ABANDONED MINES
IN THE YUKON

THE FINANCIAL PICTURE

A Presentation by Lewis Rifkind, Mining Analyst
January 29th, 2019 – Whitehorse Public Library
Topics for tonight

• About the Yukon Conservation Society
• What is an abandoned mine?
• What has to be done to abandoned mines?
• Financial shenanigans
• Government responsibilities
• Financial security
• Possible changes to the system
Yukon Conservation Society

The Yukon Conservation Society (YCS) is a grassroots environmental non-profit organization, established in 1968. We pursue ecosystem well-being throughout the Yukon and beyond, recognizing that human well-being is ultimately dependent upon fully functioning healthy ecosystems.

Learn more about us online:

www.yukonconservation.org
Thank you sponsors!

And these groups who enable us to be a ‘watchdog’ for mining in the Yukon:
Presentation by Lewis Rifkind

YCS Mining Analyst since 2008
Topics for tonight

• About the Yukon Conservation Society
• **What is an abandoned mine?**
• What has to be done to abandoned mines?
• Financial shenanigans – sending in the accountants
• Government steps up to shoulder the burden
• Financial security
• What is to be done
What is an abandoned mine?

- Orphaned or abandoned mines are those mines for which the owner cannot be found or for which the owner is financially unable or unwilling to carry out clean-up.

Abandoned mines in the Yukon

- Clinton Creek
- Faro Mine
- Ketza River
- Mt Nansen
- Keno Complex

What is an abandoned mine?

http://www.emr.gov.yk.ca/aam/location_type_two_mines.html
Modified by YCS
Keno – example of the future?

• Elsa Reclamation and Development Company Ltd., a unit of Alexco Resource Corp., owns the former assets of United Keno Hill Mines (UKHM) and is responsible for the care and maintenance of the properties and the eventual reclamation and closure of the overall UKHM sites through a funding agreement with Yukon and Canada.

• Alexco Keno Hill Mining Corp., a separate subsidiary of Alexco Resource Corp., has been incorporated for the purpose of mineral extraction.
  • http://www.emr.gov.yk.ca/mining/bellekeno.html

• Faro and Mt. Nansen may take a similar route.
Mine sites of note (but not abandoned)

- Whitehorse Copper
- Brewery Creek
- Sa Dena Hes
- Wolverine
- Tom
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Abandoned mines need...

- **Care and Maintenance:** Ongoing activities such as site inspections, water monitoring and treatment, site safety and security to protect human health, safety and the environment.

- **Remediation:** Treating or removing contaminants from a site for the protection of human health and the environment.


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**Yukon Zinc’s Wolverine Mine on Care & Maintenance**

Vancouver, BC – January 27, 2015 – Yukon Zinc Corporation (“Yukon Zinc”) announces that it is in the process of temporarily shutting down its Wolverine Mine in the southeastern Yukon due to unfavorable market conditions. A notice of change of operations has been submitted to the Yukon government and the mine site is being put into “care & maintenance” following the cease of mining activities. About 140 of Yukon Zinc employees will be put on temporary layoff over the next few weeks. Approximately 80 contractor positions are also affected.

“This is a very difficult decision and we understand the impact it has on our employees, contractors and local communities,” said the company’s CEO, Jingyou Lu. “We will continue to review the situation and decide the best way forward.”

The Wolverine Mine has been operating at around 75% of its capacity since October 2013. The mine had extracted and processed nearly two million tonnes of ore since commencement of production in early 2011.

**About Yukon Zinc**

Yukon Zinc Corporation is an emerging mining and exploration company operating the Wolverine Mine in Yukon, Canada. Wolverine Mine produces zinc, copper and lead concentrates that contain silver and gold. Yukon Zinc is based in Vancouver, Canada and is privately owned by Jinducheng Canada Resources Corporation Limited.
Mine closure isn’t necessarily abandonment

Mine closure is a term used by the mining industry to describe a period of time when the extracting activities at a mine site have ceased but the final decommissioning of site infrastructure and reclamation of disturbed areas has not been completed. [http://www.emr.gov.yk.ca/aam/remediation_planning.html](http://www.emr.gov.yk.ca/aam/remediation_planning.html)
Temporary closure

• Closure in which mining-related activities cease with the intent of resuming activities in the near future.

• May be planned or unplanned and could arise from a variety of circumstances including financial challenges, design failures, extreme climatic conditions, etc.

• Temporary closures may last for weeks, or could extend for years. Maximum durations of temporary closure periods are frequently defined in QMLs and WLs.

• **Permanent closure** is a closure in which there is no intent to resume mining activities at the site and the mine project proceeds to remediation – ideally.
  
Temporary closures in the Yukon

- Wolverine Mine
- Minto Mine

Yukon's Minto mine mulls temporary closure as copper price sags

'A temporary closure could last six months, it could last 24 months,' says mine manager

CBC News - Posted: Dec 23, 2015 2:01 PM CT | Last Updated: December 23, 2015
Remediation vs. reclamation

**Remediation**: Treating or removing contaminants from a site for the protection of human health and the environment.

**Reclamation**: A term used by the mining industry to describe the process of restoring land that has been mined to a natural or economically usable purpose once mining activities have ceased on the site.
  - [http://www.emr.gov.yk.ca/aam/remediation_planning.html](http://www.emr.gov.yk.ca/aam/remediation_planning.html)

What has to be done to abandoned mines?
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Mining companies: Privatizing profits, socializing risks

A company is a legal entity which permits a group of people (shareholders) to apply to the government for an independent organization to be created, which can pursue set objectives and is empowered with legal rights usually reserved for individuals, such as to sue and be sued, own property, hire employees or loan and borrow money.

The primary advantage is that it provides the shareholders with a right to participate in the profits without any personal liability.
When mining companies can’t pay the bills

• When companies get into serious financial trouble and cannot pay their debts, they have three possible remedies:
  • Selling the company to another company;
  • Seeking to “restructure” under the Companies’ Creditors Arrangement Act;
  • Going bankrupt under the Bankruptcy and Insolvency Act.
    • Understanding mining company bankruptcy and restructuring in Canada, Joan Kuyek DSW

Financial shenanigans
Federal legislation to the rescue (for the miners)

- The **Companies’ Creditors Arrangement Act** (CCAA) is “to facilitate compromises and arrangements between companies and their creditors”. The Act provides a method by which the company is “restructured” by way of a court-appointed “monitor” or trustee to satisfy at least 2/3 of those to whom the company owes money. Generally all creditors receive a portion of what they are owed, so that the company can continue to operate.

- The **Bankruptcy and Insolvency Act** can be used at the same time as the CCAA but is usually involved after the CCAA process has failed. The debtor company’s assets are placed in the hands of a trustee appointed by the court. The assets and/or the company itself are sold (usually for very little) and the receipts distributed to those to whom the company owed money. This is called liquidation. This process can take a very long time to be resolved.
  - *Understanding mining company bankruptcy and restructuring in Canada*, Joan Kuyek DSW
Who’s in charge?

- **Receivership**: A situation where a company, the receiver, is placed in a custodial position to manage the assets, property, rights and affairs of another organization.
  - [http://www.emr.gov.yk.ca/aam/resources.html](http://www.emr.gov.yk.ca/aam/resources.html)
- Often, the company that takes over has no mining expertise.

Faro Mine

Financial shenanigans
Who gets paid?

• During either process, money is distributed to these groups in the following order of priority:
  • The administrative costs of the bankruptcy or monitor
  • Workers and employees and employee pension plans
  • Government obligations (taxes, health tax, unremit ted worker deductions, EI, etc.)
  • Secured creditors
  • Equity interest (shares, interest, etc.)
  • Unsecured creditors (many small businesses)
    • E.g. Wolverine restructuring: creditors owed more than $5,000 got up to 11.5 cents on the dollar; those owed less than $5,000 paid in full. 273 creditors, representing $20,659,309 in claims.
  • Not on the list: care/maintenance and remediation (separate bond)
    • Understanding mining company bankruptcy and restructuring in Canada, Joan Kuyek DSW
Are company directors liable?

- Directors have personal liability only for unpaid wages, accrued vacation pay and termination and severance pay.

Taxpayers (not company directors) paying for care/maintenance and remediation of the Faro Mine tailings and related ponds

- pic Yukon Conservation Society
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Is the federal government responsible?

• Yes, but only for mines approved prior to April 1, 2003.

• Yukon Government (Assessment and Abandoned Mines branch) is responsible for administrative care and control of abandoned sites: ongoing care and maintenance operations and the development and implementation of a remediation plan.

• Financial responsibility for abandoned Type II sites resides with the federal government. It provides 100% of the funding for site care and maintenance operations as well as for the development of long-term remediation plans. This funding is provided through the Federal Contaminated Sites Action Plan. The federal responsibility is managed through the Department of Indigenous and Northern Affairs Canada (INAC).
  • [http://www.emr.gov.yk.ca/aam/about_abandoned_mines.html](http://www.emr.gov.yk.ca/aam/about_abandoned_mines.html)
Federal costs

- **Keno**
  - $111.5 million

- **Clinton Creek**
  - About $3 million spent to date, anywhere from $20-$80 million to remediate (YCS guesstimate)

- **Mt Nansen**
  - Will probably take $70-$90 million to clean up

- **Faro Mine**
  - Cleanup estimated to cost more than $500 million (and have spent $350 million so far)

- **Ketza River Mine**
  - Have spent $3.1 million (as of 2015)
Is Yukon Government responsible?

• Yes, but only after April 1, 2003. Yukon took over land and resource management responsibilities from the Government of Canada in devolution.

• This means Yukon could be responsible for...
  • Wolverine
  • Victoria Gold
  • Coffee
  • Casino

• [http://www.emr.gov.yk.ca/aam/about_abandoned_mines.html](http://www.emr.gov.yk.ca/aam/about_abandoned_mines.html)
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What is security?

Security may be required

139(1) Where there is a risk of significant adverse environmental effect from a planned designated Class 1 exploration program or Class 2, Class 3 or Class 4 exploration program or from planned development or production,

(a) the person giving the Notification may be required by the Chief;

(b) the applicant for approval of an operating plan, the holder of an approved operating plan, or the prospective assignee of an approved operating plan, may be required by the Chief; or

(c) the applicant for a license, the licensee, or the prospective assignee of a license, may be required by the Minister

to furnish and maintain security with the Minister, in an amount specified in, or determined in accordance with, the regulations made under paragraph 149(n) and in a form prescribed by or pursuant to those regulations or a form satisfactory to the Minister.

“Where there is risk of significant adverse environmental effect...”

Yukon Quartz Mining Act
Yukon financial security

• Financial security for mining and exploration projects in Yukon is held under a quartz mining licence, a mining land use approval or a Type A/B water licence.

• The amount and form of security is determined pursuant to the Quartz Mining Act and the Waters Act.

• [http://www.emr.gov.yk.ca/mining/security_held_mining_projects.html](http://www.emr.gov.yk.ca/mining/security_held_mining_projects.html)

Financial security held for mining projects

<table>
<thead>
<tr>
<th>Project name</th>
<th>Pursuant to Waters Act</th>
<th>Pursuant to Quartz Mining Act</th>
<th>Total security held</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brewery Creek - Golden Predator Canada Corp.</td>
<td>$455,163.00</td>
<td></td>
<td>$455,163.00</td>
</tr>
<tr>
<td>Carmacks Copper - Carmacks Mining Corp.</td>
<td></td>
<td>$80,300.00</td>
<td>$80,300.00</td>
</tr>
<tr>
<td>Eagle Gold - Stratagold Corporation</td>
<td>$2,433,471.00</td>
<td>$14,697,581.00</td>
<td>$17,131,052.00</td>
</tr>
<tr>
<td>Keno Hill Silver District Operations - Alexco Keno Hill Mining Corp.</td>
<td></td>
<td>$6,304,508.00</td>
<td>$6,304,508.00</td>
</tr>
<tr>
<td>Minto - Minto Explorations Ltd.</td>
<td>$22,965,581.00</td>
<td>$49,177,572.00</td>
<td>$72,143,153.00</td>
</tr>
<tr>
<td>Sä Dena Hes - Sä Dena Hes Operating Corporation</td>
<td></td>
<td>$4,941,924.00</td>
<td>$4,941,924.00</td>
</tr>
<tr>
<td>Wolverine - Yukon Zinc Corporation</td>
<td>$94,000.00</td>
<td>$10,524,956.00</td>
<td>$10,588,956.00</td>
</tr>
</tbody>
</table>

Total financial security for mining projects $111,645,066.00
How is security determined?

- Company puts forwards a figure
- Yukon Environmental and Socio-economic Assessment Board (YESAB) looks at it but can only make a recommendation regarding it
- Yukon Government looks at it (forms part of the mining license) and determines an amount
- Yukon Water Board (YWB) looks at it and can also determine an additional amount
Wolverine Mine – the next abandoned mine?

By way of this letter, I wish to advise you that work required to determine the new security amount to be furnished by YZC, and its form, has been completed. This determination was informed by the Plan that was submitted by YZC, a third party review by consultants retained by the Yukon government and comments received from other Yukon government departments. It was also informed by YZC’s own security update – YZC’s updated security estimate of $25,907,086 that was submitted in the Plan is significantly higher than the $10,588,966 currently furnished by YZC.

Therefore, pursuant to paragraph 11.3 of the License, I am now providing you with written notice that the total security to be furnished and maintained by YZC is $35,548,650 inclusive of the $10,588,966 currently furnished by YZC.

May 2018

The YCS guesstimate of taxpayer liability

Federal:
- Faro $500 million
- Keno Complex $111 million
- Mt Nansen $70-90 million
- Clinton Creek $20-80 million
- Ketza River $25 million
- Montana Mtn Sites $10 million

Yukon:
- Wolverine $25 million

For comparison:
- Yukon Arts Fund $500,000 annually
- Conrad campground $576,000 from YG
- Centre of Hope $14 million total
- New Francophone school $29 million total (est.)
- FH Collins rebuild $51 million total

https://www.whitehorsestar.com/News/contract-for-29m-awarded-for-francophone-high-school
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How the public can ask for adequate security

• During the YESAB public comment process
• During the YWB public comment process
• ...or we can change the system

Faro mine
What YCS is doing

• Submitting environmental comments during YESAB and Water Board processes
• Raising public awareness with presentations, campaigns, interviews with media
• Advocating for changes in policy and legislation
• Keeping an eye on mines (thanks LightHawk!)
What more could be done?

- Change the bankruptcy laws regarding mining (should Directors be liable?)
- Increase the financial security mining companies must pay (better to have too much than too little?)
- Approve mines with acceptable and realistic closure plans and appropriate funding
- Establish an Abandoned Mine fund
- These can be part of the cost of doing business in a stable, politically supportive environment
Conclusions

Mining in the Yukon is all about privatizing profit and socializing risk.

Getting sufficient financial security before things go bad is important – but hard.
Thank You

Thank you to our sponsors, members, and volunteers, especially our mining committee.

Become a YCS member to support more work like this!
Questions?

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