



TSXV:NAR

# North Arrow

MINERALS INC.

## Exploring Diamond Opportunities in Canada

*Mineral Exploration Roundup  
January 2016*



# CAUTIONARY STATEMENT

**North Arrow**  
MINERALS INC.

## Forward Looking Information

This presentation contains projections and forward looking information that involve various risks and uncertainties, including, without limitation, statements regarding the potential extent of mineralization, resources, reserves, exploration results and plans and objectives of North Arrow Minerals Inc. These risks and uncertainties include, but are not restricted to, the amount of geological data available, the uncertain reliability of drilling results and geophysical and geological data and the interpretation thereof and the need for adequate financing for future exploration and development efforts. There can be no assurance that such statements will prove to be accurate. Actual results and future events could differ materially from those anticipated in such statements. These and all subsequent written and oral forward-looking statements are based on the estimates and opinions of management on the dates they are made and are expressly qualified in their entirety by this notice. The Company assumes no obligation to update forward looking statements should circumstances or management's estimates or opinions change.

## Qualified Person under NI 43-101

Disclosure of a scientific or technical nature related to North Arrow's projects in this presentation has been reviewed and approved by Ken Armstrong, P.Geo. President and CEO of North Arrow and a Qualified Person under NI 43-101.



# THE OPPORTUNITY

**North Arrow**  
MINERALS INC.

- **EXPERIENCED TEAM** – Successful exploration and development (Aber; Diavik; Lucara; Stornoway; SouthernEra)
- **LEVERAGED EVALUATION** - Canadian diamond projects developed over years of exploration by past companies at costs in excess of \$40 million dollars
- **SOLID FINANCIAL BACKING** - \$17.5M raised over last three years while maintaining an attractive share structure - ~54.2M shares o/s; ~59.5M shares f/d
- **NEW DISCOVERIES** – Discovered Canada’s newest diamond district at Pikoo Project, SK; more kimberlites to be discovered here and other NAR properties
- **PROJECT PORTFOLIO** – Seven core project areas
- **PURE DIAMOND PLAY** – Solely focused on diamond projects located in Canada at a time where diamond fundamentals are robust and predicted to remain so for the foreseeable future



### Corporate Highlights

#### ■ Capitalization

Listing:	TSX Venture - NAR	
Issued:	54.2 M	
Options:	4.2 M	
Warrants:	1.0 M	\$0.25 & \$0.65
Fully diluted:	59.4 M	
Estimated Working Capital:	\$4.9 M	

#### ■ Main Shareholders

Management/Directors	~16.5 %
Zebra Holdings & Investments	~18.3%

*controlled by a trust settled by the late Adolf H. Lundin*



# CORPORATE OVERVIEW - PEOPLE

**North Arrow**  
MINERALS INC.

## Management Highlights

**D. Grenville Thomas (Chairman)** Founder of Aber Resources (now Dominion Diamond Corporation), discoverer of the Diavik Diamond Mine and 2009 Canadian Mining Hall of Fame inductee.

**Ken Armstrong (President, CEO, Director and Qualified Person under NI 43-101)** Diamond exploration and evaluation experience with Diavik Diamond Mines Inc., Aber Resources, De Beers, Navigator Exploration, and Stornoway Diamond Corporation.

**Christopher Jennings (Director)** Founder of SouthernEra Diamonds Inc., consultant to Aber Resources and has held positions with numerous companies including International Corona Corp., BP Minerals (Canada) and Falconbridge Ltd.

**William Lamb (Director)** President and CEO of Lucara Diamond Corp., 20 years project development experience with Lucara, De Beers, Kvaerner and Rand Mines.

**Blair Murdoch (Director)** More than thirty years experience in senior management of private and public companies.

**Eira M. Thomas (Advisor)** Extensive diamond exploration and development experience in Canada and Africa. Has served as an officer and director of Aber Resources and Stornoway Diamond Corporation. Currently CEO of Kaminak Gold Corporation and a director of Suncor and Lucara Diamond Corp.



# CORPORATE OVERVIEW – PROJECTS

**North Arrow**  
MINERALS INC.

## Redemption (NT)

- Near Diavik & Ekati mines
- Unexplained KIM trains
- Earning 55% from Arctic Star
- Drilling March 2016

## Qilalugaq (NU)

- Big kimberlite on tide water
- Fancy yellow diamond population
- Potential for high value stones
- 80/20 JV with Stornoway

## Lac de Gras (NT)

- >300,000 acres
- Near Diavik & Ekati mines
- 45/55 JV with Dominion

## Mel (NU)

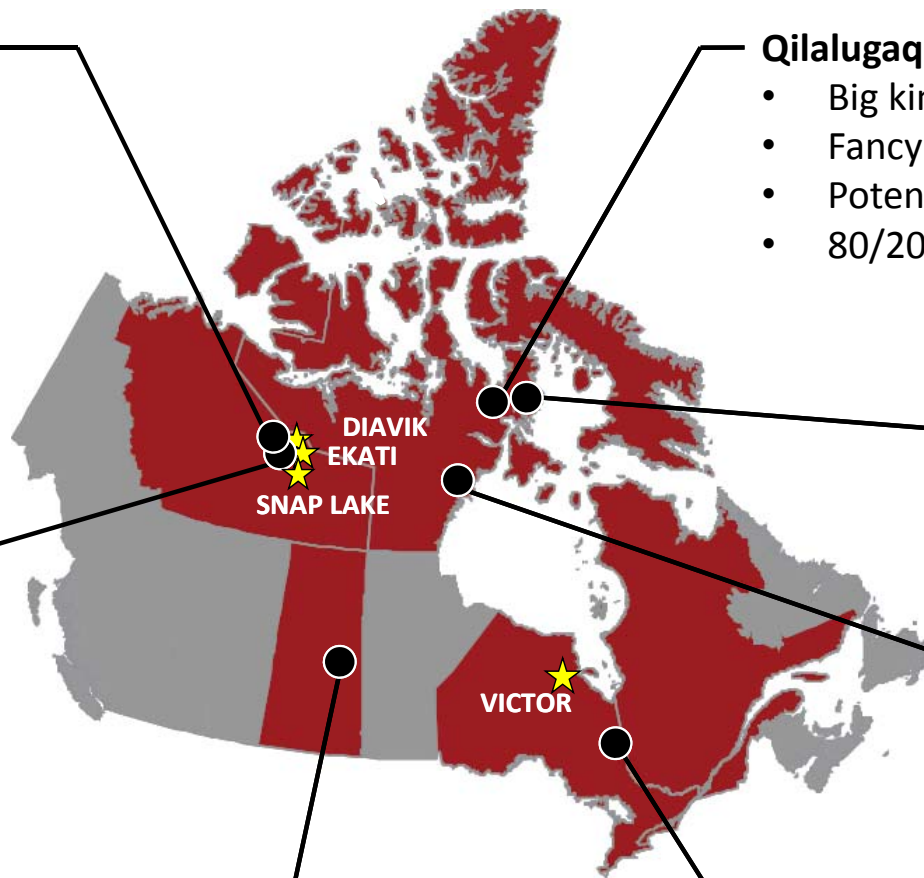
- KIM targets
- 2015 sample program
- 100% NAR

## Pikoo (SK)

- New diamondiferous kimberlite field
- 80/20 JV with Stornoway
- Drilling planned for February 2016

## Timiskaming (ON)

- Unsourced KIM trains; large database
- 80/20 JV with Stornoway



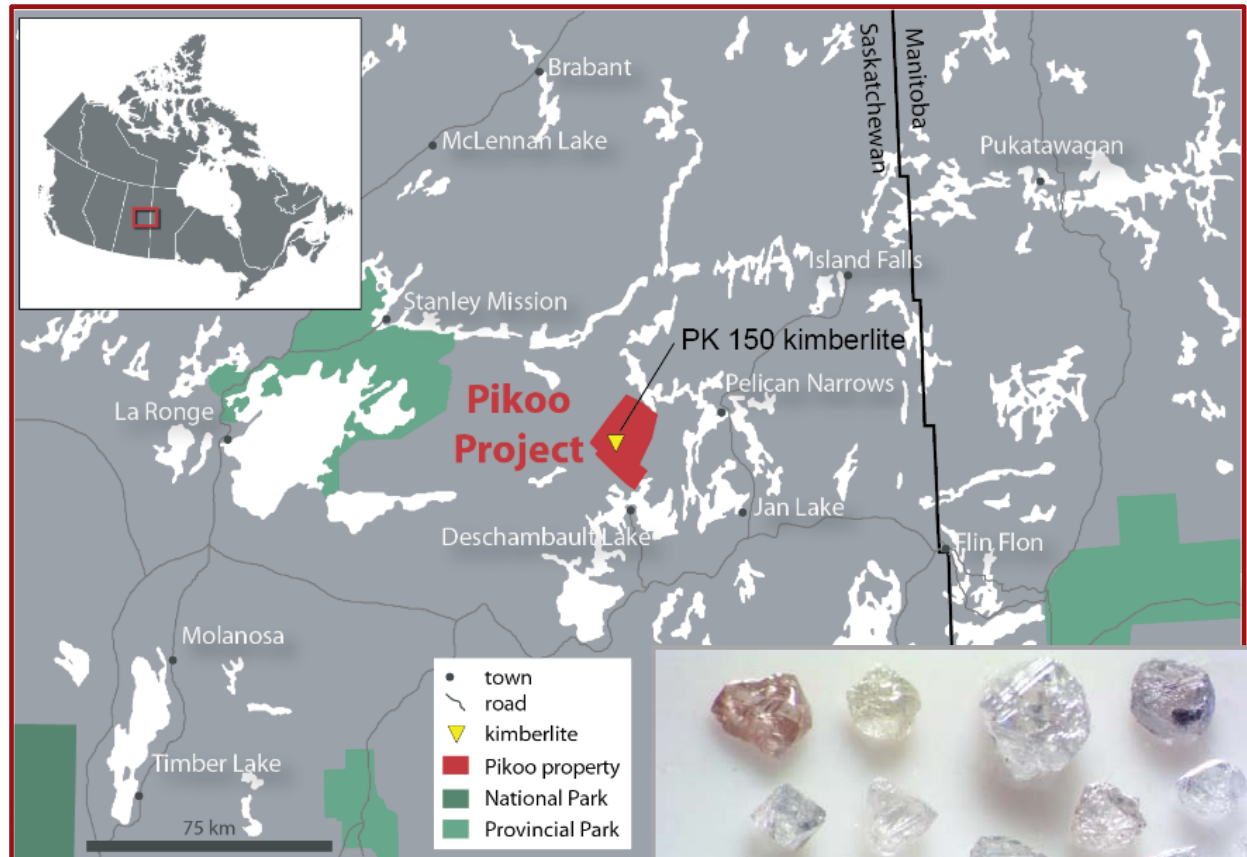


# PIKOO PROJECT, SK

## North Arrow

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- North Arrow (80%)/Stornoway (20%) Joint Venture.
- Good local infrastructure; within 10 km of SK Hwy 911– more than 200 km from nearest kimberlite field (FALC).
- 7 discrete kimberlites discovered to date. 4 tested and proven diamondiferous.
- PK150 – most significant diamond discovery; 1232 diamonds > 0.106 mm from 531 kg.
- Detailed magnetic survey 2015.
- Spring 2016 drill program to fully defined known kimberlites and test new targets.



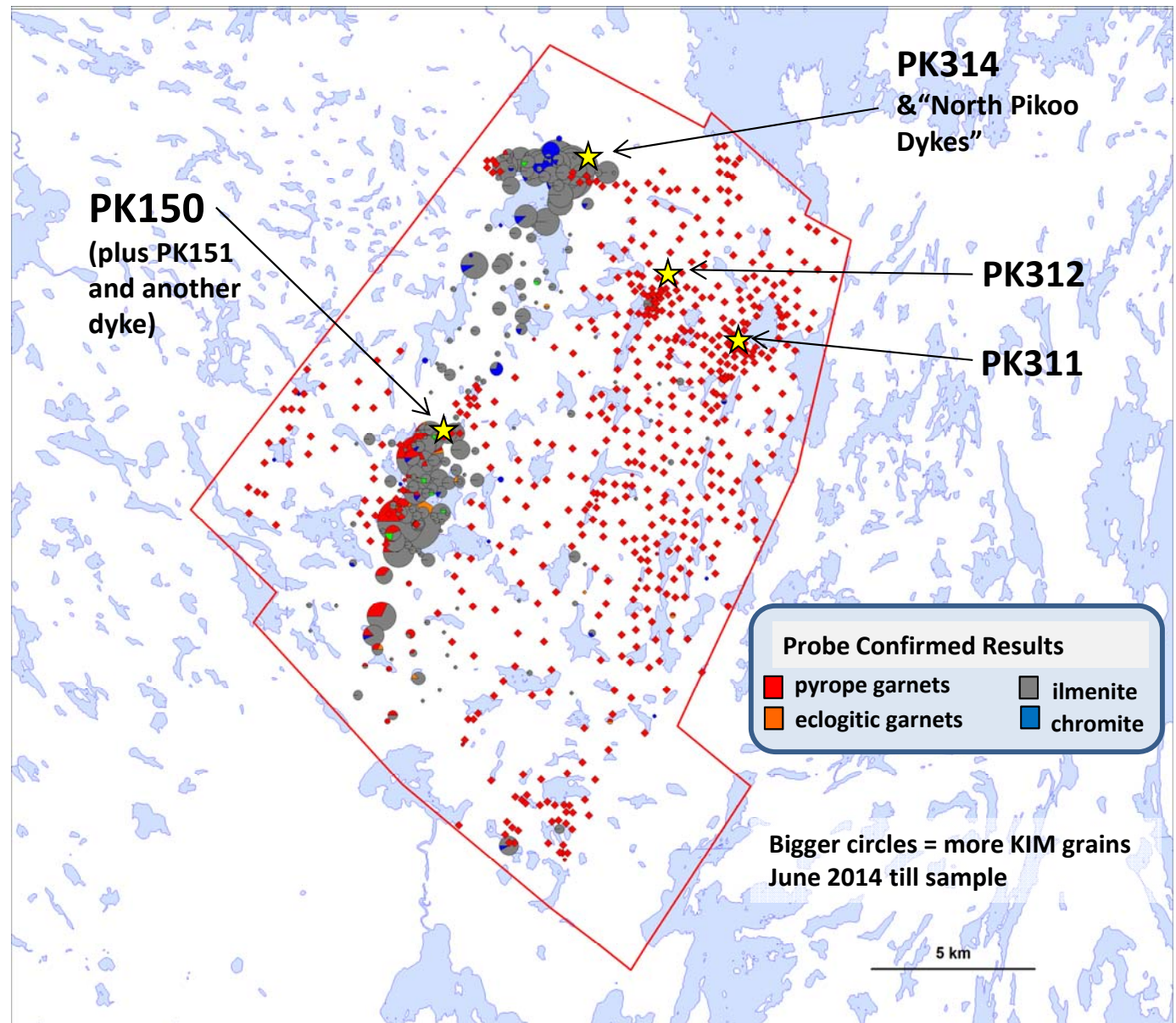
23 +0.85 mm stones recovered from initial 2013 209 kg PK 150 sample



# PIKOO PROJECT – KIMBERLITE INDICATOR TRAINS

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- 977 till samples have been collected from the property; including 550 in 2014.
- Positive samples range from 1 to 100's of KIM grains.
- Five KIM trains or anomalous areas have been identified.
- All indicator trains are probe-confirmed to be mantle derived and indicative of a kimberlitic source.







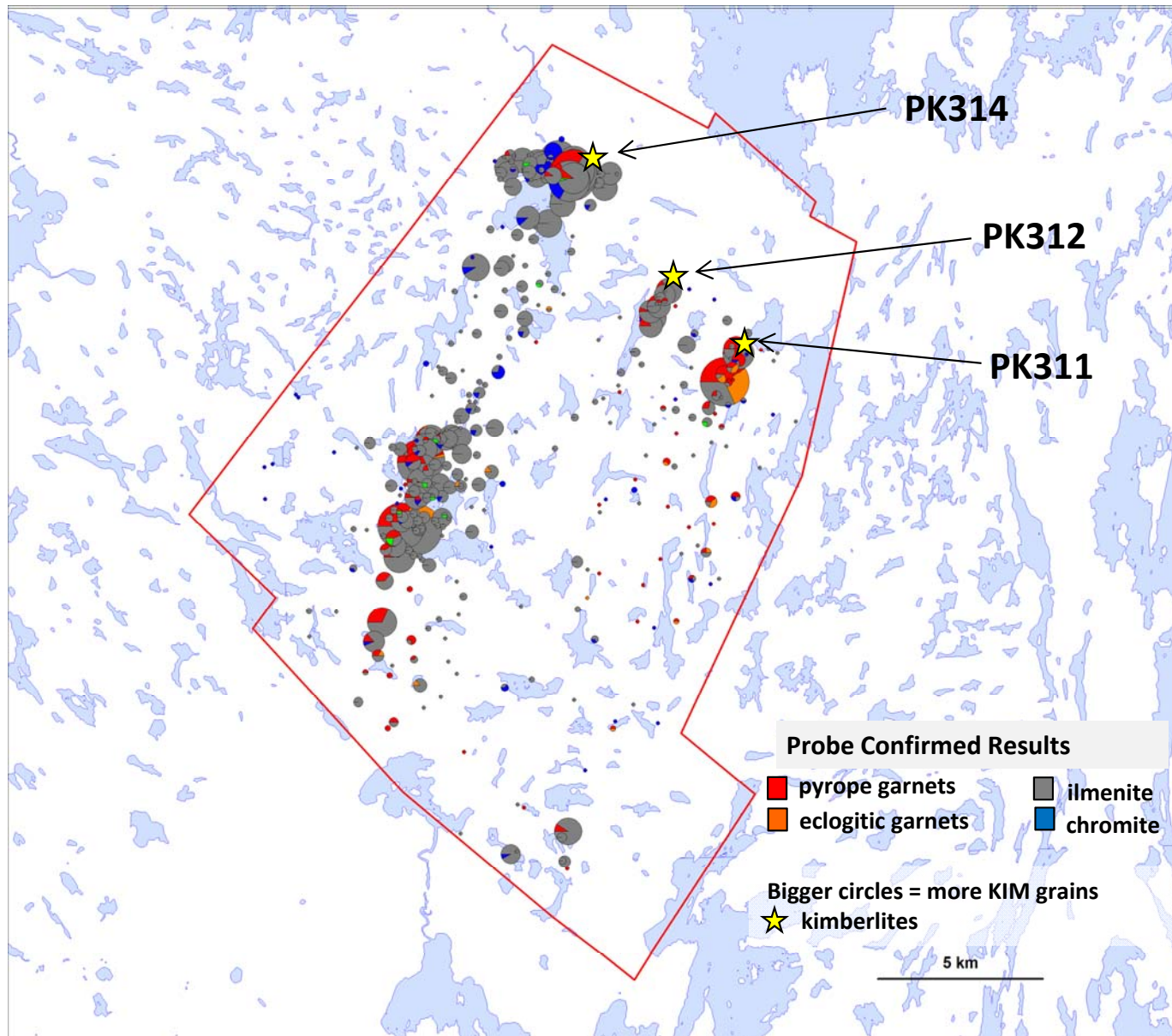
# SPRING 2015 DRILLING – NEW DISCOVERIES

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**PK311** – drilling collared into a weathered micaceous unit confirmed by KIM analysis as kimberlite; more drilling required to define orientation/extent of body.

**PK312** – 1.5 m near vertical dyke; 14.5 kg sample returned five diamonds; abundant olivine, garnet, ilmenite & chrome diopside macrocrysts; further delineation required.

**PK314** - 25 m wide; >40 m strike length; drilled to 213m; high chrome pyrope down ice; 23 microdiamonds from 476 kg





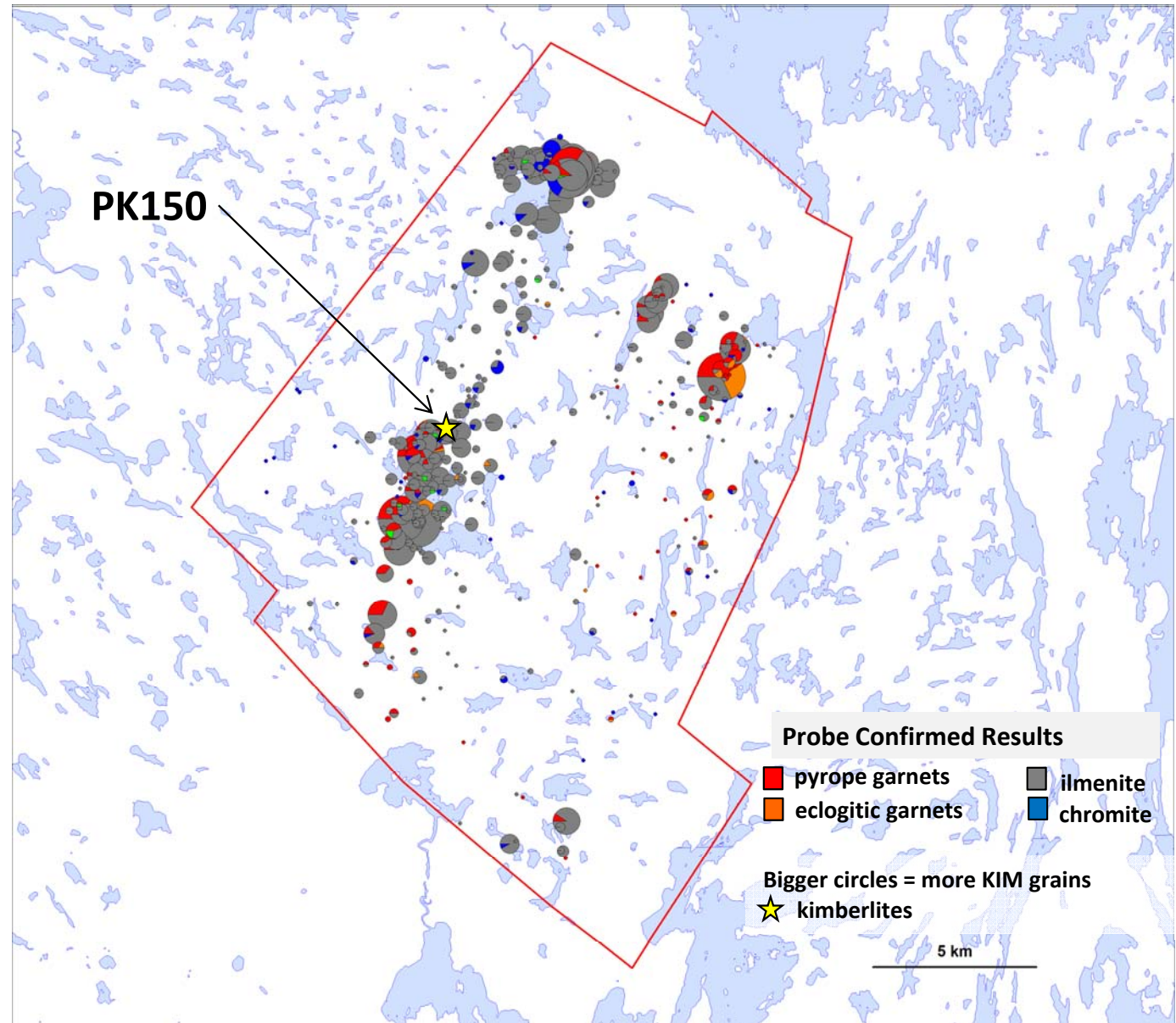
# SPRING 2015 DRILLING – PK150

## North Arrow MINERALS INC.

24 drill holes (3,243 m) tested  
kimberlite discoveries from 2013  
& new targets defined by till  
sampling programs in 2014.

### PK150 delineation drilling

- Was drilled by 6 holes (bringing total number of holes to 9)
- Strike extended to 150 m; depth to 199 m.
- Cut off to the west but remains open to east
- Eastern extension not constrained by high intensity magnetics;
- Transitional to diatreme-type textures encountered in eastern-most hole (PK-34)





# SPRING 2015 DRILLING – PK150

**North Arrow**  
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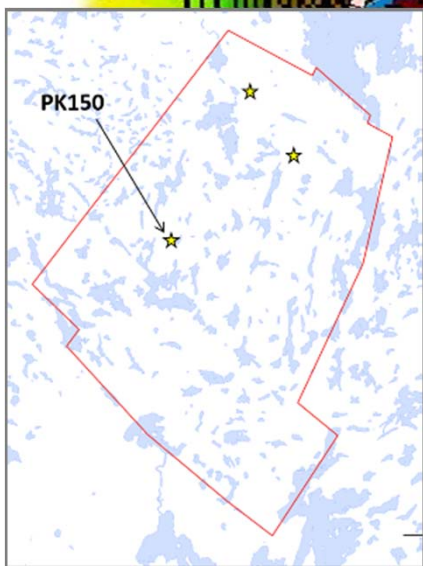
2013 drilling

2015 drilling

- Hole PK34 intersected 30m of kimberlite (21.5m true width) ~29m eastern stepout; weakly magnetic zone; subtle mag targets now on radar.
- Magmaclasts suggest transitional to diatreme facies.

Drill Hole  
PK34

creek



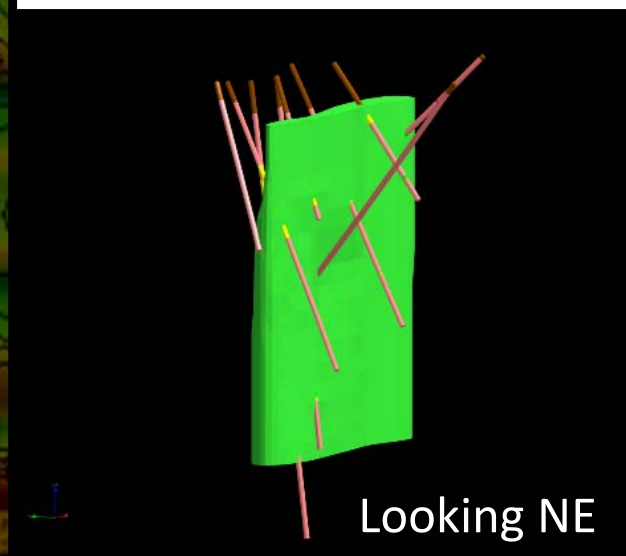
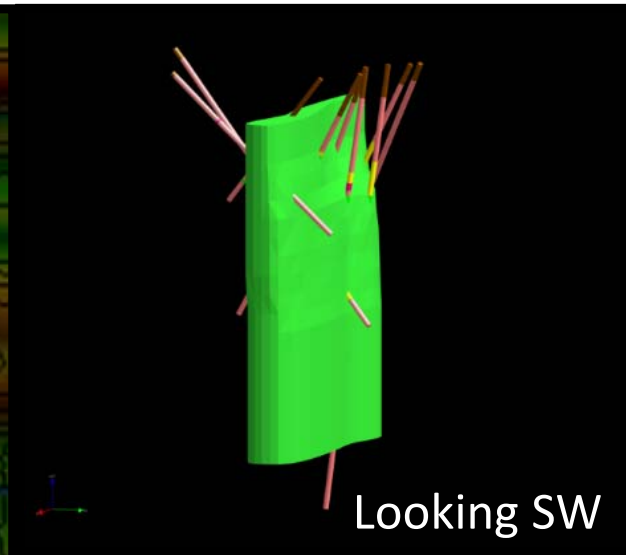
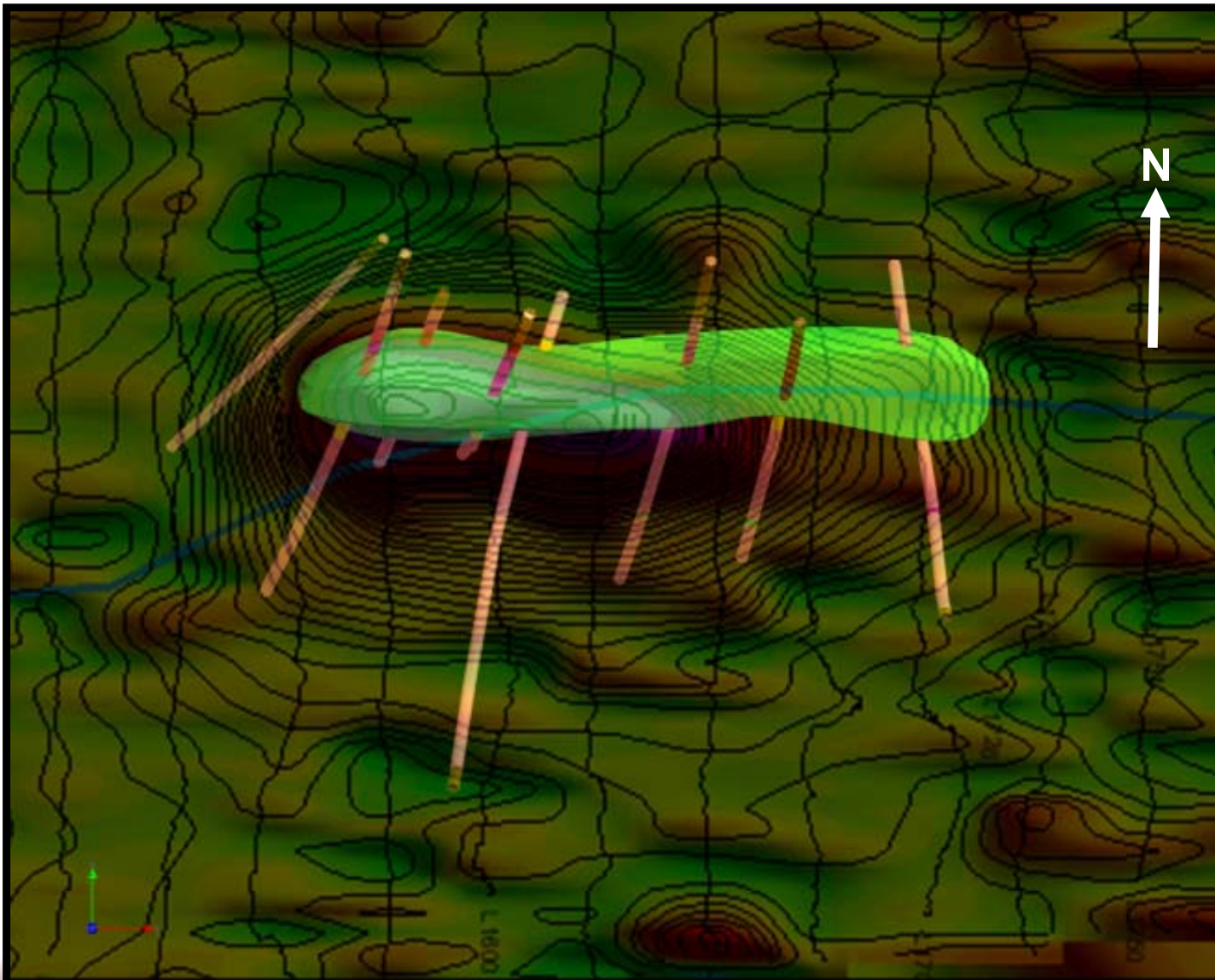
Ground Magnetic Field Data of PK150 – Vertical Gradient with Total Field Contours



# PK150 MODEL

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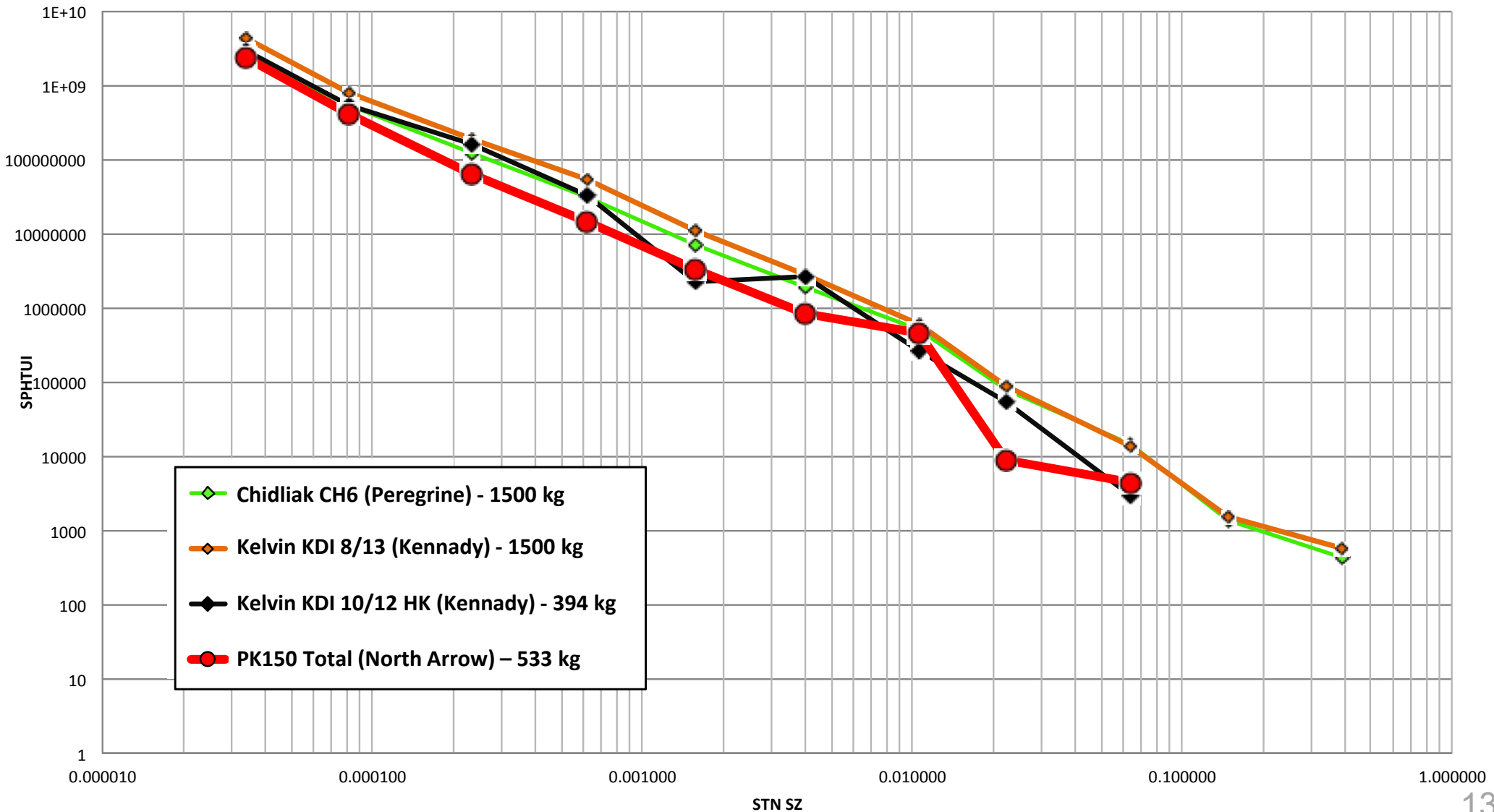




# PK150 MICRODIAMOND RESULTS – TOTAL VS. OTHER

**North Arrow**  
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Microdiamond Results (Stones Per Unit Interval)

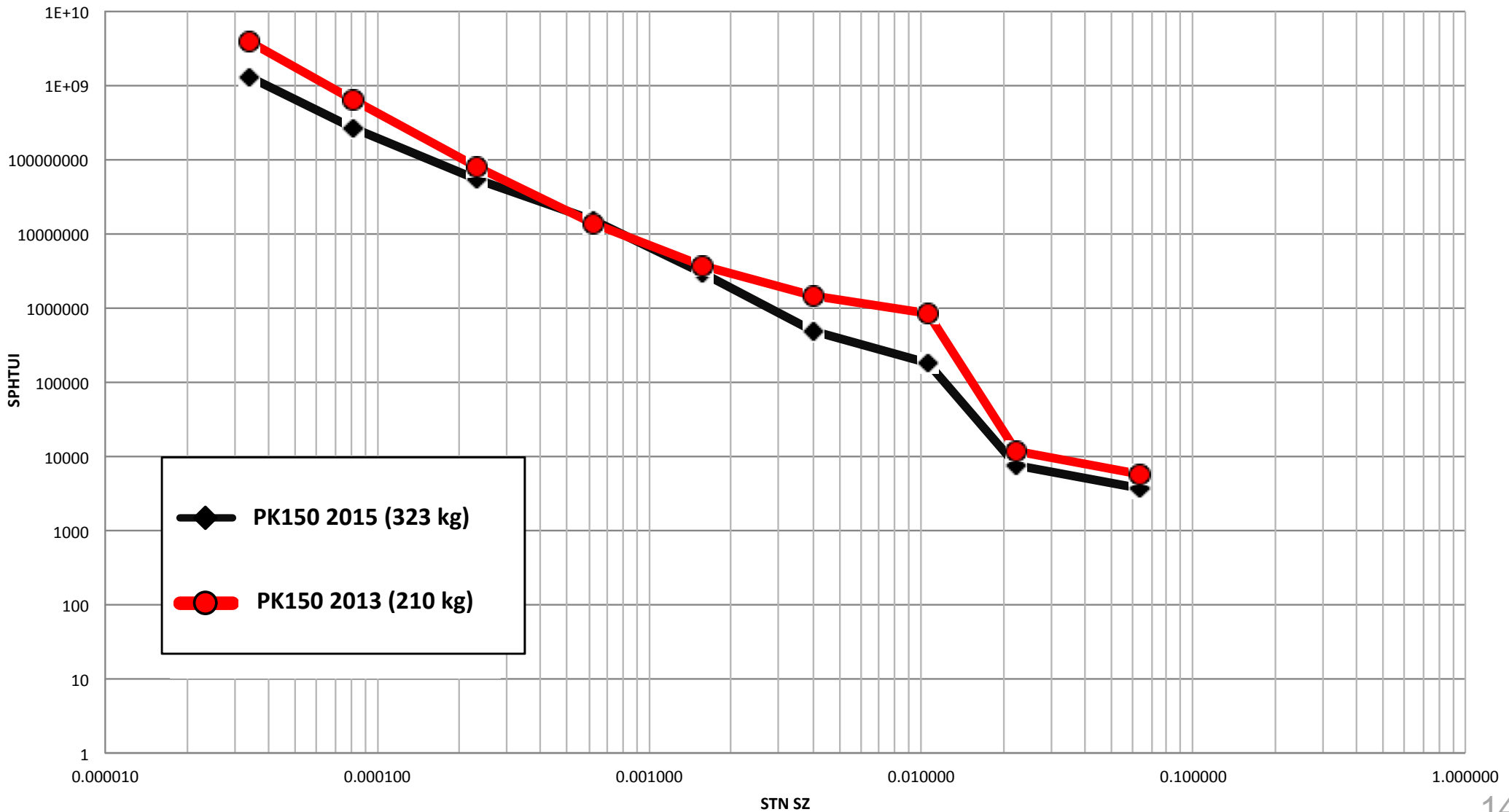




# PK150 MICRO DIAMOND RESULTS – 2013 vs. 2015

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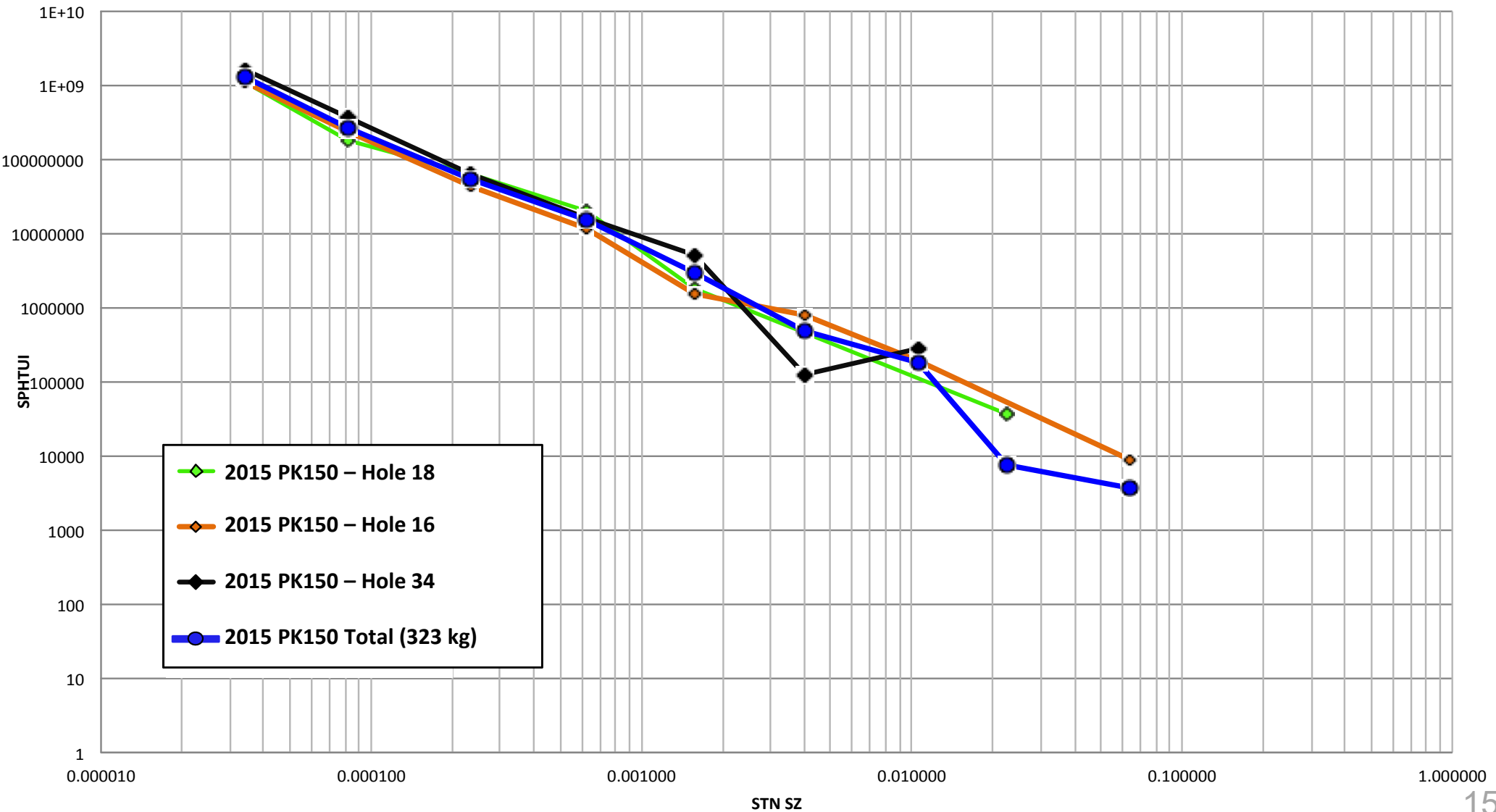




# PK150 MICRODIAMOND RESULTS – DRILL HOLES VS. TOTAL

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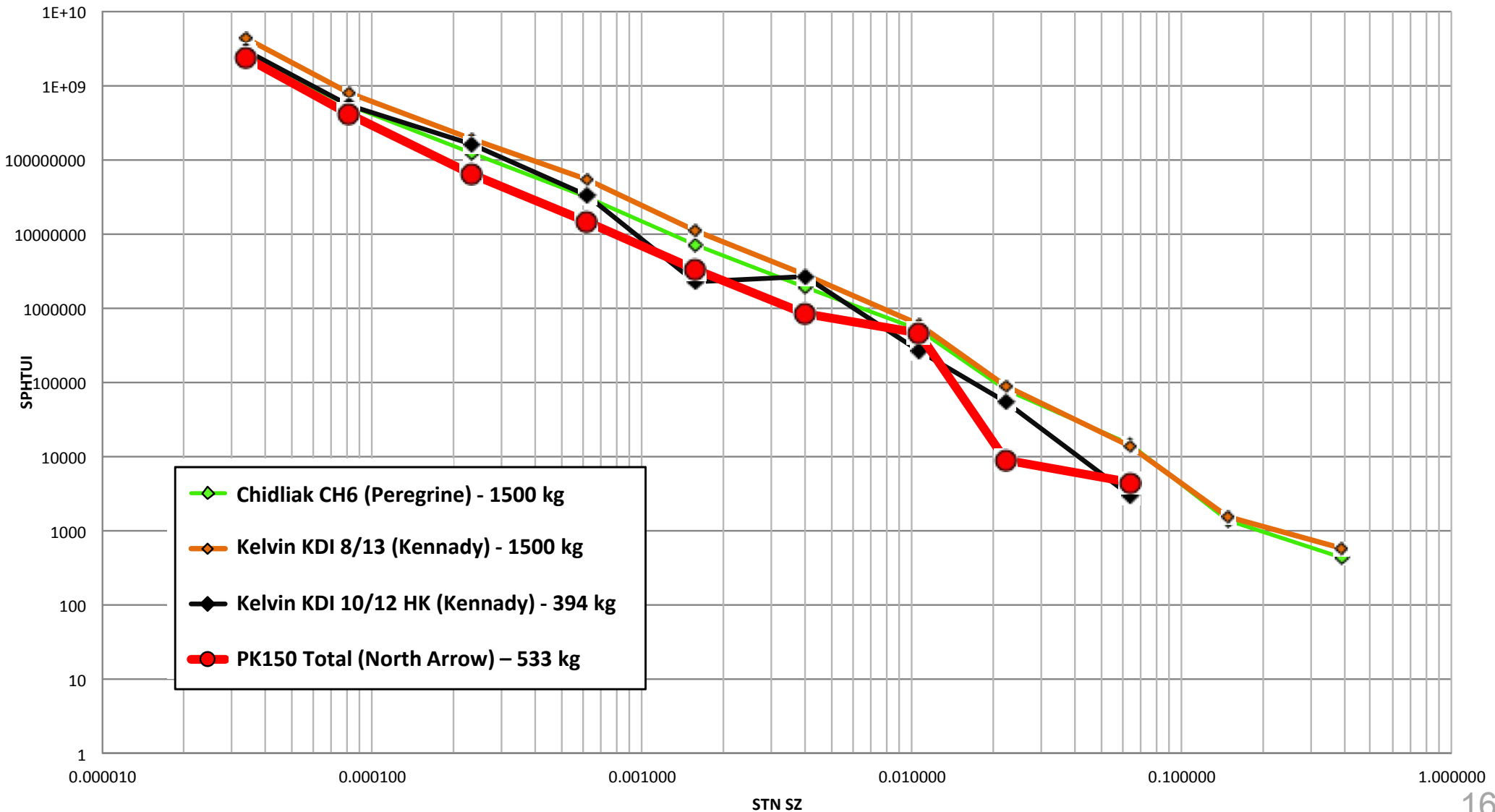




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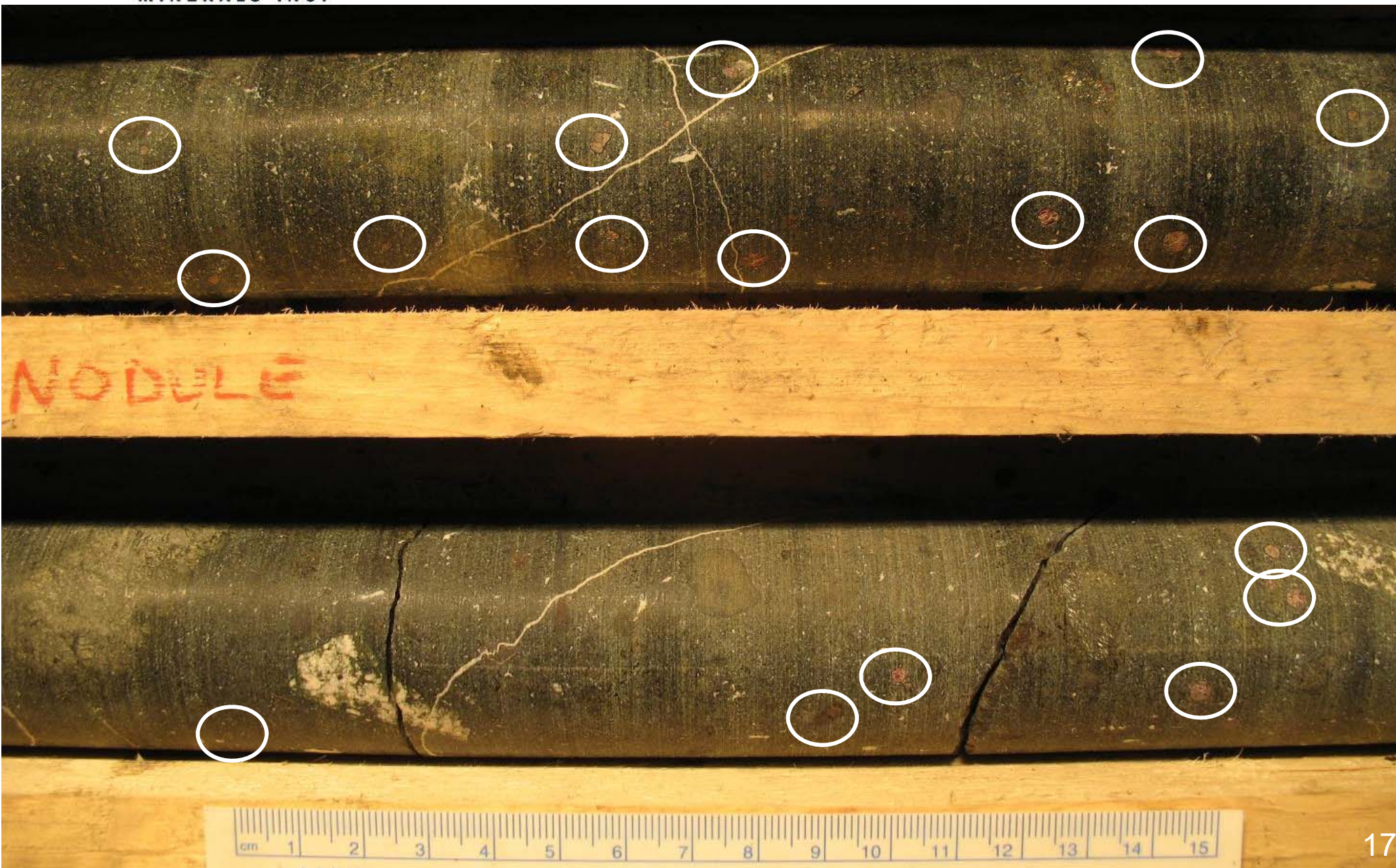






# PK150 – Coherent Kimberlite (HK)

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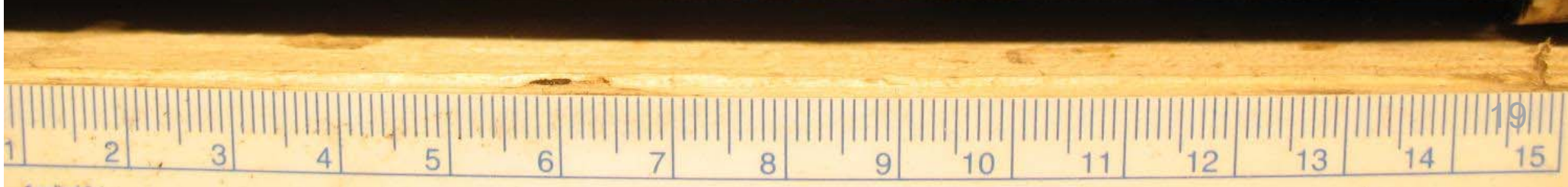
MINERALS INC.





# PK150 – Coherent Kimberlite (HK)

**North Arrow**





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PK314 – Coherent Kimberlite (HK)

Transitional to KPK (Diatreme)?





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## PK150 – Coherent Kimberlite (HK)

### Transitional to KPK (Diatreme)?



- Concentric magmatic lapilli, cored by lithic fragments (CR xenoliths; autoliths) and macrocrysts (Olivine >> Ilmenite, garnet)



# PK150 – Cracked Country Rock

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15PK16 (-80) @ 65 m

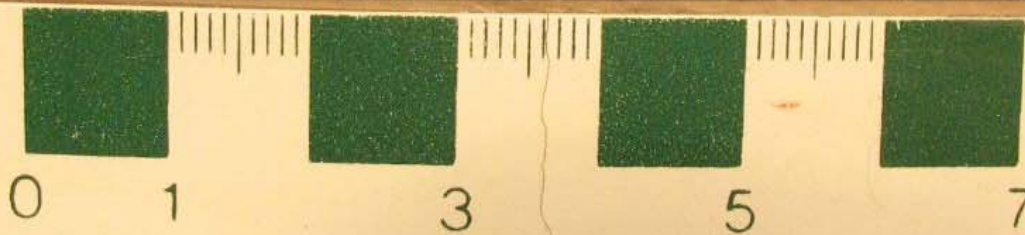
Lapilli (?) cored by olivine



# PK150 – Cracked Country Rock

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65.06m





# PIKOO KIMBERLITES – MANTLE SAMPLE

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NOD 145  
↓



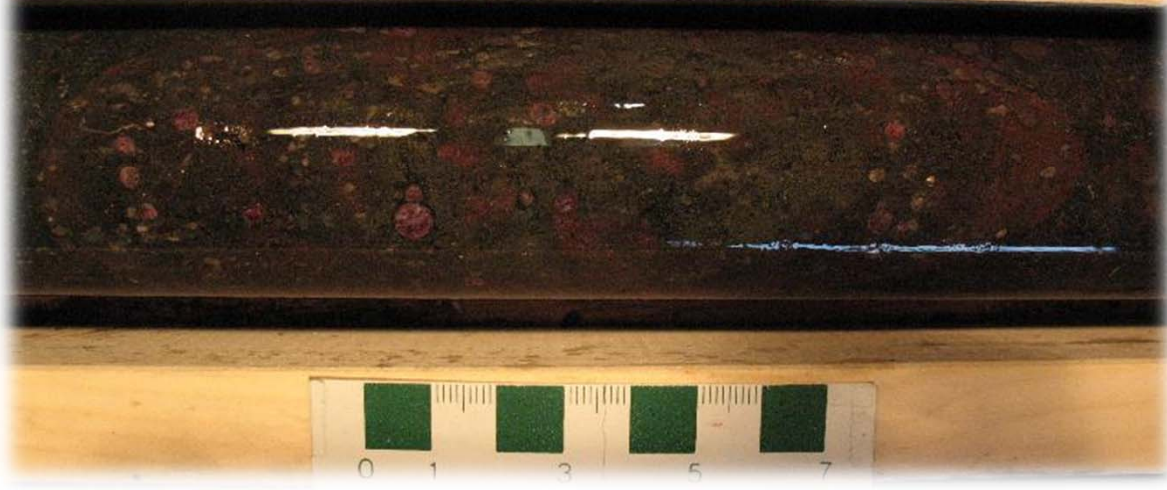
142.05m  
↓



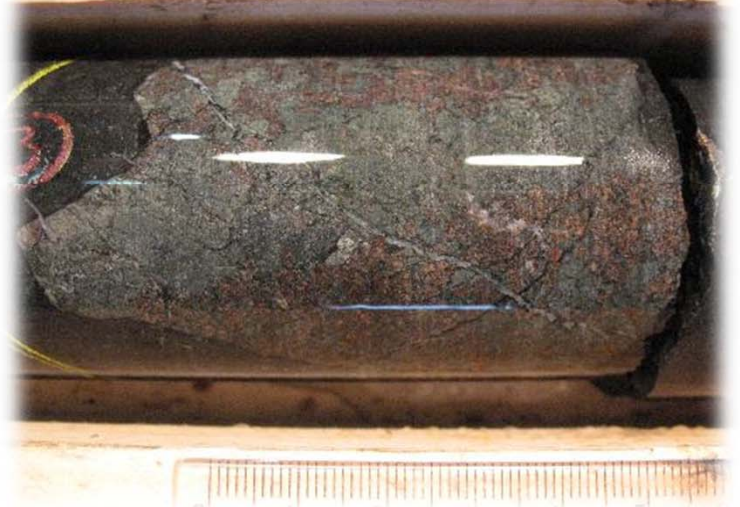
133.15  
↓



115.95m  
↓



123.41m  
↓



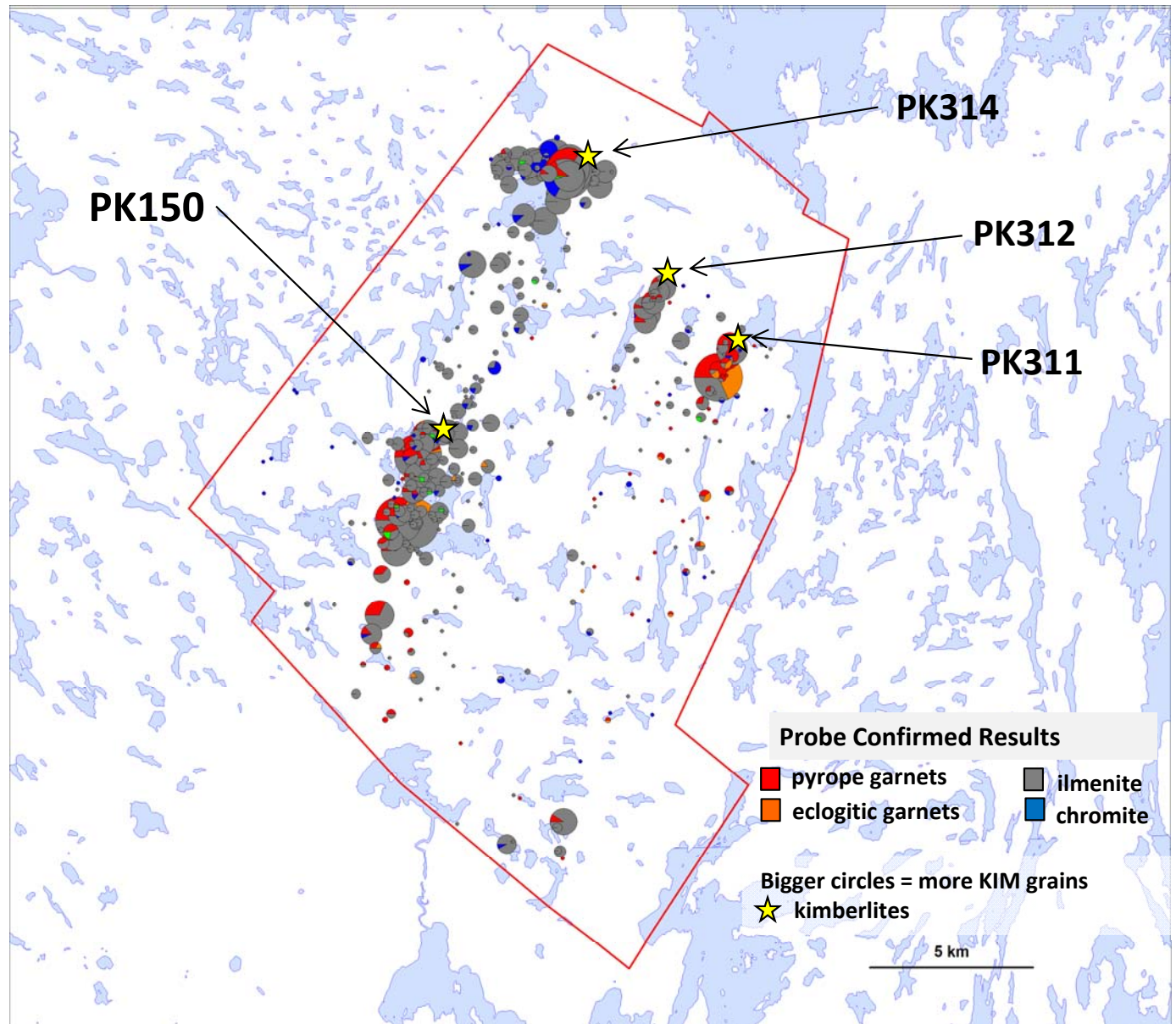




# PIKOO PROJECT – THE WAY FORWARD

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- Review of Fall 2015 airborne magnetic surveys underway.
- Winter drilling 2016.
- Fully define the PK150, PK312 and PK311 kimberlites.
- Test additional new targets from 2015 airborne magnetic survey.
- New diamond results late spring 2016.

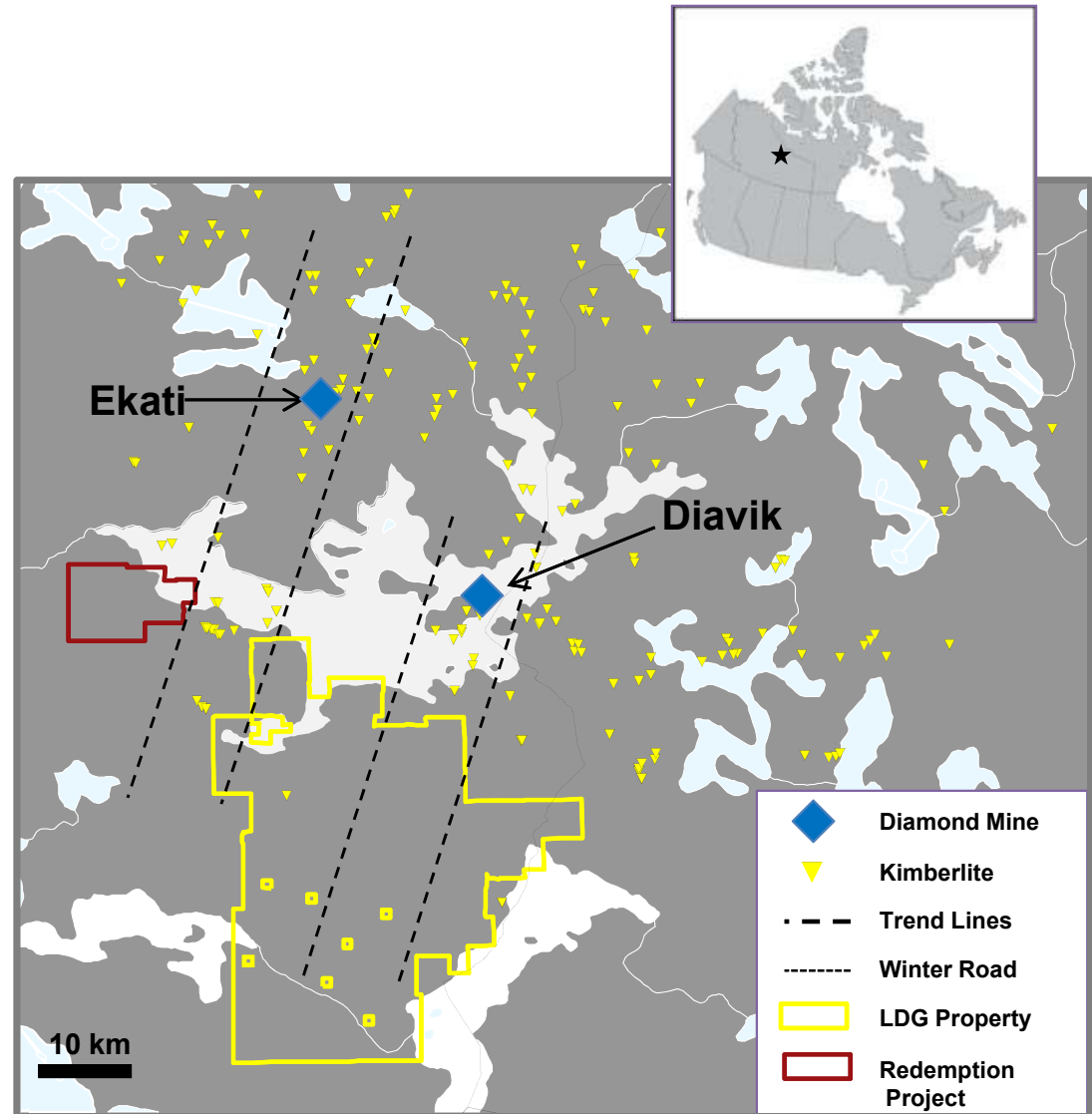




# REDEMPTION & LDG PROJECTS, NT

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- At the southwestern end of the Lac de Gras kimberlite field.
- LDG is a 45/55 JV with Dominion Diamond Corporation – part owner of the Ekati and Diavik diamond mines.
- Redemption under Option from Arctic Star Exploration; NAR can earn 55% by spending \$5 million; drill program commencing March 2016.
- Both projects host unsourced kimberlite indicator mineral trains and will benefit from ongoing comprehensive surficial geology study funded by Government. Preliminary results expected November 2015.

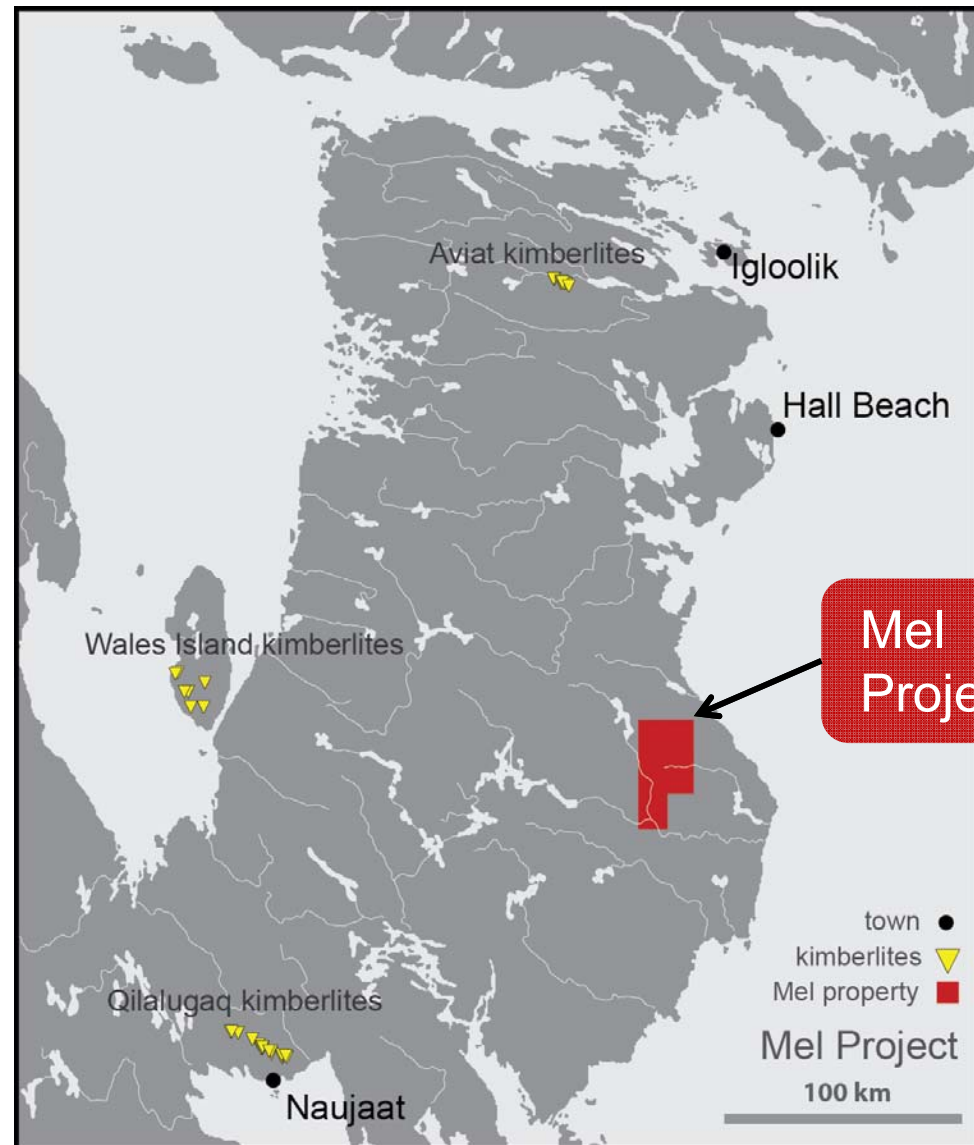




# MEL PROJECT - NU

## North Arrow MINERALS INC.

- 100% owned.
- Unsourced KIM trains.
- Target area 1 is a 15km long multi-sample ribbon like mineral train up to 2.5km wide.
- May diverge into multiple narrower trains suggestive of multiple sources.
- Up-ice till sample line 4km away is barren
- Excellent mineral chemistry.
- 227 till samples collected in 2015 – results will double project database.

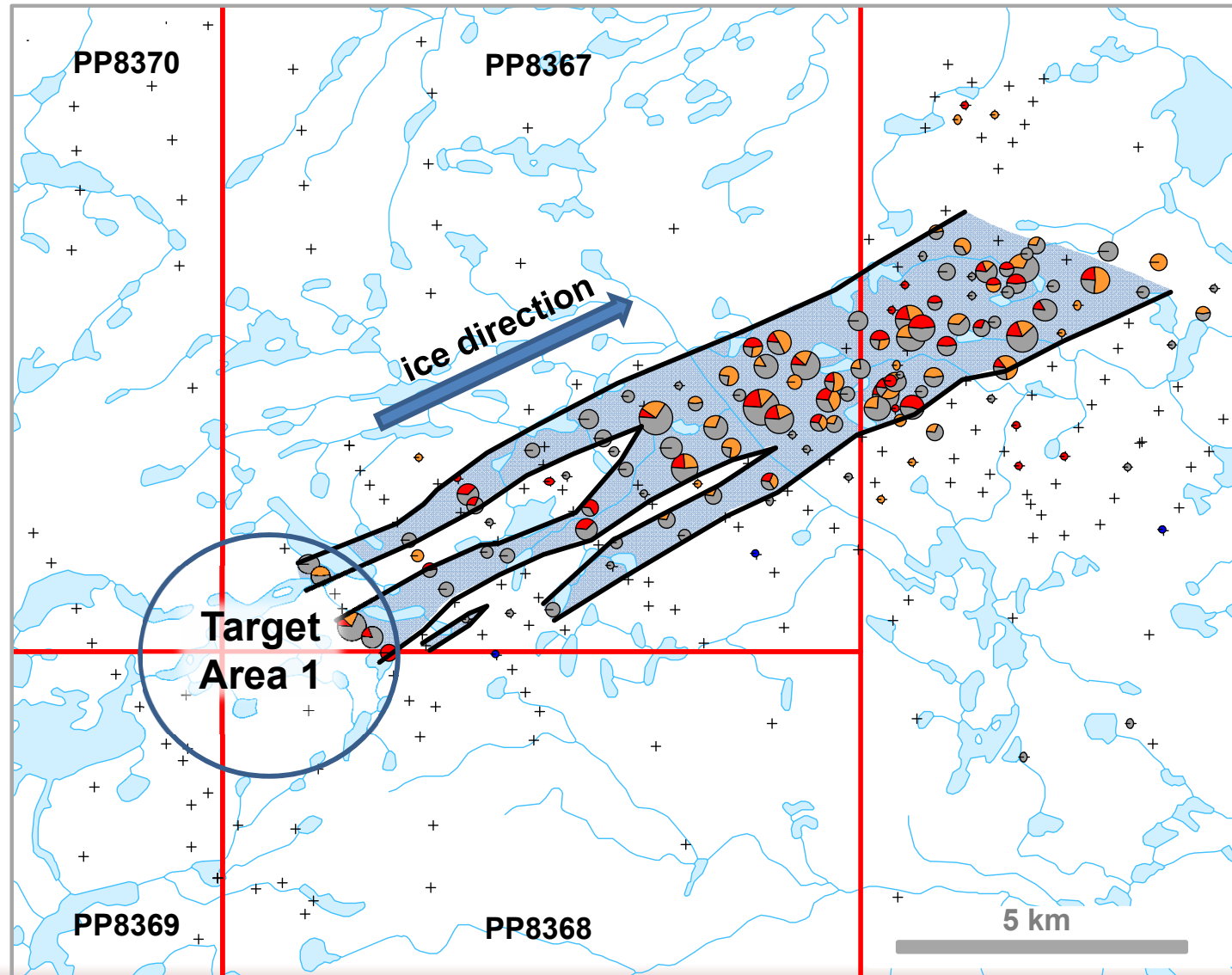




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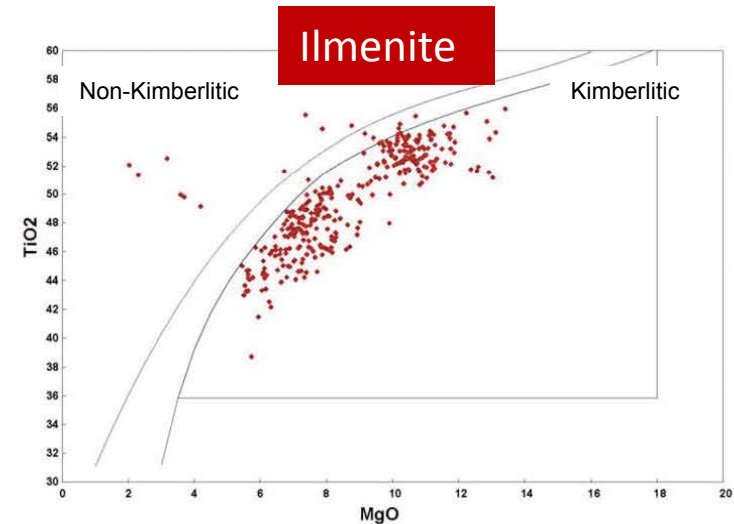
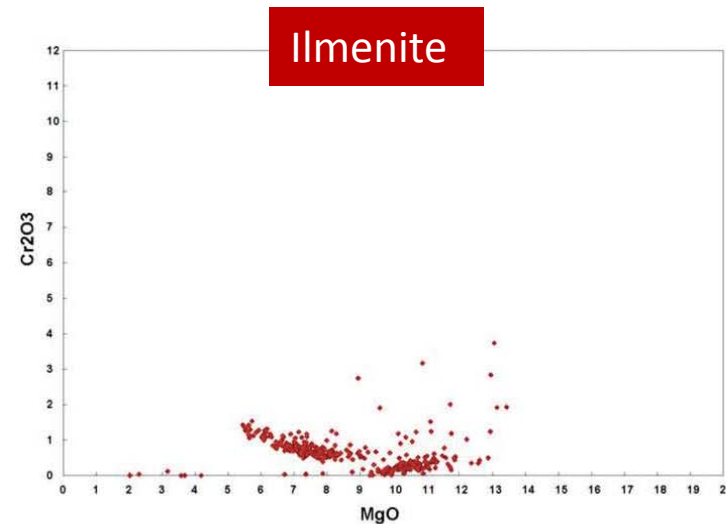
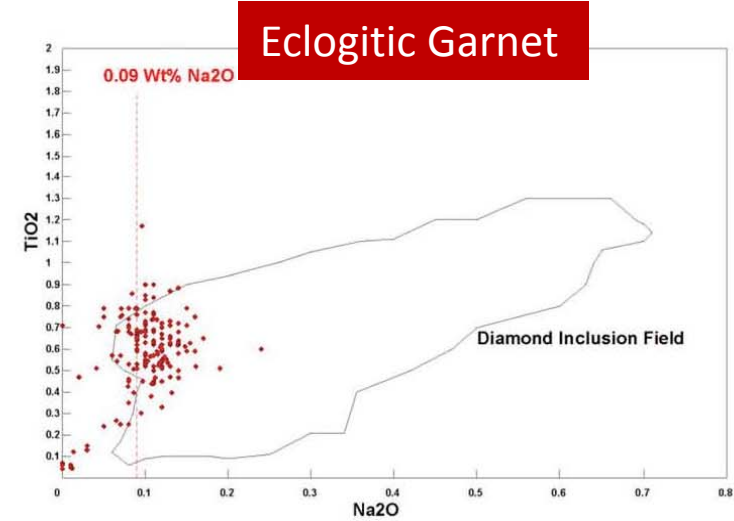
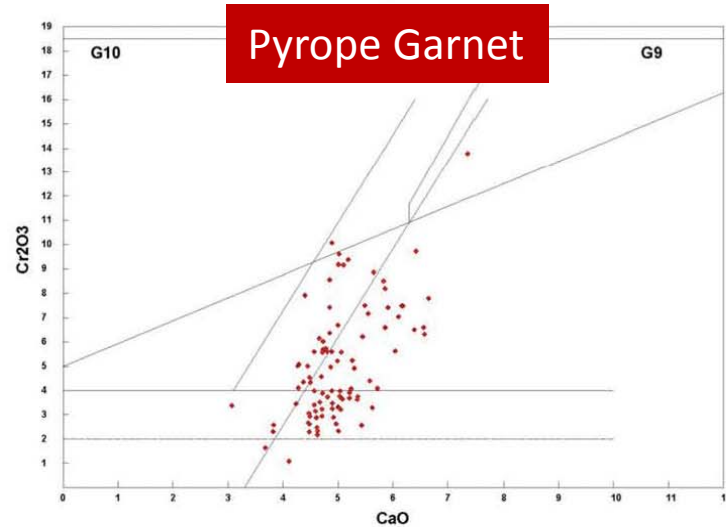




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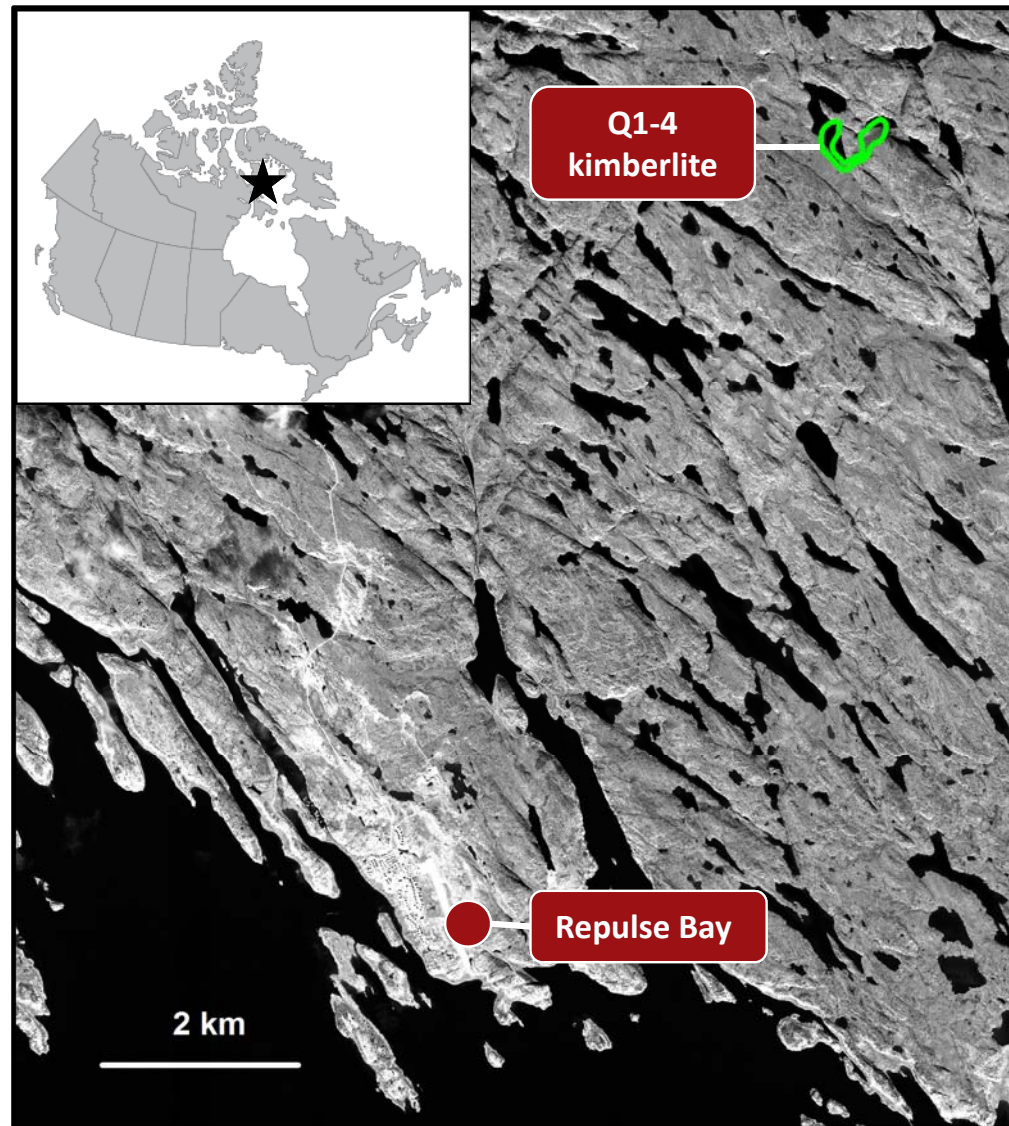


# QILALUGAQ PROJECT, NU

## North Arrow

MINERALS INC.

- ✓ **Jurisdiction-** Settled land claim
- ✓ **Near tide water** - improved logistics; sealift available; proximity to workforce
- ✓ **Large tonnage** – 48.8 million tonnes inferred resource. (May 13, 2013)\*
- ✓ **Good inferred resource grade** – 53 cph.
- ✓ **Blue sky** – Inferred resource only to 205m – open to depth; 15 additional kimberlite bodies.
- ? **Diamond valuation** – June 2015 valuation Lower than expected; challenged by small parcel size, lack of high value stones, lower yielding cuboid shapes.
- ? **Possible Upside** – very rare Type 1b fancy yellow diamonds; higher value stones could come with a larger sample.





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View looking south-southwest from Q1-4 kimberlite towards Repulse Bay

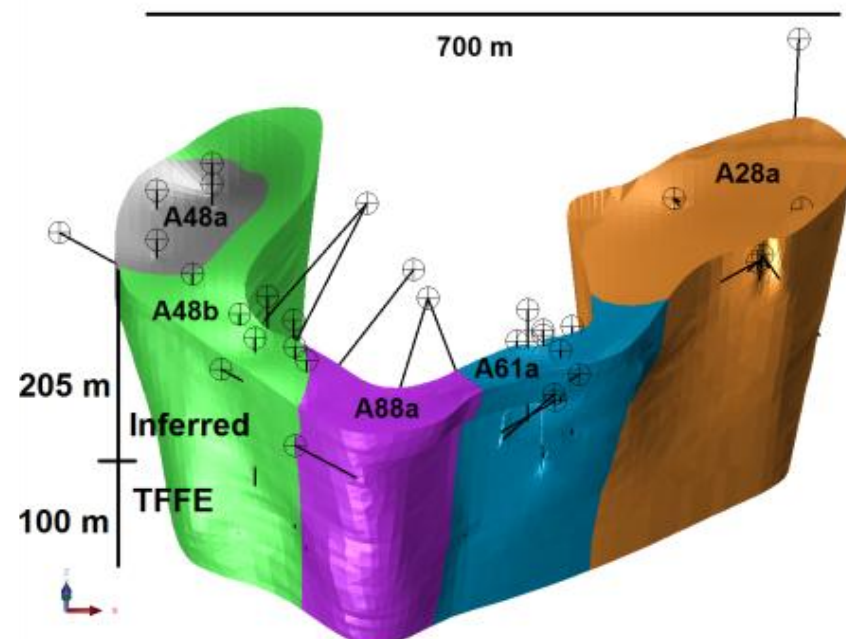
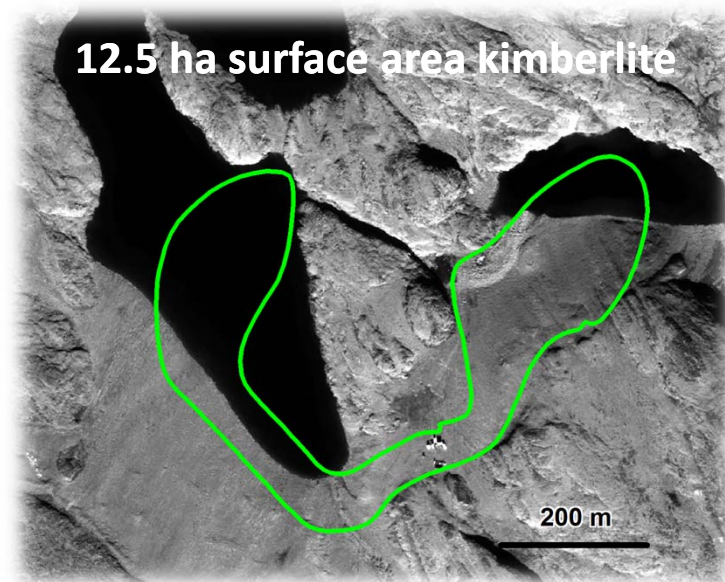




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*\* CAUTION – Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability*





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*\*\*Total recovery +1DTC grade*
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+5DTC "Run of Mine" from a portion of Q1-4 2014 bulk sample – 17.22 cts



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# THE WAY FORWARD

## North Arrow MINERALS INC.

Project	Location	Commodity	Interest	Comment
Pikoo	Saskatchewan	Diamonds	80%	Assess 2015 heli-borne mag; winter drilling 2016: delineation & discovery
Redemption	NWT	Diamonds	55%	Reassessing glacial history; government study prelim results Nov; Poss drill 2016
Lac de Gras	NWT	Diamonds	45%	Government study prelim results Nov
Mel	Nunavut	Diamonds	100%	August 2015 till results pending
Luxx	Nunavut	Diamonds	100%	Permitting for drill program underway
Qilalugaq	Nunavut	Diamonds	80%	Working with recovered diamonds to assess path forward
Timiskaming	Ontario	Diamonds	80%	Diamond and KIM evaluation of four kimberlites is ongoing

- Pikoo – Winter 2016 delineation drilling of PK150, PK311, and PK312 as well as new targets from heliborne mag located at heads of indicator trains; permitting; community and leadership meetings
- Results from government and contracted studies on reinterpretation of glacial history at Redemption; possible 2016 drilling.
- Mel - Till sample results January/February 2016.
- North Arrow is fully funded to complete this work.



**North Arrow**

**MINERALS INC.**

**TSXV: NAR**

**Ken Armstrong**

*President & CEO*

**Nick Thomas**

*Investor and Community Relations*

**Suite 960-789 West Pender Street**

**Vancouver, BC**

**Canada V6C 1H2**

**Tel: +1.604.668.8354**

**Fax: +1.604.336.4813**

**[info@northarrowminerals.com](mailto:info@northarrowminerals.com)**

**@narminerals**



**northarrowminerals**



**[www.northarrowminerals.com](http://www.northarrowminerals.com)**

