



# North Stawell Minerals

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## ASX Announcement

5 March 2025

### **Diamond Drilling commenced at Darlington: 2<sup>nd</sup> Target in Current Program**

#### HIGHLIGHTS

- **Diamond Drilling has commenced at NSM's Darlington Project located in the Stawell Gold Corridor in Victoria, Australia.**
- **Holes at Darlington target the down-plunge continuation from the historic Darlington Mine (2,347 oz Au at 18.2 g/t Au<sup>1</sup>) trend where the mineralisation is interpreted to intersect a basalt at depth. Mineralisation is known to be focused on the margins of basalt at the multimillion-ounce ore deposit at Stawell, 6km to the south. Identifying similar controls at Darlington has significant exploration upside.**
- **2-3 holes are planned for ~600-900m diamond drilling.**
- **The drilling program is fully funded following a capital raise finalised in Q2 2024<sup>2</sup>.**
- **The Darlington drilling follows on from a 3-hole diamond drilling program at Wildwood. Results for the Wildwood holes will be released when received.**

<sup>1</sup> [ASX:NSM 25 Nov 24](#). <sup>2</sup> [ASX:NSM 16 Oct 24](#))

North Stawell Minerals (ASX:NSM) is pleased to announce that diamond drilling has commenced on the second of two priority targets at the Stawell Gold Project. The Project includes a 600km<sup>2</sup> contiguous package of ground that incorporates the gold-prospective corridor immediately north of Stawell Gold Mines' operation at Stawell. A thin blanket of unmineralised sediments preserves potential for large, near-surface repeats of the multimillion-ounce ore deposit at Stawell.

Executive Director Campbell Olsen advised:

*"We are excited to be drilling at Darlington - a shallow target that lies only 6km from the Stawell Gold Mine. We can see in geophysics that the basalt beneath Darlington may be the far-northern continuation of the basalt at Stawell, the current focus of Stawell Gold Mines' mining operation. At Darlington, an altered and weakly mineralised basalt was intersected in the last hole of the 2023 drilling program, and we've been keen to get back here since to test if the Darlington surface mineralisation is the tip of a bigger Stawell-like gold system at depth".*

The Darlington prospect lies in the highly gold-prospective corridor that runs from Stawell in the south, through Darlington, and is interpreted to continue to the north of Wildwood, 20 km to the north. Within the corridor, fault-disrupted blocks of basalt occur, and the margins of these basalts are the most likely areas to host a repeat (or repeats) of the multimillion-ounce mineralisation at Stawell (Figure 1). The southern section (from Stawell to Darlington) is termed the Browns Trend and includes semi-continuous (but faulted) basalt with demonstrated, associated, shallow gold mineralisation (Figure 1). The northern-most 2km of the Browns Trend is on NSM ground (EL007325 (Appendix 1).

At Darlington (Figure 1), the current drilling program targets the down-plunge continuation of the historic Darlington Mine (2,347 oz Au at 18.2 g/t Au ([ASX:NSM 25 Nov 24](#)) where it is interpreted to intersect a deeper basalt. Basalt geometry is poorly understood, having been intersected in drilling once (NSM hole NSD053 ([ASX:NSM 26 July 23](#))). Hole NSD053 returned alteration and weak gold mineralisation on the basalt margin (Figure 4) indicating gold-bearing fluids have interacted with the basalt margin - an encouraging observation. The intercept, however, does not test the more prospective structural target where the near-surface Darlington mineralisation is interpreted to intersect the basalt (Figure 2).

Historic gold intercepts on the Darlington Target include:

**4m @ 10.77 g/t Au from 60 m (NSAC0527)<sup>(3)</sup>**

**3m @ 3.04 g/t Au from 45m (NSAC0530)<sup>(3)</sup>**

**3m @ 2.06 g/t Au from 86m (NSAC0576)<sup>(3)</sup>**

**1.5m @ 4.24 g/t Au from 140.5m (NSD053)<sup>(3)</sup>**

**2m @ 1.29 g/t Au from 241m (NSD052)<sup>(3)</sup>**

<sup>(3)</sup> previously reported. See [ASX:NSM 25 Nov 24](#))

Two holes are planned to test the down-plunge continuity of these results where the mineralisation and basalt are interpreted to intersect, and the potential for basalt-margin mineralisation (i.e. similar to Stawell) is the greatest.

In 2023, NSM completed a collaborative research project with CSIRO, Australia's science agency, modelling the boundaries of known basalts for the most likely pathway for mineralised fluids to be channeled along the geophysics-derived basalt shapes (derived from inversion modelling (see [ASX:NSM 29 Oct 21](#))). Modelling calculates the most likely areas of dilation during the mineralisation event (information derived from the mine at Stawell). The work returns discrete areas within the large surface-area basalt for focus, refining and prioritising targets. One of these targets lies immediately west of Darlington, bounded by two late, northwest-trending faults, and the basalt may be a faulted section of the same basalt previously drilled at Darlington (Figure 3). A modelled area of increased fluid flow (potentially channeling gold mineralisation) occurs within the basalt, and it represents a potential shallow drill target.

The Company advised the commencement of drilling on the Wildwood project in January 2024 ([ASX:NSM 16 Jan 25](#)). Results will be released to the market when all results have been received.

For further details on the project and targets, refer to the recent investor update ([ASX:NSM 25 Nov 24](#)) and announcement ([ASX:NSM 26 Nov 24](#), [ASX:NSM 16 Jan 25](#)) .

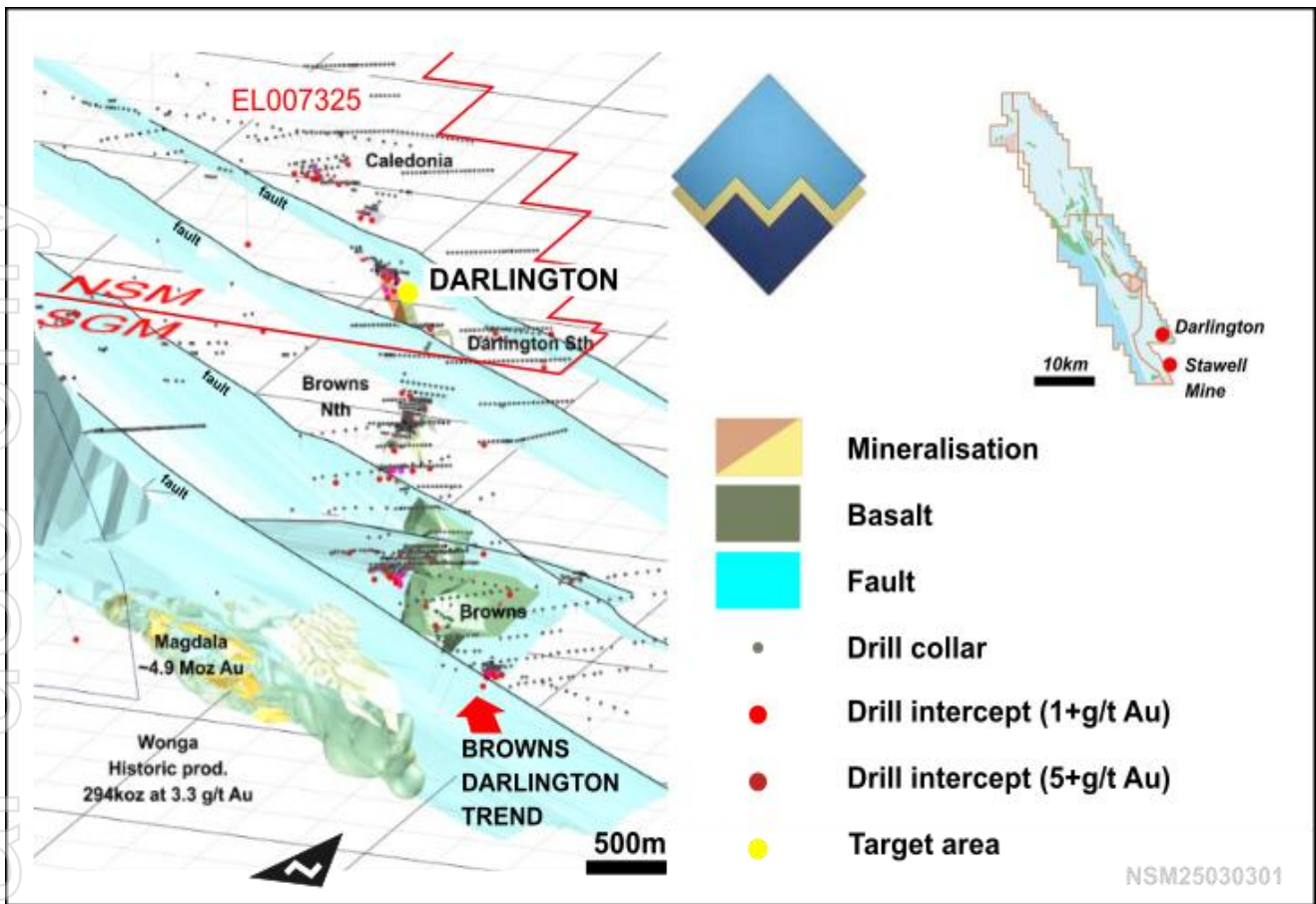


Figure 1 Regional geology, Darlington. Ortho-image looking down to the NNW along the Browns Trend.

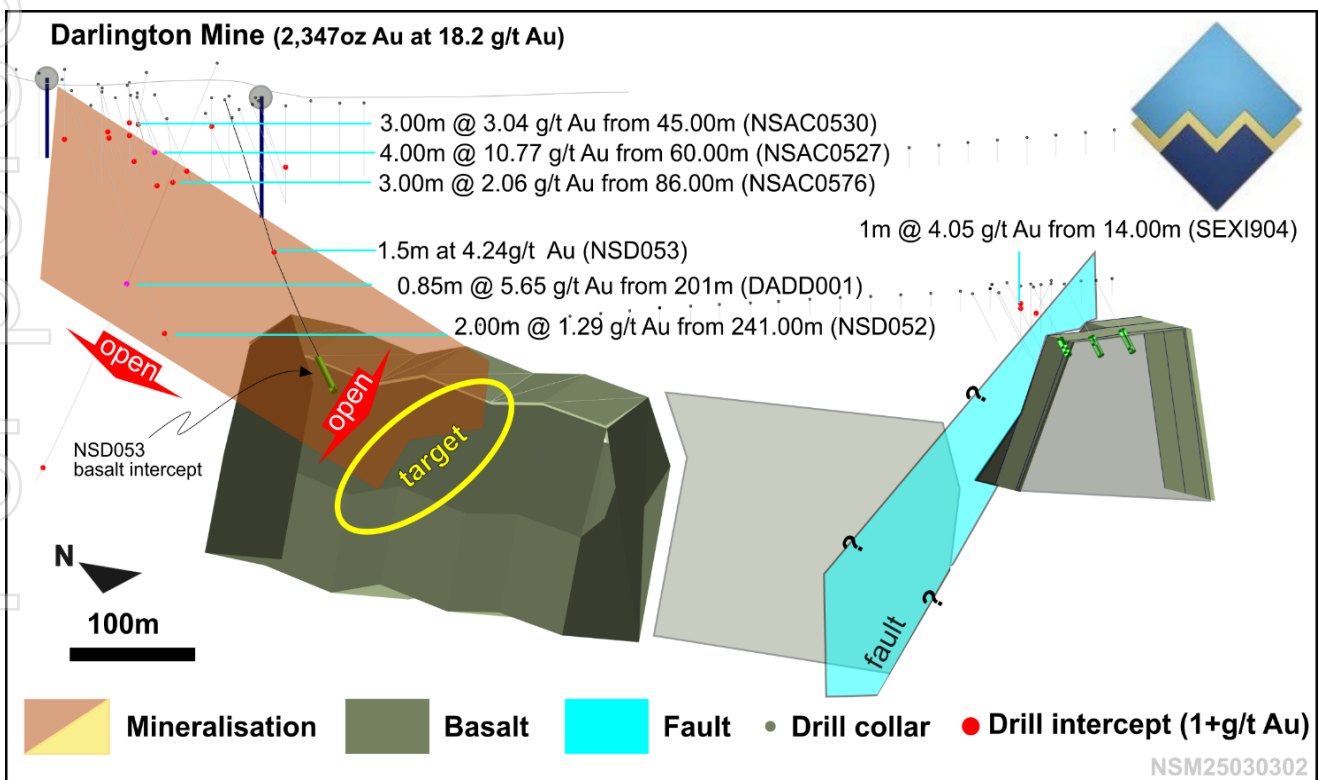


Figure 2 The Darlington Prospect, looking east. The drill target is the intersection of shallow, south-plunging mineralisation beneath the historic mine and the deeper basalt.

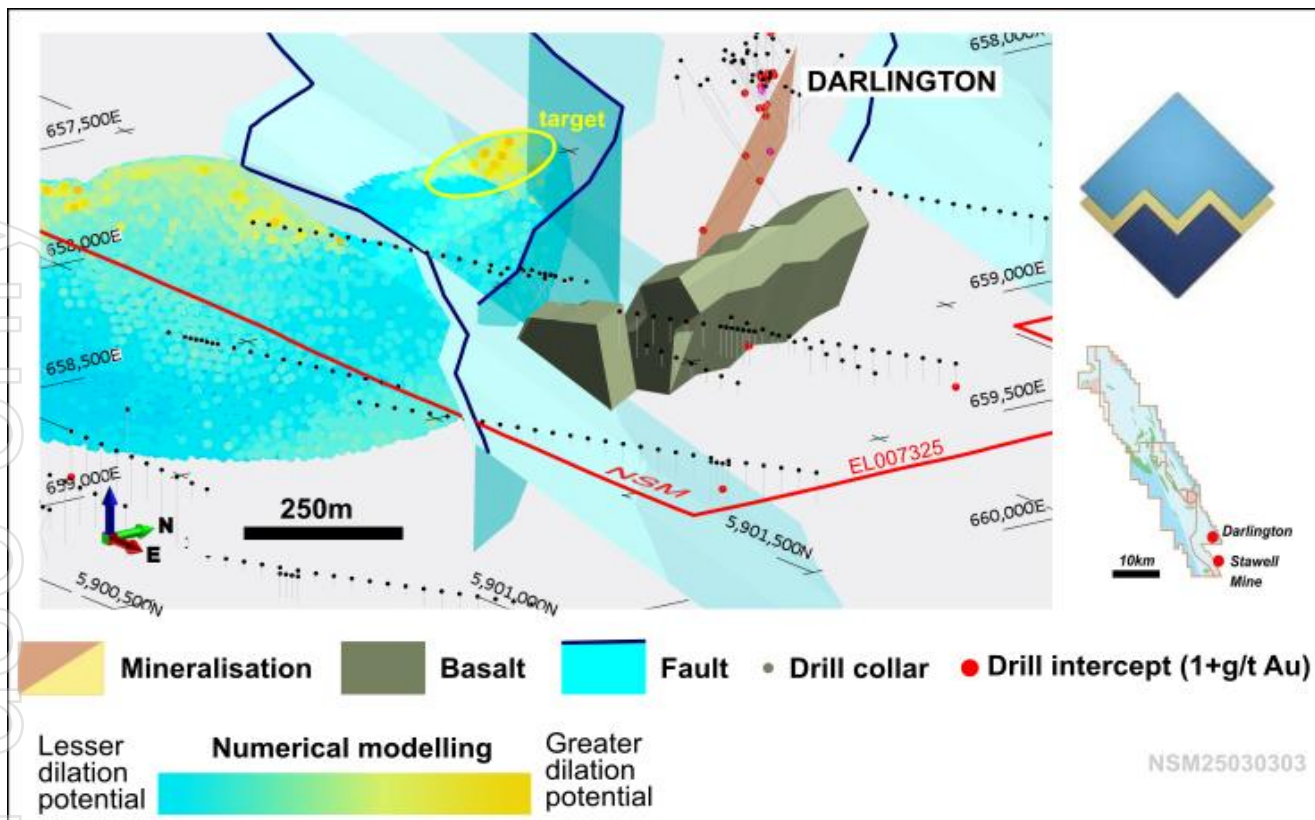


Figure 3 Faulted interpreted basalt with target identified in CSIRO numerical modelling of structures

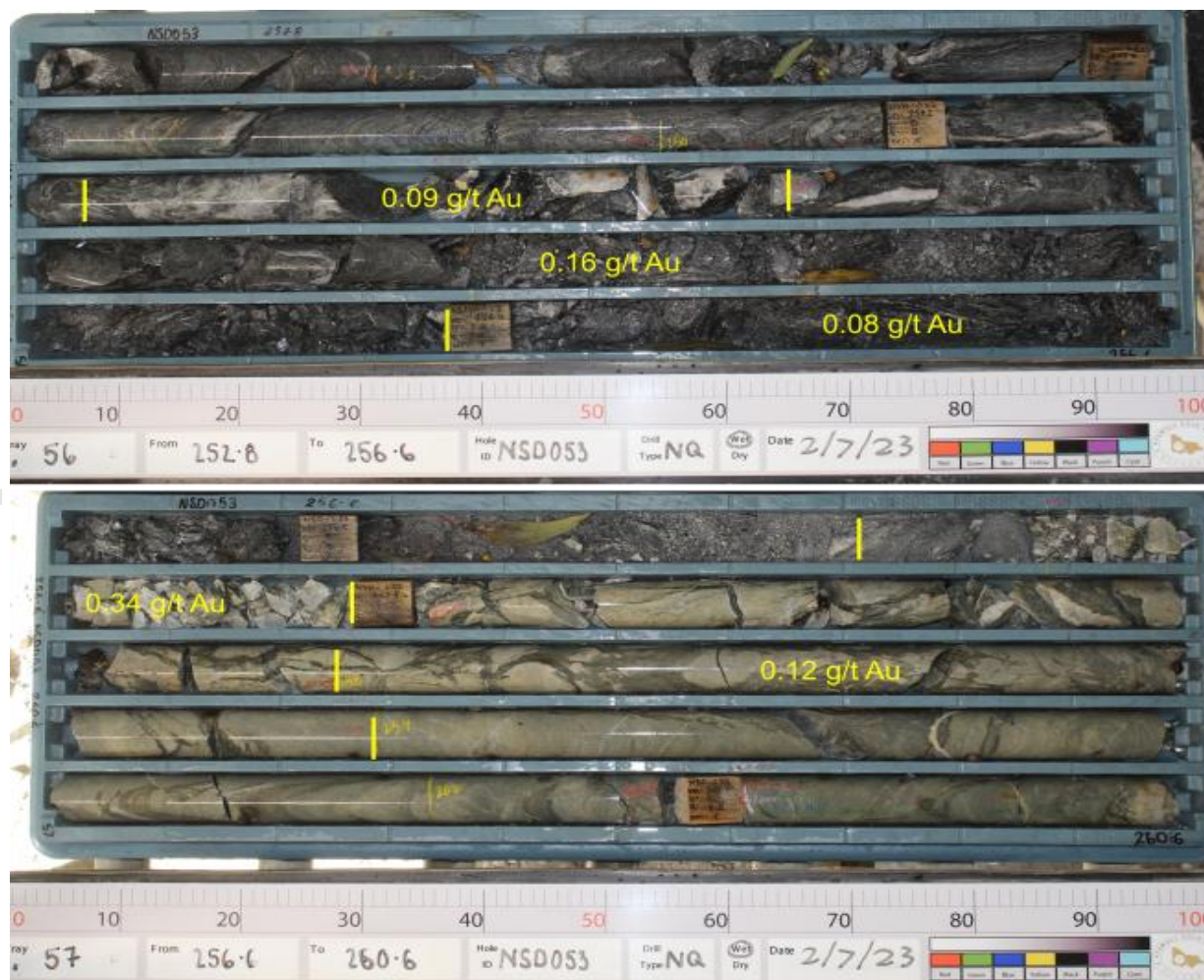


Figure 4 Previously drilled hole NSD053 (see ASX:NSM 26 Jul 23) intersected a faulted, quartz-veined, weakly mineralised and hydrothermally altered basalt contact 100m beneath the targeted plunging mineralisation.

This announcement has been approved for release by the Board of Directors of North Stawell Minerals Ltd.

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### **Competent Person's Statement**

*The information that relates to North Stawell Minerals Exploration Targets, Exploration Results and Mineral Resources is based on information compiled by Mr. Bill Reid, a Competent Person who is a Member of The Australian Institute of Geoscientists (AIG) and Head of Exploration of North Stawell Minerals. Mr. Reid has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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' (2012 JORC Code). Mr. Reid consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.*

### **Forward-Looking Statements**

*This announcement contains "forward-looking statements" within the meaning of securities laws of applicable jurisdictions. Forward-looking statements can generally be identified by the use of forward-looking words such as "may", "will", "expect", "intend", "plan", "estimate", "anticipate", "believe", "continue", "objectives", "outlook", "guidance" or other similar words, and include statements regarding certain plans, strategies and objectives of management and expected financial performance. These forward-looking statements involve known and unknown risks, uncertainties and other factors, many of which are outside the control of NSM and any of its officers, employees, agents or associates. Actual results, performance or achievements may vary materially from any projections and forward-looking statements and the assumptions on which those statements are based. Exploration potential is conceptual in nature. There has been insufficient exploration to define a Mineral Resource, and it is uncertain if further exploration will result in the determination of a Mineral Resource. Readers are cautioned not to place undue reliance on forward-looking statements and NSM assumes no obligation to update such information.*

### **About North Stawell Minerals Limited:**

**North Stawell Minerals Limited (ASX:NSM) is an Australian-based gold exploration company, solely focused on discovering large scale gold deposits in the highly prospective Stawell Mineralised Corridor in Victoria.**

The Company is exploring prospective tenements located along-strike of and to the immediate north of the Stawell Gold Mine which has produced more than five million ounces of gold. NSM's granted tenure has a total land area of 504 km<sup>2</sup>. NSM believes there is potential for the discovery of large gold mineralised systems under cover, using Stawell Gold Mine's Magdala orebody as an exploration model to test the 51km length of tenements - northerly strike extension of the under-explored Stawell Mineralised Corridor.

### **Stawell-type mineralisation – the Magdala orebody at Stawell**

The multimillion-ounce Magdala orebody (or Stawell Mine) is owned and operated by Stawell Gold Mines (SGM) and makes an excellent model for exploration. The style of mineralisation is termed Orogenic Gold and has many similarities to other Victorian gold deposits (e.g. Bendigo, Ballarat,

Fosterville) where the mineralisation exploits structures that are developing as the host rocks are compressed, folded and faulted. The mine is 3.5km long, approx. 400m wide and mined to depths of around 1,600m. The mineralisation is centred on a large buttress of doubly plunging basaltic rock (the Magdala "Dome"). Ore shoots are on – or proximal to – the margins of the basalt, occurring where the structures that control the mineralisation bend and warp around the basalt. The mine is still operational.

### **Exploring for Stawell-type mineralisation through cover**

The Stawell Gold Mine was found in the 1850s where gold occurred close to the surface and was not obscured by a blanket of sedimentary cover. Over 80% of NSM's tenements are masked by sediments, but the underlying rocks and structures are similar to Stawell. Multiple repeats of basaltic "domes" are interpreted throughout the NSM tenements and elsewhere along the Stawell Corridor. The basalt domes - intrinsically associated with Stawell-type mineralisation – can be detected with geophysics and identified through the blanket of cover. New geophysical processing and acquisition by the Company is leveraging off the geophysics response to find "domes" as a pathway to finding the next, multimillion-ounce, shallow gold deposit north of Stawell

### **Other mineralisation potential**

Multiple shears, thrusts, faults and folds occur through the NSM tenements. These also have the potential to host Orogenic Gold systems without basalt domes (more typical of Ballarat and Bendigo). However, they are more challenging targets through the covering sediments as they lack the geophysical signature of the "domes" found in Stawell-type mineralisation. Intrusion related gold (IRG) and thermal aureole gold (TAG) type deposits are possible as late granites intrude the folded rocks with potential to remobilise and upgrade existing mineralisation or be mineralised themselves. Volcanogenic-Hosted Massive Sulphides also occur in the Stawell Corridor. At surface, within the cover sediments, Heavy Minerals Sands are known to occur at impressive volumes.

**Appendix 1: NSM Tenement Summary**

Tenement	Status	Number	Area (km <sup>2</sup> )	Graticules <sup>1</sup>	Initial NSM holding	Earn-in potential
Wildwood	Granted	RL007051	50	50	51%	90%
Barrabool	Renewal	EL5443	182	194	51%	90%
Glenorchy	Granted	EL006156	10	18	100%	n/a
West Barrabool	Granted	EL007419	37	40	100%	n/a
Wimmera Park Granite	Granted	EL007182	4.5	9	100%	n/a
Deep Lead	Granted	EL007324	167	209	51%	90%
Germania	Granted	EL007325	54	82	51%	90%
Total granted			504.5	602		

<sup>1</sup> Exploration Licence areas in Victoria are recorded as graticular sections (or graticules). Graticules are a regular 1km by 1km grid throughout the state. The graticular sections recorded for an exploration licence is the count of each full graticule and each part graticule. If the tenement shape is irregular, the actual area (km<sup>2</sup>) is less than the graticular area.



Figure 5 North Stawell Minerals – Tenements

JORC Table 1

**Section 1 Sampling Techniques and Data - a. Numerical modelling**

**Section 1 Sampling Techniques and Data - b. Historic Drilling**

**Section 2 Reporting of Results**

**a. Numerical Modelling**

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>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 down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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 30g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems.</li> </ul>	<p>Numerical modelling of the potential for dilation on surfaces generated by unconstrained 3D inversions of airborne gravity gradiometer (AGG) and airborne total magnetic intensity (TMI) survey data (see ASX:NSM 29 Oct 21).</p> <p>Numerical modelling was computed by CSIRO Minerals Division.</p> <p>The Inversion model surface was subsampled with x, y, z points roughly 10m spaced. Dilation parameters (including density, bulk modulus, shear modulus, friction angle, tensile strength, initial porosity and initial permeability were attributed based on generic petrophysics for similar rock types.</p> <p>Calculated fields were recorded to each point following numerical modelling using the orientation of the structures determined to control mineralisation.</p> <p>The numerical were carried out using CSIRO's high performance computational infrastructure.</p> <p>For the AGG inversions data was derived from the 2021 FALCON North Stawell survey and processed with Geoscience Analyst software (ASX:NSM 24 Mar 21 &amp; 23 Jun 21)).</p>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>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.).</li> </ul>	n/a
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	n/a
<b>Logging</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	n/a
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> </ul>	n/a

	<ul style="list-style-type: none"> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	n/a
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	n/a
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<p>To evaluate the coherence of the sampled AGG data, 2D data images were produced and assessed for noise and artefacts by Nordic Geoscience.</p> <p>No adjustments were made to computational data.</p>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<p>The grid system used is (Projection: MGA54, Horizontal datum: GDA94, Vertical datum: EGM96 geoid)</p> <p>The AGG and the topographic data have an estimated positional accuracy of 5m (horizontal) and 0.5m (vertical).</p> <p>Where available, drilling data helps constrain inversion shapes.</p> <p>Most models are unconstrained, and therefore there is the possibility that other shapes/solutions for inversions may be possible.</p>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>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</li> <li>procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<p>Numerical modelling points are a mesh of csv points draped over the inversion model surface on approximately 10m x 10m x 10m spacing (x, y, z)</p> <p>Data spacing and distribution is not sufficient to allow the estimation of mineral resources.</p> <p>Data application does not include informing mineral resources.</p>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<p>No spatial bias is anticipated from the numerical modelling data.</p> <p>The orientation of structural events is based on the observed structures at the Stawell Gold Mine and may preclude unknown mineralising structural orientations. Significant rotation of controlling structures distal to Stawell cannot be discounted (but is not considered likely from s1 and s3 orientations observed in regional potential field data)</p>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	Numerical modelling data is generated and compiled and curated by CSIRO. Copies of the final csv data are provided to NSM
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling</li> </ul>	CSIRO and NSM geoscientists met regularly to assess progress and applicability of assumptions and results and to identify additional required spatial data.

## Section 1 Sampling Techniques and Data - b. Historic Drilling

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>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 down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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 30g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems.</li> </ul>	Historic results (only depicted on Figures) are from previous exploration conducted by past explorers including Rio Tinto Exploration, WMC Resources, Leviathan Corporation, Highlake Resources, Planet Resources and Stawell Gold Mines.
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>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).</li> </ul>	<p>A variety of techniques have been used in historic drilling and includes regional lines of RAB or Air core drilling (357 of 732 historic holes) over identified structures or geophysical anomalies. Follow up historic RC drilling (233 holes) under AC anomalies occur is sound practice. Pattern drilled RC at Wildwood is likewise an industry standard for resource drilling. Forty-eight historic diamond holes (8,228m) were completed – mainly focused on near Mine targets in the south and in the Wildwood Project area (RL007501).</p> <p>Standard Industry techniques have been used for historic drilling where documented.</p>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<p>For historic data, if available, drilling data recoveries (e.g., weights for historic AC/RC drilling and recoveries for historic diamond drilling are recorded.</p> <p>No tests for bias are identified as yet for historic results.</p>
<b>Logging</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<p>Geological logging of historic holes, where reviewed, follows industry widespread practice. Qualitative logging includes lithology, mineralogy, alteration, veining and weathering and (for core) structures.</p> <p>All historic logging is quantitative, based on visual field estimates.</p>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<p>Standard industry practices are expected to be in place. However, QAQC data is incomplete in the historic data. It is considered that appropriate analytical methods have been used by historic explorers.</p> <p>Historic core sampling is typically sawn half-core.</p> <p>Historic RC and AC samples are typically riffle split or spear sampled. Information is not always complete.</p> <p>Historic sampling is typically dry.</p>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> </ul>	Historic assays include gold +/- arsenic and base metals. Assays are generally aqua regia or fire assay. Detection limits and techniques are appropriate for historic results.

- 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.
- 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.

**Verification of sampling and assaying**

- The verification of significant intersections by either independent or alternative company personnel.
  - The use of twinned holes.
  - Documentation of primary data, data entry procedures, data verification, data storage
  - (Physical and electronic) protocols.
  - Discuss any adjustment to assay data.
- Historic intercepts have not been verified by the Company. The data from WMC, Leviathan and Stawell Gold Mines has been verified as part of entering data into geological databases.
- No adjustments to assay data have been made.

**Location of data points**

- 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.
  - Specification of the grid system used.
  - Quality and adequacy of topographic control.
- Locations for historic collars have been captured in WGS84, AGD 66 and GDA94 projected coordinates or in local grids. All data is reprojected as GDA94 MGA54.
- Historic drill collars have been determined with multiple techniques, ranging from survey pick-up through differential GPS.
- Topographic data is based on generational topographic maps and/or survey pick-up. Topographic control, for regional exploration, has not been validated.
- Future use of data will verify recorded elevations against high-resolution topographic data acquired by NSM.

**Data spacing and distribution**

- Data spacing for reporting of Exploration Results.
  - 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.
  - Whether sample compositing has been applied.
- Historically, variable drill hole spacings are used to test targets and are determined from geochemical, geophysical and geological data.
- Historic regional and geochemical drilling (AC) is drilled on strike perpendicular fences, with approx. 100m hole spacings and 100-400m line spacing.
- Historic RC sampling is generally specifically targeted to follow up AC results. Minor RC fences are drilled, on 30-200m spacing.
- Historic diamond drilling is located to follow up on specific prior results or targets.
- Historic data in the footprint of the tenement EL007324 were designed and executed as regional exploration. The historic drilling data has not been reviewed for its appropriateness to inform Mineral Resource Classification.

**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.
  - 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 historic drill orientation is perpendicular to the regional geology and known mineralised trends previously identified from earlier drilling.

**Sample security**

- The measures taken to ensure sample security.
- Sample security has not been reviewed for the historical data.

**Audits or reviews**

- The results of any audits or reviews of sampling
- There has not been internal or external audit or review of historic assays identified.

## Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> </ul>	<p>Current tenements are summarised in Appendix 1 -Table 1 of the announcement. Historic tenements are identified from the Victorian Government Geovic online spatial resource.</p> <p>All granted tenements are current and in good standing.</p> <p>The project area occurs on freehold land. Minor Crown Land (&gt;3%) and Restricted Crown Land (&gt;1%) is identified. All areas are accessible if appropriate land access requests and agreements are in place.</p> <p>The Victorian Governments' Geovic spatial online resource does not identify any material cultural, environmental or historic occurrences.</p> <p>The western section of EL007325 is overlain by Crown Reserve land parcels (Box Ironbark conservation areas. No access to this area is required for any of the proposed drilling.</p> <p>EL007325 is held by Stawell Gold Mines (SGM). North Stawell Minerals has an earn-in agreement with SGM. Initial Interest is 51%. Up to 90% earn-in can be achieved on meeting agreement conditions.</p> <p>EL007325 "Germania" was granted in November 2021.</p> <p>Tenement security is high, established in accordance with the Victorian Mineral Resources Act (MRSDA) and Regulations (MR(SD)(MI)R 2019).</p> <p>Victorian Exploration licences are granted for a 5-year initial term with an option to renew for another 5 years. Compulsory relinquishments are as follows; end of year 2 - 25%; end of year 4 - 35%; end of year 7 - 20%; end of year 9 - 10%.</p>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<p>The Tenure area has been explored in several campaigns since the 1970's, principally by companies related to Stawell Gold Mines and its predecessors (initially WMC Resources in the 1970's, Leviathan Resources and then subsequent owners).</p> <p>Rio Tinto Exploration, Planet Exploration, Highlake Resources and Iluka Resources have also held parts of the tenement historically.</p> <p>Public data available on exploration programmes has been downloaded from the Victorian State Governments' GeoVic website and sometimes describes exploration strategy, which is consistent with exploring for gold mineralisation under shallow cover into structural targets generated from available geochemistry and geophysics.</p> <p>Although NSM has reviewed and assessed the exploration data, it has only limited knowledge of the targeting and planning process and, therefore, has had to make assumptions based on the available historical data generated by these companies. However, the methodology appears robust.</p> <p>Work by Iluka was for Heavy Minerals exploration and is not material to gold exploration.</p> <p>Most programs include regional lines of RAB or AC drilling (577 of 650 holes) over identifiable magnetic highs. Follow up RC drilling (58 holes) under AC anomalies occur is sound practice. Eleven diamond holes (2419m) are completed – mainly focused on near Mine targets in the south.</p> <p>In the far south of tenement EL007324 and EL007325, exploration is typically testing for fault-repeats of the Stawell-type mineralisation, centred on magnetic anomalies. Basalt 'dome' analogies were identified with minor associated gold mineralisation.</p>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<p>The project areas are considered prospective for the discovery of gold deposits of similar character to those in the nearby Stawell Gold Mine, particularly the 5Moz Magdala gold deposit located over the Magdala basalt dome. The Stawell Goldfield has produced approximately 5 million ounces of gold from hard rock and alluvial sources. More than 2.3 million ounces of gold have been produced since 1980 across more than 3 decades of continuous operation.</p>

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Orogenic Gold occurrences are possible away from the basalt domes.

Wonga-style mineralisation is possible, interpreted as Intrusive-Related Gold, and may be either an upgrade on prior (orogenic mineralisation) or a later mineralisation event.

The geological setting is a tectonised accretionary prism on the forearc of the Delamerian-aged Stavely Arc active plate margin.

Elements of the subducting tholeiitic basaltic ocean crust are incorporated into the accretionary pile and are important preparatory structures in the architecture of Stawell-type gold deposits.

Mineralisation is a Benambran-aged hydrothermal (orogenic gold) overprinting event – penecontemporaneous with other major mineralisation events in western and central Victoria (e.g., Ballarat, Bendigo, Fosterville).

<p><b>Drill hole Information</b></p>	<ul style="list-style-type: none"> <li>• 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: <ul style="list-style-type: none"> <li>○ easting and northing of the drill hole collar</li> <li>○ elevation or RL (Reduced Level–elevation above sea level in metres) of the drill hole collar</li> <li>○ dip and azimuth of the hole</li> <li>○ down hole length and interception depth</li> <li>○ hole length.</li> </ul> </li> <li>• 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.</li> </ul>	<p>The report includes no new drilling results.</p> <p>Historic results are summarised as assays extracted from a historic, managed, validated database solution (Datashed), and associated procedures for QAQC.</p> <p>Historic easting and northings are captured as WGS84, AGD66 and GDA94 coordinates. All are transformed to GDA94MGA54S for the collar tables. Original coordinates are preserved in the data.</p> <p>Drill collar elevation is defined as height above sea level in metres (RL).</p> <p>Deeper drill holes were drilled at an angle deemed appropriate to test the local structure and stratigraphy and is tabulated. Regional AC and RAB holes are typically vertical.</p> <p>Hole length of each drill hole is the distance from the surface to the end of hole, as measured along the drill trace.</p>
<p><b>Data aggregation methods</b></p>	<ul style="list-style-type: none"> <li>• 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.</li> <li>• 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.</li> <li>• The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<p>The report includes no new drilling results.</p> <p>Historic results</p> <p>The only representation of drill results (Figure 2) includes individual grades, therefore:</p> <p>Drilling intercepts are calculated as length-weighted averages with up to 2m of internal &gt;1g/t dilution and no external (&gt;1g/t Au) external dilution.</p> <p>No top cuts have been applied.</p> <p>A nominal 1.0 g/t Au or greater lower cut-off is reported as being potentially significant in the context of this report.</p> <p>No metal equivalent reporting is used or applied.</p>
<p><b>Relationship between mineralisation widths and intercept lengths</b></p>	<ul style="list-style-type: none"> <li>• These relationships are particularly important in the reporting of Exploration Results.</li> <li>• If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>• 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').</li> </ul>	<p>The geometry of the Darlington mineralisation is effectively vertical. Angled drill holes are designed to intersect this target with a perpendicular azimuth and ~60degree vertical intersect angle.</p>
<p><b>Diagrams</b></p>	<ul style="list-style-type: none"> <li>• 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.</li> </ul>	<p>No new results are reported.</p> <p>Plan is at 1:350k scale. A supporting section at this scale is not regarded to be material or informative.</p>
<p><b>Balanced reporting</b></p>	<ul style="list-style-type: none"> <li>• Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be</li> </ul>	<p>All available drillholes and assays have been used to generate the only Figure using assay data. The figure is based on highest values rather than total intercepts to simplify the document and minimise the chances of introducing bias from non-representative composite intercepts.</p>

*practiced avoiding misleading reporting of Exploration Results.*

**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.*

All scale-relevant exploration data is shown in diagrams and discussed in text.

This release is the first instance where numerical modelling is being used to inform drilling. As such, the Section 1 for Sampling Techniques and Data are included in prior sections of Table 1.

**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).*
- *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*

NSM plans to test the contact of the basalt identified at depth for possible Stawell-type mineralisation. If successful, the intent is to follow the mineralised contact with drill spacings applicable at the Stawell mine and systematically test the open depth and strike of mineralisation.

Drill testing of interest areas will be assessed with air drilling for coverage, then RC/DD as appropriate to test depth continuation of near-surface anomalism.

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