

El Palmar gold-copper discovery, northern Ecuador

# Drilling starts at large T2 porphyry target

Copper and gold intersected in the T1 and T5 porphyry targets adjacent to T2, and an epithermal gold-silver system at the Tituana target

## Key Points

- Drill hole EPDD026 has commenced at the T2 target at El Palmar and is now at a depth of 300m; Target zone expected to be reached within a fortnight
- Trace chalcopyrite and molybdenite have been identified from 190m downhole in EPDD026
- At the T5 target, drilling has intersected porphyry mineralisation, including;
  - 60m at 0.25g/t gold and 0.13% copper from 100m (EPD025).
- 3-D geological model defining new targets at T1 target; This work follows from assay results reported in EPDD021 that returned:
  - 867m at 0.26g/t gold and 0.1% copper from surface, including:
    - 24m at 0.39g/t gold and 0.19% copper from 45.5m; and
    - 11.3m at 0.81g/t gold and 0.2% copper from 501m
  - The definition of vertically extensive mineralisation at T1 and the increased confidence in the geometry of higher-grade domains is significant for the next drill program at T1
- The results from T1 and T5 are considered highly promising because:
  - They are close to the large, compelling T2 target
  - They support the current interpretation of the El Palmar geology and the potential for a significant porphyry discovery
  - They reinforce the concept of a cluster of porphyry systems near the regionally significant Toachi fault, a control on the mineralisation at the giant Cascabel copper-gold deposit 65km away
- Dating of the intrusives associated with the El Palmar mineralisation show they are the same age as the Alpala deposit at Cascabel
- Assay results have been received from three of the 11 planned holes at the Tituana epithermal target. Tituana has had no previous drilling. The results confirm the presence of an epithermal gold-silver-base metal system in multiple veins that remain open, and include grades up to 1.7g/t gold and 12g/t silver over 0.5m from 36.1m in TTDD001, and 1g/t gold, 21g/t silver and 2% zinc over 0.9m from 122.2m in TTDD003.

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Sunstone Metals Ltd (ASX: STM) is pleased to announce that drilling has started at the highly compelling T2 porphyry target within its El Palmar porphyry gold-copper discovery in northern Ecuador and highly encouraging results have been received from drilling at T1 and T5, both adjacent to T2, and the Tituana epithermal target.

T2 is a large porphyry copper-gold target which measures 1km long x 450m wide (Figure 1, 2 and 3). It is part of a cluster of at least five porphyry systems that measures 2.6 x 1km (Figure 1).

Drilling has already established that the T1, T2 and T5 porphyry targets are mineralised. T3 and T4 are yet to be drill tested.

The T2 target is bound by the regionally-significant Toachi Fault zone and is associated with orthogonal structures – a scenario strongly similar to the 3 billion-tonne Alpala copper-gold porphyry deposit, within SolGold's Cascabel project, located 65km to the north-east. Age dating of the rocks associated with mineralisation at El Palmar T1 has confirmed that they are the same geological age as Alpala.

Sunstone Managing Director Malcolm Norris said: "We have two drilling rigs operating at El Palmar. One is testing the Tituana epithermal target where we have intersected very encouraging mineralisation across multiple vein systems, and the other has commenced drilling at the large T2 porphyry copper-gold target where we are seeing some trace levels of mineralisation and encouraging alteration. We expect to be in the main T2 target zone within a fortnight.

"At Tituana, assays have been received from the first three holes of an 11-hole program. The results confirm the presence of an epithermal gold-silver-base metal system in multiple veins. Visual results from recently completed holes suggests that mineralisation extends over 200m of strike but is open to the north and south".

### **T2 drilling progress**

Drilling at Target T2, located east of the El Palmar T1 porphyry system (Figures 1, 2, and 3), commenced in early March and is now at a down-hole depth of 300m. The first of 2 planned drill holes is expected to be completed in late March, with assays following in late April. The upper part of the hole shows evidence of mineralisation consistent with adjacent hole EPDD024 (Figures 2 and 3). Trace chalcopyrite and molybdenite have been identified from 190m downhole.

The T2 target has been defined at surface through rock chip and soil sampling delivering a coherent gold-copper-molybdenum anomaly coincident with an extensive alteration cap and some stockwork veining. The target now being tested is a geophysical anomaly that plunges to the south from the surface mineralisation, where it expands and intensifies southward for a further 800m. The target abuts the regional Toachi Fault zone. The structural scenario at T2 is very significant and can be compared to the nearby Alpala copper-gold porphyry deposit at the SolGold Cascabel Project.

### **T1 assay results and 3-D model development**

Drill hole EPDD021 (Figures 1 and 4, Table 1) was drilled into the T1 target. It intersected 866.6m at 0.26g/t gold and 0.1% copper from surface, including 24m at 0.39g/t gold and 0.19% copper from 45.5m, and 11.25m at 0.81g/t gold and 0.2% copper from 501m. This result confirms the significant vertical extent of mineralisation at T1 which requires follow-up drilling.

3-D geological modelling (Figure 4) is being undertaken at T1 based on the 21 drill holes completed to date and follow-up drilling has been planned to target mineralisation in the down plunge and lateral extent of interpreted NNW trending mineralised domains.

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### T5 confirmed porphyry gold-copper mineralisation

Hole EPDD025 has been completed and assay results returned 60m at 0.25g/t gold and 0.13% copper, within a broader 133m mineralised interval from 69m of 0.19g/t gold and 0.11% copper.

This is the first hole into this target (previous hole EPDD013 skimmed the underside of the target) and follow-up drilling will test the area below this drill hole (Figure 5).

### Tituana Epithermal Gold Targets preliminary results

Drilling at the Tituana epithermal gold target in the northern part of the El Palmar concession (Figure 1) has intersected an epithermal system with mineralisation in multiple veins. This is a very promising start to drilling at Tituana. Assay results from holes 1, 2 and 3 are shown in Table 2.

Visual assessment of holes 6 and 7 suggest improving mineralisation to the north based on the presence of galena and sphalerite which are often associated with gold and silver in these epithermal systems.

The Tituana target is located on a NNE-trending structure, which may link to the south to the main El Palmar porphyry system – a common scenario in porphyry and epithermal systems (Figure 6). The target exhibits coincident path-finder elements zinc and arsenic anomalies in soil sampling. Trenching has returned results of up to 6.7g/t gold. Rock chip sampling has yielded a >85m-long (and open) zone from which 101 surface samples averaged 1.2 g/t Au, 25 g/t Ag and 0.16% Cu, with peak values for these elements being 6.47 g/t Au, 225g/t Ag and 0.78% Cu.

**Table 1:** Mineralised porphyry intervals in holes EPDD021 (T1) and EPDD025 (T5)

Drill Hole	Target Area	EOH (m)	From (m)	To (m)	Interval (m)	Au (g/t)	Cu (%)	Mo (ppm)	Ag (g/t)
<b>EPDD021</b>	<b>T1</b>	<b>876</b>	5.45	872.00	866.55	0.26	0.10	1.9	0.5
			<b>45.50</b>	<b>69.50</b>	<b>24.00</b>	<b>0.39</b>	<b>0.19</b>	<b>1.8</b>	<b>0.7</b>
			425.00	513.25	88.25	0.39	0.11	1.8	0.5
			<b>437.00</b>	<b>449.00</b>	<b>12.00</b>	<b>0.42</b>	<b>0.13</b>	<b>3.6</b>	<b>0.5</b>
			<b>501.00</b>	<b>512.25</b>	<b>11.25</b>	<b>0.81</b>	<b>0.20</b>	<b>1.3</b>	<b>0.7</b>
			576.10	597.65	21.55	0.29	0.11	1.8	0.4
			629.00	635.00	6.00	0.29	0.10	1.5	0.4
			650.50	756.00	105.50	0.20	0.12	1.5	0.5
			800.00	840.00	40.00	0.19	0.12	1.0	0.7
			868.00	872.00	4.00	0.26	0.13	2.0	0.3
<b>EPDD025</b>	<b>T5</b>	<b>310</b>	0.00	32.20	32.20	0.18	0.04	4.9	0.3
			69.00	202.00	133.00	0.19	0.11	5.2	0.6
			100.00	160.00	60.00	0.25	0.13	3.2	0.6
			210.60	214.10	3.50	0.27		9.5	1.7

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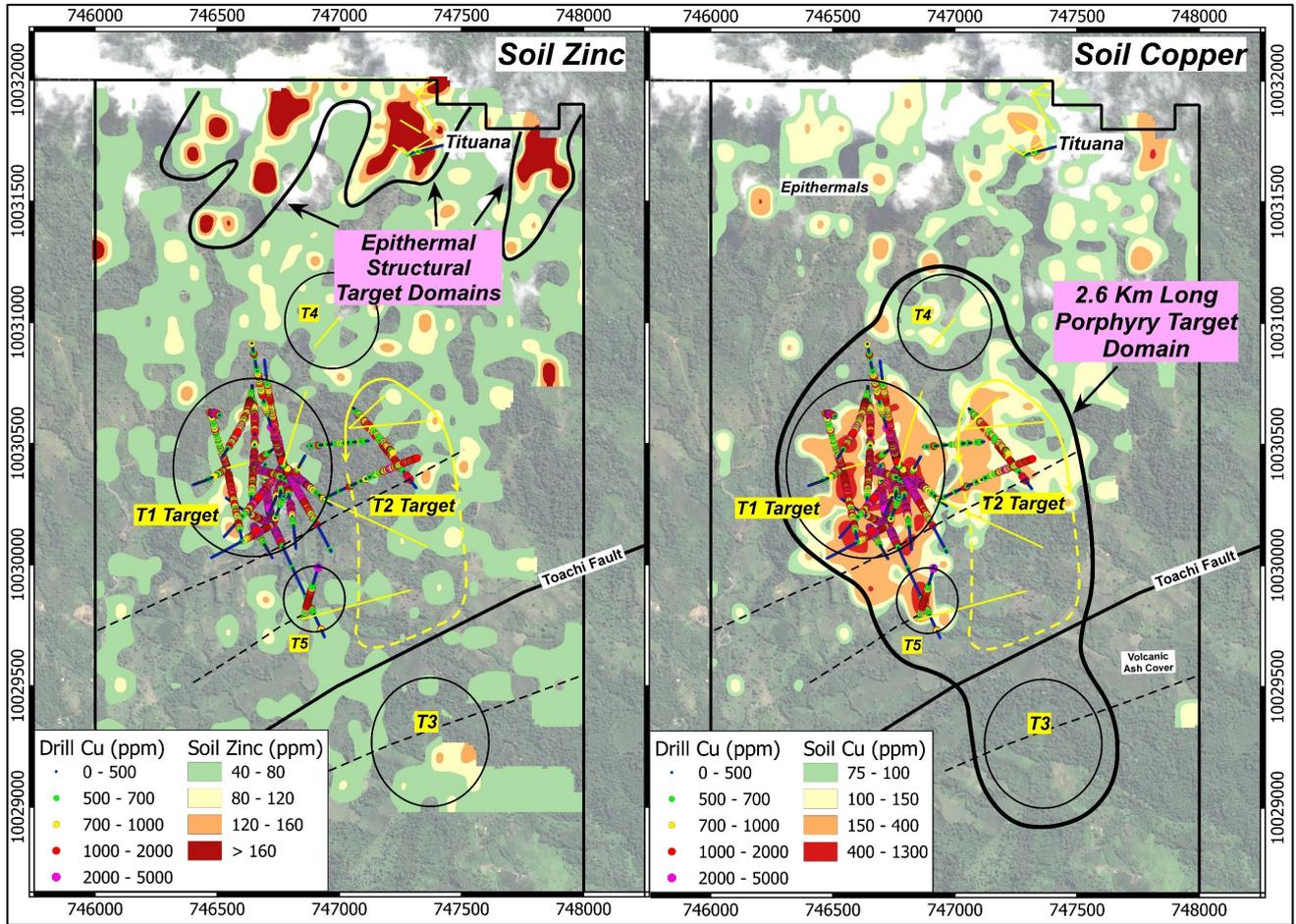
**Table 2:** Mineralised epithermal intervals in Tituana holes 1 to 3

Drill Hole	EOH (m)	From (m)	To (m)	Interval (m)	Au (g/t)	Cu (%)	Ag (g/t)	Pb (%)	Zn (%)	
TTDD001	255	13.30	19.60	6.30	0.22		2.8	0.12	0.17	
		34.60	37.10	2.50	0.60		8.3	0.11	0.22	
		<i>incl.</i>	35.60	37.10	1.50	0.89		10.0	0.11	0.15
			36.10	36.60	0.50	1.75		12.3		0.10
			48.30	48.60	0.30	0.24		10.6	0.38	1.08
			61.30	62.25	0.95	0.37	0.12	16.0		
			79.00	79.50	0.50	0.39		5.2	0.29	0.45
			88.80	89.80	1.00	0.49		21.6	0.38	0.72
TTDD002	170	4.50	6.00	1.50	0.18		1.3			
		25.50	27.00	1.50	0.33		0.6			
TTDD003	212	37.80	39.00	1.20	0.24		1.7			
		63.40	65.00	1.60	0.34		19.4		0.11	
		113.00	115.00	2.00	0.31		0.6			
		122.20	125.65	3.45	0.45	0.14	11.4	0.47	1.91	
		<i>incl.</i>	122.20	123.10	0.90	1.05	0.15	21.3	0.82	1.97

El Palmar is located in northern Ecuador in the same regional structural belt that hosts the 2.66Bt Alpala copper-gold deposit grading 0.25g/t gold and 0.37% copper, and the 0.53Bt Tandayama-America deposit grading 0.19g/t gold and 0.24% copper, within the Cascabel project (Figure 7; see also [www.solgold.com.au](http://www.solgold.com.au) for MRE details), and in the vicinity of the 1Bt Llurimagua copper-molybdenum porphyry deposit grading 0.89% copper and 0.04% molybdenum.

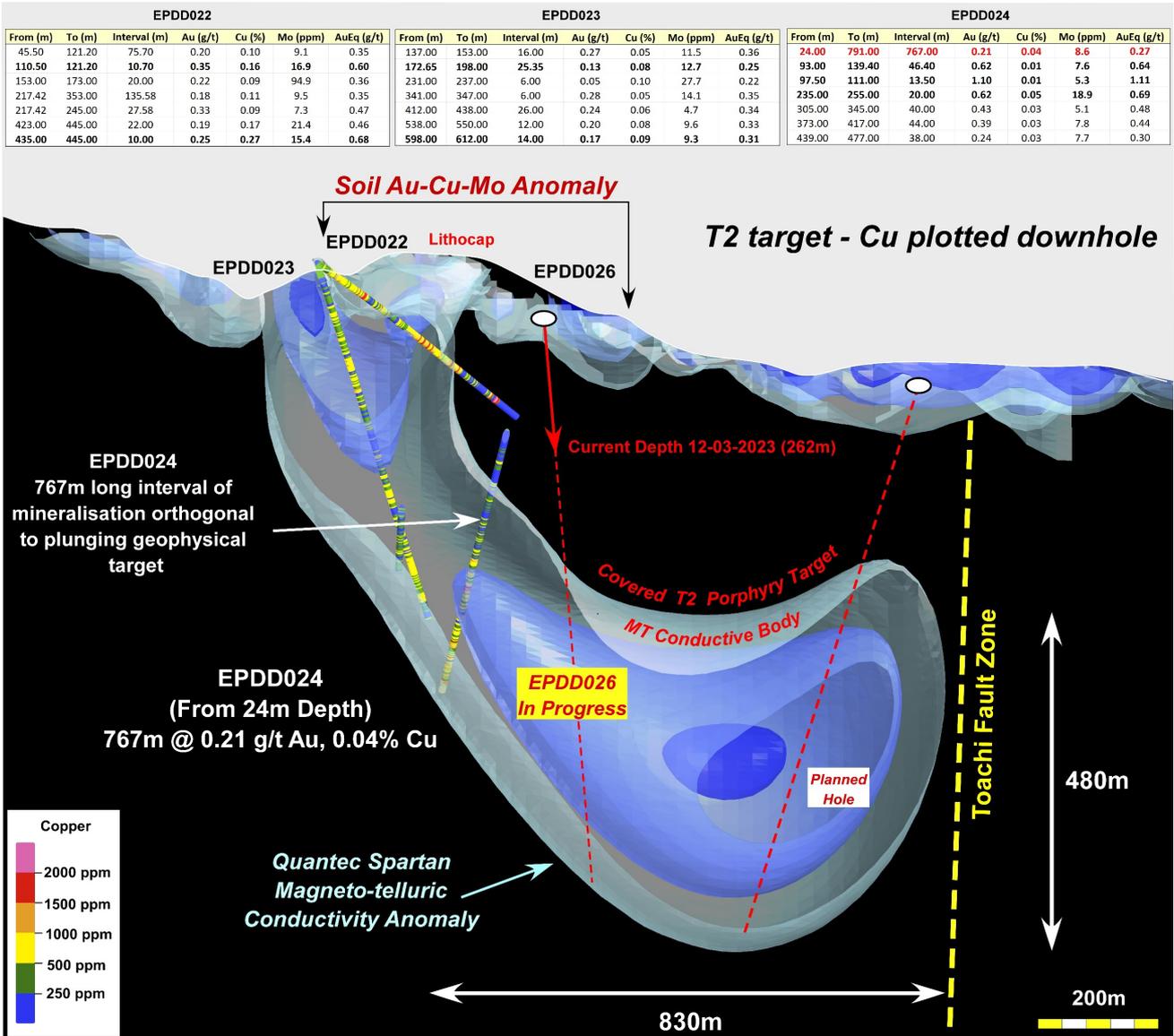
Sunstone is also active at its southern Ecuador Bramaderos project where drilling with one drill rig is in progress at the Limon target.

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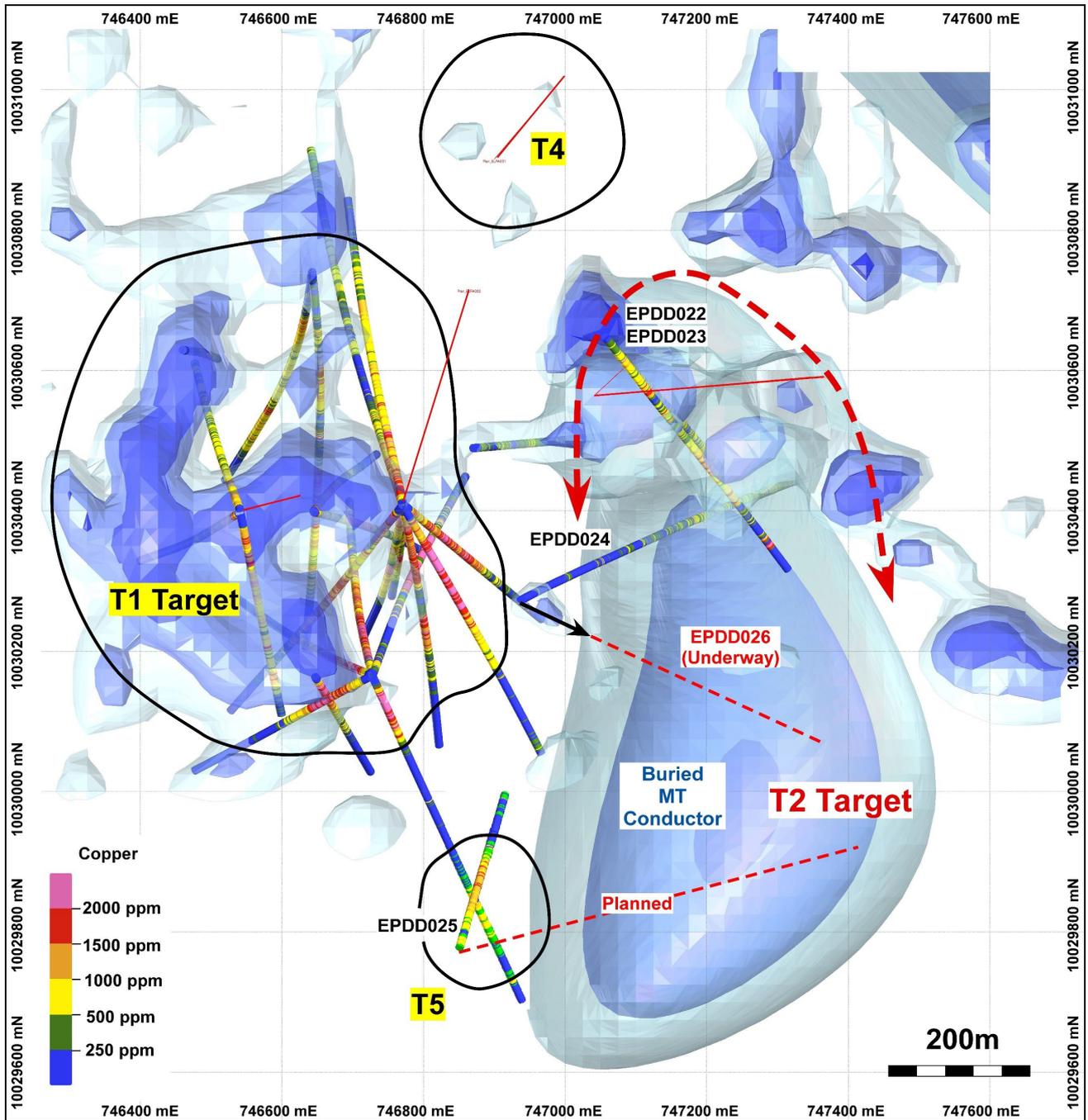
**Figure 1:** El Palmar project showing porphyry cluster capturing targets T1, T2, T3, T4 and T5, and epithermal target areas in the north, of which only Tituana has been drilled to date.

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**Figure 2:** North-South section through the T2 target, showing outcropping porphyry stockwork near the collar of holes EPDD022/023 in the area of anomalous copper, gold and molybdenum in soils and coincident with a large area of weakly conductive material. This conductive body expands and strengthens southward and extends 800m south of the 767m-long intersection in hole EPDD024 that cuts the conductive body orthogonally. EPDD026 has commenced drilling and will be in the main target zone within the next couple of weeks.

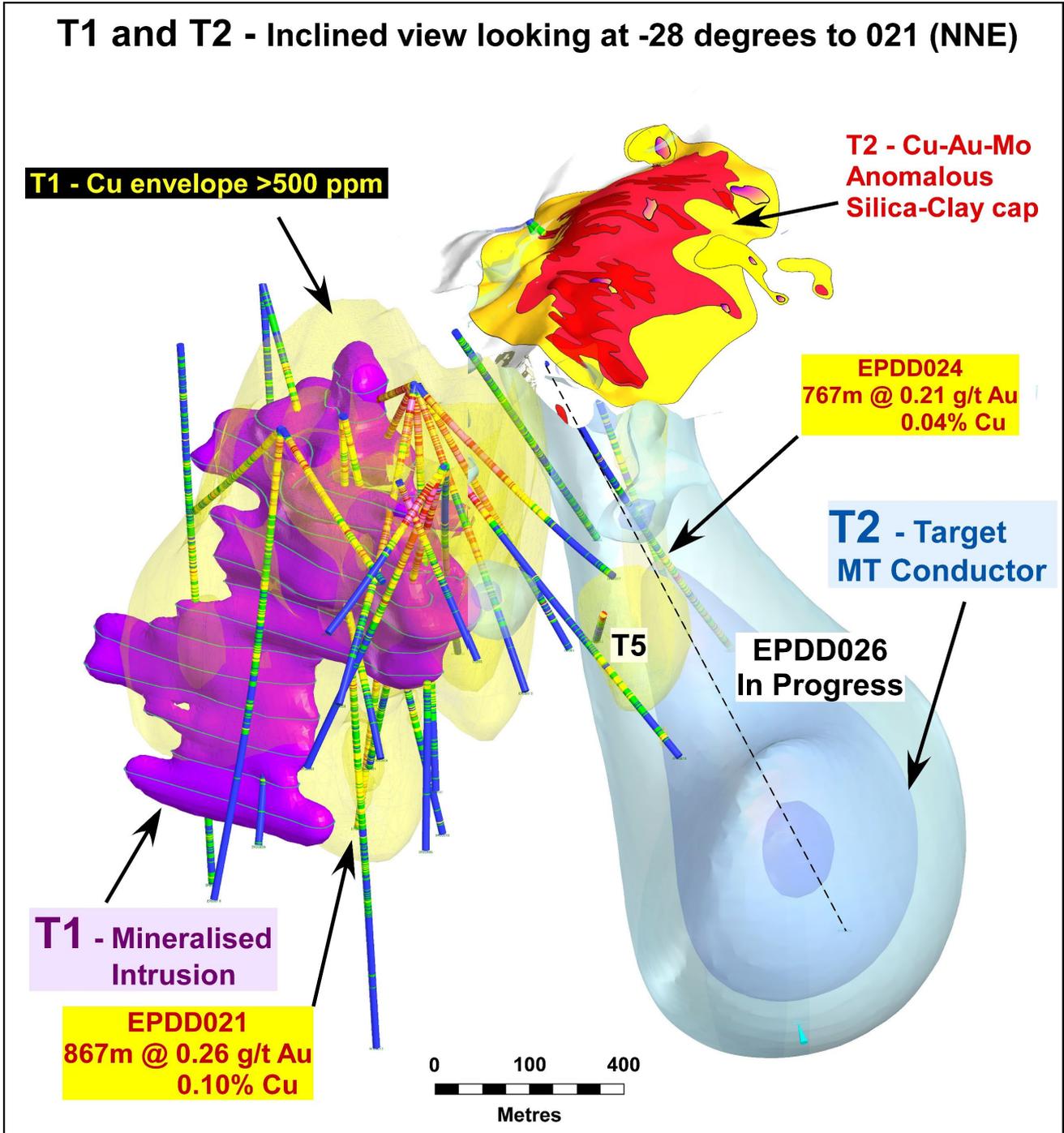
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**Figure 3:** Cluster of porphyry targets T1 (El Palmar), the large T2 target currently being drilled, plus porphyry targets T4 and T5. To date T1, T2, and T5 are mineralised.

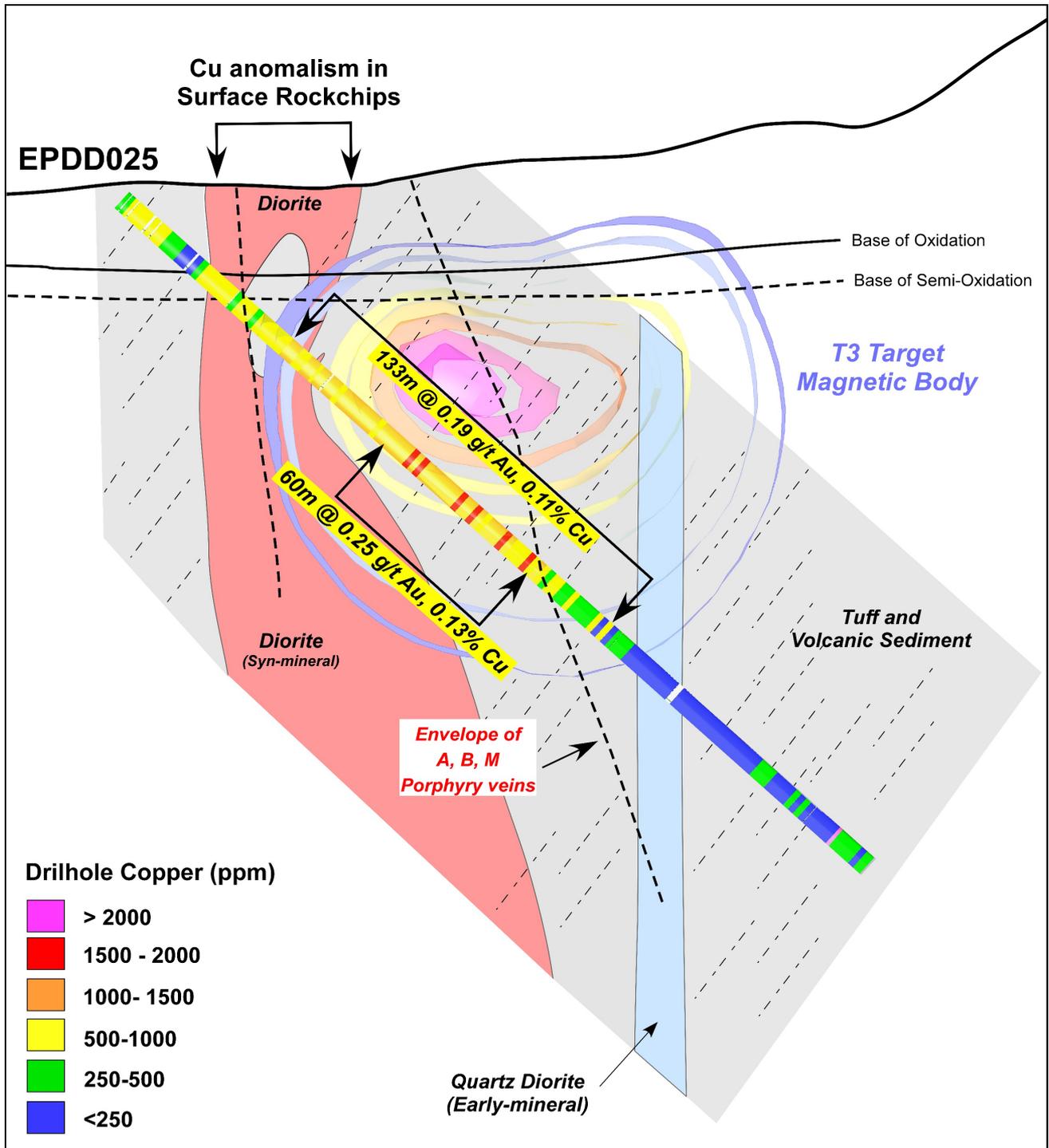
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T1 and T2 - Inclined view looking at -28 degrees to 021 (NNE)



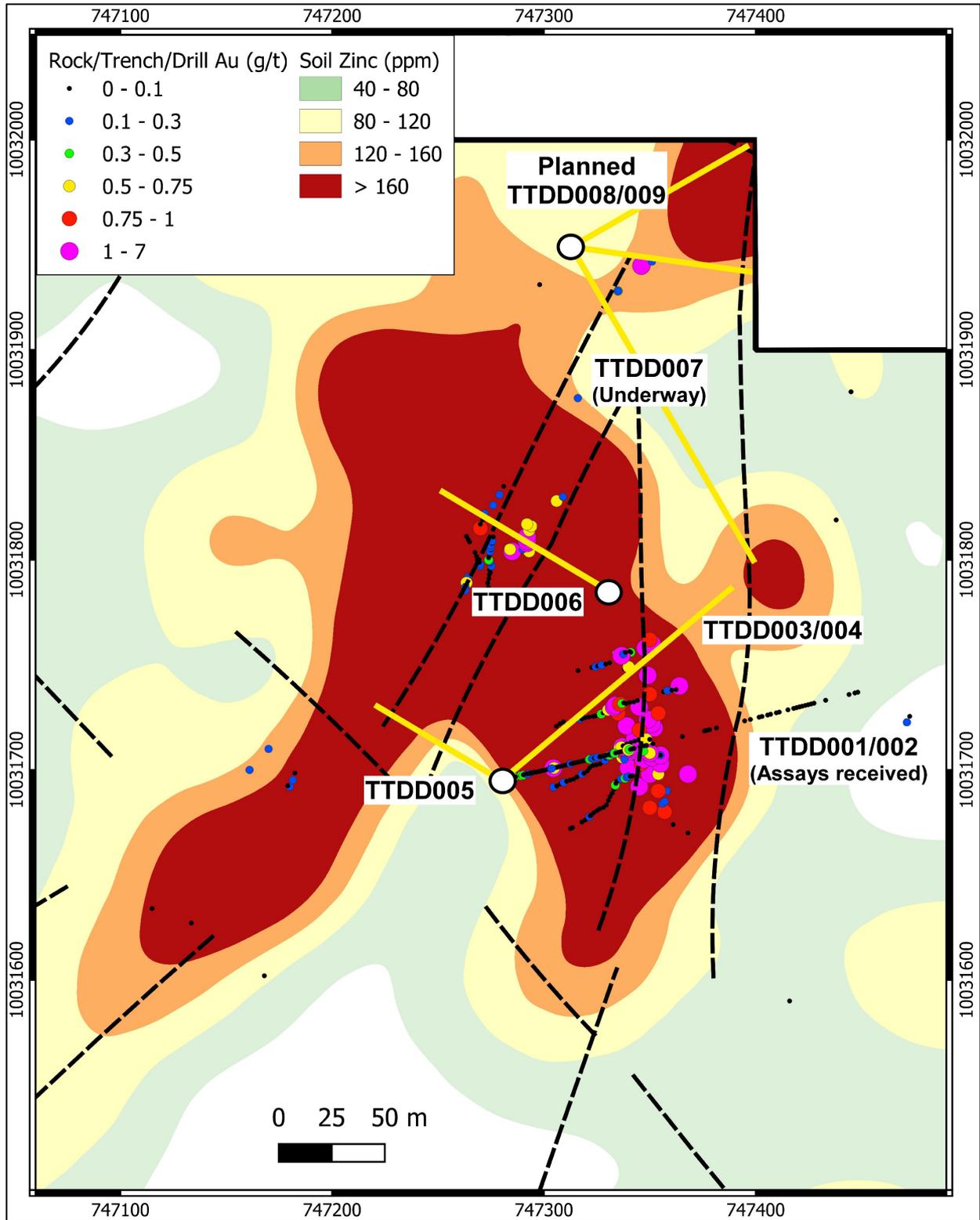
**Figure 4:** 3-D inclined view of targets T1 and T2 showing areas of mineralisation from 21 drill holes in T1 and specifically in EPDD021, the close spatial relationship between T1 and T2, and the modelled extension of T2 to depth currently being tested with hole EPDD026. Target T5 is also shown in the foreground.

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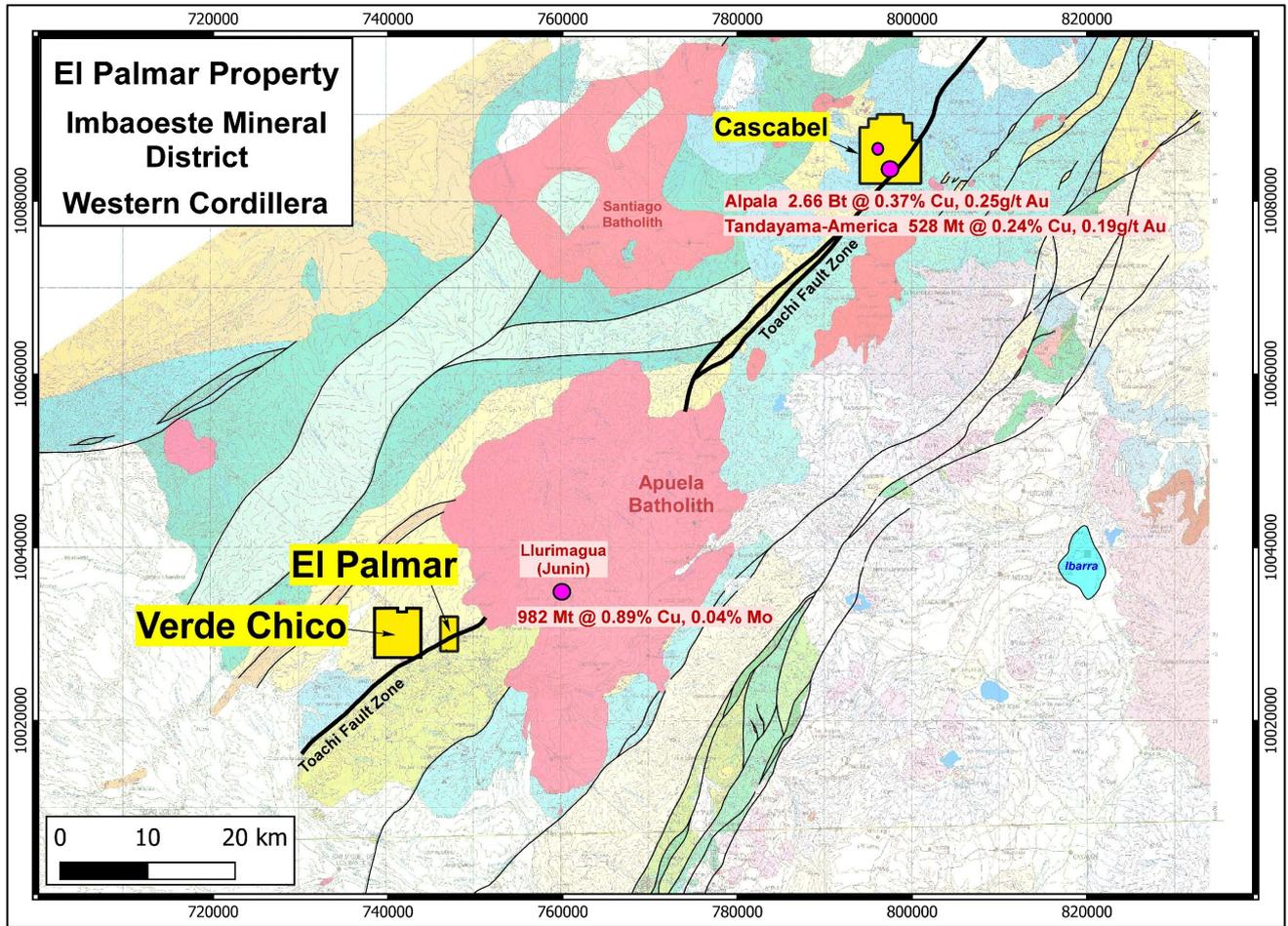
**Figure 5:** Cross section through EPDD025 at the T5 target showing gold-copper mineralisation within the syn-mineral diorite and the host sequence of sedimentary rocks. Another hole is planned to test the depth extent of the syn-mineral diorite.

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**Figure 6:** Soil zinc anomalism that defines the broader Tituana epithermal target environment, and controlled by NNE-trending structures that are currently being drill tested.

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**Figure 7:** Location of the El Palmar project relative to the giant Llurimagua, Alpa and Tandayama-America (Cascabel project) porphyry deposits, and the Toachi fault system.

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**Figure 8:** Location of the El Palmar project in northern Ecuador, the Verde Chico project nearby, and the Bramaderos Project in southern Ecuador.

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<b>Drill Hole ID</b>	<b>Easting (m)</b>	<b>Northing (m)</b>	<b>Dip (degrees)</b>	<b>Azimuth (UTM) (PSAD56 Grid) (degrees)</b>	<b>EOH (m)</b>
EPDD021	746771	10030410	-80	345	876
EPDD022	747059	10030657	-30	142	494
EPDD023	747059	10030657	-67	142	645
EPDD024	746937	10030280	-60	63	791
EPDD025	746851	10029777	-40	16	310

**Table 2:** Drill hole details for the El Palmar Project.

For further information, please visit [www.sunstonemetals.com.au](http://www.sunstonemetals.com.au)

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### About Sunstone Metals

Sunstone has an advanced portfolio of exploration and development projects in Ecuador and Scandinavia. The portfolio comprises:

1. **The Bramaderos Gold-Copper Project** where Sunstone owns an 87.5% interest with Cornerstone Capital Resources, a subsidiary of SolGold, holding 12.5% (see ASX announcement dated 10th April 2017, 28th August 2019, and 7 January 2020). The Bramaderos gold-copper project is located in Loja province, southern Ecuador, and is highly prospective for the discovery of large porphyry gold-copper systems, and high-grade epithermal gold systems. The Bramaderos concession is host to multiple fertile mineralised systems with significant discovery potential.

The Brama-Alba deposit, within the Bramaderos concession contains an initial Mineral Resource estimate is 156Mt at 0.53g/t AuEq for 2.7Moz gold-equivalent. In addition to this is the Bramaderos project Exploration Target of between 3.3Moz and 8.6Moz AuEq within 255 to 360Mt at a grade between 0.40 and 0.74g/t AuEq (see ASX release dated December 13, 2022)

2. **The El Palmar Copper-Gold Project** where Sunstone holds 70% of the highly prospective 800ha El Palmar gold-copper porphyry project in Ecuador. Sunstone can acquire 100% through a Staged Acquisition Agreement. A Staged Acquisition Agreement to acquire the nearby Verde Chico Project has also been signed. The El Palmar and Verde Chico gold-copper projects are located in Imbabura province, northern Ecuador, within the same geological belt that includes the giant Alpala, Tandayama-America and Llorimagua porphyry copper-gold and copper-molybdenum deposits.

### Competent Persons Statement

The information in this report that relates to exploration results is based upon information reviewed by Dr Bruce Rohrlach who is a Member of the Australasian Institute of Mining and Metallurgy. Dr Rohrlach is a full-time employee of Sunstone Metals Ltd 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". Dr Rohrlach consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Mr Malcolm Norris, Managing Director of Sunstone Metals Ltd., has authorised this announcement to be lodged with the ASX.

## ASX ANNOUNCEMENT

**TABLE 1 – Section 1: Sampling Techniques and Data**

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</li> </ul>	<ul style="list-style-type: none"> <li>The drill core sampling was carried out using half core, generally at 1 to 2m intervals.</li> <li>New results are based on assays of drill core.</li> </ul>
	<ul style="list-style-type: none"> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> </ul>	<ul style="list-style-type: none"> <li>Core recovery was good, and core aligned prior to splitting and sampling.</li> </ul>
	<ul style="list-style-type: none"> <li>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>Diamond drilling, rock chip and channel sampling points have been guided by geological mapping. The drill samples from El Palmar were dried, crushed to 70% passing 2mm, Split 1000g and pulverised to 85% passing 75microns. A 20g portion of this sample was used for multi-element analysis (IMS-230) and a 30g sample for Fire Assay Au (FAS-111).</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. 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).</li> </ul>	<ul style="list-style-type: none"> <li>The El Palmar target areas have been drilled with diamond core.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> </ul>	<ul style="list-style-type: none"> <li>Diamond core recovery data for the El Palmar drilling program was good.</li> </ul>
	<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>Core recovery at El Palmar was good.</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 relationship between sample recovery and grade has been established.</li> </ul>
<b>Logging</b>	<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> </ul>	<ul style="list-style-type: none"> <li>Drill samples were logged for lithology, weathering, structure, mineralogy, mineralisation, colour, and other features. Recent logging and sampling for the El Palmar project were carried out according to Sunstone's internal protocols and QAQC procedures which comply with industry standards.</li> </ul>
	<ul style="list-style-type: none"> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</li> </ul>	<ul style="list-style-type: none"> <li>Drill samples are logged for lithology, weathering, structure, mineralogy, mineralisation, colour, and other features.</li> </ul>
	<ul style="list-style-type: none"> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>The drill holes have been logged in full. Drill hole lengths are included in the text of the announcement.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> </ul>	<ul style="list-style-type: none"> <li>Half core was used to provide the samples that were submitted for assay from the El Palmar drilling.</li> </ul>
	<ul style="list-style-type: none"> <li>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> </ul>	<ul style="list-style-type: none"> <li>This announcement relates to drill core samples.</li> </ul>
	<ul style="list-style-type: none"> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> </ul>	<ul style="list-style-type: none"> <li>Historical drill core samples from El Palmar (drilled by Codelco) were analysed by ACME Labs in Vancouver. Samples were crushed and split with 250 grams pulverized to 200 mesh (Method - R200-250). Analysis on drill core was undertaken on a sample split (Method - VAN split pulp).</li> <li>Surface rocks at El Palmar are historical and were collected by 3 different companies. GOEX S.A. samples were analysed at Bureau Veritas Laboratories</li> </ul>

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Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li><i>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.</i></li> <li><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<p>in Peru. Lowell Mineral Exploration rocks were analysed by ALS Minerals, with sample preparation involving fine crushing 70% passing 2mm (Method CRU-31), crushed sample split (Method SPL-21) and pulverise 1000g to 85% passing 75um (Method PUL-32). Codelco surface rock samples were analysed by ACME Labs in Vancouver. Samples were crushed and split with 250 grams pulverized to 200 mesh (Method - R200-250)</p> <ul style="list-style-type: none"> <li>The sample preparation for the current phase of drilling is carried out according to industry standard practices using highly appropriate sample preparation techniques.</li> <li>Sunstone used an industry standard QAQC programme involving Certified Reference Materials “standards” and blank samples, which were introduced in the assay batches.</li> <li>Standards (Certified Reference Materials) or analytical blanks were submitted at a rate of 1 in 28 samples. Field duplicates were also taken at a rate of approximately 1 in 28 samples.</li> <li>The check or duplicate assay results are reported along with the sample assay values in the final analysis report.</li> <li>For diamond core, the routine sample procedure is to always take the half/quarter core to the right of the orientation line (looking down hole) or the cut line (in cases where the orientation line was not reliable).</li> <li>Once assay results are received the results from duplicate samples are compared with the corresponding routine sample to ascertain whether the sampling is representative.</li> <li>Sample sizes are considered to be appropriate for the style of sampling undertaken and the grainsize of the material, and correctly represent the style and type of mineralisation at the exploration stage.</li> </ul>
<p><b>Quality of assay data and laboratory tests</b></p>	<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 (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i></li> </ul>	<ul style="list-style-type: none"> <li>Sunstone uses a fire assay gold technique for Au assays (FAS-111) and a four acid multi element technique (IMS-230) for a suite of 48 elements. FAS-111 involves Au by Fire Assay on a 30-gram aliquot, fusion and atomic absorption spectroscopy (AAS) at trace levels. IMS-20 is considered a near total 4 acid technique using a 20g aliquot followed by multi-element analysis by ICP-AES/MS at ultra-trace levels.</li> <li>This analysis technique is considered suitable for this style of mineralisation.</li> <li>A handheld “Niton” XRF instrument is used on site for verification of anomalous metal values and to assist with the geological logging and mineral identification. No specific data from this instrument are referenced in this announcement.</li> <li>Standards, blanks and duplicates are inserted ~1/28 samples. The values of the standards range from low to high grade and are considered appropriate to monitor performance of values near cut-off and near the mean grade of the deposit.</li> <li>The check sampling results are monitored, and performance issues are communicated to the laboratory if necessary.</li> </ul>
	<ul style="list-style-type: none"> <li><i>The verification of significant intersections by either independent or alternative company personnel.</i></li> </ul>	<ul style="list-style-type: none"> <li>Procedure checks have been completed by the Competent Person for exploration results for this announcement.</li> </ul>

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Criteria	JORC Code explanation	Commentary																				
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>The use of twinned holes.</li> </ul>	<ul style="list-style-type: none"> <li>Twin holes have not been drilled in these areas.</li> </ul>																				
	<ul style="list-style-type: none"> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> </ul>	<ul style="list-style-type: none"> <li>Sunstone sampling data were imported and validated using Excel.</li> </ul>																				
	<ul style="list-style-type: none"> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>Assay data were not adjusted. Core loss intervals are assigned assay values of zero where present.</li> </ul>																				
<b>Location of data points</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>Sample co-ordinates are located by GPS and for trench samples measured along the length of the trench.</li> </ul>																				
	<ul style="list-style-type: none"> <li>Specification of the grid system used.</li> </ul>	<ul style="list-style-type: none"> <li>Ecuador projection parameters: <table border="1" data-bbox="917 667 1476 1115"> <thead> <tr> <th>Parameter</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>Reference Ellipsoid</td> <td>International 1924</td> </tr> <tr> <td>Semi Major Axis</td> <td></td> </tr> <tr> <td>Inverse Flattening (1/f)</td> <td></td> </tr> <tr> <td>Type of Projection</td> <td>UTM Zone -17S (Datum PSAD56)</td> </tr> <tr> <td>Central Meridian:</td> <td>-81.0000</td> </tr> <tr> <td>Latitude of Origin</td> <td>0.0000</td> </tr> <tr> <td>Scale on Central Meridian</td> <td>0.9996</td> </tr> <tr> <td>False Northing</td> <td>10000000</td> </tr> <tr> <td>False Easting</td> <td>500000</td> </tr> </tbody> </table> </li> </ul>	Parameter	Value	Reference Ellipsoid	International 1924	Semi Major Axis		Inverse Flattening (1/f)		Type of Projection	UTM Zone -17S (Datum PSAD56)	Central Meridian:	-81.0000	Latitude of Origin	0.0000	Scale on Central Meridian	0.9996	False Northing	10000000	False Easting	500000
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<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> </ul>	<ul style="list-style-type: none"> <li>The drill core samples reported were collected from diamond drill holes from the El Palmar targets, and with sample length generally ranging between 0.5-2m.</li> </ul>																				
	<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 data from these samples does not contribute to any resource estimate nor implies any grade continuity.</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 sample compositing was done.</li> </ul>																				
<b>Orientation of data in relation to geological structure</b>	<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>Drilling orientations were appropriate for the interpreted geology providing representative samples.</li> <li>Trench orientations and rock chip locations were appropriate for the interpreted geology providing representative samples.</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 sampling bias is expected at this stage.</li> </ul>																				
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>Sunstone sampling procedures indicate individual samples were given due attention.</li> <li>Sample security was managed through sealed individual samples and sealed bags of multiple samples for secure delivery to the laboratory by permanent staff of the joint venture.</li> <li>MS Analytical is an internationally accredited laboratory that has all its internal procedures heavily scrutinised in order to maintain their accreditation.</li> </ul>																				

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		MS Analytical is accredited to ISO/IEC 17025 2005 Accredited Methods.
<b>Audits or reviews</b>	<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>Sunstone's sampling techniques and data have been audited multiple times by independent mining consultants during various project assessments. These audits have concluded that the sampling techniques and data management are to industry standards.</li> <li>All historical data has been validated to the best degree possible and migrated into a database.</li> </ul>

**TABLE 1 – Section 2: Exploration Results**

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<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 El Palmar property is located in Imbabura province and is held by an Ecuadorian registered company 'GOEX'. Due diligence to date show that there are no wilderness areas or national parks or areas of environmental significance within or adjoining the concession area. There are no native title interests.</li> <li>Sunstone and GOEX have entered into a Staged Acquisition Agreement where Sunstone may earn up to 100% based on defined milestones.</li> </ul>
	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The El Palmar exploration concession was granted in 2003 and is held 100% by GOEX.</li> <li>Sunstone owns 70% of GOEX</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>The historic exploration at El Palmar was completed by various groups over the period 1990's, 2007-2008, 2011-2012 and GOEX (2012 to 2020). Most of the readily available historic data has been acquired and compiled into databases and a GIS project. Exploration by other parties has included stream sediment surveys, geological mapping, rock chip sampling, some local soil sampling, channel sampling and limited diamond drilling (3 holes).</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>The deposit style being explored for includes intrusion-related and stockwork hosted porphyry Au-Cu systems plus epithermal gold-silver-polymetallic veins. The setting at El Palmar is a volcanic arc setting of Miocene or Eocene age intrusions.</li> </ul>
<b>Drill hole Information</b>	<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:               <ol 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> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>Details of the samples discussed in this announcement are in the body of the text.</li> <li>See Figures 1-4 for the location of historical drilling at El Palmar.</li> </ul>
	<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>Information included in announcement.</li> </ul>

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<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li><i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>Weighted averages were calculated over reported intervals according to sample length.</li> <li>No grade cut-offs were applied.</li> </ul>
	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>Aggregating of intervals represent broad intervals consistent with porphyry gold-copper mineralised systems.</li> </ul>
	<ul style="list-style-type: none"> <li><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>Metal equivalents are not presented.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li><i>If the geometry of the mineralisation with respect to the drill-hole angle is known, its nature should be reported.</i></li> </ul>	<ul style="list-style-type: none"> <li>The geometry of the mineralisation relative to the drill holes is not completely known at this stage of exploration. .</li> </ul>
	<ul style="list-style-type: none"> <li><i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</i></li> </ul>	<ul style="list-style-type: none"> <li>True widths of mineralised lodes are not known at this stage.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li><i>Appropriate maps and sections (with scales) and tabulations 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></li> </ul>	<ul style="list-style-type: none"> <li>See Figures 1-5 for maps showing distribution of samples.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>Figures 1-5 above shows the current interpretations of geology.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>Figure 1-5 above shows various datasets that are being used to identify target areas and to guide current and future drilling.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> </ul>	<ul style="list-style-type: none"> <li>The planned exploration program is outlined in the announcement.</li> </ul>
	<ul style="list-style-type: none"> <li><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>See Figures 1-5 which show areas for further exploration.</li> </ul>