



NIAGARA

MINING LIMITED

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30 March 2006

Company Announcements Officer
Australian Stock Exchange Limited
Exchange Centre
Level 4, 20 Bridge Street
SYDNEY NSW 2000

www.asxonline.com

Dear Sir

Re: SUCCESSFUL TRIAL SURFACE TEM RESULTS - WNP

We enclose herewith a copy of an announcement in relation to the above.

Yours faithfully

Douglas C. Daws
EXECUTIVE CHAIRMAN

Enc

CORPORATE DIRECTORY

Director / Senior Management

Douglas Daws	Executive Chairman
Chris Daws	Chief Executive Officer
Bruno Sceresini	Non-Executive Director
Peter Landau	Non-Executive Director
Ross Kestel	Company Secretary

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Shareholder Enquiries

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GPO Box D182, Perth WA 6840
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Principal Office

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Home Exchange

The Company's shares are listed on the Australian Stock Exchange and the home exchange is Perth ASX code: NIA



ASX Announcement

30 March 2006

FIRST PHASE WNP SURFACE TEM SURVEYS COMPLETED

Niagara Mining Limited (ASX:NIA) is pleased to announce that the company's trial B-field Ground TEM surveys have been completed at Mt Windarra, Denny Bore, South Windarra and two other prospects within the historic Windarra Nickel Project (WNP) with highly encouraging results.

These trials were coordinated and supervised by Southern Geoscience Consultants (SGC) with the field work undertaken by Outer-Rim Exploration Services and GEM Geophysics to test the suitability of the modern TEM technology in Niagara's exploration program to delineate massive sulphide targets. The surveys have clearly identified high priority targets that warrant immediate drill testing for massive sulphides in prospective geological settings.

The completed trial B-field TEM surveys, although only a demonstration of the technology's capability, have provided three (3) high priority drill targets and two (2) other areas of interest for follow up investigation (see Plan 1). The outcomes of the trial are discussed in detail in Appendix 1.

"We are very pleased with the results of the surveys which clearly indicate the occurrence of conductive sources possibly indicative of massive sulphides throughout WNP's target areas," Niagara's Executive Chairman Doug Daws said.

"This confirms our belief in the region and this project and adds to the recently announced high tenor massive nickel sulphide intersects from current drilling at Mt Windarra which yielded 9.82m @ 6.06% Ni (686.16–695.98m) downhole including 4.62m @ 10.33% Ni (691.36 – 695.98m) from a thick high grade massive nickel sulphide zone approximately 130metres below the current mine development," Mr Daws added.

Niagara intends to now proceed with a systematic regional surface TEM programme to provide full coverage over the extensive prospective Windarra Nickel Project area, some 25 kms long.

Background.

Surface TEM has the potential to directly detect the presence of blind massive nickel sulphides in the immediate sub-surface, down to about 500m given the current B-field technology. Data acquisition usually occurs during the early stages of nickel sulphide exploration programs to detect potential targets of interest. No modern B-field TEM techniques have ever been used at the WNP.

Downhole TEM (DHTEM) is routinely used to assist drill testing of massive nickel sulphide deposits, locate potential extensions/offsets of mineralisation and to detect targets close to but not intersected by exploration drill holes. The WNP was closed before this technology became available and it has never been used in the Project area.



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It is anticipated that the first three high priority TEM targets namely Poseidon (Mt Windarra), Subzero (Denny Bore) and Don Juan (South Windarra) will be drill tested in the near future.

All three TEM targets are situated adjacent to known nickel sulphides in prospective geological settings and the associated conductive sources are consistent with the presence of massive sulphide. The remaining TEM targets identified at Windarra Well and Weebo Well are yet to be prioritised according to their geological setting.

The above results are extremely positive and the Company looks forward to continue developing its exploration a development strategy for the Windarra Nickel Project.

Yours faithfully

Douglas C. Daws

EXECUTIVE CHAIRMAN

Note: The information in this report that relates to exploration results is based on information compiled by Mr M Elias who is a Fellow of The Australasian Institute of Mining and Metallurgy. Mr Elias is employed by CSA Australia Pty Ltd. Mr Elias has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. The Australian Stock Exchange has not received and does not accept responsibility for the accuracy or adequacy of this release.

Enc.



Appendix 1

Mt Windarra – “Poseidon Target”

B-field moving loop TEM surveying was performed across the full strike length of the known nickel sulphide mineralisation at Mt Windarra. Surveying was limited in places to the west by the presence of open stopes (A and B Shoots) and rugged terrain.

One strong and short strike length bedrock anomaly of interest was delineated along strike ~250m to the south of the B Shoot (“Poseidon Target”). The associated conductor is consistent with the presence of a massive sulphide adjacent to the basal ultramafic contact at a vertical depth of <100m. **Plan 4** highlights the location of the strong TEM anomaly with respect to the known nickel sulphide mineralisation and detailed aeromagnetics. It is anticipated that this strong conductor will be drill tested in the immediate future (see attached 3D View **Plan 5**).

Denny Bore – “Subzero Target”

B-field moving loop TEM surveying performed at the Denny Bore was planned to provide coverage over a potential thickening of the ultramafic sequence and an area directly updip of a geological setting of interest defined by historic deep drill testing by WMC (the drilling intersected 0.95m @ 4.2%Ni from 796.3m downhole and includes two zones of massive nickel sulphides, 0.1m @ 17%Ni from 796.3m and 0.15m @ 13.5%Ni from 797.1m).

A strong, discrete anomaly of immediate interest has been delineated called Subzero. The interpreted conductive source is consistent with the presence of massive sulphide at significant depth (>150m). **Plan 6** highlights the position of the strong TEM anomaly with respect to the detailed aeromagnetics. Of particular interest is the presence of a localised magnetic anomaly coincident with this TEM anomaly. The associated conductive source would appear to be situated at the base of this local magnetic unit which could potentially represent an ultramafic horizon of >100m thickness (see **Plan 7**). **Plan 8** demonstrates the 3D position of the modelled, NE plunging TEM conductor with respect to the approximate, deep nickel sulphide intercept in drillhole **WED4**.

Given the existing information it is likely that this high priority TEM target will be drill tested in the immediate future and the historic **WED4** drillhole will be rehabilitated for downhole TEM surveying once a diamond drill rig becomes available (see **Plan 9 – WED4** well preserved collar). Downhole TEM surveying of **WED4** could potentially provide an immediate drill target at depth. This approach of rehabilitating and DHTEM logging of deep historic drillholes at Forrestania ultimately led to the discovery of the Flying Fox T1-T2 deposits and provided the impetus to persist with the ongoing deep exploration which eventually led to the discovery of the remaining T3, T4 and significant T5 discoveries.



South Windarra – “Don Juan Target”

The TEM survey completed at South Windarra was aimed at providing TEM coverage of the prospective sequence both immediately down-dip and east of the broad disseminated nickel sulphide system.

One strong and discrete bedrock anomaly (“Don Juan Target”) of interest has been delineated directly southeast of the open pit. The associated conductor is consistent with the presence of a massive sulphide and available geological information suggests that this source is near coincident with the basal ultramafic contact.

Plan 2 highlights the location of the strong TEM anomaly with respect to historic geological information whilst **Plan 3** illustrates the approximate position of the modelled bedrock source projected onto an adjacent geological cross-section and proposed drillhole testing. This bedrock conductor will be drill tested in the near future.

Windarra Well – “Jeune Target”

The TEM surveying completed at the Windarra Well Prospect was planned to provide coverage over several discrete magnetic anomalies and gossan outcrop.

One strong bedrock anomaly of interest was delineated namely the Jeune Target. The associated conductive source is consistent with the presence of a massive sulphide at a vertical depth of ~200m+. **Plan 5** highlights the location of the strong TEM anomaly with respect to the detailed aeromagnetics. A potential fold closure in this local area is apparent in the detailed aeromagnetics.

Weebo Well – “Patron Target”

B-field moving loop TEM surveying completed at the Weebo Well Prospect was planned to provide coverage over several discrete magnetic anomalies and an area up-dip of a geological setting of interest defined by historic deep drill testing by WMC (high grade VMS mineralisation – WED13).

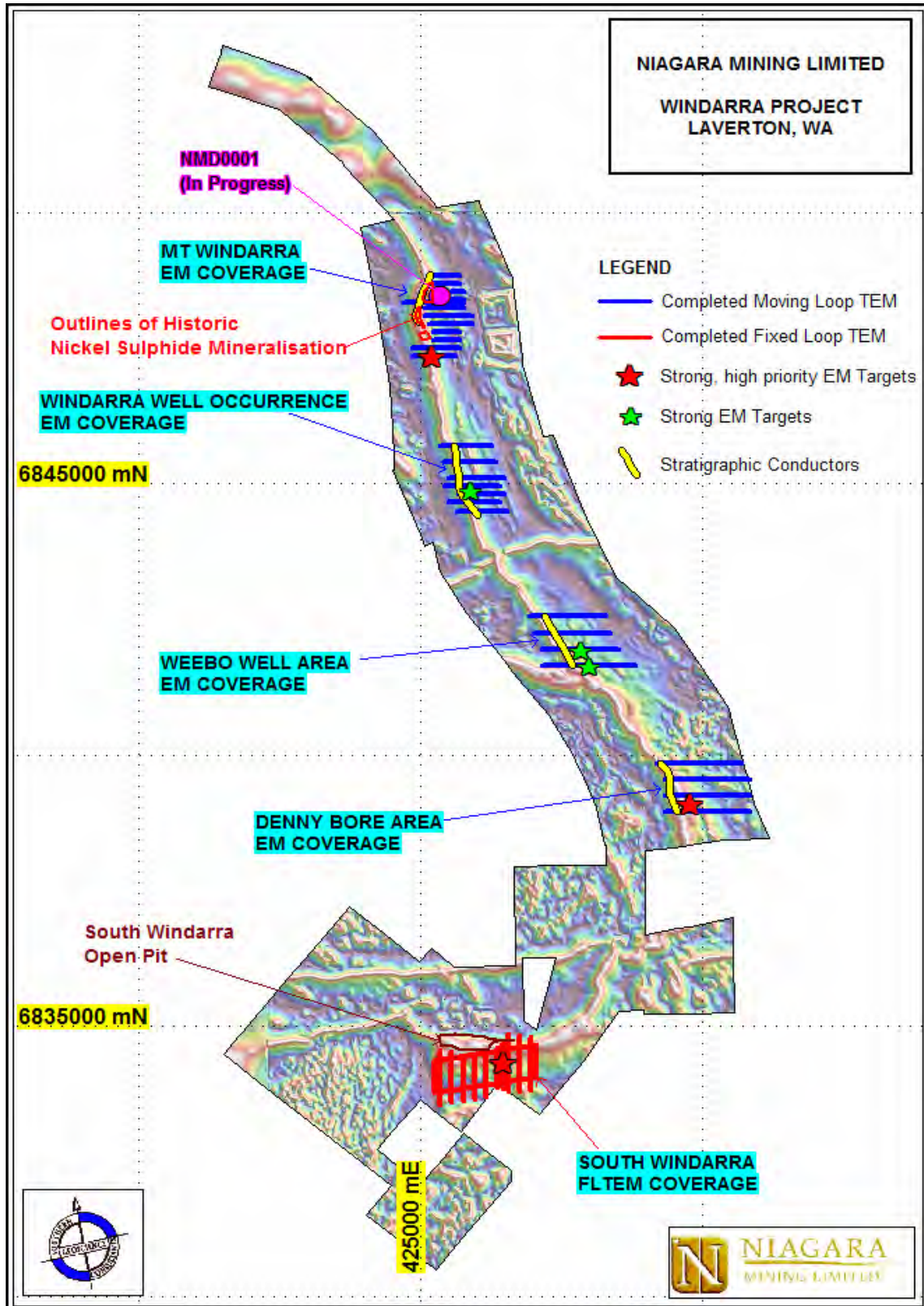
Strong anomalies of interest were identified at the Patron Target area. Both associated conductive sources are possibly consistent with the presence of massive sulphide at significant depth (~200m+). **Plan 6** highlights the position of the strong TEM anomalies with respect to the detailed aeromagnetics.



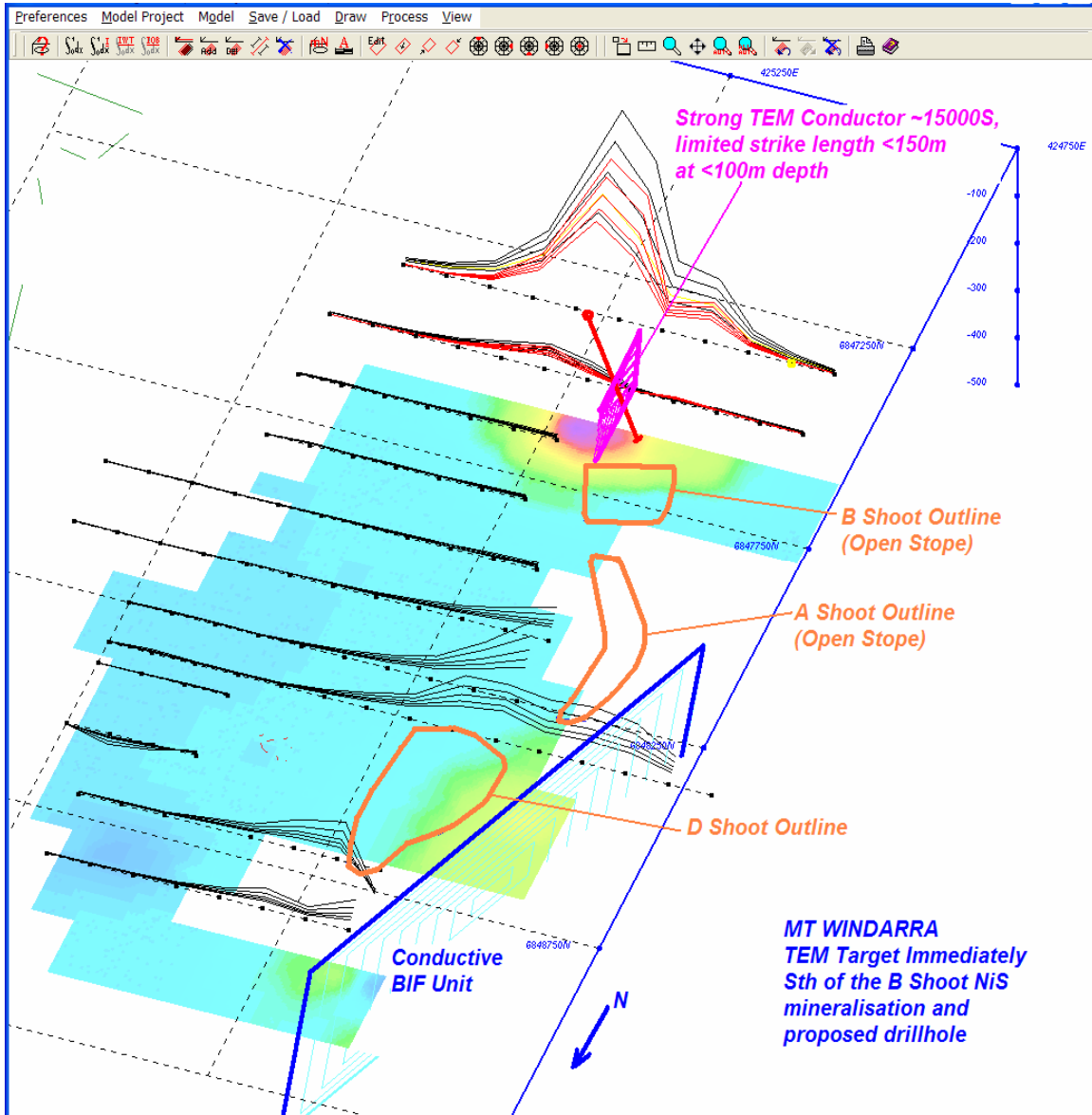
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Plan 1



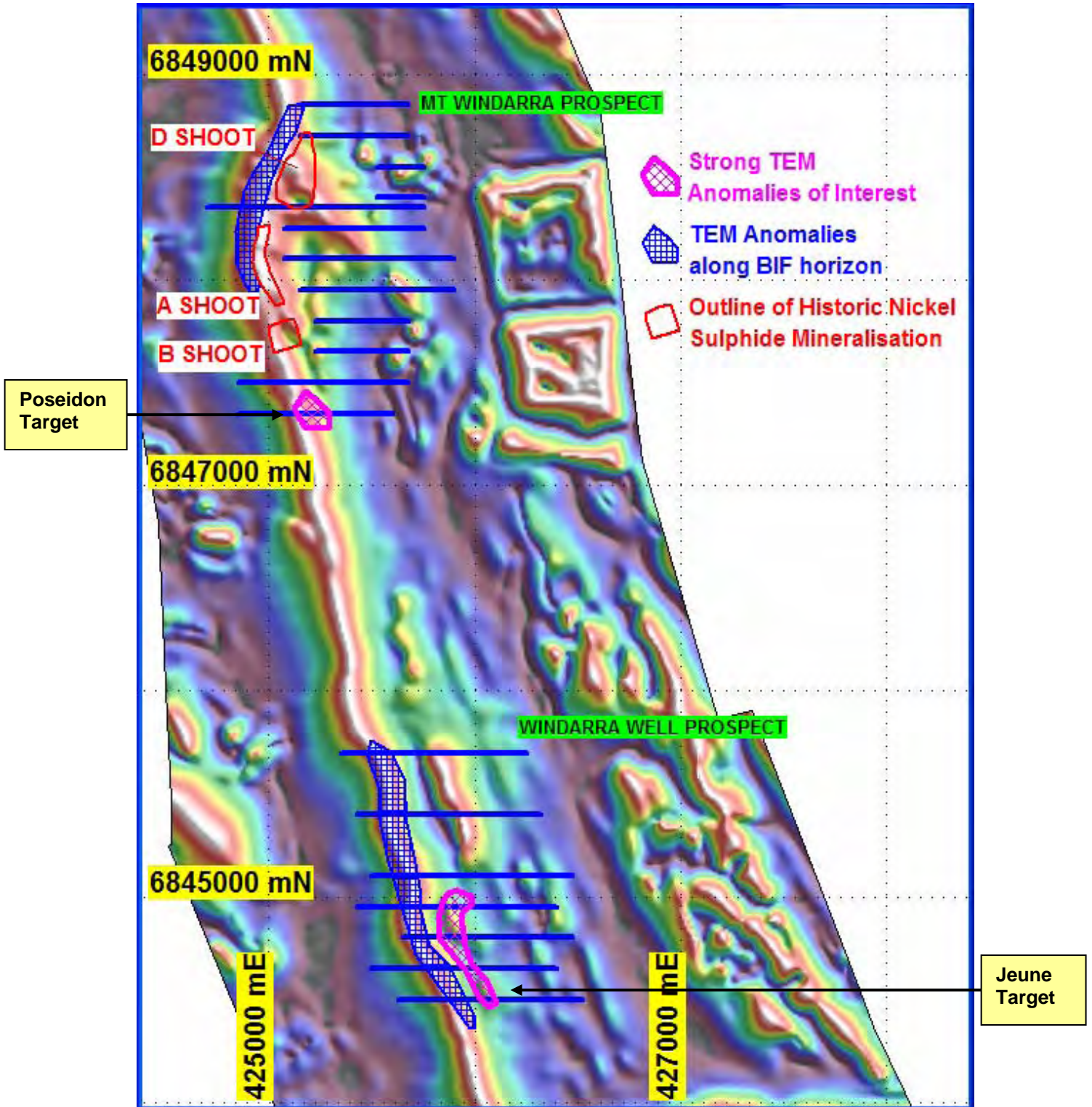
Plan 4 – “Poseidon Target”



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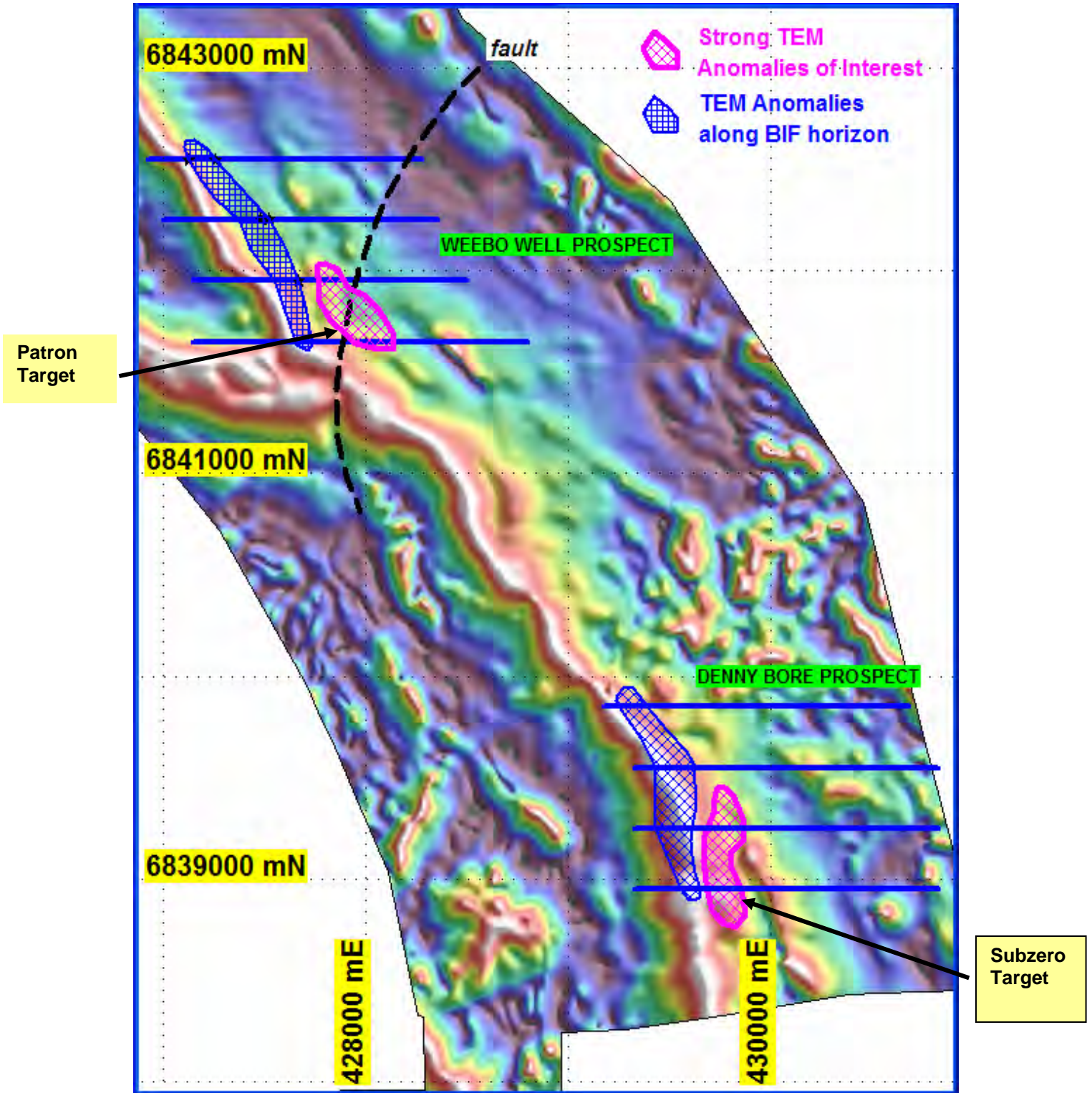
Plan 5 - "Poseidon Target" & "Jeune Target"



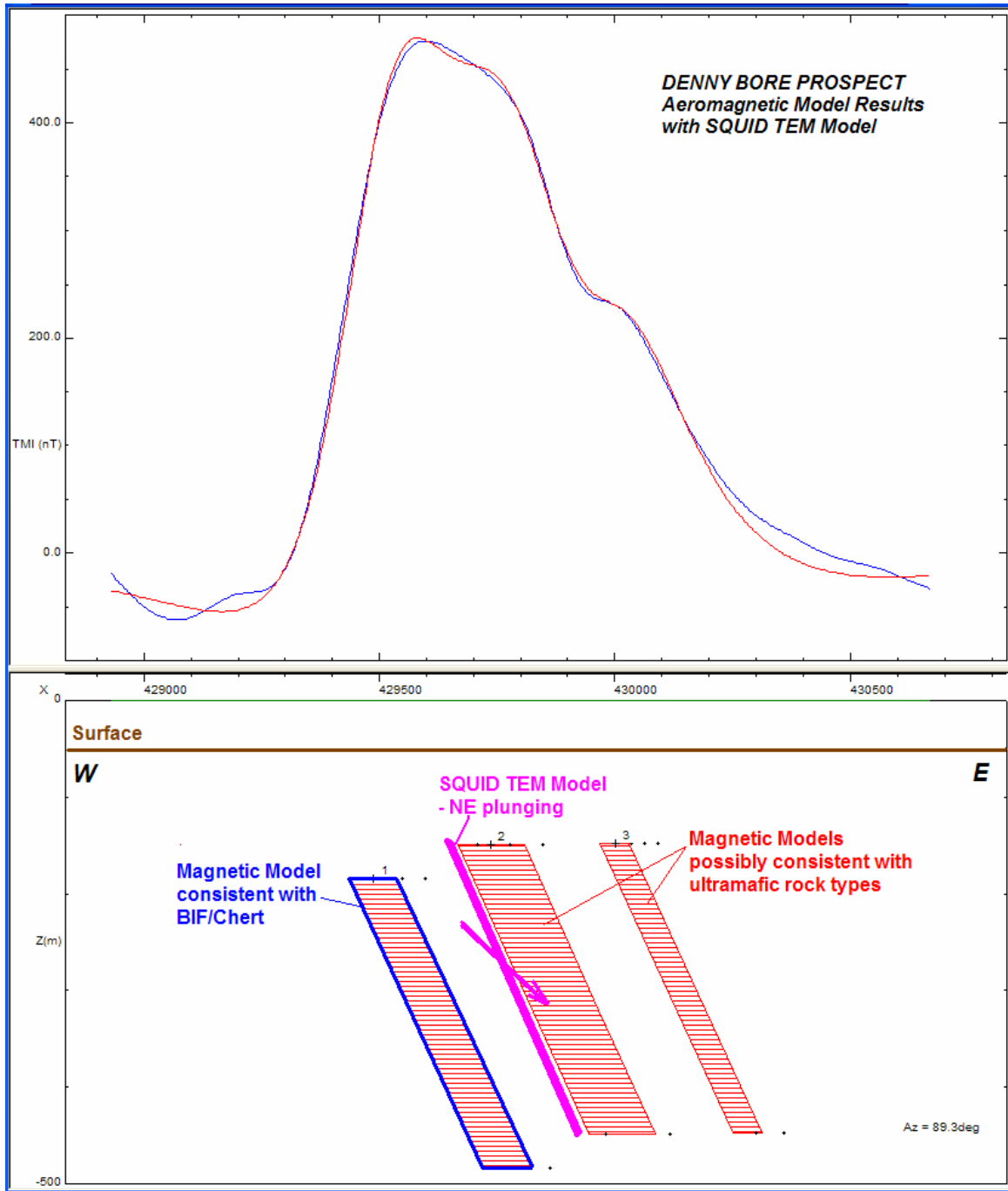
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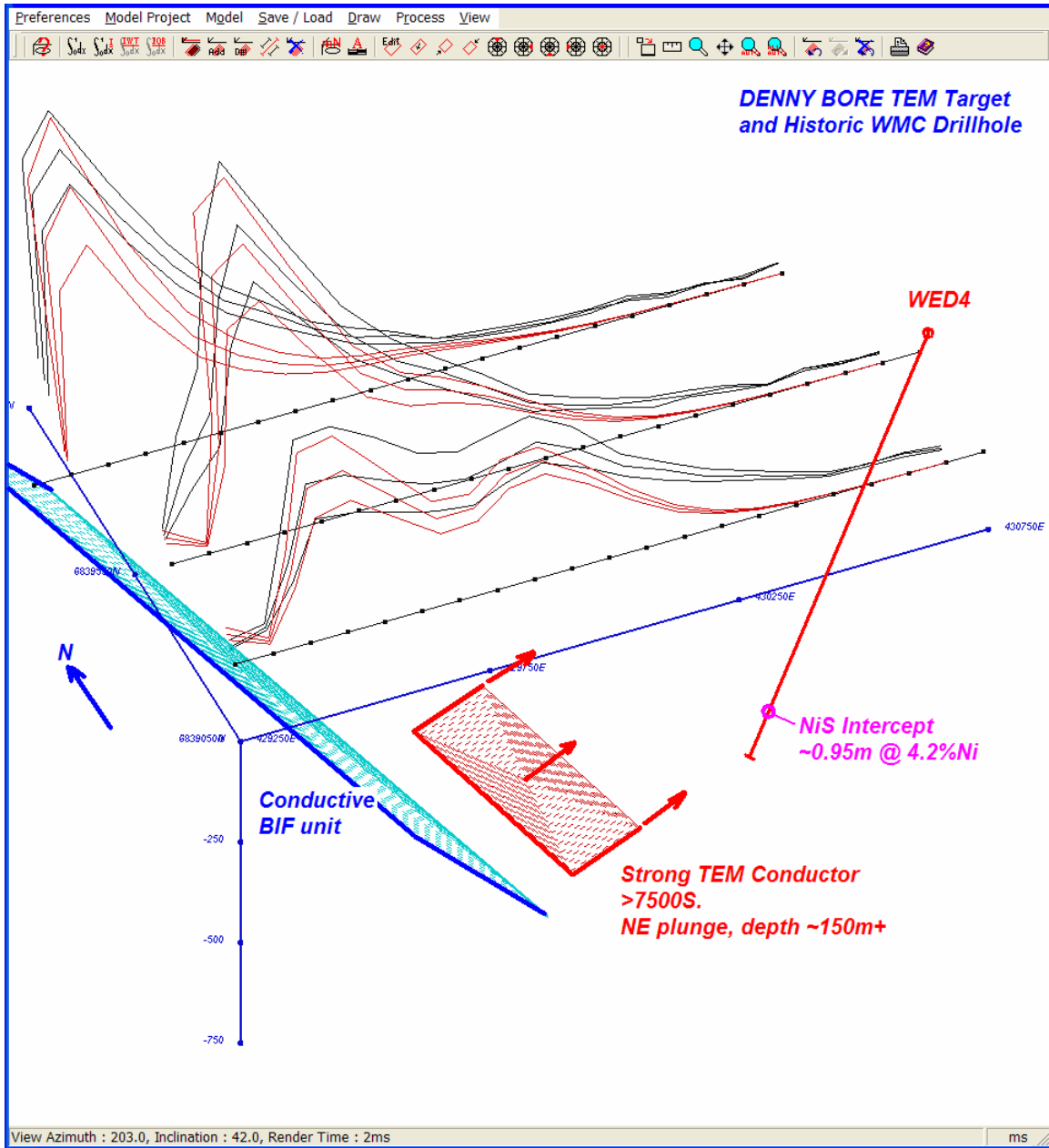
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Plan 6 – “Subzero Target” & “Patron Target”



Plan 7 – “Subzero Target”



Plan 8 – “Subzero Target”



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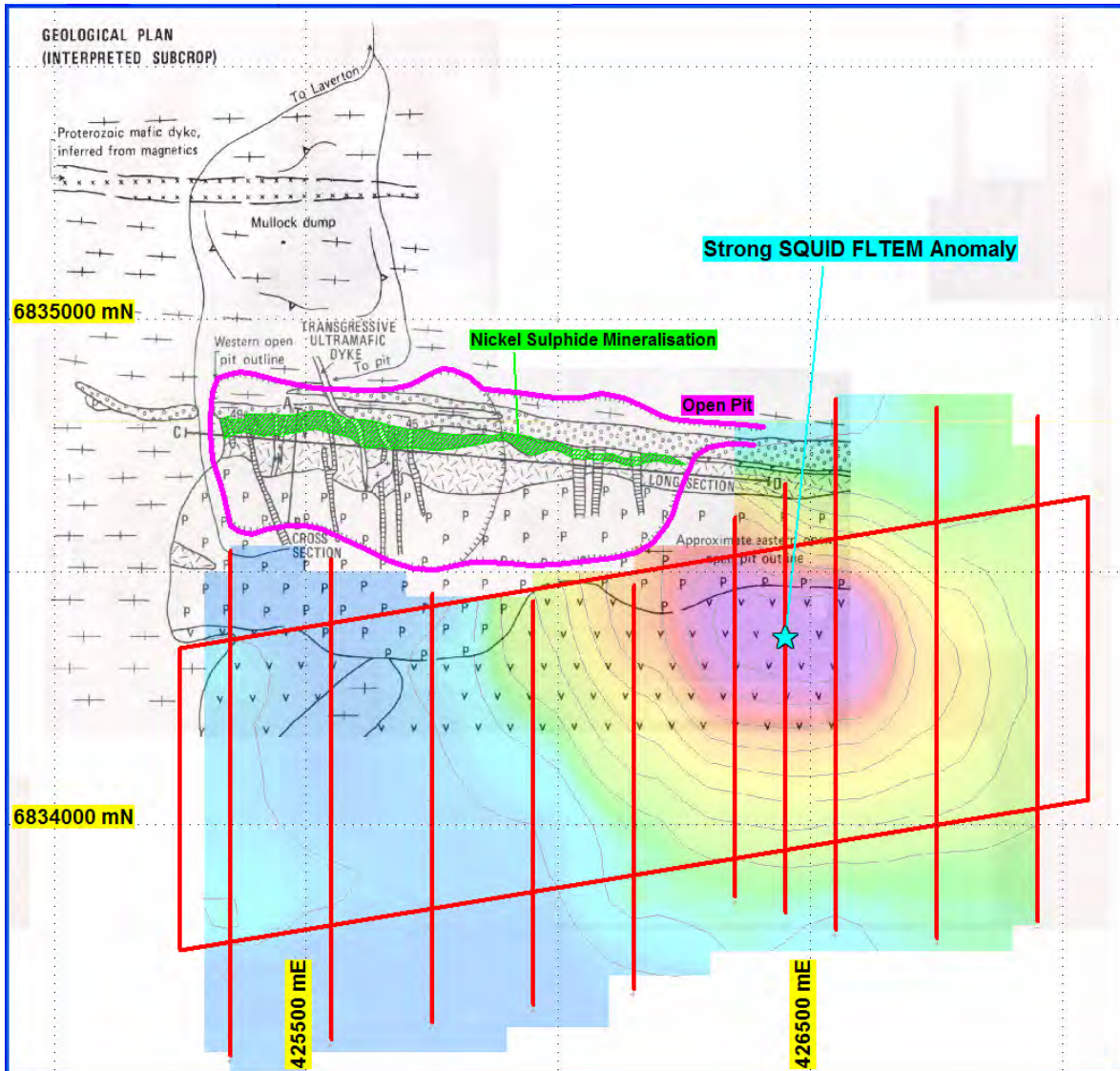
Plan 9 – “Subzero Target”



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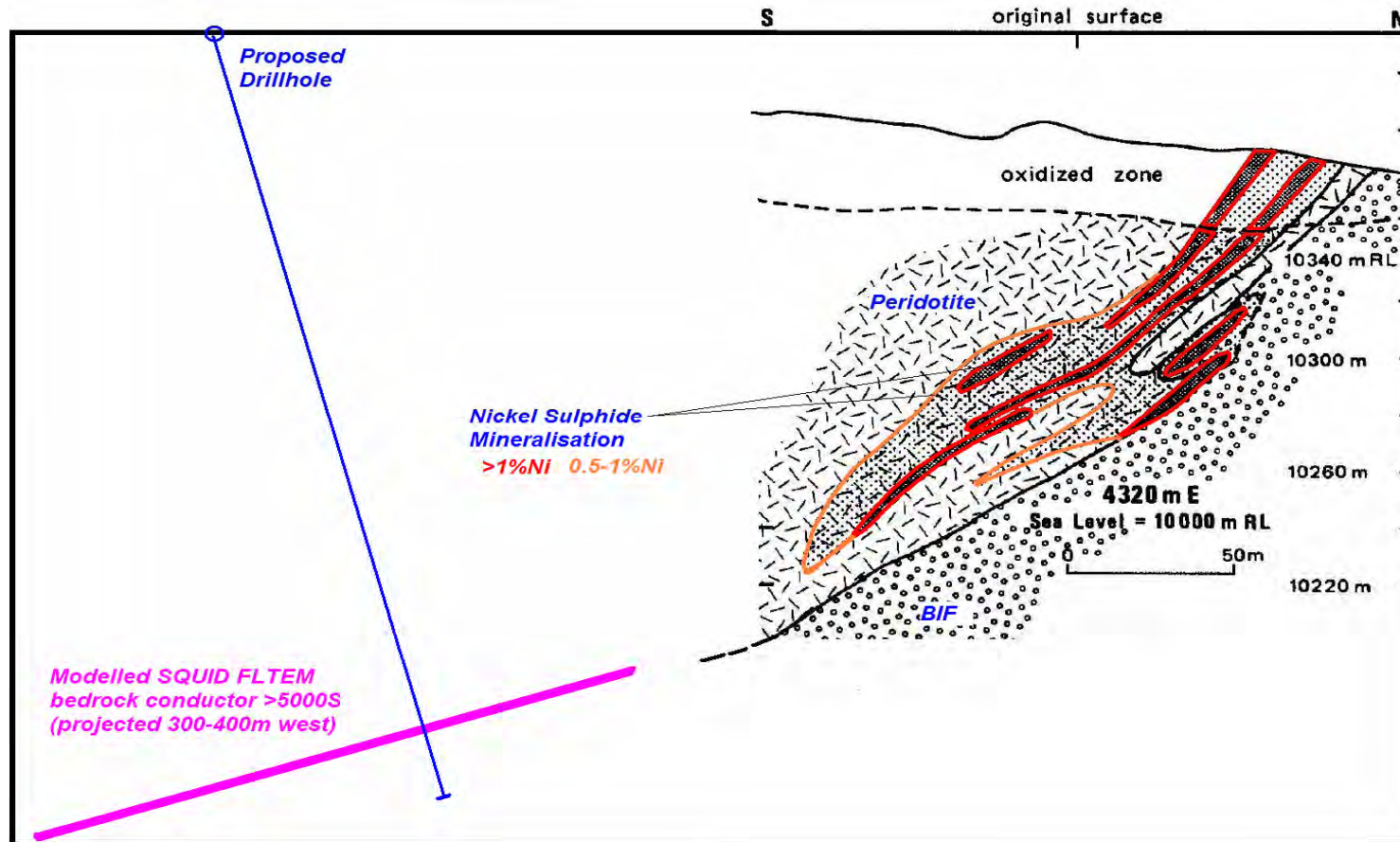
Plan 2 – "Don Juan Target"



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Plan 3 – “Don Juan Target”