

# **ASX Release**

29 April 2016

Great Western Exploration Limited ABN 53 123 631 470

ASX Code: GTE

Success starts with Opportunity

GTE is an experienced exploration company focussed on the discovery of high value base metal, nickel and gold deposits.

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#### **Board of Directors**

Kevin Somes - Chairman

Jordan Luckett – Managing Director

Craig Mathieson - Non-Executive

Terry Grammer - Non-Executive

Justin Barton – Company Secretary

# **Quarterly Report**

## March 2016

## **Quarterly Highlights:**

- GTE has made an all script offer for Vanguard Exploration Limited.
  - Vanguard made a recent high grade gold discovery at its Ives Find project located in the Yandal greenstone belt.
- Results from RC drilling at the Chisel
   Prospect confirms favourable geological
   setting for VHMS mineralisation at Chisel
  - Four potential VHMS horizons identified in downhole geochemistry

Great Western Exploration Limited ("the Company"; "GTE") made an all script offer for unlisted public company Vanguard Exploration Limited ("Vanguard") and also received results from reverse circulation ("RC") drilling at the company's Chisel prospect.

#### OFFER TO ACQUIRE VANGUARD EXPLORATION LIMITED

Great Western Exploration Limited ("GTE"; "the Company") announced on the 26<sup>th</sup> April 2016 that it has made an all script offer for unlisted public company Vanguard Exploration Limited ("Vanguard") that has been accepted by the Directors of Vanguard and will be recommended to Vanguard shareholders.

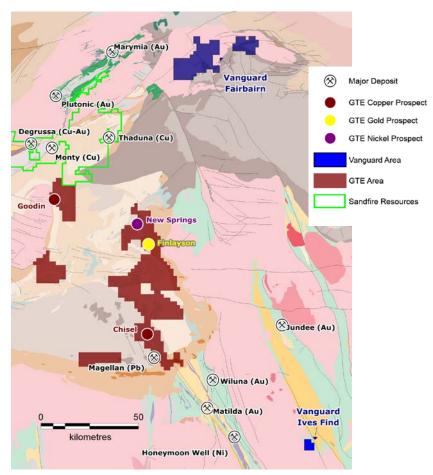


Figure 1. Location of GTE and Vanguards North Yilgarn projects

The offer is on the basis of four GTE shares for one Vanguard share which equates to a total of 150,833,124 GTE shares. The offer is subject to the following conditions:

- Acceptance of the offer by Vanguard shareholders representing more than 90% of the shares on issue which will allow GTE to proceed with a compulsory takeover;
- Raise a minimum of \$1 million and issue no more than 100 million shares;
- GTE shareholders approve the issue of shares for both the acquisition and the capital raising;
- That Ian Kerr, the Managing Director of Vanguard, is appointed as an Executive Director of GTE following the completion of the transaction.

Vanguard has the following two projects that are located within the northern Yilgarn which is the main area of focus for the Company (fig 1):

## Ives Find Project

The Ives Find project area is located approximately 65 kilometres southeast of Wiluna and lies within the world-class Yandal Gold Province and is also located approximately 55km from the Bronzewing mill and 6km from the main road (fig 2).

Table 1 High grade results from Vanguard Drilling at Ives Find using a 10 g/t gold cut-off.

Hole No	Depth	Depth	Interval	Gold	Silver
	From	to	(m)	Au g/t	Ag g/t
IFRC004	38	39	1	19.70	27.5
	39	40	1	12.20	22.0
IFRC005	34	35	1	41.53	24.0
	35	36	1	114.90	162.0
IFRC015	47	48	1	22.40	9.0
IFRC017	55	56	1	27.90	61.0
IFRC044	12	13	1	24.40	11.4
IFRC069	33	34	1	22.16	60.4



Figure 2. Location of Ives Find in the Yandal belt, Western Australia

To date Vanguard has completed 52 shallow RC holes within the project area for a total of 2,609m with the majority of holes between 40m and 60m depth and two holes greater than 100m depth. This drilling has identified three high grade veins; Bell Miner, Duck & Duckling as well as demonstrating gold mineralisation along approximately 1km of strike (fig 3). The best results from this drilling using a 10g/t cut-off are shown in table 1.

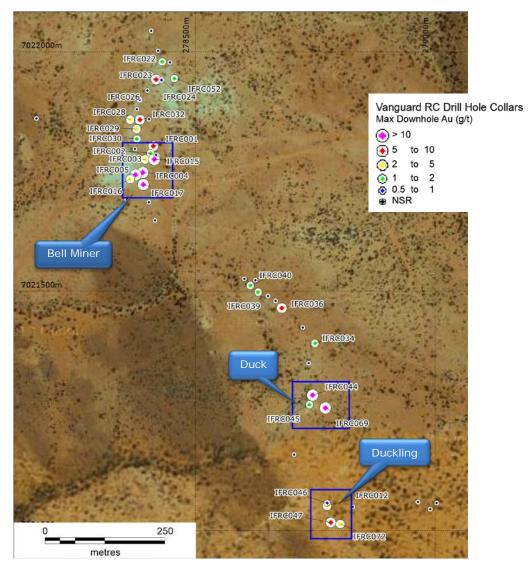


Figure 3: Drill hole collar locations for all Vanguard RC drilling at Ives Find. The collars have been coloured according to maximum downhole gold assay (1m sample; g/t Au) and Hole Nos included where there was maximum assay greater than 0.5 g/t

There is also potential for further discoveries of similar high grade veins as there are a number of geochemical anomalies that remain untested. By example, the Duckling vein was a new discovery that was a geochemical anomaly. The high grade nature of these veins could allow a scenario that makes selective mining and trucking the ore to a nearby mill feasible.

More importantly however the Company believes there is the potential for a significant discovery as there are similarities with the style of mineralisation both with the Mt McClure gold deposit (~1 Moz Au) and the Jundee gold deposit (~7 Moz Au) both located in the Yandal greenstone belt.

The project is situated on the same regional shear that hosts the Mt McClure gold deposit located approximately 55km along strike to the south. The gold mineralisation that has been observed at Ives has a spatial relationship with felsic intrusions which is also observed at Jundee located approximately 60km to the north.

Therefore the Company believes the Ives find project provides an excellent opportunity that limits downside risk but also has excellent exploration upside.

## Fairbairn Copper project

The Fairbairn project area is located approximately 170 kilometres north of Wiluna and is situated on the Jenkins-Goodin Fault Zone along strike from the Degrussa copper deposit (fig 4). Historical results reported include chalcopyrite mineralisation and 4m @ 2.43% Cu in drilling.

The company believes this project is prospective for Proterozoic copper (porphyry and VHMS) and Archaean lode gold. A number of prospective areas have been identified with one target granted EIS funding.

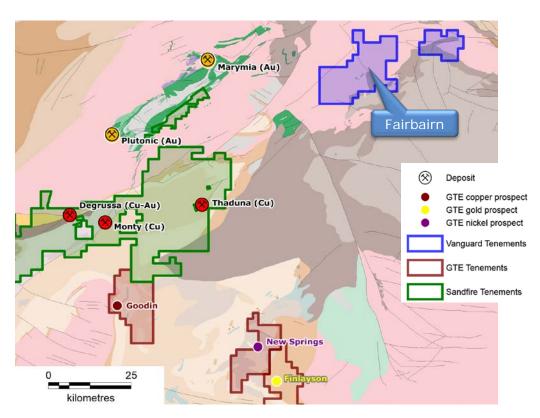


Figure 4: Location of Fairbairn along the Jenkins-Goodin fault

#### <u>Lithium Potential</u>

Both prospects have favourable geology for lithium mineralisation.

The granite that hosts the gold mineralisation at Ives Find is rich in high field strength elements ("HFSE") which is rare for the Goldfields. These types of granites are known to produce lithium bearing pegmatites. There are a number of pegmatites within the project area that are spatially related to this granite and are therefore prospective for lithium. There has been no previous exploration for lithium in this area.

At Fairbairn it has been documented in historical reports that drilling related to diamond exploration intersected an oxidised mica rich rock co-incident with anomalous Rubidium ("Rb") assays. This is consistent with the mineral lepidolite, a lithium ore mineral that is a mica occurring in pegmatite that also contains Rubidium. It is routine for diamond explorers to assay for Rb as it can be used to help determine the presence of kimberlites or lamproites which are rocks known to host diamonds and the reason why the drilling was not assayed for lithium at the time.

While the company's primary focus will be on the Ives Find gold project it will progress these promising lithium opportunities quickly.

## YERRIDA EXPLORATION (100% GTE)

#### Chisel Prospect

During the quarter the results from the initial RC drilling at Chisel were received and demonstrated favourable geochemistry for the formation of VHMS style base metal massive sulphide mineralisation.

Three RC holes, for a total of 591m, were completed last quarter, spaced 50m apart, for 100m coverage across stratigraphy, where RGC reported an intersection of 2m @ 3.2% copper, 8 g/t silver, 0.296 g/t gold and 0.12% zinc from a single diamond hole (DDH7) drilled in 1994 (fig 5). The purpose of the drilling was to determine the nature of this base metal anomalism and the geological setting in which it occurs.

All three drill holes intersected wide zones (>50m) of strongly altered medium and fine grained basaltic (mafic) volcanic sequences. The mafic volcanic sequence is overlain by a flat lying 100m thick black shale unit and a possible discordant minor dolomite unit along the base of the shale. The alteration is predominantly carbonate – pyrite with localised concentrations of pyrite up to 5%. The mutli-element geochemistry identified four horizons where there is a geochemical signature for VHMS style mineralisation at around the 50m, 100m, 140m and 190m depths.

The main interest in the historical drill hole was the juxtaposition of base metal mineralisation and "peperite" which is a diagnostic feature of Degrussa and Monty style massive copper mineralisation. As there were no massive sulphides logged in the original drill hole the company was not expecting to intersect a sulphide horizon and instead the

holes were drilled to determine whether the conditions exist for VHMS mineralisation similar to what has been observed at Degrussa and Monty.

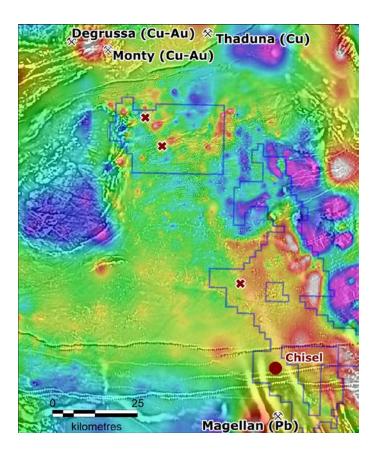


Figure 5: Location of Chisel prospect

The latest university research published on Degrussa has proposed that the primary mineralisation at Degrussa was formed during the intrusion of the mafic rocks after the formation of the host sedimentary sequence which was saturated in water. A key diagnostic texture that indicates this process occurring is the formation of peperite and both Talisman Mining and Sandfire Resources have previously stated the importance of these textures as an indicator for VHMS at both Degrussa and Monty VHMS deposits.

Furthermore this research calls into question whether the Degrussa host rocks are in fact Narracoota volcanics. It has been reported that the mafic volcanic rocks that host the Degrussa deposit do not reconcile well with the regional stratigraphy and could be either Narracoota volcanics (Bryah basin) or Killara volcanics (Yerrida basin).

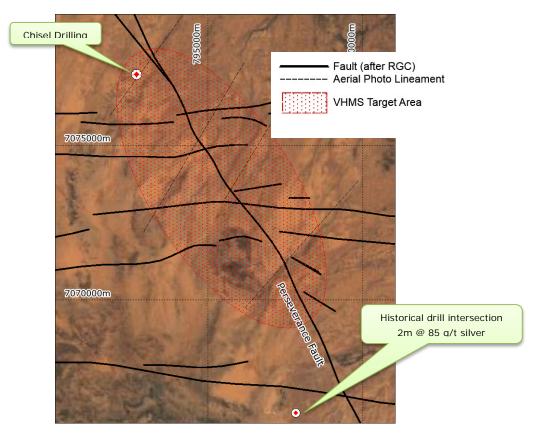
This suggests that the emphasis should be on local stratigraphic relationships rather than the regional divisions of the Bryah or Yerrida basins..

The drilling at Chisel has identified a similar geological setting to Degrussa, where there are peperite textures within sediments adjacent to mafic volcanics. These mafic volcanic rocks also exhibit "spilitic" alteration with locally intense carbonate and pyrite alteration which is indicative of a large hydrothermal system. This is also observed at Degrussa where the

mafic volcanics are similarly altered and with strong carbonate alteration peripheral to the main lodes. Furthermore the path finder elements associated with the alteration at Chisel exhibit a VHMS signature.

Four potential VHMS horizons have been identified using path finder geochemistry where there is barium, silver, cobalt, copper, manganese, iron, molybdenite and zinc enrichment.

The prospect is also located approximately 1km west of the Perseverance fault which is orientated northwest and is one of the first order controls that would have facilitated the formation of the Yerrida Proterozoic basin and can be traced along strike to the Monty deposit (see fig 5). In addition approximately 3.5km to the southwest there is a structurally complex area where northeast trending faults are interpreted to intersect the Perseverance fault which would be a prime location for the development of VHMS. Furthermore work completed by RGC identified a high priority gravity anomaly at the same location and also intersected 2m @ 85 g/t silver from 44m (bottom of the hole) to the south demonstrating the prospectivity of this area (fig 6).



The Company intends carry out further geophysical programmes (gravity, EM) to identify further drill targets.

## **Doolgunna Project (100% GTE)**

No work was carried during the quarter.

The Doolgunna project is located 25km and 17km south east of Degrussa and Monty respectively. The company has 8 remaining untested EM anomalies at the Goodin prospect along the "Degrussa" trend which occur at or near the Johnson Cairn – mafic volcanic contact along the western half of the projects (fig 1).

The company also recently recognized a second Monty trend in both the aeromagnetic and regional soils dataset and has so far identified two high priority structural targets with copper & gold enrichment in soils co-incident with gravity anomalies along this trend (fig 4).

The next phase of exploration will be to carry out EM surveys to cover the Monty trend and then drilling to test the remaining targets at the Goodin prospect and any new targets identified along the Monty trend following the EM survey.

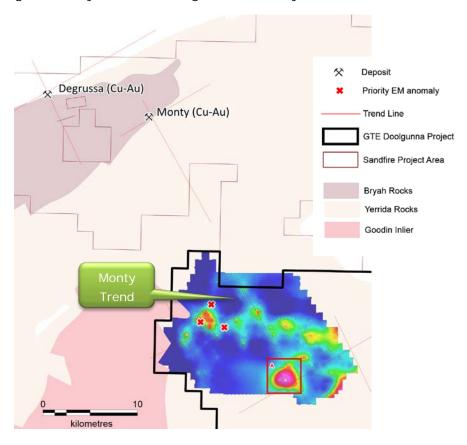


Figure 4. Map showing copper enrichment mapping a fault that is trending towards Monty located 16km along strike to the northwest. . Area A is high priority target structural target co-incident with copper in soil enrichment located 30km along strike from Monty.

## New Springs Project (100% GTE)

No work was carried during the quarter

At the New Springs project the company is targeting magmatic nickel sulphide mineralisation within the "Cunyu" sill which is a layered mafic intrusion located along a major fault zone interpreted to be the Perseverance/Bardoc fault zone by Rio Tinto and pmdCRC.

The Company initially acquired the area as part of its Doolgunna project targeting massive copper sulphide similar to Degrussa. However it soon became apparent that the New Springs project was also prospective for magmatic nickel sulphides after GSWA and Rio Tinto reports completed in the late 1990s and 2000s identified the Cunyu sill as prospective for Norilsk style massive nickel sulphide mineralisation based on whole rock geochemistry. This was before discovery of either Nova or Nebo nickel deposits in WA.

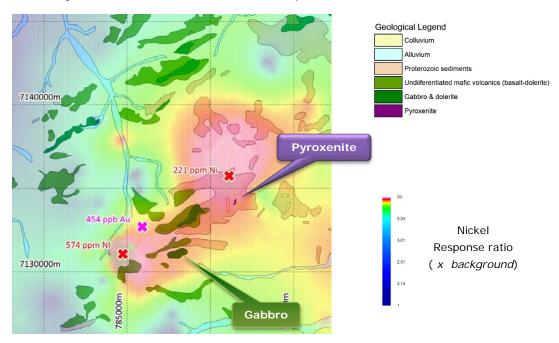


Figure 7. GSWA regional geology overlain by the regional gridded nickel response ratios.

Also shown is the location of the two maximum nickel and the maximum gold assay at the New Springs prospect from the regional geochemistry database in relation to the gabbro and pyroxenite outcrops

The project also meets the criteria published by the United States Geological Survey ("USGS") on this style of mineralisation to facilitate the assessment for undiscovered magmatic nickel sulphide deposits following a worldwide review on layered intrusions.

The USGS concluded the regional geological guide for magmatic nickel mineralisation are as follows:

- Province boundaries, rifts, and deeply penetrating faults that can allow for efficient transport of magma through the crust.
- Small- to medium-sized differentiated mafic and (or) ultramafic dykes and sills,
- Deposits are generally not hosted in thick, large-layered intrusions.
- Sulfur-bearing crustal rocks into which the layered mafic rocks are intruded.

All of these criteria are either directly observed or can be reasonably interpreted to occur at New Springs where the GSWA has interpreted sulphur bearing crustal rocks, province boundaries, and rifts within the Yerrida basin

The project is also strongly anomalous (> 20 times background) in nickel, copper, cobalt, gold and PGEs with the peak nickel values of 574 ppm and 221 ppm and maps out a broad area that is enriched in nickel, copper, cobalt, Gold and PGEs co-incident with the layered mafic – ultramafic sequence (Fig 7).

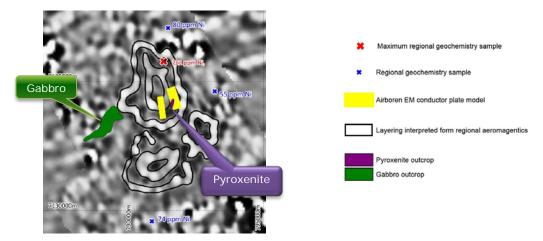


Figure 8. Some features of interest in the regional aeromagnetic data may represent smaller distinct layers or intrusions within a larger intrusive body

This compares well with the Nova nickel deposit which is also hosted in gabbro-pyroxenite sequence where a similar regional geochemical survey was completed over the Fraser Range that identified a nickel anomaly with a peak value of 271ppm that ultimately led to the discovery of Nova.

There are number of EM anomalies where the airborne surveys have covered areas within the dolerite-gabbro-pyroxenite sequences that are of interest to the Company. Three of these anomalies were selected for detailed plate modelling on the basis of the proximity to the pyroxenite outcrop and elevated nickel, copper and gold in the regional soil sampling along strike of these anomalies (fig 8 & Fig 9).

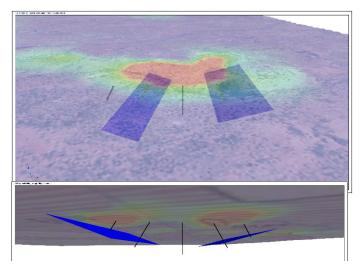


Figure 9. Two of the airborne EM Plate models in 3d (yellow plates in figure 4) with proposed drilling overlain by gold in regional soil sampling (800m line spacing).

The plate models are also co-incident with elevated nickel and copper in regional soils.

## CUNYU JV (GTE EARNING 70%)

The Cunyu JV is between the Company and Glencore whereby the Company is earning 70%. The project was initially acquired by Jubilee Resources Limited for potential Norilsk style magmatic nickel sulphide mineralisation.

Drilling has confirmed the presence mafic –ultramafic sequences with traces of nickel sulphides along strike to the north west of some of WA's largest nickel deposits near Wiluna. Furthermore a number of regional interpretations show the extension of the Bardoc and/or Perseverance faults through the project area.

On 30 May the JV will expire however the Company will seek to negotiate a 12 month extension to allow the drilling to be completed at the Finlayson prospect.

#### Finlayson Prospect

Work completed by the company identified the Finlayson gold prospect where drilling intersected a large mineralised shear that likely forms part of the Bardoc/Perseverance shear zone which hosts many major gold mines along strike including the Plutonic gold mine (~5 million ounces) located 70km to the north west and the Wiluna gold mine (~5 million ounces) approximately 70km to the south east.

The drilling was successful in demonstrating the critical elements required for gold mineralisation and furthermore the Company's structural interpretation indicates that the gold is occurring within what could be an extensive hydrothermal system.

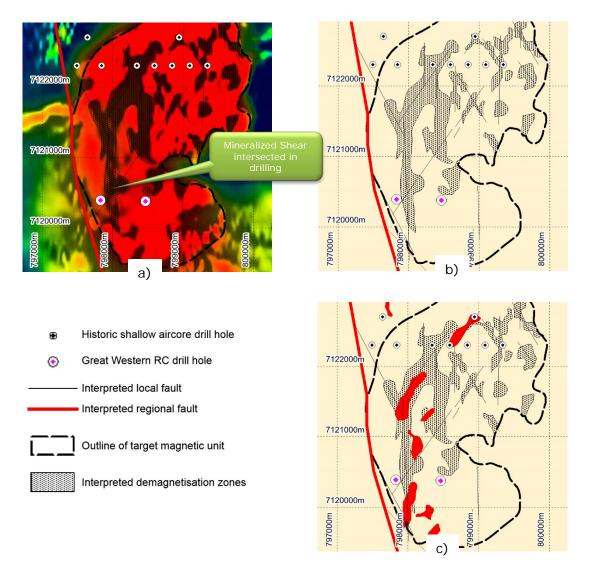


Figure 8. Finlayson gold prospect a) airborne magnetics image b) areas of demagnetisation c) the Wiluna gold pits (red) superimposed for size and geometry comparison

A simplified illustration of the structural interpretation at the Finlayson prospect is shown in figure 6 where there is demagnetisation within a 2 kilometres wide structural corridor comprising of primary north trending structures and secondary northwest and northeast trending structures.. This geological setting and dimensions compares well to the Wiluna gold mine.

The Company believes the Finlayson prospect has the potential for a major gold discovery and is planning, subject to the JV negotiations, further work including geochemical & geophysical surveys and further drilling to be completed as soon as possible.

#### YERRIDA NICKEL-COPPER-GOLD EXPLORATION STRATEGY

The company is focused on the development of four highly prospective areas; the Chisel (copper) Finlayson (gold), the New Springs (nickel-copper), and the Goodin (copper-gold) Prospects.

The applied exploration strategy aims to develop multi commodity (copper, nickel, gold) drill ready targets to enable the Company flexibility in response to global market volatility.

The company believes that the first order control of the mineralisation seen on the eastern side of the Capricorn Orogeny where the majority of the copper and gold deposits occur that includes Degrussa, Monty, Thaduna, Plutonic, Magellan and Wiluna deposits occur are north west trending Archaean fault zones that were reactivated during the formation of the Yerrida and Bryah basins.

The company also believes that these main structures include the Waroonga-Ida, Bardoc and Perseverance fault zones (fig 7). These are major terrain boundaries that penetrate deep into the Earth crust and are known to host many major gold, nickel and copper mines within the Yilgarn Craton.

These faults facilitate the rifting of the northern Yilgarn block and allow the emplacement of mafic volcanics, layered intrusions, granite intrusions and areas of high heat and fluid flow, all which are necessary to form the various type of deposits seen in the district.

The second order controls are north east trending faults and/or rock types that localise the mineralisation at or near the intersection of first order fault zones.

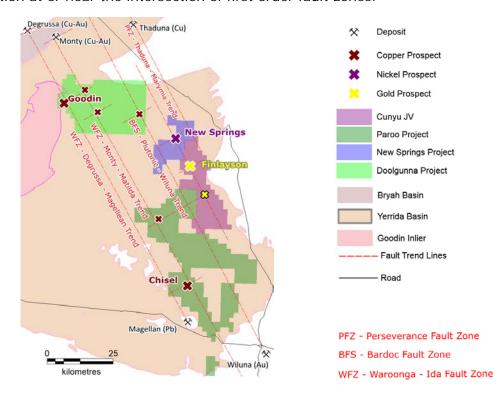


Figure 9. Regional Map showing the major faults zones that are interpreted to be the first order controls of mineralisation in the eastern area of the Capricorn Orogeny.

## Corporate

During the quarter, and as approved by the shareholders at the general meeting, the company issued 20 million shares at 1 cent to raise \$200,000 for exploration and working capital. The company also issued a further 23,522,600 shares at 1 cent in lieu of directors fees.

#### J A Luckett

## **Managing Director**

#### **Competent Person Statement**

The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Jordan Luckett who is a member of the Australian Institute of Mining and Metallurgy. Mr Luckett is an employee of Great Western Exploration Limited and 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 Luckett consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

## **Tenement Schedule**

District	Project Name	Tenement No.	Status	Ownership
Doolgunna Project	Neds Creek	E51/1330	Live	100%
	Doolgunna	E51/1324	Live	100%
	Paroo	E53/1712	Live	100%
	Paroo	E53/1713	Live	100%
	Paroo	E51/1540	Live	100%
	Paroo	E51/1560	Live	100%
	Paroo	E53/1730	Live	100%
	Paroo	E53/1740	Live	100%
	Paroo	E53/1774	Relinquished	100%
	Paroo	E53/1775	Relinquished	100%
	Paroo	E53/1776	Relinquished	100%
	Paroo	E51/1727	Application	100%
	Goodin	E51/1728	Application	100%
Cunyu JV	Cunyu JV	E51/1234	Live	GTE earning 70%
Cunyasv	Cunyu JV	E51/1238	Live	GTE earning 70%
	Cunyu JV	E53/1341	Live	GTE earning 70%