



# **Dawson Regional Land Use Plan**

**May 11, 2021**

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# Overview

- **Yukon Chamber of Mines, Our Commitments**
- **Our Economy and Financial Contribution**
- **Availability of Land**
- **Claim Staking**
- **In the Words of Industry**
- **Doing Business in Yukon**
- **Mining, Then, Now and into the Future**

# YCM Roles and Commitments

- Advocate and represent the interests of the Yukon Mining Industry
- Highlight how Yukon's mineral industry uses innovation and technology to ensure safe, economical and efficient mineral exploration, mineral development, mine production and mine reclamation
- Track and communicate how all of these activities contribute socio-economic benefits for Yukon
- Engage with Industry to ensure the people behind the companies voices are heard and they are seen for their contributions to our communities



# Community and Economy

- **Industry understands that social, economic and environmental goals are interconnected.**
- **The work to ensure future generations can live and make their livelihood here in the territory starts with decisions made based on science, transparency and in collaboration with all partners**
- **Industry understands they need the support from the community to build successful projects and to ensure that there is protection from irresponsible activities on the land**
- **Focus on environmental stewardship vs land withdrawals and ensuring close partnerships is the key to a healthy future of exploration and mining in today's Yukon**



# Financial Contribution of Industry

- **Exploration Expenditures in Dawson 2019-2020: \$77,064,929.54 (Yukon Geological Survey)**
- **Whole of Yukon 2019-2020 Exploration: \$187 million**
  
- **Development Expenditures in Dawson 2019-2020: \$42,833,524.00 (Yukon Geological Survey)**
- **Whole of Yukon Development 2019-2020: \$277 million**
- **The financial contribution to Yukon made by Industry is significant. Without these expenses local Yukon businesses, who provide Industry services, would shoulder the losses in this revenue.**



# Land Availability

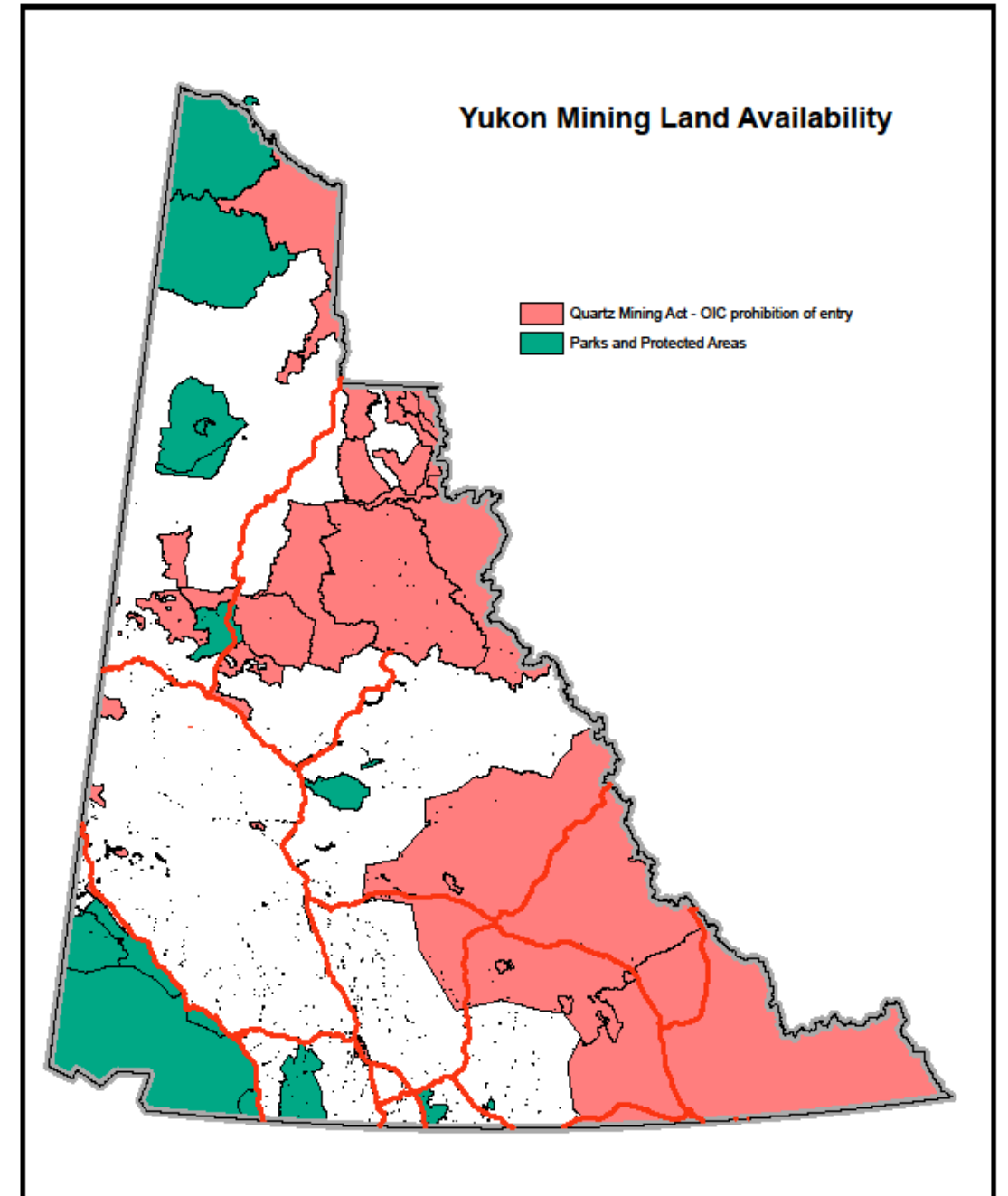
- **We need to include economic value not just potential, where there are claims. If you sterilize an area what is the economic cost of that action? What is the science behind the behaviour of staking a claim? We will look at the answers to these in our questions to industry ahead**
- **When there is an order to prohibit entry onto certain lands without looking at mineral potential or the reasons behind exploration and staking, the industry perception is that there is a predetermination behind the land planning process. Mineral exploration works to eliminate lands from further disturbances by eliminating the potential for project success in specific areas.**
- **Land withdrawals can have a direct impact on companies ability to attract investors, when their claims are left stranded with no access**



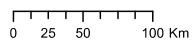
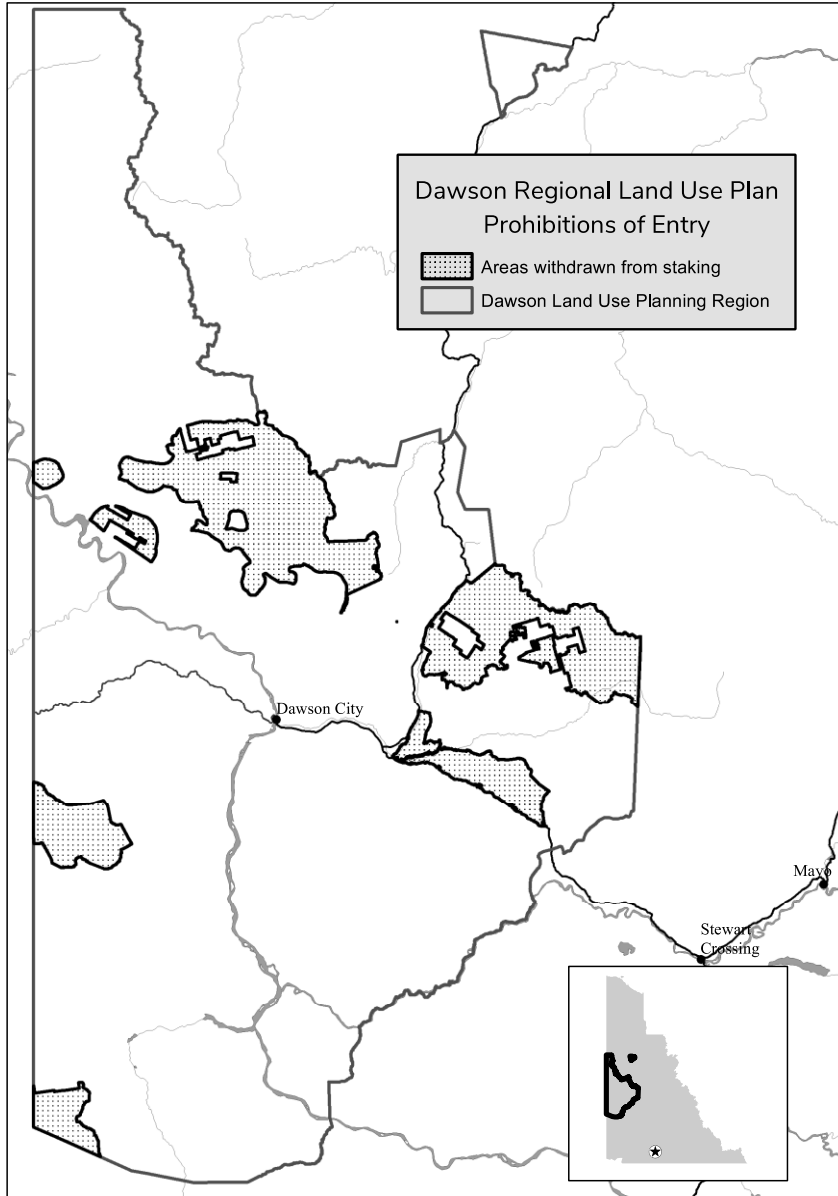
51.79 % of Yukon land withdrawn from mineral staking (not included is wetland land removal)

Parks and Protected Areas: (Sq km) 61,473.61 12.714%

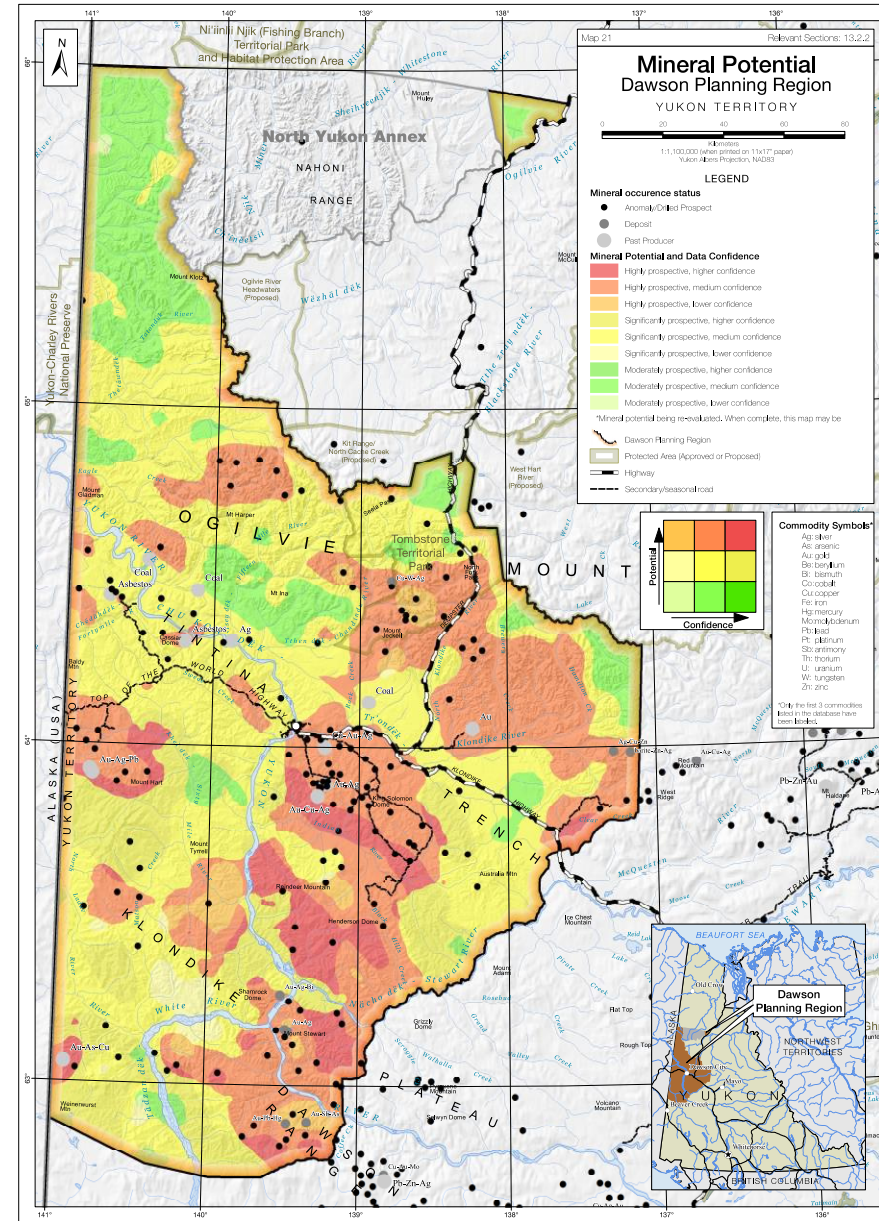
Quartz Mining Act Order-in-Council (OIC) Prohibition of Entry Area (Sq km) 188,795.32 39.046% of Yukon



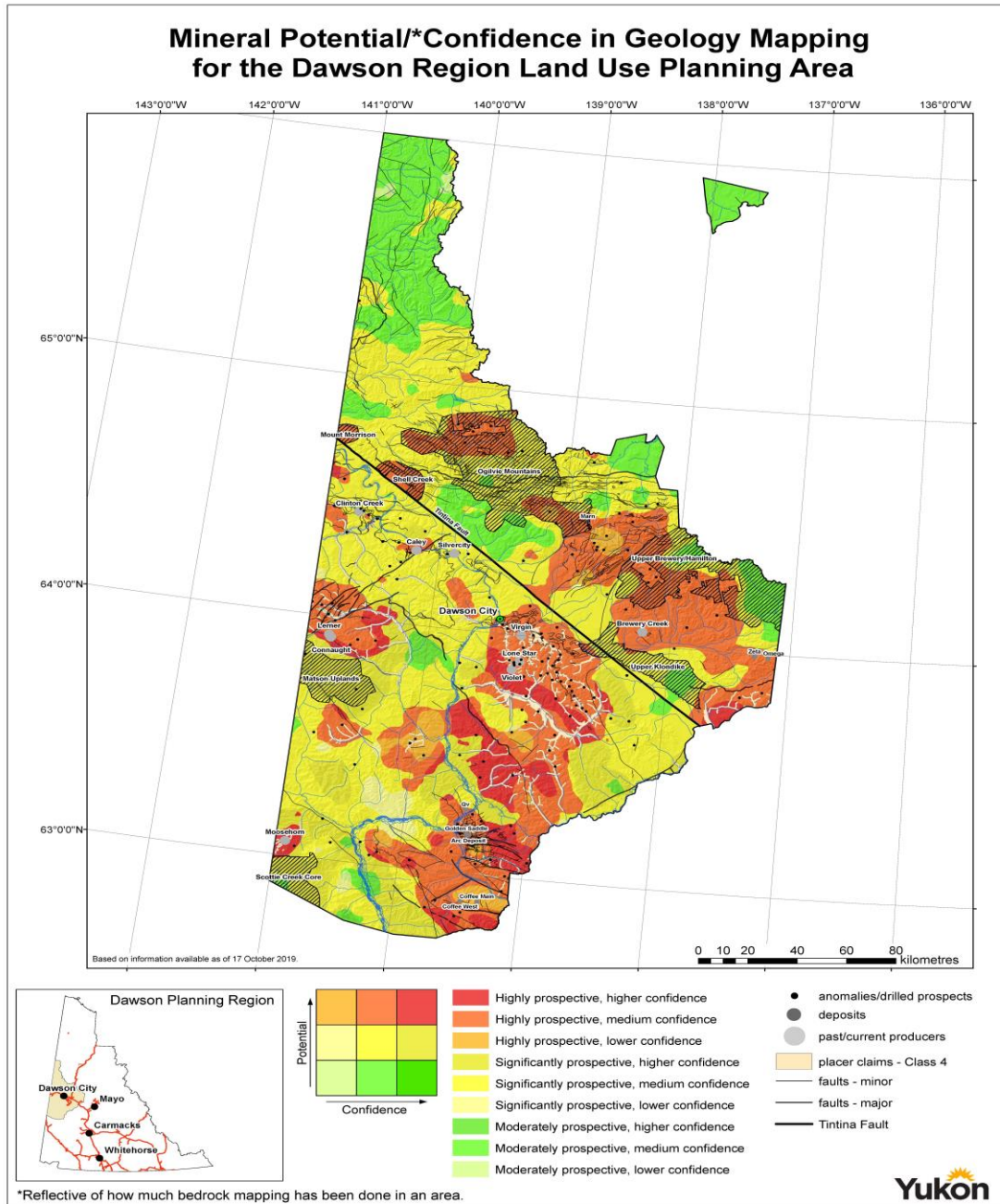
# Lands Withdrawn March 11, 2021 (Yukon Government OIC)



# Mineral Potential Dawson Planning Region (Yukon Geological Survey)



# Land Withdrawals and Staking Prohibitions



- The staking prohibition surrounds claims that have been in existence since as early as the 1990's and the land withdrawals have created uncertainty for the owners of those claims. Those claim owners were not consulted or informed of what values or reasoning led to the withdrawals
- Access is one of the biggest issues facing mineral exploration. No investor is looking to fund a project that is land locked. When land is withdrawn surrounding high probability deposits it delivers the most damage to industry and sets up for conflicts. Before a process can begin industry is discouraged, disillusioned and has mistrust of the process
- It is unlikely that additional staking or project expansion will occur until claim holders/owners uncertainty is satisfied or the process is complete

# Impacts and Repercussions of Claims stranded in the Dawson region

- **Difficulties in marketing and further exploration of existing stranded claims have made things difficult for individual prospectors and exploration companies, and in some cases the loss of investors and partnerships have occurred.**
- **Claims that may not be economical to pursue today may become so in time. Future access will need to be considered decades from now**
- **Land withdrawals impact 43-101s where the potential ore body is stranded (Any public company listed on the TSX-V or equivalent or hoping to become so, must have at least one “Property of Merit” , a NI 43-101 Technical Report accredited by a professional biologist and approved by the BC Securities commission (or equivalent)) . The technical report provides assurance for investors and commits to the deposit types, location, economic analysis, environmental studies etc. of a project.**

# Land Use Planning vs. Claim Staking 2017-2021

In the next two slides the numbers of claims that are staked when a land use process begins and is taking place does NOT correspond with an increase in staking. In fact Quartz staking went DOWN during the years from 2017-2021 with even more quartz claims lapsing in the Dawson region than were staked.

Placer claims show a correlation with the price of gold, showing more placer claims lapsing in 2018 than were staked.

Staking is driven by discovery. When a significant discovery is found i.e. White Gold deposit in 2008 and Coffee Deposit in 2009, staking increases. During land planning it decreases



# Land Use Planning Vs. Claim Staking 2017-2021



- Shown below are the claims staked and the claims that lapsed from 2017-2021 in the Yukon

Year	Gold Price (CDN\$)	Quartz Claims Staked				Placer Claims Staked				Quartz Claims Lapsing				Placer Claims Lapsing			
		Dawson Qtz	Mayo Qtz	Watson Lake Qtz	Whitehorse Qtz	Dawson Placer	Mayo Placer	Watson Lake Placer	Whitehorse Placer	Dawson Qtz Lapsing	Mayo Qtz Lapsing	Watson Lake Qtz Lapsing	Whitehorse Qtz Lapsing	Dawson Placer	Mayo Placer	Watson Lake Placer	Whitehorse Placer
2017	\$1,648	2763	3310	43	3466	739	573	0	856	3176	2460	32	3022	517	174	2	166
2018	\$1,600	1917	1148	507	1541	761	694	0	543	3198	3283	237	2522	796	123	1	366
2019	\$1,848	586	1238	20	826	1058	219	0	434	2719	7021	19	2072	442	41	0	239
2020	\$2,374	1040	1532	12	654	355	38	1	478	2667	2016	0	1194	165	0	0	33
2021		0	82	0	325	24	1	0	0	0	0	0	0	2	0	0	0

# Dawson Region Claims

In the years from when the re-establishment of the Dawson Regional Planning Commission in 2017 took place, until 2021, the number of claims staked are as follows: (Yukon Geological Survey)

Year	Column1	Quartz Claims Staked	Placer Claims Staked	Quartz Claims Lapsing	Placer Claims Lapsing
	Gold Price (CDN\$)	Dawson Qtz	Dawson Placer	Dawson Qtz Lapsing	Dawson Placer
2017	\$1,648	2763	739	3176	517
2018	\$1,600	1917	761	3198	796
2019	\$1,848	586	1058	2719	442
2020	\$2,374	1040	355	2667	165
2021		0	24	0	2

# In Our Own Words, Industry in the DRLUP region

(In the next 7 slides, I reached out to 6 different exploration and mining companies in the Dawson region and asked 7 questions to help engage in the Land use planning process. The answers had common themes so they were combined, except for the question on expenditures, slide 16)

- **1. Why are you developing your project in your location?**
  - Yukon has great potential for Mining; Yukon Government is generally supportive and Yukon First Nations have the experience working with mines
  - Yukon's high ore deposits (millions of ounces found in these locations already)
  - The Werneke Breccia is a world class IOCG (Iron Oxide Copper Gold) geological attraction

# In Our Own Words, Industry in the DRLUP region continued...

## 2. What is the biggest challenge to working in this location

- Lack of infrastructure (roads, communications, power). Lack of manpower and long and complicated permitting process. Lack of housing options.
- Access to claims/projects
- Helicopter access adds expense
- The weather, short season and terrain



# In Our Own Words, Industry in the DRLUP region continued...

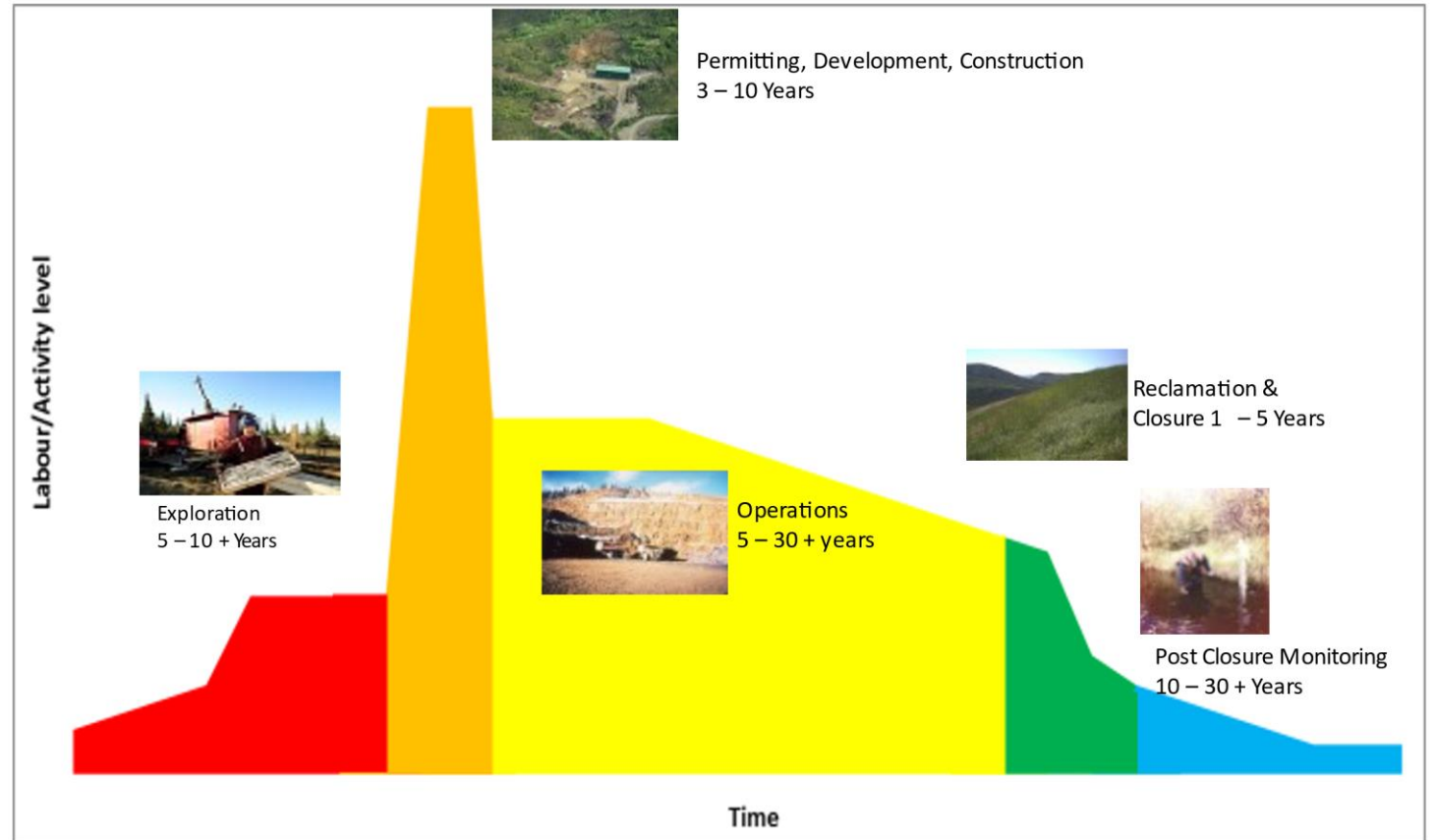


- **3. How long have you or other exploration companies been developing this resource? Have you or do you have short term plans to go from exploration to production on your location?**
  - **11 years with production beginning in 2025**
  - **20-30 years in some cases, future plans are dependent on access, funding, permits and licensing**
  - **The project was first worked in the 1970's. There was a brief resurgence of work in 2003. The new interest in battery metals world wide attracted us to the copper, cobalt and battery metal aspects of the project in 2018**

# Exploration to Post Closure Monitoring

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## The Mine Project Life Cycle



# In Our Own Words, Industry in the DRLUP region continued...

**4. How much money do you estimate you've spent in Dawson (expenditures related to your project/mine) in the last 2 years? How much money do you estimate you've spent in the Yukon**

**Industry Company one: -2019 - \$757,703**

**-2020 - \$472,280 Total 2019/2020: \$1,229,983**

**Industry Company two: - 2020 - \$11,025**

**Industry Company three: - 2019 - \$5,452**

**- 2020 - \$1,000,000 Total 2019/2020: \$1,005,452**

**Industry Company four: - 2020 - \$38,771**

**Industry Company five: -2019-2020 - \$350,000 in Dawson and \$800,000 in the Yukon**

**(Not included in these numbers: The amount of gold production from Brewery Creek, \$120M from 1996-2001 and from all placer deposits, \$1.4 billion for all of Yukon, 1886-2020)**

**Whole of Yukon 2019-2020 Exploration: \$187 million**

**Whole of Yukon Development 2019-2020: \$277 million**

# In Our Own Words, Industry in the DRLUP region continued...

- 5. What new technologies are you using or looking into to help lessen the impact on the environment?
  - fly rigs for exploration, reducing the need for road construction
  - Very Low Frequency (VLF) survey to identify targets, reduce the use of fuels, roads construction and trenching
  - Topographic lidar, (a method for determining ranges by targeting objects with a laser to map the land) also used to discover heritage sites
  - GT Probe, (powerful direct push probe mounted on a rubber tracked platform which is quickly driven to bedrock interface, rock and soil is extracted and XRF is analyzed on site to detect anomalies in real time, [www.groundtruthexploration.com](http://www.groundtruthexploration.com)) Cost efficient, replaces trenching, no return trip for sampling or reclamation, low environmental impact
  - Drones, can be used to survey large areas of land in a single flight and provide a 3D picture of the lands topography.
  - Low impact technologies. Artificial intelligence study using the entire suite of data to help target new areas of the property. IOCGs (Iron, Ore, Copper, Gold) are very susceptible to geophysics and these are generally low impact exercises
- (GroundTruth Exploration (Dawson Company) GT Prob in background Picture)

# In Our Own Words, Industry in the DRLUP region continued...

- **6. What is the hope for the next 5 years on this project?**
  - **Get the Screening report in 2021, Get QML in 2022. Get Type A water use license in 2023. Construction 2023-2025. First Gold 2025**
  - **Unless access to land and existing claims is ensured the future of mineral exploration and furthering of projects seems unlikely**
  - **Expanded diamond drilling focusing on all 3 main target zones to define a resource**

# In Our Own Words, Industry in the DRLUP region



- **7. How would you like to be consulted and engaged with during the land use planning process?**
  - **Have the ability to provide feedback on the plan, be able to understand/explain the impacts of the plan on projects**
  - **Be consulted as an Industry group**
  - **Transparent process with the collaboration between industry and decision making bodies**
  - **An engagement process that encompasses in person and written submissions into the Fall**
  - **Would like to see a whole of Yukon approach when it comes to land planning**
  - **Would like the process to conclude in a timely manner so projects can move forward**

# Yukon Legislation and Regulations: Doing business here in the Yukon

**Yukon's heavily regulated Exploration and Mining Industry, as shown below, are a few examples of how our industry is overseen in the Yukon:**

- 43-101 National Instrument, Standards of Disclosure for Mineral Projects, Securities Act
- Quartz Mining Act and Placer Mining Act
- Quartz mining land use regulation: Class 1,2,3 and 4
- Yukon Mine Site Reclamation and Closure Policy (2008)
- Metal Mining Effluent Regulations (MMER 2002)
- Territorial Lands (Yukon) Act
- Environment (Yukon) Act
- Yukon Wildlife Act (species at risk)
- Yukon Environmental and Socio-economic Assessment Act (YESAA)
- Waters (Yukon) Act
- Heritage Resources (Yukon) Act
- Forest Resources (Yukon) Act
- Canadian Environmental Assessment Act (CEAA)
- Species at Risk Act
- Fisheries Act
- YESAB (2003)

# Yukon Legislation and Regulations: YESAB (administers assessment responsibilities of YESAA) assessment statistics 2020

- According to the YESAB registry, the average days to complete a Designated Office Evaluation for Quartz Mining is 172 days with the proponent taking 30, and YESAB taking 142 days.
- According to the YESAB registry, the average days to complete a Designated Office Evaluation for Placer is 136 days with the proponent taking 34 days, and YESAB taking 102 days.
- The Decision Bodies (Federal, Territorial, First Nation) must ok the project in the Decision Document before any license or permit is issued.
- ([yesabregistry.ca](http://yesabregistry.ca))
- Takeaway: The level of scrutiny from one of the Acts governing Mining and exploration in the territory is high and takes on average up to 6 months, this does not include permitting, licencing and funding timelines. Once a mineral deposit is located it can take up to 30 years to develop a mine, the applications, consultations, permitting, licencing, commodity prices all need to align. (See slide 16, the mine project life cycle)

# Security for the Environment: YG Securities

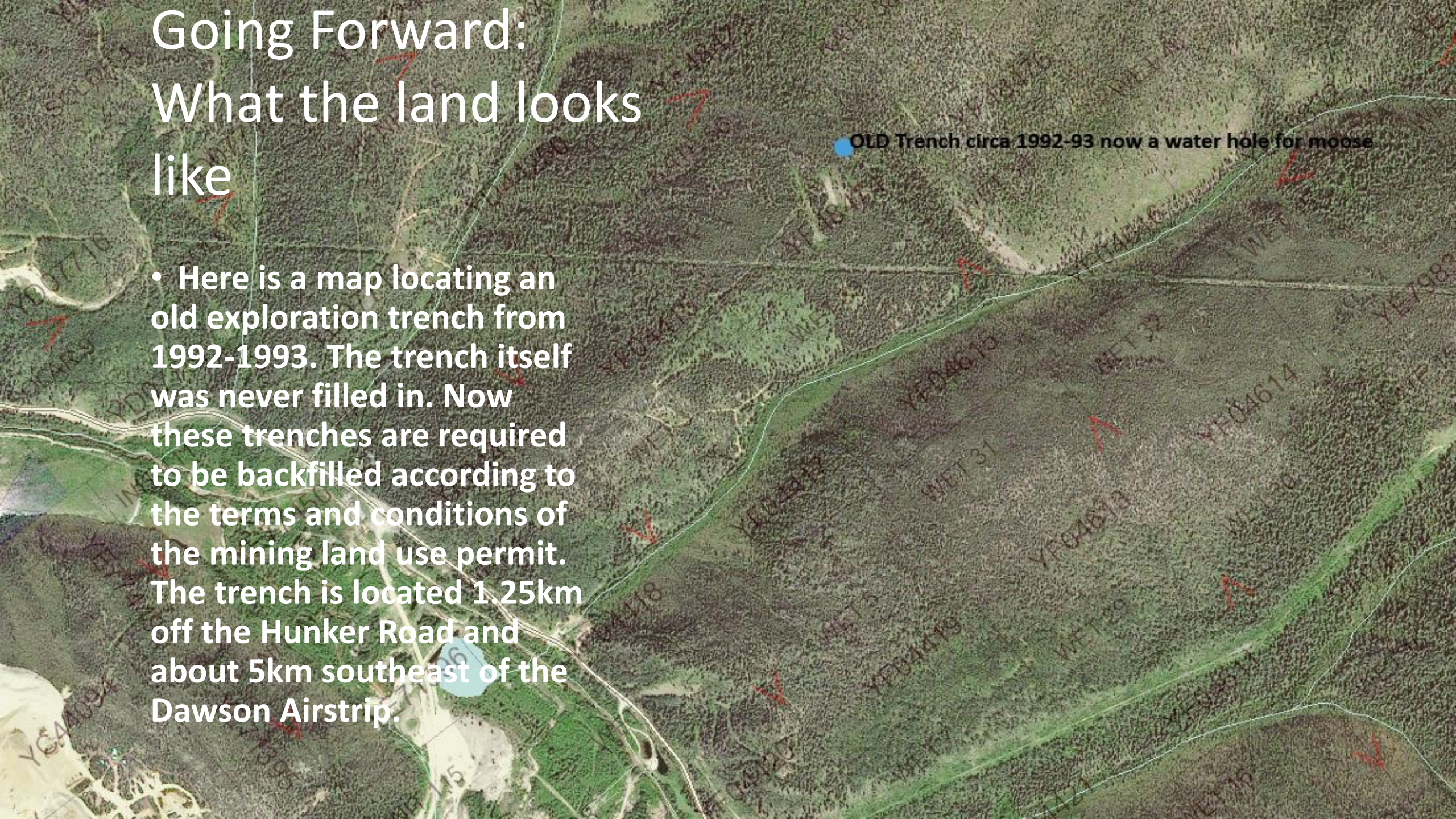
## YG holds securities for mining and exploration projects

- YG collects financial security for quartz mining and exploration projects in Yukon. The requirements for security can come from a:
  - quartz mining licence;
  - mining land use notification;
  - mining land use approval; or
  - type A or type B water licence.
- If you own a major mine in Yukon, you must provide financial security for the cost to reclaim and close the mine site. The assessment of closure liability is in accordance with the approved reclamation and closure plan.
- How is security calculated?
  - The mine's current liability and the expected change over the next 24-month period. YG reassess the cost at least every 2 years to reflect the impact of operations and progressive reclamation.
- As of March 26, 2021, the total financial security held for mining projects is \$121,177,769.50.
- (Yukon.ca) YG is currently reviewing

# Going Forward: What the land looks like

- Here is a map locating an old exploration trench from 1992-1993. The trench itself was never filled in. Now these trenches are required to be backfilled according to the terms and conditions of the mining land use permit. The trench is located 1.25km off the Hunker Road and about 5km southeast of the Dawson Airstrip.

OLD Trench circa 1992-93 now a water hole for moose





Going Forward:  
What the land  
looks like

- These pictures show what the trench has become, an access of water with game trails approaching from three corners. Showed with evidence of moose tracks and droppings.
- Pictures of the site courtesy of Al Doherty

# Future of Mining is Around the Corner:



## Water Management

- Industry is moving towards a focus on mining tailings management. Dry Tailings (though not a possibility for all projects) can reduce the use of tailings dams. The tailings can then be used to fill open pits. This reduces the cost of reclamation and use of water.
- Tailings management is constantly improving and biological water treatment technologies are advancing

## Automation

- For trucks and drilling to optimize use of machinery and reduce emissions and safety

## Electric Vehicles

- Industry wants to save on costs and maximize profit and moving to electric vehicles saves energy and reduces emissions

(Currently In use: Lidar, Drones, GT Probs as mentioned by Industry already in use in slide 17)

Safe, efficient and sustainable

# Future of Mining is Around the Corner Continued

- **Minerals are enablers when it comes to Clean Energy Applications.**
  - solar cells, high density batteries and wind turbines etc.
- **The hurdle to overcome is comparing the Yukon's responsible, highly regulated and scrutinized exploration and mining industry to the global industry**
- **As shown here in the Yukon and, in Dawson, the use of new technology to minimize impacts in exploration, mineral development, mine production and mine reclamation shows Industry preparedness to take on, with partners, positive environmental land stewardship**
- **May 5<sup>th</sup> 2021: The Mining Association of Canada announces its new Towards Sustainable Mining (TSM) Climate Change Protocol**



# Looking after and Exploring the Land

- **Exploration is not mining. Respectful and lawful exploration works to find the 1% ore deposits and eliminate large quantities of land from mining, therefore land should be available for low impact exploration**
- **It can take upwards to 20 and 30yrs to see a project to the mining stage. Even then, it takes ACCESS to claims, quality of the deposit and profit margins to be able to fund a project to mining stages**
- **If you don't know as a Territory the location or quality of your natural resources, how can you make sound, knowledgeable, fiscal decisions? Without exploration, 30yrs or more from now when the world needs more renewables, i.e. solar panels, batteries, they will look elsewhere to countries that may not have the environmental and human rights standards we do to develop those minerals safely. The Canadian Minerals and Metals Plan highlights the developing of critical minerals in Canada as crucial to meeting the worlds demand for new technology.**
- **By leaving the land open for all to use respectfully, we can place our focus on initiatives that bring all sides together to work towards the same goal. A diverse prosperous economy, preserving species, cultural and land uses now and into the future**



**Photo Credits:** Heather Burrell: Archer Cathro & Associates  
Christian Roldan: Coffee Mine Project  
Al Doherty: Director YCM  
GroundTruth Exploration  
**Thank you** to the Yukon Geological Survey for the expansive data throughout  
**Thank you** to all other industry leaders who engaged in this process



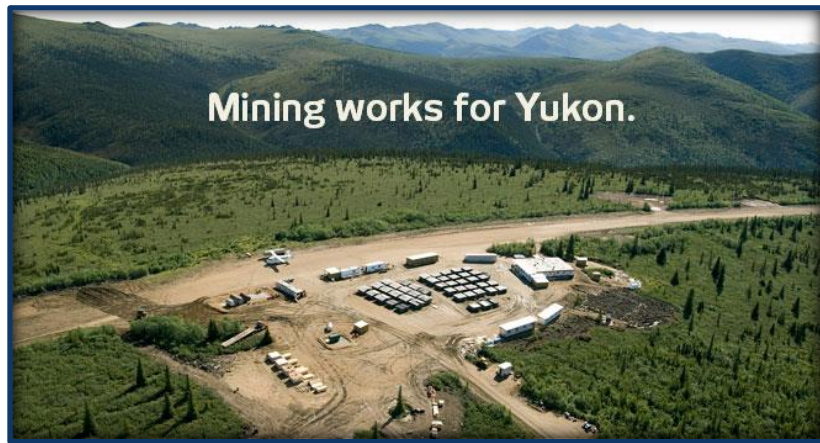
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