
aka the “CIM Definition Standards”

As per CIM Definition Standards (May 10, 2014) for the definition of Mineral Resources, the phrase ‘**reasonable prospects for eventual economic extraction**’ implies *a judgment* by the Qualified Person, based on the level of confidence, of the technical and economic factors likely to influence extraction

The Qualified Person **should consider & clearly state the basis** for determining ***reasonable prospects for eventual economic extraction***





# Item 14: Mineral Resource Estimates

## Disclosing a current resource...

- Must comply with all disclosure requirements for mineral resources set out in the Instrument, including **s. 2.2, 2.3, and 3.4**, Form 43-101F1, & Item 14(b) including:
  - Section 3.4(a):
    - the **effective date** of each estimate of mineral resources and mineral reserves
  - Section 3.4(d):
    - the **identification of any known legal, political, environmental, or other risks that could materially affect the potential development** of the mineral resources or mineral reserves
    - For example: land access disputes, infrastructure problems, NGO funded campaigns, etc.





# Items 15-22: Advanced Property Reports

Must have discussion of potential economic viability included in the report (i.e. PEA, Pre-Feasibility or Feasibility study)

Form 43-101F1 **Instruction 4** states:

*“the qualified person must also use the headings of Items 15 to 22”*

This means these sections are **only required** if there **is** an **economic analysis** in the report

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If **not** an Advanced Property report

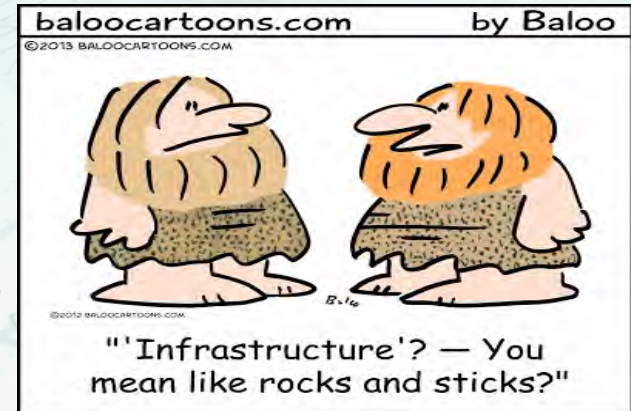
→ QP's frequently feel the need to place information in these items;  
**this is not necessary** and **may be misleading**

# Item 18: Infrastructure

*Provide a summary of infrastructure and logistic requirements for the project, which could include roads, rail, port facilities, dams, dumps, stockpiles, leach pads, tailings disposal, power, and pipelines, as applicable*

If **not** an Advanced Property this information should be **under Item 5(e)**:

*to the extent relevant to the mineral project, the sufficiency of surface rights for mining operations, the availability and sources of power, water, mining personnel, potential tailings storage areas, potential waste disposal areas, heap leach pad areas, and potential processing plant sites*





# Item 20: Environmental Studies, Permitting, Social or Community Impact

*Discuss reasonably available information on environmental, permitting, and social or community factors related to the project*

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If **not** an Advanced Property:

this information should be **under Item 4(h)**:

*to the extent known, any other significant factors and risks that may affect access, title, or the right or ability to perform work on the property*

**- OR -**

If **there is a mineral resource**, **under Item 14(d)**:

*include a general discussion on the extent to which the mineral resource estimates could be materially affected by any known environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors*



# Item 23: Adjacent Properties

## Adjacent property:

- the Issuer does not have an interest in;
- has a boundary *reasonably near* to the property subject of the report;
- has geological characteristics similar to those of the property being discussed

## Source of information

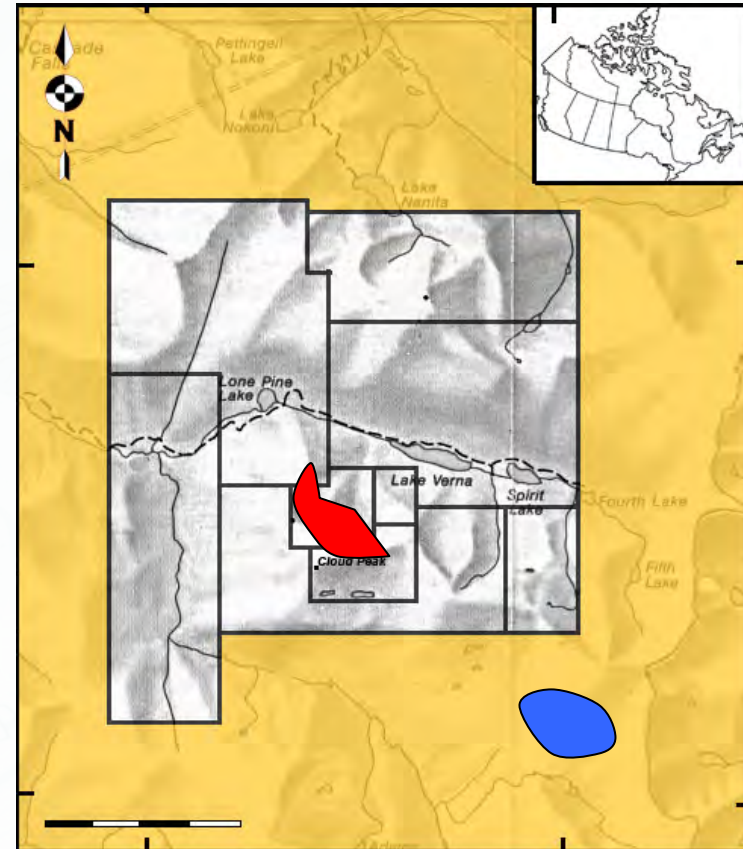
- Item 23(b)

## Cautionary language

- Item 23(c)

“The QP has been unable to verify the information and that the information is not necessarily indicative to the mineralization on the property that is the subject of the technical report”

**Include this everywhere where adjacent property information is provided**



# Item 25: Interpretations & Conclusions

- Summarize the results & interpretations of all data and relevant information
- Provide conclusions of the QP (suitability/gaps/etc.)
- Discuss any significant risks or uncertainties & foreseeable impacts that could change results &/or the project's ongoing potential viability

# Item 26: Recommendations

- Recommendations may only apply to **two phases of work**
- Provide detail of the recommended work programs and a **breakdown of costs for each phase**
- Recommendations must state whether phase two is **contingent** on phase one



# Exploration Targets - s. 2.3(2)

- *Potential that still requires further work*
- Is a *conceptual estimate* and therefore needs to be *ranges of both tonnages & grades*
- Must have equal & prominent cautionary language
- Do this for anything that is *quantified*



# Exploration Targets – How To

- Provides **ranges of both** tonnes & grades
- States with **equal prominence** the following:
  - Potential quantity and grade is *conceptual* in nature
  - Insufficient exploration to define a mineral resource
  - Uncertain if a mineral resource estimate will be delineated
- Provide the basis on which exploration target has been determined





# Exploration Targets – Example

**The exploration target consists of approximately:**

Tonnes	Grade (g/t Au)	Au (oz.)
600,000 to 700,000	5.0 to 7.5	95,000 to 170,000

*This exploration target is not a mineral resource estimate and is conceptual in nature. There has been insufficient exploration to define a mineral resource, and it is uncertain if further exploration will result in the exploration target being delineated as a mineral resource.*

**The basis for the exploration target ranges includes the following:**

- Three mineralized zones have been identified on the property by previous exploration from 1987 to 1990 by XYZ Minerals. Collectively, these three zones have a sufficient surface footprint to potentially host multiple vein systems.
- It is assumed that these vein systems will have a similar width and vertical extent to the epithermal sulphidation veins in the district. This is supported by the historical 25 reverse circulation drill holes, four diamond drill holes, and a significant amount of recent channel, trench, and grab samples.
- The grade range is considered reasonable based on the sampling and the grades from similar deposits in the district.



# Common Technical Report Mistakes

- **Omitting sections**  
**All** of Items 1-14 & 23-27 are necessary in an early stage report
- **Illegible figures**
- **Omitting cautionary language each time for:**
  - Historical Estimates
  - Mineral Resources are not Mineral Reserves
  - Exploration Targets
  - Adjacent Properties
- **Restricted disclosure** (s. 2.3 of NI 43-101)



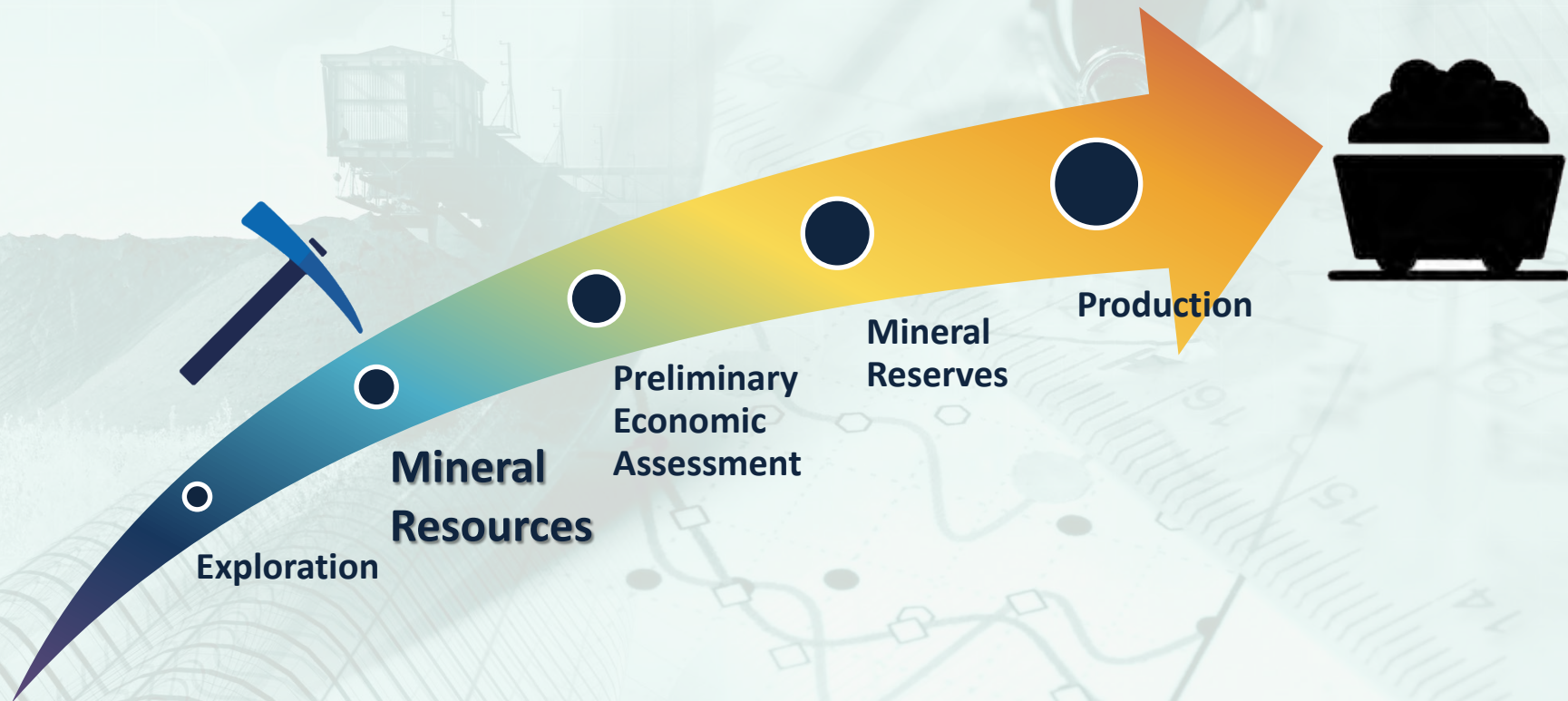


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# **Disclosure from Mineral Resources to Production**

**Chris Collins, MBA, P. Geo.**  
**Chief Mining Advisor**

# Mineral Resources Stage Disclosure





# CIM Definition Standards

## Harmonization with CRIRSCO

2012 - CRIRSCO agreed to standardize **15** core definitions

2014 - CIM revised **10** definitions in ***CIM Definition Standards***



Committee for Mineral Reserves  
International Reporting Standards

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



# CIM Definition Standards - 2014

- |                                    |  |
|------------------------------------|--|
| 1. Mineral Resource                | reasonable prospects for <i>eventual</i> economic extraction                                       |
| 2. Inferred Mineral Resource       | majority of inferred resources could be upgraded to indicated resources with continued exploration |
| 3. Indicated Mineral Resource      |  |
| 4. Measured Mineral Resource       |  |
| 5. Modifying Factors               | new term related to converting resources to reserves   |
| 6. Mineral Reserve                 | reference point for mineral reserves must be stated  |
| 7. Probable Mineral Reserve        |  |
| 8. Proven (Proved) Mineral Reserve |  |
| 9. Prefeasibility Study            |  |
| 10. Feasibility Study              |  |



# CIM Definition Standards

**What about the other 5 core definitions?**

<b>CRIRSCO definitions</b>	<b>NI 43-101 definitions</b>
<b>Public reports</b>	<b>Written disclosure</b>
<b>Competent person</b>	<b>Qualified person</b>
<b>Exploration results</b>	<b>Exploration information</b>
<b>Exploration target</b>	<b>Not defined (N.B. s. 2.3(2) of NI 43-101)*</b>
<b>Scoping study</b>	<b>Preliminary economic assessment (PEA)</b>

*\* CIM Committee on R & R is developing a definition and best practice guidance*



# CIM Best Practice Guidelines

- **Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines (2003) – update in progress**

- |                       |                        |
|-----------------------|------------------------|
| • Potash              | • Laterites            |
| • Industrial Minerals | • Placer Deposits      |
| • Coal                | • Rock-Hosted Diamonds |
| • Uranium             | • Mineral Brines       |



- **Exploration Best Practice Guidelines (2000) – update in progress**
- **Guidelines for Reporting Diamond Exploration Results (2003)**
- **Best Practice Guidelines for Mineral Processing (2011)**

# NI 43-101 & Best Practice Guidelines

## 43-101CP – General Guidance Item 6

- QP's not required to follow CIM Guidelines
- QP complying with “professional” standards typically respects industry best practices
- Disclosure of technical information that does not conform to industry standard practice



***Could be misleading!***

# Establishing Mineral Resources

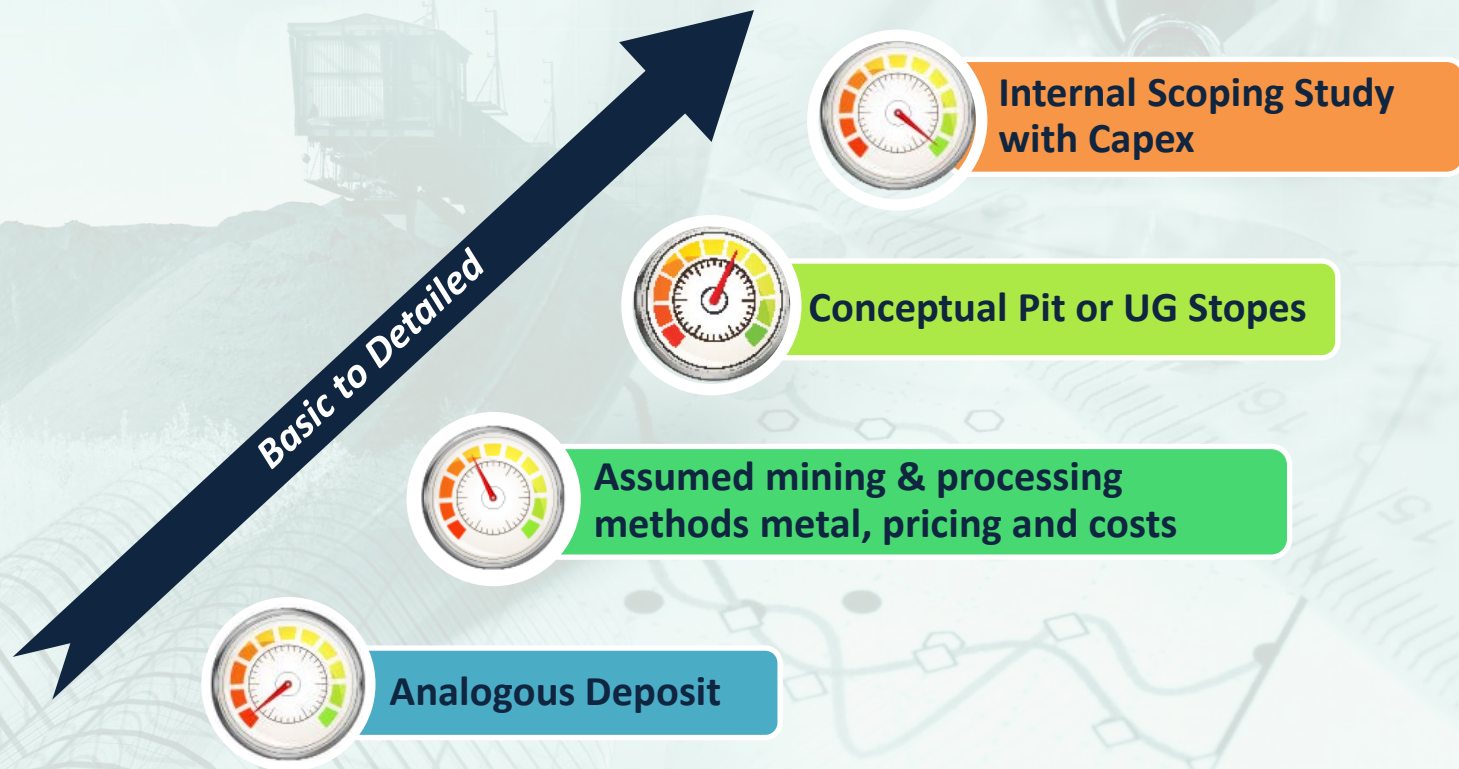
CIM Guidance CIM Magazine - Dec 15, 2009 & Aug/Sept 2015

- responsibility of the QP
- requires judgment based on QP's experience
- What if the QP does not have sufficiently broad experience?
- **Explicitly** present methods & key assumptions used to demonstrate *“reasonable prospects for eventual economic extraction”*



# Establishing Mineral Resources

Observed basis for determining *“reasonable prospects for eventual extraction”*



# Establishing Mineral Resources

Resource Estimates must demonstrate:

**“reasonable prospects for eventual economic extraction”**

Clearly state assumptions used:

- mining and processing method(s)
- commodity price(s)
- General and administrative costs
- metallurgical recovery and smelter payments
- Cut-off grade and geological continuity at selected cut-off grade

*Cut-off grade must realistically reflect deposit scale, location, continuity, mining and processing methods*



# Example: Reasonable prospects assumptions

*To assess reasonable prospects for eventual economic extraction, an optimized pit shell was developed using the technical and economic assumptions listed below to constrain the estimated resource blocks*

*Technical and economic parameters for assessing reasonable prospects:*

Gold Price	US\$1100/oz.
Silver Price	US\$15/oz.
Gold Recovery	85%
Silver Recovery	45%
Exchange Rate	US\$ to C\$: 1 to 0.75
Mining Cost	\$1.50/tonne
Processing Cost	\$7.25/tonne
G&A Cost	\$1.05/tonne
Pit Slope	45 degrees



# Disclosing Mineral Resources

- Only disclose CIM categories
  - Disclose each category separately
  - Do not add inferred resources to other categories
  - Disclose tonnes & grade for each category if disclosing contained metal
  - Cautionary statement (CP Part 3.3)
- 
- Disclose effective date of each estimate
  - Disclose key assumptions, parameters, and methods
  - Disclose any known risks that could affect potential development
  - If disclosure includes an economic analysis:
    - **mineral resources that are not mineral reserves do not have demonstrated economic viability**

S 2.2



Their Resource

S 3.4



Our Resource

# Sensitivity to cut-off grade

## Reasonable to disclose variations to cut-off grade

- NI 43-101 & CIM Def. Std. prohibit disclosure of unclassified estimates
- CIM Def. Std. and Practice Guidelines refer to **one** estimate
- Resource tables must **select an estimate**
- Make sure disclosure clear;
  - other estimates demonstrate cut-off grade sensitivity
- Item 14 (Instruction 2) – all scenario's must demonstrate ***“reasonable prospects”***



# Resource disclosure – common issues

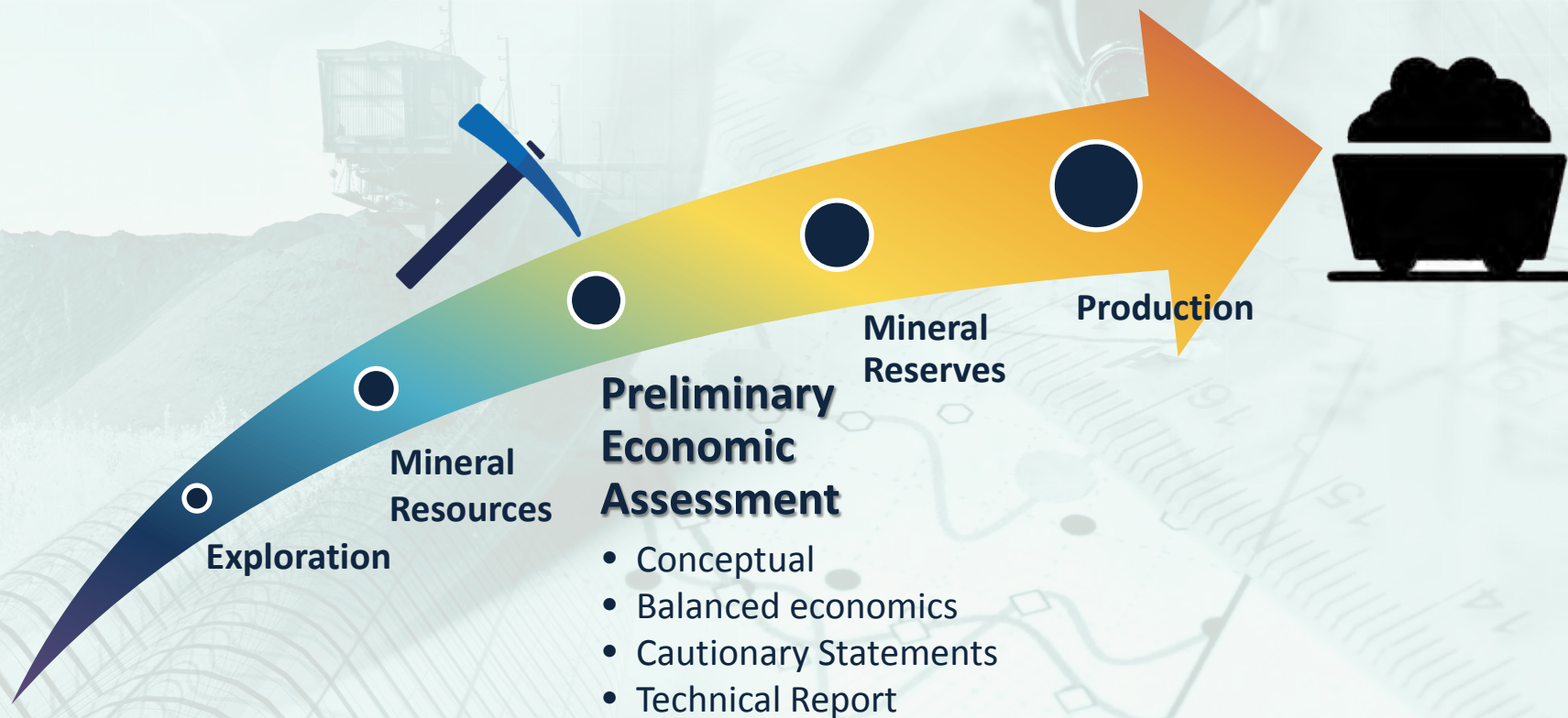
1. Database issues
  - S.G. data, sampling, assay, database QA/QC
  - No data verification = No mineral resource estimate
2. Reporting byproducts without assays
3. Unrealistic assumptions (Forward looking information)
4. No disclosure supporting “***reasonable prospects***”
5. Failure to consider
  - Geological model
  - Resource constraints including domains
  - Open Pit model constraints
  - “unconstrained” resource estimates (*mineral inventories*)



# Resource disclosure - Pitfalls

- No cut-off grade reported
- No effective date
- Metal equivalents without reporting constituents
- Adding inferred resources to other categories
- Reporting only contained metal
- No resource categories
- Not following CIM Best Practice Guidelines
- Disclosing an economic analysis

# Preliminary Economic Analysis



# Advanced Projects & Economic Analysis

- **“Advanced Property”** has:
  - a) Mineral reserves, or
  - b) Mineral resources with a Preliminary economic assessment, or  
*In production with or without reserves/resources*
- **Preliminary Economic Assessment**
  - Study other than PFS or FS, includes economic analysis of potential viability of mineral resources
- **Intended uses of a PEA**
  - Road map for strategic planning
  - Establish scope for PFS or FS
  - To facilitate capital formation



# What differentiates levels of mining study

## Form 43-101F1 – Additional Requirements for Advanced Property Reports

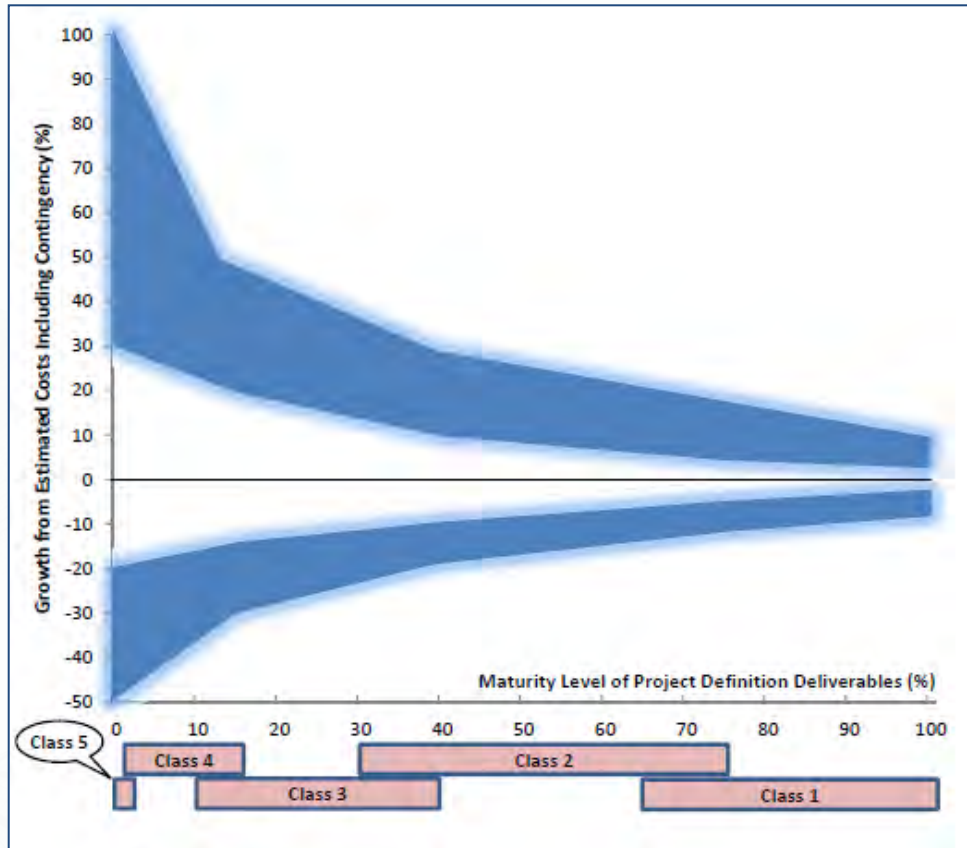
**Instruction:** *Preliminary economic assessments, pre-feasibility studies, and feasibility studies generally analyze and assess the same geological, engineering, and economic factors with increasing detail and precision*

- Comprehensiveness of Scope
- Detail and reliability of supporting test work
- Accuracy of the cost estimations

# Types of Mining Studies

Criteria		Technical & Economic Studies	
Type	Preliminary Economic Assessment (PEA)	Prefeasibility (PFS)	Feasibility (FS)
Concept	“What it could be”	“What it should be”	“What it will be”
Definition	NI 43-101 “carve out”	CIM Def. Std.	CIM Def. Std.
Objective	Conceptual assessment of the <u>potential economic viability</u> of mineral resources	Realistic engineering & economic study to <u>demonstrate economic viability</u>	Detailed study of how mine will be built. Basis for <u>production decision</u>
% Engineering	<5%	<20%	<50%
Cost accuracy	+/- 30 to 50%	+/- 20 to 25%	+/- 1- to 15%
Mineral Resource Inputs	Inferred/Indicated/Measured Mineral Resources	Indicated & Measured Mineral Resources	
Outputs	Inferred/Indicated/Measured Mineral Resources	Probable & Proven Mineral Reserves	

# Accuracy of cost estimates



## AACE RP No. 47R-11 (July 6, 2012)

- Variability in accuracy of cost estimates
- International mining company practices, published references and standards
  - Class 5 = PEA – Conceptual planning
  - Class 4 = PFS – Screening options
  - Class 3 = FS – Funding authorization
  - Class 2 - Project control
  - Class 1 - Fixed price bid estimate check



# Economic Analysis of Mineral Deposits

- Measure of potential economic viability (**PEA**) or economic viability (**PFS, FS**)
- Final step in a mining study
- Pro-forma cash flow analysis
- Disclose discounted cash flow metrics
  - Net present value (**NPV**)
  - Internal rate of return (**IRR**)
  - Payback period
- Important & highly anticipated milestone for market

# PEA Disclosure

Disclosure must state:

- The PEA is preliminary in nature
- Includes inferred resources that are too speculative geologically to have economic considerations applied to them
- No certainty the PEA will be realized

***Equal prominence & everywhere*** PEA results are disclosed

**Also disclose:**

- The basis, any qualifications and assumptions, (FLI)
- Impact on any PFS or FS for the property



# Forward Looking Information (FLI)

- Disclosure of **possible** events, conditions or results of operations
- Based on assumptions about future conditions and action
- Items 14 & 22 of Form 43-101F1 require disclosure of FLI:
  - Principal assumptions (mining methods, metal prices, recovery, etc.)
  - Project capital & operating costs
  - Production rate & schedule
- Issuers must comply with NI 51-102 – Continuous Disclosure Obligations
  - **4A.2** - do not disclose FLI unless there is a **reasonable** basis for the FLI
  - **Reasonable basis** - not defined, context specific, judged on facts in each case , related to confidence level of underlying information
- Regulators may use **reasonable basis** requirements for FLI to challenge assumptions in a mining study (or resource estimate) that appear overly optimistic, aggressive and potentially misleading



# Common PEA disclosure pitfalls

- No cautionary statements
- Reporting only pre-tax metrics
- Undiscounted cash flow metrics
- Implying technical and economic viability
- Terms '**ore**' or '**mineable**' are reserved for **reserves**
  - “mineral resources within the PEA mine plan”
  - “PEA mineral resources”
- Misrepresenting the confidence level
  - Implying it is done to the standard of **PFS** or **FS**
- Mixing PEA results with mineral reserves
- Disclosing a **PEA** after mineral reserves

# PEA after establishing mineral reserves

## 1. Issuers take a **step backwards**

- Reserves are no longer current – entire property moves back to PEA stage
  - The result of new ownership, new information,  $\Delta$  in modifying factors, etcetera
  - No longer disclose mineral reserves

## 2. Issuer's re-scope an existing project

- Significant new information or different production scenario
  - New discovery on same property
  - Change to mining or processing methods
  - Significant infrastructure or capex changes

### **Technical Report:**

- Include both existing “current” project & PEA information
- PEA discussion in Item 24: Other Relevant Data and Information



# CSA Staff Notice 43-307 (August 16, 2012)



Canadian Securities  
Administrators

Autorités canadiennes  
en valeurs mobilières

## CSA Staff Notice 43-307

### *Mining Technical Reports - Preliminary Economic Assessments*

#### Guidance in seven key areas

1. Misuse of PEA as a proxy for a PFS
2. PEA's done in conjunction with a PFS or FS
3. PEA disclosure and report triggers
4. Potentially misleading PEA results
5. PEA disclosure including by-products
6. Relevant QP experience
7. Consequences of disclosure deficiencies



# Limitations of PEA's

**CBCnews** | Thunder Bay

LIVE Thunder Bay More Streams  
Radio One  
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## Rubicon Minerals lays off 330 as Phoenix Gold Project in Red Lake, Ontario halted

Gold deposit more 'geologically complex' than originally thought

CBC News Posted: Nov 03, 2015 1:29 PM ET | Last Updated: Nov 03, 2015 1:29 PM ET



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The layoffs represent 87 per cent of Rubicon Minerals' workforce. (rubiconminerals.com)

- Underestimate project costs, complexities & timelines
- Overreliance on conversion of inferred to indicated resources
- Using optimistic assumptions and modelling optimized scenarios
- Using a PEA as the basis for a production decision

# Production decision without reserves

## Companion Policy 43-101CP [Part 4.2(6)]

- Does not trigger technical report
- Based on at least a PFS typically a FS, with established mineral reserves
- Increased risk of technical & economic failure without reserves
- Not disclosing the risks may be misleading investors

## Quarterly MD & A Form 51-101F1 [s. 1.4(e)]

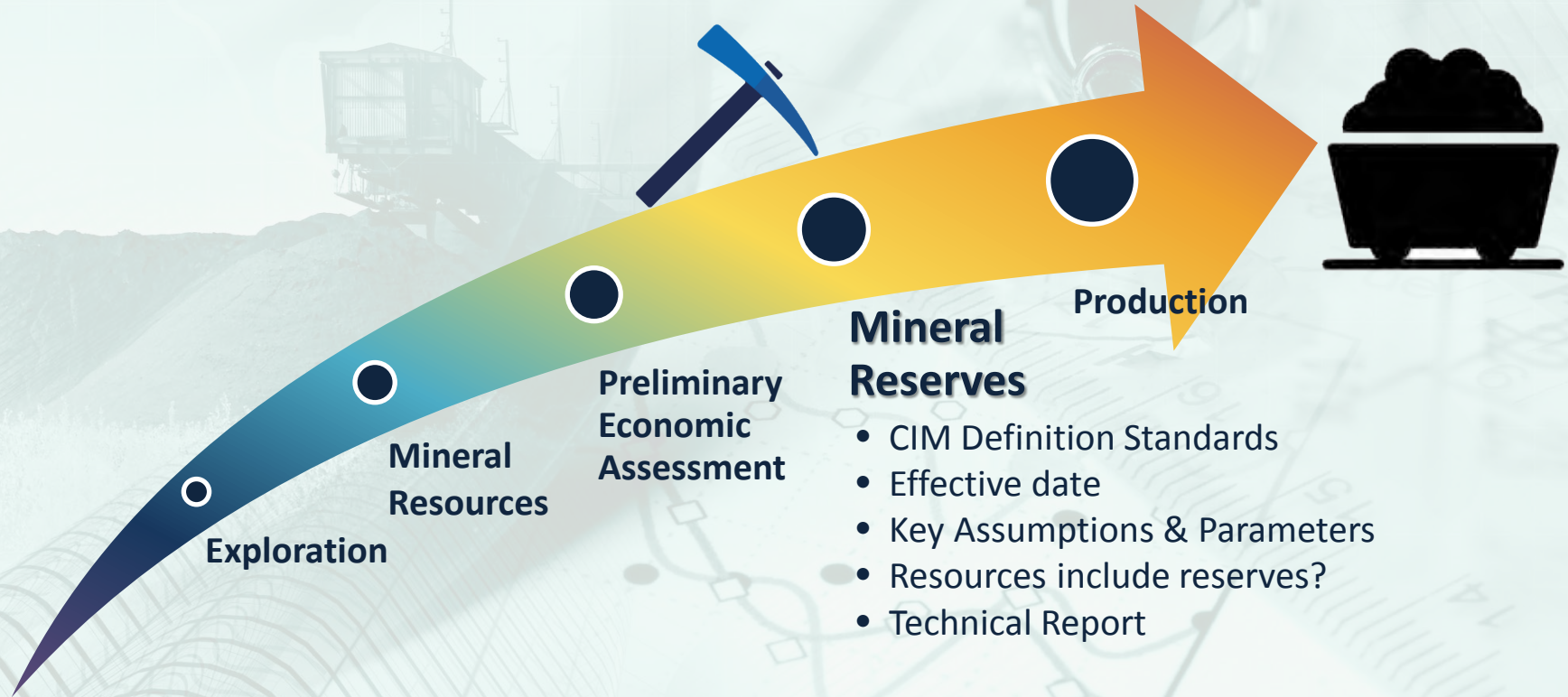
- Disclose if milestone, '**production decision**', is based on NI 43-101 technical report

## Avoid misleading disclosure; Clearly state the risks

- Decision not based on reserves with demonstrated technical & economic viability
- Project has a higher risk of technical and/or economic failure
- How such failure may adversely impact the issuer



# Mineral Reserve Disclosure





# Mineral Reserve

## CIM Definition Standards – May 10, 2014

- Economically mineable part of measured and/or indicated mineral resource
  - Account for all relevant ***Modifying Factors***:

• Mining	• Marketing
• Processing	• Legal
• Metallurgical	• Environmental
• Infrastructure	• Social
• Economic	• Governmental
- Include dilution and mining losses
- Established by prefeasibility or feasibility study
- Extraction justified at the effective date of the study

# Resources to Reserves

**Mineral  
Resources**

Consideration of "Modifying Factors"

**Mineral  
Reserves**

*"Reasonable Prospects  
for eventual economic  
extraction"*

*Economically  
Mineable*

*Prefeasibility/Feasibility Study*

CIM Definitions

Measured

Proved

Indicated

Probable

Inferred

Exploration Information

# Mineral Reserve Disclosure

## Section 2.2 & 3.4

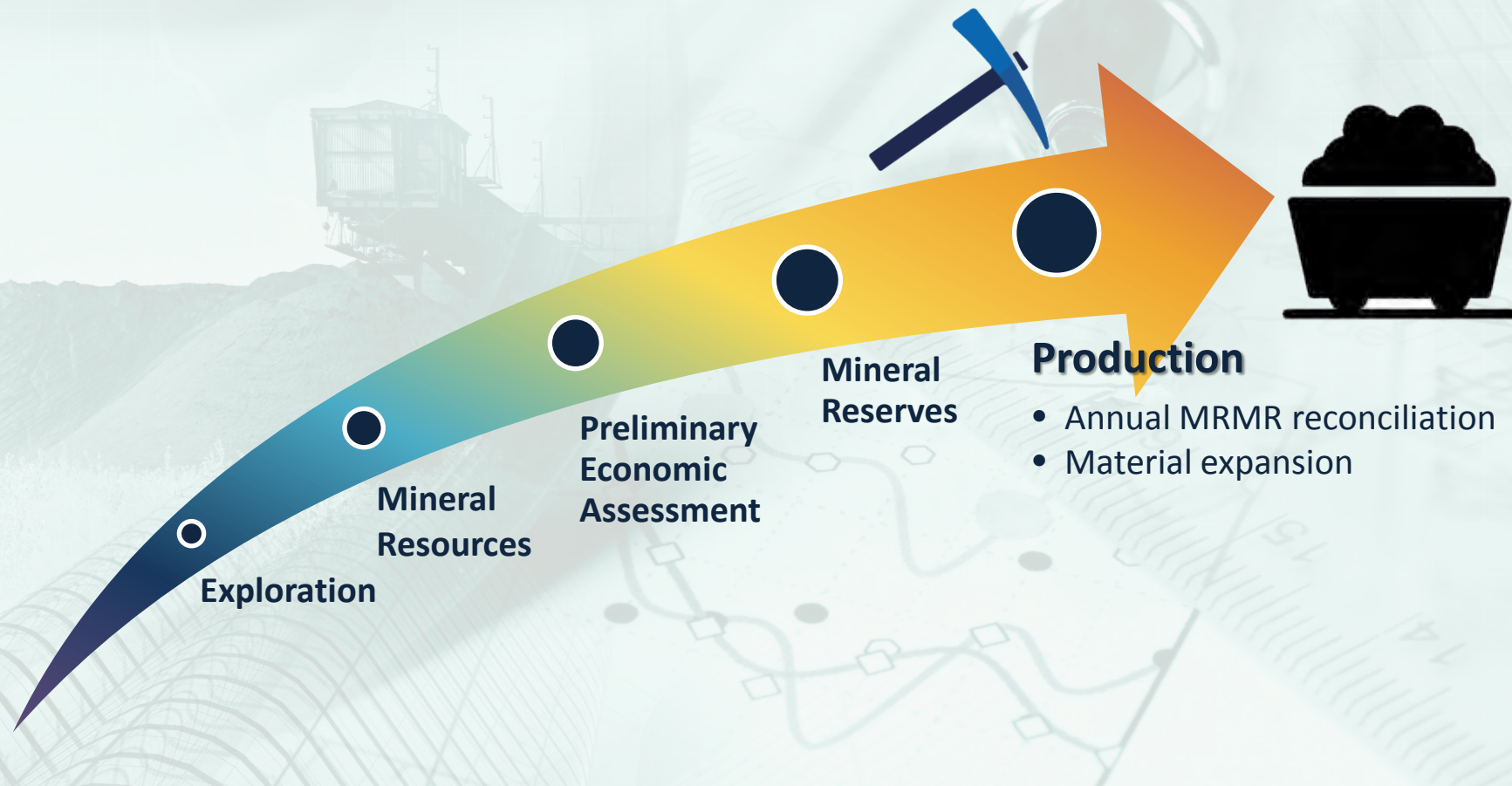
- CIM categories only
- Effective date
- Quantity & grade for each category
- Key assumptions, parameters, and methods
- Known risks that could materially affect development
- Mineral reserves inclusive or exclusive of mineral resources



# Reserve Disclosure - Pitfalls

- Only reporting contained metal
- Reporting metal equivalent without reporting individual constituents
- No statement relating reserves & resources (inclusive or exclusive)
- Lack of disclosure of key assumptions
- Not demonstrating reserves based on a prefeasibility study

# Mineral Production



# Annual Resource & Reserve Updates

## Annual Information Form (AIF) filers

- Disclose current resources/reserves for each material property

### Properties in Production

- Annual update of current mineral resources & mineral reserve estimates
  - Outdated estimates in an AIF is a default in NI 51-102
- Good disclosure should reconcile against previous years estimates
- Disclosure does not trigger a new technical report 43-101CP [Part 4.2(10)]

### Properties Not in Production

- Disclose the most recent resource and reserve estimates with effective date



# Form 51-102F2 (AIF) Changes – June 30, 2015

## Item 5.4 Companies with Mineral Projects

Before June 30, 2015	After June 30, 2015
(1) Project Description and Location	(1) <b>Current Technical Report</b>
(2) Access, Climate, Infrastructure and Physiography	(2) <b>Project Description, Location, and Access</b>
(3) History	(3) History
(4) Geological Setting	(4) <b>Geological Setting, Mineralization, Deposit Types</b>
(5) Exploration	(5) Exploration
(6) Mineralization	(6) Drilling
(7) Drilling	(7) <b>Sampling, Analysis, and Data Verification</b>
(8) Sampling and Analysis	(8) <b>Mineral Processing and Metallurgical Testing</b>
(9) Security of Samples	(9) Mineral Resource and Mineral Reserve Estimates
(10) Mineral Resource and Mineral Reserve Estimates	(10) Mining Operations
(11) Mining Operations	(11) <b>Processing and Recovery Operations</b>
(12) Exploration and Development	(12) <b>Infrastructure, Permitting, Compliance Activities</b>
	(13) <b>Capital and Operating Costs</b>
	(14) <b>Exploration, Development, and Production</b>

**New Item**   **Modified Item**