

10,000m Aircore Drilling Program Underway at Lake Yindana

Long-awaited heritage surveys now complete ahead of initial aircore drilling

- Multiple targets being drill tested within a previously unrecognised greenstone belt within the Laverton Tectonic Zone
- The drill rig is expected to complete the 10,000m program this year with results due in early 2024
- Exploration programs present an excellent first mover opportunity in a new search space of an effectively unexplored 25km greenstone belt

West Australian-based explorer E79 Gold Mines Limited (**ASX: E79**) ('E79 Gold' or 'the Company') is pleased to advise that a large-scale aircore program has finally commenced at Lake Yindana, following on from successful heritage surveys.

E79 Gold CEO, Ned Summerhayes, said: *"Lake Yindana represents an excellent exploration opportunity for E79 Gold, with over 25km of underexplored greenstone within the world-class Laverton Tectonic Zone. Long awaited heritage surveys are now complete, with no impediments, and the 10,000m aircore drilling program is now underway.*

We have been working for nearly 2 years to get heritage access to Lake Yindana, so we are delighted to have finally completed the necessary heritage surveys ahead of the aircore program. We will drill test 8km of strike over an unexplored greenstone belt, and also test in the vicinity of a late intrusion into the greenstone belt. Drilling should be completed before the end of the year."

ASX Code: E79

Shares on issue: 81M Market capitalisation: 5.5M Cash: \$3.344M (30 September 2023) ABN 34 124 782 038

Head Office

Level 1, 168 Stirling Hwy Nedlands, Western Australia 6009 T: +61 8 9287 7625 E: info@e79gold.com.au W: e79gold.com.au



Laverton South Project

Pinjin (100%) and Lake Yindana (100%)

The Laverton South Project, with an area of 272km², covers a southern portion of the Laverton Tectonic Zone ('LTZ') approximately 130km east-northeast of Kalgoorlie, within the major gold producing Archean Yilgarn Craton of Western Australia. Within the Laverton South Project are the exploration areas of Pinjin and Lake Yindana (Figure 1).



Figure 1. Tenement location map of Laverton South



Lake Yindana (E28/2659, E28/3239) E79 100%

Lake Yindana, with an area of 132km², sits between Ramelius Resources +1Moz Rebecca and +1Moz Bombora gold projects, with both within 25km of the tenements (Figure 1).

The Project area was historically mapped on a regional scale as a large granite body, resulting in very limited exploration for gold. E79 undertook a ground gravity survey, which, along with the regional magnetic data, identified an underexplored greenstone belt which runs for ~25km through the Project (see Figure 3). This discovery has created a new search space as previous explorers did not target the prospective greenstone. An historic RAB drilling programme for diamond exploration from 1984 (not assayed for gold) identified greenstone lithologies including granite, gabbro, ultramafic and granitic gneiss . The latter is an important rock type as it hosts the nearby 1.4Moz Rebecca Gold Project¹. The company will test 8km of this greenstone with aircore drilling to identify potential gold mineralisation.

Along with the greenstone belt the gravity survey highlighted circular features interpreted by E79 Gold to be late intrusions into the greenstone belt. These demagnetised features themselves become possible gold targets, as well as creating potential structural targets in 'pressure shadows', which have the ability to host economic gold. The main interpreted intrusion feature will be tested by the current aircore program.

The 10,000m aircore program is planned to finish by the end of the year with final results returning from the lab in early 2024.

¹ Refer to Ramelius Resources Annual Report 20 October 2023





Figure 2. Aircore rig at Lake Yindana drilling the initial hole of the program





Figure 3: Lake Yindana showing coloured Gravity over greyscale Magnetic images, with the two main gold targets labelled



Planned and Recent Activities

E79 Gold is an active explorer with upcoming activities including:

- > November 2023 Commence large scale AC drilling at Lake Yindana
- November 2023 Commence large scale Auger programs at Southern Murchison Project
- > **November 2023** Present at RIU Resurgence Conference, Perth
- > November 2023 E79 Gold Mines AGM
- > February 2024 Commence large scale AC drilling at Murchison Project
- > February 2024 Present at the RIU Explorers Conference, Fremantle
- > April 2024 Follow up drilling at Laverton South

Our motto: Money in the ground.

Yours sincerely,



Ned Summerhayes

Chief Executive Officer

The information in this report that relates to Exploration Results is based on information compiled by Mr Ned Summerhayes, a Competent Person who is a member of the Australian Institute of Geoscientists. Mr Summerhayes is a full-time employee, a shareholder and an option holder of the Company. Mr Summerhayes 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'. Mr Summerhayes consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Authorised for release by the CEO of E79 Gold Mines Limited.

For Further Information, please contact:

E79 Gold Mines Limited	Media Enquiries:
Phone: 08 9287 7625	Nicholas Read – Read Corporate
info@e79gold.com.au	Phone: 08 9388 1474



About E79 Gold Mines

E79 Gold has ~1,018km² of prospective ground within its two flagship projects, the Laverton South Project in the world-class Laverton gold district and the Jungar Flats Project in the North Murchison region (Figure 4). E79 Gold is constantly reviewing third-party opportunities that have the potential for shareholder value through discovery.

Laverton South Project

Lake Yindana (100%) and Pinjin (100%)

The Laverton South Project, with an area of 271km², covers a southern portion of the Laverton Tectonic Zone ('LTZ') approximately 130km east-northeast of Kalgoorlie, within the major gold producing Archean Yilgarn Craton of Western Australia.

The LTZ is one of the world's richest gold belts with more than 30 million ounces (Moz) in historical production, Ore Reserves and Mineral Resources and hosts numerous prolific producers including Granny Smith (3.7Moz), Sunrise Dam (10.3Moz) and Wallaby (11.8Moz)².

Over 350km² of gravity surveys have been undertaken by E79 Gold to identify prospective targets for exploration and ~1000 surface samples have been taken aimed at exploring the prospective ground. This has culminated in over 50,000m of drilling to date since listing.

Within the Laverton South Project are two tenement packages, Lake Yindana and Pinjin. These projects sit within 25km of Ramelius Resources +1MOZ Rebecca and Bombora gold projects, and contain multiple greenfields targets,

Murchison Project

Jungar Flats

(E51/1975, E51/1803, E51/1848, E20/0926, E51/2122) 100%, (E51/1681) 100% of Mineral Rights (Excluding Iron Rights)

The Jungar Flats Project, in the North Murchison region, is located 70km west of Meekatharra and 45km north-northeast of the 2.8Moz Big Bell gold deposit. The Project tenure covers an area of 698km², contains approximately 60km of strike of the highly prospective Big Bell Shear, and straddles a narrow north-south trending greenstone belt.

² Refer to E79 Gold Mines Prospectus



E79 Gold has completed 541km² of gravity surveys and ~3000 surface samples since listing; this has culminated in multiple advanced follow-up targets for drilling, with over 50,000m of drilling completed since listing, including 5,000m of follow up RC drilling.

The area is prospective for gold, base metals, lithium, iron ore and platinum group elements (PGE's).



Figure 4: Yilgarn Craton Greenstones showing Project locations



Drill details from 1984 RAB drilling over Lake Yindana. No RL's were supplied in the historic report.

Hole ID	Drill type	Depth	Datum	East	North	Azimuth	Dip
LY0001	RAB	21	MGA94_51	478189	6610609	0	-90
LY0002	RAB	14	MGA94_51	478289	6610609	0	-90
LY0003	RAB	7	MGA94_51	478389	6610609	0	-90
LY0004	RAB	6	MGA94_51	478439	6610609	0	-90
LY0005	RAB	14	MGA94_51	478409	6610609	0	-90
LY0006	RAB	2	MGA94_51	478489	6610609	0	-90
LY0007	RAB	13	MGA94_51	478539	6610609	0	-90
LY0008	RAB	16	MGA94_51	478564	6610609	0	-90
LY0009	RAB	31	MGA94_51	478589	6610609	0	-90
LY0010	RAB	28	MGA94_51	478589	6610509	0	-90
LY0011	RAB	2	MGA94_51	478614	6610509	0	-90
LY0012	RAB	22	MGA94_51	478609	6610509	0	-90
LY0013	RAB	16	MGA94_51	478589	6610709	0	-90
LY0014	RAB	9	MGA94_51	478589	6610659	0	-90
LY0015	RAB	11	MGA94_51	478589	6610634	0	-90
LY0016	RAB	2	MGA94_51	478589	6610584	0	-90
LY0017	RAB	22	MGA94_51	478589	6610559	0	-90
LY0018	RAB	18	MGA94_51	478614	6610609	0	-90
LY0019	RAB	11	MGA94_51	478639	6610609	0	-90
LY0020	RAB	18	MGA94_51	478664	6610609	0	-90
LY0021	RAB	14	MGA94_51	478689	6610609	0	-90
LY0022	RAB	2	MGA94_51	478739	6610609	0	-90
LY0023	RAB	11	MGA94_51	478789	6610609	0	-90
LY0024	RAB	8	MGA94_51	478889	6610609	0	-90
LY0025	RAB	6	MGA94_51	478689	6610509	0	-90
LY0026	RAB	13	MGA94_51	478639	6610509	0	-90
LY0027	RAB	9	MGA94_51	478539	6610509	0	-90
LY0028	RAB	3	MGA94_51	478489	6610509	0	-90
LY0029	RAB	6	MGA94_51	478464	6610509	0	-90
LY0030	RAB	20	MGA94_51	478489	6610709	0	-90
LY0031	RAB	14	MGA94_51	478539	6610709	0	-90
LY0032	RAB	13	MGA94_51	478639	6610709	0	-90
LY0033	RAB	3	MGA94_51	478689	6610709	0	-90
LY0034	RAB	3	MGA94_51	478714	6610709	0	-90



JORC Code, 2012 Edition – Table 1 report template

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	 Nature and quality of sampling (e.g., cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as 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 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g., submarine nodules) may warrant disclosure of detailed information. 	 This Table 1 is in regards to RAB drilling in 1984 by Metals Exploration. All information is from WAMEX report A15607. 34 RAB holes completed for 394m. 4m composites were taken for geochemical analysis and sent to Analabs for analysis of Cr, Ni, Cu, Zn and Pb by AAS Of these samples another 30 were analysed by XRF for Nb, Rb, Sr, Ba, K, P, Ti and Zr.
Drilling techniques	 Drill type (e.g., core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g., core diameter, triple or standard tube, depth of diamond tails, face- sampling bit or other type, whether core is oriented and if so, by what method, etc). 	 34 holes drilled by RAB, with use of a hammer. Rig was a Mole Pioneer Drill Rig No further information is available in the report.
Drill sample recovery	 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 	 No information is available in the report.



Criteria	JORC Code explanation	Commentary
	preferential loss/gain of fine/coarse material.	
Logging	 Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	 Logging occurred in 2m intervals and described colour, mineralogy, geology and alteration Holes were logged in full
Sub-sampling techniques and sample preparation	 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 	 No information is available in the report, other than sampling occurred as 4 composites, which is considered appropriate for early stage exploration
Quality of assay data and laboratory tests	 The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. 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 	No information is available in the report.



Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	 The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	 No information is available in the report.
Location of data points	 Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control. 	 Holes were in local grid in the historic report
Data spacing and distribution	 Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied. 	 Drill spacing was ad hock over a geophysical anomaly and are not considered sufficient to be used in a mineral resource.
Orientation of data in relation to geological structure	 Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	 Drilling was orthogonal to the geophysical anomaly,
Sample security	The measures taken to ensure sample security.	No information is available in the report.
Audits or reviews	 The results of any audits or reviews of sampling techniques and data. 	 No information is available in the report.



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	 Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	 Lake Yindana is located on tenements E28/2659 and E28/3239 The tenements are currently held by E79 Gold Mines Limited. Exploration Lease E28/2659 is granted and held until 2027 and renewable for a further 2 years. Exploration Lease E28/3239 is granted and held until 2028 and renewable for a further 5 years. All production is subject to a Western Australian state government Net Smelter Return ("NSR") royalty of 2.5%. There are no registered Aboriginal Heritage Sites or pastoral compensation agreements over the tenements.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	 Within the tenement boundaries limited exploration work has been undertaken. In 1984, Metals Exploration Ltd completed a small exploration program over an aeromagnetic anomaly at Lake Yindana. Ground magnetics confirmed the presence of the anomaly, a 34-hole RAB program was completed to test for lamproite or kimberlite as suitable hosts for diamonds. Greenstone lithologies were recorded from this drilling within the dominantly granitic terrain however the holes were not assayed for gold at the time of drilling. Between 1995 and 1997, Aberfoyle Resources Ltd conducted exploration in joint venture with Kilkenny Gold on the Bronco Plains Project and on its 100% owned Pinjin Project. Exploration activities undertaken on the area covered by E28/2659 included gridding, powered auger geochemical sampling, rock chip sampling and limited RAB/Aircore drilling.



Criteria	JORC Code explanation	Commentary
		The Metex Roe Joint Venture, operated from 2001 to 2003 between Metex Resources Limited and Delta Gold Pty Ltd/Aurion Gold Limited/Placer Dome Asia Pacific. Work completed during this period included detailed aeromagnetic surveys, geological mapping and interpretation, auger sampling and RAB/Aircore drilling. A significant component of this work was conducted west of E28/2659 with only the geological mapping and interpretation impinging on the western edge of E28/2659.
		During 2005, Great Gold Mines was granted E28/1518 as part of the Yindana Project. Airborne magnetic data was acquired and a RAB drilling program was designed however the drilling was never conducted.
		In 2010, Gryphon Minerals Ltd was granted E28/2063 as part of a regional acquisition opportunity, prior to the grant of the tenement, Gryphon Minerals divested its Australian assets into a new publicly listed company, Renaissance Minerals Limited. E28/2063 covers some of the southern part of the current tenement, immediately north of Lake Yindana, work completed included compilation and review of historical exploration reports and compilation of a digital database.
Geology	Deposit type, geological setting and style of mineralisation.	The Laverton South Project is located within the Eastern Goldfields Superterrane of the Archean Yilgarn Craton in the southern extensions of the LTZ, a 250 km long and laterally extensive significant gold bearing structure. Basement geology within the Project area is overall poorly understood due to the presence of extensive transported cover that obscures much of the bedrock geology, and a lack of historical drilling.
Drill hole Information	A summary of all information material to the understanding of the exploration results including a	Drill results are not detailed within this report, only logging



Criteria	JORC Code explanation	Commentary
	 tabulation of the following information for all Material drill holes: easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. 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. 	data
Data aggregation methods	 In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g., cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	Not applicable as no drilling conducted.
Relationship between mineralisation widths and intercept lengths	 These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. 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'). 	Not applicable as no drilling conducted.
Diagrams	 Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views 	 Appropriate maps are included within the body of this report.



Criteria	JORC Code explanation	Commentary
Balanced reporting	 Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results. 	 Not applicable as no drilling conducted.
Other substantive exploration data	 Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. 	 Relevant geological observations are included in this report.
Further work	 The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	 Additional geophysical surveys may be carried out in the future in order to assist in the delineation of drilling targets.