

# ***NWT Mineral Development Needs Your Help***

*Presentation to Kwe Beh Working Group*

*By Tom Hoefer – May 11, 2018*

# Key Messages

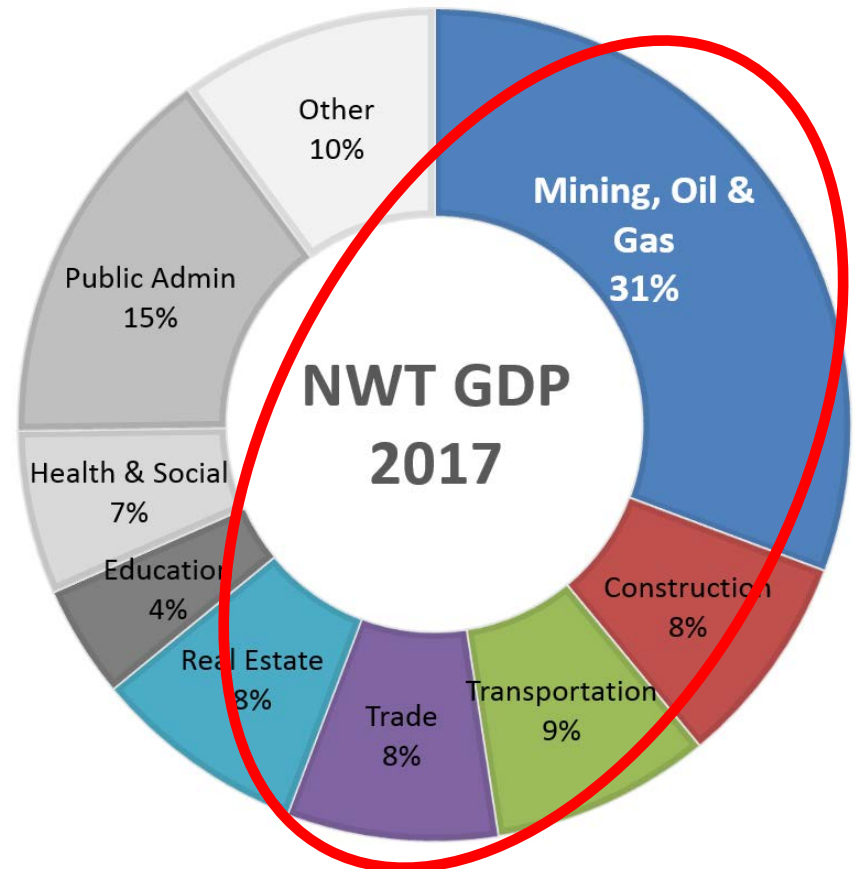
- Mining is important to the Tlicho and the NWT
- We have some opportunities before us
- But we should be concerned
- Mineral development needs your help
- Some actions to help sustain mining and its benefits

# Why mining is important to the Tlicho

- You have a strong vested interest in a healthy industry
- Your government benefits from mining
  - Collect 95% of the income taxes in your region – mining wages high
  - Share in royalties from mining
- Your people benefit from mining
  - Hundreds of Jobs
  - \$ millions (billion?) in Business
  - Other community benefits – IBAs, scholarships, etc.
- You have become members of the mining industry
  - Tlicho Investment Corporation businesses built on mining
  - Your people and businesses are qualified to work anywhere
  - You need to grow their future opportunity

# Mining still largest private sector contributor

- Mining is still the largest private sector contributor to the NWT economy
- And, it contributes more through other sectors of the economy, eg, construction, transportation, trade, real estate

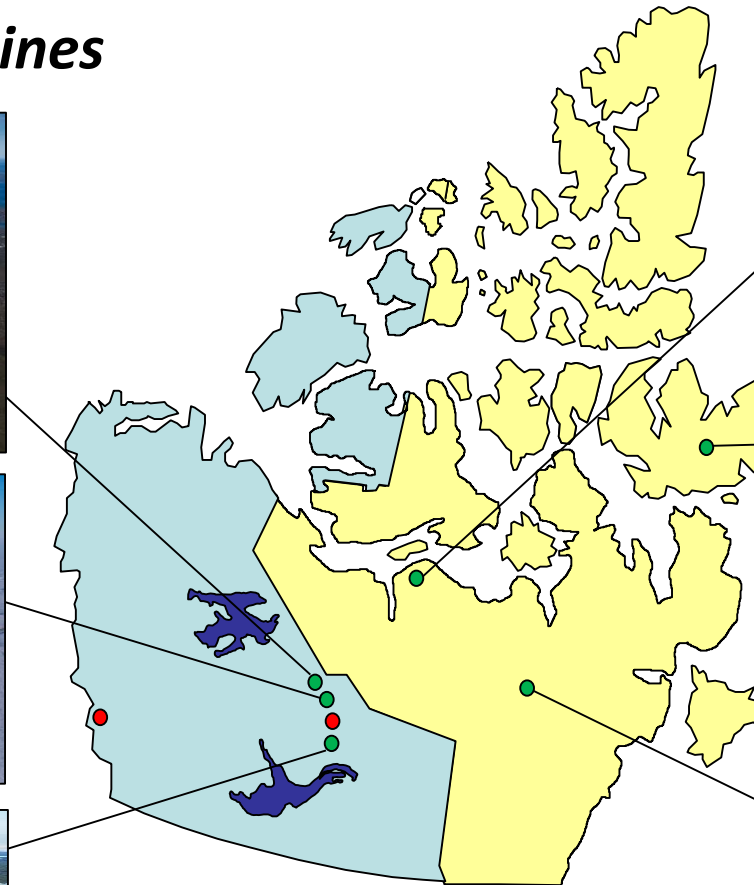


- *“Over the past 3 years, diamond mines contributed 41% of the GNWT's corporate income, fuel, property and payroll tax revenue” ... GNWT Spokesperson*



# Operating mines today

## 3 NWT Operating Mines

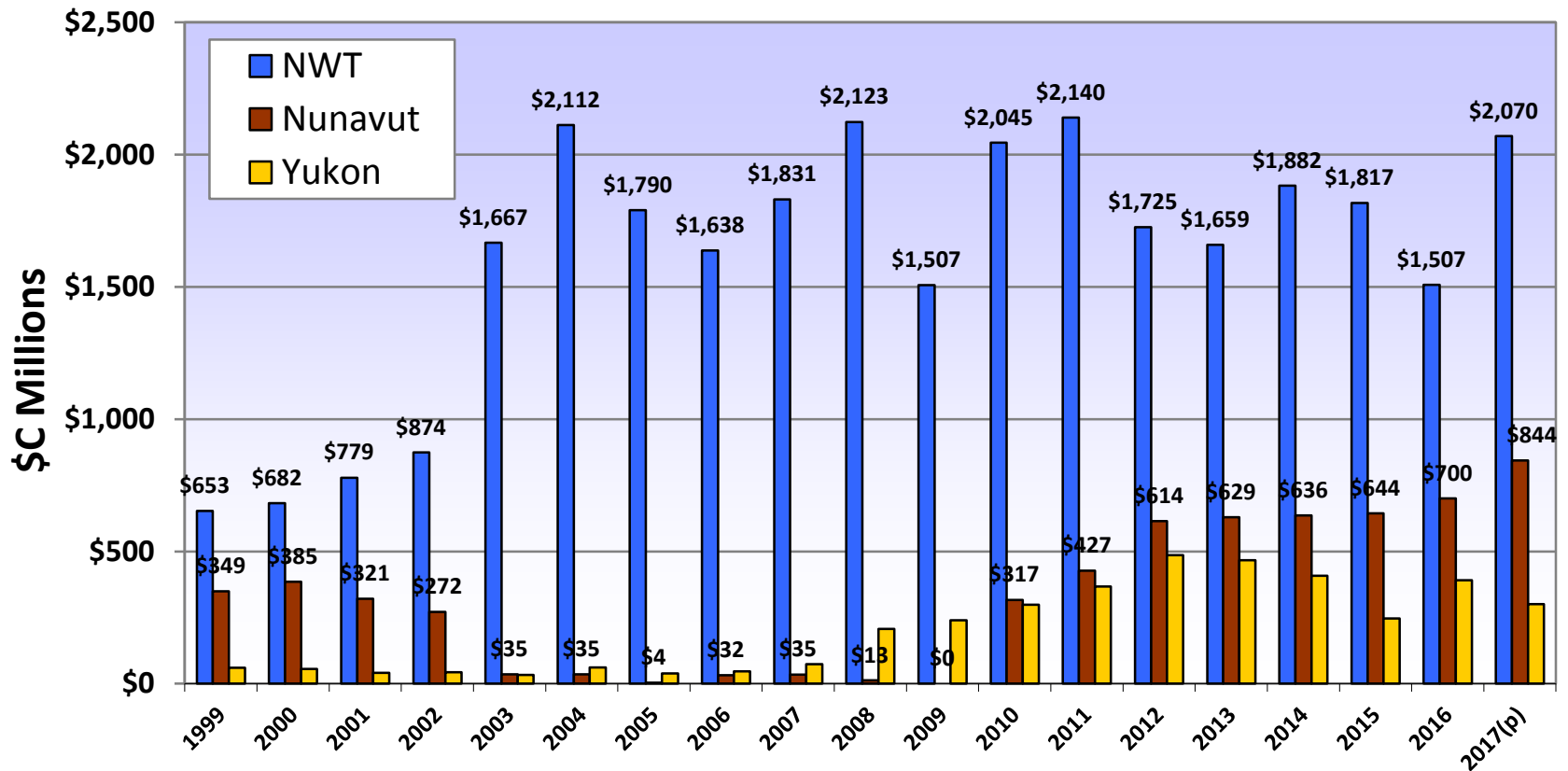


## 3 Nunavut Operating Mines



# Our mines create significant value

## NWT, Nunavut and Yukon Mining Production



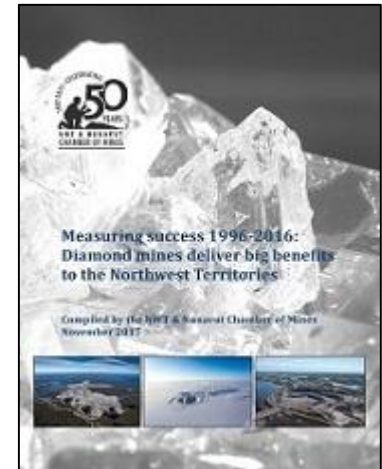
Natural Resources Canada – March 2018



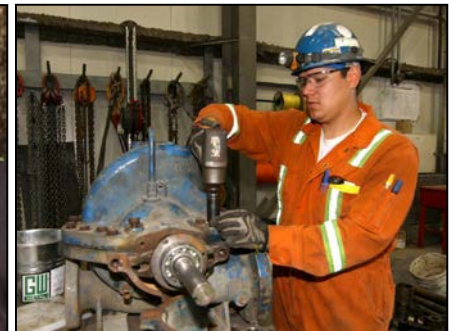
- NWT is maintaining strength through diamonds. Increases in production at all 3 diamond mines saved our bacon after Snap Lake closure
- In Nunavut, rejuvenating industry with gold and iron from zero production in 2009

# Diamond mine benefits continue to grow

- Jobs – over 26,000 person-years
  - 50% Indigenous
  - 1,663 northern workforce
- \$13 billion plus in northern business (70%)
  - \$5.6 billion with Indigenous business
- Over \$100 million to communities in IBA payments, scholarships, donations
- Significant taxes & royalties to public and Indigenous governments

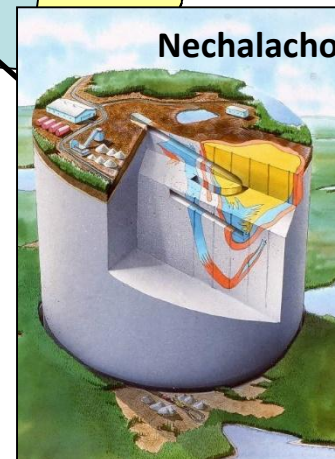
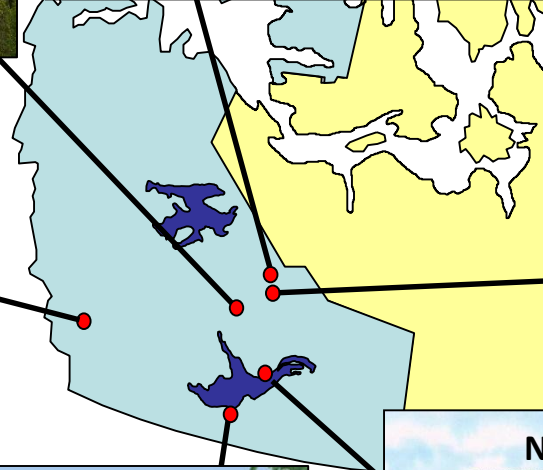


*Data from 1996-2016 Socio-Economic Agreements reporting*





# Looking forward: NWT's near-term opportunities





# Diavik A21 deposit, NWT

- Now mining the A21 diamond deposit
  - First ore delivered at the end of March 2018
  - Sustainable production by Q3
  - US\$350 million investment over past 4 years; ahead of schedule and on budget
  - Important source of incremental supply; ensures the continuation of existing product levels until closure in 2025

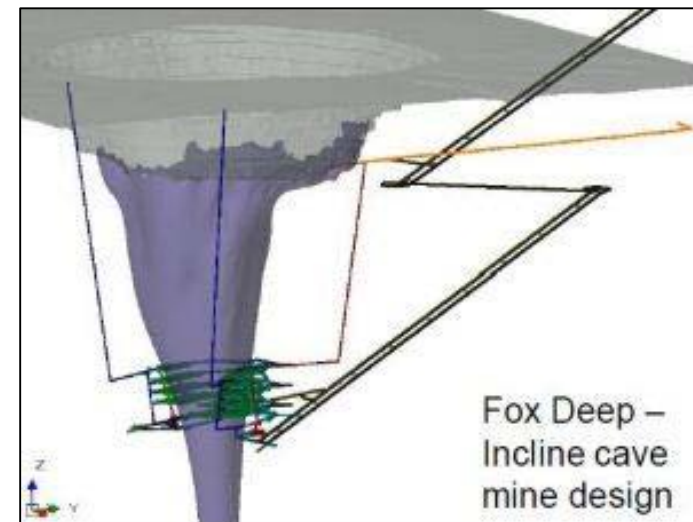


First ore delivered at the end of March 2018



# Ekati Mine – Jay and Fox Deep ore bodies

- EKATI is important as it is NWT's largest mine
  - 1,700 workers and \$476 million annual spending
- Jay deposit could add 11 years
  - \$690 million to construct = jobs, business opportunities
- Fox Deep offers further mine life opportunity
  - \$628 million initial capital cost for underground operation



# Proposed Prairie Creek Mine (zinc, silver, lead)

- Pre-production cost – \$279 million
- Annual operating costs ~ \$90 million
- 15 year mine life with opportunity to extend
- Workforce ~ 220
- 2.5 years construction; production to begin mid-2020
- 184 km all-season road to Liard Highway still in EA
  - Road would enable use of Liquefied Natural Gas
  - MOU with Power Corp re diesel/LNG power supply





# Proposed NICO Mine (cobalt, gold, bismuth, copper)

- Cobalt market is strong – green energy and batteries
- 21 year mine life
- Capital cost ~\$600 million
- Workforce: 220 in NWT & 85 in SK
- 150 km all-season road to Mackenzie Highway
  - Tlicho road approval is advancing; mine to build spur road



Rendering of proposed NICO pit, mill and camp site in the Northwest Territories



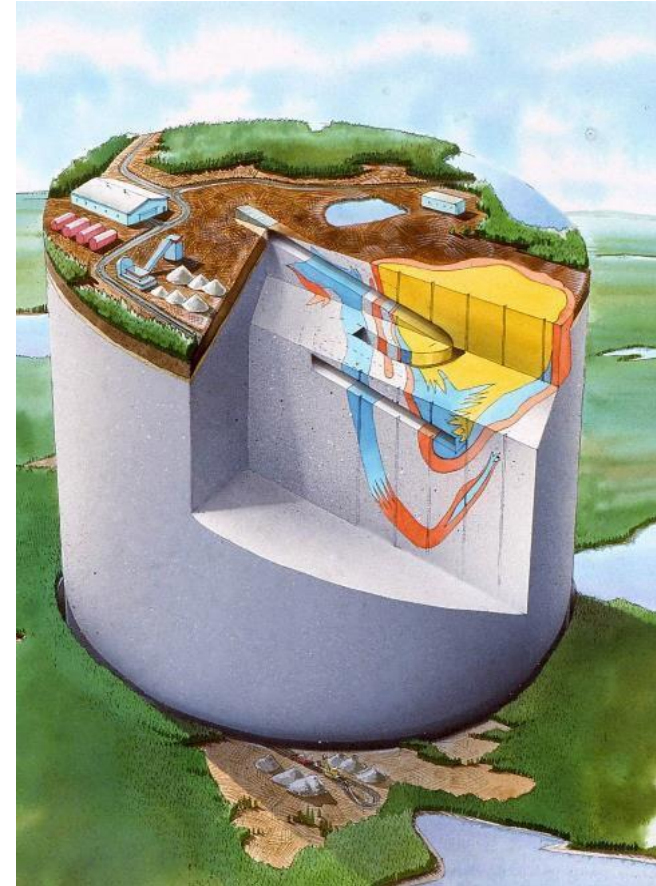
# Proposed Pine Point Mine (lead, zinc)

- New owner – Osisko Metals
- Capital cost \$150-\$250 million
  - Existing infrastructure (road, rail, power) saves \$100 million
  - Construction could begin Q2, 2019; Operations Q4, 2020
- Phased, sequential open pit and underground mining
  - 8 deposits in Phase 1 and 8-10 deposits in Phase 2
  - 13 year preliminary mine life, average 321 jobs
- Project size could grow with current exploration



# Avalon is re-activating Nechalacho project (Rare earths and lithium)

- **Interest in rare earths is rebounding**
  - Strong demand for Rare Earth (Nd-Pr) magnets in electric motors for Electric Vehicles
- **Avalon is re-activating the project in 2018:**
  - Scoping study on East Arm-YK Road Hydro infrastructure corridor (in progress)
  - Resource modelling for F-Zone and Tardiff Lakes Zones Rare Earth resources that are highly enriched in Nd-Pr
  - Re-sampling drill cores for **lithium** and establish initial T-Zone lithium resource estimate
  - Preparing scoping study on T-Zone small scale (low capex) development model for rare earths
  - **Resuming permitting process and community engagement towards identifying local indigenous business partners**



*North T-deposit block model with existing decline  
from 1980's work*

# Early stage opportunity – Nighthawk Gold at Colomac & Indin Lake

## 2018 Exploration Program Commenced in March

25,000 metres (\$11MM budget)



### COLOMAC GOLD PROJECT (2 focused drills approx. 16,000 m of drilling)

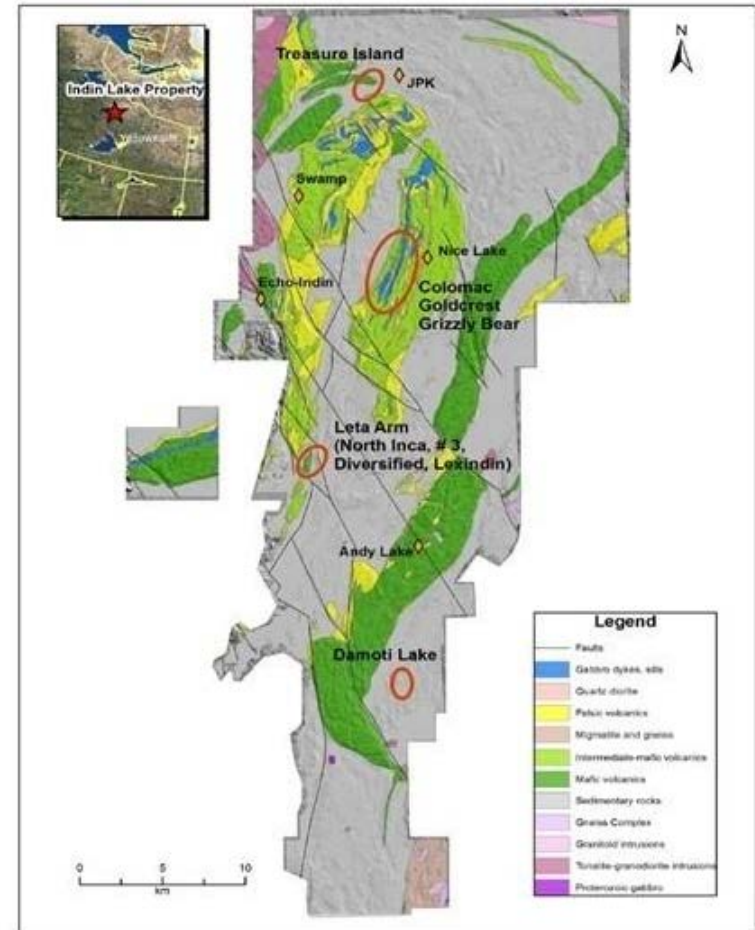
- Continue to test Clomac Main Sill at Zones 1.0, 1.5, 2.0, 3.5
- Test the Goldcrest sill to the west
- Test the Grizzly Bear Deposit for higher grade zones of mineralization

### REGIONAL DRILLING (1 dedicated drill approx. 9,000)

- **Leta Arm** (Diversified, North Inca, #3 and Lexindin showings) – testing the down plunge and strike extensions of vein systems
- **Damoti Lake** (high grade gold deposit) – resource growth potential
- **Treasure Island** – 6km mineralized corridor hosting several gold showings
- Follow-up on prospective targets like Nice Lake, Echo-Indin, JPK, Andy Lake & Swamp

### REGIONAL MAPPING & PROSPECTING

- Continuation of focused mapping and prospecting programs directed at advancing regional showings and deposits to drill ready status





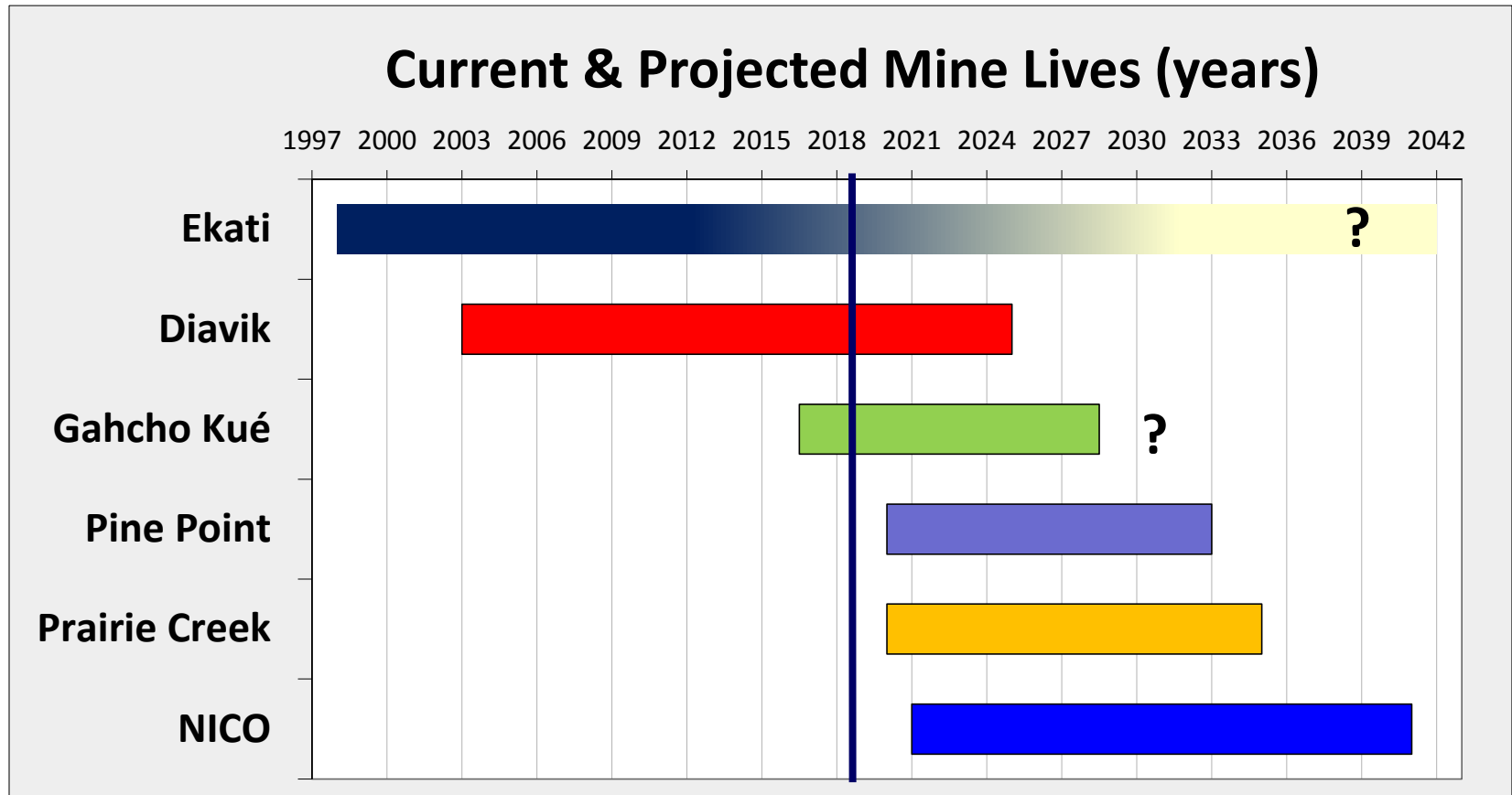
# Mine Closure Opportunities too

- Giant Mine – more than \$1 billion
- Snap Lake ~ \$140 million
- Diavik mine – perhaps \$150 million



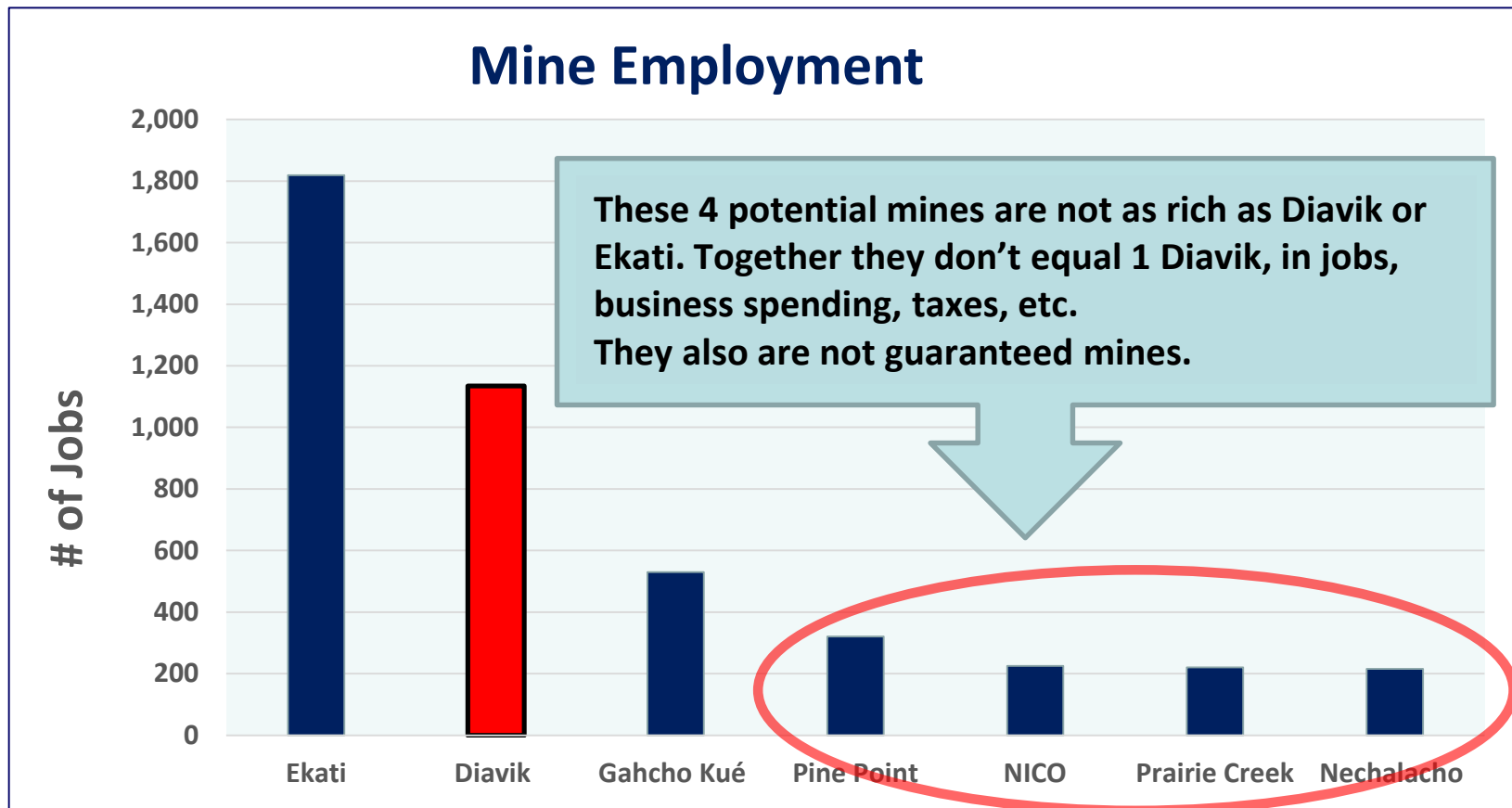


# How's the mining future look?



- Ekati and Gahcho Kué potential for extension
- Diavik mine life fixed at 2025
- Prairie Creek, Pine Point and NICO will be smaller mines, **but none are guaranteed mines yet**

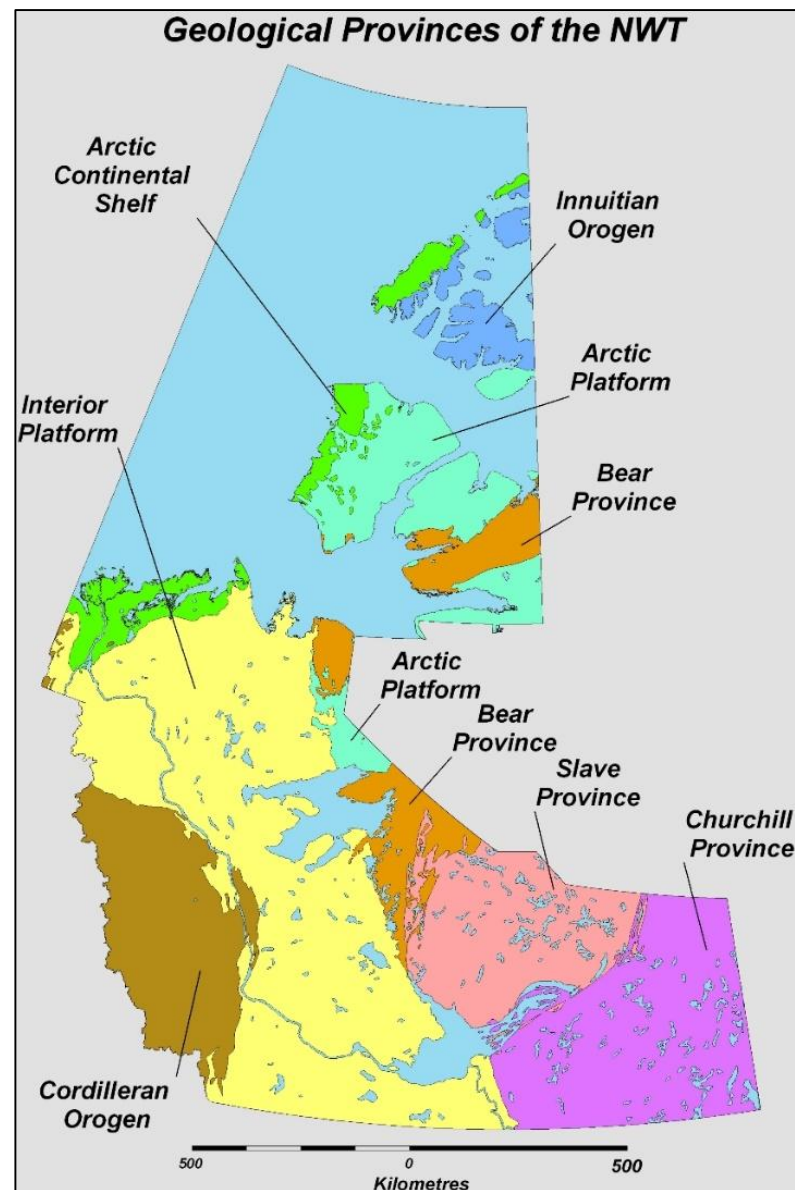
# Remember, not all mines are equal, eg, Jobs



- Future NWT mines like Pine Point, NICO and Prairie Creek are smaller & deliver lower government revenues & community benefits. Jobs and business spending are lower.
- Many small mines needed to replace impact of just 1 diamond mine
- **WE NEED TO FIND MORE NEW MINES**

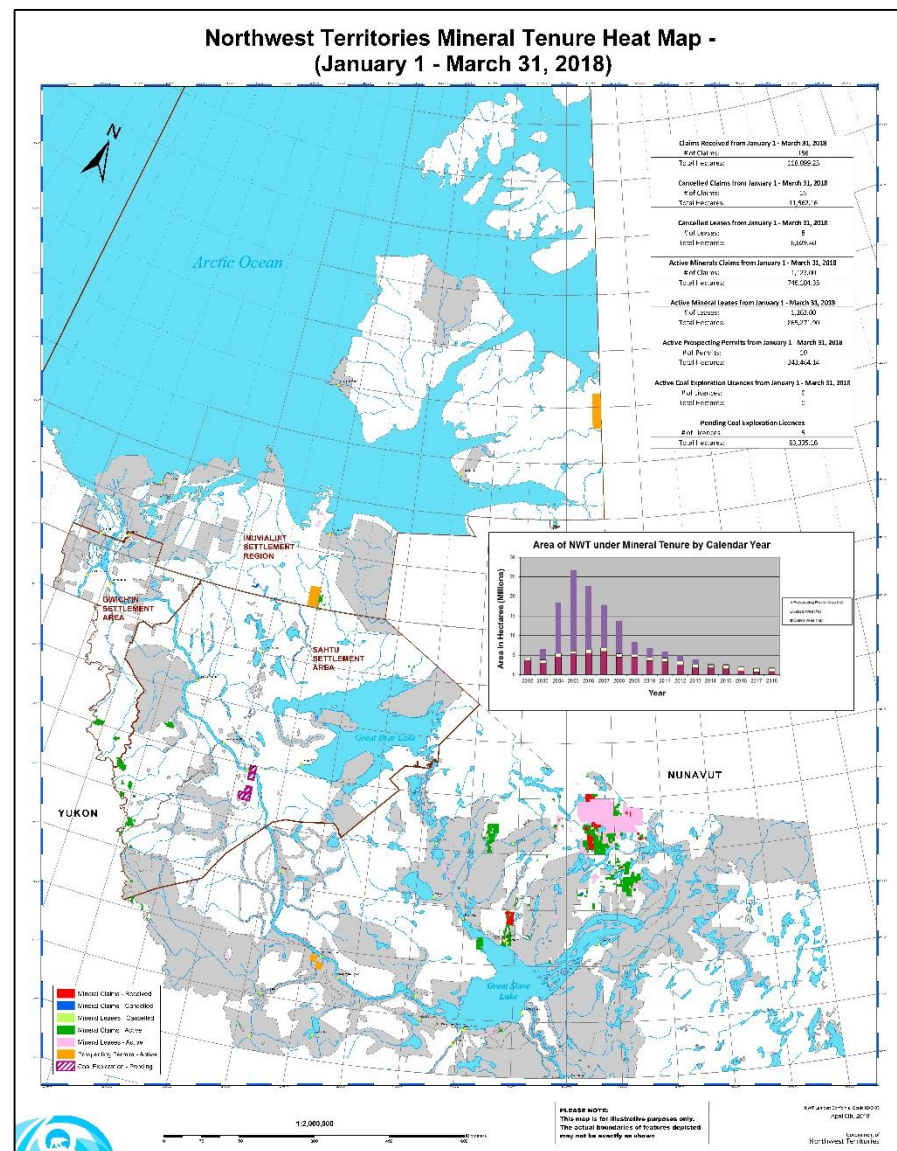
# The NWT has great mineral potential

- 8 geological provinces
- Diverse mineralogy
  - Gold, silver, diamonds, lead, zinc, uranium, tungsten, rare earths, cobalt, bismuth, nickel, copper, iron, etc.
- Under-mapped & remote means under-explored
- This equals tremendous mining opportunity



# But, we've closed over 30% of the NWT

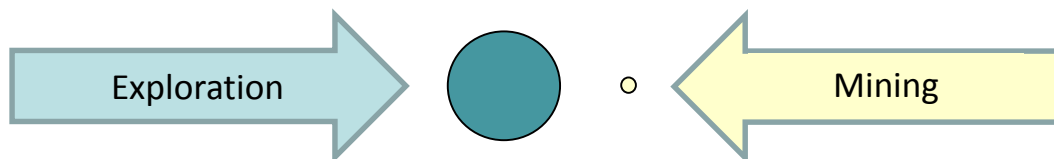
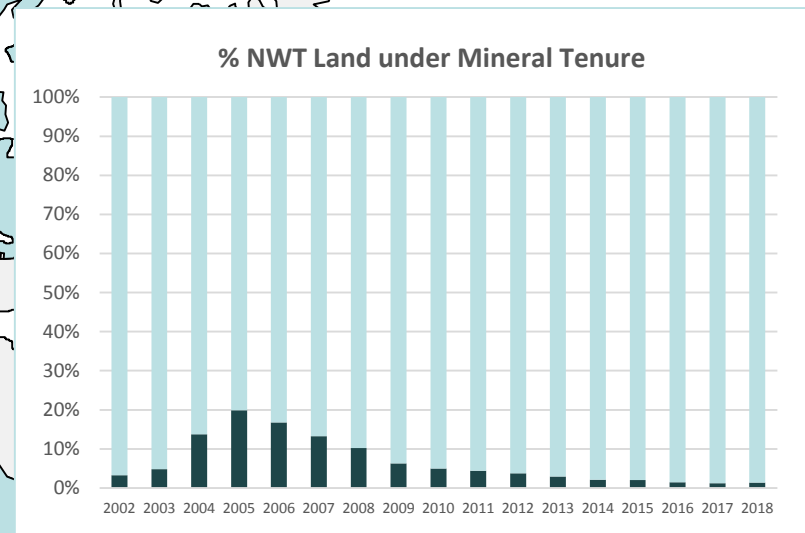
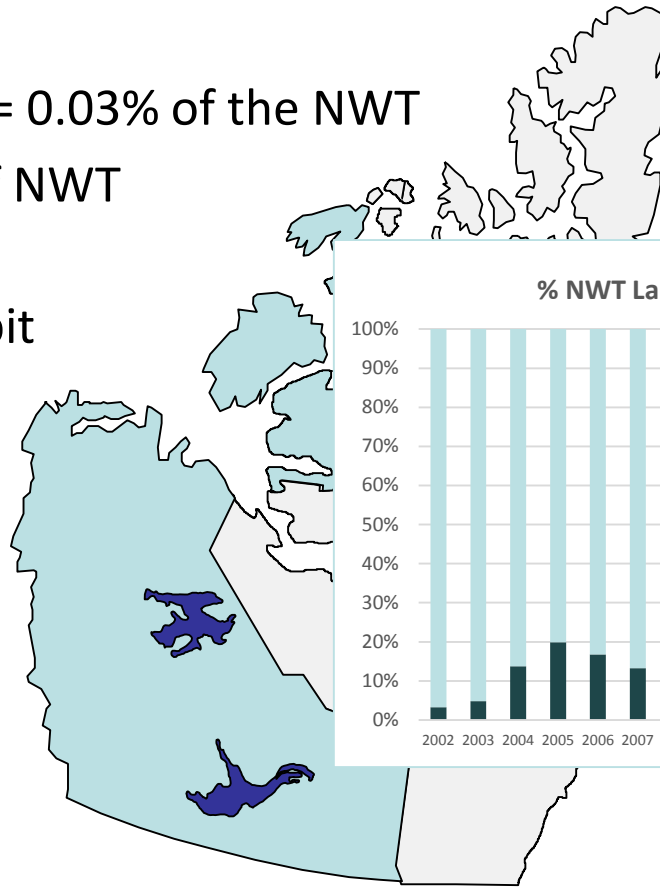
- All the grey is off limits to exploration
  - Conservation
  - Land claims
  - Restrictive land use plans
- And some “open” areas are effectively closed
- Industry is challenged for access to land to explore





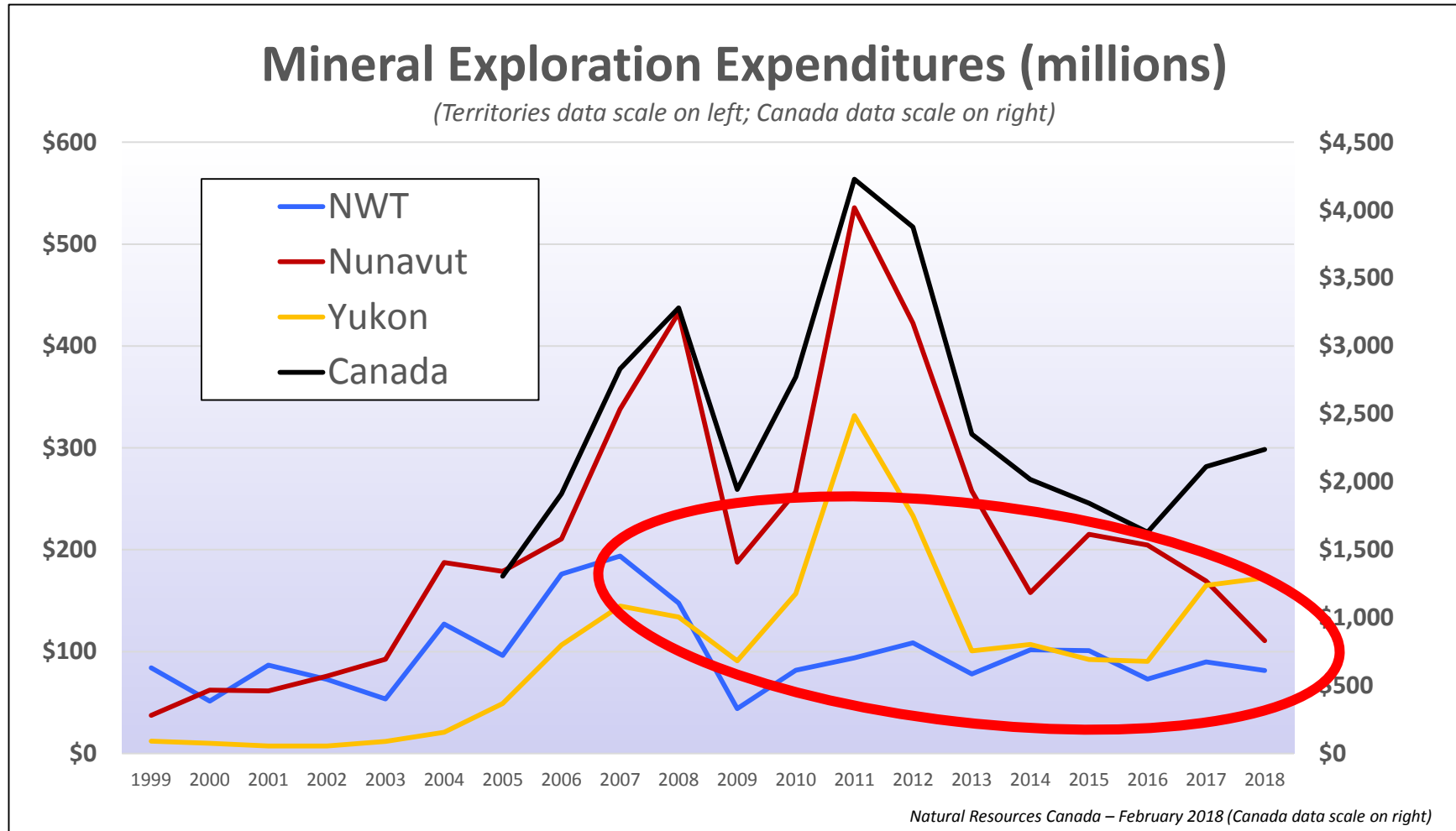
# We close lands when mining doesn't use very much

- All mines, past and present = 0.03% of the NWT
- Current mines = ~ 0.005% of NWT
- Exploration requires a wee bit more land, but virtually negligible footprint to conduct exploration
  - In 2005, about 20%
  - In 2017, exploration had fallen to about 1% 😞



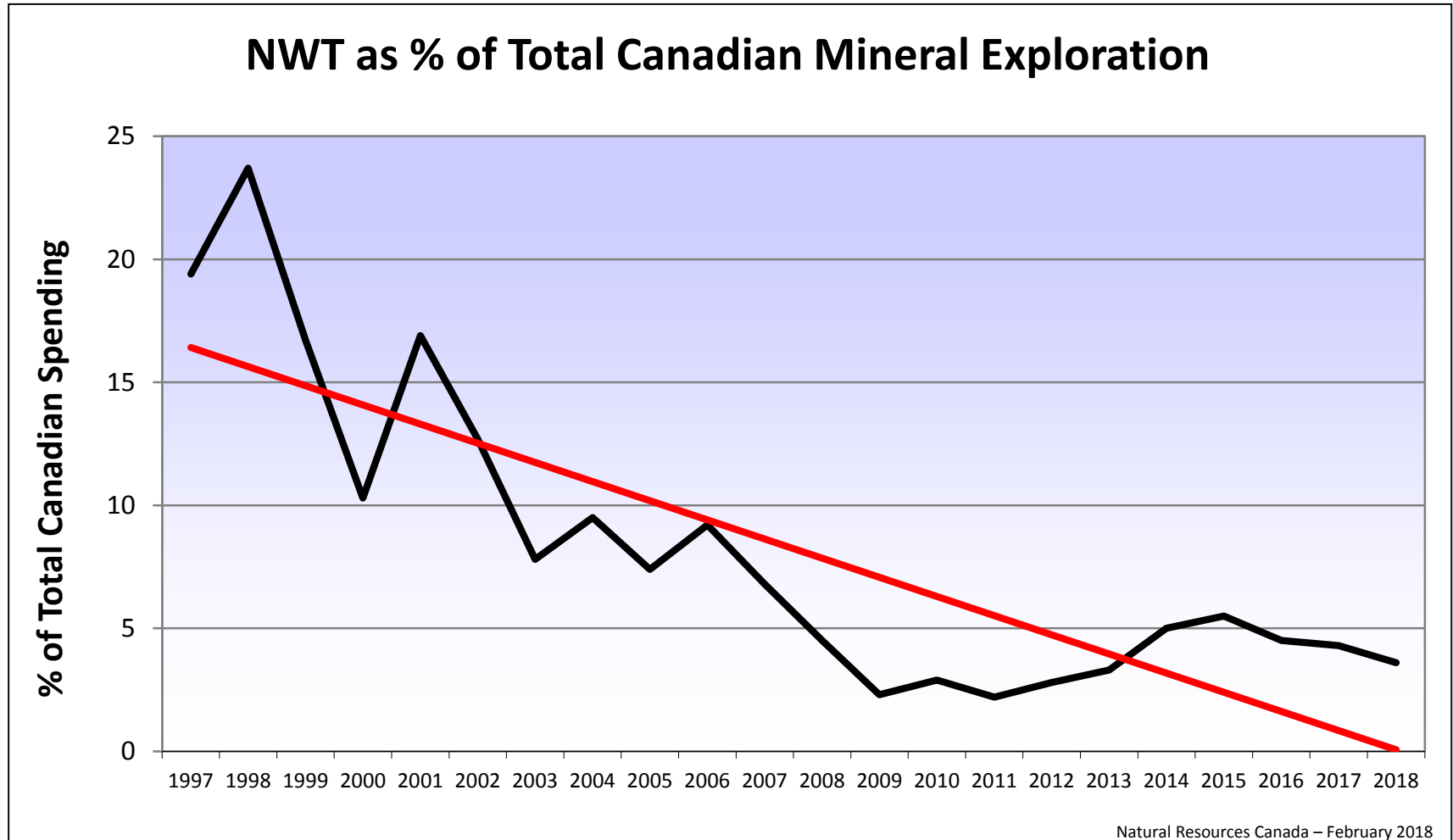
Note, circles not exactly to scale, but deliver the concept

# We're not attracting enough exploration



- Canada and Yukon are increasing; Nunavut is decreasing;
- NWT is still flat. Since 2007, NWT missed more than **\$1 billion** in exploration investment compared to Nunavut and Yukon

# And NWT continues to lose its attractiveness



- The NWT is projected to continue capturing an even lower share of Canadian exploration investment in 2018.

# What contributed to low NWT attractiveness

- These affected investment uncertainty, reduced land access, and added costs
  - **2000-2018:** Unsettled land claims challenge land access create uncertainty
  - **2000-2014:** NWT Protected Areas Strategy – 60,000 sq.km. protection
  - **2007:** Akaitcho land claim 62,000 sq.km. interim withdrawal
  - **2007:** Thaidene Nene land withdrawal of 33,000 sq.km.
  - **2007:** 18,000 sq.km exploration blocked Upper Thelon, costs industry \$25m
  - **2008:** New Akaitcho requirement for onerous Exploration Agreements
  - **2009:** North Arrow Minerals grassroots exploration challenged in court
  - **2010:** Akaitcho “public concern” triggers EA for TNR Gold grassroots project
  - **2015:** ‘public concern’ triggers EA for grassroots sand exploration
  - **2016:** UNESCO biosphere reserve over 93,000 sq.km. around Great Bear Lake
- **Most of these issues have not been resolved today**
- **Saying we are open for business is risky**



# What's it all mean? Economic Forecast is “Grim”

NORTHWEST TERRITORIES

## Economic Prospects Grim

### Chapter Summary

- Peak diamond production has passed in the Northwest Territories. Diamond production will begin to fall, and all three operating mines will close by 2035.
- Two new metal mines will open in the next five years, but that will not make up for the decline in diamond production, leaving mining output to fall for most of the next 23 years.
- Almost all sectors of the territory's economy will suffer as a result of declining diamond production. Employment will contract, resulting in higher outmigration and unemployment.
- As a percentage of the territorial population, the number of seniors will triple by 2040, putting pressure on the government's finances.
- Real economic growth will contract by 2.9 per cent this year and be flat in 2019, before falling for most of the rest of the forecast period.



The Conference Board  
of Canada

Le Conference Board  
du Canada

# Industry needs governments' partnership & support

- **Governments need mining to do what they cannot do**
  - Turn rock into opportunity: jobs, business, training, taxes
  - Take on big risk – exploration and mining are not easy
  - Bring \$ millions and \$ billions to NWT
  - Bring expertise to share and build capacity & wealth
- **But Industry can't do it alone – needs governments' support too**
  - To recognize that mining is a tool to opportunity
  - To provide support, reduce costs and risk
  - To shift attitude from defensive to supportive of industry

# We need to get this kind of Vision back

*Speech by The Honourable Arthur Laing, Liberal Minister of Northern Affairs & National Resources to the Canadian Institute of Mining, May 1966*

- It is inconceivable that all lands north of the 60<sup>th</sup> parallel, representing 35% of Canada's land area, which we believe contain a great resource potential, will remain as an undeveloped portion of Canada.
- Very often the discovery of one mine ... will lead to more, but as long as we continue to do nothing to replace that activity during the time allowed we will continue to experience the social upheavals and personal hardships that result when the resource comes to an end.
- We welcome those searching for the resource wealth of the North ... and my government is endeavouring in many ways to assist private industry on to the road to success.
- *Note: the Tliche Road is likely the first Federal infrastructure investment that supports northern mining development (partially) in 40 years.*



# Where Public & Indigenous governments can help

Actions Public and Indigenous Governments can take to improve the economic climate, and their Status		Government
<b>Reduce Cost pressures</b>	Say NO to regulatory cost recovery (MVRMA)	Canada
	Prevent small early exploration undergoing Environmental Assessment (MVRMA)	Canada
	Neutralize Carbon Tax when no alternatives to diesel exist	Canada
	Ensure Mineral Resources Act supports investment (eg, open access system)	NWT
	Assess and address potential costs and effects of upcoming New NWT Legislation	NWT
	Yellowknife Airport Improvement tax (lost this argument)	NWT
<b>Improve Access to Land</b>	Settle Indigenous Land Claims and open withdrawn lands to exploration	NWT
	Complete land use planning process and revisit existing land use plans	NU, NWT, Canada
	Reduce land conservation initiatives – federal, territorial	Canada, NWT
	Invest in more science for caribou protection plans	NWT, NU
<b>Build Infrastructure</b>	NWT: Tlicho Road funding & construction	NWT, Canada
	Advance Nunavut's Grays Bay Road & Port (Slave Province)	NU, Canada
	Advance NWT Slave Geological Province road	NWT, Canada
	Advance cheaper hydropower	NWT, Canada
<b>Provide Exploration Incentives</b>	Double MIP (Exploration Incentive Program)	NWT
	Extend the 150% assessment credit	NWT
	Invest in Geoscience	All
	Federal 15% Mineral Exploration Tax Credit	Canada
<b>Increase Public Awareness &amp; Support for Mining</b>	ECE put mining into school curriculum	NWT
	Support increased Public Awareness Program	NU, NWT
	NWT Regional (Indigenous) Mineral Development Strategies	NWT
	Prospector & mine training funding	NWT, NU
<b>Public &amp; Indigenous Governments Market North</b>	"Unlocking Our Potential" investor messaging	NWT
	Indigenous government marketing of investment	NWT



# This is why it matters!



# How you can help

- Reignite northern economic Vision
- Talk to MLAs and MP and other Indigenous leaders
  - Industry's successful path forward relies on all governments: Federal, Territorial and Indigenous
- Encourage action through formal vehicles for change
  - Arctic Policy Framework
  - Pan Territorial Sustainability Framework
  - Industry – Government Working Committee – NEW!

## Some thoughts for Tlicho

- Are you producing a mineral strategy?
- Are you developing a land access regime to attract exploration to Tlicho lands?
- What of the land use plan on other Tlicho lands?
- Are you looking at hydropower opportunities?
- Are you assisting Fortune and Nighthawk, the diamond mines?
- Are synthetic diamonds the new anti-fur lobby?