

## 2nd March 2022

# **Bullfinch North Gold-Nickel-Lithium Project, WA - Increased by 45% to 332km<sup>2</sup>**

- Agreement signed with NXT1 Pty Ltd for Purchase of E77/2652- Ennuin West
- Tenement lies over covered greenstone units on western, southern and northern margins of the Ennuin Granite in the Southern Cross Greenstone Belt
- E77/2652 and ENT's existing Bullfinch North E77/2325 now surround the Ennuin Granite completely, with prospectivity for gold, nickel/copper and lithium in pegmatites
- Key acquisition terms are 8,333,333 shares at 0.15cps equating to \$125,000 in Enterprise ordinary shares and a 1% Net Smelter Return Royalty to the vendors

Enterprise Metals Limited (ASX: ENT, "Enterprise", or "the Company") is pleased to advise that it has entered into an Agreement to acquire the Ennuin West Exploration Licence 77/2652 from NXT1 Pty Ltd. E77/2652 is located approximately 70Km to the north-west of Southern Cross and consists of 35 blocks (~103km<sup>2</sup>) and was granted on 7 July 2021. Refer Figure 1





### **Project Geology**

The Southern Cross Greenstone Belt is a NNE trending belt within the Southern Cross domain of the Youanmi Terrane. Regional gold deposits are known to be hosted in Banded Iron Formations (BIF's) and shear zones, associated with pyrrhotite, pyrite, galena, biotite, quartz and sphalerite.

The Project covers over 50km strike of the greenstone belt, and Terra Resources Pty Ltd's *"North Sheet"* geological interpretation is presented in Figure 2 below.



**Figure 2. Bullfinch North, Interpreted Bedrock Geology – North Sheet** (after Terra Resources)

#### **Exploration History**

Enterprise's first task regarding E77/2652 is to rapidly compile and review the available drilling data and drill logs in the DMIRS WAMEX database, and in particular focus on pegmatite occurrences in the drill logs. The potential for structurally controlled gold mineralisation on the southern margin of the Ennuin Granite will also be assessed.

The western margin of the current E77/2652 which is largely comprised of ultramafic rocks has seen a considerable amount of nickel exploration between 1968 and 2015, but the southern margin of the tenement with more mafic units has seen much less exploration.

During the nickel boom of 1968-69, International Mining NL discovered nickel sulphide mineralisation in ultramafic rocks at **Trough Well** on the eastern side of the Ennuin Granite. (within current E77/2325) Refer Figure 1.

This led to Kennecott Exploration in joint venture with Amoco Minerals undertaking exploration for nickel on the western side of the Ennuin Granite between 1969 and 1975. Work included aeromagnetic surveys, aerial photography, mapping, rock chip and soil sampling, trenching, ground magnetics and relatively primitive electromagnetic surveys. Auger, RAB, RC and limited diamond drilling was conducted to test the targets defined by the various surveys.

From 1985-1986, Western Mining Corporation undertook exploration within E77/73, on the Jackson One Project with Kennecott. Between 1988 and 1990, Troy Resources Ltd and Mawson Pacific Ltd undertook exploration of E77/176 and E77/224 east of Trough Well and the Mt Jackson Rd.

In 1992 E77/485 (70 Blocks,  $\sim$ 200km<sup>2</sup>) was granted to Dominion Gold Operations Pty Limited over the greenstone units on the western side of the Ennuin Granite, along with other tenements on the eastern side of the granite.

This tenement and Ennuin Project were subsequently taken over by Burmine Ltd and then Sons of Gwalia Ltd. Due to limited outcrop in most areas, extensive shallow RAB drilling on 1km spaced east-west lines was undertaken to locate blanket regolith hosted gold and arsenic anomalies, followed by RC drilling.

E77/485 was progressively reduced in 1997 and 1998 by 45 Blocks, and Polaris Metals NL took control of the tenement. Polaris joint ventured the tenement to Western Areas NL (WSA) in 2000 which did a considerable amount of exploration for nickel. In 2003 four mining leases (M77/1058-1062) were lodged over parts of E77/485. Polaris finally surrendered in E77/485 in December 2008.

Between 2008-2015 Southern Cross Goldfields Ltd (SXG) and WSA explored the northern part of current E77/2652 for lateritic and sulphide nickel. In 2012 a high resolution aeromagnetic survey was flown over the Trough Well and Ennuin West areas for SXG and its JV partner WSA. (total 6,746 line km at 100m line spacing with mean terrain clearance of 50m).

Since 2015, when the ground was surrendered by Black Oak Minerals Ltd (E77/2093), there has been little to no exploration undertaken.

## Background – Enterprise's Bullfinch North Exploration Project

On 24 May 2020 Enterprise entered into a 2 year "*Option to Purchase*" Terms Sheet with Nickgraph Pty Ltd, covering the Bullfinch North Project. The Option can be extended for a further 2 years. A separate 2 year option agreement was also entered into over the western margin of the greenstone belt and Lake Deborah with Mr Peter Gianni and that option expires on 24 August 2022.

The Southern Cross Greenstone Belt hosts more than 150 known gold deposits, which collectively have produced more than 10 million ounces of gold. The major gold deposits such as Frasers at Southern Cross, Marvel Loch, Nevoria, Great Victoria, Yilgarn Star and Copperhead (at Bullfinch) have produced the majority of these ounces. The great majority of these ounces were mined from deposits south of Bullfinch.

By comparison, competitor gold exploration north of Bullfinch was largely focused on relatively shallow drill testing of small historic outcropping gold workings, which failed to find any major new deposits. Other impediments to successful exploration included transported overburden on the eastern and western flanks of the belt and the previous fragmented tenement ownership.

The project area now stretches from Bullfinch in the south to north of Trough Well and covers approximately 50 strike km's (332 km<sup>2</sup>) of granted tenements over Archaean greenstone lithologies prospective for orogenic gold deposits, high-grade massive sulphide nickel-copper deposits and potentially lithium. Enterprise's primary focus has been on identifying gold targets for RC drill testing. However soil sampling for lithium has also been prioritised based on early orientation soil sampling of pegmatite occurrences south of Lake Deborah.

This ASX Announcement has been approved in accordance with the Company's published continuous disclosure policy and authorised for release by the Company's Board of Directors.

#### Further information, contact:

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#### **Competent Person Statement**

The information in this report that relates to Exploration Activities and Results is based on information compiled by Mr Dermot Ryan, who is an employee of Montana Exploration Services Pty Ltd and a Director and security holder of the Company. Mr Ryan is a Fellow of the Australasian Institute of Mining and Metallurgy and a Member of the Australian Institute of Geoscientists and has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Ryan consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

#### References

*30/09/2021:* ENT ASX Release: "Bullfinch North Project High Priority Gold Targets Identified in Regional Review" (by Terra Resources Pty Ltd)

2/12/2021: ENT ASX Release: "Ennuin Gold Target Selected for RC Drill Testing at Bullfinch North WA"

19/01/2022: ENT ASX Release: "Exploration for Lithium Commencing North of Southern Cross."

# JORC Code, 2012 Edition – Table 1 report E77/2652

# Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriateto 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 representivityand the appropriate calibration of any measurement tools or systemsused.</li> <li>Aspects of the determination of mineralisation that are Material to thePublic Report.</li> <li>In cases where 'industry standard' work has been done this would berelatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g chargefor fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	No sampling is reported in the announcement
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, tripleor 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>	No drilling results are reported
Drill samplerecovery	<ul> <li>Method of recording and assessing core and chip sample recoveriesand results assessed.</li> <li>Measures taken to maximise sample recovery and ensurerepresentative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and gradeand whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	No drilling results are reported
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate</li> <li>Mineral Resource estimation, mining studies and metallurgicalstudies.</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>	No drilling results are reported
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all coretaken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc andwhether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of thesample 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 insitu 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 materialbeing sampled.</li> </ul>	No sampling is reported



#### ACN 123 567 073

Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is consideredpartial 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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levelsof accuracy (ie lack of bias) and precision have been established.</li> </ul>	No sampling is reported
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent oralternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, dataverification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>No sampling is reported</li> </ul>
Location ofdata points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar anddown-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>	No sampling is reported
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish thedegree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>No sampling is reported</li> </ul>
Orientation of data in relation to geological structure	<ul> <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>	<ul> <li>No sampling is reported</li> </ul>
Samplesecurity	The measures taken to ensure sample security.	No sampling is reported
Audits orreviews	The results of any audits or reviews of sampling techniques and data.	No sampling is reported

# **Section 2 Reporting of Exploration Results**

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership includingagreements 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 anyknown impediments to obtaining a licence to operate in the area.</li> </ul>	The tenement details for the E77/2652 are included in the report. NXT1 Pty Ltd is the registered Holder.
Exploration	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>The report's author has had regard to publicly available information on file in the WAMEX system of the Western Australian Department of Mines, Industry Resources and Safety.</li> <li>A full review of historical exploration data has not yet been completed.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>Relevant information regarding the geological setting of theTenement is set out in the report.</li> </ul>
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following informationfor all Material drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level inmetres) 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>	No drill hole information is reported
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg 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 ofsuch aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	No drill hole information is reported
Relationship between mineralisation and intercept lengths	<ul> <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 (eg 'down hole length, true width not known').</li> </ul>	No drill hole information is reported
Diagrams	<ul> <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</li> <li>drill hole collar locations and appropriate sectional views.</li> </ul>	<ul> <li>Maps are included in the announcement.</li> </ul>
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	No exploration results are reported

Criteria	JORC Code explanation	Commentary
Relationship between mineralisation widths and intercept lengths	<ul> <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 (eg 'down hole length, true width not known').</li> </ul>	No drill hole information is reported
Diagrams	<ul> <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>	<ul> <li>Maps are included in the announcement.</li> </ul>
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	No exploration results are reported
Other substantive explorationdata	<ul> <li>Other exploration data, if meaningful and material, should be reportedincluding (but not limited to): geological observations; geophysical</li> <li>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</li> </ul>	<ul> <li>Assessment of further exploration data has not yet been undertaken. No other material and meaningful exploration data information is presently available.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateralextensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas,</li> <li>provided this information is not commercially sensitive.</li> </ul>	<ul> <li>The Company will conduct review of historical exploration data and other project information. Further work will be planned following that review.</li> </ul>