

Up to 0.97% Li₂O in RC Holes at Mandilla Project, WA

- 12 metres at 0.45% Li₂O from pegmatites at Mandilla from 52 metres depth in MERC010
- Peak assay of 0.97% Li₂O% in MERC011 from 48-50 metres
- Supporting intervals of 8m @ 0.3% Li₂O & 7m @ 0.4% Li₂O in MERC011 (from 36m and 48m depths respectively)
- Lithium in weathered and fresh pegmatites remains open in all directions

Enterprise Metals Limited (ASX: ENT) ("Enterprise" or the "Company") has identified pegmatites with significant lithium mineralisation at drill sites within the Mandilla project, near Widgiemooltha, Western Australia. The reverse circulation (RC) drilling program was undertaken in late 2021 to test for potential gold mineralisation below a soil covered felsic volcanic unit on the eastern margin of the intrusive Mandilla Syenite.

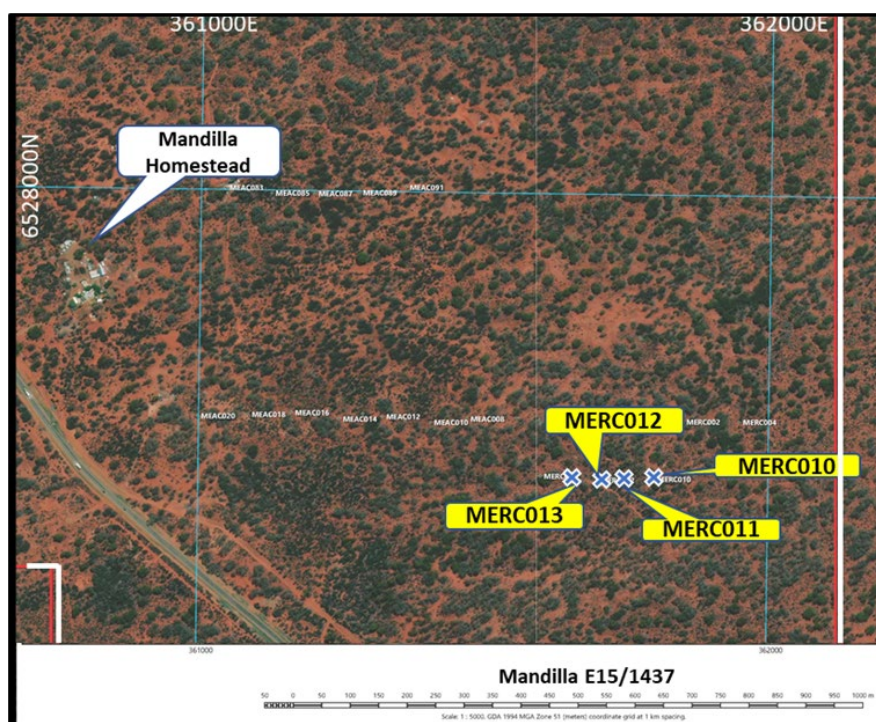
Enterprise announced on 27 April 2022 that lithium values of +1,000ppm were reported by MinAnalytical Laboratory Services using mass spectrometry that exceeded an upper detection limit of 1,000ppm.

Subsequently Enterprise submitted a limited number of Mandilla sample pulps from three RC holes to Labwest Minerals Analysis Pty Ltd for ICPMS analysis, with enhanced sensitivity in detecting and analysing lithium. LabWest has now reported lithium results for the three Mandilla -60° angled RC holes that were sampled for lithium:

MERC010: 12 m @ 0.45% Li₂O from 52 m depth

MERC011: 8 m @ 0.29% Li₂O from 36 m depth and 7 m @ 0.37% Li₂O from 48 m depth.

Figure 1. Image Showing Mandilla RC (MERC) Drill Hole Collars



The results of the lithium and associated element analyses confirm that the pegmatites logged at the Mandilla Project area are L-C-T (lithium-caesium-tantalum) related pegmatites. Refer Table 1 below for actual intervals and analyses.

Table 1. Mandilla RC holes MERC010, 011 & 013
LabWest Analytical Results (Composite samples) in Parts per Million (ppm) and Li₂O %.

Sample No	Hole Id	From	To	Ga	Rb	Nb	Sn	Cs	Ta	Tl	Be	Li	Eq. Li ₂ O
		(m)	(m)	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
Lower Detection Limit				0.05	0.1	0.01	0.02	0.03	0.001	0.003	0.01	0.05	
E01102003	MERC010	52	56	31	3240	4.7	21.7	121	0.012	12.5	8.41	2,140	0.46
E01102004	MERC010	56	61	42.8	3390	11.2	36.7	184	0.018	14.2	9.89	2,990	0.64
E01102005	MERC010	61	64	13.6	251	0.56	2.06	33.1	0.005	1.77	1.16	512	0.11
E0402069	MERC011	36	40	17.7	298	0.27	2.88	85.9	0.004	1.88	4.51	363	0.08
E0402070	MERC011	40	44	19.8	426	0.31	7.86	140	0.004	2.68	4.92	541	0.12
E0402072	MERC011	48	50	41.8	4420	8.52	33.8	283	0.048	19.1	8.37	4,490	0.97
E0402073	MERC011	50	55	18.4	400	0.49	8.58	91.1	0.005	2.18	4.47	632	0.14
E0402116	MERC013	56	60	27.9	193	0.57	2.26	23.5	0.004	0.745	2.26	158	0.03
E0402117	MERC013	60	64	28.1	197	0.58	2.34	37.9	0.004	0.739	1.1	227	0.05
E0402118	MERC013	64	68	22.2	433	0.28	5.61	200	0.009	2.4	1.37	272	0.06
E0402119	MERC013	68	72	17.1	147	0.65	1.85	65.8	0.006	0.858	0.69	286	0.06

NEXT STEPS

Enterprise is planning RC drilling to define the aerial extent, geometry and nature of the pegmatite or pegmatites, and the bedrock grade of lithium related mineralisation.

ABOUT THE MANDILLA PROSPECT

The Mandilla Prospect is located in the Widgiemooltha greenstone belt in the western part of the Kalgoorlie geological domain, some 100 kilometres south of Kalgoorlie by road and 20 kilometres south west of Kambalda. Significant nickel and gold deposits are present in the belt, with the nearest mined gold deposit being the high-grade Wattle Dam Mine located approximately 3 km to the west of Mandilla.

The Mandilla Prospect lies on the eastern margins of the Mandilla Syenite. The syenite intrudes volcanoclastic sedimentary rocks in the area which form part of the Spargoville Group.

Significant NW to WNW and NE trending structures along the western flank of the tenements are interpreted from regional aeromagnetic data to cut through the Mandilla Syenite and may be important in localising gold mineralisation within the Mandilla Syenite.

Enterprise's target at Mandilla is primary gold mineralisation, similar to that discovered on the western margin of the Mandilla Syenite by Astral Resources NL (AAR: ASX:).

AAR's drilling has demonstrated that shallow low grade gold intersections in saprolite and saprock may overlie primary gold mineralisation. Refer Figure 2 for location of Mandilla Project and Figure 3 for surface geology plan.

Figure 2. Mandilla Project Location Plan

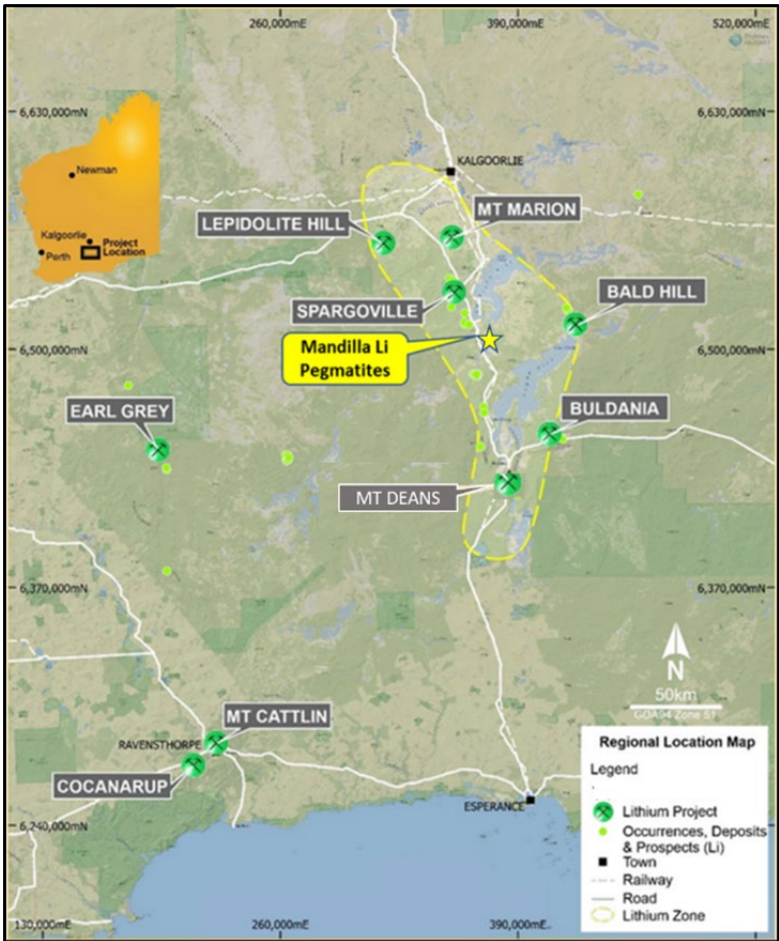
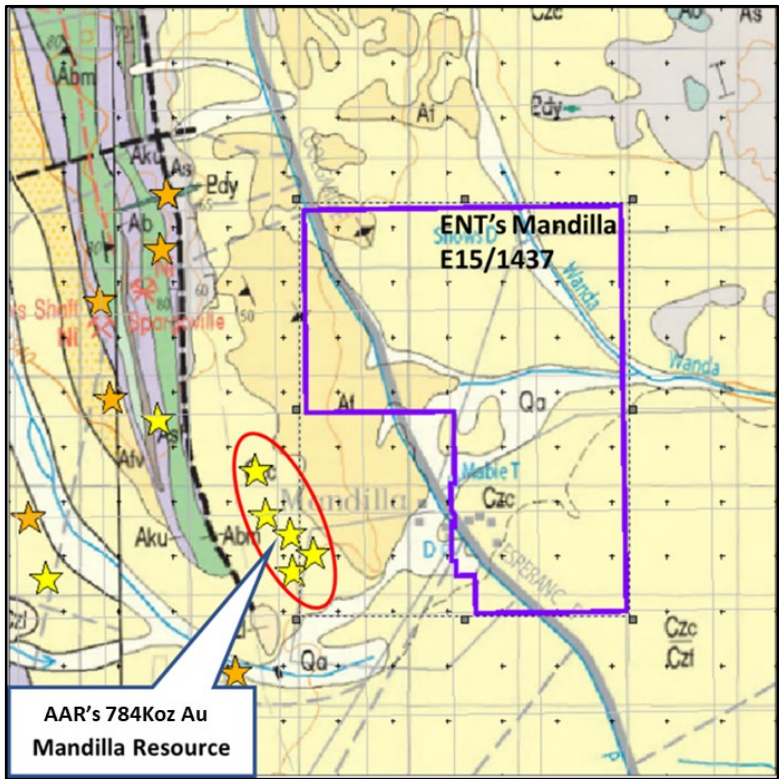


Figure 3. GSWA Surface Geology Plan Showing Cainozoic & Quaternary Cover West of Coolgardie-Esperance Highway



Footnote: While L-C-T pegmatites are commonly hosted in Archaean amphibolite units adjacent to late stage “S type” granites in Western Australia, the Tanco Lithium deposit in Canada is an example of a pegmatite hosted lithium deposit within a volcanic sequence. As explorers we need to keep an open mind about new or unusual models.

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.

Dr Allan Trench
Chairman
Enterprise Metals Limited

COMPETENT PERSON STATEMENT

The information in this report that relates to Exploration Activities and Results is based on information compiled by Mr Dermot Ryan of Montana Exploration Services Pty Ltd, who is a Director and security holder of the Enterprise Metals Limited. 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.

Appendix 1. 2021 Mandilla RC Drill Collar Details

Hole ID	GDA_94_51 East	GDA_94_51 North	RL (m)	Azimuth (deg)	Dip (deg)	EOH (m)
MERC001	361800	6527600	315	270	-60	109
MERC002	361849	6527602	314	270	-60	97
MERC003	361893	6527601	314	270	-60	106
MERC004	361948	6527603	313	270	-60	70
MERC005	361507	6528604	314	270	-60	84
MERC006	361749	6527606	312	90	-60	82
MERC007	361701	6527597	312	90	-60	112
MERC008	361648	6527598	311	270	-60	100
MERC009	361600	6527597	312	270	-60	76
MERC010	361799	6527501	311	90	-60	79
MERC011	361750	6527500	311	90	-60	80
MERC012	361700	6527498	311	90	-60	82
MERC013	361648	6527500	311	90	-60	79
MERC014	361600	6527504	311	90	-60	82
MERC015	361488	6528518	311	90	-60	79
MERC016	361496	6528692	311	270	-60	73
MERC017	361447	6528700	311	270	-60	64
MERC018	360855	6529100	309	270	-60	73
MERC019	360903	6529093	313	270	-60	73
MERC020	360860	6528801	310	270	-60	70
MERC021	360895	6528799	312	270	-60	68
MERC022	361501	6527603	312	270	-60	70
TOTAL						1,808

JORC Code, 2012 Edition , Table 1.

Mandilla Prospect WA

Section 1 Sampling Techniques and Data

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

Criteria	Commentary
<i>Sampling techniques</i>	<ul style="list-style-type: none"> Enterprise's 2021 slimline RC drilling program was undertaken to follow up 2020 aircore drilling results and a 2021 3D-IP survey. Each 1m of drilled sample was sub-sampled in a rotary splitter attached to the drill rig, with ~2kg sample collected in a metre labelled calico bag, and the remainder collected in a 20 litre PVC pail. The bulk pail samples were tipped onto pre-cleared ground in rows of 10 or 20 samples, and the 1m split in a numbered calico bag was placed behind the bulk residue. Each 1m bulk sample on ground was scoop sampled with a PVC scoop to create a 4-metre representative composite sample. All samples weighed between 2-3kg. All samples were dry 4m composite samples were dispatched to Intertek Genalysis Laboratory in Kalgoorlie for Au and 12 pathfinder elements. Sample preparation was comprised of oven drying, pulverising and splitting to produce a representative 10 gm assay charge pulp. The 10gm pulps were then then submitted for Aqua Regia digest, and read by ICP-ICP-MS for 13 element pathfinder suite, Au, Ag, As, Bi, Co, Cu, Mo, Ni, Pb, Sb, Te, W and Zn, [AR25PATH] In 2022, Enterprise submitted aircore and RC pulps for pXRF Li-Index analysis and Mass Spectroscopy analysis for Lithium and associated minerals.
<i>Drilling techniques</i>	<ul style="list-style-type: none"> The slimline drilling was undertaken by Impact Drilling Services and RIG 10. A Drill Rig mounted on a S30 truck, and a MAN 4 x 4 Air Truck with a Sullair 1350/500 Booster. 3.5metre long aircore/reverse circulation rods were used, with a slimline down hole hammer and a108mm diameter tungsten carbon button bit.
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> Poor sample recoveries were visually estimated and recorded on sample log sheets. The sample cone splitter was routinely cleaned with compressed air at the end of each rod run (3m) or when deemed necessary. There is insufficient data to determine if there is a sample bias between sample recoveries and assay grades.
<i>Logging</i>	<ul style="list-style-type: none"> Geological logging of aircore drill spoils was done on a visual basis for lithology, grainsize, mineralogy, colour and weathering. Logging was further aided with the collection of 1m chip trays which were then photographed. All drill holes were logged in their entirety.
<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none"> Each 1m of drilled sample was sub-sampled in a rotary splitter attached to the drill rig, with ~2kg sample collected in a metre labelled calico bag, and the remainder collected in a 20 litre PVC pail. The bulk pail samples were tipped onto pre-cleared ground in rows of 10 or 20 samples, and the 1m split in calico bag was placed behind the bulk residue. Each 1m bulk sample on ground was scoop sampled with a PVC scoop to create a 4-metre representative composite sample. At End of Hole, 4m compositing may have been replaced with 2m, 3m or 5m compositing. Field QAQC reference samples and duplicates were not routinely submitted with each 4m composite sample batch. QAQC reference samples and duplicates were placed with 1m original sample splits.

<i>Quality of assay data and laboratory tests</i>	<ul style="list-style-type: none"> All samples were processed by NATA accredited provider - Intertek Genalysis. 1m sample preparation at Genalysis in Kalgoorlie was comprised of oven drying, pulverising and splitting to produce a representative 10gm assay charge pulp. The 10gm pulps were then submitted to Genalysis in Perth for Aqua regia digestion, with 10gm samples analysed using method ICP-MS AR10/MS33 for 33 elements including gold and Ag, Al, As, B, Ba, Bi, Ca, Cd, Ce, Co, Cr, Cu, Fe, K, La, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Sc, Sr, Te, Ti, Tl, V, W, Zn and Zr. The laboratory routinely undertook analysis of duplicate pulps and house standards, and these results were reported electronically by the laboratory in both pdf and CSV format. In 2022, selected drill pulps from pegmatitic lithologies were sent for Li_Index analysis at Portable Spectral Services Pty Ltd in West Perth, and duplicate pulps were sent to MinAnalytical Services Pty Ltd for 4 acid digest and Mass Spectroscopy (MA40MS) and Optical Emission Spectroscopy (MA40OES).
<i>Verification of sampling and assaying</i>	<ul style="list-style-type: none"> Field data was collected on site using a standard set of logging codes. Data was then uploaded into an Access database. Assays reported from the laboratory were stored in the Company database and have not been adjusted in any way. Significant intersections were verified by senior exploration personnel.
<i>Location of data points</i>	<ul style="list-style-type: none"> The drill hole collar was surveyed with a handheld GPS unit with an accuracy of $\pm 5\text{m}$ which is considered sufficiently accurate for the purpose of the reconnaissance drill hole program. All co-ordinates are expressed in GDA94 datum, Zone 51.
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> The slimline RC drilling was conducted at three locations on GDA 94 located east-west lines. From the rotary splitter a ~2kg representative 1m sample was collected and stored on site in a calico bag. Each 1m bulk sample on ground was scoop sampled with a PVC scoop to create a 4-metre representative composite sample. At End of Hole, 4m compositing may have been replaced with 2m or 3m or 5m compositing.
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> No surface geology was available to determine stratigraphy or structure. All holes were drilled at -60 degrees, but drill hole spacing was insufficient to define geological structure.
<i>Sample security</i>	<ul style="list-style-type: none"> Each 1m sample was put into a metre labelled draw string calico bag and tied off and stored on site. Each 4m composite sample was put into a pre-numbered draw string calico bag, tied off and then approximately 8 bags were placed in a polyweave bag which was zip tied and labelled. The polyweave bags were delivered directly to the Intertek Genalysis Laboratory in Kalgoorlie by company personnel for sample preparation, and the pulps were then sent by courier to the Genalysis Laboratory in Perth for analysis.
<i>Audits or reviews</i>	<ul style="list-style-type: none"> As the 4m composite assay data has just been received, no external reviews have yet been undertaken. The Company will carry out Internal audits, reviews and external audits of procedures and data when further assay data including selected 1m samples are collected and assayed.

Section 2 Reporting of Exploration Results

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

Criteria	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> The Mandilla Prospect is comprised of one granted Exploration Licence 15/1437 and one Prospecting Licence 15/5885 in the name of Vera Olive ALLEN. Exploration Licence 15/1437 was granted on 18 March 2015 for 5 years, and an Extension of Term to 17 March 2025 was granted by DMIRS on 11 May 2020. Prospecting Licence 15/5885 was granted on 19 September 2014 and expires on 18 September 2022. The Tenements are in good standing and there is no known impediment to exploration on the eastern side of the Coolgardie-Esperance Highway. The area west of the highway contains outcrop and is known as Emu Rock. It is believed that this is a heritage site. The two granted Tenements are on Vacant Crown Land which was formerly Mandilla Pastoral Lease. A public sealed highway, a water pipeline and high pressure gas line occur on easements excised from the Tenements. The Marlinyu Ghoorlie NT Claim (WC2017/007) covers the whole tenement area and was filed on 22 December 2017. The Claim entered the Register on 28 March 2019. There is currently no Native Title Heritage Agreement in place between the NT Claimant and Tenement Holder as the Tenements were granted before the filing of the Claim.
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> From the late 1960's to the early 1980's, exploration in the Widgiemooltha area was focused on nickel exploration. In 1981 Newmont Holdings Pty Ltd explored the Spargoville Project for stratabound volcanogenic gold mineralisation. The exploration model was based on the Spargos Reward deposit. The JV covered a 186 km² in a narrow 40 km long block of contiguous tenements extending from north of the Spargos Reward Mine southwards to Widgiemooltha. Newmont's focus was largely around Spargoville, but they undertook reconnaissance E-W lines of rotary airblast (RAB) drilling throughout the belt with bottom hole sampling and assaying for gold and arsenic only. The RAB assay results in the Mandilla area were not encouraging. Newmont undertook wide spaced reconnaissance lines of IP throughout their project area in 1983, and one of these lines (Line 33500N) was placed east-west just south of the Mandilla homestead. The Spargoville East IP surveys were undertaken by Goanna Exploration Pty Ltd using Newmont's IP equipment. A Hunter 7.5KVA transmitter/generator unit operating on a 2.0 seconds 'on' and 2.0 sends 'off' was used. The receiver was an Elliot R10-A, with a dipole-dipole array. The dipole lengths were 50m and dipole separations expanded from 50 to 300m. (<i>Wamex a14616</i>) In 1987, WMC Resources Ltd entered into a JV with Camira Mines NL, to explore E15/116. WMC collected 3,757 -10# soil samples from the 40km² tenement. The soil survey defined two gold soil anomalies adjacent to the granite-sediment contact west of the Mandilla Homestead. The southern anomaly was defined by a 20ppb Au contour, with peak values up to 150ppb Au, extending over 800m of strike. The northern anomaly was defined by a 10ppb Au contour extending over 600m. Some 117 of the 3,757 soil samples were located on the current Mandilla tenements E15/1437 & P15/5885. Between 1990-1997, under the "Widgiemooltha Project" banner, WMC held a very substantial block of tenements from ~30km south of Higginsville to ~20km north of Widgiemooltha. WMC was targeting both nickel and gold deposits.

<p><i>Exploration done by other parties cont'd</i></p>	<ul style="list-style-type: none"> • Most of WMC's exploration occurred immediately to the west of the current Mandilla Prospect tenements E15/1437 & P15/5885 (ie. within current Anglo Australian Resources NL's Mandilla Project tenements) but a small amount overlapped into current E15/1437 and P15/5885. • In 1991-1992 WMC undertook extensive -6mm bulk soil sampling programs on a 400m x 100m grid and some aircore drilling. In June 1993, E15/116 was converted to Mining Lease 15/633. • As part of this large regional AC program, WMC reported that 43 shallow aircore holes (647m) were drilled within M15/633 over a gold soil anomaly in the vicinity of the Mandilla Homestead. (in what is now E15/1437). The drilling was undertaken on east-west lines, 200m apart, with 40m hole spacing. (AC holes WID1908, WID1910 – WID1928 and WID1930 - WID1952). WMC reported the bottom 3m results of all holes as 0.02ppmAu. • WMC undertook a partial surrender of E15/116 in 1990 which was picked up by AngloGold Australia Ltd as E15/660. AngloGold undertook an extensive soil auger drilling program (400m x400m, 766 holes/1,150m, average 1.5m depth) with RAB drilling (106 holes/3,922m) to follow up of soil geochemical anomalies. The eastern half of E15/1437 was covered by this soil auger drilling program. (128 samples) • Three of AngloGold's RAB holes (LFRB102,103 & 105, for total 149m) were drilled in the NE corner of current tenement E15/1437. The peak assay from AngloGold's 106 RAB hole program was recorded in LFRB105: 4m at 0.028 ppm Au from 52-56m. • In 2001 WMC sold its St Ives and Agnew gold assets to subsidiaries of Gold Fields Limited. The Mandilla tenements M15/96 and M15/633 were part of this package. In 2004 Anglo Australian Resources NL ("AAR") purchased the gold rights of the Mandilla Project (M15/96 & M15/63) from Gold Fields. • The whole of the Mandilla Project was covered by the 2004 low level airborne geophysical survey by UTS Geophysics. Total field magnetic data, radiometric data and digital terrain information was collected on 50m spaced east-west lines at a sensor height of 30m. The survey consisting of 963 line kilometres was part of a much larger multiclient survey. • In August 2014 William Royce Allen applied for the surrendered portion of M15/633 as Exploration Licence 15/1437, which was granted for 5 years on 18 March 2015. From 2015 to 2019, William Allen and family metal detected and prospected on E15/1437 for gold nuggets. • Based on observations of panned samples from ~150 shallow auger holes drilled by Mr Allen on E15/1437, it was concluded that these nuggets had most likely weathered out of the syenite and had concentrated in the easterly draining channel that drains to Lake Lefroy some 10 kilometres to the east of Mandilla. • The eastern portion of the Mandilla Syenite (E15/1437) has been explored by soil sampling and sparse shallow RAB drilling by Newmont, WMC and AngloGold, which has been largely ineffective.
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<i>Geology</i>	<ul style="list-style-type: none"> Regional geological setting is interpreted to be Archaean mafic sequence of rocks wrapped around younger intrusive Archaean granites, based on GSWA regional airborne magnetic surveys and previous GSWA geological mapping. The Mandilla Prospect lies on the eastern margin of the Mandilla Syenite, a porphyritic granitic intrusion. The granite intrudes volcanoclastic sedimentary rocks in the area which form part of the Spargoville Group. Significant NW to WNW and NE trending structures along the western flank of the tenements are interpreted from regional aeromagnetic data to cut through the Mandilla Syenite and may be important in localising gold mineralisation within the Mandilla Syenite. Note: there is very little exposed bedrock in most of the current tenement area as basement is obscured by alluvium and palaeo-channel material over saprolitic clays.
<i>Drill hole Information</i>	<ul style="list-style-type: none"> Enterprise has digitised the small amount of historical shallow WMC aircore drill hole information in the vicinity of the Mandilla Homestead, and the three aircore holes in the NE corner of E15/1437, and the Newmont RAB data. For details of Enterprise 2020 aircore drilling program, refer ENT- ASX release dated 21 Sept 2020
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> Enterprise submitted selected 1m RC samples for further analysis gold and base metals analysis, and undertook a Stage 2 slimline RC program over the contact between the Mandilla Syenite and adjacent intrusive felsic porphyry No data aggregation was undertaken for the 2022 Lithium analyses and associated minerals. In 2022 Enterprise retrieved sample pulps believed to be pegmatitic on the basis of lithological drill logs and sent sample pulps to Portable Spectral Services Pty Ltd in West Perth, and duplicate pulps were sent to MinAnalytical Services Pty Ltd for 4 acid digest and Mass Spectroscopy (MA40MS) and Optical Emission Spectroscopy (MA40OES). Refer ASX release 27 April 2022. On 28 September 2022 Enterprise sent pulps of composite samples from three RC to Labwest Minerals Analysis Pty Ltd for analysis using microwave digestion in closed propylene test tubes using a low detection level ICPMS methodology (Method T-AP-028), and a higher upper detection limit than MinAnalytical Services Pty Ltd.
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> Drillhole intercepts and intervals were measured downhole in metres.
<i>Diagrams</i>	<ul style="list-style-type: none"> Refer to Figures in main body of this report.
<i>Balanced reporting</i>	<ul style="list-style-type: none"> All relevant exploration data has been assessed, and is considered inadequate due to the shallow, surficial nature of the historical soil sampling.
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> Enterprise used the 2004 low level airborne geophysical survey by UTS Geophysics. Total field magnetic data, radiometric data and digital terrain information was collected on 50m spaced east-west lines at a sensor height of 30m. In 2020, Enterprise undertook an 121 hole AC drilling program to blade refusal (total 2,408m), and in March 2021 Enterprise undertook a 3D-IP survey along the Ausrox Shear zone. Refer ENT ASX releases 21 Sept 2020, 16 March and 21 April 2021.
<i>Further work</i>	<ul style="list-style-type: none"> Due to lack of any surface geology, Enterprise is planning further RC drilling to define the aerial extent, geometry and nature of the pegmatite or pegmatites, and the primary grade of any lithium related mineralisation.