

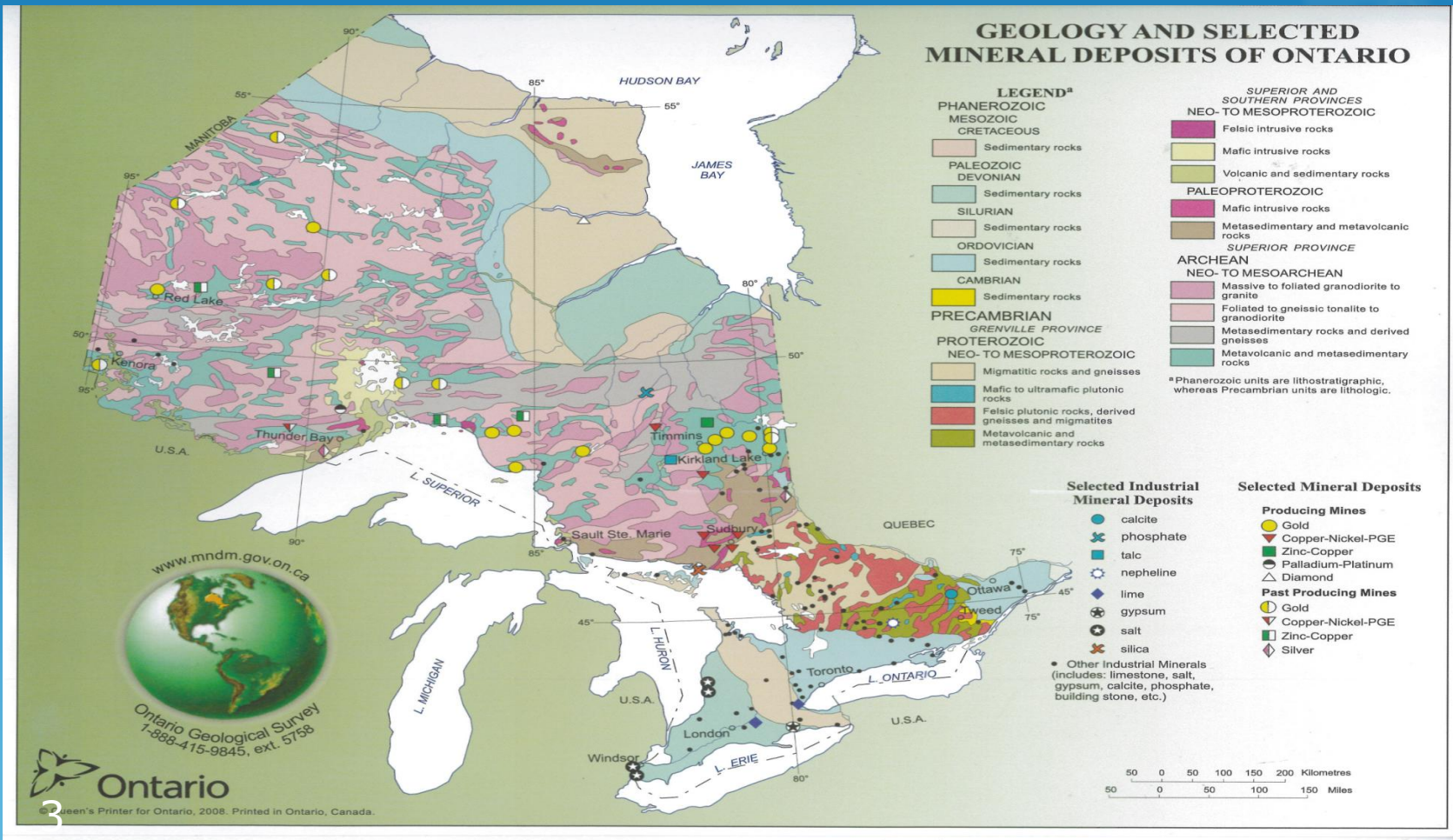
# Ice Roads on the James Bay Coast

Community and Mining Challenges

# Introduction

- Access from southern Ontario to the James Bay coast starts by rail from Cochrane. Going north is by truck from Moosonee to Attawapiskat, by the James Bay Winter Road. The De Beers Victor mine is connected to Attawapiskat by a winter road along the south side of the Attawapiskat River. All roads are accessible for a limited time each winter season. During the non-winter road period the communities and mine are only accessible by light aircraft from the city of Timmins.

# Province of Ontario, Geology



# James Bay and the Communities









# The winter road by the numbers

- The James Bay winter road is 312 kilometers (199 miles)
- The South winter road is 103 kilometers (64 miles)
- Construction begins in December weather permitting
- The commercial opening is usually around the first week of February
- The road is built to an ice thickness of 43" however depending on cargo needs it has been built to 60"
- A 43" road will support 106,000 pounds
- Driving speed is limited to 50 kilo/hour or 31 m/hour however river crossings are slower



# The winter road by the numbers

- Commercial access is about 30 days
- Community access is about 60 days
- Typically the commercial activity to the mine is between 400 and 450 loads
- De Beers takes delivery of between 7 and 10 million litres of fuel annually
- Winter road construction costs around \$5,000,000 and the entire program for De Beers which includes the road costs is approx. \$12,000,000 annually. Around \$900,000 in funding comes from the federal government.
- It should be noted that the big difference between Northern Ontario and other regions of the country is that there are no lake crossings which offer different challenges.







# Long Creek



# Spring Thaw



# The Challenges

- It is expensive to build a winter road
- The winter road has short life span and global warming is making it more difficult
- For approximately 305 days a year the communities and mines are fly in only
- The winter road has a significant environmental impact
- The winter road has a significant impact on harvesters
- The winter road has a significant impact on the wild life
- Flooding is an annual event
- The winter road helps to ease much of the economic challenges in the region
- The cost for a return air fare from Moosonee to Timmins is approximately \$900.00. Residents of Moosonee and Moose Factory also have access to the train which is much less expensive. Attawapiskat return by plane is about \$1380.00.
- The planes are small therefore you are limited as to what can be brought on board.

# Halfway Point Creek Ice Jam





# Long Ridge Creek Ice Dam



# White Swan Creek Flooding



# North Bluff Creek Crossings



# South Winter Road by Attawapiskat



# The Challenges, cont.

- De Beers fly's two to three cargo planes of food and supplies every week to the mine.
- The cost to live in the communities due to transportation can be 100 to 300% higher
- Hydro is also more expensive at \$600.00 per month in the winter
- Fresh food must come in on plane which adds significantly to the cost. A cantaloupe costs \$5.00 each.
- The examples are many as are the challenges

# Conclusion

- There is not doubt in my mind that many of you here understand the challenges of remote communities and mining.
- In the news lately you may have heard that Attawapiskat has serious schooling and housing issues. Even if money was readily available, the logistics of a response is limited by the window of opportunity to bring in bulk supplies for construction. Add the fact that the associated costs to bring in bulk materials is excessively high you realize how difficult a solution is.
- Our motivation for speaking with you today is because we see an opportunity with Airships that could have a very positive impact on the future of Northern Ontario.
- **Thank you**