



Jundee South Gold Project – New Exploration Potential Identified

Highlights

- Ministerial consent received for the transfer to Avenira of the Jundee South tenements.
- Re-evaluation of the Jundee South Project has identified a number of gold exploration opportunities, including multiple walk-up drill targets
- Eight “Priority 1” targets are to be pursued with a drilling program proposed to be commenced in the September quarter.

Avenira Limited (ASX:AEV) (**Avenira**) is pleased to provide the following update on its progress with the Jundee South Gold Project. Since acquiring the project in April 2020, Avenira has been reviewing and assessing the existing exploration information while progressing the transfer of the tenements to Avenira.

Overview of the Jundee South Project

The project area is located in the Yandal Greenstone Belt immediately south of the Jundee Gold Mine.

While the project area has been the subject of several exploration programs over time, the majority of historical drilling took place in the mid 1990’s when gold prices were generally between US\$300-400/oz. The exploration targeting model at the time focused on geochemical sampling, with wide spaced (predominantly) RAB drilling to follow up on anomalous areas. Given the level of cover over the project area and that a significant portion of the historical work involved surface sampling and shallow drilling Avenira considers that a new exploration strategy is required for the project area.

The understanding of the structural setting of the project area has evolved from that of a simple synform in which basal mafic rocks are overlain by younger felsic volcanics (a model which persisted through to the late 2000’s), to a model of complex thrusts and lithology repetition exhibiting structural controls.

Despite this advancement in understanding, previous explorers appear to have relied predominantly on the former model, with limited geophysical exploration or RC drilling to specifically target the structural controls that are evident in the district’s gold mines.

Initial Project Review has highlighted new exploration potential

Avenira has used the more recent geological model to revisit the potential for litho structural targets and is specifically identifying prospects that represent possible analogues to the large gold mines elsewhere in the Yandal Greenstone Belt.

To complete the review, Avenira engaged:

- Marcus Flis – a senior geologist and geophysicist with many years’ experience in Archean Eastern Goldfields settings and a recipient of the Diggers and Dealers’ Best Emerging Company award (2010) and the Australian Mining Explorer of the Year (2011) award; and
- Stephen Harrison – a senior geologist who was previously responsible for regional exploration in the Yandal Greenstone Belt at Jundee Gold Mine.

Avenira has identified 24 targets, including eight Priority 1 targets, as shown in the figure below. Further details of the Priority 1 targets are contained in the appendix.

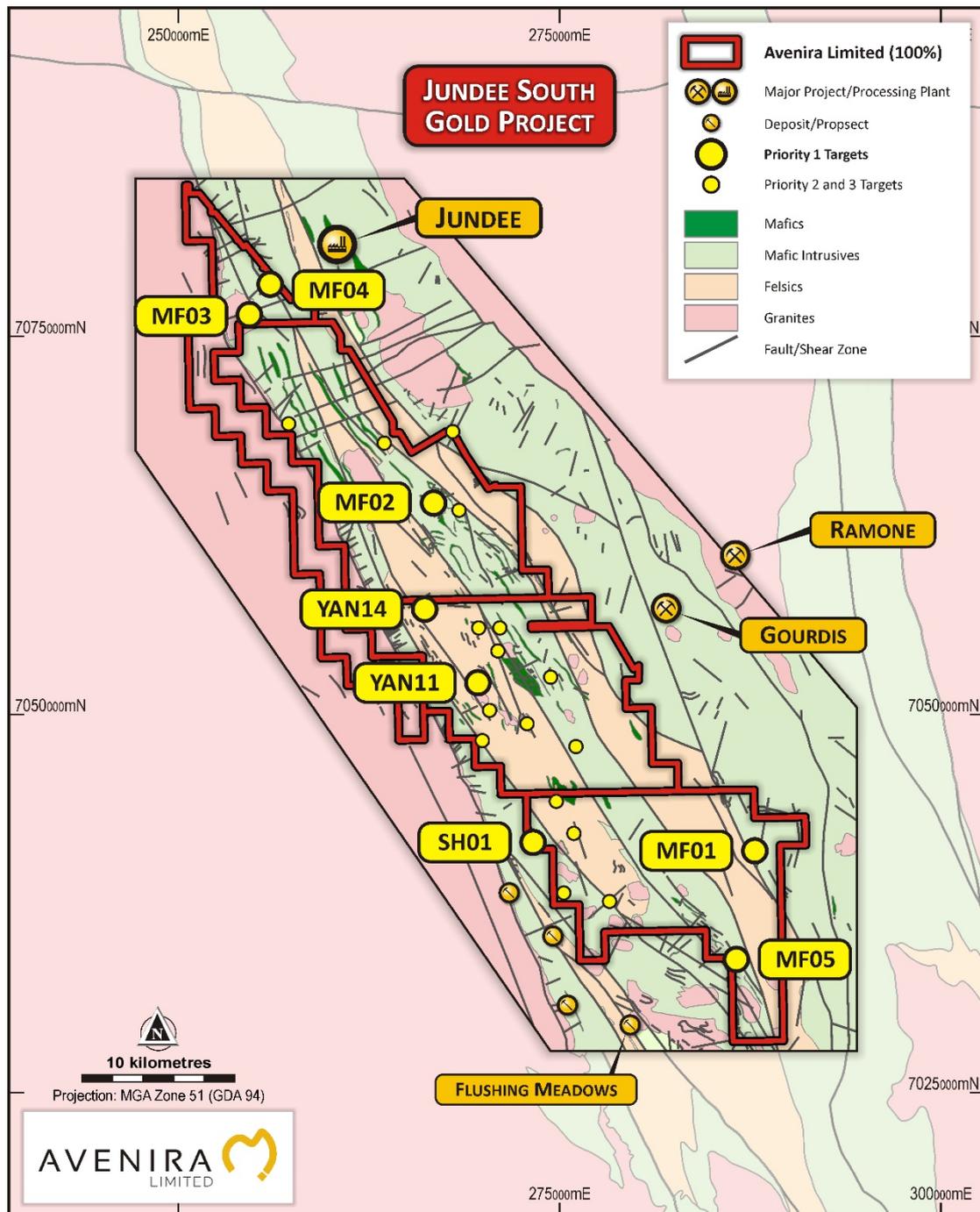


Figure 1 –Targets identified by Avenira at the Jundee South Project

It is anticipated that further targets will be identified and refined over time as the review of the project area continues.

Avenira intends to immediately undertake focused ground magnetic and induced polarisation surveys to better define the Priority 1 targets ahead of a drilling program proposed to be commenced in the September quarter.



Avenira's Executive Chairman, Mr. Brett Clark commented *"this review has resulted in a considerable number of attractive drilling targets for us to explore.*

We have identified that most of the previous exploration was undertaken when gold prices were materially lower than today and based on an overly simplistic view of the geology of the area. This places us in a position where we have secured a large portion of the Yandal gold belt with a number of walk-up prospective drill targets.

We intend to immediately commence more detailed work ahead of a drilling program at this stage targeting the September quarter.

Avenira's Board has strong credentials in the Western Australian gold industry and the Board considers that it has identified a project that can potentially deliver value to its shareholders."

This announcement has been authorised by Brett Clark on behalf of the Board of Avenira.

Brett Clark

Executive Chairman

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About Avenira

Avenira is listed on the Australian Securities Exchange under the code AEV. Avenira is a Western Australian based mining and exploration company with a focus on phosphate and gold projects in Australia.

Avenira's main project is the Wonarah Phosphate Project located in the Northern Territory. Avenira has initiated a scoping study for Wonarah.

In addition to the Jundee South Project, Avenira will also continue to review various precious metals projects in Australia as they are presented to the Company.

Competent Person Statement

The information in this document that relates to Exploration Results, geology, and data compilation is based on information compiled by Mr Marcus Flis who is a Fellow of The Australian Institute of Mining and Metallurgy. Mr Flis has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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 Flis is an independent consultant to the Company and consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.



Appendix 1: Overview of the Priority 1 targets

Details of the Priority 1 targets are below:

Target 1 (MF01): Interpreted as a possible repetition of the Jundee structural setting, with the intersection of a major NNW trending fault associated with the Nimary Fault and lesser NNE fault.

Target 2 (MF02): Interpreted similarity to the Jundee structural setting, with a dolerite dome sandwiched between two Barton Trend faults and dissected by lesser Nim and Kryten trend faults. These fault systems control gold mineralisation at Jundee. There has been no drilling in this area.

Target 3 (MF04): Interpreted large flexure in major NW fault or shear. The area is bound to the south by an ENE fault that is interpreted to define a corridor in that orientation that contains the Jundee Gold Mine and to the west by a major intrusive. This area has no previous assessment by shallow drilling.

Target 4 (MF03): A high thorium area prospective for laterite-style gold. Laterite gold is found in association with the Gourdi-Vause Gold Mines to the south of Jundee. This target is easily and simply assessed with surface rock chip sampling.

Target 5 (MF05): A southward closing fold consisting of an interpreted ultramafic unit, bracketed to the east and west by regional structures. Structural complexity and proximal intrusives, features of the Jundee Gold Mine, are present in this target. The area has been previously assessed by 800m-spaced lines of RAB that likely did not reach bedrock.

Target 6 (YaN11): A structural target sitting to the north east of a NNW trending magnetic high interpreted as a folded dolerite adjacent to multiple intrusives.

Target 7 (YaN14): A possible fold nose interpreted in ultramafics or dolerites that represents a shallow plunging blind target sitting over complex geology (comprising granites, granodiorites, basalts, tuffs and porphyries). The previous sparse reconnaissance RAB drilling was inadequately followed up.

Target 8 (SH01): A never-before sampled area that lies on a potential fault offset of Yandal Resources Limited's Atlanta prospect, interpreted to be a magnetic ultramafic unit. Geological complexity, both lithological and structural, characterise this area.



JORC Code, 2012 Edition

Criteria		Commentary: Section 1 Sampling Techniques and Data (Criteria in this section apply to all succeeding sections.)	
<i>Sampling techniques</i>		Sampling was by way of soil surveys, Rotary Air Blast (RAB), AirCore (AC) and Reverse Circulation (RC) drilling. Industry standard sampling techniques were used. Drill samples were collected every metre.	
<i>Drilling techniques</i>		Drilling was by RAB, AC and RC. Drilling was done to industry standard techniques. Drill bit size is unknown.	
<i>Drill sample recovery</i>		No details are available as to the exact sampling technique (see below “Sub-sampling”). No information is available on drill chip recovery.	
<i>Logging</i>		All samples were geologically logged and subsequently entered into a digital database. The log was annotated with sample numbers. Logging is qualitative.	
<i>Sub-sampling techniques and sample preparation</i>		RC drilling: Method of sampling	Dry: quarter & cone Wet: grab sampled
		Sample collection method	4 metres
		Assay preparation	oven dried, pulverised to nominal – 75 microns, 400 – 500 gram split
		Assay sample weight	40 grams
		Digest	aqua regia acid digest
		Elements assayed	Au, As
		Detection limit	0.02 and 0.01 ppm Au, 20 ppm As
		Laboratory	AAL
		RAB:	Dry samples cone and quarter with 4m composite taken using trowel Wet sample 4m composite grab sample taken
		RC:	Dry samples riffle split with subsample included in 4m composite Wet sample 4m composite of grab sample
		No information presented on QC procedures, subsampling or sample preparation.	
<i>Quality of assay data and laboratory tests</i>		No information is available on QC/QA techniques used by the exploration company or the laboratory. AAL was a reputable assaying laboratory and it can be assumed that assaying methodology was industry standard and used internal QC/QA measures. Analysis methodology disclosed: - Sample oven dried and 500g split of sample pulverized to 75µm - 40g subsample analysed by Aqua Regia Acid Digest Au and As analysed with detection limits 0.02/0.01ppm respectively	
<i>Verification of sampling and assaying</i>		No verification has been undertaken in the way of twinned holes and/or re-assaying.	



Criteria		Commentary: Section 1 Sampling Techniques and Data (Criteria in this section apply to all succeeding sections.)
<i>Location of data points</i>	Sample locations, including frill hole collars, have been located but the method, and therefore accuracy, of location is unknown. The co-ordinates use the AGD 84 geodetic datum with an AMG projection in zone 51 The techniques used to set drill hole azimuth and inclination is unknown, but assumed to be by compass and inclinometer as is standard practice. There is no downhole survey data to map out the holes' trajectory.	
<i>Data spacing and distribution</i>	Soil survey samples were collected on a variable grid, but generally 25x100m in prospective areas. RAB and AC holes were initially drilled on a 160x640m grid with infill areas drilled to 40x80m. RC holes were drilled at no closer than 50m along lines perpendicular to the interpreted geology. RC drill lines were no closer than 100m apart. Drill hole samples were composited from one metre to four metres.	
<i>Orientation of data in relation to geological structure</i>	Sampling was perpendicular to the interpreted general geological strike and holes drilled at an approximately right angle to the interpreted geological dip. It is not anticipated that, on that geological interpretation, any bias has been introduced to the sampling.	
<i>Sample security</i>	No information of sample security is recorded by the previous explorers.	
<i>Audits or reviews</i>	No audit or review information was recorded by the previous explorers.	

Criteria		Commentary: Section 2 Reporting of Exploration Results. (Criteria listed in the preceding section also apply to this section.)																								
<i>Mineral tenement and land tenure status</i>	<p>The tenements that are the subject of this document are:</p> <table border="1"> <thead> <tr> <th>Tenement ID</th> <th>Approx km²</th> <th>Grant Date</th> <th>Expiry Date</th> <th>Holder</th> </tr> </thead> <tbody> <tr> <td>E53/1856 36</td> <td>117.83</td> <td>30/11/2016</td> <td>29/11/2021</td> <td>Faurex Pty Ltd</td> </tr> <tr> <td>E53/1859 56</td> <td>192.76</td> <td>23/03/2016</td> <td>22/03/2021</td> <td>Faurex Pty Ltd</td> </tr> <tr> <td>E53/2078 59</td> <td>197.23</td> <td>5/02/2020</td> <td>/02/2025</td> <td>Faurex Pty Ltd</td> </tr> <tr> <td>E53/2079 66</td> <td>217.30</td> <td>5/02/2020</td> <td>4/02/2025</td> <td>Faurex Pty Ltd</td> </tr> </tbody> </table> <p>There are no known impediments to further exploration or development.</p>	Tenement ID	Approx km ²	Grant Date	Expiry Date	Holder	E53/1856 36	117.83	30/11/2016	29/11/2021	Faurex Pty Ltd	E53/1859 56	192.76	23/03/2016	22/03/2021	Faurex Pty Ltd	E53/2078 59	197.23	5/02/2020	/02/2025	Faurex Pty Ltd	E53/2079 66	217.30	5/02/2020	4/02/2025	Faurex Pty Ltd
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Criteria	Commentary: Section 2 Reporting of Exploration Results. (Criteria listed in the preceding section also apply to this section.)
<i>Exploration done by other parties</i>	<p>The historic Moiler's Find Gold mine is located within the Banded Iron formations and basalts on the western side of the tenement. Past production was minimal and recent exploration drilling has been unsuccessful at establishing a resource.</p> <p>Between 1972 -1984, the company's Jundee Project area was explored for base metals by a number of companies including Australian Anglo American, Esso Exploration and Chevron Exploration Corporation for base metals work involved geophysical surveys, with follow up percussion drilling.</p> <p>Between 1993 – 2000, the area was part of a series of joint ventures and farm in's involving Eon Metals, Wiluna Mines, Dominion, and ultimately Great Central Mine NL operators of the Bronzewing and Jundee gold mines.</p> <p>Work involved systematic RAB drilling to bedrock on drill lines varying between 1200m to 800m with holes spaced approximately 80m along the lines. Holes were generally composite sampled for gold and occasionally copper and arsenic. Anomalous gold results in the RAB were usually followed up with a deeper RC hole into bedrock.</p> <p>In 2001 – 2005, the ground covering the Project was acquired and explored by Anglo Gold Ashanti Australia Ltd who undertook regional targeting and structural analysis.</p> <p>In November 2005 Navarre Resources Pty Ltd acquired the project from Anglo Gold Ashanti Australia Ltd. Exploration conducted by Navarre Resources Pty Ltd included database validation and compilation, reconnaissance fieldwork, and target generation studies. Navarre Resources Pty Ltd also commissioned a heritage survey over the project tenements.</p> <p>The project was acquired by Aragon Resources Ltd from Navarre Resources Pty Ltd in May 2007. Aragon conducted soil geochemistry surveys, rock chip sampling, geophysical surveys and aircore drilling programmes testing a variety of gold targets identified by earlier workers. Argons completed a detailed soil program over the Moiler's gold working and strike extensions but did not define any anomalous areas.</p> <p>Fortis picked up the ground in 2009 and undertook an IPO on that basis. To 2012 Fortis undertook a GIS data compilation, reprocessed and stitched together the many aeromagnetic surveys that cover the area. Fortis changed its name to Kazakhstan Potash Corporation Limited at the end of 2012 and the project area did not fit its portfolio strategy.</p> <p>From 2010 the area was under a JV between Fortis and Nemex Ventures Pty Ltd which undertook assessment of the bifs on the property. Sampling returned ambiguous and contradictory Fe assays that have not been resolved.</p>



Geology

The tenements are situated at the northern end of the Yandal Greenstone Belt, within the Jundee Domain of the Kalgoorlie Terrain, part of the Eastern Goldfields Superterrane of the Yilgarn Craton. The Kalgoorlie Terrain is a typical granite–greenstone terrain, characterised by large areas of monzogranite, deformed quartzofeldspathic gneiss, and elongate, north to north-westerly trending greenstone belts.

Quartzofeldspathic gneisses — with associated, subordinate banded iron formation, amphibolite, calc-silicate gneiss, and layered mafic gneiss — are amongst the oldest rocks in the northern part of the Eastern Goldfields Superterrane (c2750–2700Ma). The gneisses are highly deformed and metamorphosed, intruded by granitoids, and may represent samples of greenstone basement.

The Yandal Greenstone Belt can be divided east-to-west into three lithostratigraphic packages:

- an sequence of tholeiitic and komatiitic mafic–ultramafic rocks and lesser felsic volcanics and intrusives;
- a thick sequence of felsic volcanic and sedimentary rocks; a thin sequence of mafic and ultramafic rocks with prominent chert and banded iron formations

Lithologic ages in the Yandal Greenstone Belt are inferred to be c2700–2670Ma.

Granitoid rocks in the northern part of the Eastern Goldfields Superterrane are younger than the gneisses and most of the greenstones (c2685–2635Ma), and show various degrees of deformation. Peak granitoid magmatism occurred at c2665–2645Ma.

Monzogranite and granodiorite are the dominant granitoid types, although there are volumetrically minor amounts of tonalite, diorite, monzonite, and syenite.

Most of the greenstone lithologies have been metamorphosed to lower greenschist facies, with amphibolite facies rocks restricted to narrow zones along granite–greenstone contacts. In contrast, gneisses have been metamorphosed to a higher grade — probably to upper amphibolite facies — and show evidence of partial melting.

Four phases of deformation (D1–D4) have been identified. D1 generation structures have largely been overprinted by later deformation events, but are best preserved in gneisses adjacent to greenstones. The D2 deformation event was associated with peak metamorphism and the major period of granitoid intrusion. Characteristic D2 structures include north-to-north-westerly trending imbricate thrust faults and shears with related anticlines and synclines. The last major deformation event (D3) was a progressive north-northeast shortening that produced shallowly plunging upright folds and the major north-to-north-westerly trending shear zones that are largely responsible for the regional-scale structural architecture of the Yandal Greenstone Belt. The last recognized Archaean deformation (D4) produced variously oriented quartz-filled tension gashes and east-to-north-easterly trending faults. Proterozoic regional-scale zones of brittle deformation cut across all major rock units, and often host mafic dykes.

Much of Archaean stratigraphy is mantled by Cainozoic regolith deposits, consisting of residual, indurated deposits exposed by erosion, and a range of younger alluvial, eluvial, eolian and lacustrine deposits. The oldest regolith units typically form residual deposits on low hills and in breakaways. They include lateritic duricrust and silcrete.

Proximal slope deposits, comprising rock debris, sand, and silt lie on or adjacent to low hills and below breakaways. More distal parts of the regolith are dominated by sheetwash and sandplain deposits. Ridges of wind-blown sand are present locally. Playa lakes contain saline and gypsiferous evaporites, along with minor amounts of sand, silt, and clay. The playas are associated with saline and gypsiferous dune deposits, and patchy deposits of calcrete. Younger deposits of unconsolidated sandy alluvium and gravel lie along intermittently active fluvial channels and on adjacent flood plains.

The Yandal Greenstone Belt is host to the plus-million ounce Jundee, Bronzewing and Darlot gold deposits, together with many smaller historical mines and undeveloped resources; and the undeveloped Lake Maitland calcrete-hosted uranium deposit.



Criteria	Commentary: Section 2 Reporting of Exploration Results. (Criteria listed in the preceding section also apply to this section.)
<i>Drill hole Information</i>	A summary table of the relevant drill hole details are presented in a table in the body of the announcement.
<i>Data aggregation methods</i>	No data aggregation has been applied in this report. Metal equivalence is not used.
<i>Relationship between mineralisation widths and intercept lengths</i>	Intersections are quoted as down hole widths. There is no data available to ascertain the relationship between these apparent widths and true widths.
<i>Diagrams</i>	Maps and figures, are included in the body of this announcement.
<i>Balanced reporting</i>	No results have been reported.
<i>Other substantive exploration data</i>	The tenement areas are largely, though not totally, covered by surface geochemistry surveys and RAB drilling. The latter is mostly on a 160x640m grid, but down to 40x80m over identified anomalous surface geochemistry. The area is covered by various vintage and resolution aeromagnetic surveys. Geological mapping has been undertaken by the GSWA at 1:500,000 (as bedrock interpretive mapping) and standard 1:250,000 fact mapping. Prospect scale mapping, down to 1:10,000 scale has been undertaken over specific areas by previous explorers.
<i>Further work</i>	A programme of shallow aircore drilling, ground magnetic surveys, and ground electrical geophysical surveys is being formulated and will be announced to the market when finalised.

Sections 3, 4, and 5 of JORC (2012) Table 1 are not applicable to this announcement.