

Dominion Diamond Corporation

Developer's Assessment
Report – Technical
Sessions, April 2015

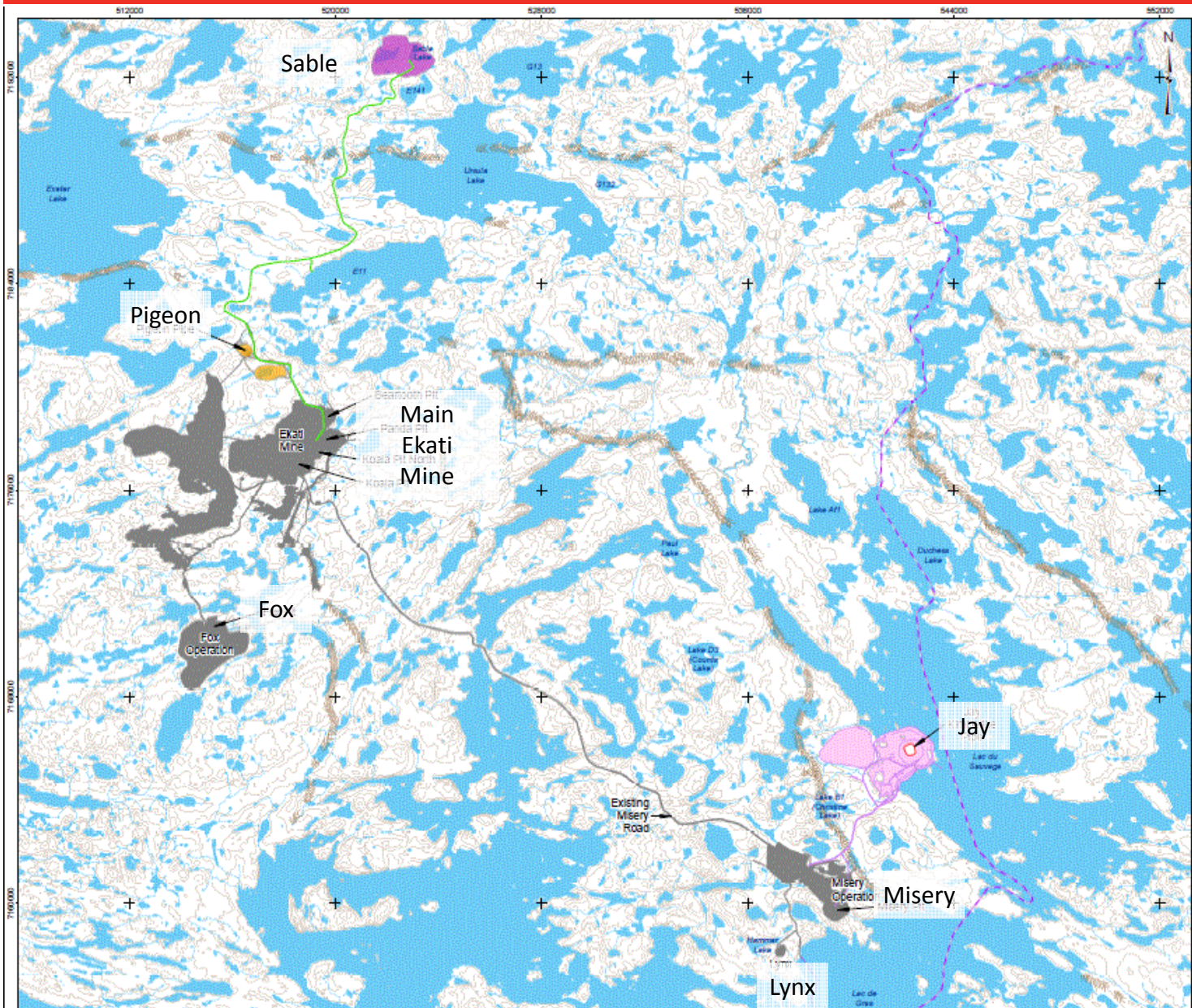
**Alternatives Assessment and
Project Description**



Overview

- Project Alternatives (DAR Section 2)
- Jay Project Description / Engineering (DAR Section 3):
 - Access Roads
 - Roads and Traffic
 - Dike Design
 - Waste Rock Storage Area
- Community Engagement (DAR Section 4)
- Developer's Environmental Assessment Approach (DAR Section 6)

Ekati Operations and the Jay Project



Jay Project is located:

- 25 km from the main Ekati mine facilities along the Misery Road
- 7 km northeast of Misery Pit operations



Jay Project Alternatives Analysis (DAR Section 2)

The Jay Project needs to be technically, economically, environmentally, and socially viable to proceed.

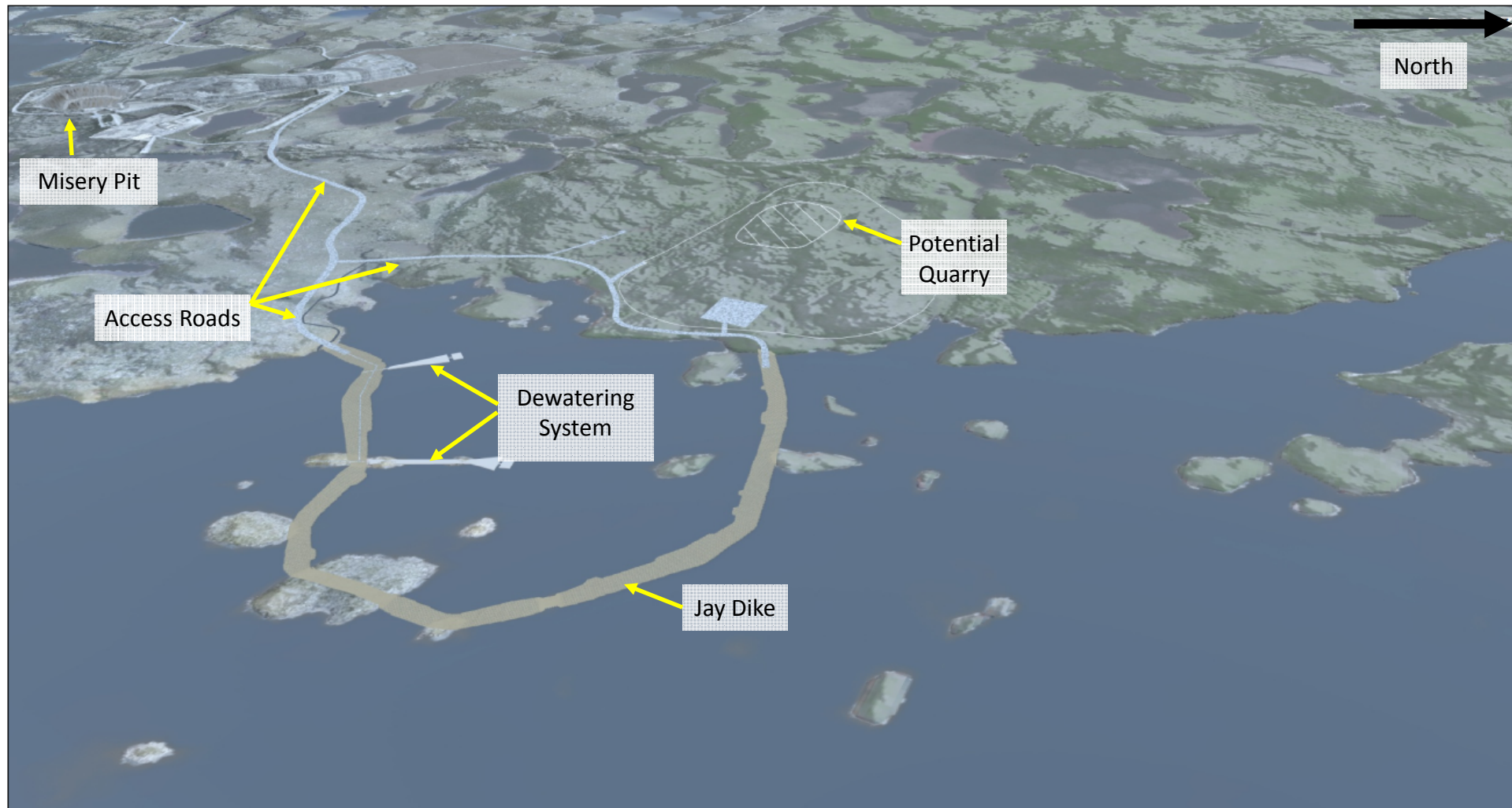
Criteria for Evaluation:

- technical feasibility;
- economic viability;
- environmental considerations; and
- Social economic considerations.

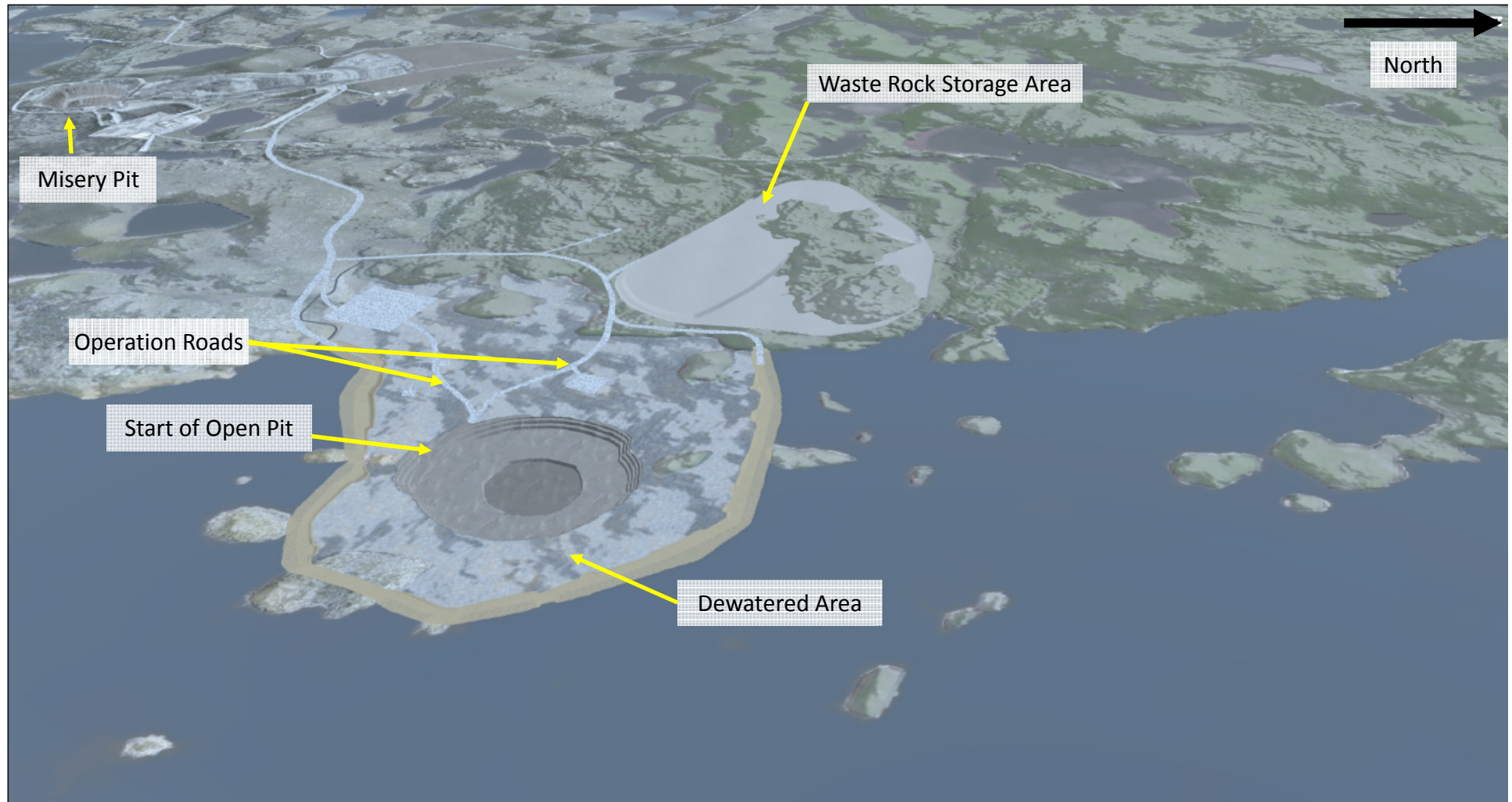
An Alternative Analysis process was used to evaluate aspects of the Project.

- Level 1: involved a detailed alternatives assessment for the overall approach to developing the Project.
 - Includes pre-screening, evaluation of 3 alternatives , relative ranking, sensitivity assessment, identification of most viable alternative.
- Level 2: involved a simpler alternatives assessment process to evaluate components of the Project.
 - Evaluation and Relative rankings: for roads (3) , waste rock storage area (3) , and power supply (4)

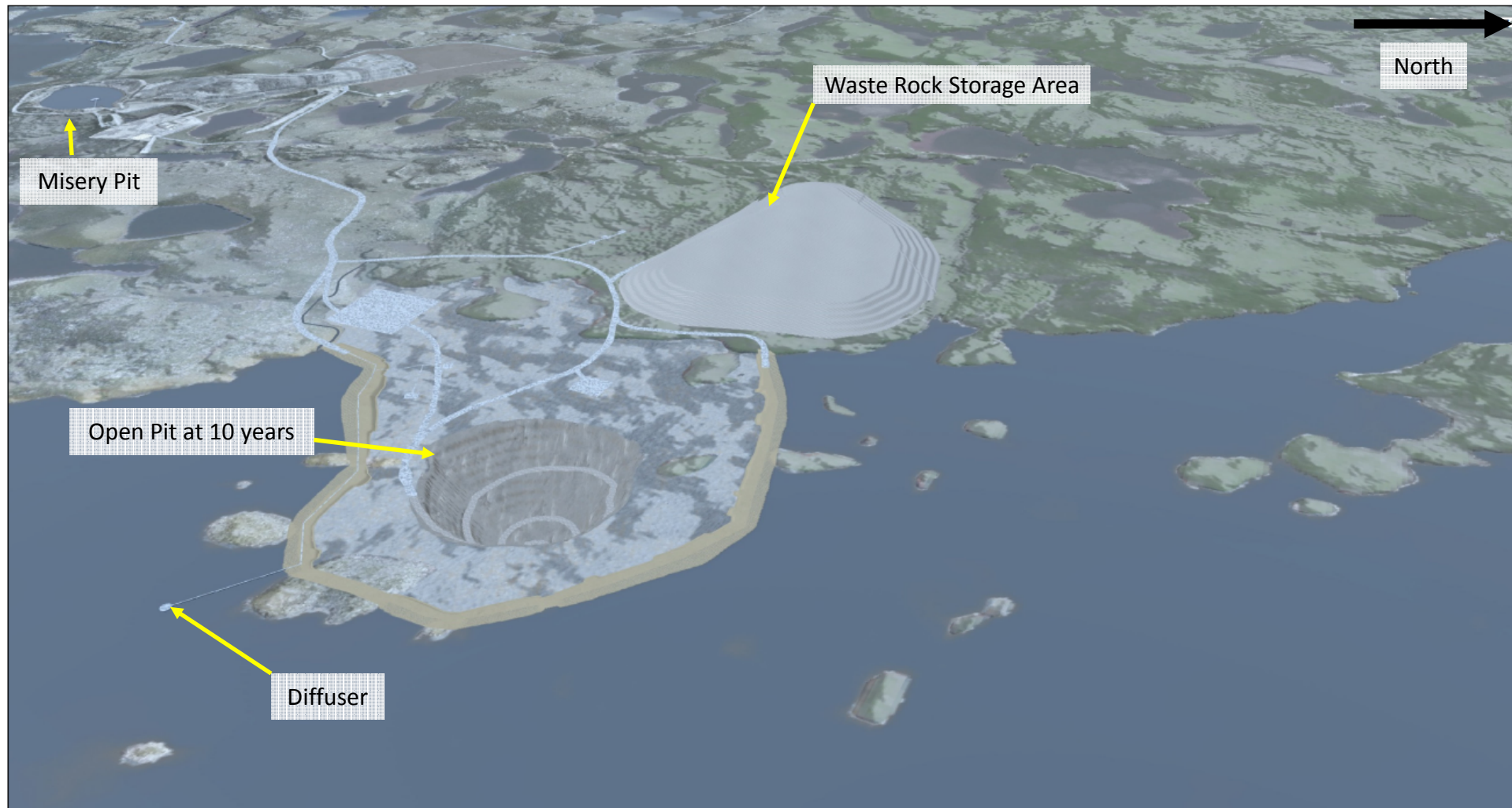
Jay Project - Construction



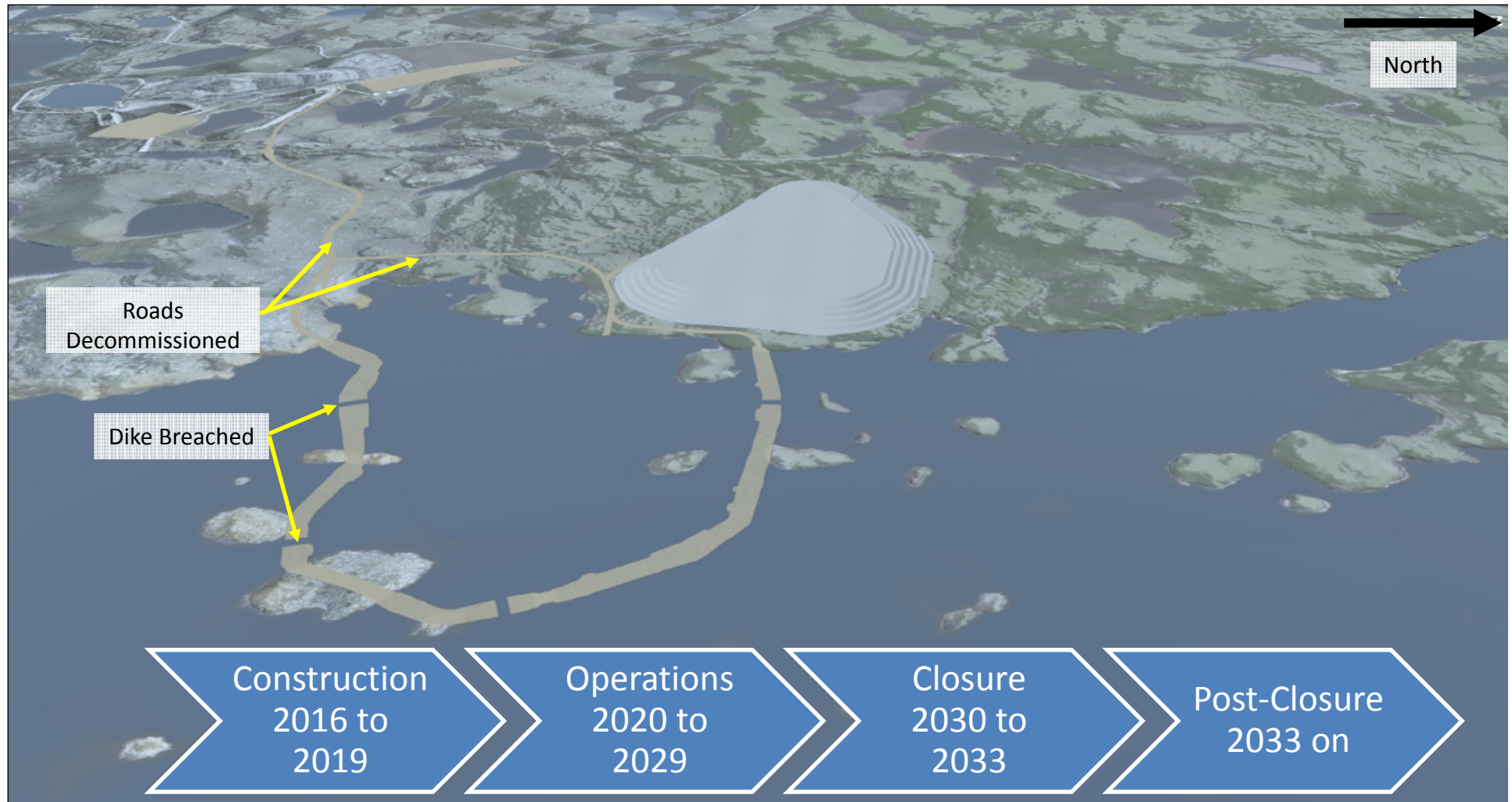
Jay Project - Operations 1st Year



Jay Project - Operations 10th Year



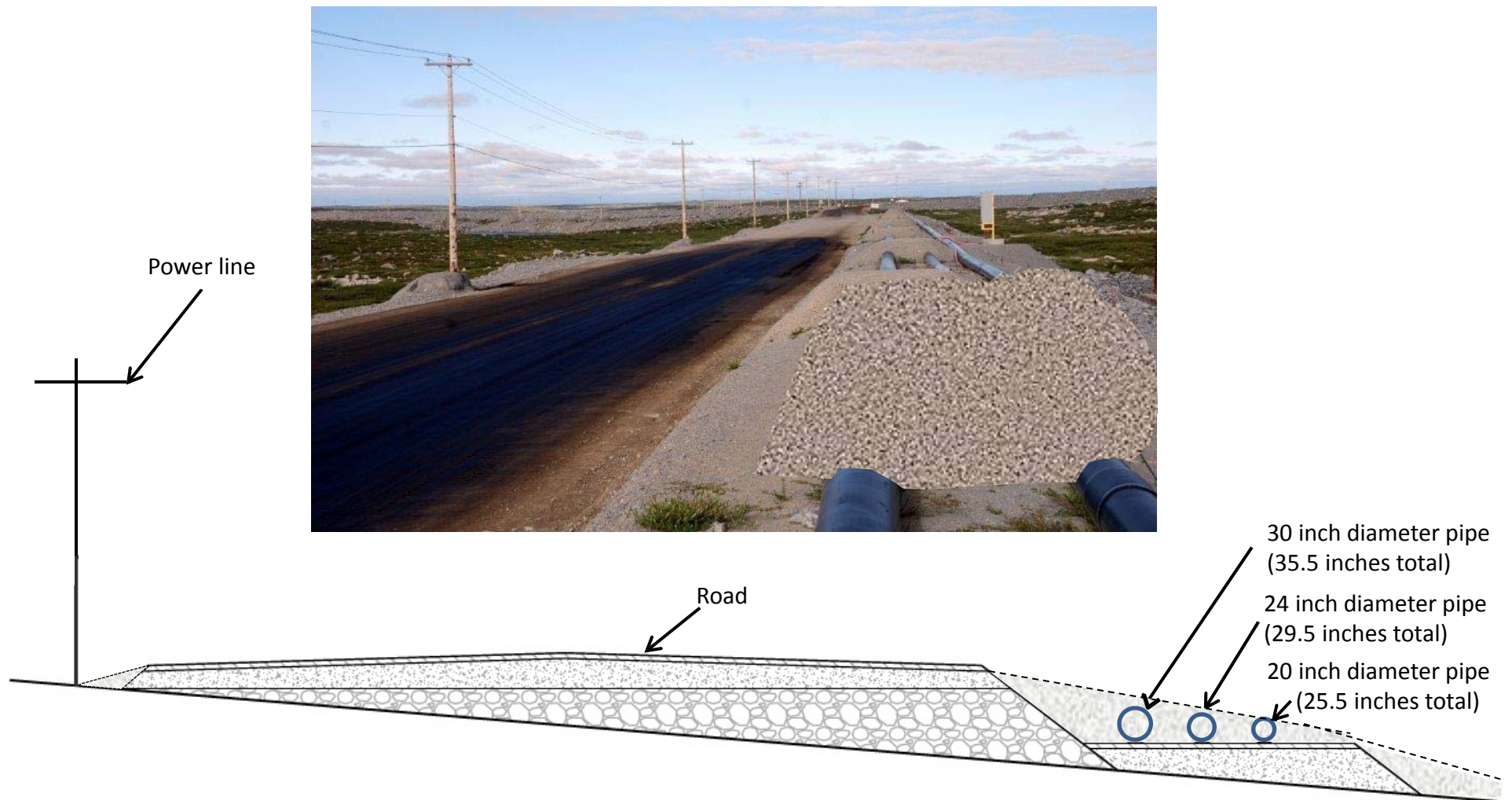
Jay Project - Post-Closure



Jay Project Roads



Jay Project Access Roads – Caribou Crossings



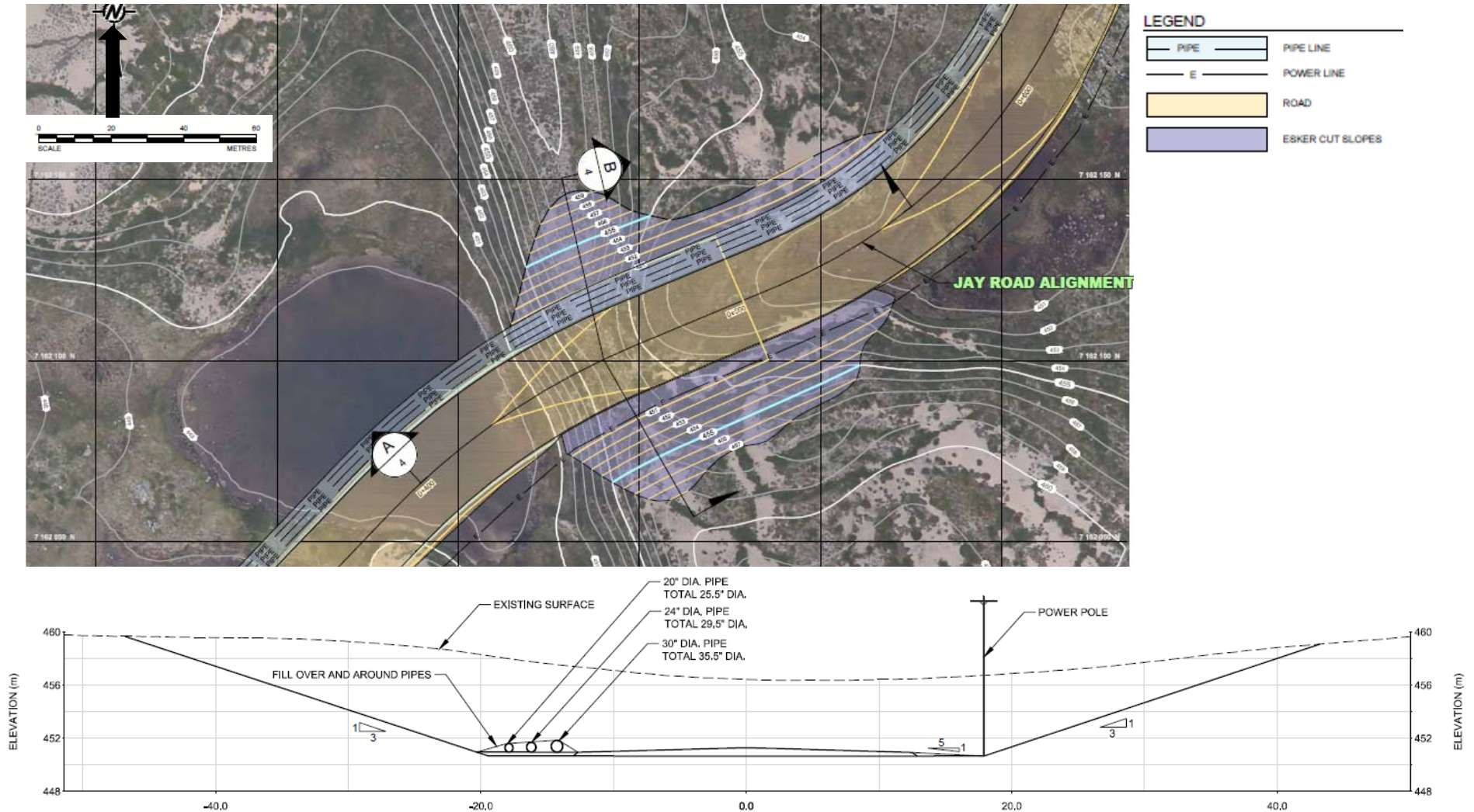
DAR-MVEIRB-IR-83; DAR-MVEIRB-IR-90; DAR-MVEIRB-IR-95; DAR-KIA-IR-03;
DAR-KIA-IR-18; DAR-LKDFN-IR-02;



Jay Project Roads – Esker Crossing



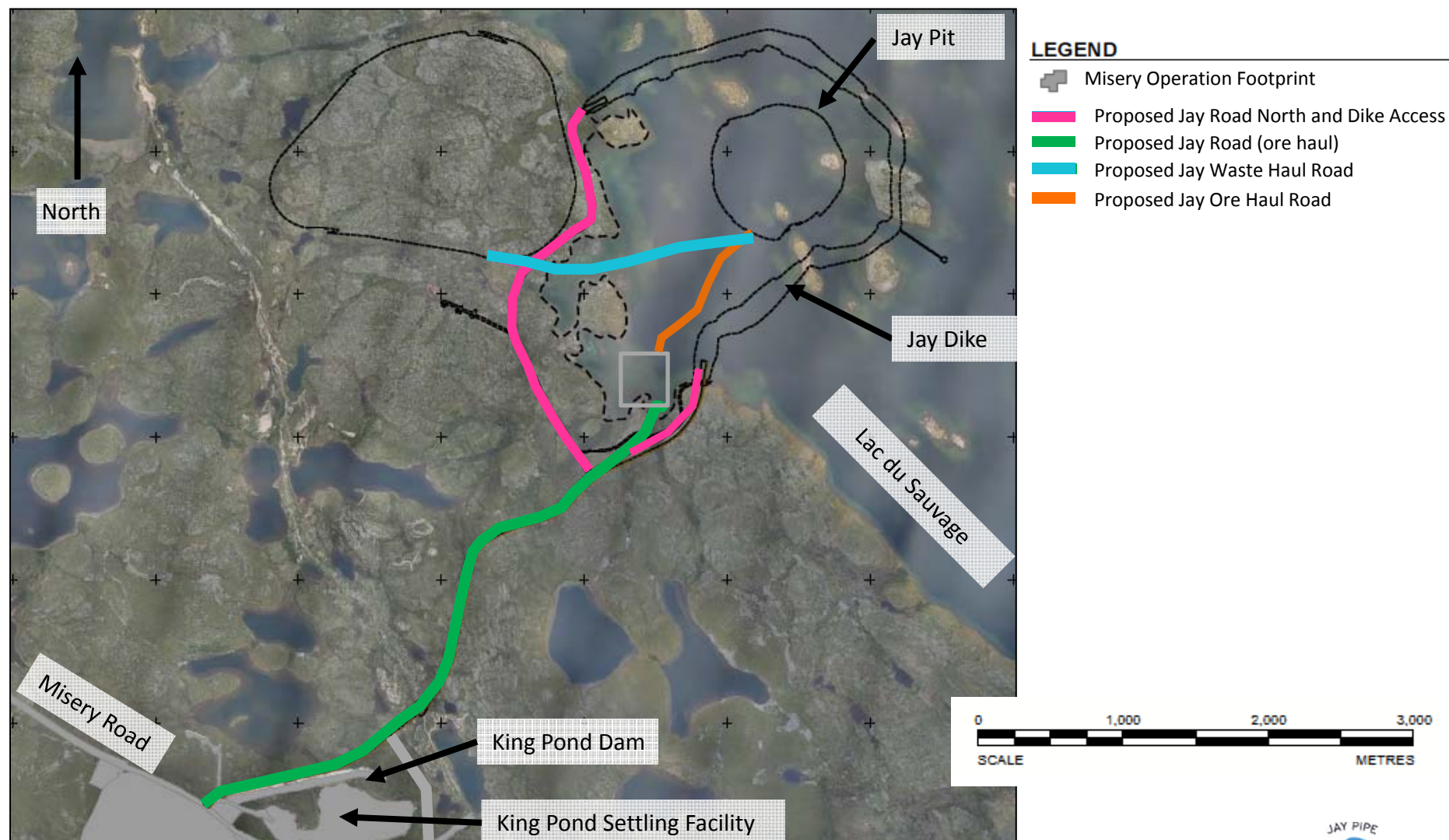
Jay Project Roads – Esker Crossing



DAR-IEMA-IR-43; DAR-KIA-IR-18; DAR-MVEIRB-IR-83 DAR-MVEIRB-IR-90



Jay Project Roads and Traffic (Appendix C)



Jay Project Roads – Operations Traffic Estimates

Years	Estimated Range of Round Trips per day (24 hours)	Estimated Time Between Vehicles (minutes)
	2019 to 2030	2019 to 2030
Jay Road (Jay Ore Transfer Pad to Misery Road)		
Long-haul ore trucks	50 – 60	12 – 14.4
Non-haul vehicles	20 – 30	24 – 36
Total	70 – 90	8 – 12
Misery Road (Misery to Ekati)		
Long-haul ore trucks	50 – 60	12 – 14.4
Non-haul vehicles	30 – 45	16 – 24
Total	80 – 105	6.9 – 9

Jay Project Dike Design

Meadowbank Bay – Goose Dike and Goose Pit

Courtesy of Agnico Eagle Mines Limited, Meadowbank Division



New Dike design will be similar to dikes used at the Meadowbank Gold Mine near Baker Lake, NU

Diavik Mine – A154 and A418

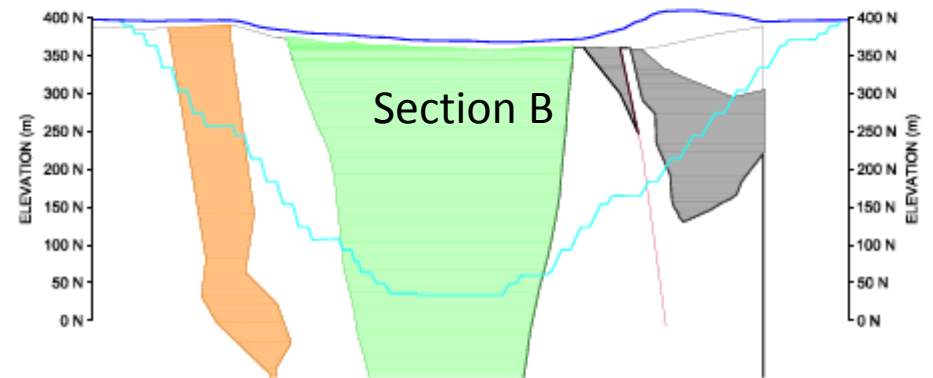
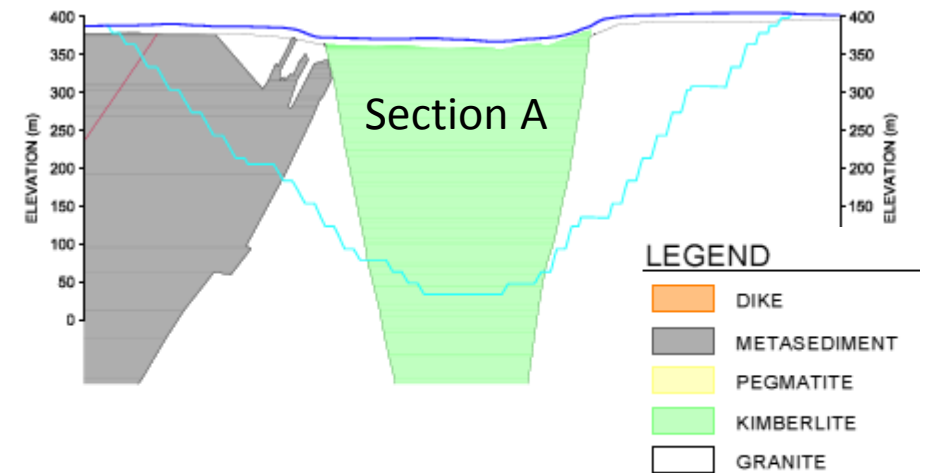
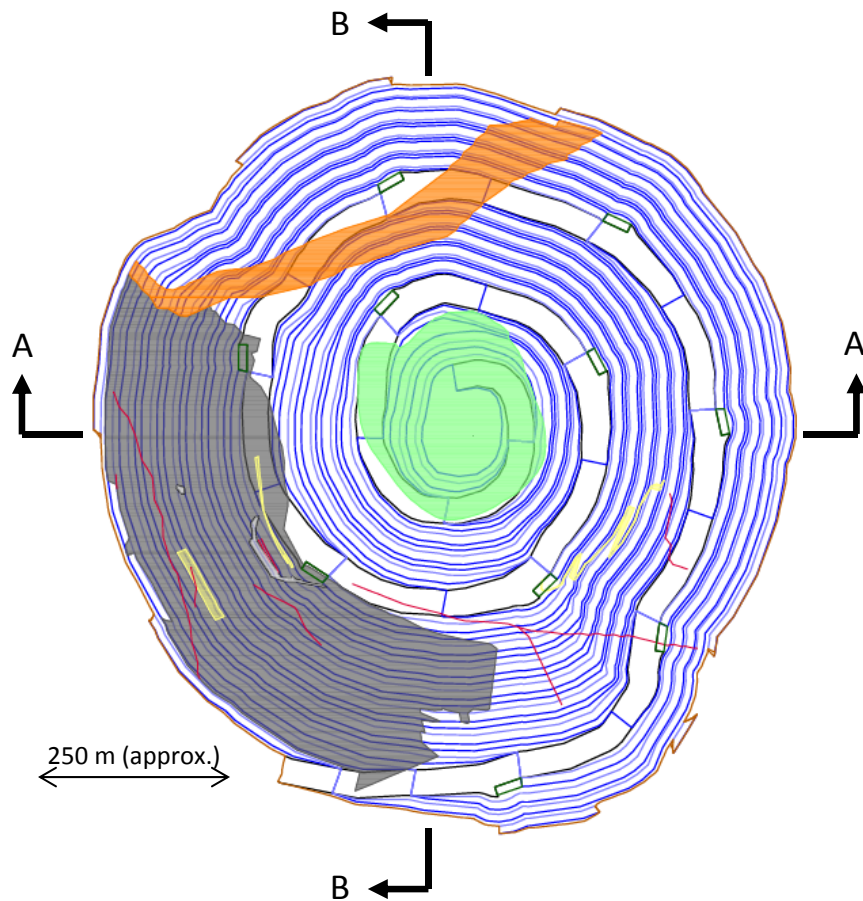


New Dike design for Jay Project (5 km) will be comparable in length to the current Diavik dikes

Summary of Northern Dikes

	Ekati Jay Dike (proposed)	Meadowbank Bay-Goose Dike	Meadowbank East Dike	Diavik A154	Diavik A418	Diavik A21 (proposed)
Length (m)	5,050	2,200	800	3,900	1,300	2,100
Max. Water Depth (m)	13	8.5	6	25	32	19
Avg. Water Depth (m)	5	4.5	3		11	7
Max. Bedrock Depth (m)	23 estimated	22	8	27	35	27 estimated
Volume of Lake Isolated (million m ³)	27	3	15.3	10.3	2.3	6.2
Surface Area Isolated (km ²)	4.2	0.14	1.3	1.5	0.25	0.45
Construction Years	3 estimated	3	2	2	2	2.5 estimated

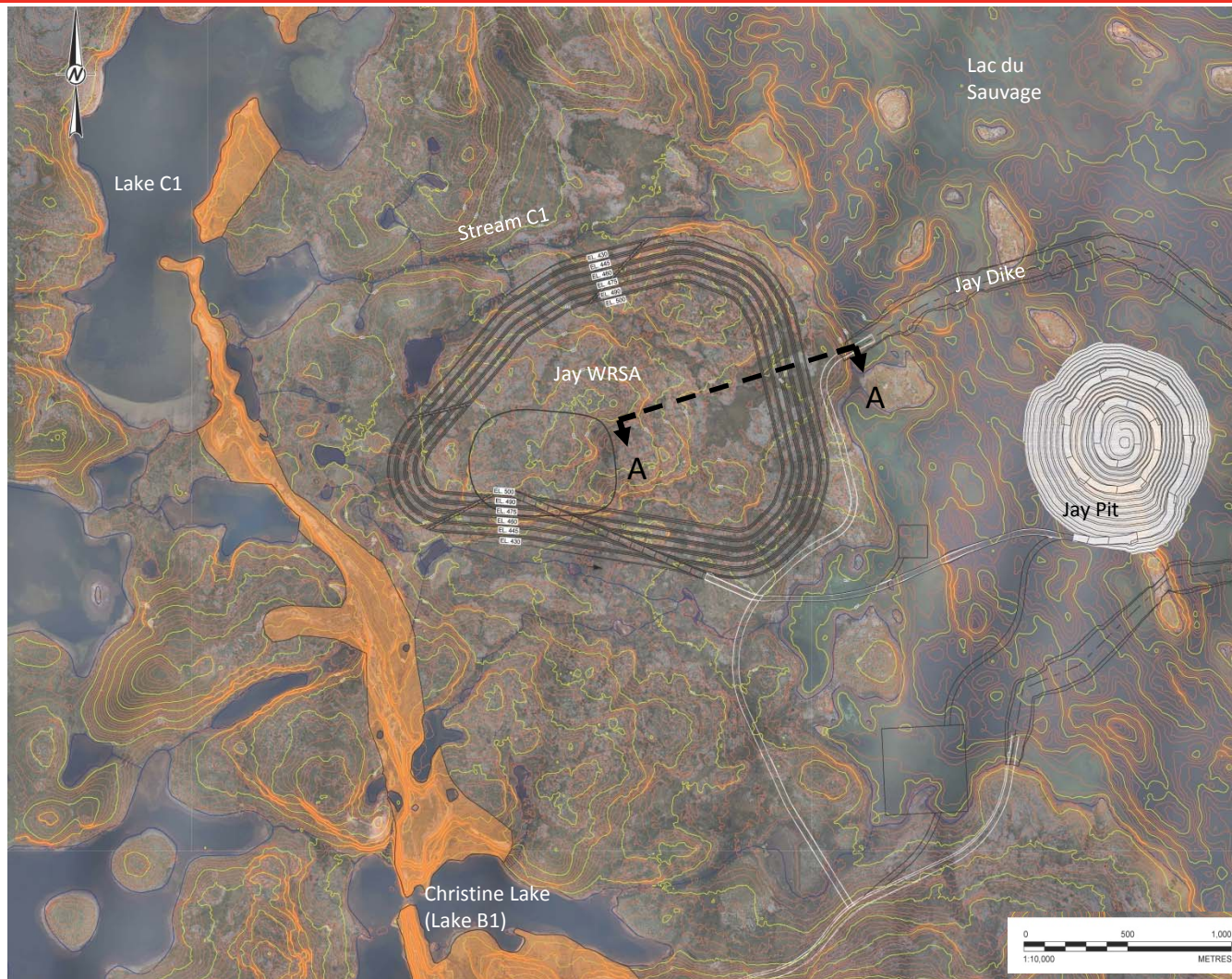
Jay Project – Open Pit and Kimberlite Pipe



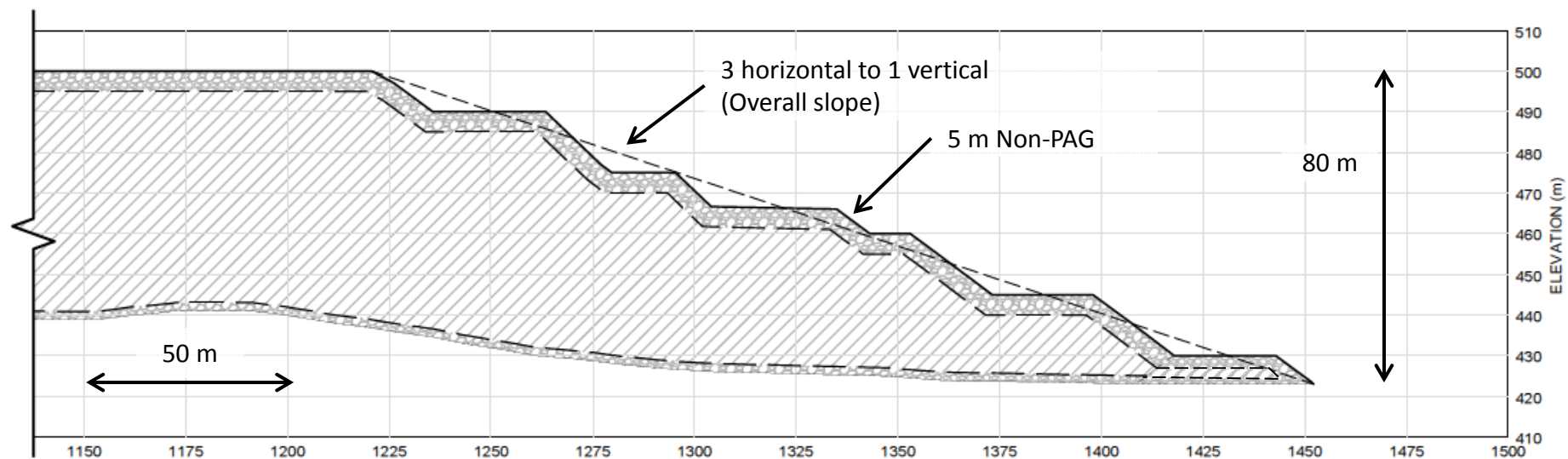
Horizontal Scale - Section



Jay Project - Waste Rock Storage Area



Jay Project Waste Rock Storage Area Section



LEGEND



Non-potentially acid generating waste rock



Co-deposited waste rock (potentially and non-potentially acid generating)

Jay Project - Community Engagement (DAR Section 4)

Community engagement was used to inform aspects of the engineering project components. Community engagement included Project-specific workshops, community meetings, and site visits to Ekati that included aerial viewing of the Jay Project site, including the access road route and the esker crossing location.

- Change from the Jay-Cardinal Project to the Jay only Project
- Jay access road location and in particular esker crossing location
- Caribou crossings along roads (design and locations)
- Ore stockpiling to allow temporary road closures during hauling
- WRSA location and design
 - increased setback from esker
 - vegetation/land quality for caribou
 - spring and fall migrations
 - wildlife egress ramps

Environmental Assessment Approach (DAR Section 6)

- Valued components
 - represent physical, biological, cultural, social, and economic properties of the environment that are considered to be important by society
- Assessment endpoints
 - key properties of VCs that should be protected for use by future human generations (incorporates sustainability)
 - used to assess significance of impacts on VCs
- Measurement indicators
 - properties or attributes of the environment and VCs that, when changed, could result in, or contribute to, an effect on assessment endpoints
 - may be quantitative (e.g., concentrations of metals in surface water) or qualitative (e.g., movement and behaviour of wildlife from disturbance to habitat and travel corridors)

Environmental Assessment Approach (DAR Section 6)

- Assessment Cases

Base Case		Application Case	Reasonably Foreseeable Development Case
Reference Condition	2014 Baseline Conditions		
No or minimal human development	Conditions from all previous, existing, and approved developments before the Project	Base Case plus the Project	Application Case plus reasonably foreseeable developments

Environmental Assessment Approach (DAR Section 6)

- Reasonably Foreseeable Developments
 - Potential future projects that could contribute to cumulative effects on VCs of the biophysical and human environments (i.e., overlap with the temporal and spatial distribution of VCs and the Project)
 - Assessment of cumulative effects for the RFD Case needs to be based on projects that have a reasonable degree of certainty of being developed
 - Need sufficient information on timing, location, and construction and operational details to quantitatively and/or qualitatively assess effects to biophysical and human components of the environment
- At the time of writing the DAR, Sable and A21 pits were not included in the Ekati and Diavik mine plans
 - Due to bulk sample program at Sable in winter 2014/5, assessment of Sable as an RFD included in Sable Addendum (December 2014)
 - Press release regarding A21 in November 2014; assessment of A21 provided in the response to DAR-MVEIRB-IR-78

Questions?

