



North Stawell Minerals

September 2023 Quarterly Activities Report

31 October 2023

Company Details:

ASX: NSM

ACN: 633 461 453

www.northstawellminerals.com

Capital Structure

Shares: 120.127M

Performance rights: 1.18M

Share Price \$0.034*

Cash: \$1.0M*

Market Cap: \$4.08*

* at 30 Sept 2023.

Project

North Stawell Gold Project



Contacts:

info@northstawellminerals.com

Ph. + 61 (3) 5358 9210

PO Box 758, Stawell, Vic
3380

Highlights:

- During the rainy season, data, planning, training, and research were a focus.
- One hole was returned from the Caledonia prospect:
 - 1.3m at 2.29g/t Au from 63.1m (NSD051)
- **Corporate activity focused on M&A strategy and on-going funding options.**
- **Review of targets sets some clear priorities for on-going exploration:**
 - Wildwood includes multiple additional targets that match the Stawell gold model. Darlington presents compelling deeper targets based on prior diamond drilling.
 - Forsaken and Caledonia are priority targets for near-surface air core programs. Multiple additional targets are queued if required.
 - Numerical modelling mapping possible dilation requires testing. Regional government surveys may indicate airborne EM will be effective at Stawell.
- **WIM-style Heavy Mineral Sand and Rare Earth Element (HMS-REE) potential is plausible.**



OVERVIEW

North Stawell Minerals Chief Executive Officer Russell Krause commented:

“NSM has used the winter months to review and revise exploration plans on several fronts, to best-deliver progress identifying and delineating Stawell-like gold mineralisation from the northern continuation of the rocks that host this impressive multi million-ounce gold deposit.

The corporate team has focused on opportunities to expand NSMs project pipeline and to secure on-going funding to get the work done.

The geology team has, following an upgrade of the Mineral Resource at Wildwood, taken the opportunity to review the Wildwood region for renewed exploration interest, identifying multiple exploration targets.

The intersection of altered and (weakly) mineralised basalt at Darlington last elevates the target as a compelling analogy to Stawell – to the extent that re-interpretation suggests Darlington occurs adjacent to the same basalt as hosts Stawell. Planning is to follow the surface mineralisation to where it intersects the basalt. Success would be strong validation of recent regional exploration strategy to follow surface mineralisation to depth to upgrade potential.

Forsaken and Caledonia remain standout targets that still require near-surface drilling prior to deeper drilling. Challenger is another key prospect, with significant anomalous gold needing additional air core drilling to progress the target. Wimmera Park and Lubeck tip and Ashens are unresolved and require more work as other priorities are tested. Over the last two seasons, good results have steadily increased in frequency, grade and impact, demonstrating a significantly more robust project pipeline delivered through committed work and effective exploration. The coming drill season, mainly focused on the more advanced targets, has great potential to deliver exciting results.

Exploring through cover north of Stawell strongly benefits from the deposit styles response to geophysics – which can be used to see through the ubiquitous blanket of thin, unmineralised sediments that both mask and preserve shallow large gold mineralisation potential. The exploration team has continued to consider, test and implement strategies to explore that maximise the chances of success. The delivery of numerical modelling to map possible dilation zones on geophysics-interpreted covered basalts is anticipated to significantly focus drilling on existing and new targets. On-going review has been incorporated into an emerging project in collaboration with several academics to understand the local scale controls to vector towards mineralisation by review of geochemistry, petrology, structure and metallogeny controlling Stawell-type systems. Possible application of more geophysical techniques (EM) and processes (machine learning) are on-going.

It's difficult to ignore the meteoric rise in interest in battery and strategic minerals. NSM is very aware that its tenements are crossed by one of the most prospective mineral sands horizons in Australia, and that the ground is demonstrably under-explored for these commodities.

During winter, we have continued the important work of working with out stakeholders and landholders to make sure we're keeping the community up to date with plans.

The 2023-2024 field season is looking exciting for progress and results.”



CORPORATE ACTIVITIES

During the Quarter, corporate activity has focused on two areas – M&A opportunities and on-going funding.

During the past quarter several additional exploration opportunities have been offered to NSM for review. As shareholders are aware, the NSM focus is gold and mineral exploration, discovery and development in the Stawell corridor within commercial transportation distance from the Stawell Gold Mine. Some of the opportunities offered have not fulfilled this objective and have been immediately discounted while others of geographic interest have not met our investment criteria and have been passed over. However, there are several opportunities that are of interest and although it is early in the review process, we are happy to continue our review work. Non-Disclosure Agreements have been signed and should our due diligence process be completed to our satisfaction; the commercial terms of the possible transaction will be negotiated and if agreement is reached, we will progress to Heads of Agreement and make the necessary announcements on the ASX.

There are also other Merger and Acquisition opportunities being considered. At this stage such opportunities are simply concepts. Should any such concept develop into a possible transaction, it will then be put forward to the Board for consideration and should the Board decide it is shareholders best interest to pursue such an opportunity the appropriate ASX disclosures will be made at that point in time.

Another important corporate issue which is currently being reviewed is the issue of ongoing funding. Given the current state of Equity Capital Markets and our company's current share price, traditional capital raising methods such as share placements are not viewed as necessarily the best pathway to funding. Consequently, there are a number of other options currently under review. These include some debt or loan options and possible sale of future revenue via a royalty program. At this point in time nothing has progressed past the general discussion stage, however it is your company's view that one or a combination of these funding opportunities will be put before the Board for approval and then announced over the course of the next quarter.

EXPLORATION ACTIVITIES

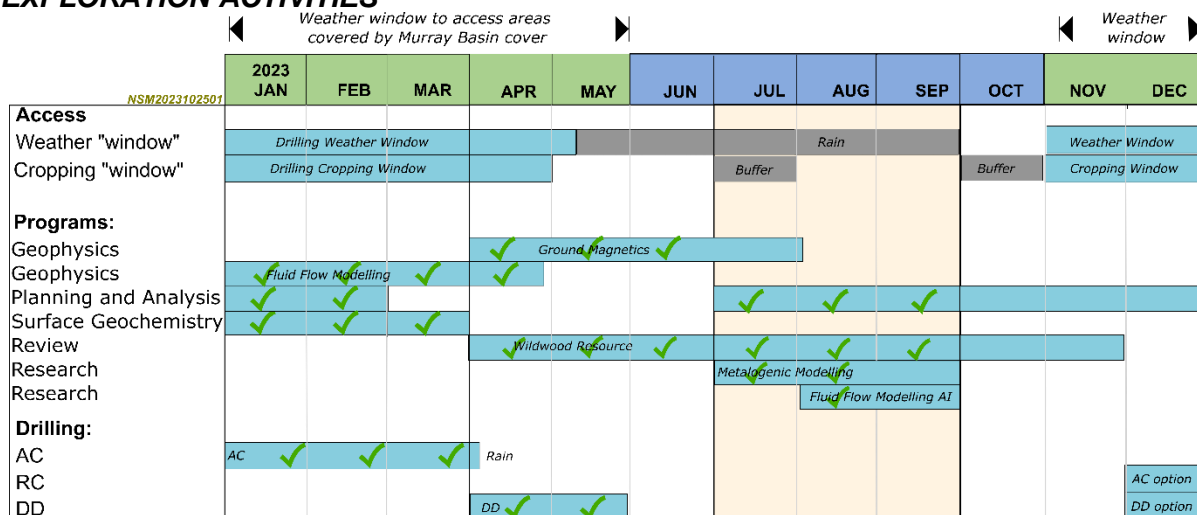


Figure 1 Completed work and exploration schedule, 2023-2024. Ticks indicate work is complete or on schedule.

For personal use only



Annual wet weather and seasonal cropping throughout the tenement portfolio has limited field activities during the September quarter. The time has been used to review and value add data and prepare for the coming (23-24) drill season. Work done and work planned is summarised in Figure 1. The commencement of drilling in the 23-24 season is typically scheduled for early November, with unrestricted land access (post-harvest) from mid-December. However, start dates may be pushed back depending on funding opportunity (see “Corporate” above).

Following the update of the Wildwood Mineral Resource (87,300oz Au at 2.4 g/t Au (1 g/t cutoff) (ASX:NSM 29 June 2023)), additional focus has been applied to review of the infill, near-resource and greenfield opportunities around **Wildwood** to expand the Mineral Resource as well as test other targets. This includes opportunities to expand the Maslin Mineral Resource by targeting open, down-plunge mineralisation hosted in embayments in the basalt core of the mineral system (a typical feature of targeted Stawell-type mineralisation termed “Waterloos” at the mine). Additional opportunities to extend mineralisation along the 3km basalt occur where other basalt embayments have been identified (Trinity Mineral Resource and west-flank) or where previous drilling has intersected open mineralisation on the flanks of the basalt that remains open at depth and down-plunge (Clontarf Resource and east flank opportunities). The mineralisation potential of a second, basalt dome (Wildwood East - one kilometer east of and parallel to Wildwood) is very poorly tested (2 holes), but has demonstrated similar geology, structure and pathfinder geochemistry. See “Wildwood Targets” for more information. The Wildwood Mineral Resource remains as follows:

Table 1 Wildwood Mineral Resource 2023¹

	Tonnes (t)	Grade (g/t Au)	Ounces (oz Au)
Inferred	564,600	2.4	42,700
Indicated	590,300	2.4	44,600
Total	1,154,900	2.4	87,300

¹ASX:NSM 29 June 2023.

Notes:

- All resource figures are reported in accordance with the JORC Code 2012 Edition
- All figures are rounded to reflect the appropriate levels of confidence, with apparent differences potentially occurring due to rounding.
- Mineral Resources are reported at a 1.0 g/t Au cutoff grade.

As well as Wildwood, NSM will prioritise focus on the deeper gold potential of the **Darlington** target, focussed on the recently established (ASX:NSM 28 Mar 23) down-plunge projection on the historic Darlington Mine (2,347oz Au at 18.2 g/t Au¹) and testing the geological link between surface mineralisation and the newly identified deeper, altered and weakly mineralised basalt. A link between the basalt and the surface mineralisation would effectively confirm a Stawell-type gold system, and the margin of the identified basalt is an excellent exploration target. The result may be amplified the interpretation that the newly intersected basalt is the structurally dismembered continuation of the Magdala Basalt – the same basalt that host the mineralisation at Stawell, 6km to the south.

Regional air core drilling over the last two seasons has consolidated a robust project portfolio, based on the Stawell-gold model and using dramatically improved geophysics data (ASX:NSM 8 June 2021). During the 23-24 drilling campaign, planned regional work is summarised in Figure 1 and Figure 2), and in the following sections.

The **Forsaken and Caledonia** targets are priorities for near-surface (air core) drilling. Both targets stand out regionally as having near-surface significant, contiguous gold grades (+1g/t Au) and are interpreted to conform to a Stawell-gold model (ASX:NSM 31 July 23, 1 June 23,



16 Feb 23) . These targets remain open, and establishing surface extents is a pre-cursor to deeper drilling establishing continuity and plunge. Caledonia is a new discovery beneath shallow cover, rapidly expanded to 600m strike length of gold mineralisation near-surface. Forsaken includes the structurally complex northern 1,500m of a 9km gravity anomaly interpreted to be a basalt dragged into a regionally significant fault. The target is currently traced over 500m at surface and is structurally attractive for gold, evidenced by grades in historic drilling as significant results, thick anomalous intercepts and end-of-hole grades.

The northern **Challenger** target has significant potential. The 7km long basalt has 3km of strong arsenic anomalism with multiple thick anomalous gold intercepts or end-of-hole anomalous gold intercept that are very positive indicators for a large gold system. Drilling during the season is tasked to continue to test for significant grades on this large, challenging, Stawell-type gold target.

The **Wimmera Park** target (ASX: 20 July 22) is a regional reconnaissance drilling success that could not be accessed in the 22-23 drilling season. The target is a 300m wide arsenic and gold anomalous zone on the intersection of the eastern margin of the Wimmera Park granite and major regional faults-oriented NNW and NE. The geology interpreted structure and geochemistry include significant similarities to the Wonga Mine, 20km south (294koz Au at 3.4g/t Au²)(Stawell Gold Mines). Wonga is interpreted as an intrusive-related gold system (Bierlein et al 2005). The comparable intrusive at Wimmera Park is readily identified through the thin cover with geophysics, presenting a compelling, poorly tested exploration target.

High resolution gravity data (ASX:NSM 8 June 2021), derivative 3D modelling of interpreted basalts (ASX:NSM 29 Oct 2021) and government high-resolution magnetics data continues to effectively vector to Stawell-type gold mineralisation through the blanket of thin cover that obscures the gold-prospective geology throughout the tenements. NSM continues to develop techniques to vector towards mineralisation more effectively using this data. During the quarter, numerical modelling determining the most likely sites of structural dilation (a proxy for areas on the margins of the basalts most likely to host gold) completed in collaboration with CSIRO (Australia's national science agency) was incorporated into drill planning. The modelling uses the geophysics 3D inversion models to proactively identify most likely dilation sites on basalt margins (ASX:NSM 21 June 23, 23 Mar 23) and significantly focusses drilling into a small fraction of the basalt margin-based targeting. The research, based on extensive academic research at Stawell, presents several previously unrecognised targets at Darlington, Wildwood and Old Roo prospects - exciting geophysical targets that require testing.

A **regional TEM** electromagnetic survey completed by Geoscience Australia was flown in late 2022 and processed results released in 2023 (GA 2023). Although intended for regional application, the survey crossed NSM tenements on multiple lines, and, encouragingly, some of the AEM anomalism correlates to known bedrock targets despite conductive cover. Work continues to understand the effectiveness of the regional data, but if demonstrated to effectively return bedrock signal, regional AEM surveys would have applications tracing some of the sulphide-rich gold systems and the regionally extensive carbonaceous mine schist (the hanging-wall to the western central lode mineralisation at Stawell).

Significant progress has been made fine-tuning exploration targeting in the complicated sulphide-rich host rocks typical of Stawell-type mineralisation. NSM geologists continue to review detailed **mineral chemistry and metallogenesis** projects to better understand important controls. Historic geochemistry and historic petrology data, as well as additional samples from recent drilling from Wildwood and within the Stawell Mine will help resolve material controls. The process is occurring in (informal) collaboration with multiple Victorian tertiary institutions. Plans to formalise collaboration have been pushed backwards into 2024.



During the reporting period, a review of neighbouring projects highlighted a substantial **heavy mineral sand (HMS)** system running across the centre of the NSM tenements, including the massive WIM-style HMS-REE resources delineated by Astron Corporation to the immediate east of NSM's tenements. The ground, continuously held by hard rock mineral explorers since 1999, has only 30 HMS-REE focussed drill holes on its footprint - an undertested opportunity.

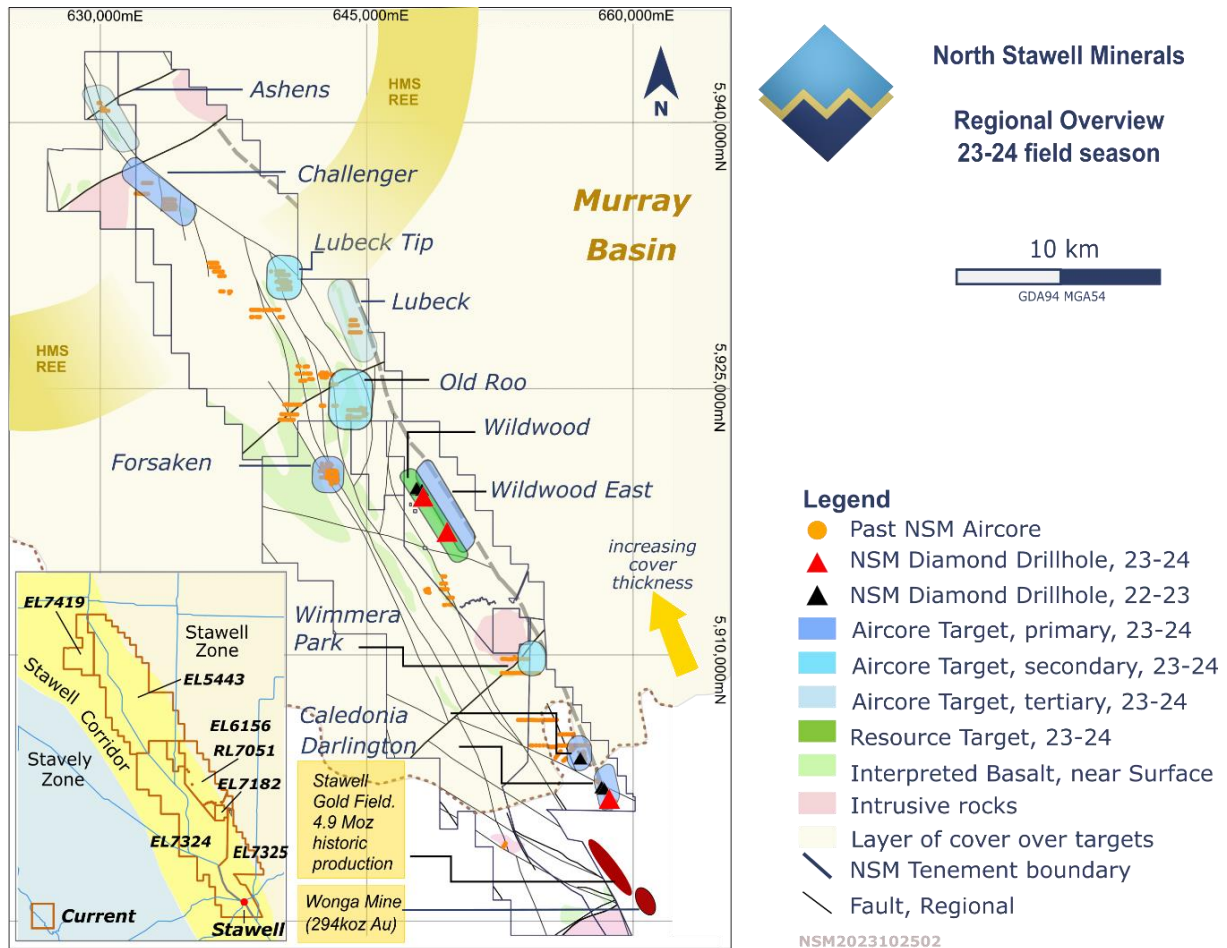


Figure 2 Overview of NSM tenements showing work done during the quarter and key prospects.

Exploration Strategy

NSM's target is repeats of the multi million-ounce mineralisation at Stawell, to the north of the mine under a thin blanket of unmineralised sediments (called "cover") that has potential to mask and preserve shallow, large gold mineralisation systems. The Stawell Mine has been a modern operation for 40 years and is well-researched and well-understood (see Winterbottom 2017 and references within). Stawell-type mineralisation occurs at the margins of buttressed basalt that force gold-bearing structures to wrap around them, creating dilation and focussing gold-deposition. The basalt is also important to explore through cover – basalts can be seen in geophysics through cover and at depth. Examples of basalts identified with geophysics through cover and then further demonstrated to include gold mineralisation include Wildwood, Old Roo, Lubeck Tip and Darlington, and the Kewell prospect to the north of NSM's tenements.

The multi million-ounce ore system at the Stawell Gold Mine serves as a model for gold mineralisation, and demonstrates that gold mineralisation occurs on basalt margins, concentrated in and around irregularities in the basalt geometry and as moderate plunging, depth-persistent sheets of mineralisation, localised on basalt flanks. Splays of mineralisation



that bifurcate off the basalt (called Mariners-type) propagate into the surrounding sedimentary rocks. Using these geometries, NSM's approach is simple - Identify potential basalts using high resolution gravity and magnetics data. If basalt is intersected, focus on the margins where mineralisation is expected and systematically follow mineralisation to depth (e.g., Wildwood). If the basalt is deeper and overlying sediments intersected, drilling is focussed on the possibility of Mariners-type mineralisation, which, that can be systematically followed to depth to identify where the system has splayed off the controlling basalt (e.g., Darlington, Lubeck Tip). Figure 3 presents the NSM target portfolio superimposed on a simplified section of the Stawell Mine.

Secondary geophysics products (curvature modelling, 3D inversions and numerical fluid flow modelling) further refine geophysical targeting (ASX:NSM 29 Oct 21). Downhole data (drill hole geology and assay data, pXRF analysis and polymetallic geochemistry, alteration, metallogeny and petrology) assist in vectoring towards mineralisation from drill programs based on the mineral system at Stawell.

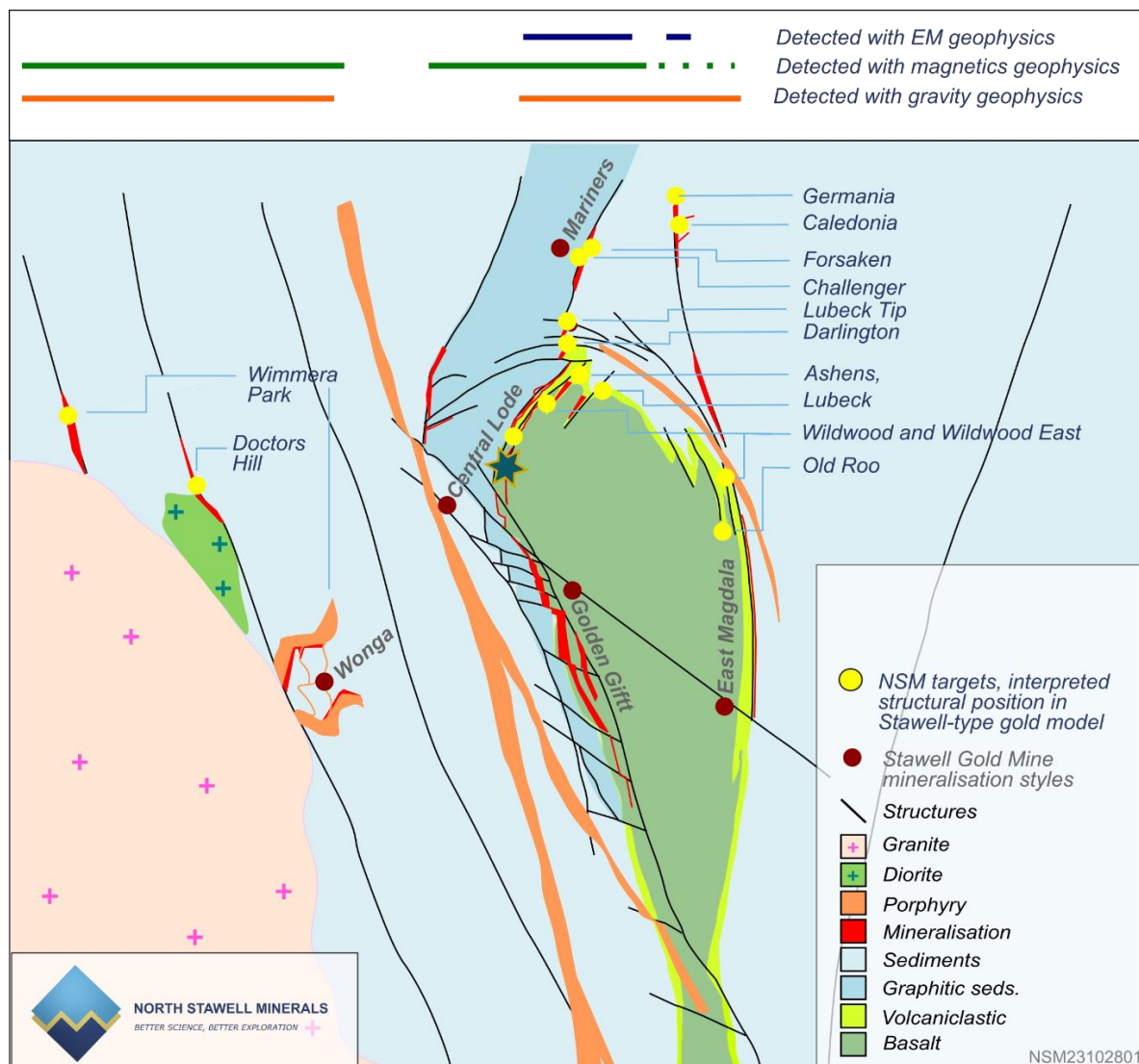


Figure 3 Schematic of Stawell mine showing relative interpreted position of NSM targets.

For personal use only



Wildwood Targets



North Stawell Minerals

Wildwood
 Numerical modelling, drill traces,
 intercepts and Mineral Resource block models

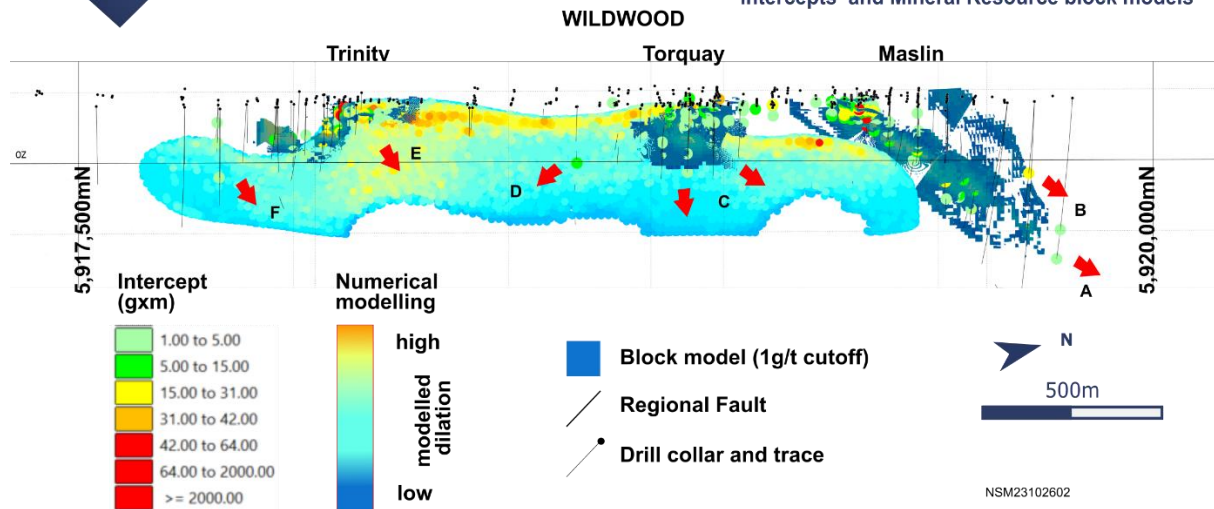


Figure 4 Long Section, Wildwood, Looking west. Drillholes less than 120m not shown.

Regionally, Wildwoods stand out in geophysics data as a 3.5km anomaly (the same length as the basalt at Stawell) (Figure 5). If larger volume basalt-flank hosted mineralisation system is identified directly or found by following embayment-hosted mineralisation to depth, a significant resource is a model-supported possibility.

Wildwood, despite significant historic drilling, includes multiple untested or under-tested targets that conform strongly to the Stawell gold model. The principal reason is a historic persistent focus on shallow mining possibilities. Expanding thinking to follow shallow mineralisation to greater depths immediately invigorates exploration potential.

The Wildwood target includes several viable resource extension and brownfield and greenfield exploration targets (see Figure 4 and Figure 5); **A**) The down-plunge extension of the Maslin Mineral Resource following the Waterloo structure (embayment in the basalt): **B**) A gold intercept outside of the Waterloo structure (0.9m at 26.8 g/t Au (WDD070)) is open onto the eastern flank of the basalt. An interesting target as flank mineralisation has less restricted geometries and may deliver greater tonnes (and ounces): **C**) The Torquay mineralisation is open to the north and down-dip on the flank of the basalt: **D**) Mineralisation on the basalt flank (1.1m at 6.87 g/t Au (WWD079)) is open vertically and to the south for 500m+: **E**) Numerical modelling to the immediate north of the Trinity Mineral Resource indicates potential for increased dilation over 350m strike length. The target is untested: **F**) Basalt flank intercepts drilled by NSM in 2021 have low grades but the system persists, and potential is open down-plunge to the north. **G**) Two drillholes testing Wildwood East intersected embayments in the top of the basalt, including anomalous gold and strong arsenic mineralisation to the south – a 1.9km trend and potential hosts for mineralisation at 150-200m vertical depth **H**) 350m strike of encouraging mineralisation in an embayment (Waterloo) structure (including 6m at 3.26g/t Au (WRC124)) parallel to the Maslin-Torquay trend. n.b. all results are previously reported.

Gold prospectivity is concentrated in the embayments and flanks of the basalts. Wildwood East includes two insightful drillholes, 1,900m apart, which both clipped the upper sections of a basalt and demonstrated embayments (waterloos) in both holes. At 150-250m depth to the

For personal use only



basalts, Wildwood East is an interesting exploration target. The basalt flanks are untested.

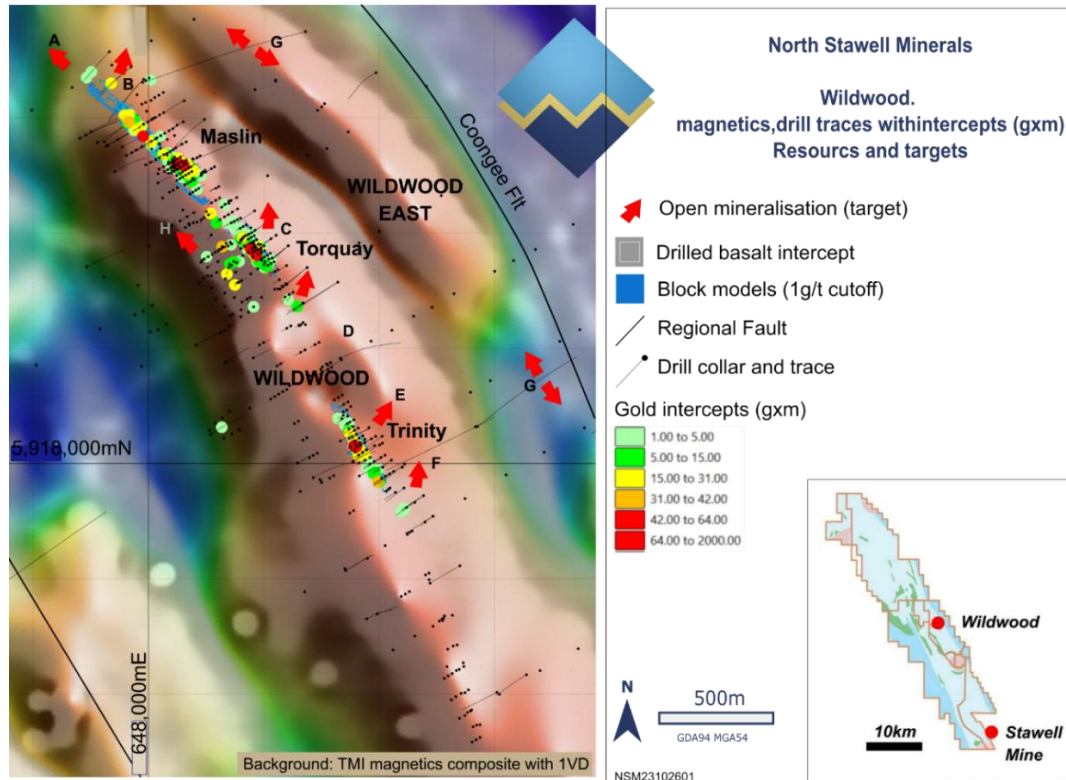


Figure 5 Plan of Wildwood region.

Darlington Targets

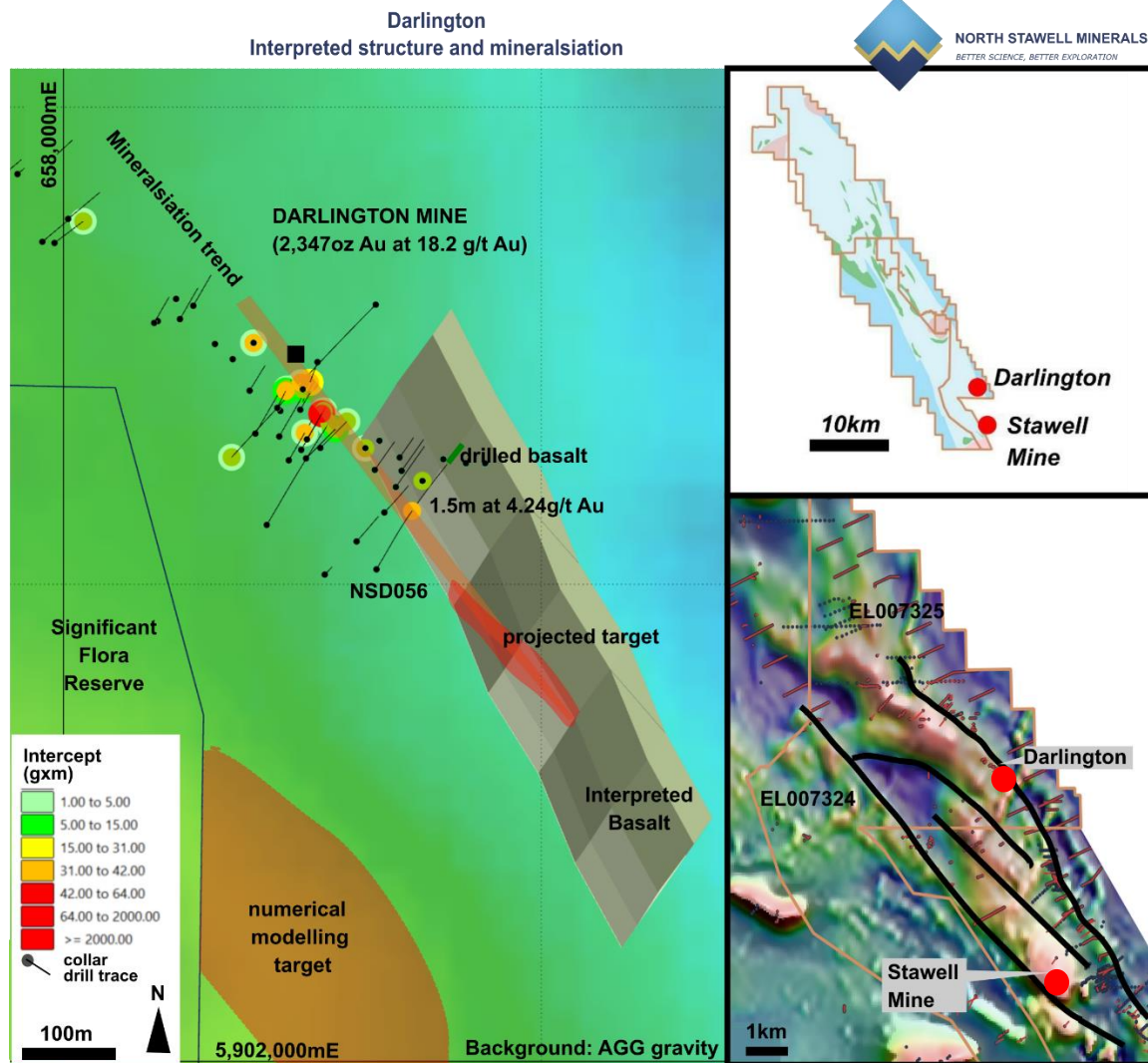
Mineralisation at Darlington is open down-dip and down-plunge. NSM drilling proximal to the historic mine returned encouraging grades (e.g., 3m at 11.0g/t Au (NSAC0527) and 6m at 3.45g/t Au (NSAC0532) (ASX:NSM 28 Mar 23). Drilling 150m down-plunge to the south, also returns positive grades (1.5m at 4.24g/t Au (NSD056)) (ASX:NSM 1 June 23). Planned drilling steps down-dip and down-plunge on this result to expand the mineralisation trend, and, more importantly, test the interpreted intersection between the observed mineralisation plunge (30 degrees to the southeast) and the interpreted position of the basalt intersected in NSD056, 100m below mineralisation. This is an exciting test of the NSM exploration model. Following sediment hosted mineralisation (Mariners-type (Figure 3)) to depth to where it intersects basalts is a critical test of how well a prospect conforms to the Stawell gold model.

The Darlington basalt intercept in NSD056 is enigmatic in the geophysics – not clearly reporting in gravity or magnetics data, raising the possibility that it is too narrow to be detected (although 35m of basalt were returned in core). 300m to the west, and potentially related to the basalt intersected in NSD056, a significant basalt unit is modelled (Figure 6), and its geometry results indicating potential dilation sites (from numerical modelling). Planned for drilling is complete.

Interpreted basalts continue to the southern boundary of NSM's tenement, 1,100m to the south, offering a substantial exploration fairway. Basalts are also interpreted to continue to the east. However, these are more challenging targets to access, located beneath an area with recognised significant flora.



For personal use only



NSM23102603
 Figure 6 Darlington

Forsaken Targets

The Forsaken target remains a priority for further work, principally on multiple significant gold intercepts (+1g/t Au), extensive and strong gold anomalism, and a prospective structural model that can be described as a structural variant of the Stawell-gold model - Forsaken is interpreted as a regional-scale drag-folded basalt into the regionally significant Pleasant Creek Fault – a geometry commonly associated with orogenic gold systems (ASX:NSM 1 June 23).

The target includes two areas of prospective mineralisation. The first is a typical Stawell-type exploration target on the margin of a 9km basalt. Recent drilling by NSM (ASX:NSM 1 June 23) buoyed the target area by returning significant grades (+1g/t Au) over 300m strike (Figure 7) (incl. 3m at 1.98g/t Au (NSAC0595) 10m at 1.34 (GLA204) and 3m at 1.02g/t Au (NSAC0596). Drilling also expanding the footprint of highly anomalous gold envelope, and the target remains open to the north and south. The second target is a 500m long highly anomalous gold trend (e.g., 40m at 0.24g/t Au* (GLA190) and 56m at 0.1g/t Au* (GLA224), both ending in mineralisation, with a core of significant grades (incl. 2m at 3.08g/t Au (GLA172) and 2m at 3.54 g/t Au (GLA184)) over a 400m trend by wide-spaced, vertical, shallow drilling. The trend is roughly axial planar to the major, interpreted drag fold and presents a very interesting structural target. n.b. all results are previously reported.



For personal use only

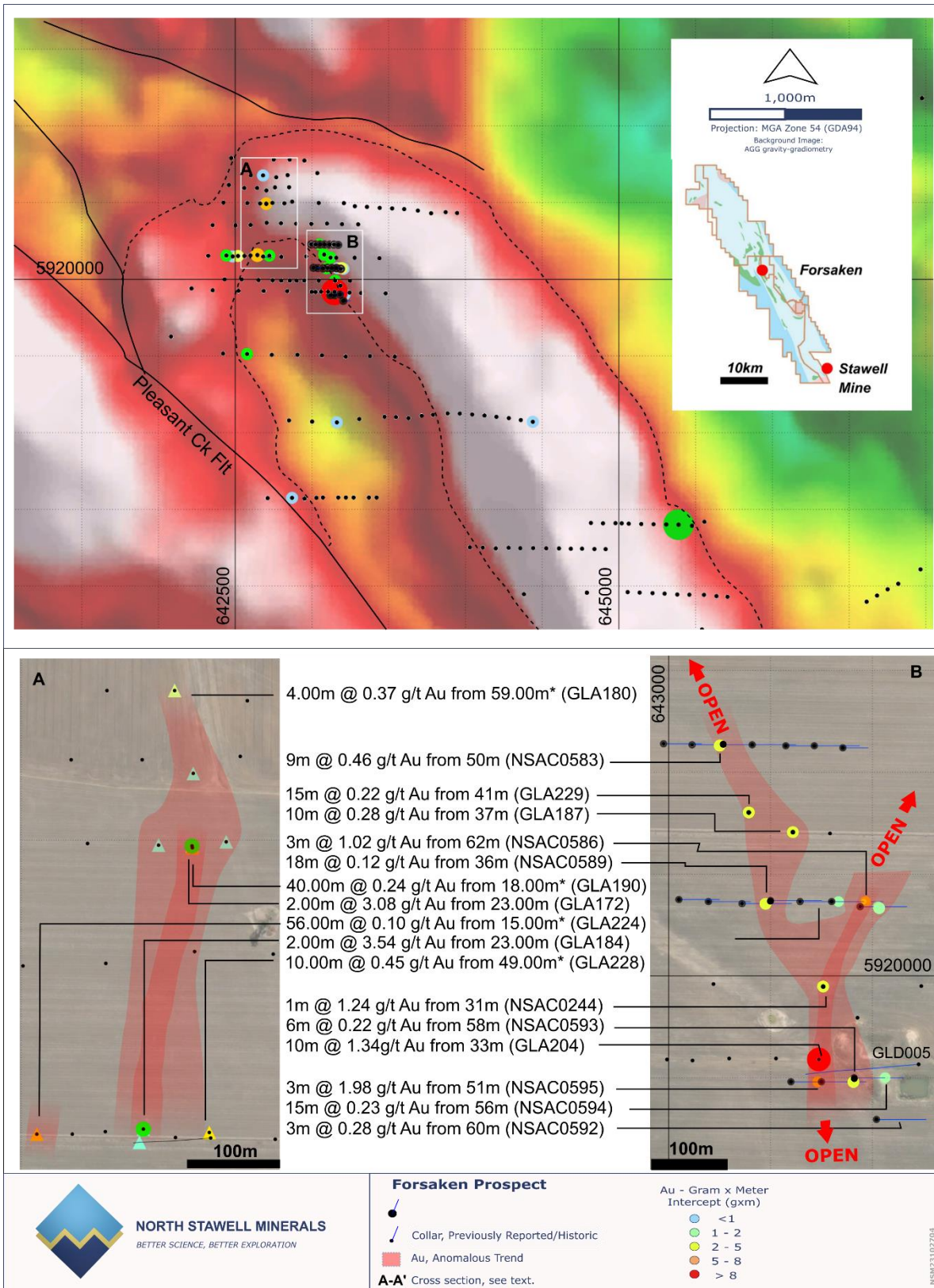


Figure 7 Forsaken air core drilling.

Caledonia Targets

Diamond drill hole NSD051 (239.4m) was drilled approximately 80m beneath the cluster of coincident high-grade gold mineralisation and high arsenic anomalism to the east. Highly



anomalous arsenic was returned in weakly to moderately sericitized metasedimentary siltstones, but only anomalous gold intersected (>1g/t Au) (158.8-161.1m). The result suggests that the gold system is a discrete plunging shoot and the drillhole has tested its margin, but effectively missed the higher-grade gold target, drilling underneath it.

However, higher up the hole, **1.30m @ 2.29 g/t Au from 63.80m** occurs in strongly weathered graphitic shale with a faulted basal contact. This intercept conforms with an interpreted western gold trend identified in past drilling. The targets may respond to IP or EM geophysics.

The Caledonia target remains open near-surface to the northwest and southeast - approaching the historic Bonnie Dundee Mine (1,117oz au at 20.9g/t Au) 550m to the southeast. Surface mineralisation to the northwest is under shallow cover and is a priority target for air core drilling when programs resume.

Figure 8 and Figure 9 and Appendix 2 summarise NSD051.

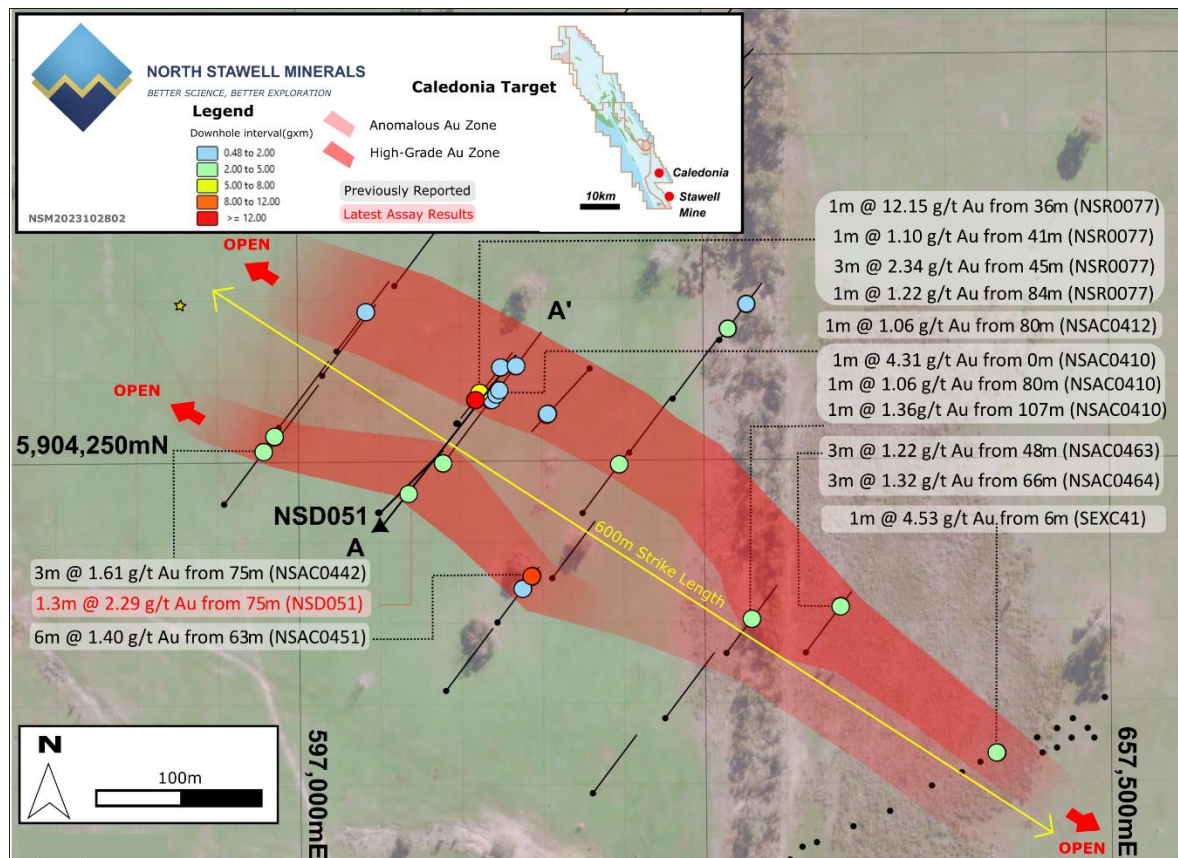


Figure 8 Caledonia plan.

For personal use only

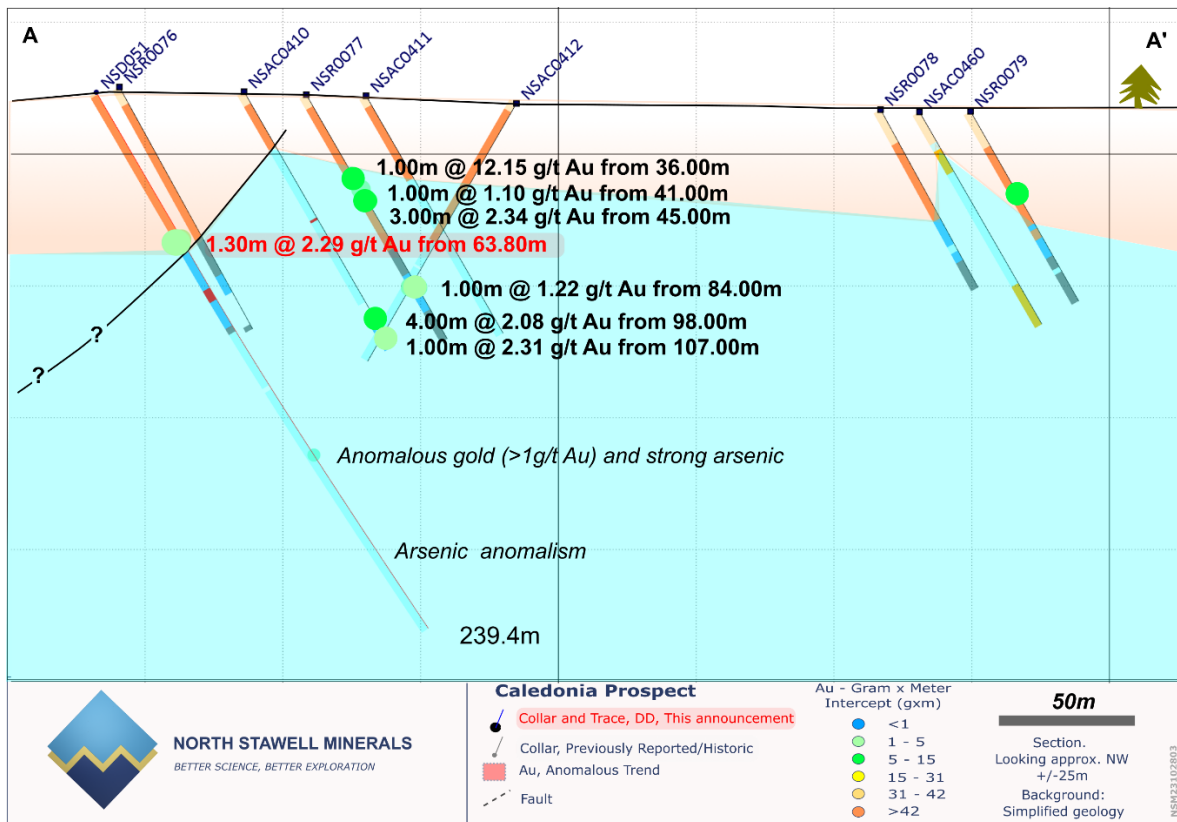


Figure 9 NSD051 section, Caledonia

Geophysics

The Stawell-type gold mineralisation is focussed onto the margins of slabs of non-foliated (structurally resistive (buttressed)) basalt, and, locally, into sulphide-rich chemical sediments on the contact of the basalt and bounding sediments. Both the basalts and the chemical sediments have properties that are demonstrated or expected to respond to geophysical techniques.

A geophysics-responsive target is a material advantage when exploring for gold in cover dominated terrain, significantly assisting targeting.

Figure 10 summarises geophysical datasets and DD, derivative products. **A)** Government-flown aeromagnetics: **B)** NSM AGG gravity-gradiometry data (ASX:NSM 8 June 21) has dramatically improved exploration targeting – the hugely increased data resolution identifies new targets: **C)** Edge detection, reprocessing, structural interpretation, dip/dip-direction data derived from both magnetics and AGG gravity (ASX:NSM 29 Oct 21): **D)** Geoscience Australia regional airborne TEM (AEM) with GSV-flown SKYTEM infill lines covers parts of NSMs ground. Details of the project are here (GA 2023, [link](#)). This regional EM data appears to identify known basement features at Ashens, Lubeck and Forsaken. Of note, some basement areas (with the available resolution of data) appear to be impeded by conductive cover. However, the observations are encouraging, and a more thorough review is in progress: **E)** Collaborative research with CSIRO applied numerical modelling and the Stawell structural model to determine parts of the 3D-inverted gravity data where dilation and possible gold mineralisation are most likely to occur (ASX:NSM 29 Aug 23, 21 June 23) . The data, delivered this quarter, has not been verified with drilling, but has encouraging correlations to gold mineralisation in areas drilled prior to modelling. The inset image is the Old Roo basalt. Red areas are modelled dilation sites: **F)** All datasets (except the numerical modelling) have been compiled and analysed as part of a data-driven and knowledge-driven prospectivity mapping exercise,

For personal use only



principally for internal use to prioritise targets (a stronger focus on Darlington is a good example) (ASX:NSM 31 Jan 23): G) A healthy list of target areas from the prospectivity mapping help inform NSMs exploration focus and regional generative and greenfield exploration (ASX:NSM 31 Jan 23).

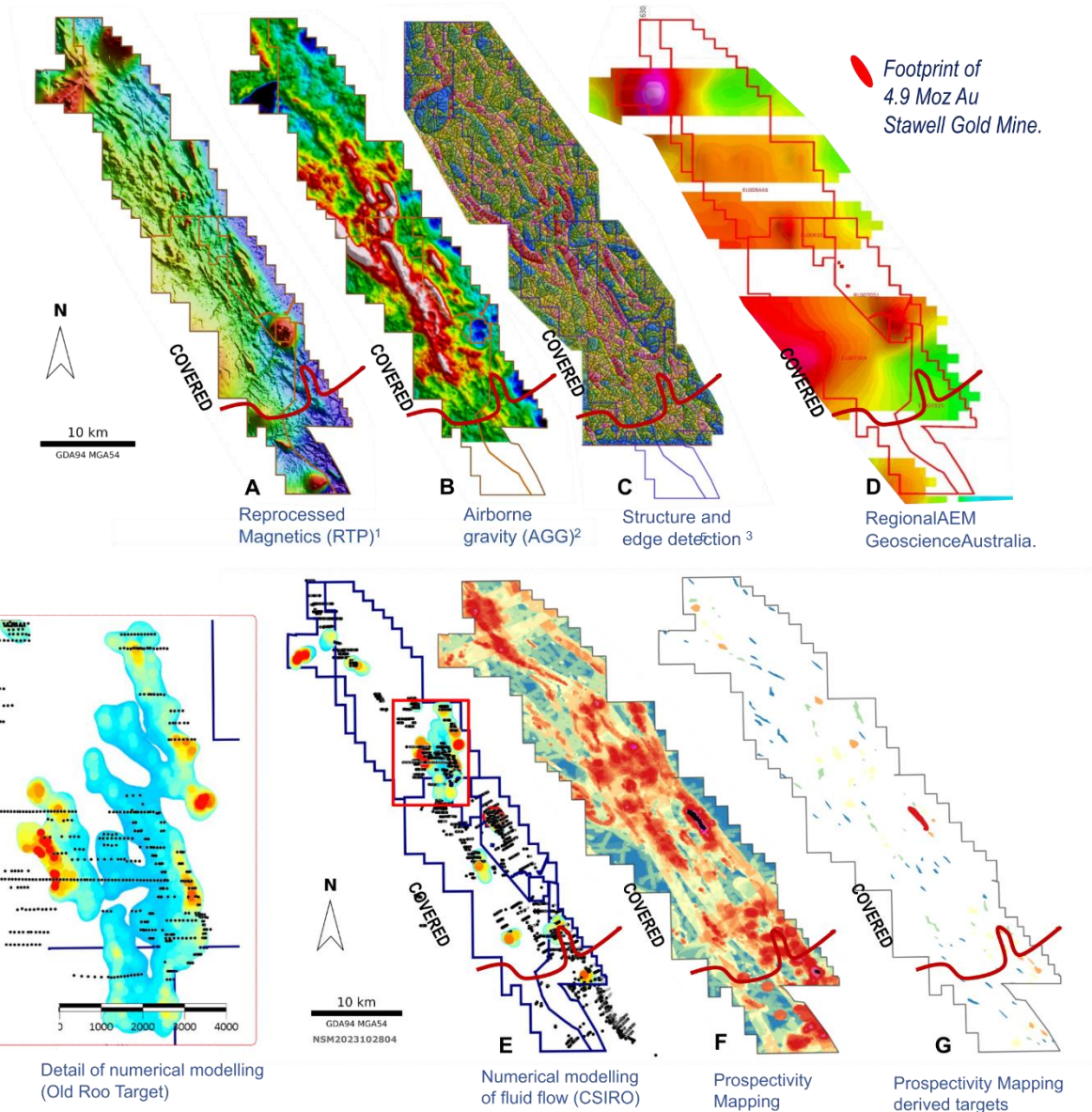


Figure 10 Geophysical and derivative data.

Numerical modelling of fluid pathways.

In collaboration with CSIRO, Australia's national science agency, NSM has completed a numerical modelling project through CSIRO's kickstart grant program that utilises 3D inversions (ASX:NSM 23 June 2021, 7 Nov 2022, 29 October 2021, 29 June 23, 30 Aug 23) of high-resolution gravity data and recognised structural events recorded in studies at the Stawell gold Mine (e.g. Winterbottom 2017 and references within) to determine the likely dilation zones around the interpreted basalt domes proactively prior to drilling (i.e. proactive (pre-drilling) targeting of geophysics-derived basalt geometries). The technique has been applied successfully at Wildwood (Schaubs 2006), however the work relied on drill intercepts of the basalt to determine the basalt shape informing the numerical models (post-drilling).

NSM has flown AGG gravity-gradiometry throughout the covered areas of its tenement

North Stawell Minerals
167 Leviathan Road
Stawell Victoria 3380



portfolio and completed 3D inversions over 222km² (ASX:NSM 8 June 21). Tests at the Wildwood dome has show encouraging correlation between modelled results and drilling results (Figure 4). Regionally, the data is being used to assist and inform drill planning for the 23-24 field season.

The numerical modelling results have not been tested with drilling, but the work has been planned during the winter quarter with key targets at Wildwood, Darlington and Old Roo.

HM and REE target

Heavy Mineral Sands and REE projects in the Stawell area have generated significant momentum in the last few years. NSM holds ground (EL5443) that passes directly though the principal heavy mineral sands horizon. Held by hard-rock exploration interests from at least 1999, the ground has received limited focus for HM-REE prospectivity – particularly as some of the declared HM resources are immediately adjacent to NSM ground. Limited (30) shallow holes have been completed historically and indicate HM-REE anomalism. Opportunistic sampling of the upper cover sequence of selected AC holes targeting deeper gold potential have been taken. NSM does not have in-house CP accreditation for HMS systems.

An increasingly attractive target, NSM has reviewed access for shallow programs to understand HM-REE distribution to an appropriate standard in concert with focus on the emerging gold potential.

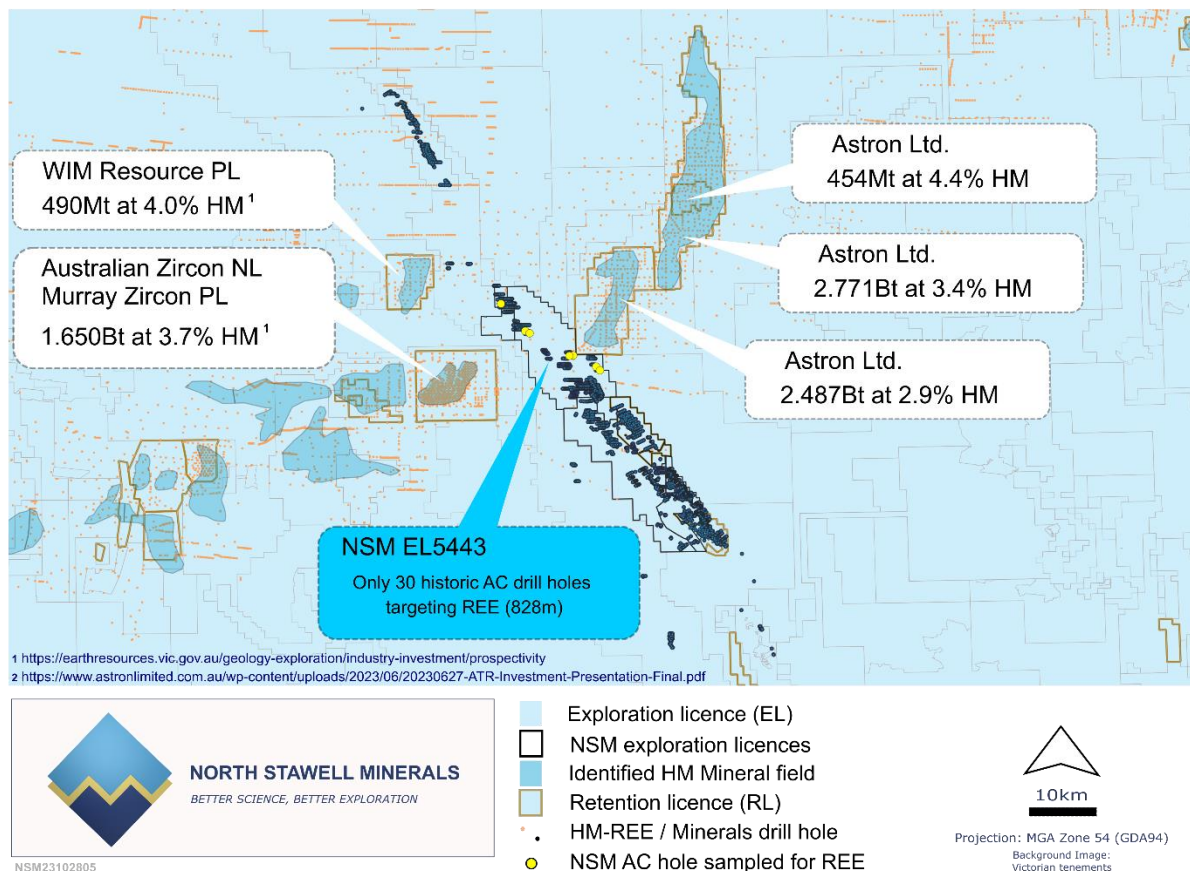


Figure 11 Heavy Mineral Sands (HMS) - REE projects and resources proximal to NSM tenements

Metallogenesis Studies

NSM geologists are progressing the possibility to initiate collaboration with several geoscience researchers to commence work to better understand the metallogenic controls on Stawell-type

North Stawell Minerals
 167 Leviathan Road
 Stawell Victoria 3380

For personal use only



mineralisation by focussing on the key geochemical, thermodynamic, structural and geological controls on mineralisation and, ultimately, determine if additional vectors to mineralisation can be resolved to assist exploration through cover. During the quarter, a large number of historic thin sections relevant to Stawell-type mineralisation have been centralised and review has commenced. Additional sections are in preparation – focussed on Wildwood. Understanding the small-scale controls on mineralisation is an important “next step” to compliment the regional scale mineralisation vectoring tools already in use of in review.

Machine Learning Project.

High density potential field data (gravity and magnetics) (ASX:NSM 23 June 2021) gridded inversion modelling and regional geological interpretation (ASX:NSM 29 October 2021), defensible relative prospectivity mapping and (ASX:NSM 31 January 2023) numerical modelling as well as a growing regional geological database presents an opportunity to investigate the possible role of machine learning in the exploration planning process. Vanguard discussions with subject matter experts are encouraging and a geologist with strong data science background employed to fulfill internal requirements. Data validation and cleaning has continued, with capacity over the drilling off-season and a focus on generating exploration targets for future consideration.

Previously reported data and information

For previously reported results included in the discussion of this drill program, North Stawell Minerals is not aware of any new data or information that materially affects the information as originally disclosed.

References

Bierlein, F. and McKnight, S. 2005. Possible intrusion-related gold systems in the western Lachlan orogen, southeast Australia. *Economic Geology*, 100(2): 385. Economic Society of Geologists.

Darling, Curnamona, Delamerian AEM Survey: Logistics Report, AEM Data, and Inversion Results. 2023. Geoscience Australia, Canberra. <https://dx.doi.org/10.26186/147585>

GeoVic, 2021. Web data portal. Department of Jobs, Precincts and Regions, Victoria, Australia. <https://earthresources.vic.gov.au/geology-exploration/maps-reports-data/geovic>

Schaubs, P. M., Rawling, T. J., Dugdale, L. J. and Wilson, C. J. L. 2006. Factors controlling the location of gold mineralisation around basalt domes in the Stawell corridor: insights from coupled 3D deformation – fluid-flow numerical models, *Australian Journal of Earth Sciences*, 53:5, 841-862.

Schaubs, P. M. 2023. Deformation – fluid flow numerical simulations of basalt domes: Insights into controls on gold mineralisation north of Stawell, Victoria. Internal Report for North Stawell Minerals. CSIRO.

Winterbottom, J. and Holland, I. 2017. Report on the Mineral Resources and Reserves of the Stawell Gold Mine in the state of Victoria, Australia. Technical Report. Kirkland Lake Gold.



Finance and Use of Funds (1st Quarter ending 30 September 2023)

Pursuant to ASX Listing Rule 5.3.4, the Company advises the proposed use of Funds as per Section 4.7 of the Prospectus to actual use of funds as follows:

<u>Funding Allocation</u>	<u>Prospectus</u>	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>Sep 24 Qtr</u>	<u>Actual to date</u>	<u>Variance</u>
Cost of IPO, Listing	2,128,000	2,200,400	-	-	-	2,200,400	72,400
Exploration (2 years)	13,949,000	4,605,000	3,405,200	2,935,890	405,876	11,351,966	-2,597,034
Capital Equipment	631,000	366,300	103,864	-78,032	-22,489	369,643	-261,357
Working Capital & Operating Expenses	3,292,000	1,049,956	1,599,612	1,830,659	522,338	5,002,565	1,710,565
Total	20,000,000	8,221,656	5,108,676	4,688,517	\$ 905,725	\$18,924,574	-1,075,426

Cash at the end of the Quarter was \$1.08m. As per ASX Listing Rule 5.3.5 a Company is required to provide a description and explanation of any related party payments made during the quarter. \$63,150 in total, relating to Director fee payments (inclusive of superannuation) was paid.

North Stawell Minerals
167 Leviathan Road
Stawell Victoria 3380



NORTH STAWELL MINERALS LTD
ACN 633 461 453
ABN 84 633 461 453

This Announcement is authorised for release by Russell Krause, Chief Executive Officer of North Stawell Minerals Ltd

For Media Enquiries
info@northstawellminerals.com

For Investor Enquiries
info@northstawellminerals.com

For further information visit the website: <https://www.northstawellminerals.com/>
Visit us on LinkedIn: <https://www.linkedin.com/company/north-stawell-minerals/>
Visit us on Twitter: <https://twitter.com/NorthStawell>

About North Stawell Minerals Limited:

North Stawell Minerals Limited (ASX: NSM) is an Australian-based gold exploration company 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 Field which has produced more than five million ounces of gold. NSM's granted tenure has a total land area of approximately 500 km². 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 51km of northerly strike extension of the underexplored Stawell Mineralised Corridor.

Competent persons Statement

The information that relates to 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 the 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.

North Stawell Minerals
167 Leviathan Road
Stawell Victoria 3380



Appendix 1: NSM Tenement Summary

Tenement	Status	Number	Area (km ²)	Graticules ¹	Initial NSM holding	Earn-in potential
Wildwood	Granted	RL007051	50	50	51%	90%
Barrabool	Granted	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		

¹ 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 (km²) is less than the graticular area.

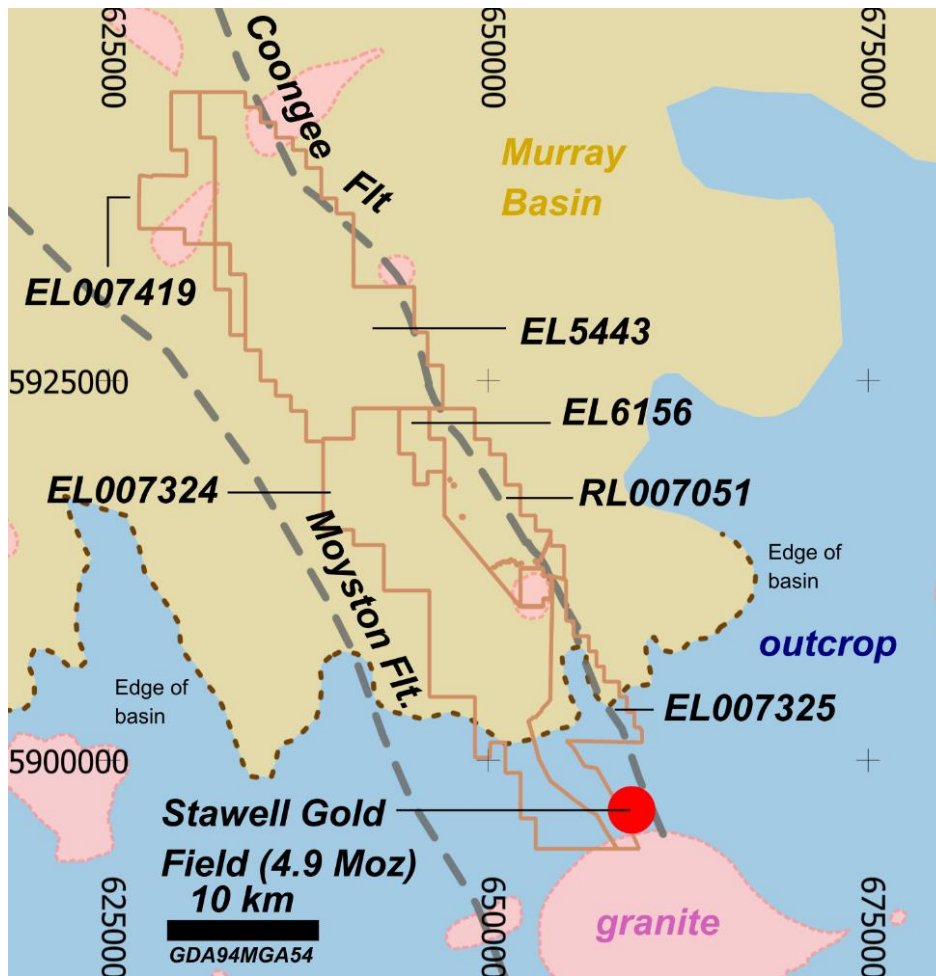


Figure 12 North Stawell Minerals - Tenements

North Stawell Minerals
 167 Leviathan Road
 Stawell Victoria 3380

For personal use only



Appendix 2: Diamond Drilling (DD) summary, June Quarter, 2022.

Hole ID	Prospect	MGA54 Easting	MGA54 Northing	RL	Azi deg	Dip deg	Final Depth m	Results significant (>1 g/t Au)
NSD051	Caledonia	657050.66	5904211.972	223.0	39.84	-59.82	239.4	1.30m at 2.29g/t Au from 63.8m

NSA – no significant assay (DD)

anr – assays not returned.

* End-of-hole mineralisation

Appendix 3: JORC Table 1

Section 1 Sampling Techniques and Data

Section 1 is divided into 2 sections by topic:

- a. Diamond Drilling
- b. Historic Drilling

Section 2 Reporting of Exploration Results

Section 1 Sampling Techniques and Data – a. Diamond Drilling

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> • 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. • Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. • 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 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. 	<p>The diamond drill core samples were selected on geological intervals varying from 0.3m to 1.3m in length.</p> <p>All drill core was routinely cut in half (usually on the right of the marked orientation line) with a diamond saw and selected intervals submitted for analysis.</p> <p>Sample representivity was ensured by a combination of Company procedures regarding quality control (QC) and quality assurance/ Testing (QA). Certified standards and blanks were routinely inserted into assay batches.</p>
Drilling techniques	<ul style="list-style-type: none"> • 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.). 	<p>Pre-collars were drilled to solid bedrock followed by diamond coring with HQ and NQ2.</p> <p>All drill core was orientated with a core orientation tool every core barrel run. At the Core farm, core was continuously oriented during logging.</p>
Drill sample recovery	<ul style="list-style-type: none"> • Method of recording and assessing core and chip sample recoveries and results assessed. • Measures taken to maximise sample recovery and ensure representative nature of the samples. • Whether a relationship exists between sample recovery and grade and whether sample bias 	<p>All diamond core was logged capturing any core loss, if present, and recorded in the database.</p> <p>All drill depths are checked against the depth provided on the core blocks and rod counts are routinely carried out by the driller.</p>



For personal use only

may have occurred due to preferential loss/gain of fine/coarse material.

Logging	<ul style="list-style-type: none"> • 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. • Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. • The total length and percentage of the relevant intersections logged. 	<p>Geological logging of samples followed Company and industry common practice. Qualitative logging of samples included (but was not limited to); lithology, mineralogy, alteration, veining and weathering.</p> <p>All logging is quantitative, based on visual field estimates.</p> <p>Detailed diamond core logging, with digital capture, was conducted for 100% of the core.</p>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> • If core, whether cut or sawn and whether quarter, half or all core taken. • If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. • For all sample types, the nature, quality and appropriateness of the sample preparation technique. • Quality control procedures adopted for all sub- sampling stages to maximise representivity of samples. • 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. • Whether sample sizes are appropriate to the grain size of the material being sampled. 	<p>Detailed diamond core logging, with digital capture, was conducted for 100% of the core.</p> <p>Half core was sampled from NQ and HQ diameter drill core.</p> <p>Company procedures were followed to ensure sub- sampling adequacy and consistency. These included (but were not limited to), daily workplace inspections of sampling equipment and practices.</p> <p>Blanks and certified reference materials are submitted with the samples to the laboratory as part of the quality control procedures.</p>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> • The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. • 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. 	<p>Analysis for gold is undertaken at Gekko Laboratories (GAL) by 2-3kg Leach well Bottle Roll with a 27 element ICP finish to a lower detection limit of 0.01ppm Au using ALS technique Au-AA26.</p> <p>A 50g Fire assay is conducted on the Leachwell tail to determine residual gold.</p> <p>A review of certified reference material and sample blanks inserted by the Company indicate no significant analytical bias or preparation errors in the reported analyses.</p> <p>Internal laboratory QAQC checks are reported by the laboratory and a review of the QAQC reports suggests the laboratory is performing within acceptable limits.</p>
Verification of sampling and assaying	<ul style="list-style-type: none"> • 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. 	<p>The data has been verified by North Stawell Minerals Competent Person.</p> <p>Data entry is via standardized Company excel templates, using pre-set logging codes, with built in validation checks.</p> <p>Data is stored in a third-party geodatabase (datashed) and managed by an external DBA (EarthSQL); further internal validations before export products are generated. Data is further validated visually in GIS and 3D</p>



		software by North Stawell Minerals Personnel.
Location of data points	<ul style="list-style-type: none"> • 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. 	<p>All maps and locations are in MGA Grid (GDA94 zone 54).</p> <p>All drill collars were initially measured by hand-held GPS with an accuracy of +3 metres. A Trimble DGPS or Kinematic DGPS was used for more accurate collar pick-up to an accuracy of +0.2m.</p> <p>An initial topographic control is achieved via use of DEM acquired during Airborne gravity acquisition. Final elevation is by Trimble DGPS or Kinematic GPS.</p> <p>Gyro down-hole surveys were taken every 30m on the way down to verify correct orientation and dip then multi- shots taken every 6m on the way out of the drill hole at hole completion.</p>
Data spacing and distribution	<ul style="list-style-type: none"> • 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. 	<p>Drill hole spacing in these vanguard holes is bespoke, targeting geology cf. fences. Collars and targets are determined from geochemical, geophysical and geological data.</p> <p>Drilling reported in this program are step-out drillholes and may contribute to future mineral resource or ore reserves.</p> <p>Refer to sampling techniques, above for sample compositing</p>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> • 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. 	<p>Prior exploration has returned a defensible orientation of the potential mineralisation. The exact location of mineralisation, in relation to lithological and structural boundaries, is relatively well understood in the main, although additional intercepts that depart from the geological model can occur.</p> <p>The drill orientation is attempting to drill perpendicular to the geology and mineralised trends previously identified from earlier drilling. Due to the early stage of exploration it is unknown if the drill orientation has introduced any sampling bias. This will become more apparent as further drilling is completed.</p>
Sample security	<ul style="list-style-type: none"> • The measures taken to ensure sample security. 	<p>The chain of custody is managed by internal staff and transport contractors. Drill samples are stored on site and transported by a licensed reputable transport company to Gekko Assay Laboratories. Sample receipts are issued. At the laboratory samples are stored in a secured yard before being processed and tracked through preparation and analysis.</p> <p>Sample information other than the company name and the sample ID are not provided to the laboratories.</p>

For personal use only



Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of sampling 	An external review of data is underway, as part of data due diligence for a Mineral Resource update.
--------------------------	--	--

Section 1 Sampling Techniques and Data – b. Historic Drilling

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

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> 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. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. 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 30g charge for fire assay'). In other 	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.
Drilling techniques	<ul style="list-style-type: none"> 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.). 	<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>
Drill sample recovery	<ul style="list-style-type: none"> Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. 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. 	<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 yet for historic results.</p>
Logging	<ul style="list-style-type: none"> Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining 	<p>Geological logging of historic holes, where reviewed, follows industry common 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>



For personal use only

	<p>studies and metallurgical studies.</p> <ul style="list-style-type: none"> • Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. • The total length and percentage of the relevant intersections logged. 	
<p>Sub-sampling Techniques and sample preparation</p>	<ul style="list-style-type: none"> • Core, whether cut or sawn and whether quarter, half or all core taken. • If non-core, whether riffled, tube sampled, rotary it, etc. and whether sampled wet or dry. • For all sample types, the nature, quality, and appropriateness of the sample preparation technique. • Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. • Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field plicate/second-half sampling. • Whether sample sizes are appropriate to the grain e of the material being sampled. 	<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>
<p>Quality of assay Data and laboratory tests</p>	<ul style="list-style-type: none"> • The nature, quality and appropriateness of the assaying and laboratory procedures used. • whether the technique is considered partial or total • 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. 	<p>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.</p>
<p>Verification of sampling and assaying</p>	<ul style="list-style-type: none"> • 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. 	<p>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.</p> <p>No adjustments to assay data have been made.</p>



Location of data points	<ul style="list-style-type: none"> • 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. 	<p>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.</p> <p>Historic drill collars have been determined with several techniques, ranging from survey pick-up through differential GPS.</p> <p>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.</p>
Data spacing and distribution.	<ul style="list-style-type: none"> • 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. 	<p>Historically, variable drill hole spacings are used to test targets and are determined from geochemical, geophysical, and geological data.</p> <p>Historic regional and geochemical drilling (AC) is drilled on strike perpendicular fences, with approx. 100m hole spacings and 100-400m line spacing</p> <p>Historic RC sampling is generally specifically targeted to follow up AC results. Minor RC fences are drilled, on 30-200m spacing.</p> <p>Historic diamond drilling is located to follow up on specific prior results or targets.</p> <p>Historic data in the footprint of the tenement EL007324 were designed and executed as regional exploration.</p> <p>The historic drilling data has not been reviewed for its appropriateness to inform Mineral Resource Classification.</p>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> • <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> <ul style="list-style-type: none"> • 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. 	<p>The historic drill orientation is perpendicular to the regional geology and known mineralised trends previously identified from earlier drilling.</p>
Sample security	<ul style="list-style-type: none"> • The measures taken to ensure sample security. 	<p>Sample security has not been reviewed for the historical data.</p>
Audits or reviews	<ul style="list-style-type: none"> • The results of any audits or reviews of sampling 	<p>There has not been internal or external audit or review of historic assays identified.</p>

Section 2 Reporting of Exploration Results - Drilling

Criteria	JORC Code explanation	Commentary
Mineral tenement and	<i>Type, reference name/number, location and</i>	Current tenements are summarised in Appendix 1 - Table 1 of the announcement. Historic tenements are

For personal use only



land tenure status

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 security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.

**NORTH STAWELL MINERALS LTD
ACN 633 461 453
ABN 84 633 461 453**

identified from the Victorian Government Geovic online spatial resource.

All granted tenements are current and in good standing.

The project area occurs on freehold land. Minor Crown Land (>3%) and Restricted Crown Land (>1%) is identified. All areas are accessible if appropriate land access requests and agreements are in place.

The Victorian Governments Geovic spatial online resource does not identify any material cultural, environmental, or historic occurrences.

The southern end of EL007324 encompasses parts of the Stawell Township. These areas are complicated by dense, urban freehold land parcels, and challenges gaining access may occur if attempted.

EL007324 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.

Tenement security is high, established in accordance with the Victorian Mineral Resources Act (MRSDA) and Regulations (MR(SD)(MI)R 2019).

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).

Rio Tinto Exploration, Planet Exploration, Highlake Resources and Iluka Resources have also held parts of the tenement historically.

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.

Although NSM has reviewed and assessed the exploration data, it has only limited knowledge of the targeting and planning process and, as a consequence, has had to make assumptions based on the available historical data generated by these companies. However, the methodology appears robust.

Work by Iluka was for Heavy Minerals exploration and is not material to gold exploration.

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.

Work has identified large, low grade gold anomalism

Exploration done by other parties

- *Acknowledgment and appraisal of exploration by other parties.*

**North Stawell Minerals
167 Leviathan Road
Stawell Victoria 3380**

For personal use only



along major interpreted structures (magnetics) and represents a technical success.

In the far south of tenement EL007324 and EL007325, exploration is typically testing for fault-repeats of the Stawell-type mineralisation, centered on magnetic anomalies. Basalt 'dome' analogies were identified with minor associated mineralization.

Geology	<ul style="list-style-type: none"> • <i>Deposit type, geological setting and style of mineralisation.</i> 	<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> <p>Orogenic Gold occurrences are possible away from the basalt domes.</p> <p>Wonga-style mineralisation is possible, interpreted as Intrusive-Related Gold, and may be either an upgrade on prior (orogenic mineralisation) or a fresh mineralisation event.</p> <p>The geological setting is a tectonised accretionary prism on the forearc of the Delamerian-aged Stavely Arc active plate margin.</p> <p>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.</p> <p>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>
Drill hole Information	<ul style="list-style-type: none"> • <i>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:</i> <ul style="list-style-type: none"> • <i>easting and northing of the drill hole collar</i> • <i>elevation or RL (Reduced Level– elevation above sea level in metres) of the drill hole collar</i> <ul style="list-style-type: none"> o <i>dip and azimuth of the hole</i> o <i>down hole length and interception depth</i> • <i>hole length.</i> • <i>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.</i> 	<p>Details of all air core drilling is summarised in Appendix 2 of this report.</p> <p>Sections and plans with summaries of assay are included in the body of the document for all drilling completed. Summary tables of drillhole data are included.</p> <p>Pathfinder elements determined by ICP for Gekko samples are not reported – these are vectors to mineralisation. Where discussed in the text, laboratory analyses for these elements are described in qualitative terms.</p>
Data aggregation methods	<ul style="list-style-type: none"> • <i>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.</i> • <i>Where aggregate intercepts incorporate short</i> 	<p>Only results with anomalous gold values (>0.05ppm) have been reported.</p> <p>No metal equivalents have been reported. No metal equivalent reporting is used or applied.</p> <p>For significant results (<1g/t Au) No external dilution is</p>

For personal use only



For personal use only

	<p><i>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.</i></p> <ul style="list-style-type: none"> • <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i> 	<p>used. Internal dilution up to 2m so long as the average grade remains significant.</p> <p>For anomalous results (1 g/t Au>assay>0.05 g/t Au) no internal or external dilution is used.</p> <p>“including” results will be stated where the included result is an order of magnitude greater than the larger intercept.</p>
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> • <i>These relationships are particularly important in the reporting of Exploration Results.</i> • <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i> • <i>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’).</i> 	<p>AC drillholes in this program were angled. Intercept lengths are down-hole length.</p> <p>Orientations of mineralisation are not known but are expected to be sub-vertical to moderately dipping.</p>
Diagrams	<ul style="list-style-type: none"> • <i>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.</i> 	<p>Diagrams are included in this report, including locations, plans and sections and areas mentioned in the text.</p>
Balanced reporting	<ul style="list-style-type: none"> • <i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced avoiding misleading reporting of Exploration Results.</i> 	<p>All drill holes have been surveyed by hand-held GPS, which is considered an appropriate degree of accuracy for regional exploration air core drilling.</p> <p>For the exploration results, only significant and anomalous exploration results are reported and described.</p>
Other substantive exploration data	<ul style="list-style-type: none"> • <i>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.</i> 	<p>Geophysical data is described in the text. Details of the processing methodology are available in Table 1 of the September 2021 Quarterly report and in Table 1, part B: Geophysical inversions.</p>
Further work	<ul style="list-style-type: none"> • <i>The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> • <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i> 	<p>Further campaigns of drilling will be based on the completion of the current air core programme, followed by evaluation of the data. For better results, infill drilling is expected to delineate trends.</p> <p>Other drill rigs (RC or DD as appropriate) will execute any deeper follow up work.</p>

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	<ul style="list-style-type: none"> • <i>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</i> • <i>Data validation procedures used.</i> 	<ul style="list-style-type: none"> • Extensive review of all data has been completed. • Over 20% of assays, surveys and all collar information were checked against original data sets. Geological Logging was reviewed against the extensive



For personal use only

Criteria	JORC Code explanation	Commentary
		<p>collection of Core photos and reviewed where significant changes in the geological interpretation were identified.</p> <ul style="list-style-type: none"> • During this process, no material issues were identified. • Database is hosted in a secure datashed database managed by external company who validate and complete all importing and exporting of data.
Site visits	<ul style="list-style-type: none"> • <i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i> • <i>If no site visits have been undertaken indicate why this is the case.</i> 	<ul style="list-style-type: none"> • Several site visits where conducted, where the competent person visited site. • Geological discussions, Resource Estimation discussions and Diamond Drill core review was conducted during the data revie process. • The site visits allowed significant understanding of both the Wildwood deposit and Stawell Gold Mine estimation parameters to be understood and implemented.
Geological interpretation	<ul style="list-style-type: none"> • <i>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</i> • <i>Nature of the data used and of any assumptions made.</i> • <i>The effect, if any, of alternative interpretations on Mineral Resource estimation.</i> • <i>The use of geology in guiding and controlling Mineral Resource estimation.</i> • <i>The factors affecting continuity both of grade and geology.</i> 	<ul style="list-style-type: none"> • The confidence level of the wildwood geological interpretation is considered high, the control on mineralization, lithology types and deformation history are well understood by the Site team who have access to a long history of exploration and mining at the Stawell Gold Mine. • The data used for the interpretation is considered high quality after significant data review conducted. • Any changes in interpretation will have negligible effect on the volume or consistency of mineralization. Positioning changes may affect locations if interpretation of waterloo locations is changed. • Geology is heavily used in guiding the mineral resource estimation. The interpreted contact of the basalt is the major controlling structure of on mineralization, and as such the contact is used in control the interpreted domain boundaries.
Dimensions	<ul style="list-style-type: none"> • <i>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</i> 	<ul style="list-style-type: none"> • Approximate Wildwood Basalt dimensions <ul style="list-style-type: none"> ○ 2,500m Length ○ 325m Width ○ 750m Modelled Height • • Model Extents (Length x Width x



For personal use only

Criteria	JORC Code explanation	Commentary
		Height) <ul style="list-style-type: none"> • Maslin <ul style="list-style-type: none"> ○ 1,160m x 460m x 700m • Clontarf <ul style="list-style-type: none"> ○ 1,230m x 415m x 550m • Trinity <ul style="list-style-type: none"> ○ 910m x 480m x 570m
Estimation and modelling techniques	<ul style="list-style-type: none"> • <i>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</i> • <i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i> • <i>The assumptions made regarding recovery of by-products.</i> • <i>Estimation of deleterious elements or other non-grade variables of economic significance (e.g., sulphur for acid mine drainage characterisation).</i> • <i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i> • <i>Any assumptions behind modelling of selective mining units.</i> • <i>Any assumptions about correlation between variables.</i> • <i>Description of how the geological interpretation was used to control the resource estimates.</i> • <i>Discussion of basis for using or not using grade cutting or capping.</i> • <i>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</i> 	<ul style="list-style-type: none"> • The Mineral Resource estimate was created using a combination of Ordinary Kriging and Inverse Distance estimation methods, with the estimation constrained within wireframes generated in Leapfrog. Domain wireframes were defined from Diamond and RC drilling and guided by the geological model created in Leapfrog. • The Grade estimate is based on 1.0m downhole composites, chosen because it represents the dominant sample interval length. • 2019 review saw Detailed statistical and geological investigations completed including KNA analysis conducted in Snowden Supervisor in various locations on the domains to determine the optimum block size, minimum and maximum samples per search and search distance. The results of this study remain appropriate and have been incorporated in this model update. • High grade top cuts have been applied to two domains, to limit the influence of high-grade data. • No by-products or deleterious elements have been modelled or are relevant to the mine/economics or planning of extraction of the deposit. • Models have been rotated to 330 degrees from grid north, to best line up the long axis of blocks to the strike of mineralization. • A parent block size of 5 m (X) x 10 m (Y) x 10 m (Z) with a sub-block size of 1.0 m (X) x 2.0 m (Y) x 2.0 m (Z). The parent block size has been selected based on the average drill spacing and also by kriging neighbourhood analysis (KNA completed in 2019) to select a block with the best overall kriging efficiency, slope of regression and



For personal use only

Criteria	JORC Code explanation	Commentary
		<p>minimal negative kriging weights.</p> <ul style="list-style-type: none"> For all mineralized zones, the wireframes have been used as hard boundaries for the interpolation of gold grades. This is to ensure only gold grades within each wireframe have been used to estimate the block inside the same wireframe. The mineralised zones have been interpreted in 3D using nominal 0.5 g/t gold cut-off grade to define the boundary between mineralised and un-mineralised material. Although some intercepts below 0.5 g/t gold have been included for continuity purposes. Leapfrog Implicit Vein modelling was used to create the mineralized domains, with the interpreted basalt contact used as a reference surface to guide the implicit modelling. The composite gold data for all domains displays a positively skewed distribution as expected with this style of deposit. The composites for each mineralised domain have been analysed to identify any extreme values which could have an adverse effect on the grade estimation. Any extreme values identified have been applied top-cut based on log probability and log histogram plots to the value 22g/t Au.
Moisture	<ul style="list-style-type: none"> Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content. 	<ul style="list-style-type: none"> The Mineral Resource tonnage is reported using a dry bulk density and therefore represents dry tonnage excluding moisture content.
Cut-off parameters	<ul style="list-style-type: none"> The basis of the adopted cut-off grade(s) or quality parameters applied. 	<ul style="list-style-type: none"> The cut-off grade of 1.0g/t for the stated Mineral Resource estimate is determined from assumed mining, trucking and processing costs associated with the nearby Stawell Gold Mine plant and mining knowledge.
Mining factors or assumptions	<ul style="list-style-type: none"> Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining 	<ul style="list-style-type: none"> Mining factors were assumed to be low cost, selective surface mining practices, and potential selective underground mining techniques.



For personal use only

Criteria	JORC Code explanation	Commentary												
	<p><i>methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</i></p>	<table border="1"> <thead> <tr> <th>Mining Factors</th> </tr> </thead> <tbody> <tr><td>Mining recovery (%)</td></tr> <tr><td>Mining Dilution (%)</td></tr> <tr><td>Gold Price (AUD/ounce)</td></tr> <tr><td>Processing Recovery (%)</td></tr> <tr><td>Transport Costs (\$/km)</td></tr> <tr><td>Transport Distance</td></tr> <tr><td>Royalties (revenue)</td></tr> <tr><td>Processing Costs (per tonne)</td></tr> <tr><td>Mining Cost (per tonne)</td></tr> <tr><td>GradeControl and G&A (per tonne)</td></tr> <tr><td>Cut off Grade (gold g/t)</td></tr> </tbody> </table> <ul style="list-style-type: none"> • • • • Mining and Processing costs were provided by the North Stawell Team and are defined from actual and assumed experience. 	Mining Factors	Mining recovery (%)	Mining Dilution (%)	Gold Price (AUD/ounce)	Processing Recovery (%)	Transport Costs (\$/km)	Transport Distance	Royalties (revenue)	Processing Costs (per tonne)	Mining Cost (per tonne)	GradeControl and G&A (per tonne)	Cut off Grade (gold g/t)
Mining Factors														
Mining recovery (%)														
Mining Dilution (%)														
Gold Price (AUD/ounce)														
Processing Recovery (%)														
Transport Costs (\$/km)														
Transport Distance														
Royalties (revenue)														
Processing Costs (per tonne)														
Mining Cost (per tonne)														
GradeControl and G&A (per tonne)														
Cut off Grade (gold g/t)														
<p>Metallurgical factors or assumptions</p>	<ul style="list-style-type: none"> • <i>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</i> 	<ul style="list-style-type: none"> • Metallurgical test work was completed on Wildwood drill core and reported in the 2019 resource statement. The test work did not highlight any material issues. • Processing and Recovery of the mineral resource was assumed to be in line with the Stawell Gold Mine recovery and cost. 												
<p>Environmental factors or assumptions</p>	<ul style="list-style-type: none"> • <i>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a Greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</i> 	<ul style="list-style-type: none"> • It has been assumed that current or similar operational approaches, protocols and facilities applied to environmental factors at Stawell Gold Mine to continue for the duration of mine life. 												
<p>Bulk density</p>	<ul style="list-style-type: none"> • <i>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</i> 	<ul style="list-style-type: none"> • The bulk density measurements have been routinely taken across the ore zones using the water immersion method. • Weathering profile was modelled from geological logging with assigned 												



For personal use only

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <i>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</i> <i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i> 	<p>densities values summarized below.</p> <ul style="list-style-type: none"> Oxide - 2.1 Transitional - 2.4 Fresh - 2.8 Ore - 3.0 <ul style="list-style-type: none"> • Density measurements indicate an increase in density of mineralized material, which is in line with expectation given the silicification of the ore material as well as the significant sulphide material present. The Density values are in line with those used at the Stawell Gold Mine which reconcile with production figures closely.
Classification	<ul style="list-style-type: none"> <i>The basis for the classification of the Mineral Resources into varying confidence categories.</i> <i>Whether appropriate account has been taken of all relevant factors (i.e., relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</i> <i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i> 	<p>The classification criteria used is as follows:</p> <ul style="list-style-type: none"> Measured <ul style="list-style-type: none"> ○ Not used. Indicated <ul style="list-style-type: none"> ○ Drill Spacing less than 25m x 25m. ○ Drill angle of intersection better than 45 degrees ○ Ordinary Kriging estimation method employed. Inferred <ul style="list-style-type: none"> ○ Drill Spacing between 25mx 25m and 50m x 50m. ○ Inverse Distance estimation method employed. Unclassified <ul style="list-style-type: none"> ○ All other blocks • The Resource has been classified based on quality of the data collected, the density of data, the confidence of the geological and mineralization model, resource estimate, and the The application of these approaches is adequate to establish confidence. • The results of the mineral resource estimation and classification accurately reflect the Competent Persons view of the deposit.
Audits or reviews	<ul style="list-style-type: none"> <i>The results of any audits or reviews of Mineral Resource estimates.</i> 	<ul style="list-style-type: none"> • NA
Discussion of relative	<ul style="list-style-type: none"> <i>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an</i> 	<ul style="list-style-type: none"> • The Competent Person is of the opinion that the current block estimates provide a good estimate of tonnes and grades on



For personal use only

Criteria	JORC Code explanation	Commentary
accuracy/ confidence	<p><i>approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</i></p> <ul style="list-style-type: none"> <i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i> <i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i> 	<p>a global scale, which is appropriate given the classification of most of the Mineral Resources as either Indicated or Inferred.</p> <ul style="list-style-type: none"> The use of sectional validation plots comparing the estimated grades with the input composites by Easting, Northing and RL. The Competent Person considers that additional drilling or work on the Wildwood prospect will not significantly affect the potential economic extraction of the deposit