

SEC Disclosure for Exploration and Mineral Resources

Direct tapping of U.S. Capital Markets for Exploration Financing

Erik C. Ronald, P.Geo

Principal Consultant (Geology)

Make Hay while the Grass is Growing...

Recent convergence of macro factors trending to favorable conditions for North American explorers, especially U.S. companies.

- A. Increased **public awareness** of “critical minerals”, supply chain security, ethics in mining, and foreign dependency.
- B. Strong commodity **pricing** in EV/battery related metals (Li, Co, Ni...) and growing long-term outlook/demand.
- C. Current U.S. Administration supporting Federal funding sources to **support domestic supply chain**.
- D. Updated **SEC regulations** providing ability to disclose Exploration Results and Mineral Resources.

Retail Investors Becoming Aware

The Economist, February 19, 2022

United States | Between a rock and a hard place

The energy transition is sparking America's next mining boom

Can critical minerals be secured without wrecking the environment and sacred tribal lands?

The fight for rare Earth minerals

The focus of the meeting will be on 'managing competition'

Fox News, June 3, 2022



Will unstable gas prices today be replaced by unstable mineral prices for batteries tomorrow?

Electric vehicles built on batteries and critical minerals will reduce oil related price spikes; herald a cleaner, more interconnected electric future

USA Today, July 30, 2021

OPINION | REVIEW & OUTLOOK

Critical Mineral Contradictions

Does Biden know that his own regulators are blocking mine projects?

By [The Editorial Board](#) *Wall Street Journal, April 2, 2022*

April 3, 2022 4:55 pm ET

3 critical minerals you might not have heard of (and the ASX shares that have surged because of them)

What are these critical metals? *The Motley Fool, May 11, 2022*

Sourcing and Supply Challenges

- Automotive manufacturers are collaborating with miners to address supply risks.
- Public scrutiny on “ethical” and secure sourcing of raw materials.
- Chinese supply concerns, COVID
- DoD - contractor material sourcing.

Critical minerals supply and demand challenges mining companies face



April 2022



Tesla Conflict Minerals Report

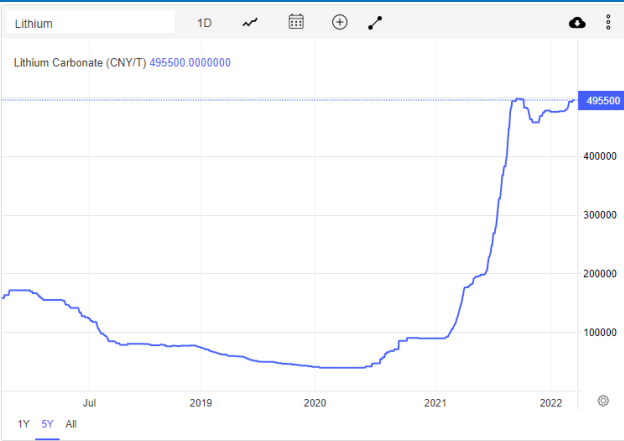
Pentagon suspends F-35 deliveries over Chinese alloy in magnet

Defense News September 7, 2022

Ford to buy lithium from Ioneer for U.S. EV battery plant

Reuters, July 21, 2022

Pricing – Long-term Trend or Fad?



LiCO₃ pricing trend – 5 years. Tradingeconomics.com



Ni pricing trend – 10 years. Tradingeconomics.com



Cu pricing trend – 5 years. Tradingeconomics.com

Lithium Carbonate

Nickel

Copper

Economist consensus on **long-term, robust pricing for key critical minerals** due to projected demand increases and production or supply short-falls. Many end-users are seeking alternative sources, substitutions, recycling, and other means to address supply concerns.

U.S. Government Support



BRIEFING ROOM

FACT SHEET: Securing a Made in America Supply Chain for Critical Minerals

FEBRUARY 22, 2022 • STATEMENTS AND RELEASES

Department of Energy

DOE Launches \$140 Million Program to Develop America's First-of-a-Kind Critical Minerals Refinery

FEBRUARY 14, 2022

US DOE launches US\$675 million critical minerals R&D programme, calls for public input on direction

By Andy Colthorpe

August 11, 2022

- **Multiple Federal Departments involved with direct assistance on supply chain.**
- **USGS and State Survey funding for assessing resources (US\$74M).**
- **DoD awards MP Materials US\$35M to build HREE separation facility.**
- **loner announced DOE Loan Programs Office invitation and progression.**

The “Old” SEC

- Industry Guide 7 (1981)
- Annual Reporting for Mining companies only **Reserves** in 10-K reports (20-F for foreign issuer).
- Minimal supporting documentation.
- No definition of “Exploration” or “Resources”
- Single Qualified Person (QP) sign-off

Result:

- U.S. mining discounts Mineral Resources due to lack of public disclosure.
- Challenging raising funds unless declaring Reserves.
- Limited retail investor appetite.
- Head to the Great White North!



Regulatory: The “New” SEC

- SEC regulations for public disclosure of mining properties updated (S-K 1300).
 - Required by the first fiscal year beginning after January 1, 2021
- **Who does this impact?**
 - U.S. securities registrants (U.S. listed companies) who have mining operations or interests which are material to their business or financial condition.
 - Also includes royalty, streaming, and integrated companies.



Canadian Get Out of Jail Free Card?

- **Limited impact** for Canadian companies with dual listings on U.S. markets.
- **Canadian issuers (MJDS)** can report based on conditions by filing Form 20-F and are permitted to **disclosure that meets the requirements of NI 43-101.**
- Eligibility:
 - US\$75M equity
 - Continuous disclosure min. 12 months with Canadian securities.



“S-K 1300” (CFR Subpart 229.1300 - 1305)

- **Detailed** “Technical Report Summary”, akin to NI 43-101 Technical Reprt.
- **QPs taking full responsibility and subject to personal liability** as experts under Section 11 of the Securities Act (1933)
- Explorers can now disclose **Exploration Results** and **Mineral Resources**.
- **Filed annually** with 10-K / 20-F



Parts of S-K 1300

[§ 229.1300 \(Item 1300\) Definitions.](#)

[§ 229.1301 \(Item 1301\) General instructions.](#)

[§ 229.1302 \(Item 1302\) Qualified person, technical report summary, and technical studies.](#)

[§ 229.1303 \(Item 1303\) Summary disclosure.](#)

[§ 229.1304 \(Item 1304\) Individual property disclosure.](#)

[§ 229.1305 \(Item 1305\) Internal controls disclosure.](#)

- Understand the updated **regulations, liability, filing, and associated requirements.**
- Definitions and disclosure are similar to, but **vary from NI 43-101**
- Disclosure of **controls and governance** in Item 1305

SEC Exploration Results - Definition



**NOT PART OF A
DISCLOSURE OF
MINERAL RESOURCES
OR RESERVES.**



**A REGISTRANT MUST
NOT USE
EXPLORATION
RESULTS ALONE TO
DERIVE **ESTIMATES
OF TONNAGE, GRADE,
AND PRODUCTION
RATES**, OR IN AN
ASSESSMENT OF
ECONOMIC VIABILITY.**



**AVOID PROMOTIONAL
OR EXAGGERATED
LANGUAGE.**



SEC Mineral Resources - Definition



REASONABLE
PROSPECTS FOR
**ECONOMIC
EXTRACTION.**



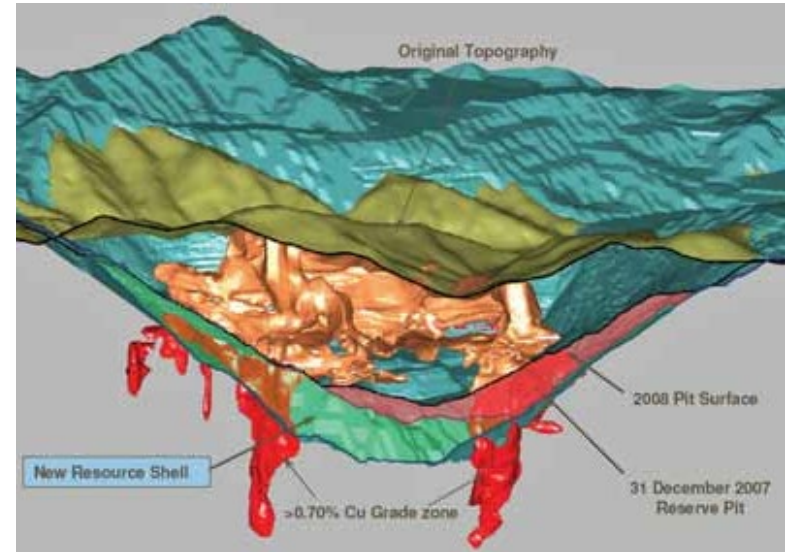
**INITIAL
ASSESSMENT (IA)
STUDY**



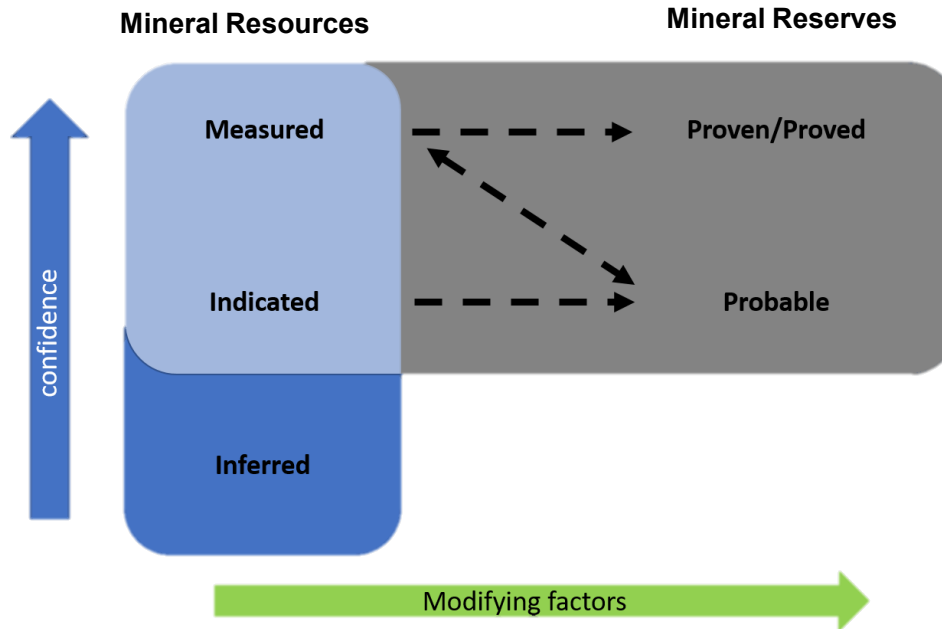
CoG, MINING
DIMENSIONS, AND
GEOLOGICAL
CONTINUITY.



NOT AN INVENTORY OF
MINERALIZED DRILLING
INTERCEPTS OR
SAMPLES.



Classification and Confidence



- Definition of categories
- Technical and economic conditions:
 - CoG, pit shell, recovery, and mining assumptions
 - Requires supporting Initial Assessment (IA) level study.
- Mineral Reserves
 - Requires PFS and demonstrated assumptions.

The Qualified Person (QP)

- Days of **single QP** are gone!
- SEC recommends a **QP per discipline area**.
 - Relevant experience in specific activity.
- QPs are taking on the **same liability** as the board of directors and management team.
- **Internal or External** QPs allowed (unlike NI 43-101)
- **No third-party disclaimers** allowed
 - Reliance upon information provided is allowed in certain categories:
 - Macro-econ, marketing, legal, government factors.



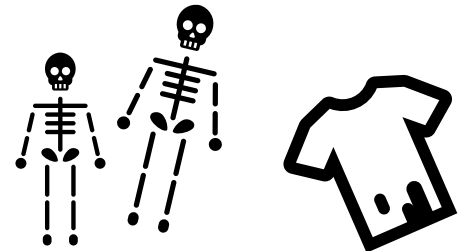
SEC Technical Report Summary (TRS)

Ch	Title	Ch	Title	Ch	Title
1	Executive Summary	10	Mineral Processing and Metallurgical Testing	19	Economic Analysis
2	Introduction	11	Mineral Resource Estimates	20	Adjacent Properties
3	Project Description	12	Mineral Reserve Estimates	21	Other Relevant Data and Information
4	Accessibility, Climate, Local Resources, Infrastructure, and Physiography	13	Mining Methods	22	Interpretation and Conclusions
5	History	14	Processing and Recovery Methods	23	Recommendations
6	Geological Setting, Mineralization, and Deposit	15	Infrastructure	24	References
7	Exploration	16	Market Studies	25	Reliance on Information Provided by the Registrant
8	Sample Preparation, Analyses, and Security	17	Environmental Studies, Permitting, and Plans, Negotiations, or Agreements with Local Individuals or Groups		
9	Data Verification	18	Capital and Operating Costs		

 Required for all disclosure

 Mineral Resources

 Mineral Reserves



Skeletons & dirty laundry??

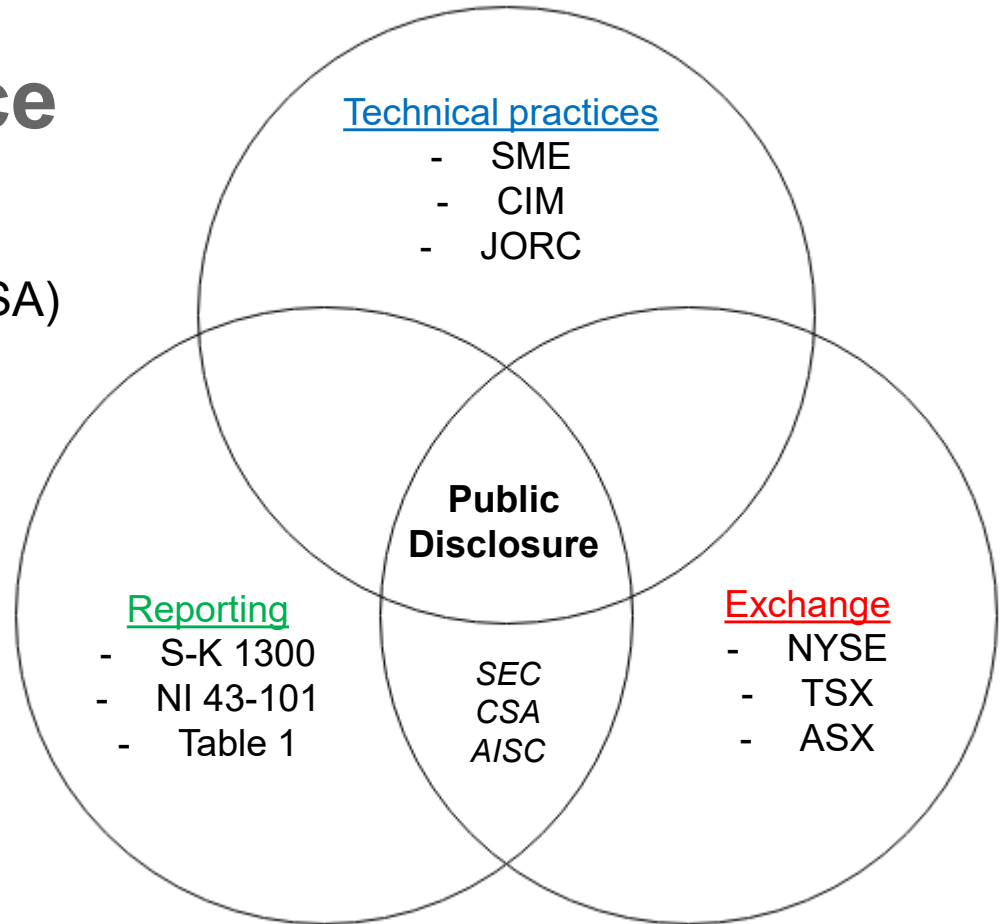
Technical Studies

	Resources Only	Resources & Reserves	R&R, Pre-Operations
Factors	Initial Assessment	Preliminary Feasibility Study	Feasibility Study
Other relevant factors	Appropriate assessments of other reasonably assumed technical and economic factors necessary to demonstrate reasonable prospects for economic extraction.	Reasonable assumptions, based on appropriate testing , on the modifying factors sufficient to demonstrate that extraction is economically viable.	Detailed assessments of modifying factors necessary to demonstrate that extraction is economically viable.
Capital costs	Optional. If included: Accuracy: $\pm 50\%$ Contingency: 25%	Accuracy: $\pm 25\%$ Contingency: 15%	Accuracy: $\pm 15\%$ Contingency: 10%
Operating costs	Optional. If included: Accuracy: $\pm 50\%$ Contingency: 25%	Accuracy: $\pm 25\%$ Contingency: 15%	Accuracy: $\pm 15\%$ Contingency: 10%
Economic analysis	Optional. If included: Taxes and revenues are assumed. Discounted cash flow analysis based on assumed production rates and revenues from available measured and indicated mineral resources.	Taxes described in detail; revenues are estimated based on at least a preliminary market study ; economic viability assessed by detailed discounted cash flow analysis.	Taxes described in detail; revenues are estimated based on at least a final market study or possible letters of intent to purchase ; economic viability assessed by detailed discounted cash flow analysis.



Technical Practice

- **Technical practices**
 - SME guide for reporting (USA)
 - CIM guidelines (CAN)
 - JORC code (AUS)
- **Reporting**
- **Public Exchange**



NI 43-101 or SEC report \neq Sound Technical Work



Geology Foundation



FS Accuracy of costs to +/-15%

Studies

			Marketing			opex/capex	Marketing	
			Land, ESG	opex/capex		NPV	LOM schedule	Marketing
	Site layout	opex/capex	Waste rock	Strip ratio	opex/capex	Equipment	Metallurgy	NPV
opex/capex	Infrastructure	Equipment	Recovery	Planning & design	Recovery	Strip ratio	Reserves	opex/capex
Infrastructure	Risk	Selectivity	Metallurgy	Geotechnical	Metallurgy	LOM schedule	Grade and Metal	LOM schedule
Growth	Geometry	Strip ratio	Continuity	u/g support	Tails	Planning & design	Planning & design	Risk
Land, ESG	Geotechnical	Ore control	Dilution	Selectivity	Land, ESG	Waste rock	Waste rock	Economics
Mining method	Grade and Metal	Dilution	Bulk density	Geometry	Waste rock	Mining method	Strip ratio	Reserves
Geometry	Continuity	Mining method	Grade and Metal	Mining method	Ore control	Volume	Economics	Grade and Metal

Deposit Technical Knowledge

Exploration	Drilling	Mineralization	Sampling & assay	Structure	Mineralogy	Geologic Model	Resource Estimation	Classification
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Map to Public Disclosure?



- Focus on **foundational technical work**.
- Robust **documentation**.
- **Identify QPs early**.
- Disclosure is to “reasonably informed investors”, **not** a dissertation or professional paper.
- Ensure **sufficient evidence** for all engineering and economic assumptions.
 - CoG, econ shell, pricing/costs, recovery, land, ESG, marketing, etc.
- Have a good **securities lawyer**.

SEC Disclosure Take-Aways

- **Risks:** U.S. litigation, historic lack of Resources, onerous reporting, achieve cost estimate targets.
- U.S. keen for domestic supply.
- Demand, especially in “EV” or battery metals.
- Direct exposure to U.S. retail investors.
- Be prepared for lengthy disclosure and detailed discussion on risk.
- QPs must understand liability exposure and specific area of expertise.
- Focus on sound technical work, transparency, and risk.





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eronald@srk.com