

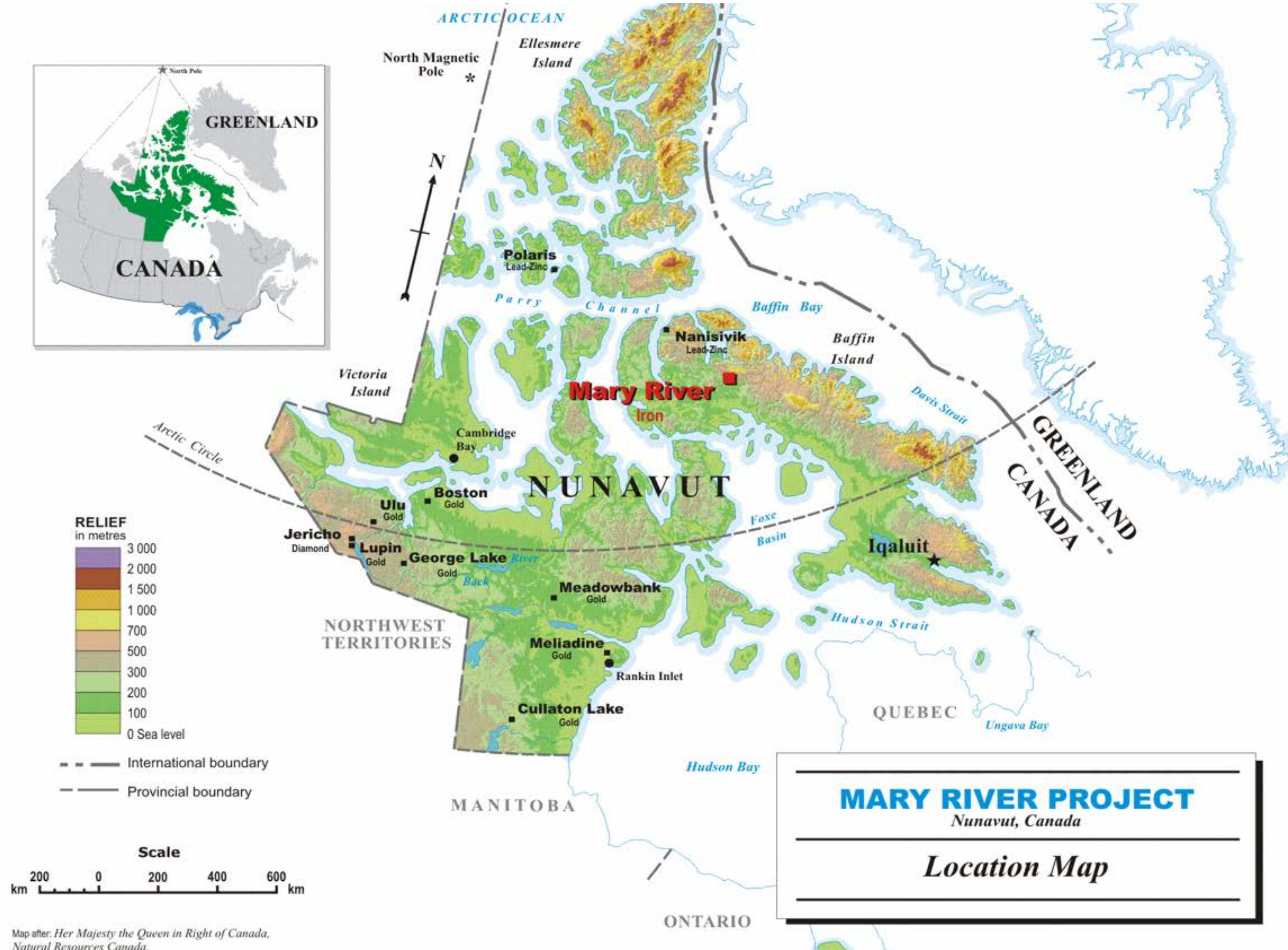
Exploration Update: Baffinland's Mary River Project, north Baffin Island, Nunavut

Thomas Iannelli PhD
Head of Exploration

Nunavut Mining Symposium,
April 27, 2023



Where we work



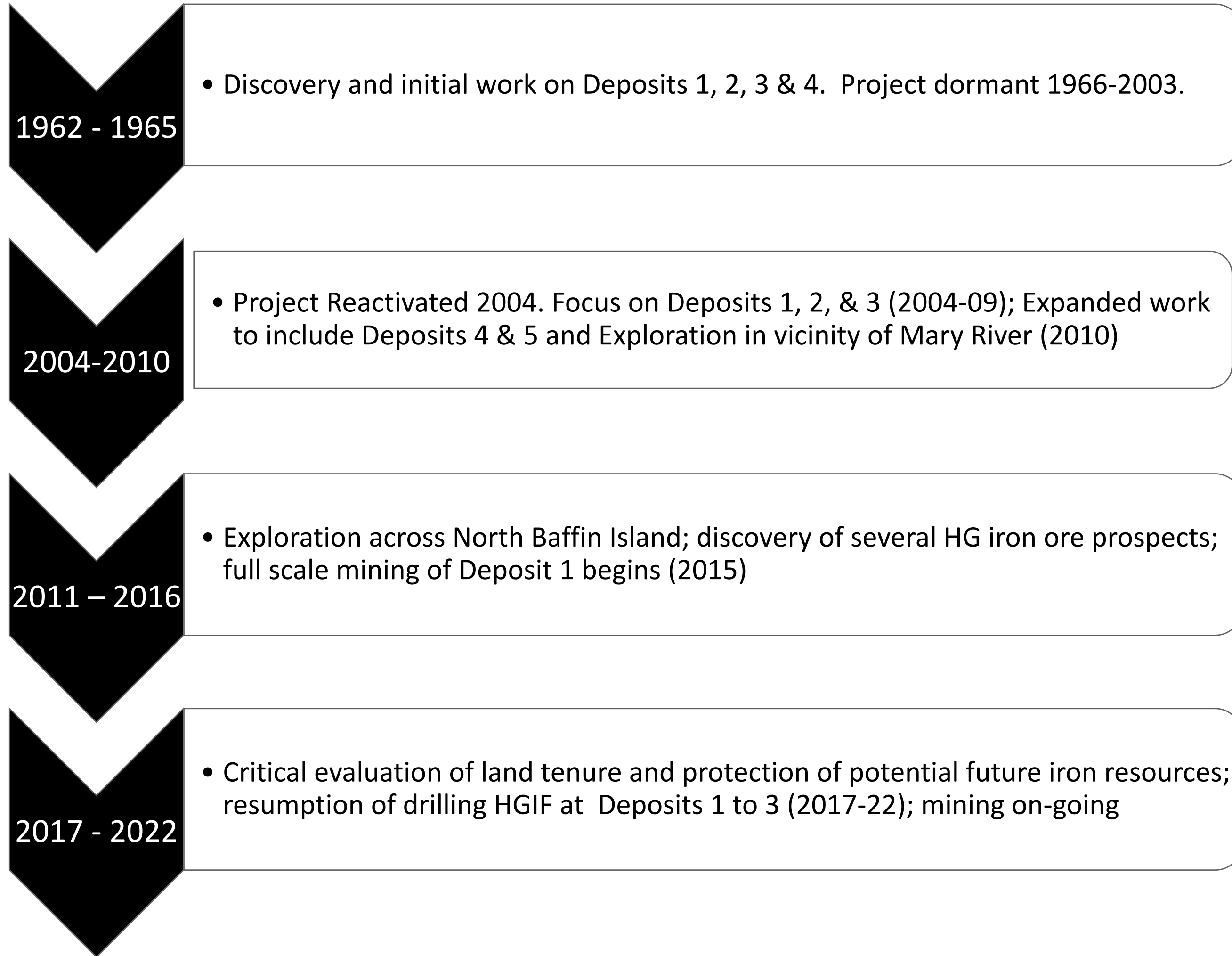
**Deposit No. 1 with Deposit No. 2 in foreground
Looking south-westerly (ca 2006)**

Deposit No. 1

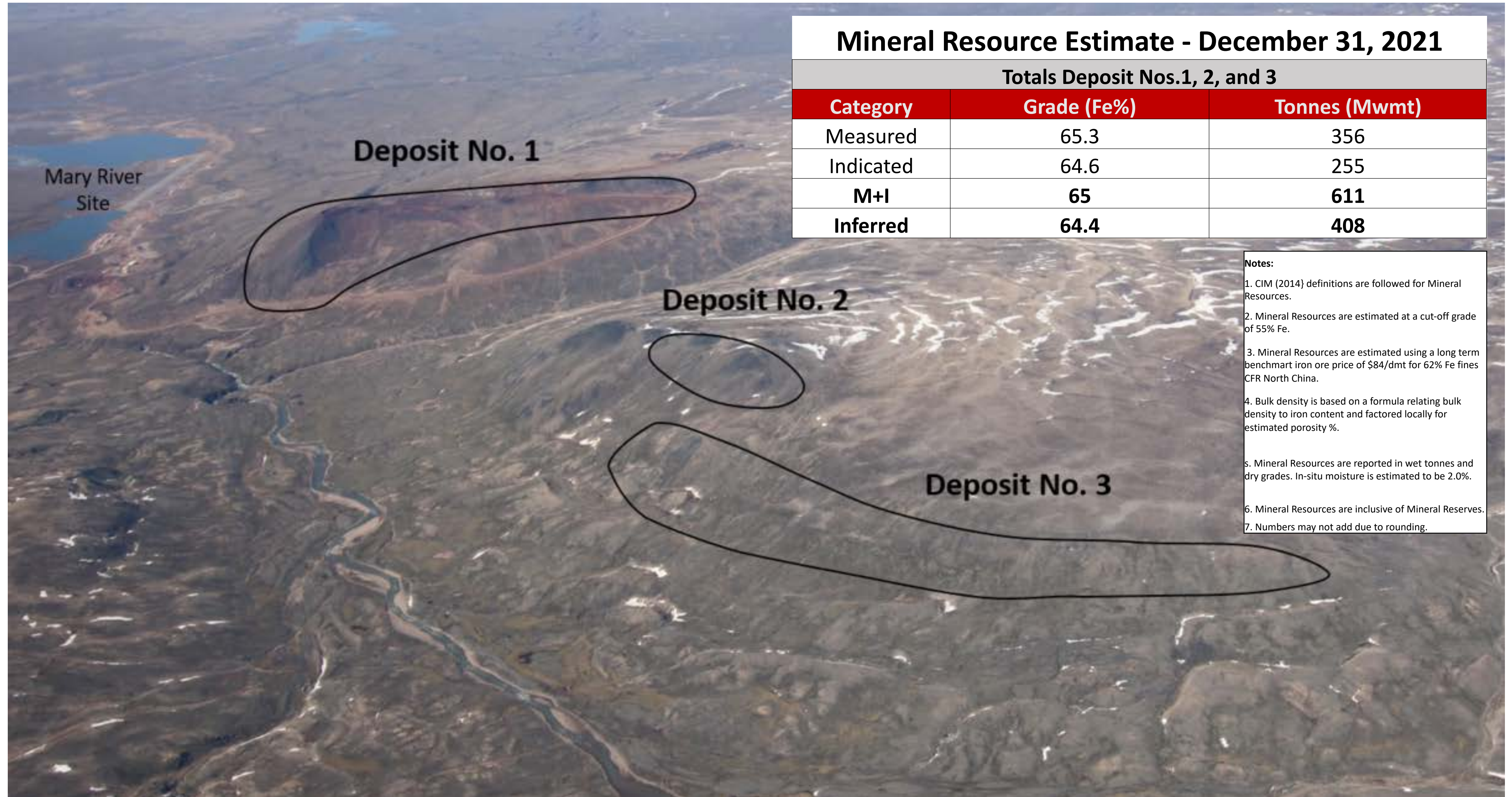
Deposit No. 2



Mary River Project History



Aerial View of Deposits 1, 2 and 3: Looking West



Mineral Resource Estimate - December 31, 2021

Totals Deposit Nos.1, 2, and 3

Category	Grade (Fe%)	Tonnes (Mwmt)
Measured	65.3	356
Indicated	64.6	255
M+I	65	611
Inferred	64.4	408

Notes:

1. CIM (2014) definitions are followed for Mineral Resources.
2. Mineral Resources are estimated at a cut-off grade of 55% Fe.
3. Mineral Resources are estimated using a long term benchmark iron ore price of \$84/dmt for 62% Fe fines CFR North China.
4. Bulk density is based on a formula relating bulk density to iron content and factored locally for estimated porosity %.
5. Mineral Resources are reported in wet tonnes and dry grades. In-situ moisture is estimated to be 2.0%.
6. Mineral Resources are inclusive of Mineral Reserves.
7. Numbers may not add due to rounding.

Deposit No. 1: 1962-2019

Completed Work

- ✚ Historical drill programs (1960s): 3,318m in 26 holes
- ✚ Drill programs (2004-09) focused on ~70% of the deposit (i.e. “Saddle Zone” south along north limb and southeast across the south limb): 28,856 m in 130 holes

2012, 2014, and 2017-19 drill programs:

- ✚ Waste rock characterization across FW (1290 m in 5 holes; 2012)
- ✚ Condemnation drilling, waste rock dump (688 m in 6 holes; 2014)
- ✚ Ore characterization drilling (1214 m in 10 holes; 2017-19)
- ✚ Ore Definition & condemnation drilling, N-Limb Extension (2018-19)
 - ✚ 2273 m in 11 holes
 - ✚ Magnetite dominated HGIF body ~100m wide, dipping ~60° SE

Current Program (2020 onwards):

- ✚ Ongoing multi-year, >40,000m drill campaign to upgrade resources and perform geotechnical investigation (pit slope design)



Deposit No. 1 – Mining, August 2015



Deposit No. 1 – Mining, July 2017



Deposit No. 1 – Mining, August 2019



Deposit No. 1 – Mining, July 2021



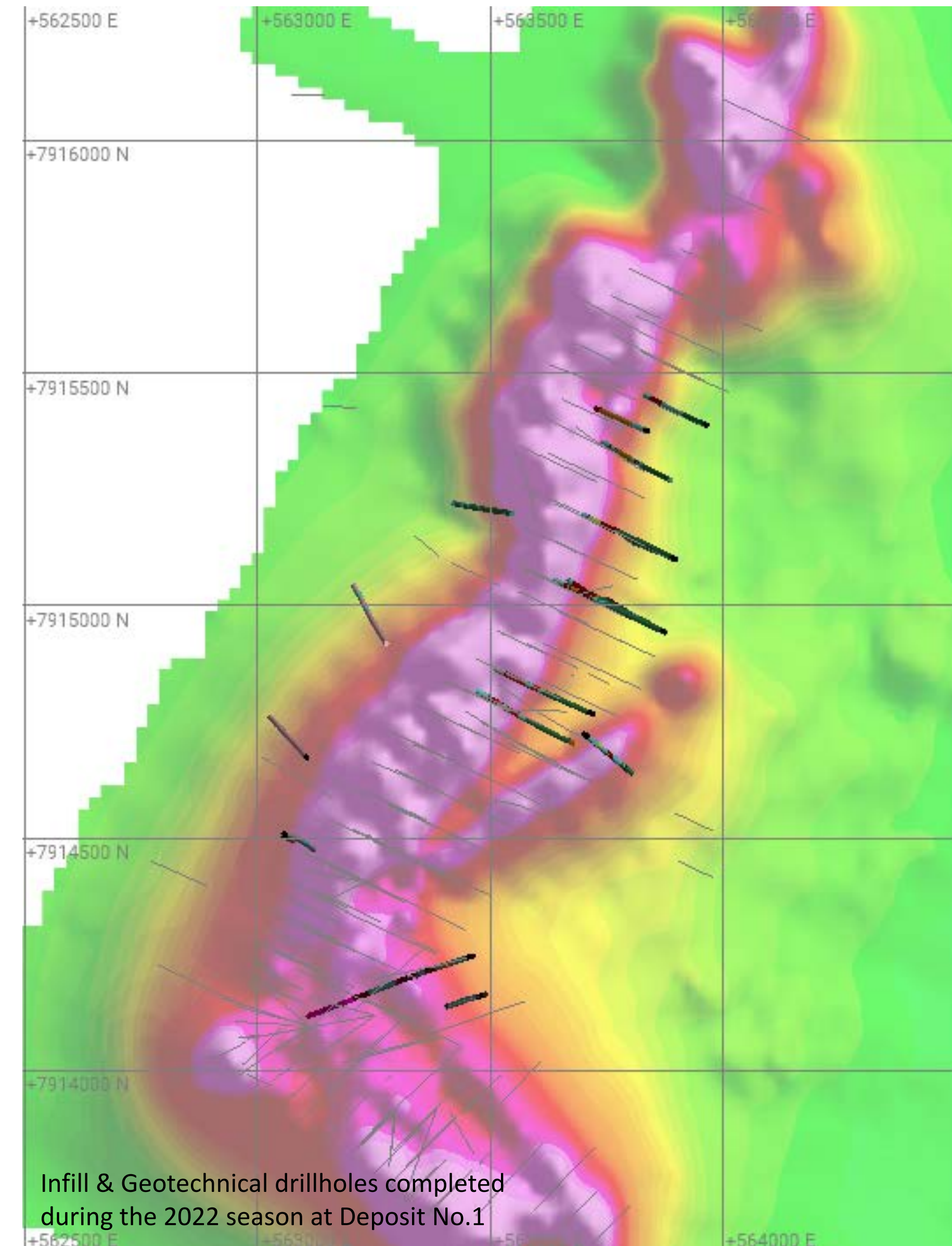
Deposit No. 1 – Mining, April 2023



2022 Geotechnical & Infill Drilling, Deposit No.1

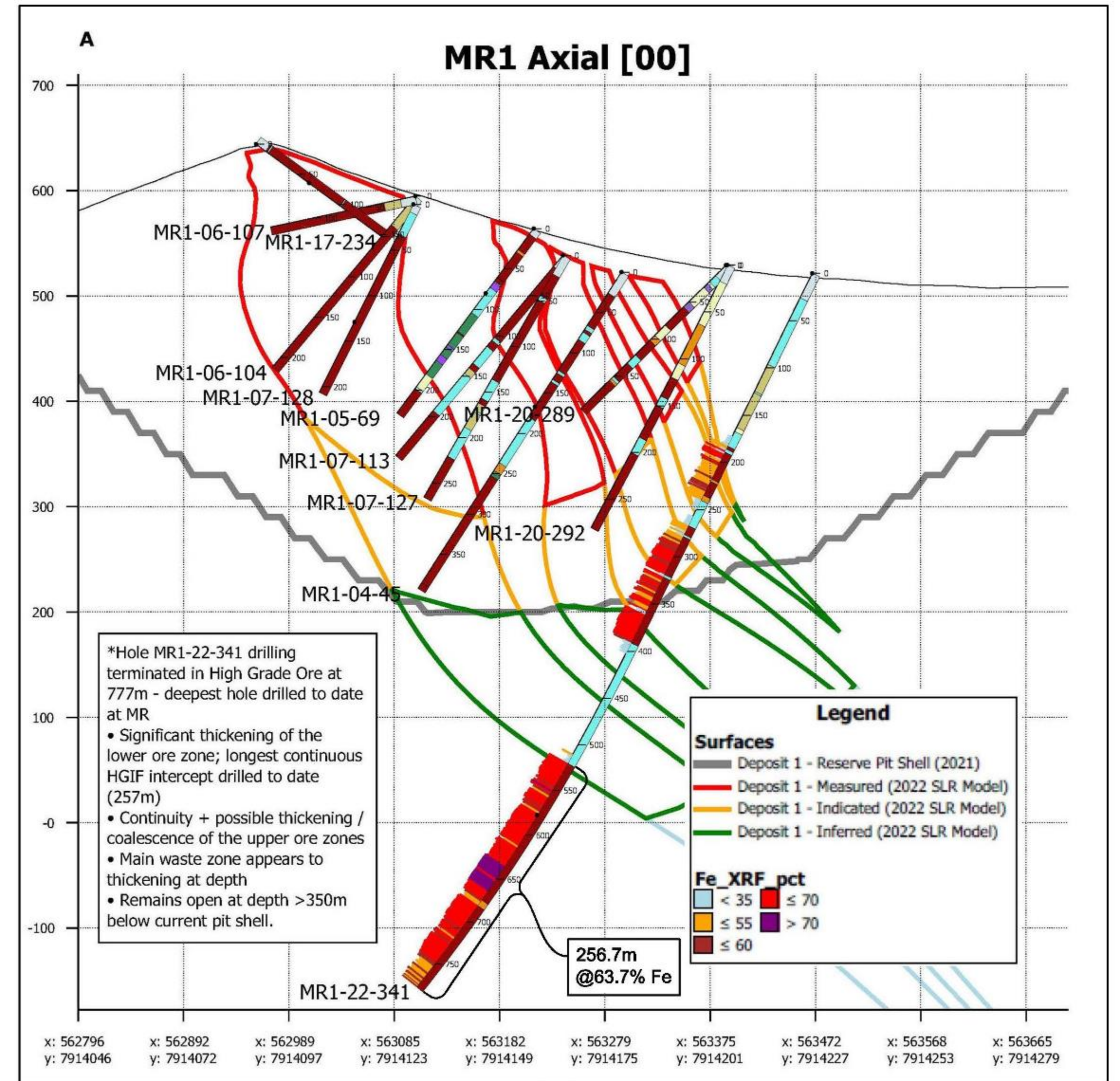
Deposit 1 Program Goals

- ✚ Infill drilling focused across North Limb and Axial Zone.
- ✚ Focus on upgrading of HGIF tonnes from inferred to indicated.
- ✚ Test continuity of Deposit No.1 orebody at depth
- ✚ Continued geotechnical drilling in support of Feasibility level pit slope study.



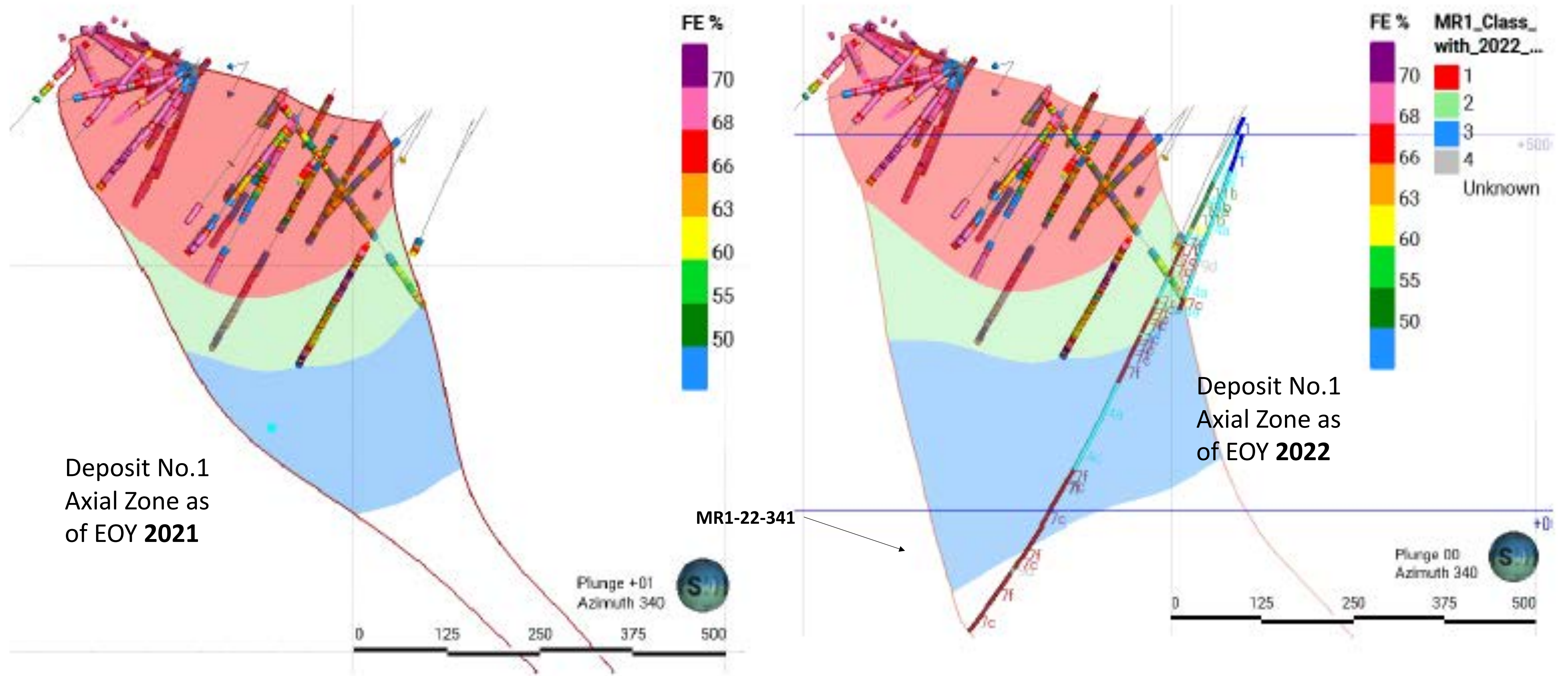
2022 Exploration & Infill Drilling, Deposit No.1 – Axial Zone

- 10,875 meters drilling completed at Deposit No. 1 & 3 in 2022.
- Infill drilling continues to define and expand M&I Resources and Reserves.
- 6,836 meters completed at Deposit No. 1, including:
 - 4,704m resource / infill drilling
 - 2,132m geotechnical drilling
- Hole MR1-22-341: New deep HGIF zone discovered below the Deposit No. 1 hinge zone, extends to >350m below the current pit shell
 - Deepest hole drilled to date at 777m
 - Hole lost in High Grade Iron Formation (HGIF); remains open along strike and at depth
 - Also represents the longest cumulative (257m) and continuous (416m) HGIF intervals drilled at Mary River to date
 - Follow-up drilling in 2023 will test strike and dip extent



2022 Exploration & Infill Drilling, Deposit No.1 – Axial Zone

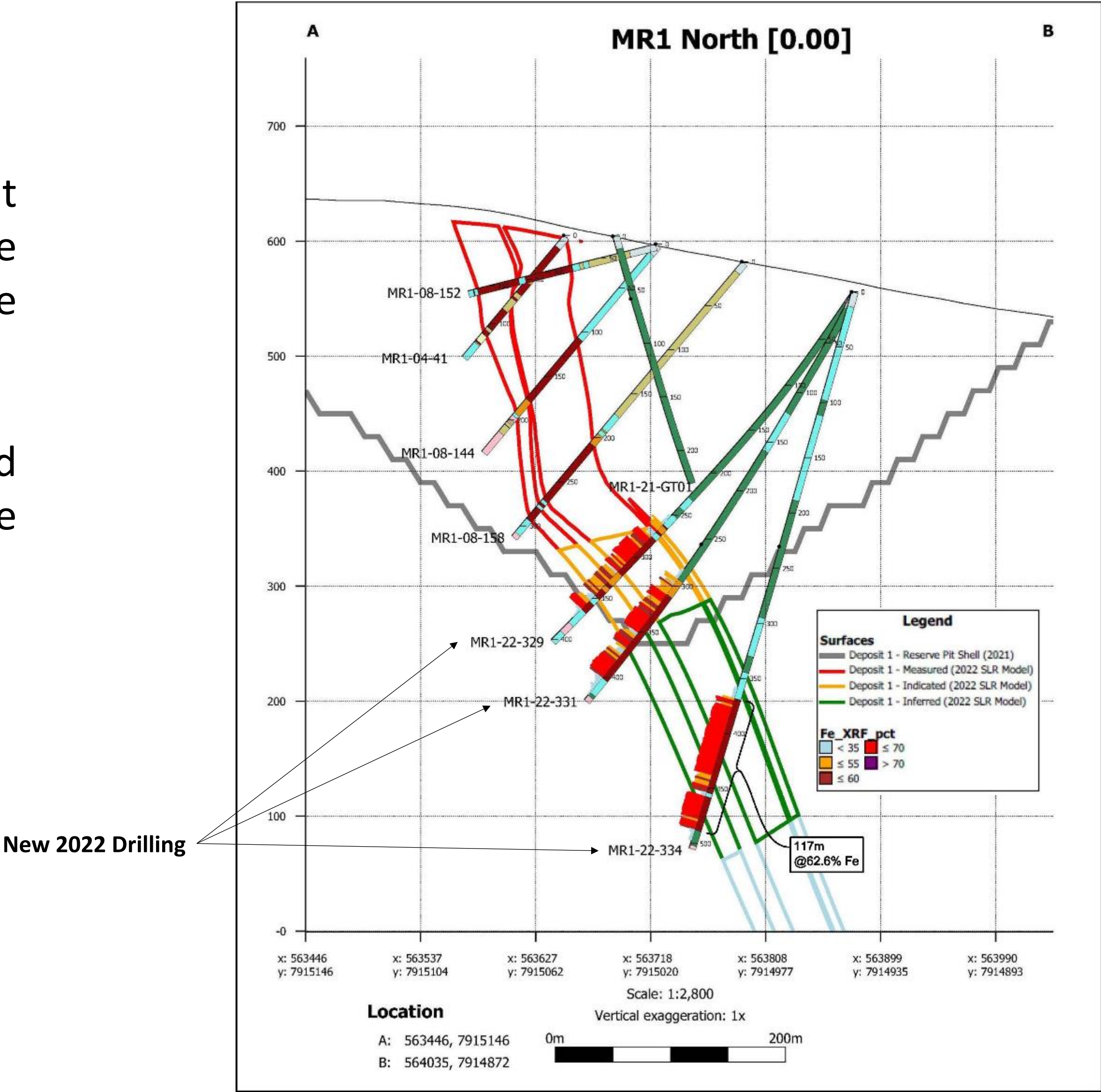
Orebody Expanding at Depth



Note. Previous Drilling Coloured by Fe (%) and 2022 Drilling Coloured by Logging. Facing North.

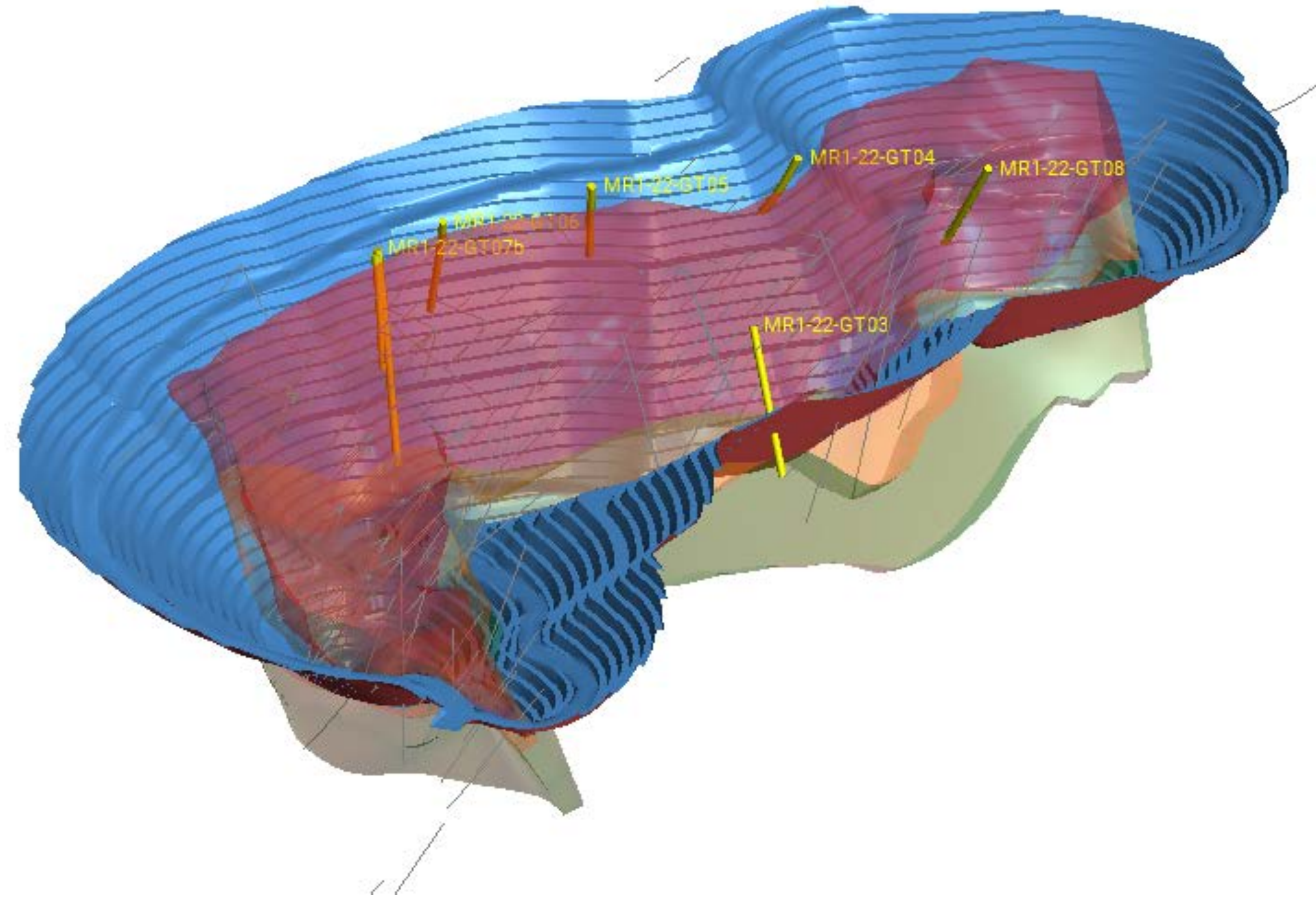
2022 Exploration & Infill Drilling, Deposit No.1 – North Limb

- Infill drilling at the North Limb of Deposit No.1 continues to delineate High Grade resources at depth, >100m below the current ultimate pit shell.
- Ongoing infill drilling in 2023 and beyond will continue to define and upgrade resources at depth and NNE along strike.



Geotechnical Drilling, Deposit No.1

- ▮ Ongoing geotechnical investigation in support of a Feasibility Level pit slope design.
- ▮ 2,376m oriented drilling completed in 7 holes during 2022 season.
- ▮ Geotechnical logging of selected historic exploration drill holes.



Deposit Nos. 2 + 3

Completed work:

- ✦ Drill programs (2006, 2007, 2010, 2018-22):
 - Deposit No. 2: 2440.5 m in 14 holes
 - Deposit No. 3: 15,500 m in 58 holes
- ✦ 2011-13 Ground magnetic + gravity surveys performed
- ✦ 2017 Ground gravity program to increase station density over area of Deposit 2

Current Program (2020 onwards):

- ✦ Ongoing multi-year, >40,000m drill campaign to upgrade resources and perform geotechnical investigation (pit slope design)
- ✦ Ongoing synthesis of geology & geophysics to provide updated structural framework to better define morphology of the high grade ore zones.

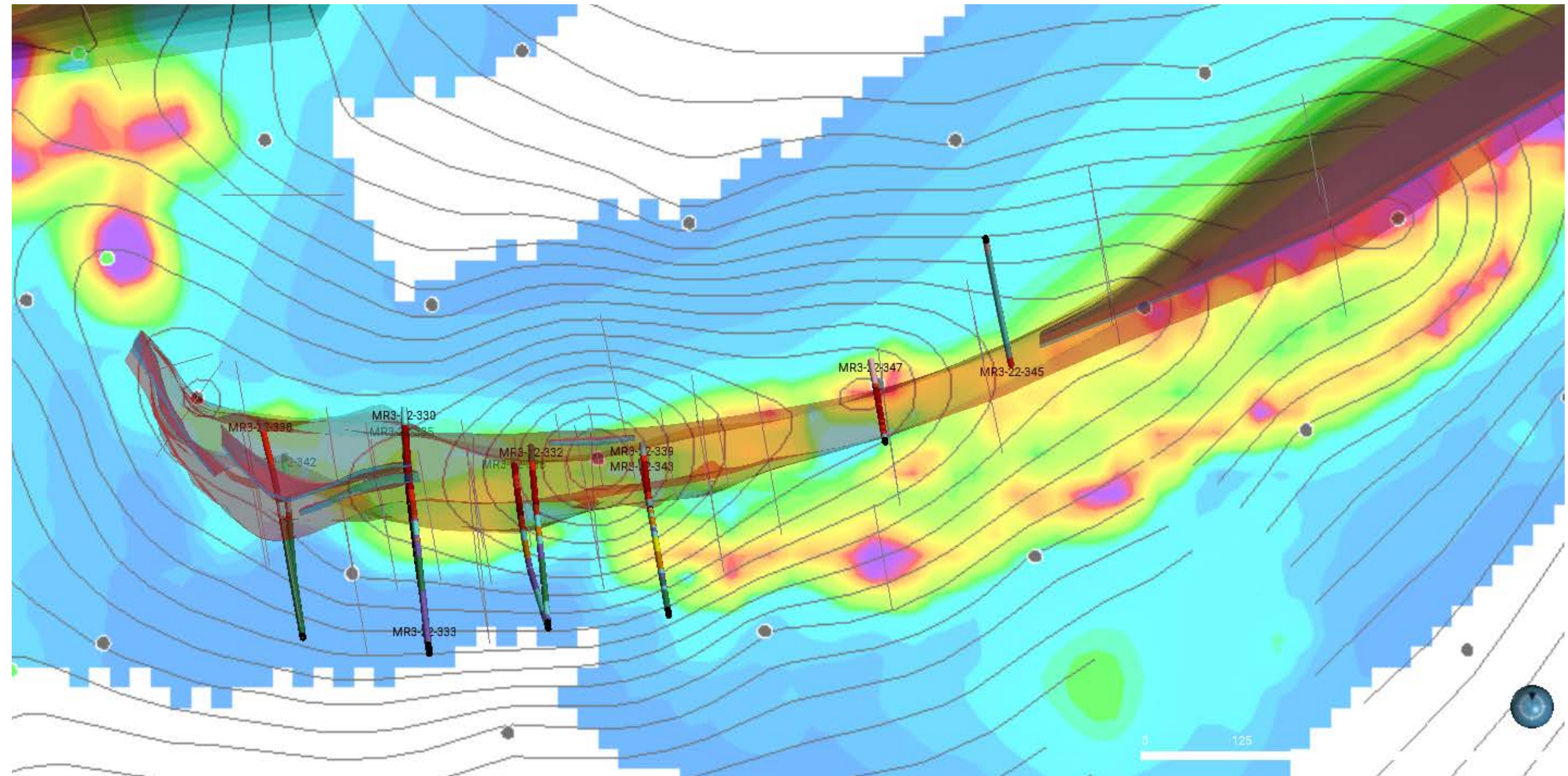


Deposit No. 2: High grade hematite

2022 Exploration & Infill Drilling, Deposit No.3 West

Deposit 3 Program Goals

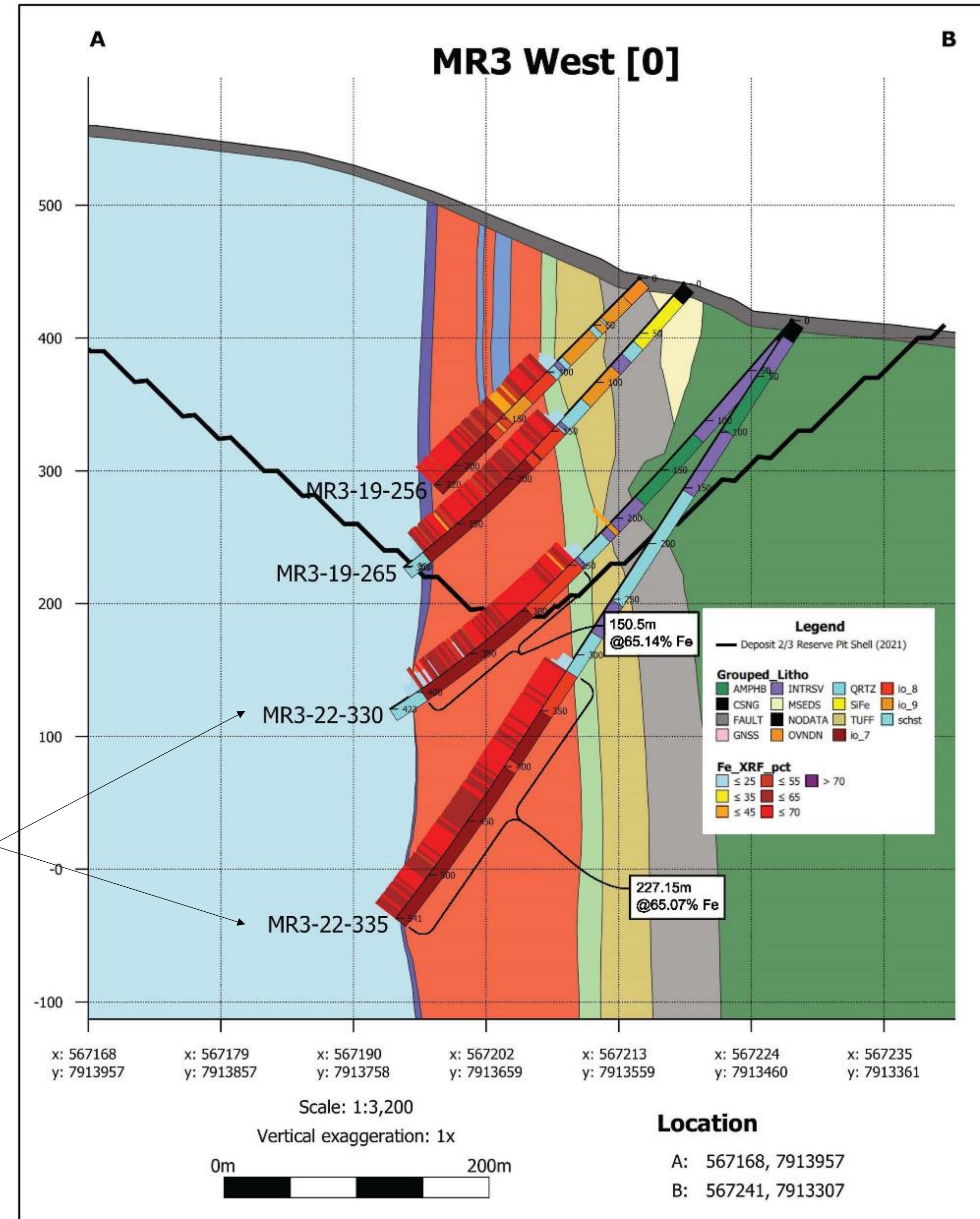
- ✚ Infill drilling primarily focused across the western portion
- ✚ Focus on upgrading of HGIF tonnes from inferred to indicated
- ✚ 4,039 m drilled in 11 holes
- ✚ Drilling indicates continuity of the Deposit No.3 orebody at depth, >200m below the current reserve pit shell.



2022 Exploration & Infill Drilling Deposit No.3 West

- ▬ 10,875 meters drilling completed at Deposit No. 1 & 3 in 2022.
- ▬ 4,039 meters completed at Deposit 3
- ▬ Hole MR3-22-335 intersected 227.2m grading 65.1% Fe, proving continuity of the orebody ~200m below the current reserve pit shell
- ▬ Infill drilling in subsequent seasons will continue to test Deposit No.3 orebody down dip and along strike.

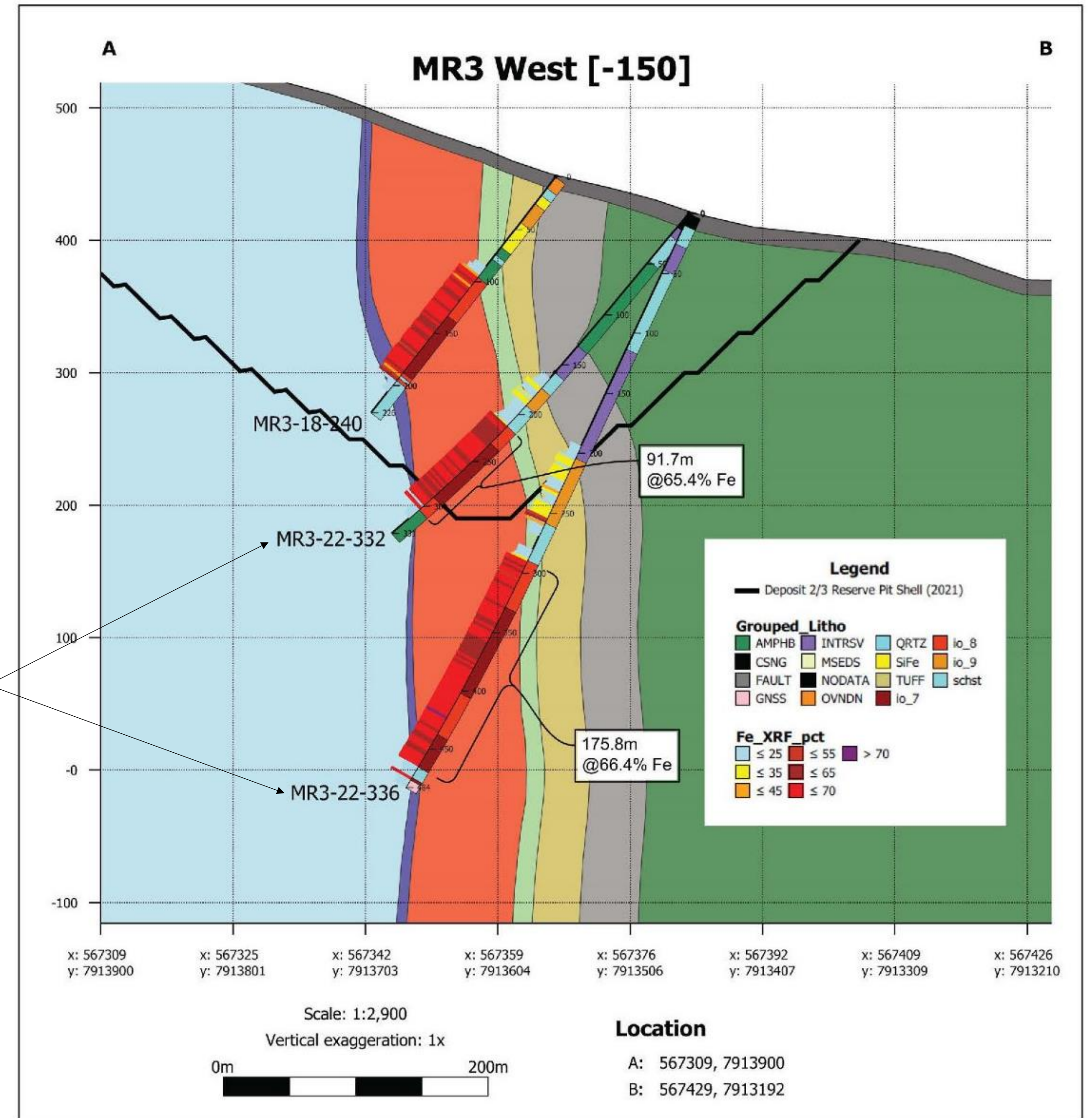
New 2022 Drilling



2022 Exploration & Infill Drilling Deposit No.3 West

- ⚡ 10,875 meters drilling completed at Deposit No. 1 & 3 in 2022.
- ⚡ 4,039 meters completed at Deposit 3
- ⚡ Hole MR3-22-336 intersected 175.8m grading 66.4% Fe, proving continuity of the orebody ~200m below the current reserve pit shell
- ⚡ Infill drilling in subsequent seasons will continue to test Deposit No.3 orebody down dip and along strike.

New 2022 Drilling



2023 Exploration Drill Program

~12000 m program: ongoing execution of multi-year resource + geotechnical drill program at Deps 1 to 3

Deposit 1 Program

North Limb

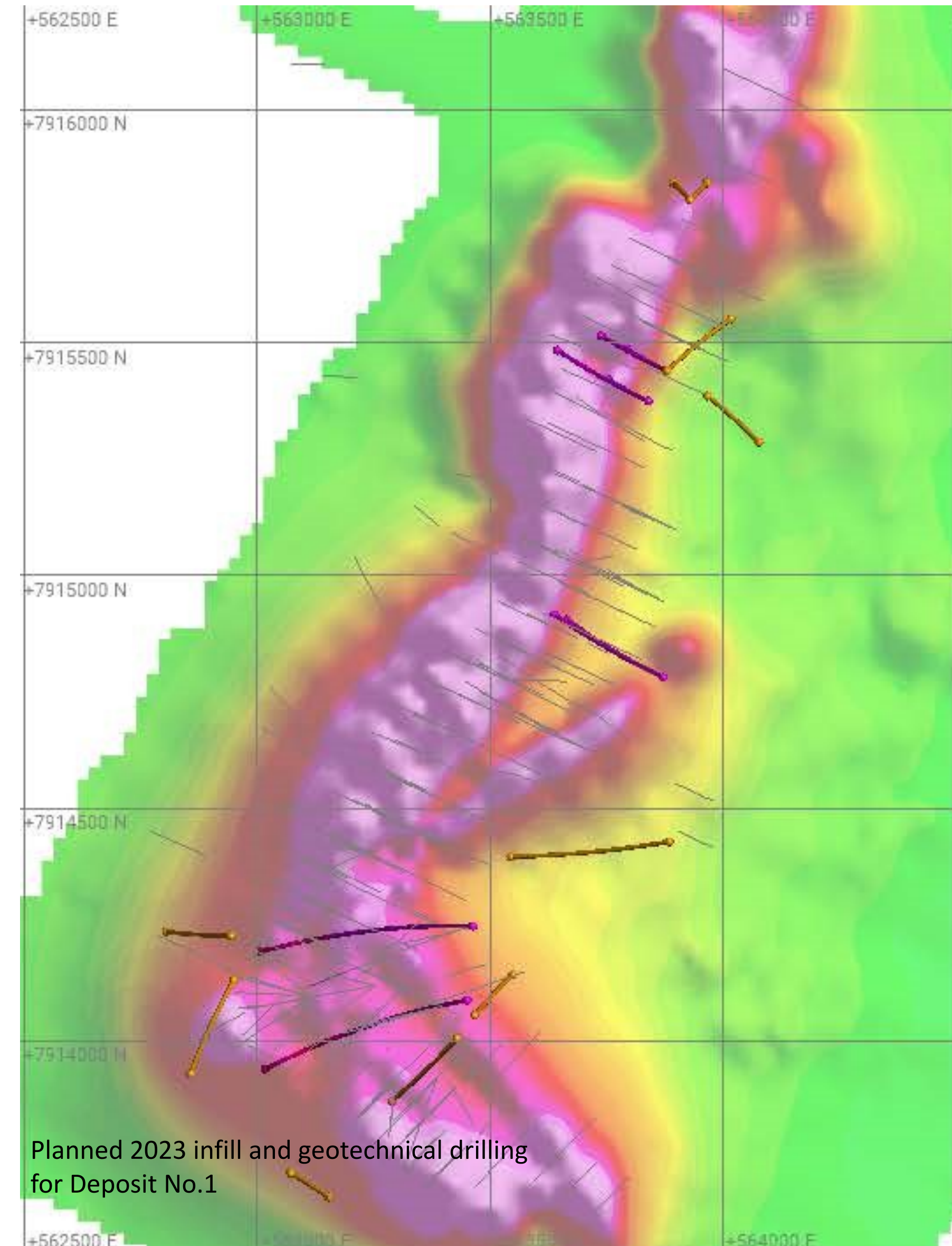
- Continued drilling of the north limb to define extent of the mineralized zone at depth and support an upgrade of total resources.
- 2335m in 6 holes.

Axial Zone:

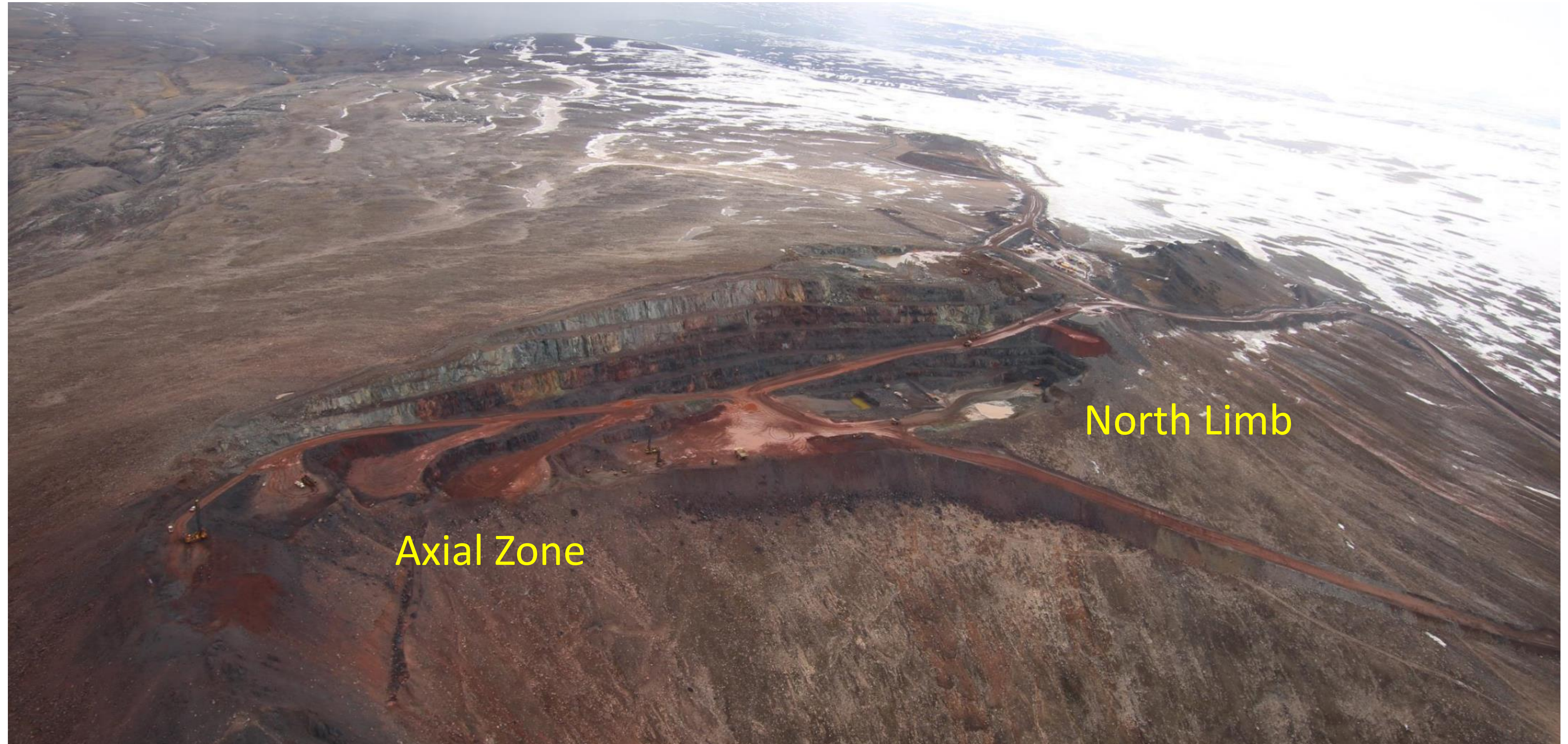
- Two deep (>800m) holes are planned to test strike extent of the newly discovered Triple-Seven Zone.
- Up to 1700m+ in 2 holes

Geotechnical Drilling:

- Geotechnical investigation in support of pit slope design study
- Up to 3150 m in 10 holes



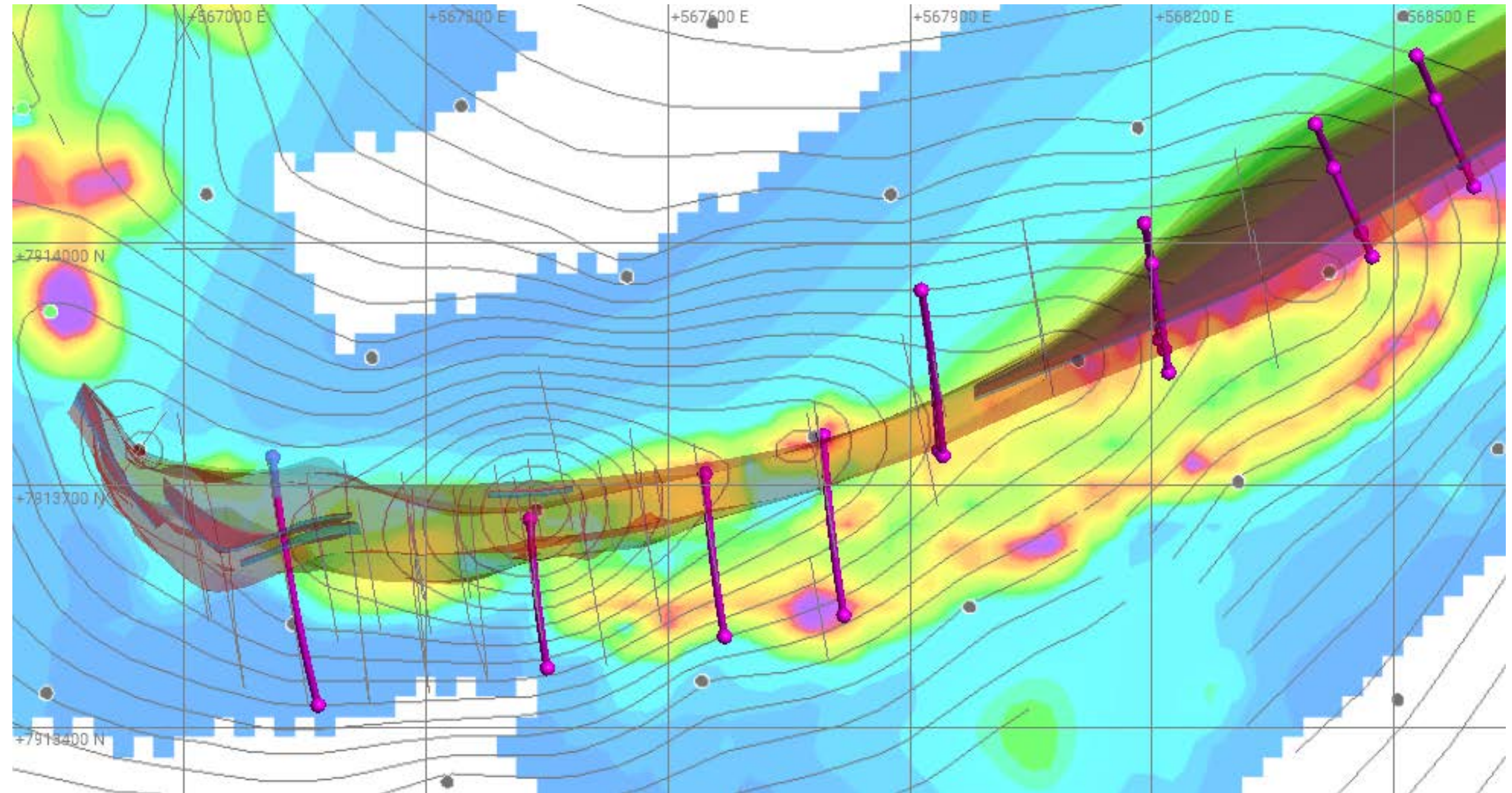
Deposit 1: Continued drilling of North Limb and across the Axial Zone in 2023



2023 Exploration Program: Deposit 3 Drilling

Deposit 3 Program Goals

- Deep infill/exploration drilling in the western portion of the deposit
- Stepout drilling to the east, upgrade resources from Inferred to Measured & Indicated
- 4779 m in 15 holes



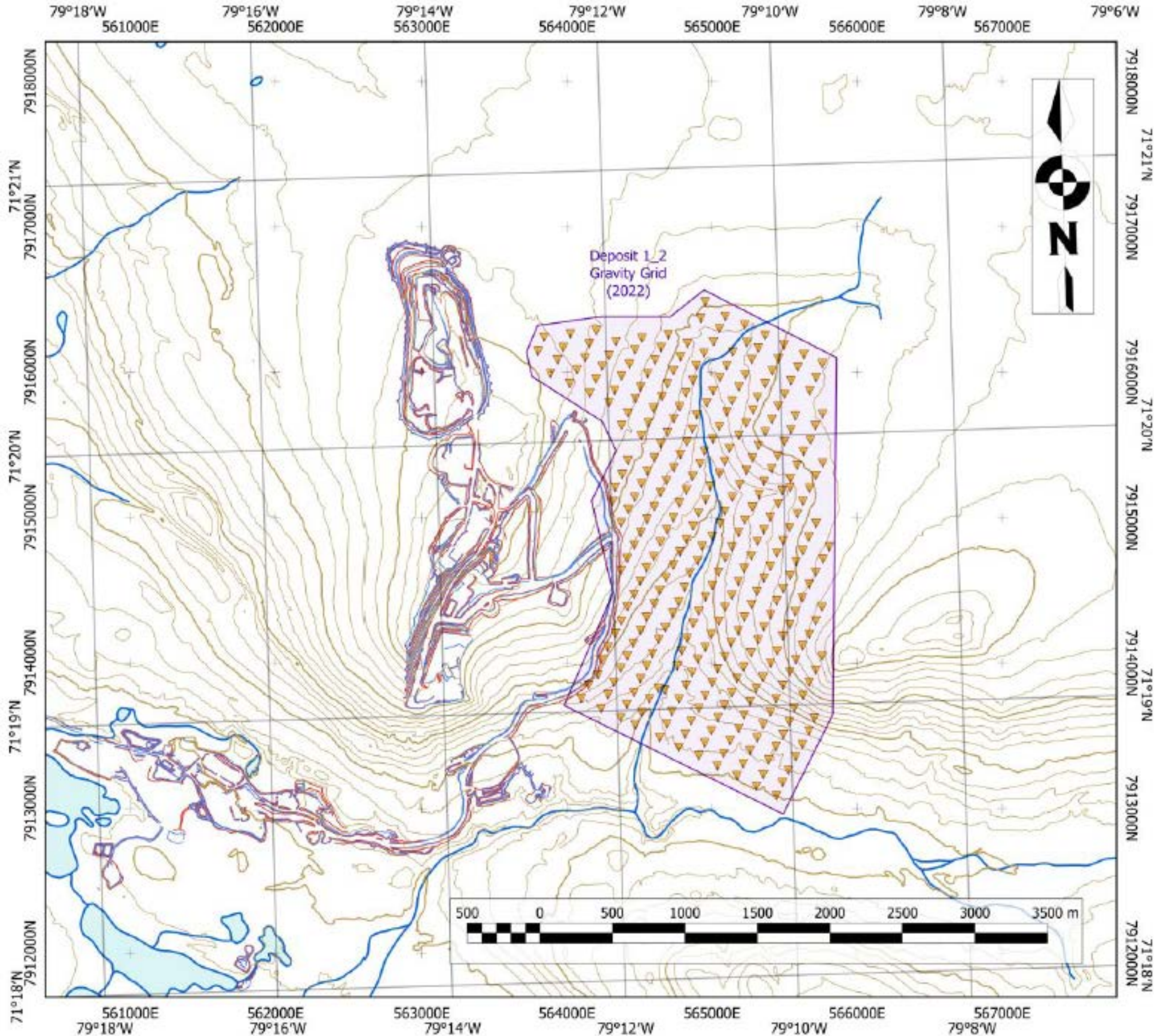
2023 Planned Infill drilling season at Deposit No.3

Outcrop of massive HG Hematite IFM, Deposit 3 West (view WNW towards D1)



Baffinland: 2022 Regional Exploration

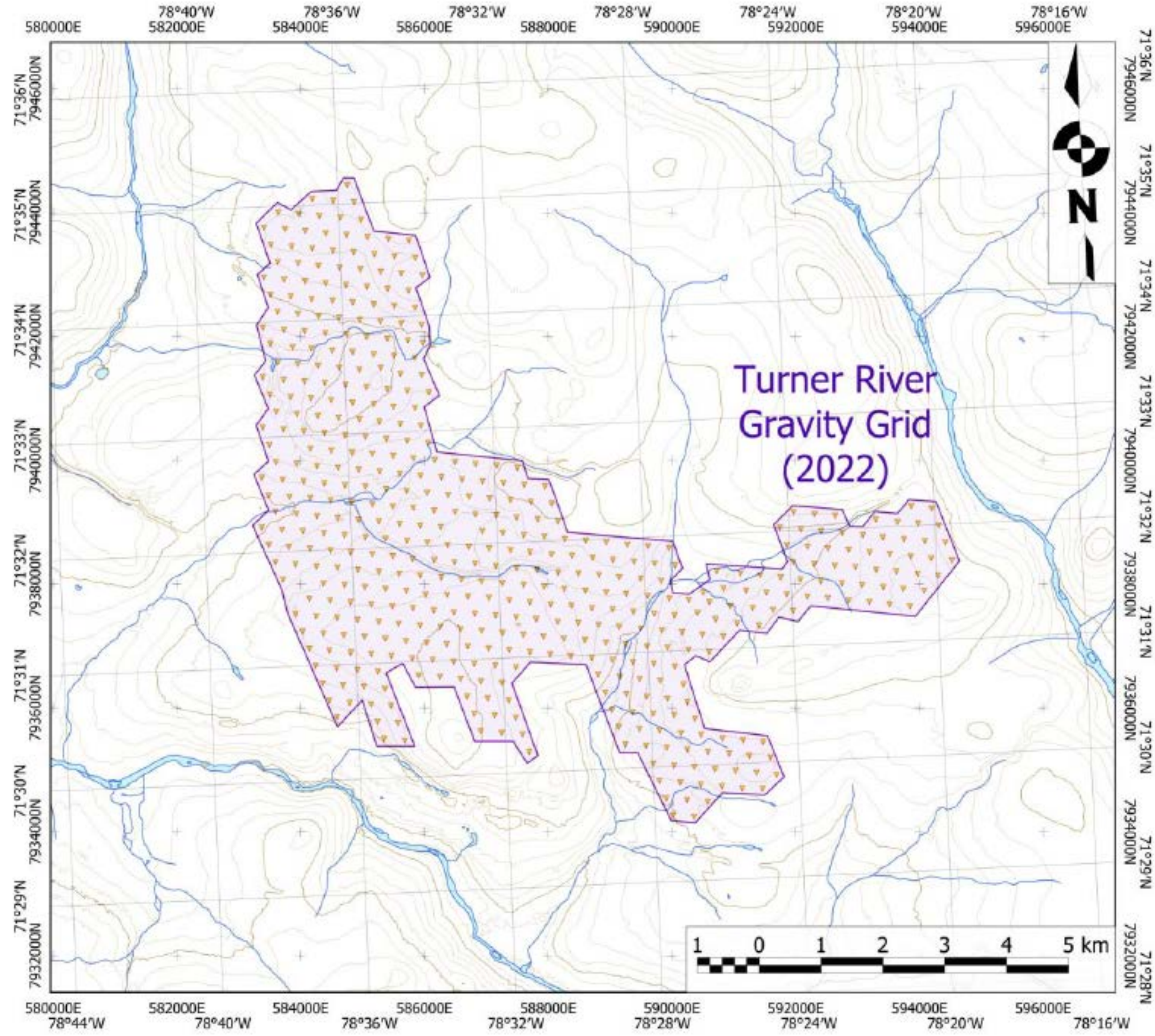
- Executed ground gravimetric surveys at the Turner River prospect and in the area between Deposit Nos. 1 & 2
- Both surveys were designed to follow up on anomalies identified in airborne data, and to fill gaps in earlier ground based gravity surveys.



Deposit 1-2 gravity station locations

Baffinland: 2022 Regional Exploration

- Executed ground gravimetric surveys at the Turner River prospect and in the area between Deposit Nos. 1 & 2
- Both surveys were designed to follow up on anomalies identified in airborne data, and to fill gaps in earlier ground based gravity surveys.



Turner River gridded Bouguer Gravity Anomaly.

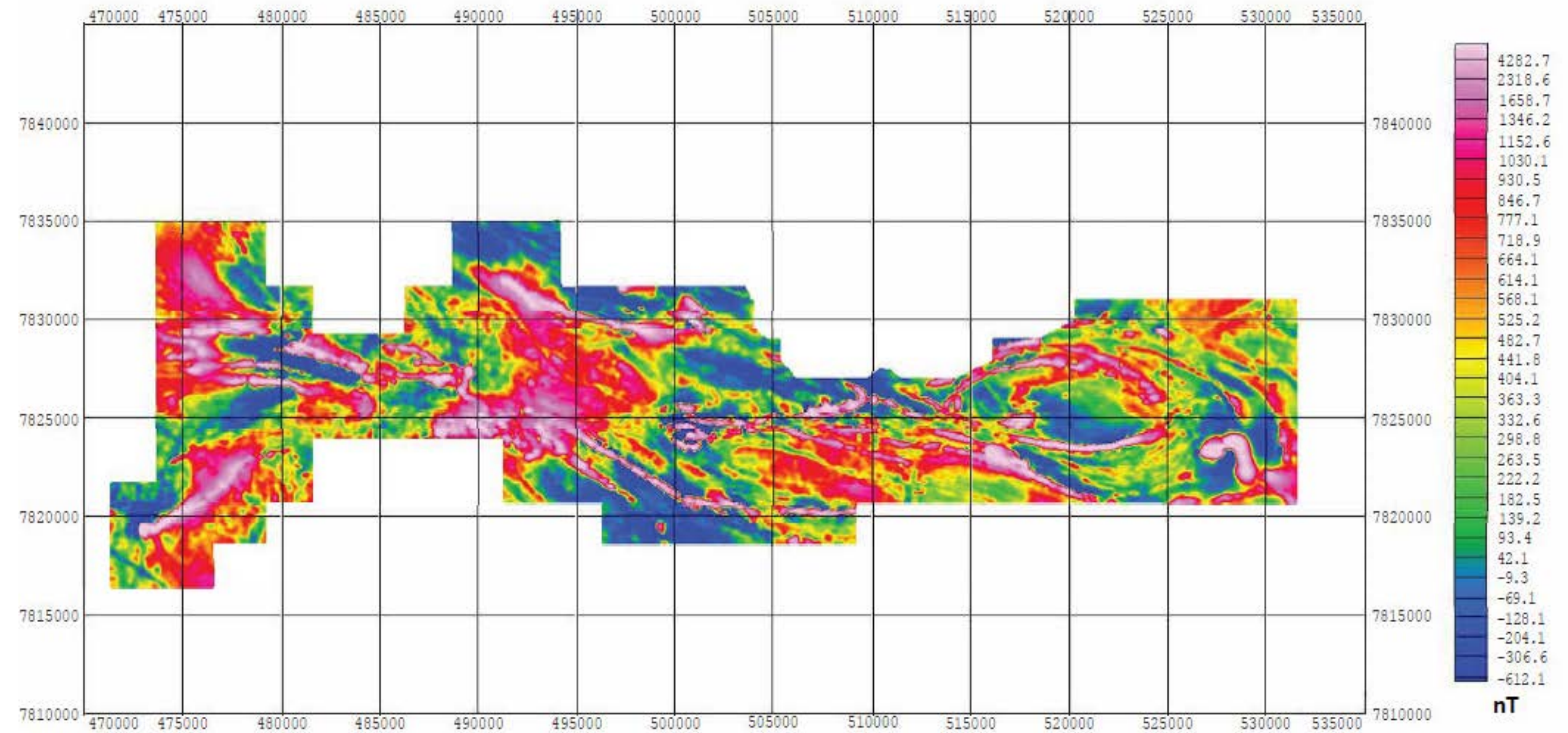
2023 Exploration: Regional Program

Regional Exploration Objective:

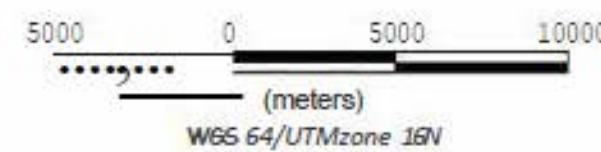
Develop and maintain value in high grade iron ore prospects across the Mary River district.

Methods:

- Prospecting traverses + channel sampling (if time permits) across the Magnetite Hill claim block: follow-up of the 2021 airborne geophysical survey
- Completion of ground gravity survey across the Turner River prospect.



Magnetite Hill Claim Block
Gradient Enhanced Anomalous Magnetic Field



Sander Geophysics Limited



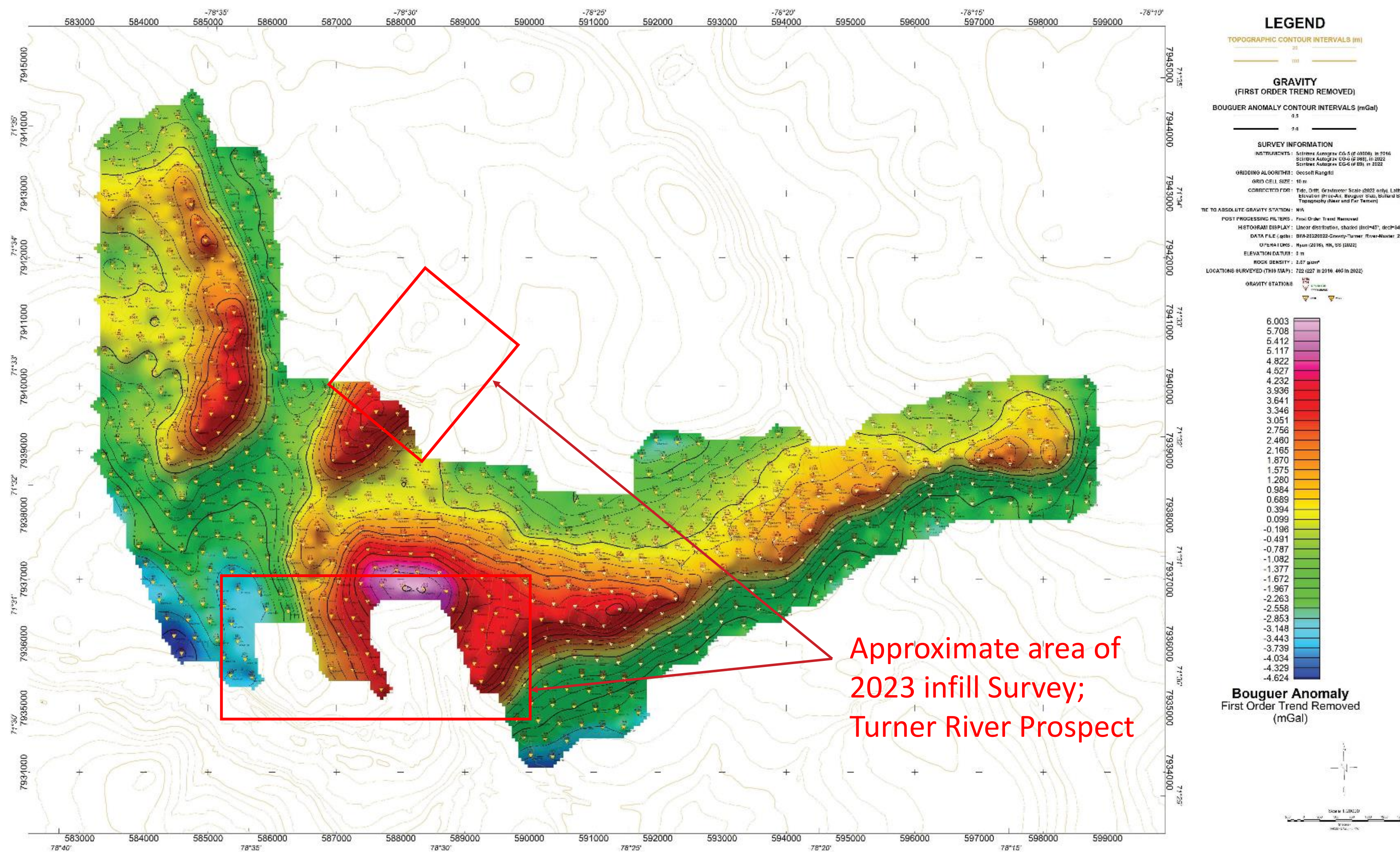
2023 Exploration: Regional Program

Regional Exploration Objective:

Develop and maintain value in high grade iron ore prospects across the Mary River district.

Methods:

- Prospecting traverses + channel sampling (if time permits) across the Magnetite Hill claim block: follow-up of the 2021 airborne geophysical survey
- Completion of ground gravity survey across the Turner River prospect.

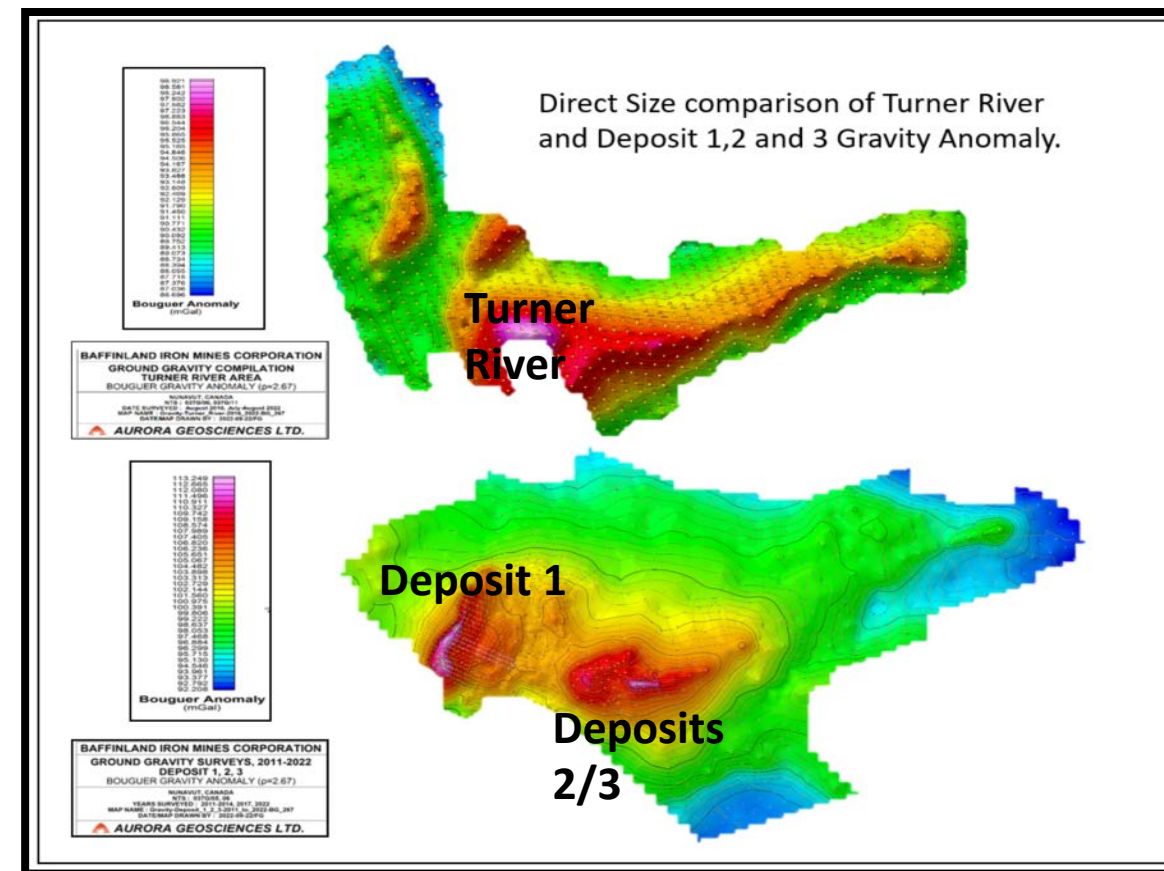


2023 Exploration: Regional Program



📍 East MAGNETITE HILL FOLD BELT: Nivalis Lake Prospect: High grade Hematite IFM

Iron Ore Exploration – Next Targets



Regional Targets

Mary River East

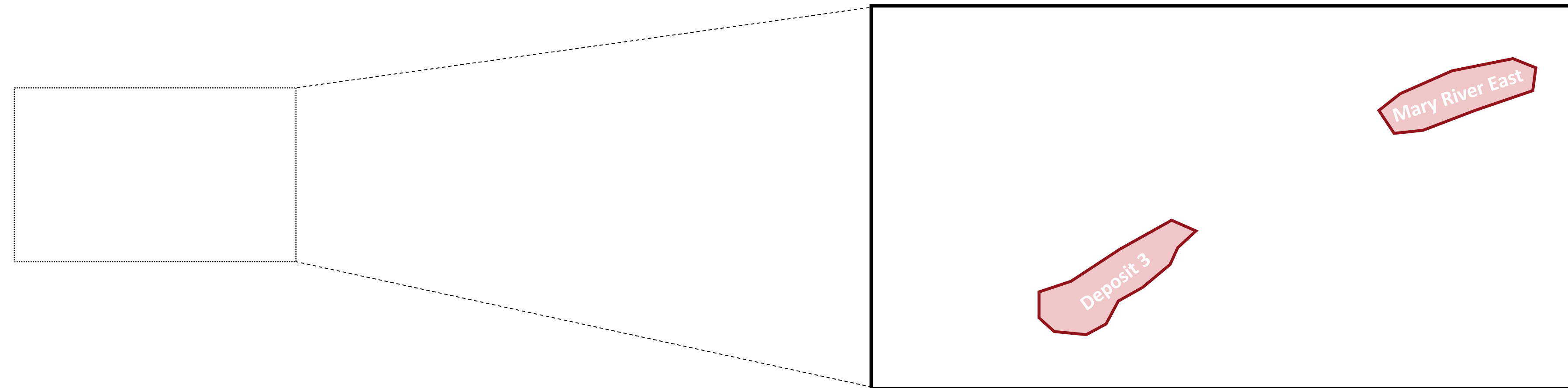
- East extension of Deposit 3
- Nearly-High-Grade iron outcropping at surface
- Land tenure currently under MEA with NTI

Glacier Lake

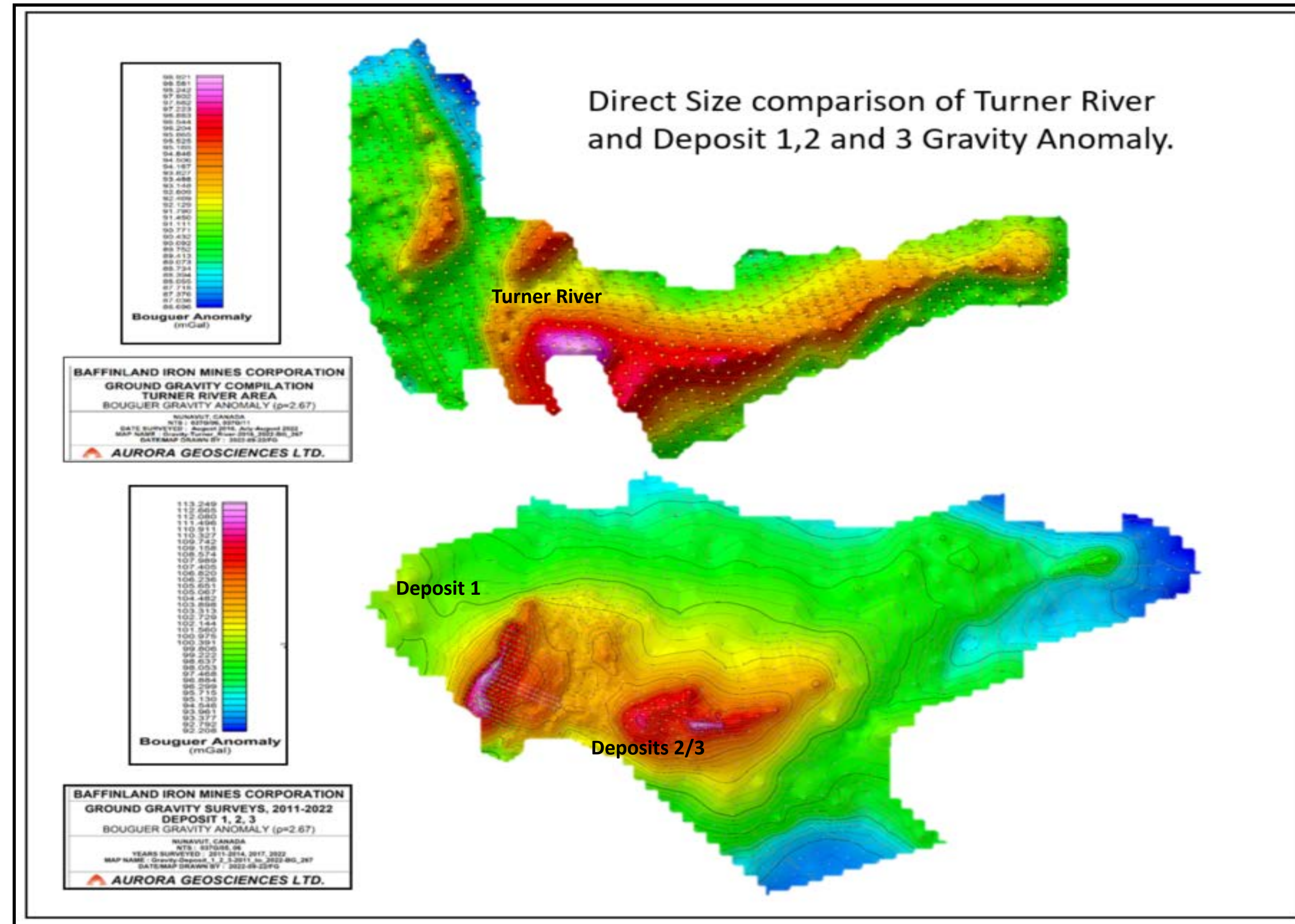
- High-Grade iron mineralization identified at surface across several areas. Geophysics suggests continuity at depth.
- Structure and Fe enrichment as at Deposits 1-3.
- Land tenure currently held by BIM mineral leases

Turner River

- Large fold structure, similar in scale to Deposits 1-3
- High-Grade iron mineralization identified at surface
- Significant magnetic and gravity anomalies exist suggesting continuation of mineralization at depth with significant strike length
- Land tenure currently held by BIM mineral leases



Iron Ore Exploration – Next Targets



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