10 June 2015

# ASX ANNOUNCEMENT

AVALON MINERALS LTD

## LARGE AREA OF COPPER MINERALISATION DEFINED AT WEST NUKUTUS

### Highlights

- **A significant copper anomaly with supporting gold anomalism has been discovered through bedrock auger sampling over the West Nukutus magnetic target.**
- **Copper anomalism has been defined over an area of 1km x 300m and is open along strike, and to the west.**
- **Visible chalcopyrite was identified in 18 of 49 auger holes.**
- **The peak response delivered 0.5% Cu and 0.1 g/t Au over 1m.**
- **Diamond drilling to test the West Nukutus target is being planned.**

**Avalon Minerals Limited** ('**Avalon**' or '**Company**') (**ASX: AVI**) is pleased to announce very significant exploration results from the West Nukutus exploration target located approximately 5km north-east of the Viscaria copper deposit (Figure 1).

The West Nukutus target comprises a north-south trending complex magnetic anomaly with a strike extent of at least 1200m.

A 49 hole auger drilling program was completed in May 2015 to sample the base of till and the uppermost bedrock (Table 1). The drilling was completed on a 100 x 100m grid and copper anomalism has been detected across a significant area (Figure 2). Eighteen of the 49 auger holes intersected minor amounts of visible chalcopyrite. Assay results from the bedrock samples have defined a 1000m x 300m area of greater than 200ppm copper with local lower level anomalous gold (see Appendix 1 for full assay results of all drill holes). The area of anomalous copper is open to the north, south and west.

Avalon's Managing Director, Mr Malcolm Norris, said "This is a very significant result for our near mine exploration program. We are systematically defining and testing targets within 5km of the Viscaria project. We have identified and completed first pass drilling on 2 targets and delivered 2 areas of anomalous copper at Nihka and West Nukutus. The West Nukutus results are particularly exciting, defining a large copper anomaly with locally up to 0.5% copper. We will accelerate our work here with the aim of delivering a discovery. We are excited by these results and by what the Viscaria district may deliver with a disciplined focussed exploration effort."

The copper and gold anomalism is coincident with the West Nukutus magnetic anomaly. The host rocks are altered mafic volcanic rocks, with local areas of diorite and mafic schists, all containing variable amounts of magnetite.

ASX: AVI

REGISTERED OFFICE

Avalon Minerals Ltd
ABN 68 123 184 412
9 Gardner Close
Milton Qld 4064 Australia
P + 61 7 3368 9888
F + 61 7 3368 9899
info@avalonminerals.com.au
www.avalonminerals.com.au

One historical hole, drilled in 1986 to a depth of 259.5m, was collared (Table 2) approximately 220 meters east of the West Nukutus magnetic anomaly and drilled towards the west, but failed to intersect the modelled peak of the magnetic anomaly. The hole did intersect anomalous copper and gold, and intersected altered mafic rocks with up to 0.46g/t Au and 0.26% Cu over 1m in the bottom 43m.

Interpretation of all datasets is underway which will allow for planning of a first pass diamond drilling program at West Nukutus, which is expected to commence as soon as practivable.

Avalon's recent exploration program has identified at least 5 high priority exploration targets within a radius of 5km from the main Viscaria deposits. Several other lower priority targets have been defined for further work. Follow-up programs include additional auger drilling to bedrock, further ground magnetics and electrical geophysics, and diamond drilling where warranted.

While the near mine exploration program has progressed as planned the main focus of Avalon's drilling program continues to be drilling at A, B and D Zones to expand the current resource and deliver results that can be included in an updated Scoping Study to be delivered in Q4, 2015.

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Avalon Minerals Ltd
ABN 68 123 184 412
9 Gardner Close
Milton Qld 4064 Australia
P + 61 7 3368 9888
F + 61 7 3368 9899
info@avalonminerals.com.au
www.avalonminerals.com.au

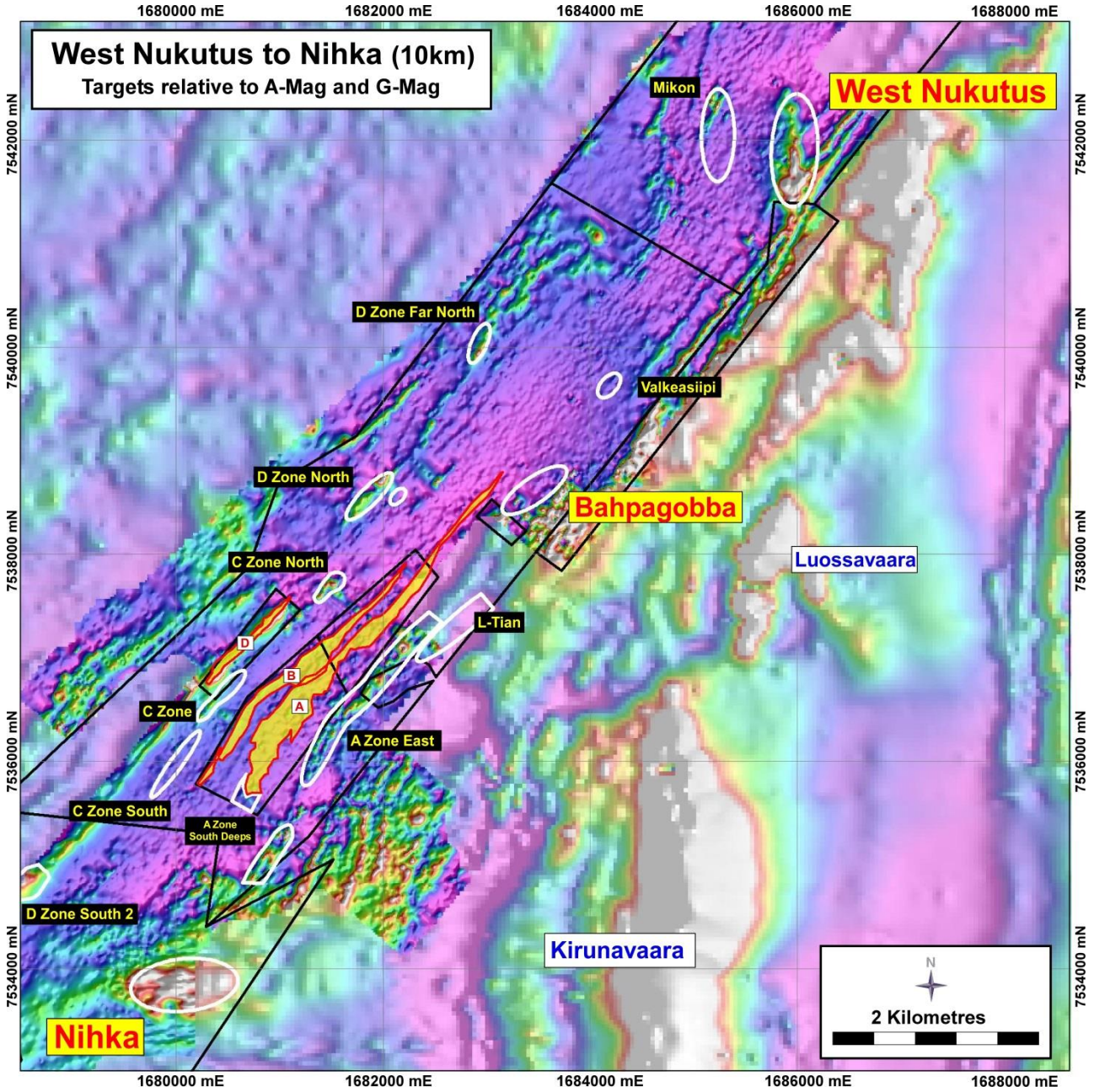



**Figure 1 – Location of the West Nukutus target relative to the Viscaria Copper Project copper deposits (A, B & D Zones). Background image is TMI ground and airborne magnetics**

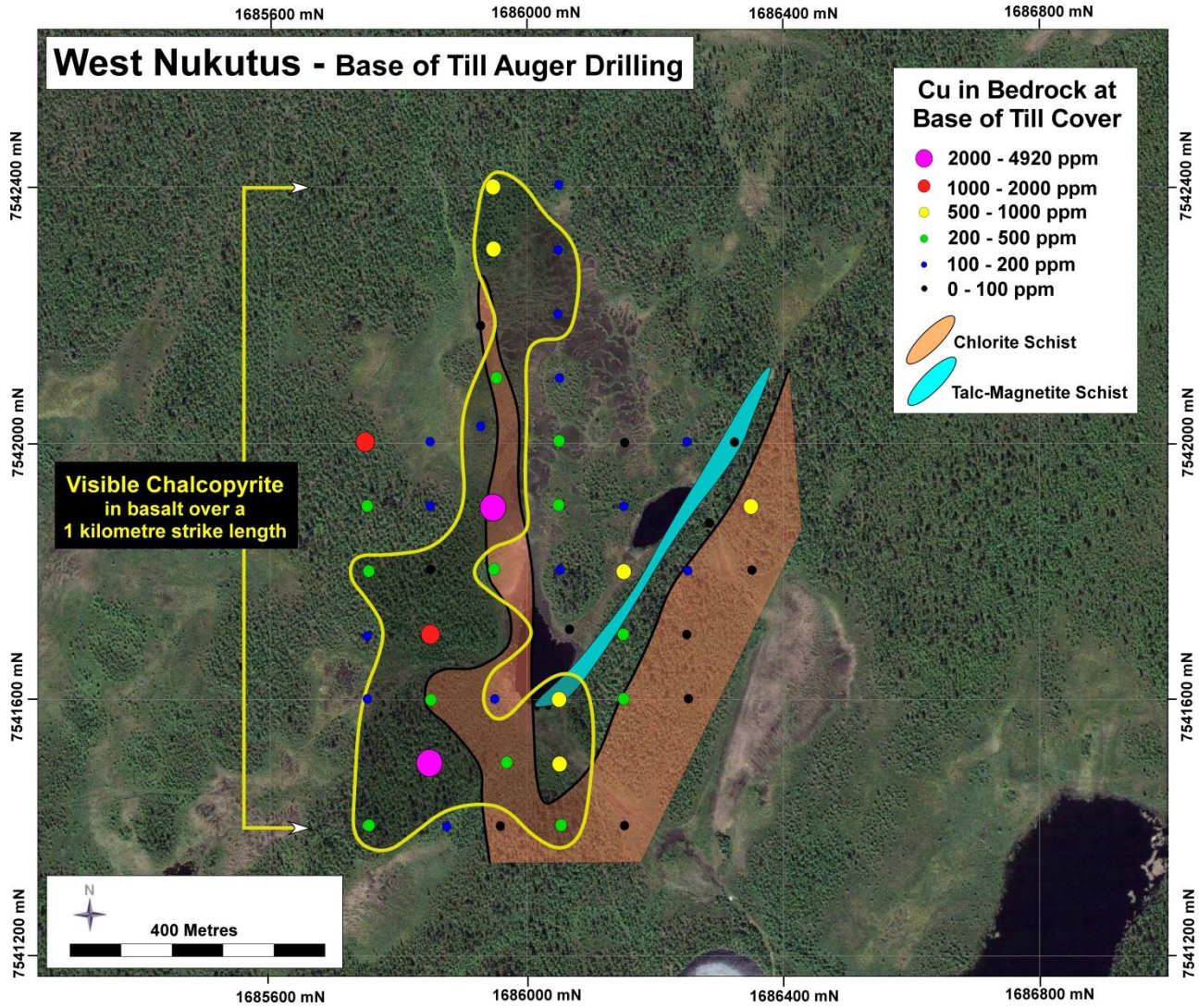
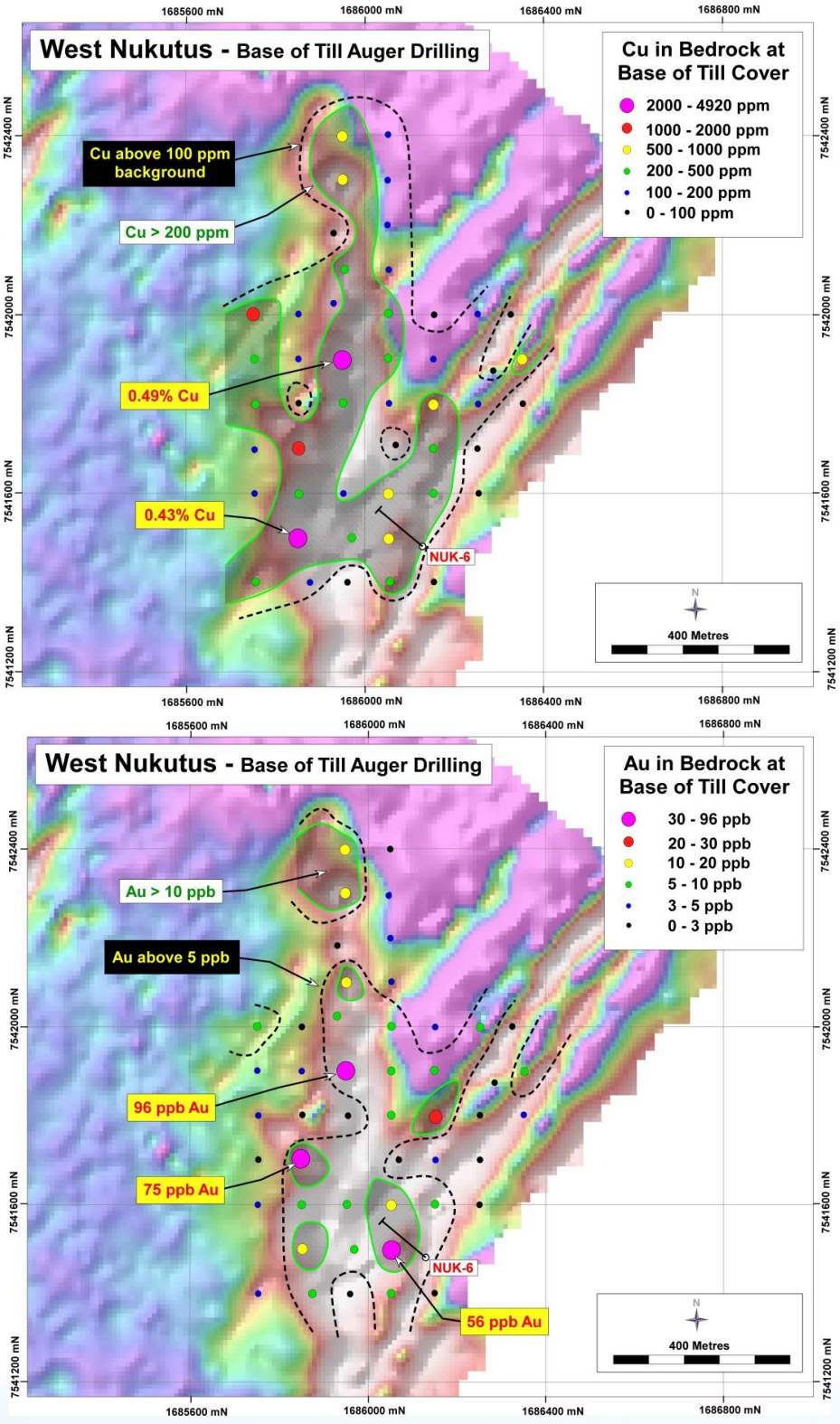



**Figure 2: West Nukutus target – showing auger holes drilled on a 100m by 100m grid, and copper assay values in ppm plus an outline of visible chalcopyrite mineralisation at the top of the basement rocks and just below the transported till cover rocks.**




**Figures 3a (top) and 3b (bottom): West Nukutus target – images showing TMI magnetics, auger holes drilled on a 100m by 100m grid and historic hole NUK 6.Copper anomalism (top) plus gold anomalism (bottom).**

| Auger Hole Number | Easting (mE; RT90) | Northing (mN; RT90) | RL (m) | EOH (m) | Main Lithology |
|---|---|---|---|---|---|
| NUBT001 | 1686153 | 7541400 | 480 | 9 | schist |
| NUBT002 | 1686052 | 7541500 | 482 | 8 | basalt |
| NUBT003 | 1686052 | 7541600 | 481 | 16.5 | tasch |
| NUBT004 | 1686068 | 7541706 | 481 | 7 | basalt |
| NUBT005 | 1686153 | 7541800 | 480 | 11 | basalt |
| NUBT006 | 1686286 | 7541874 | 480 | 12 | basalt |
| NUBT007 | 1686253 | 7542000 | 480 | 7.5 | basalt |
| NUBT008 | 1686152 | 7541900 | 479 | 7.5 | basalt |
| NUBT009 | 1686153 | 7542000 | 478 | 8 | basalt |
| NUBT010 | 1686053 | 7542101 | 477 | 7.5 | basalt |
| NUBT011 | 1686053 | 7542001 | 478 | 10 | schist |
| NUBT012 | 1686052 | 7541901 | 479 | 7.5 | basalt |
| NUBT013 | 1686053 | 7541801 | 480 | 6 | basalt |
| NUBT014 | 1685952 | 7541900 | 480 | 10.5 | schist |
| NUBT015 | 1685931 | 7542026 | 478 | 11 | diorite |
| NUBT016 | 1685953 | 7542100 | 477 | 13.5 | schist |
| NUBT017 | 1685930 | 7542182 | 476 | 9 | schist |
| NUBT018 | 1686050 | 7542200 | 475 | 15 | basalt |
| NUBT019 | 1686050 | 7542300 | 474 | 16.5 | basalt |
| NUBT020 | 1686050 | 7542400 | 471 | 8.5 | basalt |
| NUBT021 | 1685950 | 7542400 | 471 | 7.5 | basalt |
| NUBT022 | 1685950 | 7542300 | 473 | 8.5 | basalt |
| NUBT023 | 1686325 | 7542000 | 481 | 16.5 | schist |
| NUBT024 | 1686352 | 7541900 | 481 | 6 | schist |
| NUBT025 | 1686352 | 7541801 | 480 | 9 | schist |
| NUBT026 | 1686252 | 7541800 | 480 | 8.5 | schist |
| NUBT027 | 1686253 | 7541700 | 481 | 7.5 | schist |
| NUBT028 | 1686252 | 7541600 | 480 | 8 | schist |
| NUBT029 | 1686152 | 7541600 | 481 | 6 | schist |
| NUBT030 | 1686153 | 7541700 | 481 | 7.5 | basalt |
| NUBT031 | 1685953 | 7541800 | 481 | 8 | schist |
| NUBT032 | 1685853 | 7541800 | 481 | 8 | basalt |
| NUBT033 | 1685753 | 7541800 | 481 | 8 | basalt |
| NUBT034 | 1685752 | 7541900 | 481 | 13.5 | basalt |
| NUBT035 | 1685852 | 7541900 | 480 | 13.5 | basalt |
| NUBT036 | 1685956 | 7541713 | 481 | 12 | basalt |
| NUBT037 | 1685853 | 7541700 | 482 | 10.5 | basalt |
| NUBT038 | 1685753 | 7541700 | 482 | 7 | basalt |

| | | | | | |
|---|---|---|---|---|---|
| NUBT039 | 1685752 | 7541600 | 481 | 8.5 | basalt |
| NUBT040 | 1685852 | 7541600 | 481 | 8 | schist |
| NUBT041 | 1685952 | 7541600 | 480 | 30 | schist |
| NUBT042 | 1685970 | 7541500 | 485 | 10.5 | schist |
| NUBT043 | 1685960 | 7541400 | 490 | 12 | schist |
| NUBT044 | 1685853 | 7541500 | 488 | 8 | basalt |
| NUBT045 | 1685875 | 7541400 | 490 | 6.5 | basalt |
| NUBT046 | 1685753 | 7541400 | 490 | 5 | basalt |
| NUBT047 | 1685852 | 7542000 | 479 | 13 | basalt |
| NUBT048 | 1685752 | 7542001 | 480 | 11 | basalt |
| NUBT049 | 1686053 | 7541400 | 485 | 7 | schist |

**Table 1: List of auger drill holes with collar co-ordinates shown, RL, end of hole depth and dominant lithology. All holes were drilled vertically, and drilled through glacial till cover to sample the bedrock.**

| Hole No. | Easting (mE, RT90) | Northing (mE, RT90) | Dip | Azimuth | RL (m) | EOH (m) |
|---|---|---|---|---|---|---|
| KNUK-6 | 1686129 | 7541481 | -45 | 310 | 480 | 259.5 |

**Table 2: Historical drill hole KNUK-6, drilled in 1986 by LKAB on the eastern side of the West Nukutus prospect**

**Competent Persons Statement**

The information in this report that relates to exploration results is based upon information reviewed by Mr Malcolm Norris who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Norris is a full-time employee of Avalon Minerals Ltd and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Norris consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

**For further information please visit www.avalonminerals.com.au or contact:**

Mr Malcolm Norris
Managing Director
Avalon Minerals Limited
Tel: 07 3368 9888
Email: malcolm.norris@avalonminerals.com.au

**APPENDIX 1: Table of assay results for auger drill holes**

| HOLE NUMBER | Easting_RT90 (m) | Northing_RT90 (m) | FROM (m) | TO (m) | Cu ppm | Au ppm |
|---|---|---|---|---|---|---|
| NUBT001 | 1686153 | 7541400 | 6 | 7.5 | 2 | 0.001 |
| NUBT001 | 1686153 | 7541400 | 7.5 | 9 | 4 | 0.0005 |
| NUBT002 | 1686052 | 7541500 | 5 | 6.5 | 97 | 0.004 |
| NUBT002 | 1686052 | 7541500 | 6.5 | 8 | 744 | 0.056 |
| NUBT003 | 1686052 | 7541600 | 10 | 11 | 379 | 0.01 |
| NUBT003 | 1686052 | 7541600 | 13.5 | 15 | 476 | 0.002 |
| NUBT003 | 1686052 | 7541600 | 15 | 16.5 | 707 | 0.007 |
| NUBT004 | 1686068 | 7541706 | 4 | 5.5 | 75 | 0.002 |
| NUBT004 | 1686068 | 7541706 | 5.5 | 7 | 35 | 0.002 |
| NUBT005 | 1686153 | 7541800 | 8 | 9.5 | 6 | 0.003 |
| NUBT005 | 1686153 | 7541800 | 9.5 | 11 | 847 | 0.032 |
| NUBT006 | 1686286 | 7541874 | 9 | 10.5 | 16 | 0.0005 |
| NUBT006 | 1686286 | 7541874 | 10.5 | 12 | 8 | 0.001 |
| NUBT007 | 1686253 | 7542000 | 4.5 | 6 | 146 | 0.003 |
| NUBT007 | 1686253 | 7542000 | 6 | 7.5 | 181 | 0.008 |
| NUBT008 | 1686152 | 7541900 | 4.5 | 6 | 146 | 0.005 |
| NUBT008 | 1686152 | 7541900 | 6 | 7.5 | 199 | 0.006 |
| NUBT009 | 1686153 | 7542000 | 5 | 6.5 | 25 | 0.001 |
| NUBT009 | 1686153 | 7542000 | 6.5 | 8 | 73 | 0.004 |
| NUBT010 | 1686053 | 7542101 | 4.5 | 6 | 194 | 0.002 |
| NUBT010 | 1686053 | 7542101 | 6 | 7.5 | 119 | 0.004 |
| NUBT011 | 1686053 | 7542001 | 7 | 8.5 | 394 | 0.007 |
| NUBT011 | 1686053 | 7542001 | 8.5 | 10 | 148 | 0.004 |
| NUBT012 | 1686052 | 7541901 | 4.5 | 6 | 137 | 0.003 |
| NUBT012 | 1686052 | 7541901 | 6 | 7.5 | 300 | 0.005 |
| NUBT013 | 1686053 | 7541801 | 3 | 4.5 | 150 | 0.008 |
| NUBT013 | 1686053 | 7541801 | 4.5 | 6 | 93 | 0.001 |
| NUBT014 | 1685952 | 7541900 | 5 | 6 | 4920 | 0.096 |
| NUBT014 | 1685952 | 7541900 | 7.5 | 9 | 168 | 0.004 |
| NUBT014 | 1685952 | 7541900 | 9 | 10.5 | 1330 | 0.011 |
| NUBT015 | 1685931 | 7542026 | 8 | 9.5 | 188 | 0.005 |
| NUBT015 | 1685931 | 7542026 | 9.5 | 11 | 90 | 0.003 |
| NUBT016 | 1685953 | 7542100 | 10.5 | 12 | 260 | 0.008 |
| NUBT016 | 1685953 | 7542100 | 12 | 13.5 | 139 | 0.01 |
| NUBT017 | 1685930 | 7542182 | 7.5 | 9 | 62 | 0.002 |
| NUBT018 | 1686050 | 7542200 | 12 | 13.5 | 144 | 0.004 |

| | | | | | | |
|---|---|---|---|---|---|---|
| NUBT018 | 1686050 | 7542200 | 13.5 | 15 | 188 | 0.003 |
| NUBT019 | 1686050 | 7542300 | 13.5 | 15 | 125 | 0.004 |
| NUBT019 | 1686050 | 7542300 | 15 | 16.5 | 121 | 0.0005 |
| NUBT020 | 1686050 | 7542400 | 5.5 | 7 | 108 | 0.002 |
| NUBT020 | 1686050 | 7542400 | 7 | 8.5 | 73 | 0.0005 |
| NUBT021 | 1685950 | 7542400 | 4.5 | 6 | 510 | 0.012 |
| NUBT021 | 1685950 | 7542400 | 6 | 7.5 | 160 | 0.003 |
| NUBT022 | 1685950 | 7542300 | 5.5 | 7 | 168 | 0.015 |
| NUBT022 | 1685950 | 7542300 | 7 | 8.5 | 108 | 0.012 |
| NUBT023 | 1686325 | 7542000 | 9 | 10 | 25 | 0.0005 |
| NUBT023 | 1686325 | 7542000 | 10 | 11 | 8 | 0.0005 |
| NUBT023 | 1686325 | 7542000 | 13.5 | 15 | 15 | 0.0005 |
| NUBT023 | 1686325 | 7542000 | 15 | 16.5 | 10 | 0.0005 |
| NUBT024 | 1686352 | 7541900 | 3 | 4.5 | 531 | 0.005 |
| NUBT024 | 1686352 | 7541900 | 4.5 | 6 | 214 | 0.002 |
| NUBT025 | 1686352 | 7541801 | 6 | 7.5 | 7 | 0.0005 |
| NUBT025 | 1686352 | 7541801 | 7.5 | 9 | 3 | 0.003 |
| NUBT026 | 1686252 | 7541800 | 4 | 5.5 | 153 | 0.001 |
| NUBT026 | 1686252 | 7541800 | 5.5 | 7 | 130 | 0.0005 |
| NUBT026 | 1686252 | 7541800 | 7 | 8.5 | 171 | 0.001 |
| NUBT027 | 1686253 | 7541700 | 4.5 | 6 | 11 | 0.001 |
| NUBT027 | 1686253 | 7541700 | 6 | 7.5 | 5 | 0.0005 |
| NUBT028 | 1686252 | 7541600 | 5 | 6.5 | 3 | 0.0005 |
| NUBT028 | 1686252 | 7541600 | 6.5 | 8 | 7 | 0.0005 |
| NUBT029 | 1686152 | 7541600 | 3 | 4.5 | 199 | 0.007 |
| NUBT029 | 1686152 | 7541600 | 4.5 | 6 | 374 | 0.005 |
| NUBT030 | 1686153 | 7541700 | 4.5 | 6 | 206 | 0.003 |
| NUBT030 | 1686153 | 7541700 | 6 | 7.5 | 108 | 0.003 |
| NUBT031 | 1685953 | 7541800 | 5 | 6.5 | 303 | 0.002 |
| NUBT031 | 1685953 | 7541800 | 6.5 | 8 | 29 | 0.001 |
| NUBT032 | 1685853 | 7541800 | 5 | 6.5 | 96 | 0.001 |
| NUBT032 | 1685853 | 7541800 | 6.5 | 8 | 43 | 0.0005 |
| NUBT033 | 1685753 | 7541800 | 5 | 6.5 | 142 | 0.002 |
| NUBT033 | 1685753 | 7541800 | 6.5 | 8 | 227 | 0.003 |
| NUBT034 | 1685752 | 7541900 | 10.5 | 12 | 343 | 0.002 |
| NUBT034 | 1685752 | 7541900 | 12 | 13.5 | 168 | 0.003 |
| NUBT035 | 1685852 | 7541900 | 9 | 10.5 | 33 | 0.001 |
| NUBT035 | 1685852 | 7541900 | 10.5 | 12 | 106 | 0.003 |
| NUBT035 | 1685852 | 7541900 | 12 | 13.5 | 106 | 0.001 |
| NUBT036 | 7541713 | 1685956 | 9 | 10.5 | 603 | 0.006 |
| NUBT036 | 7541713 | 1685956 | 10.5 | 12 | 608 | 0.007 |
| NUBT037 | 1685853 | 7541700 | 7.5 | 9 | 1550 | 0.075 |
| NUBT037 | 1685853 | 7541700 | 9 | 10.5 | 1770 | 0.045 |

| | | | | | | |
|---|---|---|---|---|---|---|
| NUBT038 | 1685753 | 7541700 | 4 | 5.5 | 184 | 0.001 |
| NUBT038 | 1685753 | 7541700 | 5.5 | 7 | 68 | 0.0005 |
| NUBT039 | 1685752 | 7541600 | 4 | 5.5 | 172 | 0.002 |
| NUBT039 | 1685752 | 7541600 | 5.5 | 7 | 185 | 0.003 |
| NUBT039 | 1685752 | 7541600 | 7 | 8.5 | 130 | 0.001 |
| NUBT040 | 1685852 | 7541600 | 5 | 6.5 | 206 | 0.005 |
| NUBT040 | 1685852 | 7541600 | 6.5 | 8 | 246 | 0.003 |
| NUBT041 | 1685952 | 7541600 | 25.5 | 27 | 159 | 0.004 |
| NUBT041 | 1685952 | 7541600 | 27 | 28.5 | 68 | 0.001 |
| NUBT041 | 1685952 | 7541600 | 28.5 | 30 | 113 | 0.006 |
| NUBT042 | 1685970 | 7541500 | 7.5 | 9 | 254 | 0.001 |
| NUBT042 | 1685970 | 7541500 | 9 | 10.5 | 113 | 0.005 |
| NUBT043 | 1685960 | 7541400 | 9 | 10.5 | 73 | 0.0005 |
| NUBT043 | 1685960 | 7541400 | 10.5 | 12 | 82 | 0.0005 |
| NUBT044 | 1685853 | 7541500 | 5 | 6.5 | 222 | 0.005 |
| NUBT044 | 1685853 | 7541500 | 6.5 | 8 | 4270 | 0.012 |
| NUBT045 | 1685875 | 7541400 | 3.5 | 5 | 163 | 0.005 |
| NUBT045 | 1685875 | 7541400 | 5 | 6.5 | 168 | 0.002 |
| NUBT046 | 1685753 | 7541400 | 2 | 3.5 | 236 | 0.004 |
| NUBT046 | 1685753 | 7541400 | 3.5 | 5 | 129 | 0.0005 |
| NUBT047 | 1685852 | 7542000 | 10 | 11.5 | 153 | 0.001 |
| NUBT047 | 1685852 | 7542000 | 11.5 | 13 | 121 | 0.0005 |
| NUBT048 | 1685752 | 7542001 | 8 | 9.5 | 1190 | 0.009 |
| NUBT048 | 1685752 | 7542001 | 9.5 | 11 | 720 | 0.003 |
| NUBT049 | 1686053 | 7541400 | 4 | 5.5 | 298 | 0.003 |
| NUBT049 | 1686053 | 7541400 | 5.5 | 7 | 106 | 0.006 |

**APPENDIX 2**
**The following Table is provided to ensure compliance with the JORC Code (2012 Edition)**

**TABLE 1 – Section 1: Sampling Techniques and Data**

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| ***Sampling techniques*** | • *Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.* | • Drilling was base of till and uppermost bedrock auger drilling. Samples generated were chip samples. |
| | • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* | • Full samples were sent to the assay laboratory where they were split to ensure adequate representivity. |
| | • *Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.* | • Auger chip samples were collected over 1m and 1.5m intervals. These samples were then split and a 250g pulverised sample was produced. Then a 50g portion of this sample was then used for multi-element analysis. A small portion of the auger chips were retained for reference purposes. |
| ***Drilling techniques*** | • *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).* | • Auger drilling, vertical drill holes, targeting top of bedrock only. |
| ***Drill sample recovery*** | • *Method of recording and assessing core and chip sample recoveries and results assessed.* | • Auger chip data for this drilling was measured for each interval and captured in a digital logging software package. |
| | • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* | • Experienced drilling contractor and frequent cleaning of drill hole. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.* | • Sample recovery was good and no relationship exists between recovery and assay results. |
| ***Logging*** | • *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* | • Auger chips were logged for lithology, weathering, mineralogy, mineralisation, colour and other features. Logging and sampling was carried out according to Avalon's internal protocols and QAQC procedures which comply with industry standards. |
| | • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.* | • Logging was qualitative in terms of colour, lithology, weathering; mineralogy and mineralisation. |
| | • *The total length and percentage of the relevant intersections logged.* | • All drill holes are logged in full from start to finish of the hole. |
| ***Sub-sampling techniques and sample preparation*** | • *If core, whether cut or sawn and whether quarter, half or all core taken.* | • The drill holes were auger holes so no drill core was recovered. |
| | • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* | • Split at laboratory. |
| | • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* | • Avalon samples were sent to the ALS Sample Preparation Facility in Pitea, Sweden for sample preparation. The standard ALS sample preparation for drilling samples is: drying the sample, crushing to size fraction 75% >2mm and split the sample to 250g portion by riffle or Boyd rotary splitter. The 250g sample is then pulverised to 85% passing 75 microns and then split into two 50g pulp samples. Then one of the pulp samples was sent to the Vancouver ALS laboratory for base metal analysis.<br>• The sample preparation is carried out according to industry standard practices. |
| | • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* | • Avalon used an industry standard QAQC programme involving Certified Reference Materials "standards" (with Cu grades ranging from near cut-off, average resource grades and very high grades) and blank samples, which were introduced in the routine sample batches.<br>• Standards, blanks and duplicates were submitted at a rate of 1 in 20 samples or one standard, blank and duplicate per hole if the hole has less than 20 samples.<br>• The check assay results are reported along with the sample assay values in the preliminary and final analysis reports. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* | • Full samples submitted to the laboratory where the samples were split.<br>• The results from duplicate samples were compared with the corresponding routine sample to ascertain whether the sampling was representative. |
| | • *Whether sample sizes are appropriate to the grain size of the material being sampled.* | • Sample sizes are considered to be appropriate and correctly represent the style and type of mineralisation. |
| ***Quality of assay data and laboratory tests*** | • *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* | • Avalon used assay method was ME-ICP41 for base metals, which involves sample decomposition by an aqua regia digest. The digests are then analysed by ICP-AES. The lower detection limit for copper using ME-ICP41 is 1ppm Cu and the upper detection limit is 1% Cu. For gold method ME-ICP21was used. The lower detection limit for gold using ME-ICP21 is 0.001ppm Au and the upper detection limit is 10ppm Au<br>• This analysis technique is considered suitable for this style of sample and mineralisation. |
| | • *For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* | • A handheld XRF instrument was used to develop some understanding of potential anomalism prior to assay data being received. Results from the handheld XRF instrument were not used for any reporting purposes. |
| | • *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.* | • The values of the standards range from low to high grade and were considered appropriate to monitor performance. |
| ***Verification of sampling and assaying*** | • *The verification of significant intersections by either independent or alternative company personnel.* | • Results were checked independently by Avalon staff in Australia and Sweden. |
| | • *The use of twinned holes.* | • No twin holes were drilled |
| | • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* | • The sampling intervals and sample numbers are recorded/generated directly in the acQuire™ database package. Then assay data directly from the laboratory is brought together with the sampling data and validated within the acQuire™ database package. |
| | • *Discuss any adjustment to assay data.* | • No adjustments or calibrations were made to assay data. |

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>Commentary</th></tr>
<tr><td rowspan="3">Location of data points</td><td>• Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</td><td>• Surface collar co-ordinates are surveyed by GPS in Swedish co-ordinate system RT90 gon vast (west) 2.5 by the Avalon field team.<br>• No down hole surveys were completed for these shallow, vertical holes (maximum depth 30m)</td></tr>
<tr><td>• Specification of the grid system used.</td><td>• RT90 Map projection parameters:
<table>
<tr><th>Parameter</th><th>Value</th></tr>
<tr><td>Reference Ellipsoid</td><td>Bessel 1841</td></tr>
<tr><td>Semi Major Axis</td><td>6377397.155 m</td></tr>
<tr><td>Inverse Flattening (1/f)</td><td>299.1528128</td></tr>
<tr><td>Type of Projection</td><td>Gauss-Krüger (Transverse Mercator)</td></tr>
<tr><td>Central Meridian:</td><td>E15°48'29.8" (2.5 gon West of the Stockholm Observatory)</td></tr>
<tr><td>Latitude of Origin</td><td>0°</td></tr>
<tr><td>Scale on Central Meridian</td><td>1</td></tr>
<tr><td>False Northing</td><td>0 m</td></tr>
<tr><td>False Easting</td><td>1500000 m</td></tr>
</table>
• RT90 gon vast (west) 2.5 grid north is situated 4.01° to the east of True North.</td></tr>
<tr><td>• Quality and adequacy of topographic control.</td><td>• The topographic surface was taken from LIDAR data (airborne laser scanning) that was purchased from Lantmäteriet (the Swedish mapping, cadastral and land registration authority). Data point resolution is 0.5 per metre square and is specified as accurate to 20cm in elevation on distinct surfaces and 60cm in planimetry. The level of accuracy of the LIDAR topographic surface was considered adequate for the purposes of resource estimation. The LIDAR topographic surface has also been verified by the many Differential GPS collar survey co-ordinates.</td></tr>
<tr><td></td><td>• Data spacing for reporting of Exploration Results.</td><td>• Drill spacing was relatively regular at 100m on north-south aligned traverses, spaced 100m. Seven traverses were completed.<br>• Sampling was generally taken over 1 meter intervals in the cover till and 1.5m</td></tr>
</table>

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | | in the top of bedrock. |
| ***Data spacing and distribution*** | • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* | • The data from this drilling does not contribute to any mineral resource estimate. |
| | • *Whether sample compositing has been applied.* | • No sample compositing was done. |
| ***Orientation of data in relation to geological structure*** | • *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* | • Drilling and drilling traverse orientations were appropriate for the orientation of the geophysical anomaly being explored. |
| | • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.* | • The drilling and sampling was on a 100m grid and therefore no sampling bias relative to interpreted structures is expected. |
| ***Sample security*** | • *The measures taken to ensure sample security.* | • Avalon sampling procedures show that individual samples were given due attention.<br>• ALS is an internationally accredited laboratory that has all its internal procedures heavily scrutinised in order to maintain their accreditation. |
| ***Audits or reviews*** | • *The results of any audits or reviews of sampling techniques and data.* | • Avalon's sampling techniques and data have been audited multiple times by independent mining consultants during the process of reporting a JORC Compliant Mineral Resource on the various mineral deposits that make up the nearby Viscaria Copper Project (A Zone, B Zone, D Zone and Discovery Zone). These audits have always resulted in the conclusion that Avalon's sampling techniques and data are industry standard and suitable for the purposes of reporting a JORC Compliant Mineral Resource. |

**TABLE 1 – Section 2: Exploration Results**

| *Criteria* | JORC Code explanation | Commentary |
|---|---|---|
| ***Mineral tenement and land tenure status*** | • *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* | • The West Nukutus Prospect is covered by Exploration Permit Viscaria nr 1. |
| | • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.* | • Exploration Permit Viscaria nr 1 is valid till the 24/06/2017. |
| ***Exploration done by other parties*** | • *Acknowledgment and appraisal of exploration by other parties.* | • There has been no historical exploration of the West Nukutus Prospect. One drill hole was completed in 1986 immediately east of the main West Nukutus target. Details are provided in Table 2 in the text. |
| ***Geology*** | • *Deposit type, geological setting and style of mineralisation.* | • The West Nukutus Prospect comprises a magnetic anomaly that exhibits magnetic geophysical similarities to the D Zone copper-magnetite orebody at Viscaria, and to the recently drilled Nihka Prospect. This recent drilling indicates that the host rock is a mafic rock, exhibiting varying degrees of alteration, and that it contains magnetite and some sulphides. |
| ***Drill hole Information*** | • *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:*<br>*a. easting and northing of the drill hole collar*<br>*b. elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*<br>*c. dip and azimuth of the hole*<br>*d. down hole length and interception depth*<br>*e. hole length.* | • 49 shallow (max depth 30m) auger holes were completed covering the West Nukutus magnetic anomaly shown in Figure 2. The holes were drilled on a 100m grid and all holes were vertical.<br>• A table of drilling data including collar position, RL, depth of holes is included in the text of the announcement. |

| *Criteria* | JORC Code explanation | Commentary |
|---|---|---|
| | • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.* | • A table of drilling data including collar position, RL, depth of holes is included in the text of the announcement. |
| ***Data aggregation methods*** | • *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.* | • No data aggregation methods were used. |
| | • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* | • No data aggregation methods were used. |
| | • *The assumptions used for any reporting of metal equivalent values should be clearly stated.* | • No data aggregation methods were used. |
| ***Relationship between mineralisation widths and intercept lengths*** | • *If the geometry of the mineralisation with respect to the drill-hole angle is known, its nature should be reported.* | • The drilling was completed on a 100m grid and the orientation of the mineralised structures are unknown at this stage. |
| | • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').* | • Drilling was shallow into bedrock only and so widths of mineralisation do not apply to this type of drill testing. |
| ***Diagrams*** | • *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.* | • See Figures 1 and 2 for location of the West Nukutus prospect. |
| ***Balanced reporting*** | • *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.* | • All drilling results are shown as Figures 2, 3a and 3b, and Tables 1 & 2. |

| *Criteria* | JORC Code explanation | Commentary |
|---|---|---|
| ***Other substantive exploration data*** | • *Other exploration data, if meaningful and material, should be reported) including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.* | • Regional magnetic survey data has been superceded in the West Nukutus area by a more detailed ground magnetic survey conducted by Avalon Minerals Ltd as shown in Figures 3a and 3b. |
| ***Further work*** | • *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).* | • Further work will involve a diamond drill hole to better sample the target zone and to identify the geological setting. |
| | • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.* | • See Figure 2 in the main announcement. |