



ABN: 48 119 978 013

ASX Announcement (ASX: TSC)

31 January 2019

## **Compelling Drill Targets Identified at Benco Cu-Co Prospect**

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- **Large induced polarisation (IP) chargeability anomalies identified coincident with ridge and anomalous Cu-Co geochemistry at Benco**
- **All three chargeable zones (M1, M2, M5) selected for dipole-dipole IP (DDIP) sections “showed compelling targets”**
- **Two shallow IP chargeability anomalies (M1 & M5), each underlain by a basement conductor, are interpreted as shallow disseminated sulphides becoming more massive with depth**
- **A detailed ground electromagnetic (EM) survey to commence early February over the deeper M1 and M5 conductivity anomalies to better define the targets geometry**
- **Drill planning and approvals have commenced to test both the shallow IP chargeability anomalies and deeper conductive targets**

Twenty Seven Co. Limited (ASX: TSC) (“Twenty Seven Co.” or “the Company”) is pleased to announce it has identified a significant chargeability anomaly coincident with previously identified anomalous copper (Cu) and cobalt (Co) in rock chips at the Benco prospect, Midas Project, Broken Hill (Figure 1). Follow-up DDIP sections over three chargeability anomalies at Benco has defined three compelling targets for drill testing.

### **CEO Ian Warland commented:**

*“The identification of shallow chargeability anomalies underlain by two conductors at Benco Cu-Co prospect is highly encouraging. The coincidence of a strong geophysical and geochemical anomalies in a structurally complex area highlights Benco as an exciting Cu-Co prospect.”*



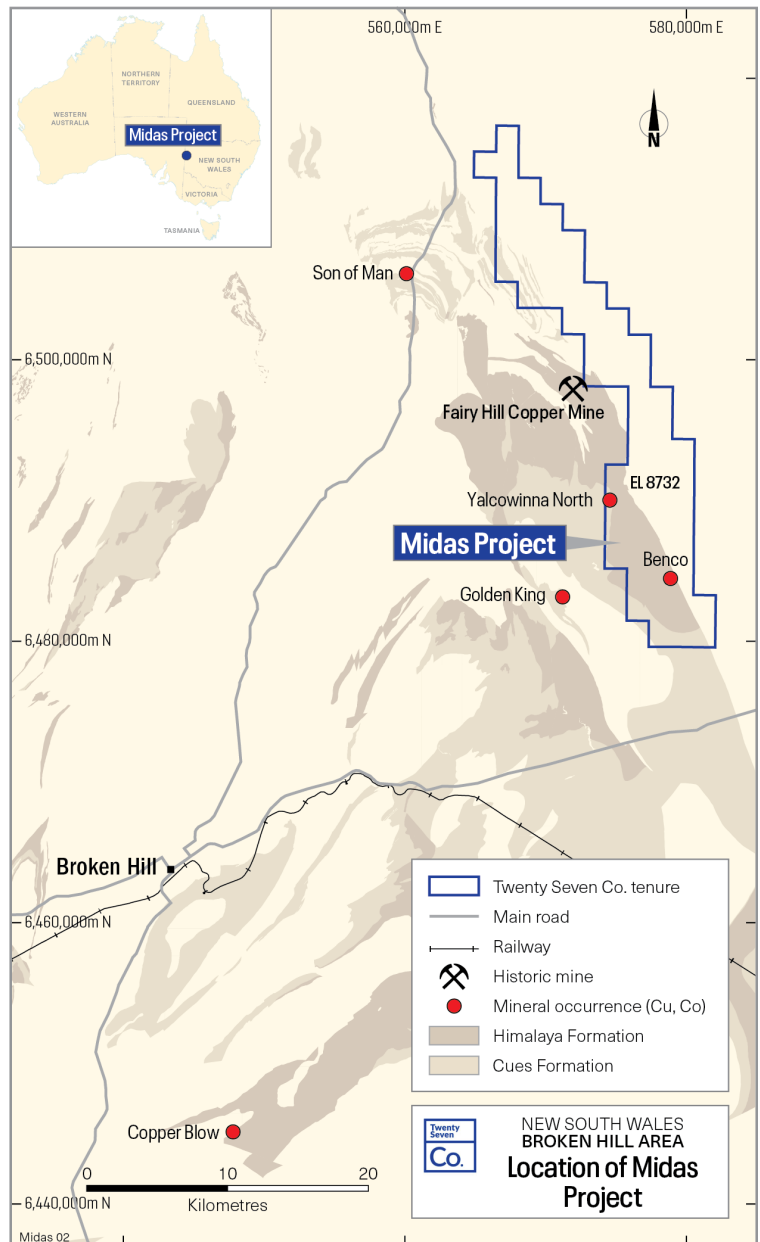
TSC first announced Benco prospect in October 2018 with the discovery of previously unrecorded workings over a quartz iron oxide vein with anomalous Cu and Co<sup>1</sup>. Since October TSC has conducted regional soil sampling, mapping and detailed rock chip sampling to understand the breadth of mineralised veins at Benco<sup>2</sup>. Several narrow quartz iron oxide vein sets have been mapped within an NE trending corridor ~ 1.6km long by 300m wide (Figure 2).

In late December, TSC undertook a reconnaissance gradient array induced polarization (IP) survey over Benco with the aim of determining the most prospective Cu-Co zones along the Benco Corridor. Results received from the gradient array successfully defined numerous chargeable zones. The survey was then extended to the northeast following promising IP responses that were also coincident with Cu-Co anomalism from rock chip samples. This additional gradient array grid to the northeast, produced an even stronger IP response along a major geological contact between the Thackaringa Group and the Adelaidean rocks (Figure 2). These chargeable zones are coincident with resistive areas suggesting they are not due to conductive shales or clay rich cover.

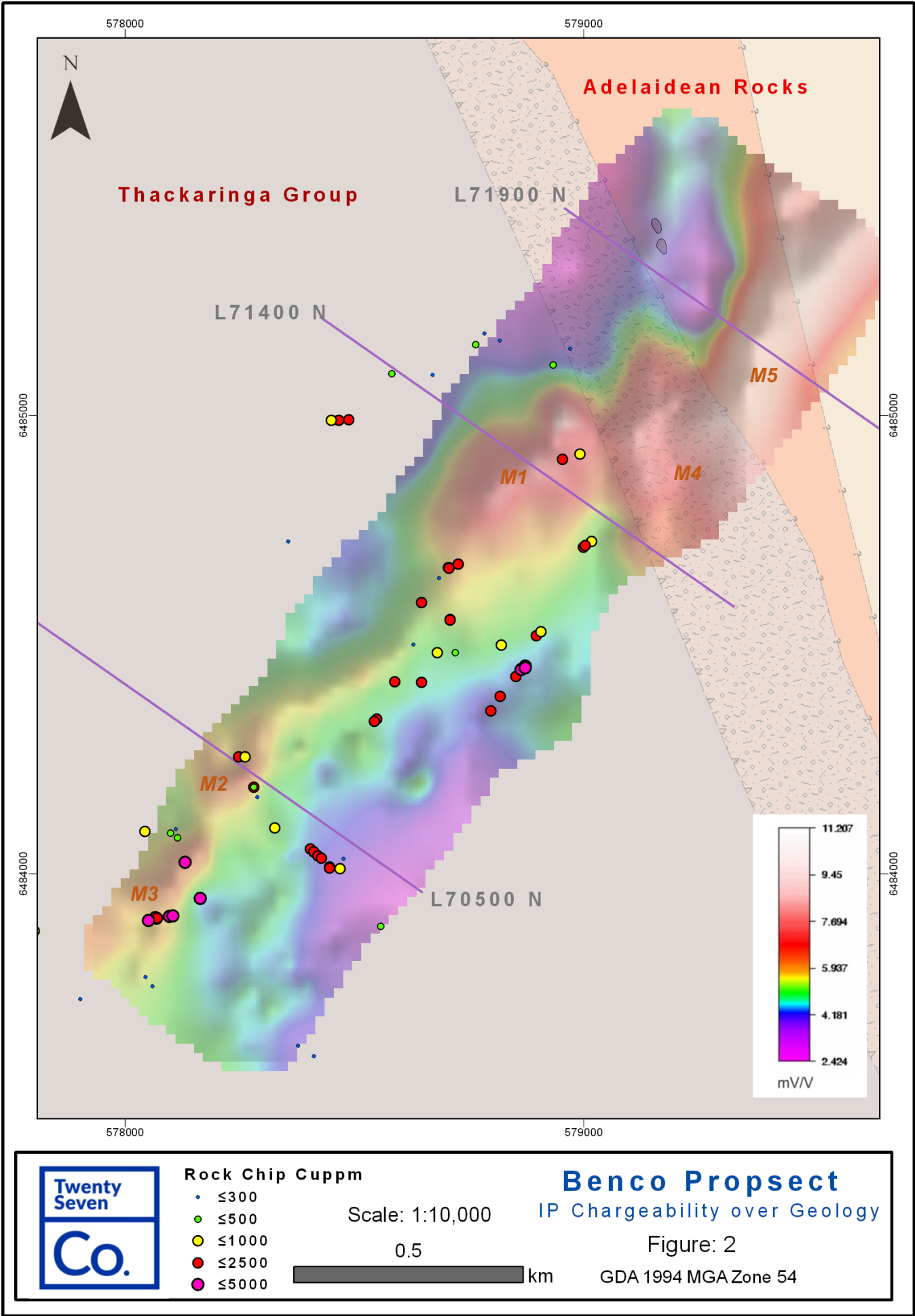
Three chargeable zones (M1, M2, M5) were selected from the gradient array IP results by a consultant geophysicist for DDIP (dipole-dipole IP) sections. These results were very encouraging, the consultant concluding that all three DDIP sections “show compelling targets”.

- Target M5 on L 71900N (Figure 3) and M1 on L 71400N (Figure 4) show shallow chargeability anomalies underlain by a conductive zone, interpreted as possibly due to shallow disseminated sulphides, becoming more massive with depth.
- Target M2 on L 70500 N consists of a chargeability anomaly, coincident with a mapped ridge/fault and anomalous Cu and Co in rock chips.

The IP chargeability anomalies on all three DDIP sections are within 100m of surface, while the two conductivity anomalies on L 71900N and L 71400N are deeper at around 150 to 200m and will be better defined with a ground EM survey planned for early February.



**Figure 1: Midas Project Location**





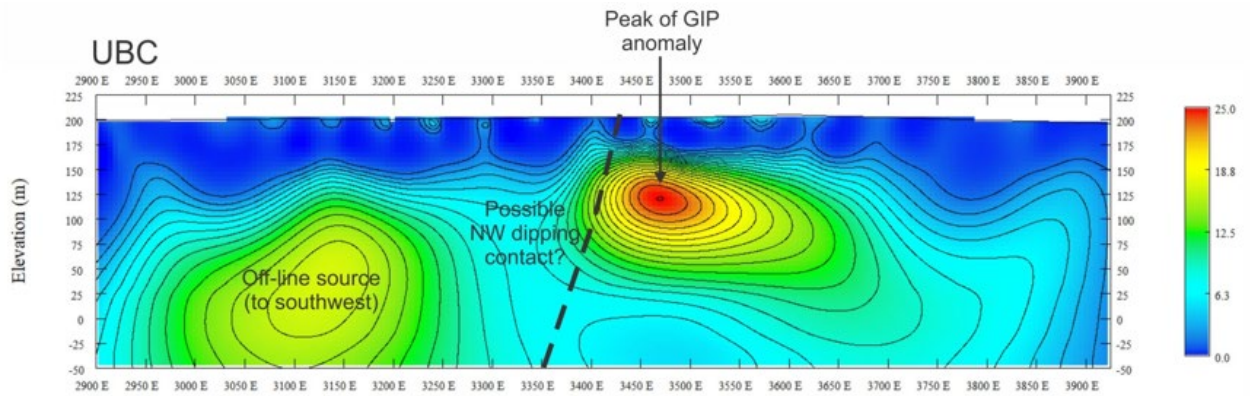


Figure 3a: L 71900N Chargeability (mV/V) Section (looking northeast)

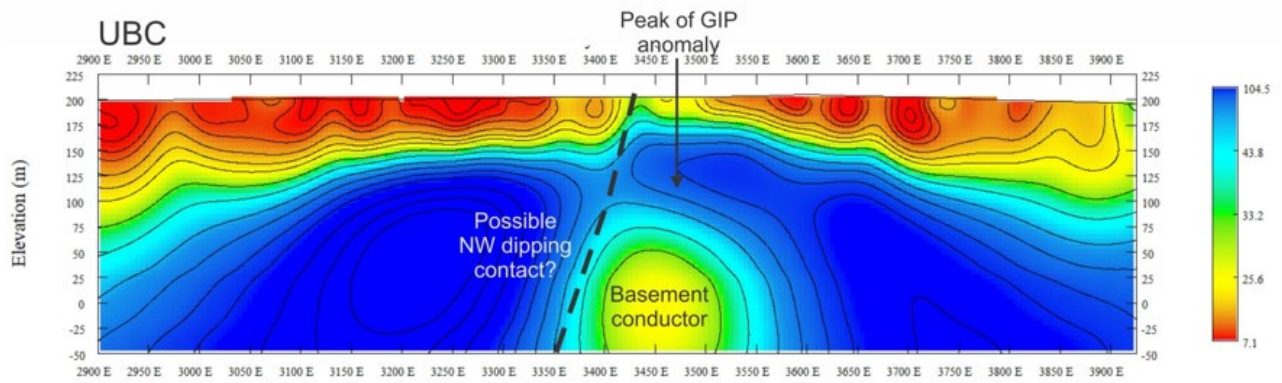


Figure 3b: L 71900N Resistivity (ohm-m) Section (looking northeast)

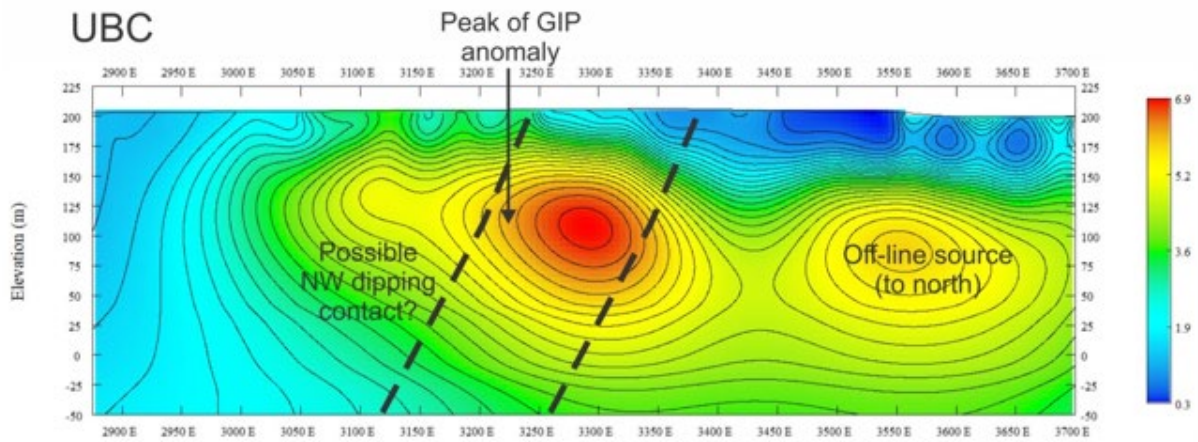


Figure 4a: L 71400N Chargeability (mV/V) Section (looking northeast)

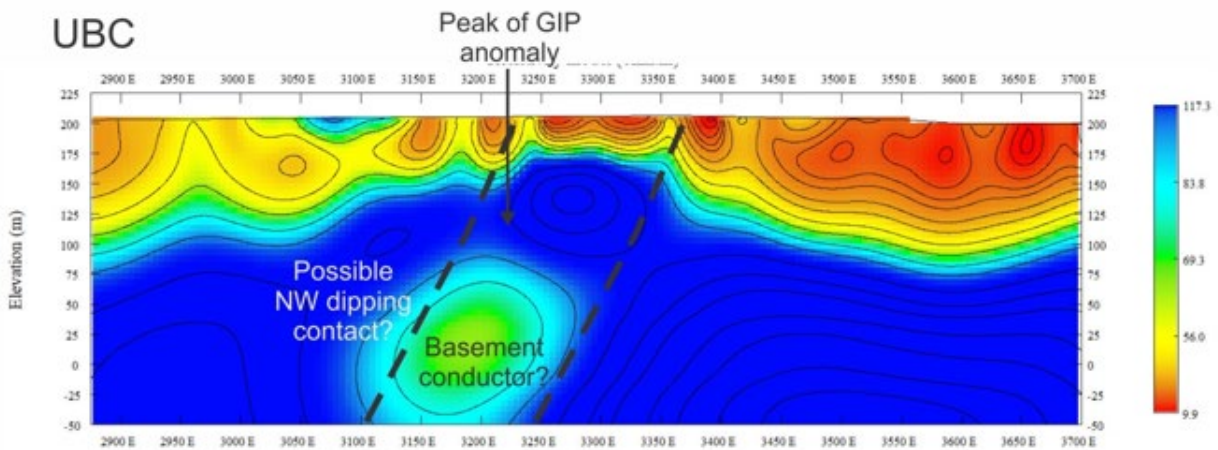


Figure 4b: L 71400N Resistivity (ohm-m) Section (looking northeast)

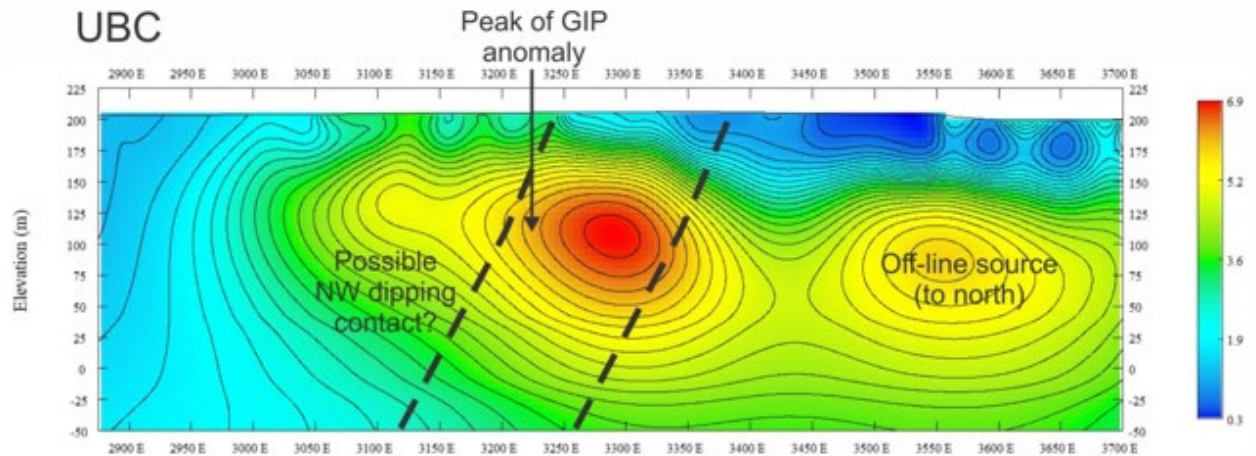


Figure 5a: L 70500N Chargeability (mV/V) Section (looking northeast)

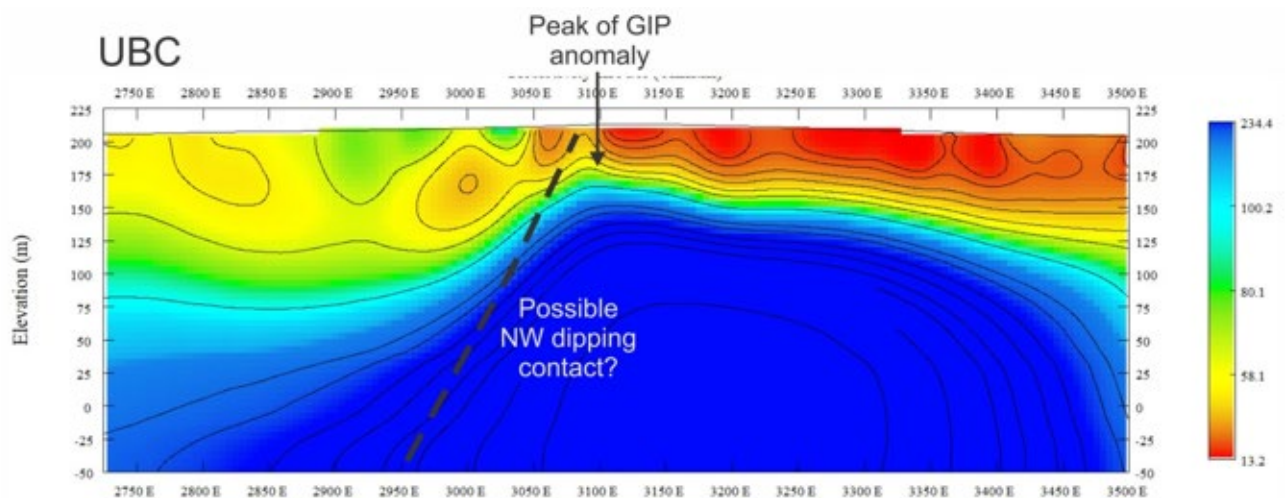


Figure 5b: L 70500N Resistivity (ohm-m) Section (looking northeast)

## Next Steps

A ground EM survey is planned for early February to test the two conductors at M5 (L 71900N) and M1 (L 71400N) to better define their geometry prior to drill testing.

Drill planning and approvals has commenced. Drilling will aim to test the shallow IP anomalies initially and then depending on the ground EM survey results, will also test the deeper conductors.

For further information please contact:

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## COMPETENT PERSON'S STATEMENT:

*The information in this report that relates to Geological Interpretation and Exploration Results is based on information compiled by Ian Warland, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Warland is employed Twenty Seven Co. Limited. Mr Warland has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Warland consents to the inclusion in the report of the matters based on his information and the form and context in which it appears.*

## Reference:

1. TSC: ASX 3 October 2018
2. TSC: ASX 25 October 2018

## About Twenty Seven Co. Limited

Twenty Seven Co. (ASX: TSC) is an ASX-listed cobalt focused explorer. In brief, TSC's Australian assets are 100% owned and comprise four tenure groupings detailed briefly as follows:

**NSW assets:** TSC's two NSW projects – Midas and Perseus are targeting the prospective Thackaringa Group Rocks which hosts Cobalt Blue's (ASX: COB) Thackaringa Project containing around 61kt of cobalt (COB: ASX Release dated 19 March 2018). TSC's Midas Project is located 40km NE of Broken Hill adjacent to Silver City Minerals (ASX: SCI) Yalcowinna Tenement. The Perseus Project is located 20km west of Broken Hill, and is north of Alloy Resources (ASX: AYR) Ophara Project and to the east is the adjacent Havilah Resources (HAV.ASX) Kalkaroo Project. Previous explorers rarely assayed for cobalt.

**NT assets:** TSC's has three prospective tenements in NT. Both the Pungalina and Pear Tree Projects are adjacent to Northern Cobalt's tenements that host the Stanton Cobalt Deposit (ASX: N27). The region remains under explored due to Cenozoic Cover.

**SA assets:** TSC's Kalanbi Project is located near Ceduna in South Australia and covers part of the Ceduna Intrusive Mafic Complex located in the prospective Western Gawler Craton. Historic exploration in the area has identified several mafic intrusives including the Kalanbi prospect, where aircore drilling by Pasminco Exploration intersected up to 3400ppm Co at 24 to 26m and 2600ppm Ni in gabbroic rocks (ASX: TSC Release 28 August 2018). TSC acquired Kalanbi to explore primarily for magmatic Ni-Cu sulphides, which often contain Co.

**WA assets:** TSC's Rover project is located TSC's 140km west of Leonora in Cobalt, Nickel and Copper mineral rich area associated with mafic and ultramafic rocks. Historically the area is underexplored for cobalt and is currently undergoing resurgence in exploration (ASX: TSC Release 15 January 2019).



**1. APPENDIX 1: The following tables are provided to ensure compliance with JORC Code (2012) requirements for exploration results for the Midas Project.**

**1.1. Section 1 Sampling Techniques and Data**

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li><i>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i></li> <li><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li><i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li><i>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 warrant disclosure of detailed information.</i></li> </ul>	<ul style="list-style-type: none"> <li>All Rock Chips in this release previously reported (see references in this release)</li> </ul> <p>IP survey</p> <ul style="list-style-type: none"> <li>in total 520 points of Gradient IP data were collected over 23 lines across 3 joined grids (~600m by 600m each) with 25m dipoles. A pair of transmitter pits was set for each grid independently.</li> <li>As a follow-up 654 stations of time domain DDIP data were collected over three lines at 50m dipole and station spacing providing approximately 3.8-line kilometres of data from n=8-16.</li> <li>All IP data were recorded at 0.125Hz. Chargeability data was recorded over 20-time windows after an initial delay of 40ms. A semi-log window scheme was used to record decay data over the 2000ms off-time. Stack size was varied depending on signal strength and number of repeat stacks was adjusted in the field to balance survey speed with data quality.</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li><i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i></li> </ul>	<ul style="list-style-type: none"> <li>No drilling reported</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li><i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li></li> </ul>	<ul style="list-style-type: none"> <li>No drilling reported</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> </ul>	<ul style="list-style-type: none"> <li>No drilling reported</li> </ul>
	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>No drilling reported</li> </ul>
Logging	<ul style="list-style-type: none"> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>No drilling reported</li> </ul>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>No drilling reported</li> </ul>



Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li><i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i></li> <li><i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i></li> </ul>	<ul style="list-style-type: none"> <li>IP Equipment Used - GDD GRX-342 IP receiver. Transmitted signal was generated using a Zonge GGT30 transmitter. Synchronisation was achieved automatically by the GDD receiver.</li> <li>Data quality and repeatability were monitored throughout the course of the survey which ensured that the best possible data was acquired given local conditions and time constraints. Data were provided to Ian Warland during the program.</li> </ul>
Verification of sampling and assaying	<ul style="list-style-type: none"> <li><i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li><i>The use of twinned holes.</i></li> <li><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li><i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>No Drilling reported</li> <li>IP Survey</li> <li>Daily raw data were emailed to Zonge's Adelaide office and the client representative.</li> <li>For Quality control purposes data review, processing and modelling were performed at Zonge's Adelaide office.</li> <li>All data is digitally recorded with file backup.</li> </ul>
Location of data points	<i>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.</i>	<ul style="list-style-type: none"> <li>Location of samples by hand held Garmin GPS to +/- 5m accuracy</li> </ul>
	<i>Specification of the grid system used.</i>	<ul style="list-style-type: none"> <li>MGA94 Zone 54</li> </ul>
	<i>Quality and adequacy of topographic control.</i>	<ul style="list-style-type: none"> <li>Hand held GPS control adequate for early stage exploration</li> </ul>
	<i>Data spacing for reporting of Exploration Results.</i>	<ul style="list-style-type: none"> <li>The Gradient array was completed on 100m line spacing over 23 lines orientated NW-SE, with stations every 25m along the lines.</li> <li>Three DDIP lines were completed of varying length approximately 1100m</li> </ul>

Criteria	JORC Code explanation	Commentary
<i>Data spacing and distribution</i>		long with stations every 50m.
	<ul style="list-style-type: none"> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> </ul>	<ul style="list-style-type: none"> <li>The gradient array survey spacing is considered optimal for the level of exploration results reported.</li> </ul>
	<ul style="list-style-type: none"> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>No drilling reported</li> </ul>
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> </ul>	<ul style="list-style-type: none"> <li>The IP survey was conducted on a grid considered optimal for the orientation of the structures.</li> </ul>
	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>No drilling reported</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>IP Survey - daily raw data were emailed to Zonge's Adelaide office and the client representative.</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>IP survey data was reviewed by an external Geophysical consultant.</li> </ul>

## 1.2 Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The tenement referred to in this release is EL8732 owned by TSC Exploration a wholly owned subsidiary of Twenty Seven Co. Limited.</li> <li>Landowner agreements are in place.</li> <li>Native Title is extinguished.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li><i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i></li> </ul>	<ul style="list-style-type: none"> <li>The tenement is secure under NSW legislation.</li> </ul>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li><i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>The historical tenure reports are publicly available on GSNSW MinView website. There have been several explorers over the last 50 years whose tenure partially overlaps EL8732. Exploration was mostly for base metals and precious metals with very little assay work done for cobalt. The main explorers include; Newmont Pty Ltd, Aberfoyle Resources Ltd, CRA Exploration Pty Ltd, Minor Mining, PlatSearch, Silver City Mining, and Pmr3 Pty Ltd. The data relevant for this release is from Newmont Pty Ltd, CRAE and Aberfoyle. <ul style="list-style-type: none"> <li>➤ Aberfoyle Resources Ltd tenement EL3152: Conducted RAB drilling mostly to the west of EL8732.</li> <li>➤ CRAE held tenements EL1407, EL1428 and EL1396, and explored for Broken Hill Style Deposits and conducted geochemical, geophysical surveys, mapping and RAB/RC Drilling.</li> <li>➤ Newmont Pty Ltd held tenements EL770 and EL772, and explored for Broken Hill Style Deposits and conducted geochemical, geophysical surveys, mapping and RAB Drilling.</li> <li>➤ Pmr3 Pty Ltd held tenement EL8023 from 2012 to 2014 and completed a desktop review and geochemistry.</li> </ul> </li> </ul>
<i>Geology</i>	<ul style="list-style-type: none"> <li><i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>The historical tenure reports indicated that: <ul style="list-style-type: none"> <li>➤ The projects lie 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 mineralizing fluid events. The projects are prospective for cobalt sulphide mineralisation, specifically Thackaringa style or Great Eastern mineralisation. Cobalt is expected to be hosted with copper-iron formations, described as the "Great Eastern Type." The projects are located in the same region as the Cobalt Blue Holdings (COB) Thackaringa Project,</li> </ul> </li> </ul>

Criteria	JORC Code explanation	Commentary
<i>Drill hole Information</i>	<ul style="list-style-type: none"> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> <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>	No drilling reported
	<ul style="list-style-type: none"> <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 why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>No drilling reported</li> </ul>
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> </ul>	<ul style="list-style-type: none"> <li>No data aggregation</li> </ul>
	<ul style="list-style-type: none"> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail</li> </ul>	<ul style="list-style-type: none"> <li>No drilling reported</li> </ul>
	<ul style="list-style-type: none"> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>No metal equivalents used</li> </ul>
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> </ul>	<ul style="list-style-type: none"> <li>No drilling reported</li> </ul>
	<ul style="list-style-type: none"> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> </ul>	<ul style="list-style-type: none"> <li>No drilling reported</li> </ul>
	<ul style="list-style-type: none"> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>No drilling reported</li> </ul>
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>Appropriate maps and sections (with scales) and tabulations</li> </ul>	<ul style="list-style-type: none"> <li>See main body of this release.</li> </ul>



Criteria	JORC Code explanation	Commentary
	<i>of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i>	
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The reporting is considered balanced</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul style="list-style-type: none"> <li>Considerable historical work has been completed over the Midas Project at an early exploration stage including RAB, RC , Diamond drilling and geophysical surveys such as IP, aeromagnetism and airborne EM.</li> <li>TSC has completed regional soil sampling, rock chip sampling and mapping. TSC has not completed any drilling to date.</li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> </ul>	<ul style="list-style-type: none"> <li>Early stage exploration and follow-up of identified Co, base metal and Au anomalies including additional interpretation of geophysical data, reviews and assessments of regional targets and infill geochemical sampling of ranked anomalies in preparation for future drill testing.</li> </ul>
	<ul style="list-style-type: none"> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul style="list-style-type: none"> <li>Refer to figures in this report.</li> </ul>