



ASX ANNOUNCEMENT & MEDIA RELEASE

20 April 2020

# Wonarah update and acquisition of the Jundee South Gold Project

### **Highlights**

- Acquisition of the highly prospective Jundee South Project.
- Jundee South Project comprises four tenements covering more than 720km<sup>2</sup> of the northern Yandal Greenstone Belt, less than 3km from Northern Star's +10Moz Jundee Gold Mine and with more than 60km strike of greenstone stratigraphy identified.
- Scoping studies on the Wonarah Project are progressing positively, including commencing engineering assessments and engagement with strategic market participants to consider the optimal phosphate product.
- Scoping study targeted for completion within the September quarter 2020, with additional work dependent on the study outcomes and market conditions at that time.

Avenira Limited (ASX:AEV) (Avenira) is pleased to provide an update on its current progress with the Wonarah Phosphate Project and to announce that it has entered into an agreement to purchase the Jundee South Gold Project.

#### **Wonarah Project**

Avenira commenced a review of the Wonarah Project in November 2019, and has initiated a scoping study to consider whether the project may be able to be developed economically.

Avenira has engaged a part-time study manager, as well as GR Engineering Services (processing design and engineering), Cube Consulting (mine planning) and a consulting firm for high level economic modelling. Initial activities have been focused on a review of the large volume of work completed on the project over the past 12 years, including the DFS completed in 2011 which considered the opportunity to export phosphate rock concentrate.

Along with the potential for phosphate rock concentrate, Avenira is also examining the potential inclusion of further tertiary processing, including Di-Ammonium Phosphate (DAP) / Mono-Ammonium Phosphate (MAP) technology as well as utilizing the Novaphos technology (which Avenira has exclusive rights to use in Australia).

Avenira has also had high level discussions with potential future offtakers to better understand the market drivers for a potential phosphate product from Wonarah.

Future activities will include the completion of engineering reviews, preliminary economic modelling, further discussions and confirmations with Novaphos and the study itself, along with statutory expenditure to preserve value in the project.

FOR FURTHER INFORMATION:

Chairman and CEO, Avenira Limited

CFO and Company Secretary, Avenira Limited

Mr Brett Clark

Mr Graeme Smith



While the events caused by COVID-19 have led to a reduction in activity in the mining sector generally, Avenira considers that at this stage it is worthwhile continuing scoping study activities. Note that the Board of Avenira may vary study activities should circumstances require in light of the current economic climate.

The following table provides a breakdown of anticipated expenditure for the Wonarah Project.

Table 1: Wonarah Project Incurred and Proposed Expenditure\* (A\$thousands)

Activity	Dec Qtr	Mar Qtr	Jun Qtr	Sep Qtr	Dec Qtr	Mar Qtr	Total
	2019	2020	2020	2020	2020	2021	
Engineering and Study	7	38	24	15	10	10	104
Management							
Review of Mineral Resources,	3	10	12	0	0	0	25
mine planning and economic							
modelling							
Avenira administration and	38	14	4	28	4	4	92
statutory expenditure							
Total	48	62	40	43	14	14	221

<sup>\*</sup>Note: these figures from January 1, 2020 are unaudited and do not include any corporate, accounting or other costs

Should the outcomes of the scoping study be positive, Avenira will consider ways in which to create shareholder value through advancing the project.

#### **Jundee South Gold Project**

Avenira has entered into an agreement to purchase the Jundee South Gold Project, comprising a tenement suite covering more than 720 km<sup>2</sup> of the Yandal Greenstone Belt, for a consideration of \$350,000 which complements the skill set of the Avenira Board.

The Yandal Greenstone Belt hosts several significant gold deposits, including the world class Jundee Mine (10Moz), Bronzewing (4Moz) and Darlot (3.5Moz) deposits (Figure 1).

The Jundee South Project area is located within 3km of the operating Jundee Mine and covers more than 60km strike of highly prospective greenstone stratigraphy. The project area contains major regional structures interpreted to control gold mineralisation through the Yandal Greenstone Belt and contains a number of historically defined gold occurrences.

Access is via a well-established road network, and given the number of operating mines in the area, there is ready access to accommodation and services.



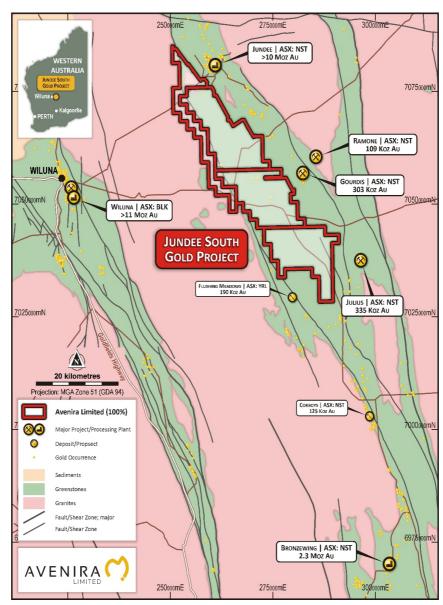


Figure 1: Jundee South Project location map

#### Tenure

The Jundee South Project comprises four granted exploration licences covering more than 720km<sup>2</sup>:

Tenement ID	Status	Area (approx km²)
E53/1856	Granted	117
E53/1859	Granted	192
E53/2078	Granted	197
E53/2079	Granted	217
Total		723



#### **Previous exploration**

Previous exploration relied on a geochemical approach with surface geochemistry surveys followed up by shallow Rotary Air Blast (RAB) and Air Core (AC) drilling. Deeper Reverse Circulation (RC) drilling was targeted purely on the RAB assays rather than testing geologically based gold mineralisation models. Only the highest geochemical gold anomalies were drill tested. A considerable dataset was accumulated which, particularly given its location relative to major operating mines and interpreted regional structures, provide considerable opportunity to re-evaluate the area using modern exploration techniques. The dataset includes comprehensive geological mapping, aeromagnetic surveys, as well as regional surface geochemical surveys and systematic, but generally wide spaced shallow RAB and AC drilling.

Limited RC drill testing of only the highest assays from RAB and AC has taken place. The lack of a driving gold mineralisation model has resulted in this drilling having mixed results.

#### Systematic Application of Empiric Models for Gold Mineralisation

Avenira has identified untested areas of the project that exhibit key geological characteristics to those that host the Jundee Mine 2km to the north. The common features of Jundee, Bronzewing, and Darlot are:

- Suitable host rocks. At Jundee, these are a package of mafic rocks (basalts) and sediments intruded by
  dolerite sills and dacitic porphyries, at Bronzewing and Darlot they are tholeiitic basalts, often with epicalstic
  rock sequences
- Association with major regional north-west to north-east trending structures, typically shears
- Localised brittle-ductile faults and fractures, usually representing linkage faults, host the gold, typically in quartz stockworks and veins
- A proximal heat source, such as dacitic porphyries or andesite intrusives, may have driven the gold mineralisation

An example of the setting being sought by Avenira is the Jundee Mine. Here, gold mineralisation is situated in mafic rocks (green) east of felsic volcanic and sedimentary rocks (orange, Figure 2). Aeromagnetic imaging of the mine area shows a dominant north west trend, primarily due to ultramafics but also reflecting the Nimary and Leak Fault directions. Gold mineralisation at Jundee is closely associated with the Leak fault. Archean granites occur to the north east (pink in Figure 2).

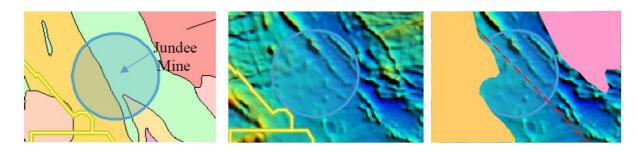


Figure 2: Jundee Mine: mapped geology (left), aeromagnetic image (centre) and summary geology interpreted from the aeromagnetic image (right)



Exploration targets have been identified by Avenira that meet these criteria. One example is an area on E53/1859 that shows similar characteristics to the Jundee setting. Mafics east of a felsic volcanic unit and a north west structure are interpreted from the aeromagnetic data (Figure 3). The Exploration Target is conceptual in nature as there has been insufficient exploration to define a Mineral Resource. It is uncertain if further exploration will result in the determination of a Mineral Resource under the JORC Code (2012).

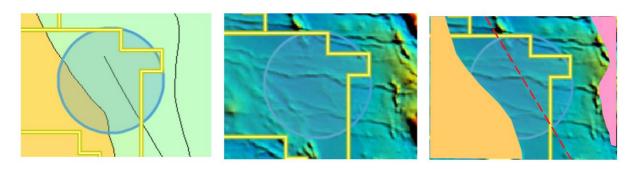


Figure 3: Prospective area in E53/1859: mapped geology (left), aeromagnetic image (centre) and summary geology interpreted from the aeromagnetic image (right). Scale is the same as Figure 3.

#### **Proposed program**

Avenira is in the process of reviewing the historical database to seek to further investigate already identified targets and to seek to identify additional priority targets which, if positive, will underpin the development of a future exploration program.

#### **Acquisition Terms**

Avenira has entered into an agreement with Faurex Pty Ltd (Vendor) whereby Avenira acquires 100% of the project for A\$350,000. comprising a non- refundable upfront payment of A\$100,000 and the balance payable upon successful transfer of tenements. Settlement will be conditional on written consent of the Minister for Mines to the transfer of the tenements.

The project is not subject to any third-party royalties (other than statutory royalties), and is unencumbered.

Avenira's Chairman, Brett Clark, said "With studies on Wonarah progressing well, the acquisition of the Jundee South Project is consistent with Avenira's broadening strategy to include precious metals as announced in 2019, and comes at a time when the volatility in global markets has led to increased investor interest in gold exposure.

The size of the project area, coupled with a minimal amount of modern exploration, means that it is highly prospective for future discoveries and its location provides Avenira with a strategic foothold in what is an exciting gold region.

We are excited by what we see here and looking forward to starting the Jundee South Project, and keeping the market informed."

This announcement has been authorised by the Board of Avenira Limited.



#### **Competent Persons Statement**

The details contained in this report that pertain to exploration results are based upon information compiled by Mr Marcus Flis, a consultant to Avenira from the DMIRS WAMEX database. He is satisfied that previous pertinent exploration in the project area has been accessed and reflects, in general, the prospective nature of the tenements being considered. Mr Flis is a Fellow of the Australasian Institute of Mining and Metallurgy (AusIMM) and has sufficient experience in the activity which he is undertaking to qualify as a Competent Person as defined in the December 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (JORC Code). Mr Flis consents to the inclusion in the report of the matters based upon his information in the form and context in which it appears.



## Appendix 1: JORC Table 1

## JORC Code, 2012 Edition

	nentary: Section 1 Sampling Tech			
Sampling techniques	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.			
Drilling techniques	Drilling was by RAB, AC and RC. Drilling was done by industry standard techniques. Drill bit size is unknown.			
Drill sample recovery	No details are available as to the exact sampling technique (see below "Subsampling"), whether a cyclone was used, and whether a splitter was used to subsample the metre sample.  No information is available on drill chip recovery.			
Logging	All samples were geologically logged and subsequently entered into a digital database.  The log was annotated with sample numbers.  Logging is qualitative.  100% of each sample appears to have been geologically logged and sampled.			
Sub-sampling techniques and sample preparation	For 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		
	Subsampling and sample prepara	tion for RAB, AC, and soil surveys is unknown.		
Quality of assay data	No information is available on QC/QA techniques used by the exploration compan			
and laboratory tests	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.			
Verification of sampling and assaying	No verification has been undertaken in the way of twinned holes and/or re-assaying.			
Location of data points	Sample locations, including drill 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.			



	nentary: Section 1 Sampling Techniques and Data a in this section apply to all succeeding sections.)
Data spacing and distribution	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.
Orientation of data in relation to geological structure	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.
Sample security	No information of sample security is recorded by the previous explorers.
Audits or reviews	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.)							
Mineral tenement and land tenure status	The tenements that are the subject of this document are:							
		Tenement ID	Blocks	Approx km²	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	4/02/2025	Faurex Pty Ltd	
		E53/2079	66	217.30	5/02/2020	4/02/2025	Faurex Pty Ltd	1
	There ar	e no known imp	pediments t	o further exp	oloration or develo	ppment.	•	_
Exploration done by other parties	basalts on the western side of the tenement. Past production was minimal and rece exploration drilling has been unsuccessful at establishing a resource.  Between 1972 -1984, the company's Jundee Project area was explored for base metals by a number of companies including Australian Anglo American, Esso				ecent			
	Exploration and Chevron Exploration Corporation for base metals work involved geophysical surveys, with follow up percussion drilling.							
	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.							
	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.							
	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.							
	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.							
	The project was acquired by Aragon Resources Ltd from Navarre Resources Pty Ltd in May 2007. Aragon conducted soil geochemistry surveys, rock chip sampling,							



Criteria	Commentary: Section 2 Reporting of Exploration Results. (Criteria listed in the preceding section also apply to this section.)
	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.
	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.
	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.
Geology	The tenements are situated at the northern end of the Yandal Greenstone Belt, withir 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 northwesterly 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:
	<ul> <li>an sequence of tholeiitic and komatiitic mafic–ultramafic rocks and lesser felsic volcanics and intrusives;</li> <li>a thick sequence of felsic volcanic and sedimentary rocks; a thin sequence of mafic and ultramafic rocks with prominent chert and banded iron formations</li> </ul>
	Ages of the lithologies 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-northwesterly 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-northwesterly 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-northeasterly trending faults.
	Proterozoic regional-scale zones of brittle deformation cut across all major rock units, and often host mafic dykes.



Criteria	Commentary: Section 2 Reporting of Exploration Results. (Criteria listed in the preceding section also apply to this section.)
	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.
Drill hole Information	No drill hole data have been presented.
Data aggregation methods	No data aggregation has been applied in this report.  Metal equivalence is not used.
Relationship between mineralisation widths and intercept lengths	No data has been presented.
Diagrams	Maps and figures, are included in the body of this announcement.
Balanced reporting	No results have been reported.
Other substantive exploration data	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 bene undertaken over specific areas by previous explorers.
Further work	Work programmes currently under review pending the outcome of the Project's acquisition and the results of the Due Diligence.

Criteria	Commentary: Section 3 Estimation and Reporting of Mineral Resources (Criteria listed in the preceding section also apply to this section.)
	No Mineral Resources are being reported