

Regional Mineral Potential Map Requirements, Products

- **Minimum requirements:**
 - YPAS work plan
 - Time and GIS resources for compilation (~5-6 months for each regional MRA)
 - Ability to convene a panel of experts from industry and government
- **Products:**
 - Easily accessible GIS compilation
 - Mineral Potential Maps and Open File Reports

Site-specific Mineral Assessments Requirements, Products

- **Minimum requirements:**
 - Geochemical (RGS) coverage
 - Adequate geological mapping
 - Ability to convey assessment panel
 - Ability to fill major gaps in geoscientific database (possibly involving seasonal field work)
 - Adequate time frame
- **Desired:**
 - Field work in conjunction with Renewable Resources
 - Geophysical coverage
- **Products:**
 - Characterization of geochemistry, geology
 - Tool for achieving compromise within a study area

Methodology - YTG

■ Phase 1 - Regional Mineral Potential Maps

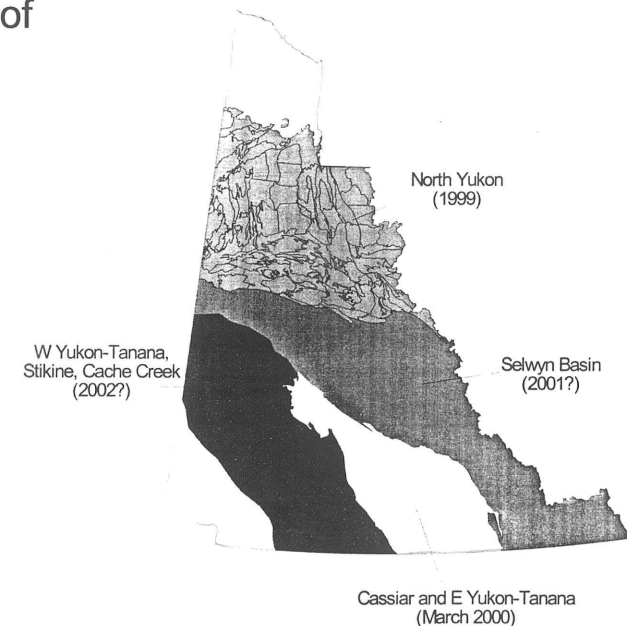
- Compilation (~4 months)
- Large tracts
- Assessment panel (4 days)
- Computer simulation (1 month)
- Relative ranking
- Mineral potential maps, Open File Reports (1 month)
- Characterize a broad range of mineral deposits

■ Phase 2 - Site-Specific Mineral Assessment

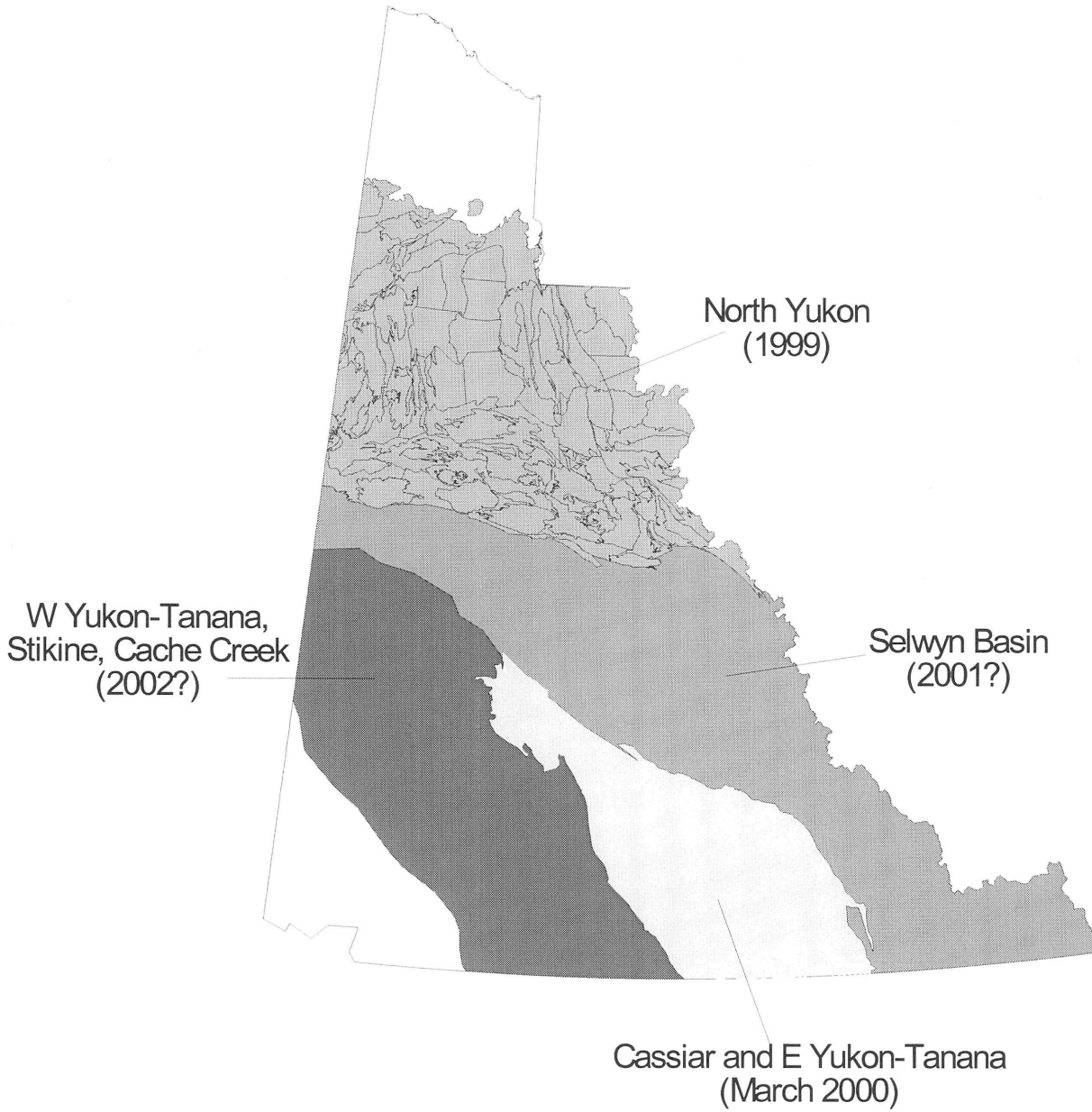
- Compilation and gap analysis (~2 months)
- Filling gaps (1 field season)
- Small tracts
- Assessment panel (1 day)
- Relative ranking by consensus
- Annotated Mineral potential map (1 month)
- Characterize few styles of mineral deposits

2000/03/03

Regional Mineral Resource Assessments Phase 1



Regional Mineral Resource Assessments Phase 1



Anna.Fonseca

From: Lois.Craig
Sent: Wednesday, February 02, 2000 10:42 AM
To: Anna.Fonseca
Cc: Ken.Galambos; Judith.Balsor
Subject: RE: Summary of MRA in other jurisdictions

many thx Anna. I spoke with Maurice-- he was keen to have the mineral assessment presentation that we spoke about this am next week-- Judith will try to set up for Tues or wed pending everyone's schedule. also I will talk to john masterson about having a few slides on oil and gas assessments also so that it will cover both areas off. thx for your work on this. Joanne is also welcome to attend the presentation/discussion.

--Original Message-----

From: Anna.Fonseca
Sent: Wednesday, February 02, 2000 10:01 AM
To: Lois.Craig
Subject: Summary of MRA in other jurisdictions

This file was updated just before Roundup, but there will be many more updates once we add the information obtained during the Mineral Resource Assessment Meeting.
<< File: Summary.doc >>

. did you get from Lois exactly what she wants to hear about?
- Summary of other jurisdictions or our MA process?

633-6413

MINERAL RESOURCE ASSESSMENTS

More on Mineral Resource Assessments

The following is a policy position on mineral resource assessments as used for land use planning, put forward by the Canadian Institute of Mining, Metallurgy and Petroleum. It appeared in the February edition of the CIM Bulletin. Interestingly, it mirrors many of the concerns the OPA has had with the MRA process

Towards development of an industry-wide position on the use of mineral resource assessments

The Canadian Institute of Mining, Metallurgy and Petroleum (CIM) has been asked by the Prospectors and Developers Association of Canada (PDAC) to participate through the Canadian Mineral Industry Federation (CMIF) in the development of an industry-wide position on the use of Mineral Resource Assessments (MRA's). The PDAC is of the opinion that the position to be taken by CMIF should be to support the use of MRAs, as they are the only tool currently available to Mining Departments to influence land-use decisions, and they are a potential mechanism for industry to participate in the process of land-use planning at an early stage.

Following the review of a report on the PDAC proposal by the former president of CIM, David Robertson, the Institute, at its Council meeting on August 20, 1995, passed a motion to become involved, in a technical capacity, in the process of developing an industry-wide position on the use of MRAs. However, the considered consensus of Council was that, because the resource assessment process is so basically unsuited to the mineral sector and is philosophically and scientifically flawed, the responsible position of industry should be to educate government agencies of their misguided use of MRAs and to convince all concerned of the merits of multiple land-use policies.

The concept of MRAs arose in the 1960s and 1970s as a method of forecasting future supply areas for commodities (uranium supply was a prominent reason at the time), in face of a perceived, very large increase in demand which could not be met with the then-known supply. The results of the assessments were perceived to be a basis for planning for the future

Today, the results of MRAs are perceived to be a reasonable basis for "planning for the future" in connection with restrictions on the use of land.

In essence, the use of MRAs has changed from a forward looking positive, predictive process to assess the potential that an area might host resources, to a restricting negative, backward looking process which seeks to identify areas of low resource potential, which can then be assigned special status and be given up for other land use, effectively eliminating any future exploration and evaluation.

The basic concerns with MRAs are:

1. They are a poor basis for prediction. History has repeatedly demonstrated that our knowledge of geology and the controls on location of mineral deposits remains so rudimentary that MRAs do not provide a basis for predicting (let alone planning) the location of future exploration successes. To give two examples:

Based on information available in Canada only five years ago, the area south of the Lupin-Contwoyto Lake gold camp and north of the Yellowknife gold camp might easily have been rated by an MRA as having low mineral potential and been selected for withdrawal as terrain representative of a northern tree line - barren lands transition ecosystem. Today it is the setting of Lac de Gras, North America's first and the world's next diamond field. Likewise, the area on the Labrador coast, midway between Nain and Davis Inlet, which lies outside the conventional area of mineral settings in Labrador, might have been assessed as low mineral potential, been designated for some other use and withdrawn from exploration. Today as we all know, it is the setting of Voisey's Bay - the most significant new mineral discovery in Canada in decades and a major new world supply source for nickel and cobalt.

2. Demands, techniques and technology are ever changing.

The ever-changing demands for different commodities and the constant evolution of new exploration techniques and metallurgical technology make it impossible to predict today which commodities and deposit types may be required, which

deposits maybe economic, or where deposits may be detected in the future.

3. MRAs are seldom of the highest quality and are only, at best, point in time snapshots of our knowledge. CIM also has the same practical concerns about the completion and use of MRAs as expressed by the PDAC:-- namely the quality of the information on which they are based, the qualifications and experience level of the individuals conducting MRAs: the limited time frame in which they are conducted and the fact that MRAs are one-time snapshots of our knowledge which are being used in land use decisions and which are of a permanent nature

The PDAC Proposal

The PDAC, in its position paper dated June 21, 1995, advocates that the mineral industry support the use of MRAs as a tool in the decision-making process for land-use planning. It suggests that this support be conditional on:

- 1) government acknowledging the shortcomings of MRAs, and
- 2) government introducing certain practices and safeguards to address those aspects of the process which are possible to improve

CIM Position—Discussion

The Canadian Institute of Mining, Metallurgy and Petroleum, as an association of mineral industry professionals in Canada, has a clearly stated commitment to natural ecosystems and for environmentally responsible exploration and mining practices. As a co-signatory to the Whitehorse Mining Initiative, it is an advocate of the importance of a sensible balance between environmental protection and sufficient mineral exploration and development to maintain a sustainable mining industry and to continue to create new wealth for the Canadian economy

Considering these commitments in the context of MRAs, CIM has a duty to point out the fundamental technical flaws in the whole principle of MRAs as they are used today in the process of land-use planning. It is simply not possible to evaluate the mineral

Property Name: DAD

Location/NTS: NTS 105F8&9 Immediately adjacent to the Ketzta Gold Mine.
Road access.

Owner: Ron Berdahl
Box 5664
Whitehorse, Yukon
Y1A 5L5

Description of Mineral Holdings: The property consists of 39 claims (1950 acres) covering Iona Silvers old showings including several adits w/silver reserves with numerous access roads and adjacent air strip.

Minerals/Metals Present: Au, Ag, Pb, Zn, Cu, Cd

Nature of Mineralization: Mineralization appears variable with stratiform oxide and sulfide Au mantos as well as Ag Pb Zn veins, mineralized quartz veins etc. Gold values are widespread with values to 3/4 opt. Gold values to 1/2 opt are present in old adits and dumps (old silver workings). Several mantos oxide deposits outcrop with one zone traced 46m and averaging 3.4 g Au over 4m. 'Stratiform' sulfides return anomolous Au values (to 5g+). One Canamax drill hole returned 6.9g Au over 13.3 m. Riba claim geology is identical to the Ketzta mine now thought to be stratigraphically controlled Au deposit. Zn, Ag, Cu, Pb, Cd minerology suggest VMS targets. Many massive galena (\pm Zn Cu Ag Cd) showings/float occurences.

Exploration History: The area was 'discovered' in 1947 with immediate development of the silver galena showings and discovery of the adjacent Ketzta Au deposit in the 1950s. In the 1960s several adits (700 + 800 on Ketzta Key, 58m Hoey etc.) were driven and silver reserves estimated. Canamax optioned the property from Iona Silver in 1985 and trenched and drilled (core at mine site). Canamax gold operation collapsed and ground was dropped. Restaked by Berdahl in 1995.

Contact: Ron Berdahl
Box 5664
Whitehorse, YT.
Y1A 5L5
403- 668-4963

Mineral Resource Assessments - cont'd

(Continued from page 5)

resource potential of an area, in the same way as biological resource potential such as forestry and wildlife can be pre-evaluated for consideration in the process of land-use planning.

The only true "mineral resource assessment" of any area is the ongoing and open-ended market and knowledge-driven process of mineral exploration itself, a process which is investment-financed. (The only alternative - a complete saturation ground "assessment" by government, using all state-of-the-art geological, geophysical and geochemical methods would be prohibitively expensive to the taxpayer and may still be inconclusive.)

The fact should also be recognized and pointed out to all concerned that mineral exploration is an assessment process rather than a long-term land use. It is a temporary passing activity which has little or no impact on the natural environment and habitats and which seldom conflicts with other land-use designation.

As all of us in the industry are aware, the actual land-use requirement (the footprint) for the success of exploration; an economic mineral deposit - is very small indeed, and when considered in the context of the value added to society for the temporary use of the land, it far outweighs the value of most other uses. An example of this is Westmin's Myra Falls operation in the context of Strathcona Provincial park on Vancouver Island. Also, mine closure and reclamation procedures and regulations today ensure complete land restoration

This again underscores the importance of adopting a multiple land-use approach as advocated by the PDAC and as expressed by the CIM Council. It also fits with the declaration of all signatories of the Whitehorse Mining Initiative that not all protected areas have to be single use.

Conclusion

Even with total agreement on methods and highest standards for conducting MRAs and agreement on their proper use in the land-use process, the fact remains that it is not possible to state that mineral deposits do not occur in any particular area

Given the commitment to proper environmental responsibility by the industry during exploration, mine development, production, closure and reclamation, and the strict regulation and safeguards imposed on our activity by law, there should be less need for the exclusion of large areas from exploration and mining because of environmental and or other land use conflict.

CIM takes the position that the use of MRAs by governments in land-use planning should be discouraged and that CMIF should work to educate those concerned of their shortcomings and to convince the public and governments that a responsible multiple land-use approach, under strict guidelines, is the only sustainable mode of procedure to an intelligent, caring society."

Red Lake C of C - Resolution

Resolution to be presented to the Red Lake District Chamber of Commerce meeting of February 13th, 1996.

Whereas - the Provincial Government Mines and Minerals Division Field Offices (Resident Geologist-Mining Recorder) provide invaluable and essential services to the Mining Exploration Industry - and -

Whereas - the aforesaid Field Offices contain irreplaceable and accessible records of decades of exploration assessment work and claims history relating to their areas of the Province - and -

Whereas - Provincial Budget reduction targets threaten the continuing existence of the above mentioned already sparse Field Office Network at a time when there is a renewal of interest in all aspects of Mineral Exploration in Ontario - and -

Whereas - experience elsewhere in the Province has shown that there is a high probability that

most if not all budgetary retrenchment will take place at the Field Office level - and -

Whereas - the Mining industry, a major contributor to the Ontario Economy in the past, continues to enjoy unlimited potential for the future development of additional ore bodies and mines - and -

Whereas - the Provincial Economy is stimulated through job opportunities and wealth creation when the aforementioned Exploration activities culminate in Mine Development.

THEREFORE BE IT RESOLVED THAT - the Premier and the Minister of Northern Development and Mines be lobbied and encouraged to preserve the Mines and Minerals Division Field Office (Resident Geologist, Mining Recorder) Network during this period of renewed Mining Exploration activity and to ensure that these fundamental services be preserved to continue their vitality

KIRKLAND LAKE - Cont'd

(Continued from page 3)

We encourage the Ministry not to consider the size of our division as a detriment. Size should have no bearing on the location. It should be based on need and there is no greater need than Kirkland Lake. The demand for the service is there and the results are evident by the growing production of gold.

Kirkland Lake is a mining community. We are familiar with the ups and downs of the industry and the effect it can have on our community. In 1940, we boasted a population of 25,000 people and was the "Hub of the North". With mine closures and growing technology in the mining field our

population has declined to 10,000 people. Despite this fact, the prospectors and the mining community continued to work diligently in the Kirkland Lake camp. With the assistance of the Mining Recorders/Resident Geologist office, the prospectors have continued to make discoveries and continue to make Kirkland Lake one of Ontario's most productive and sustaining gold camps.

The Mining Recorders/Resident Geologist office is the foundation of the industry. It is the starting place of all discoveries. We request you keep the foundation in place by maintaining the Mining Recorders/Resident Geologist office

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