11 October 2021

# Lithium bearing pegmatites identified at Trident Project NSW

#### **KEY POINTS:**

- Numerous lithium bearing pegmatites have been visually identified at TSC's 100% owned Trident Project in NSW
- Multiple rock chip samples show visual amblygonite (Li,Na) AIPO<sub>4</sub> (F,OH) and lepidolite K(Li,Al)<sub>3</sub>(Al,Si,Rb)<sub>4</sub>O10(F,OH)<sub>2</sub><sup>1</sup>
- Current rock chip sampling program will complement historical geochemical sampling results that include the following samples <sup>2&3</sup>:

Triumph Mine: 7.63% Li2O
 Lady Don Mine: 4.45% Li2O
 Trident Mine: 3.88% Li2O
 Sceptre Mine: 1.56% Li2O
 Esams No.2 Mine: 1.05% Li2O

- TSC has also undertaken a review and small sampling program of several historical copper workings around the central and southern portion of the Trident licence area
- Assays from initial rock chip sampling programs are expected in 4 to 6 weeks

Commenting on the initial observations from the Trident sampling program, CEO Simon Phillips said:

We are pleased with the initial observations from our first round of sampling at Trident, which so far validates encouraging historical results and supports our belief that Trident has very clear potential to host lithium-bearing pegmatites. In addition to the presence of lithium and tin, our team has also reported evidence of copper mineralisation in the form of malachite and azurite which is very encouraging.

The Trident Project remains significantly underexplored and continues to shape as an exciting opportunity for TSC, and we look forward to providing regular updates on exploration progress over the coming months."

Twenty Seven Co. Limited (ASX: TSC) ("TSC" or "the Company") is pleased to announce that it has completed a first pass rock chip sampling program at the Trident Project in NSW. A total of 152 rock chip samples have been taken (see figure 2) from across the Northern portion of the tenement.

The program was completed over the most prospective anomalies within the Trident Project area, with potential lithium, caesium and tantalum, with niobium, and tin pegmatites visually identified by TSC's field crew.

All samples have been dispatched to a laboratory in South Australia for full assay suite analysis, with first assays expected to be received in November / early December.

#### **Trident Sampling Program Background**

As recently reported (see ASX release dated 16 September 2021), TSC's technical team has compiled extensive amounts of historical geochemical data regarding the Trident Project area from the NSW MinView geological database, which has led to the identification of multiple new lithium and tin targets.

The lithium, tin, caesium, and tantalum (LCT) pegmatites identified have been sampled by previous explorers and show that lithium occurs within amblygonite, and lesser lepidolite which are both important minerals for lithium mining. Historically, sporadic tin mining occurred in the Euriowie Tin Field from the 1880's to 1970's, leaving the area littered with evidence of old workings.

Initial visual results have been particularly encouraging and have identified the presence of pegmatites with evidence of lithium and tin bearing minerals (amblygonite and lepidolite) as well as the presence of tin (cassiterite). Numerous samples have also been taken which show the evidence of copper mineralisation in the form of malachite and azurite.



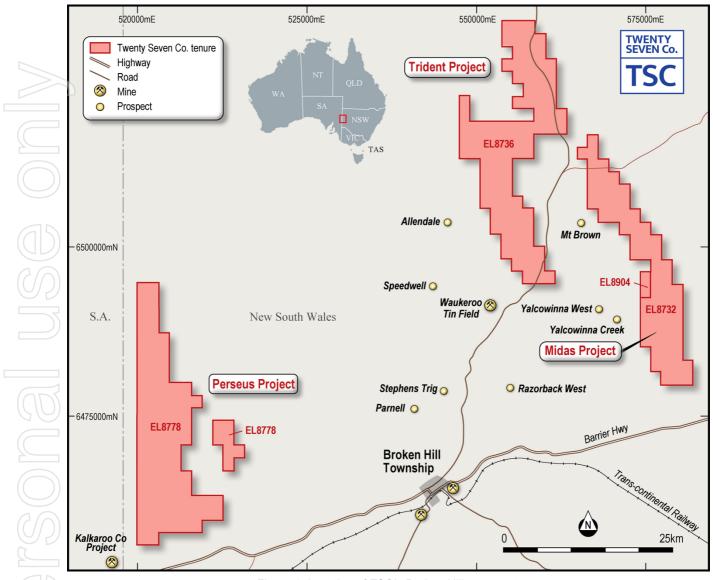


Figure 1: Location of TSC's Broken Hill tenements



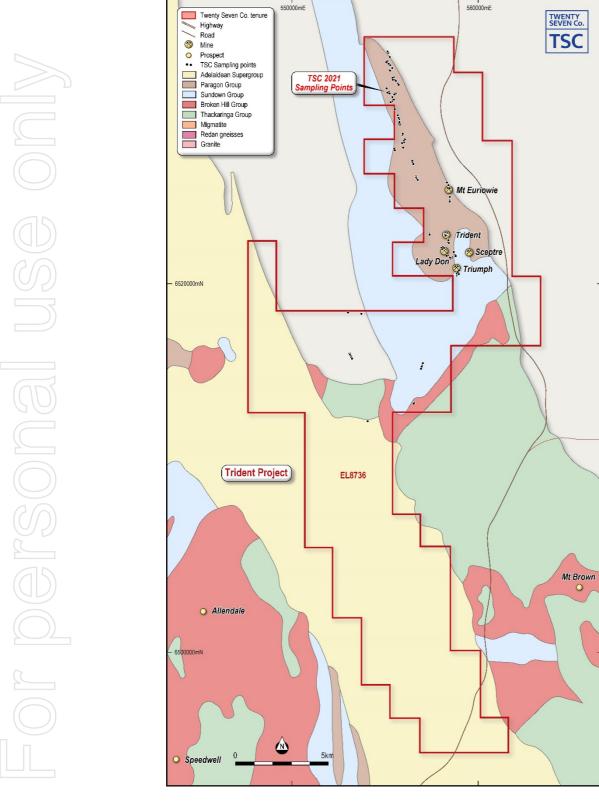


Figure 2: Map showing the locations of the recently taken rock chip samples.



Figure 3: LHS shows quartz rich portion of a pegmatite showing very coarse grained cassiterite (555380mE and 6531663mN).



Figure 4: LHS showing potential massive amblygonite at Badjerrigarn (556724mE and 6525624mN)



Figure 5: Copper rock sample from 556952mE 6515319mN



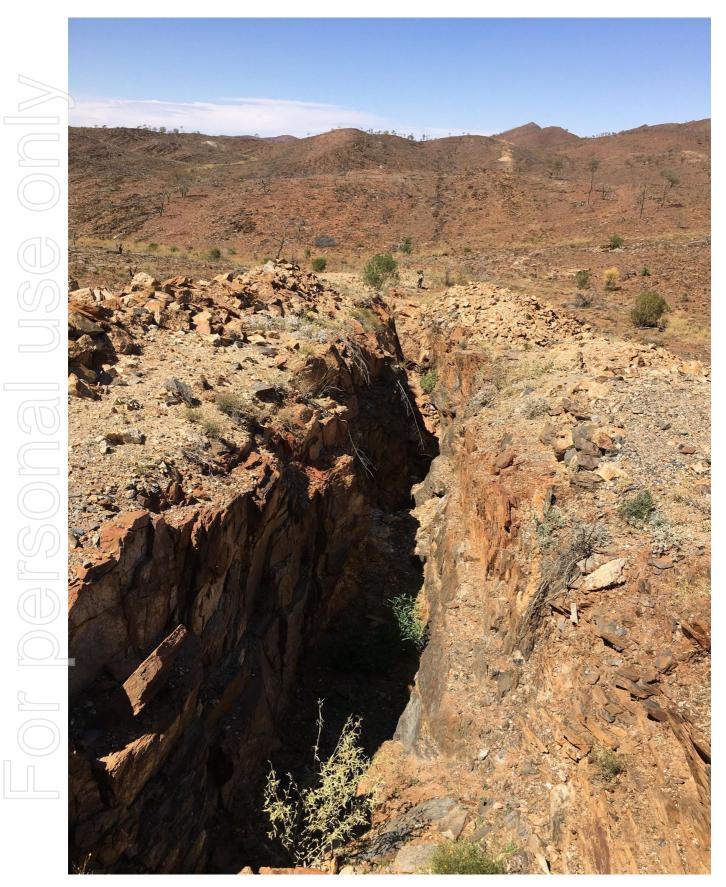


Figure 6: Queen Victoria mine workings potentially mined for tin (556487mE and 6526498mN looking south)



#### **LCT Mineralisation Model**

Felsic pegmatites are igneous intrusive bodies of granitic composition with extremely coarse grainsize. LCT pegmatites are a subset of granitic pegmatites that consist mostly of quartz, potassium feldspar, albite, and muscovite. LCT pegmatites host the significant Greenbushes lithium deposit in Western Australia, (133.1Mt @ 2.1% Li<sub>2</sub>O)<sup>4</sup> as well as other numerous significant lithium deposits.

Within the Curnamona Province in the Broken Hill Block, pegmatites are largely conformable to stratigraphy and have similarities to sill complexes (Fitzherbert, 2015). Pegmatites within the region are hosted within Paleoproterozoic and Mesoproterozoic units with each effecting the composition and mineralisation type. The oldest rocks within the Thackaringa and Broken Hill Groups are metamorphosed to higher grade granulite and upper amphibolite facies and younger rocks within the Sundown and Paragon Groups are metamorphosed to lower amphibolite to greenschist facies (Figure 7).

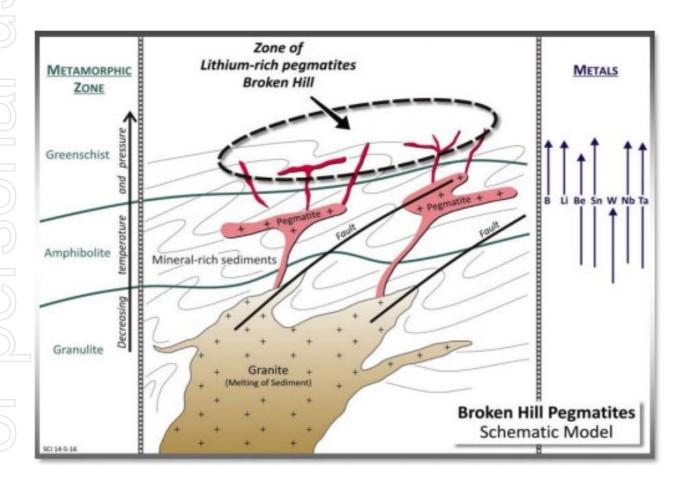


Figure 7: Pegmatite schematic model for the Broken Hill region showing sill development within different metamorphic facies present within the Euriowie tenure [EL8736] (Silver City Mining)<sup>5</sup>

Importantly, a recent study into the lithogeochemistry of pegmatites in the region highlighted that pegmatites hosted within lower amphibolite and greenschist facies of the Sundown and Paragon Groups contain tin, tungsten, lithium, niobium and tantalum, while pegmatites within higher grade metamorphic rocks host elevated lead-zinc-silver-manganese (Coianiz, 2018)<sup>6</sup>. The bulk of the LCT pegmatites in the Project area occur within the Paragon Group. The pegmatites can be divided into two prospectivity groups as shown below:

- Pegmatites hosted in lower amphibolite and greenschist facies of the Sundown and Paragon Groups are referred to the 'upper sill complex' (includes LCT - Waukeroo Type pegmatites); and
- 2. Pegmatites (and leucogranite) within the granulite and upper amphibolite facies of the Thackaringa and Broken Hill Groups can be described as a 'lower sill complex' as they form bodies which are largely strata bound (*Figure 8*).

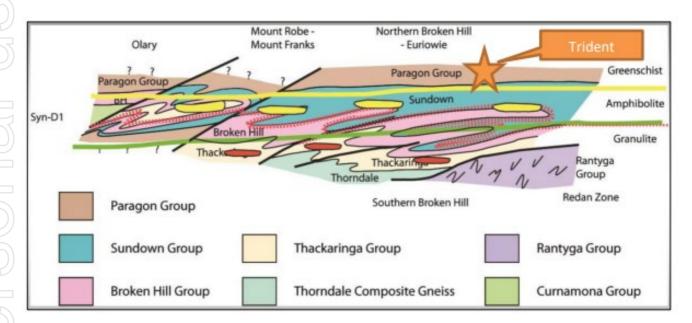


Figure 8: A conceptualisation of the Pegmatites in the Broken Hill Region showing sill development within the local stratigraphy of the Trident Project (After Stevens 2006) 788

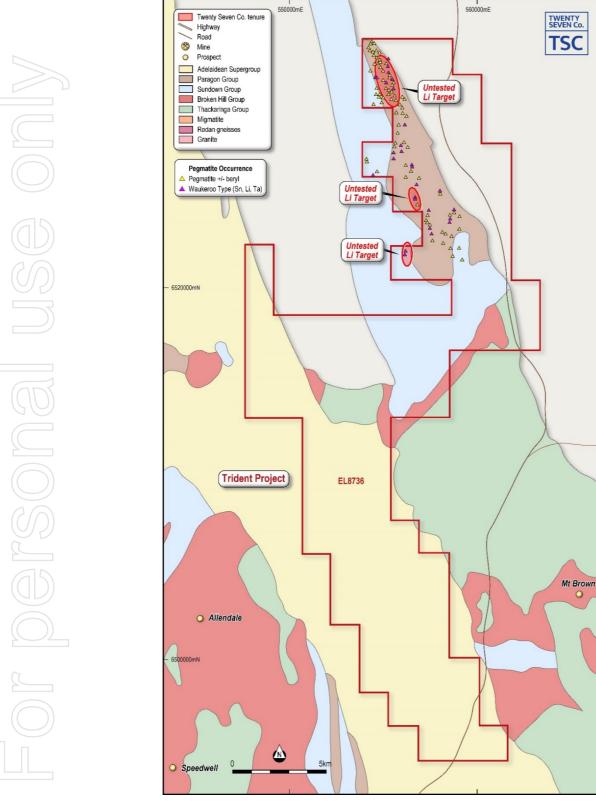


Figure 9: Location of pegmatite occurrences and lithium targets within Trident

#### **Next Steps**

TSCs intended next steps over the coming months include the following:

- Receive Trident assay results from the laboratory and plan future work,
- Visit the Perseus tenement once mustering allows access,
- Commence drilling key anomalies at the Rover Project in WA; and
- Commence geochemical sampling along the Edale shear at Rover.

#### References

- 1. Visual identification of amblygonite is problematic therefore field identification my not correspond to laboratory assays.
- Dukovic, T. (2017) Annual Report for EL8468 for the Period 22 September 2016 to September 2017. Unpublished Report Mica Exploration Areas Pty Ltd, GSNSW Report GS2018\_0298\_RE0010150\_ALL.EL8468 Annual Exploration Report 2017.
- Refer to ASX announcement dated 16<sup>th</sup> September 2021: Lithium and Tin Targets Identified at Trident Project, NSW
- BDA Independent Technical Report for Greenbushes Lithium Operation, March 2020; Mineral Resources
  are inclusive of Ore Reserves. The estimate has not been depleted for mining after 31 March 2018.
- Silver City Minerals Proactive investor presentations (5-6 July 2016)
- 6. Coianiz, Glenn & Torrey, Chris. (2018). Lithogeochemistry of Pegmatites at Broken Hill: An Exploration Vector to Mineralisation. ASEG Extended Abstracts. 2018. 1. 10.1071/ASEG2018abM1\_2D.
- Stevens, B.P.J. & Burton, G.R. (1998). The early to late Proterozoic Broken Hill Province, New South Wales. 17. 75-86
- 8. Nile Exploration Information memorandum: Overview of Lithium potential of the Trident Project in NSW (EL8736) unpublished report

The Board of Twenty Seven Co. Limited authorised the release of this announcement to the ASX.

#### For further information please contact:

## Simon Phillips CEO

Phone: (08) 9385 6911 Mobile: + 61 411 883 450

Email: sphillips@twentysevenco.com.au

#### **Rohan Dalziell**

**Non-executive Chairman** 

Phone: (08) 9385 6911 Mobile: + 61 407 994 507



#### **Competent Person's Statement**

The information in this report relates to historical mineral exploration results and is based on work reviewed and compiled by Mr. Stephen F Pearson, a Competent Person and Member of the Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Mr Pearson is a beneficiary of a trust which is a shareholder of TSC. Mr. Pearson is a Senior Geologist for GEKO-Co Pty Ltd and contracted to the Company as Exploration Manager and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity that 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. Pearson consents to the inclusion in this report of the information in the form and context in which it appears. The Australian Securities Exchange has not reviewed and does not accept responsibility for the accuracy or adequacy of this release.

### **About Twenty Seven Co. Limited**

Twenty Seven Co. Limited (ASX: TSC) is an ASX-listed explorer. TSC's Australian assets comprise two tenure groupings detailed briefly as follows:

#### WA Archaean Gold assets:

- Mt Dimer Project: is made up of mining lease M77/515 and exploration license E77/2383. The project is highly prospective for Archean gold. The recent soil geochemical sampling undertaken over the exploration license to the west of the MDML shows the potential for further mineralisation to be defined within the greater project area.
- Yarbu Project: This project is located on the Marda Greenstone belt ~ 80km to the northwest of the Mt Dimer Project. Yarbu consists of three exploration licenses (E77/2442, E77/2540 and E77/2539) which cover approximately 223sq km and are highly prospective for Archean gold deposits.
- Rover Project: TSC's 100% owned Rover project is located near Sandstone in a base metals and gold mineral rich area associated with Archean greenstone belts. Rover Project is a large 460sqkm tenure package covering two linear Archean greenstones, with a combined length of around 160km. Historically the area is underexplored and is currently undergoing a resurgence in exploration.

#### **NSW Iron Oxide-Copper-Gold and Lithium assets:**

- Midas Project: is prospective for iron oxide copper gold (IOCG) and is located 40km NE of Broken Hill.
- Perseus Project: is prospective for iron oxide copper gold (IOCG) and historically has been underexplored and is located ~50km west of Broken Hill.
- **Trident Project:** is prospective for iron oxide copper gold (IOCG) and tin and lithium pegmatites and is located ~35km north-east of Broken Hill.



## JORC Code 2012 Edition Summary (Table 1) - Trident rock chip sampling

### Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specificspecialised 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.</li> </ul>	<ul> <li>Rock chip sampling are from outcrop and subcrop</li> <li>This involves taking a random grab sample of approximately 1.5-3kg using a geological hammer and numbered calico bags</li> <li>These rock chip samples should not be considered to be representative of the entire pegmatite body due to the nature of interval fractionation</li> </ul>
	<ul> <li>Include reference to measures taken to ensure sample representivity and theappropriate calibration of any measurement tools or systems used.</li> </ul>	No measures have been taken to ensure samples representivity at this stage as the project is in the very early stages of assessment
0)	Aspects of the determination of mineralisation that are Material to the Public Report.	No determinations were made in this regard. Pegmatite occurrences were sampled and will be assayed regardless if visual mineralisation is present or not
	• In cases where 'industry standard' work has been done this would be relatively simple (eg '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 (eg submarine nodules) may warrantdisclosure of detailed information.	<ul> <li>Rock chip samples were collected using a geological hammer and a uniquely numbered calico bag</li> <li>These samples are not considered to be fully representative of the pegmatite</li> </ul>
Drilling techniques	Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standardtube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	Not applicable

Criteria	JORC Code explanation	Commentary
Drill sample recovery	Method of recording and assessing core and chip sample recoveries andresults assessed.	Not applicable
	Measures taken to maximise sample recovery and ensure representativenature of the samples.	Not applicable
Drill sample recovery	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	Not applicable
Logging	Whether core and chip samples have been geologically and geotechnicallylogged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	A lithological description of each sample was undertaken as well as location (Easting, Northing in MGA84_54s).
	Whether logging is qualitative or quantitative in nature. Core (or costean,channel, etc) photography.	Logging is qualitative in nature. Some samples were photographed
	The total length and percentage of the relevant intersections logged.	All samples were logged
Sub-sampling techniques andsample	If core, whether cut or sawn and whether quarter, half or all core taken.	Not applicable.
preparation	If non-core, whether riffled, tube sampled, rotary split, etc and whethersampled wet or dry.	Not applicable.
	For all sample types, the nature, quality and appropriateness of the samplepreparation technique.	Not applicable. as assay results not reported
	<ul> <li>Quality control procedures adopted for all sub-sampling stages to maximiserepresentivity of samples.</li> </ul>	No quality control procedures have been undertaken
	Measures taken to ensure that the sampling is representative of the in situmaterial collected, including for instance results for field duplicate/second-half sampling.	Sample sizes may not be appropriate to the grain size of the material being sampled. Grain sizes of the pegmatite range from 2mm up to 30mm
	Whether sample sizes are appropriate to the grain size of the	The sample size taken (1.5-3kg) will give the best indication of lithium mineralisation given that the grain size varies from 2-30mm.

Criteria	JORC Code explanation	Commentary
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.	No assays reported
D	For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make andmodel, reading times, calibrations factors applied and their derivation, etc.	No geophysical instruments used.
Quality of assay data and laboratory tests	Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels ofaccuracy (ie lack of bias) and precision have been established.	No measures have been taken to ensure samples representivity at this stage as the project is in the very early stages of assessment
Verification of Sampling andassaying	The verification of significant intersections by either independent oralternative company personnel.	Not applicable.
	The use of twinned holes.	Not applicable.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	<ul> <li>All data is initially captured on paper logging sheets, and transferred to pre-formatted excel tables and loaded into the project specific database.</li> </ul>
	Discuss any adjustment to assay data.	No adjustments or calibrations are made to any assay data from the Trider Project
Location of datapoints	<ul> <li>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.</li> </ul>	Sample locations were located via a hand help GPS.
	Specification of the grid system used.	The grid system used is MGA94 Zone 54
	Quality and adequacy of topographic control.	The topographic control is judged as adequate for geochemical samples
Data spacing and distribution	Data spacing for reporting of Exploration Results.	The rock chip samples are taken on a random spacing
	Whether the data spacing and distribution is sufficient to establish thedegree of geological and grade continuity appropriate for the MineralResource and Ore Reserve estimation procedure(s) and classifications applied.	Not applicable.

Criteria	JORC Code explanation	Commentary
Data spacing and distribution	Whether sample compositing has been applied.	Not applicable.
Orientation of datain relation togeological structure	Whether the orientation of sampling achieves unbiased sampling of possiblestructures and the extent to which this is known, considering the deposit type.	Not applicable.
	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.	Not applicable.
Sample security	The measures taken to ensure sample security.	Geological field crew transported samples to Broken Hill and then delivered to a trucking company who will transport the samples to the laboratory in Adelaide
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No audits have been undertaken

## 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.	<ul> <li>The tenement referred to in the release is EL8736 Owned by OZ Gold a wholly owned subsidiary of Twenty Seven Co. Limited</li> <li>Landowner agreements are in place and current</li> <li>Native Title is extinguished</li> </ul>
	The security of the tenure held at the time of reporting along with anyknown impediments to obtaining a licence to operate in the area.	Tenement is current with no known impediments to operate a license in the area.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Very limited sampling has been undertaken within the tenement. Of the work undertaken over Trident the majority was by the following companies:         <ol> <li>Pasminco Ltd, which undertook rock chip over the tenement,</li> <li>Carpentaria Exploration Limited which undertook rock chip sampling</li> <li>Mica Exploration Areas Pty Ltd which undertook rock chip sampling</li> <li>Silver City Minerals Limited which undertook rock chip sampling</li> <li>CGNM RESOURCES PTY LTD which undertook rock chip sampling</li> <li>Alphadale which undertook rock chip sampling</li> </ol> </li> <li>All information relating to the above rock chips can be found on the NSW mines department MinView database</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	The historical tenure reports indicated that: - The project lies within the geological complex Curnamona Province, which contains a large variety and unusual suite of geological units as a result of complex geological history with multiple metamorphic and mineralising fluid events. The project is prospective for LCT pegmatites
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for allMaterial drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> </ul>	Not applicable.

Criteria	JORC Code explanation	Commentary
	<ul> <li>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</li> <li>why this is the case.</li> </ul>	Not applicable.
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximumand/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> </ul>	Not applicable.
	Where aggregate intercepts incorporate short lengths of high grade resultsand 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.	Not applicable.
	The assumptions used for any reporting of metal equivalent values shouldbe clearly stated.	Not applicable.
Relationship between mineralisation widths and interceptlengths	<ul> <li>These relationships are particularly important in the reporting of ExplorationResults.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle isknown, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there shouldbe a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	Not applicable.
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These shouldinclude, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	Refer to body of this announcement.
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.	This is not a large enough dataset to ensure balanced reporting

Criteria	JORC Code explanation	Commentary
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical surveyresults; 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.	All meaningful and material information has been included in the body of the text. No metallurgical or mineralogical assessments have been completed.
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including themain geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	The next phase of exploration is pending the outcome of rock chip sampling
5)	,	