



Zenith  
Minerals  
Limited

ABN 96 119 397 938

20<sup>th</sup> December 2016

## Drilling Confirms Gold at Discovery Zone - Kavaklitepe

Results from a single drill hole test at the Discovery Zone indicate gold mineralisation over a 23.5 metre (m) interval in hole KT-18A with results including: 9.4m @ 1.5 g/t Au and 3.5m @ 2.1 g/t Au, approximately 60m down dip of surface trench results (previously reported) that include: 21.0m @ 2.7 g/t Au and 27.0m @ 1.4 g/t Au;

The Discovery Zone gold mineralisation remains open to the northeast and southwest and is open down dip.

These new drill results at the Discovery Zone are located 1.3km southeast of high-grade, near surface gold intersections previously reported (between 6 June and 5 October 2016) over +360m strike length at the Kuzey Zone, including:

- ◆ KT-01 - 3.5m @ 5.5 g/t Au from surface;
- ◆ KT-02 - 9.0m @ 5.2 g/t Au from surface;
- ◆ KT-03 - 7.8m @ 7.3 g/t Au from 3.3m depth;
- ◆ KT-05 - 1.2m @ 10.8 g/t Au from 14.7m;
- ◆ KT-06 - 6.3m @ 4.3 g/t Au from surface, and 7.7m @ 1.2 g/t Au from 66.0m;
- ◆ KT-06A - 6.3m @ 3.6 g/t Au from surface;
- ◆ KT-07 - 12.9m @ 1.2 g/t Au from surface;
- ◆ KT-08 - 13.0m @ 1.0 g/t Au, 2.0m @ 3.0 g/t Au and 9.5m @ 1.2 g/t Au from 12.5m, within a 76.0m gold mineralised zone; and
- ◆ KT-09 - 18.7m @ 1.7 g/t Au, 16.0m @ 4.7 g/t Au (incl. 8.0 m @ 7.1 g/t Au) and 8.8m @ 1.0 g/t Au to 113.9m (EOH), a 67.7m overall unoxidised gold mineralised zone (true width unknown);

Gold mineralisation at the Kuzey Zone remains open to the north and east and also to the south where drill holes KT-02, KT03 and KT05 only test a 80m wide portion of the target zone.

Zenith considers that the 2016 maiden drilling program has been very successful, and is waiting formal notice from Teck Anadolu Madencilik A.S of a proposed 2017 exploration budget to scope out the potential size and grade of gold mineralisation discovered.

Zenith Minerals Limited ("Zenith" or "the Company") is pleased to advise that the initial diamond drilling program using a mobile rig at the Kavaklitepe gold project in western Turkey has now been completed for the year. Zenith considers the program to have been successful with sulphide-related gold mineralisation being discovered at both the Discovery Zone and Kuzey Zone, and with near surface high-grade oxide and transition gold mineralisation also intersected at Kuzey.

### Corporate Details

#### ASX: ZNC

Issued Shares (ZNC)	173.9 m
Listed options (ZNCO)	21.0 m
Unlisted options	1.0 m
Mkt. Cap. (\$0.12)	A\$ 20 m
Cash 30 <sup>th</sup> Sep 16	A\$1.0 m
Debt	Nil

### Directors

**Michael Clifford:**  
Managing Director

**Mike Joyce:**  
Non Exec Chairman

**Stan Macdonald:**  
Non Exec Director

**Julian Goldsworthy:**  
Non Exec Director

### Major Shareholders

#### Major Shareholders

City Corp Nom	6.6%
HSBC Custody. Nom.	6.3%
Nada Granich	6.1%
Abingdon	4.5%
Miquilini	4.5%

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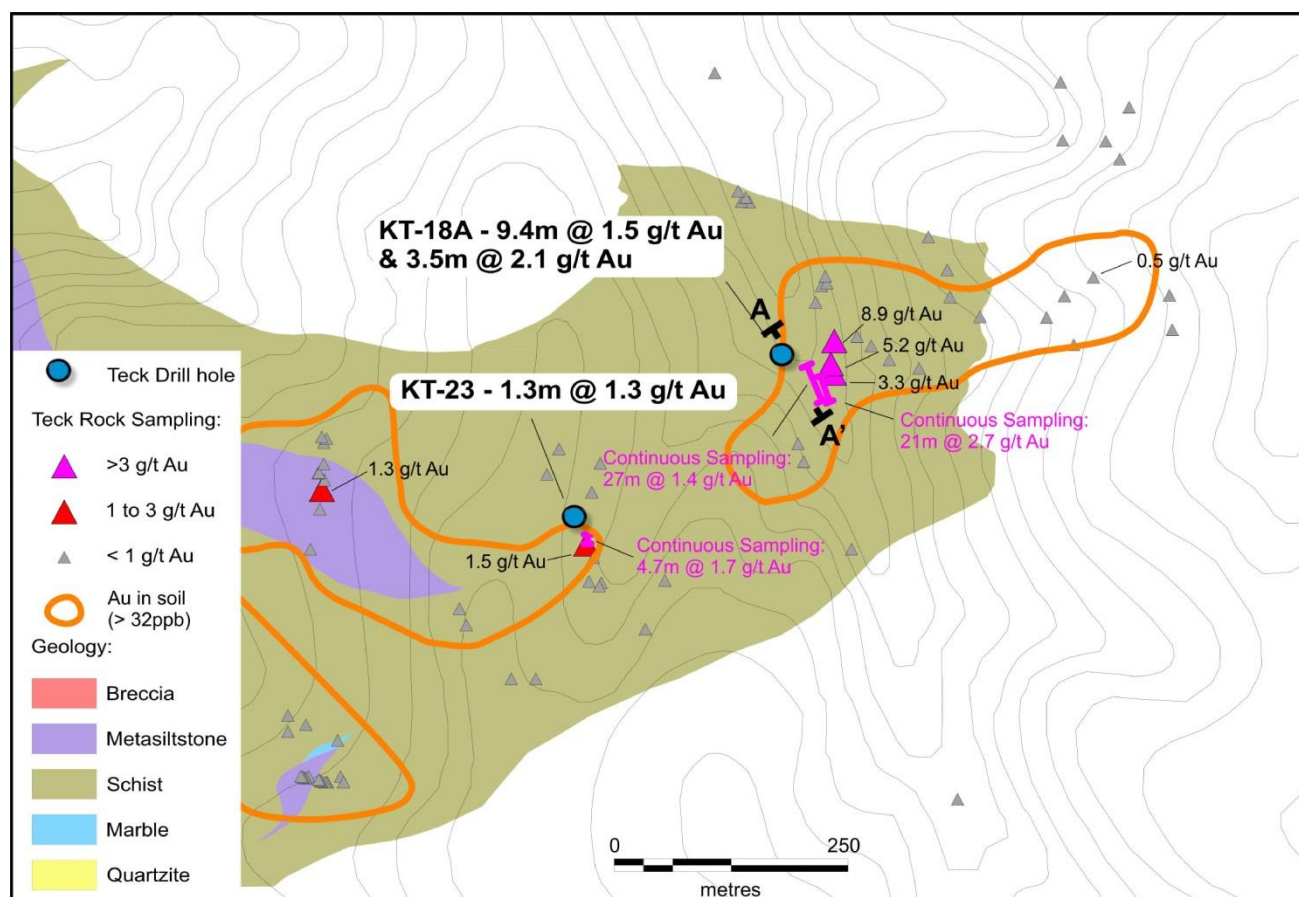
In summary a total of 2558.5m of drilling was completed in twenty-five short diamond drill holes KT-01 to KT-25, & KT-06A at the three target zones: Kuzey, Discovery and Guney during the 2016 exploration campaign.

- ◆ Kuzey Zone 11 holes (KT-01 to KT-11, including KT-06A);
- ◆ Guney Zone 11 holes (KT-12 to KT-17 & KT-19 to KT-22 & KT-24); (results awaited for hole KT-25) and
- ◆ Discovery Zone 2 holes (KT-18A and KT-23).

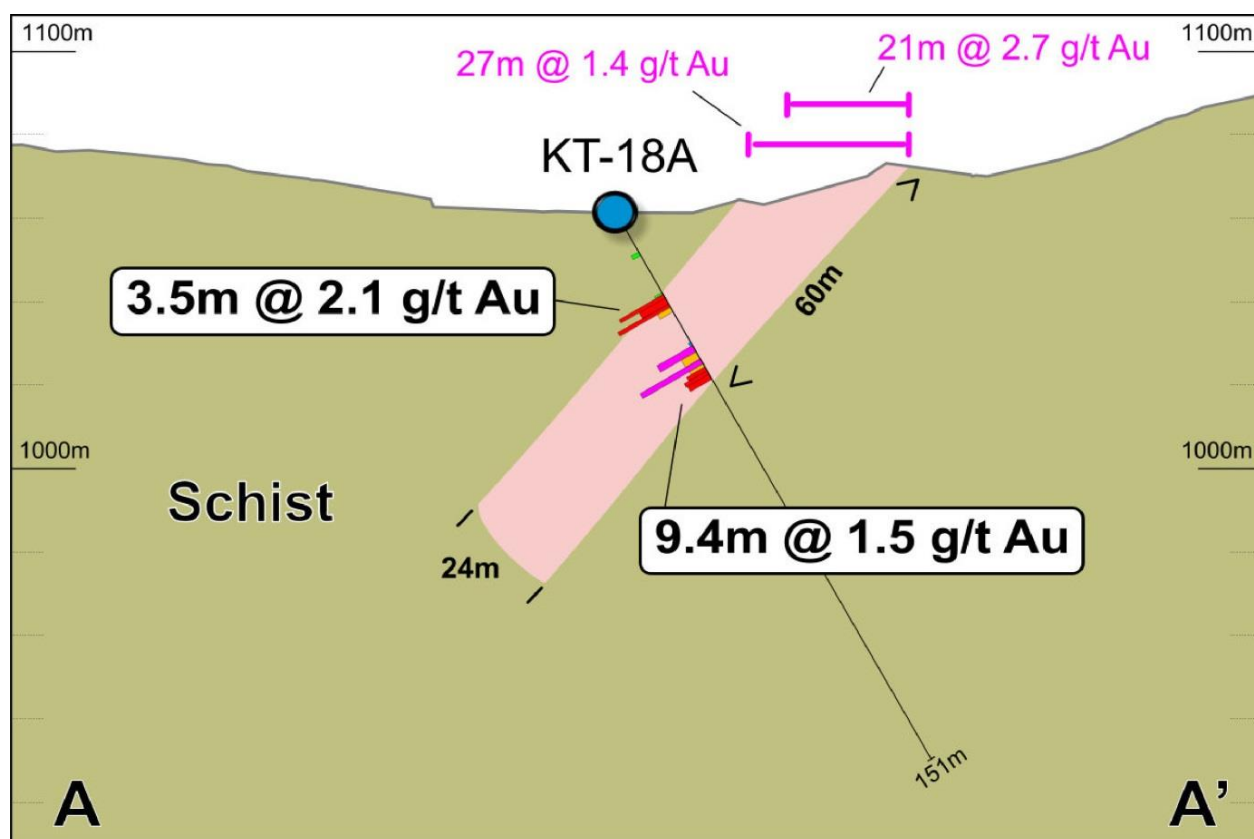
## New Gold at Discovery Zone

Gold mineralisation was intersected at the Discovery Zone in a single drill hole test (KT-18A) over a 23.5m interval from 22.5m to 46.0m depth with results including: 9.4m @ 1.5 g/t Au and 3.5m @ 2.1 g/t Au (true width intervals). The near surface gold mineralisation dips to the northwest and is 60m down dip of previously reported continuous roadside surface sample results that include: 21.0m @ 2.7 g/t Au and 27.0m @ 1.4 g/t Au (Figures 1 & 2). The roadside sampling was conducted as an initial test of the 400m long gold-in-soil anomaly at the Discovery Zone.

The new Discovery Zone gold mineralisation remains open to the northeast and southwest and is open down dip. A second drill hole (KT-23) has now been completed 275m southwest along strike where surface rock chip samples returned up to 2.4g/t Au, intersecting 1.3m @ 1.3 g/t Au within an 17.9m wide altered zone from 17.5m to 35.4m with associated anomalous silver, arsenic and antimony.



**Figure 1: Kavaklitepe Discovery Zone Drill Hole Locations, Gold Intersections and Location of Cross Section (A-A')**



**Figure 2: Kavaklitepe Discovery Zone Cross Section (A-A')**

These new drill results at the Discovery Zone extend and support high-grade, near surface gold intersections previously reported over +360m strike at the Kuzey Zone located 1.3km to the northwest.

Drilling at the **Guney Zone** has been technically difficult with seven drill holes KT-12 to KT-17, KT-19 & KT-24 completed as a section across the central portion of the prospect. The drilling intersecting a thick, flat-lying, massive sequence of calc-silicate rocks which contained multiple underground cavities up to 4 metres deep that caused several holes to fail at shallow depths and provided locally only very poor diamond drill core sample recoveries. Hole KT-12 returned **1.2m @ 1.4g/t Au** from 12.5m and 1.3m @ 0.6g/t Au from 17.2m before being abandoned in a cavity. The massive calc-silicate rock sequence is not considered a preferred host to gold mineralisation. In contrast drill hole KT-21 drilled on the northern part of the prospect (Figure 5) intersected a wide zone (30.7 m) of silicified and altered breccia crosscutting a meta-siltstone rock sequence from 54.9m to 85.6m with associated higher concentrations of trace elements arsenic, antimony and silver more similar to those returning significant gold intersections at the Kuzey and Discovery zones. Follow-up along strike of this zone will be a priority exploration target in 2017.

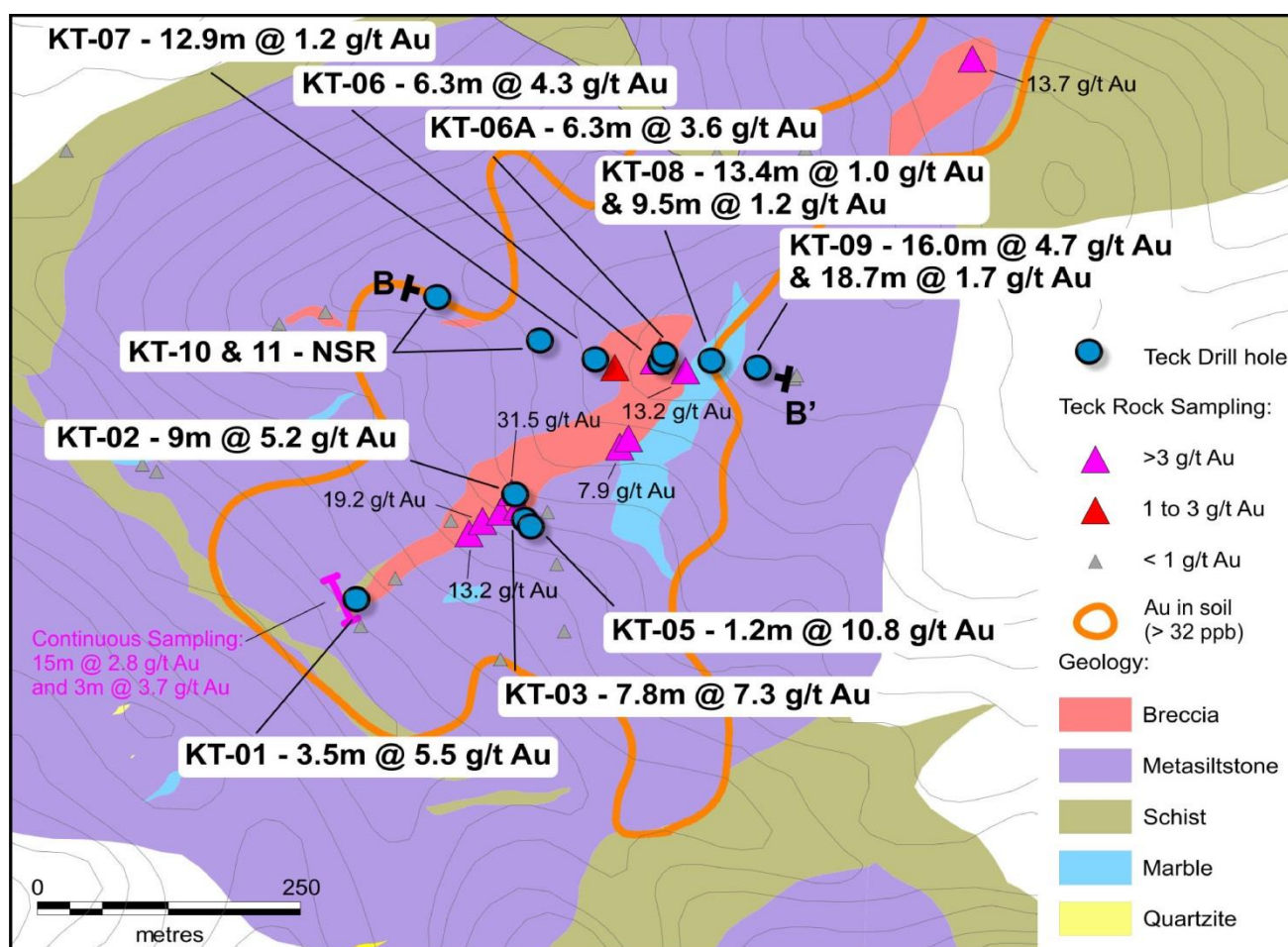
Hole KT-25 was drilled beneath high-grade, continuous, surface rock chip samples taken immediately above a surface opening possibly a historical underground mine opening that returned 3.0m @ 3.8 g/t Au (drill hole assays are awaited).

### **Kuzey Zone**

Drilling completed this year has provided an initial wide spaced test of only 360m of the 900m by 250m wide Kuzey Zone gold-in-soil anomaly target (Figure 3).



Drill results previously reported (5<sup>th</sup> October 2016) from the Kuzey Zone include: hole KT-09; an overall 67.7m gold mineralised zone from 46.2 to end of hole at 113.9m (true width unknown) including several zones of higher grade: **18.7m @ 1.7 g/t Au** from 50.2m, **16.0m @ 4.7 g/t Au** from 82.1m, (including **8.0 m @ 7.1 g/t Au**) and **8.8m @ 1.0 g/t Au** with the drill hole ending in mineralisation at 113.9m and hole KT-08; an overall 76.0m gold mineralised zone from 12.5m to 88.5m including: **13.4m @ 1.0 g/t Au** from 16.1m, **1.5m @ 1.3 g/t Au** from 33.0m, **2.0m @ 3.0 g/t Au** from 48.8m, **9.5m @ 1.2 g/t Au** from 56.8m and **4.0m @ 1.2 g/t Au** from 84.5m depth, hole KT-07; **12.9m @ 1.2 g/t Au** from surface and hole KT-06A; **6.3m @ 3.6 g/t Au** from surface.

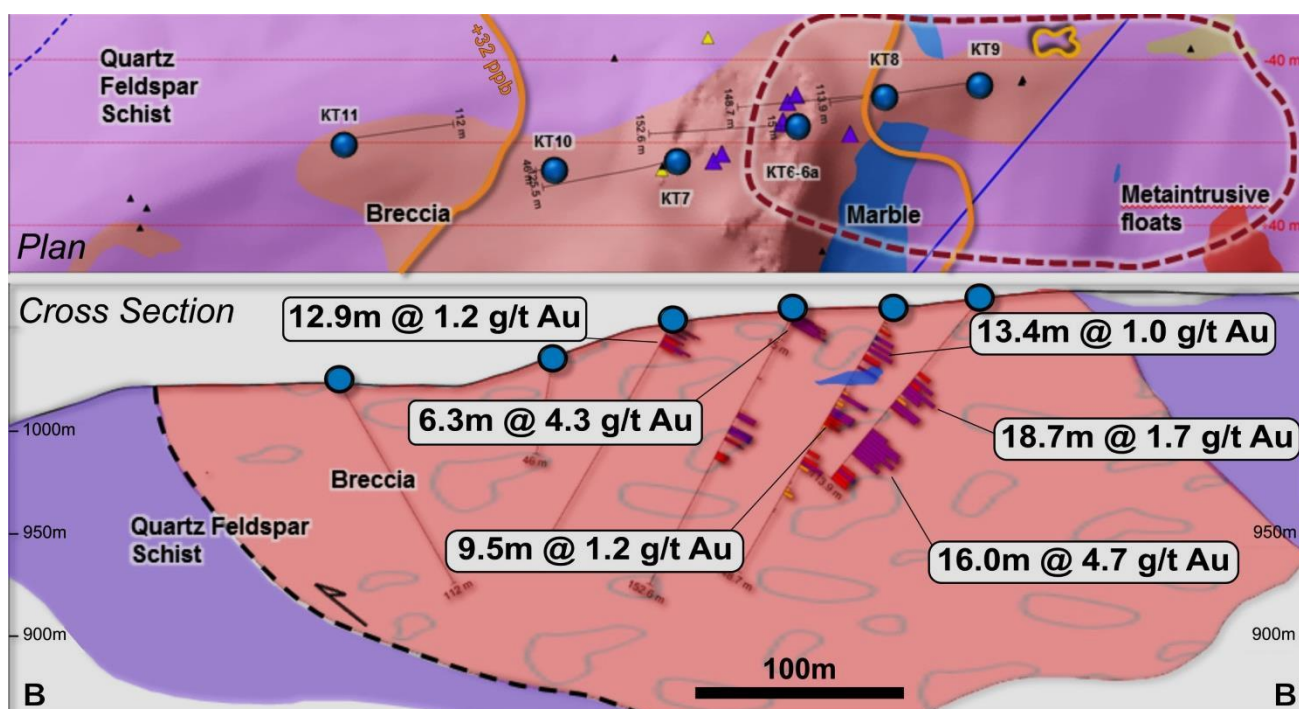


**Figure 3: Kavaklitepe Kuzey Zone Drill Hole Locations, Gold Intersections and Location of Cross Sections (B-B')**

These, high-grade, wide, gold intersections in hole KT-09 are particularly significant, as they represent the best sulphide gold mineralisation intersected to date at Kavaklitepe. Mineralisation extends from approximately 35m vertically below surface to a down-hole depth of 113.9m where it remains open (Figure 4). Sulphide gold intersections are down-hole widths as the orientation of that style of mineralisation is currently unknown.

In addition gold mineralisation at the Kuzey Zone remains open to the north and east and is open along strike to the south (Figure 5) where drill holes KT-02, KT03 and KT05 only test a portion of the target zone (80m of width).



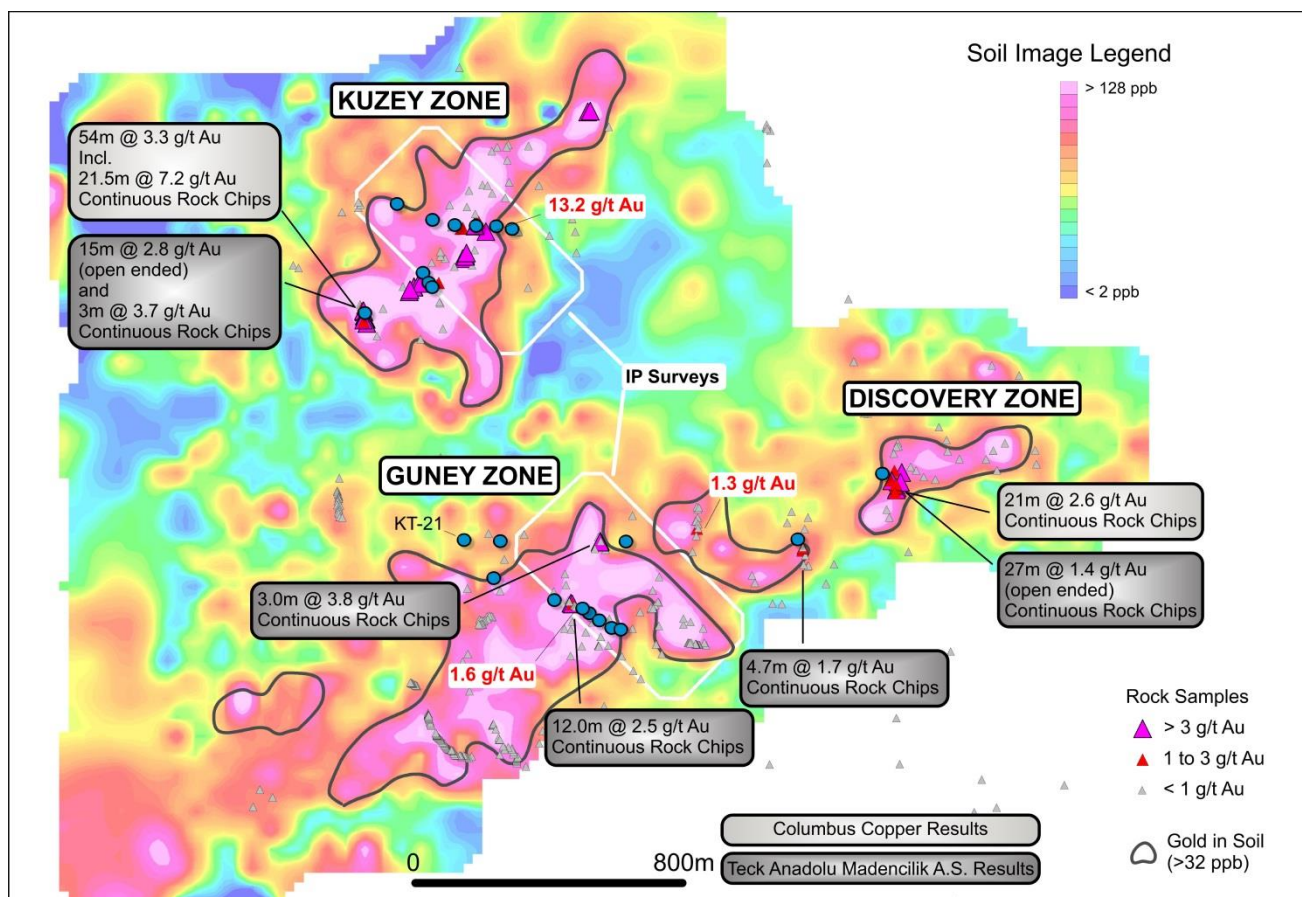


**Figure 4: Kavaklitepe Kuzey Zone Cross Section (B-B')**

Near surface oxide and transition gold mineralisation is interpreted to occur as a flat lying zone extending over the full 360m length that has been drill tested to date. Better intersections that are considered close to true width of high-grade, near surface, gold mineralisation (previously reported) include:

- KT-01; 3.5m @ 5.5 g/t Au from surface,
- KT-02; 9.0m @ 5.2 g/t Au from surface
- KT-03; 7.8m @ 7.3 g/t Au from 3.3m depth
- KT-05; 1.2m @ 10.8 g/t Au from 14.7m (as part of a 16.9m mineralised zone with lower core recovery)
- KT-06; 6.3m @ 4.3 g/t Au from surface and a zone from 58.4m to 73.7m depth including 2.9m @ 1.1 g/t Au and 7.7m @ 1.2 g/t Au
- KT-06A ; 6.3m @ 3.6 g/t Au from surface;
- KT-07 ; 12.9m @ 1.2 g/t Au from surface;

Reporting cut-off criteria and associated JORC tables are appended to the end of this release, whilst drill locations are shown in Figures 1-4 and Table 2.



**Figure 5: Plan Showing Kavaklitepe Project Gold Geochemistry**

**Table 1: Kavaklitepe – Kuzey Zone: Significant (+0.5 g/t Au) Drill Hole Intersections**

HOLE	PROSPECT	FROM (m)	TO (m)	CORE RECOVERY (%)	INTERVAL (m)	GOLD (g/t)	COMMENT
KT-01	Kuzey	0	3.5	63	3.5	5.52	ASX Release 24/08/16
		3.5	9	17	5.5	0.83	ASX Release 24/08/16
		9	9.8	79	0.8	0.83	ASX Release 24/08/16
KT-02	Kuzey	0	9	82	9.0	5.2	ASX Release 16/06/16
		11.6	12.0	100	0.4	2.48	ASX Release 24/08/16
		12.0	12.6	0	0.6	na	
KT-03	Kuzey	3.3	11.1	76	7.8	7.34	ASX Release 20/07/16
		23.9	25.6	93	1.7	0.94	ASX Release 24/08/16
KT-04	Kuzey	2	3	38	1	1.03	ASX Release 24/08/16
		3	5.7	63	2.7	1.53	
KT-05	Kuzey	3	4.5	43	1.5	0.53	
		4.5	5.5	0	1	na	
		5.5	6.5	26	1	3.79	
		6.5	7	0	0.5	na	
		7	8.5	41	1.5	2.24	
		8.5	9.0	0	0.5	na	
		14.7	15.9	60	1.2	10.8	
		15.9	17.9	34	2	2.65	



		17.9	19.9	66	2	0.84	
KT-06	Kuzey	0	6.3	71	<b>6.3</b>	<b>4.29</b>	
		58.4	61.3	84	<b>2.9</b>	<b>1.13</b>	
		66.0	73.7	78	<b>7.7</b>	<b>1.17</b>	
		80	83.8	83	3.80	0.56	
KT-06A	Kuzey	0	6.3	96	<b>6.3</b>	<b>3.6</b>	ASX Release 5/10/16
KT-07	Kuzey	0	12.9	91	<b>12.9</b>	<b>1.2</b>	ASX Release 5/10/16
KT-08	Kuzey	12.5	13.8	99	1.3	0.6	
		16.1	29.5	97	<b>13.4</b>	<b>1.0</b>	
		33.0	34.5	81	<b>1.5</b>	<b>1.3</b>	
		48.8	50.8	88	<b>2.0</b>	<b>3.0</b>	
		56.8	66.2	88	<b>9.5</b>	<b>1.2</b>	
		80.5	82.5	89	2.0	0.6	
		84.5	88.5	92	<b>4.0</b>	<b>1.2</b>	
KT-09	Kuzey	46.2	48.2	84	2.0	0.7	
		50.2	68.9	95	<b>18.7</b>	<b>1.7</b>	
		82.1	98.1	95	<b>16.0</b>	<b>4.7</b>	
		105.1	113.9	96	<b>8.8</b>	<b>1.0</b>	
KT-10	Kuzey						NSR
KT-11	Kuzey						NSR
KT-12	Guney	12.5	13.7	83	<b>1.2</b>	<b>1.4</b>	
		13.7	14.6	30	0.9	cavity	
		17.2	18.5	87	1.3	0.6	
		18.5	19.5	63	1.0	na	
		19.5	20.0	0	0.5	cavity	
KT-13	Guney						NSR-abandoned
KT-14	Guney						NSR-abandoned
KT-15	Guney						NSR-abandoned
KT-16	Guney						NSR-abandoned
KT-17	Guney						NSR
KT-18A	Discovery	22.5	27.3	99	<b>4.8</b>	<b>1.7</b>	
		36.6	46.0	90	<b>9.4</b>	<b>1.5</b>	
KT-19	Guney						NSR
KT-20	Guney						NSR
KT-21	Guney						NSR
KT-22	Guney						NSR
KT-23	Discovery	25.9	27.2	97	<b>1.3</b>	<b>1.3</b>	
		73.1	73.6	98	0.5	0.5	
KT-24	Guney						NSR
KT-25	Guney						Assays awaited

Note that the actual gold grade of intersections with low core recovery may be either higher or lower than the individual assays reported above depending on the amount of core recovered, and the grade of the un-recovered core. As an example: if only 0.5m of drill core is recovered whilst diamond drilling over a 1m interval then the core recovery is calculated as 50%. If the 0.5m of core recovered is assayed and returns a gold grade of 10 g/t Au then we can be confident that material is mineralised, however we do not know the grade of the missing 50% of the sample interval. If that missing 0.5m was waste containing zero gold, the full 1m intersection would have a gold grade of half the assayed interval (5 g/t Au) which is the minimum



theoretically possible for that interval. If the missing 0.5m of core was higher grade than the recovered core, then the actual gold grade of the 1m interval will exceed 10 g/t Au.

<b>Table 2: Kavaklitepe Drill Hole Collars</b>						
Hole	Easting	Northing	RL	Depth	Azimuth	Dip
KT-01	735536	4427391	958	45	180	-70
KT-02	735687	4427497	1025	45.8	140	-70
KT-03	735693	4427480	1021	74.3	320	-60
KT-04	735695	4427477	1021	17	320	-50
KT-05	735694	4427478	1021	93.9	165	-60
KT-06	735825	4427630	1058	152.6	289	-60
KT-07	735762	4427633	1052	125.5	270	-60
KT-06A	735825	4427631	1058	15	280	-60
KT-08	735874	4427631	1062	148.7	280	-60
KT-09	735916	4427623	1082	113.9	280	-50
KT-10	735706	4427647	1034	46	280	-80
KT-11	735612	4427692	1042	112	100	-60
KT-12	736108	4426612	1056	45	270	-50
KT-13	736152	4426581	1057	13	280	-50
KT-14	736125	4426598	1058	36.5	280	-65
KT-15	736124	4426603	1060	37.0	280	-65
KT-16	736185	4426560	1061	110.4		-90
KT-17	736030	4426636	1053	208.0	100	-60
KT-18	736903	4426971	1072	19.0	130	-60
KT-18A				116.2		
KT-19	736030	4426636	1033	294.6	280	-60
KT-20	735866	4426694	1035	103.3	100	-60
KT-21	735789	4426790	1024	102.0	100	-60
KT-22	735886	4426791	1032	90.2	100	-60
KT-23	736681	4426796	1108	106.0	140	-60
KT-24	736206	4426554	1068	86.7	100	-50
KT-25	736220	4426786	1073	120.0	235	-50





## Background on the Kavaklitepe Project

Columbus Copper discovered mineralization at Kavaklitepe in 2013 by following up a stream sediment anomaly to a stream bed outcrop that returned 5.2 g/t Au. Subsequently a small trench in a nearby road cut returned 2.6 g/t Au over 21.0 metres of exposure. About 1.4 kilometres northwest from the discovery outcrop four samples from a gold bearing breccia zone returned 28.2 g/t, 21.7 g/t, 6.7 g/t and 3.6 g/t Au respectively (Columbus Copper release March 1, 2013). Further rock sampling along a road bank in this zone confirmed the presence of high-grade gold mineralization returning 54 metres of continuous rock chips with an average grade of 3.3 g/t Au (no gold grade cut-off applied), including 21.5m grading 7.2 g/t Au. A total of 2,127 soil samples were also collected on the Property in 50 metre x 50 metre and 100 metre x 100 metre grids covering an area of approximately 11 square kilometres, of which 176 samples returned gold grades higher than 50 ppb, 112 - higher than 100 ppb and 40 - higher than 250 ppb with 9 of these samples containing more than 1000 ppb (1 g/t) Au. The soil sampling outlined a potentially mineralized zone measuring 850 metres by 250 metres and continuing for another 800 metres to the southwest. There are strong, coincident arsenic and antimony anomalies.

## Competent Persons Statement

*The information in this report that relates to Exploration Results is based on information compiled by Mr Michael Clifford, who is a Member of the Australian Institute of Geoscientists and an employee of Zenith Minerals Limited. Mr Clifford has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Clifford consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

20<sup>th</sup> December 2016

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***Zenith is advancing its project portfolio of high-quality, gold, lithium and base metal projects:***

**Kavaklitepe Gold Project, Turkey (Teck earning 70%)**

- Recent (2013) grass roots gold discovery in Tethyan Belt
- Large, high order gold soil / IP anomaly >1km strike
- Continuous rock chip sampling to: 54m @ 3.33g/t gold, including 21.5m @ 7.2 g/t gold
- Drill results include: 9 m @ 5.2 g/t Au from surface, 7.8 m @ 7.3 g/t Au from 3.3 m and 16.4m @ 4.7 g/t Au from 82.1m depth
- 25 drill holes successfully completed in maiden 2016 drill campaign..

**Split Rocks Lithium & Gold, WA (100%)**

- New 100% owned applications covering 500km<sup>2</sup> in emerging Forrestania lithium district
- Review of previous work and surface sampling to preceded drill testing

**San Domingo Lithium, Arizona USA (ZNC 100%)**

- 9km x 1.5km lithium pegmatite field, initial surface sampling returned: 5m @ 1.97%Li<sub>2</sub>O including 2.4m @ 2.49% Li<sub>2</sub>O
- Surface sampling and mapping in progress prior to drill testing

**Spencer & Wilson Salt Flat Lithium Brine Projects, Nevada USA (ZNC 100%)**

- Two lithium brine targets in producing lithium region;
- Geophysical surveys and infill sampling in progress

**Burro Creek Lithium, Arizona USA (ZNC option to acquire 100%)**

- Large scale lithium (Li) clay target under exclusive option in Arizona, USA;
- Metallurgical testwork to assess ease of extracting lithium & mapping & sampling in progress

**Develin Creek Copper-Zinc-Silver-Gold, QLD (100%)**

- 3 known VHMS massive sulphide deposits - JORC resources, 50km of strike of host rocks
- 2011 drilling outside resource: 13.2m @ 3.3% copper, 4.0% zinc, 30g/t silver & 0.4g/t gold
- Drilling to extend known deposits, geophysics, geochemistry to detect new targets

**Earaheedy Manganese Project, WA (ZNC 100%)**

- New manganese province discovered by ZNC, potential DSO drill intersections (+40%Mn)

**Mt Alexander Iron Ore, WA (ZNC 100%)**

- JORC magnetite Resource 566 Mt @ 30.0% Fe close to West Pilbara coast, 50% of target untested.
- Seeking development partner/ buyer for iron project

**Other -** Evaluating new lithium brine targets in Mexico



## Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<i>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 down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</i>	The prospect has been drilled using diamond drilling.
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	Sample procedures are in line with industry standards. Current QAQC protocols include the analysis of field duplicates and the insertion of appropriate commercial standards. Based on statistical analysis of these results, there is no evidence to suggest the samples are not representative.
	<i>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.</i>	The BQ and NQ holes have been sampled by ½ core sampling, samples were crushed in the laboratory and then pulverised before analysis using 30g charge fire assay with an AAS finish.
Drilling techniques	<i>Drill type (e.g. 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.).</i>	Diamond core (BQ holes KT-01 and 2, NQ thereafter) from surface.
Drill sample recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	Diamond drill core recovery is measured to the nearest 5%.
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	The diamond core has been consistently sampled with the left hand side of the core sampled.
	<i>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.</i>	Details of core recovery are discussed in the body text of this release.



Logging	<i>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.</i>	Diamond drill holes have been geologically logged by a qualified geologist
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i>	Logging recorded the lithology, oxidation state, colour, alteration, veining, presence or absence of sulphide minerals and species. Diamond core is photographed tray by tray.
	<i>The total length and percentage of the relevant intersections logged.</i>	All drill holes are logged in full.
Sub-sampling techniques and sample preparation	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	Competent drill core is sawn in half, whilst broken zones are hand selected by the geologist.
	<i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i>	Drill core.
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	Samples were sent to Bureau Veritas laboratory in Ankara Turkey, the samples were crushed and assayed by fire assay in Vancouver Canada
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	Commercial geochemical gold standards were included in the sample batch sent to the laboratory whilst there were also internal laboratory QC samples.
Sub-sampling techniques and sample preparation - continued	<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>	No selective sampling.
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	Each sample was approximately 1kg in weight and selected to be representative of the drill interval sampled.
Quality of assay data and laboratory tests	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	The samples were crushed and assayed by fire assay (near total digestion).
	<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>	No geophysical handheld tools used
	<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>	Commercial geochemical gold standards and blanks were included in the sample batch sent to the laboratory whilst there were also internal laboratory QC samples. The blanks and standards were determined to be within acceptable levels of accuracy and precision.
Verification of sampling and assaying	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	At least two joint venture company personnel observed the assayed samples





	<i>The use of twinned holes.</i>	No twin holes have yet been completed.
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	Field data were all recorded on hardcopies and then entered into an electronic database
	<i>Discuss any adjustment to assay data.</i>	No adjustments were made.
<i>Location of data points</i>	<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>	Sample coordinates were recorded using a handheld GPS with plus/minus 3m accuracy
	<i>Specification of the grid system used.</i>	The grid system used was UTM ED 50
<i>Location of data points - continued</i>	<i>Quality and adequacy of topographic control.</i>	Topography control is limited for these samples, as elevation data from GPS are reliable to plus minus 10m.
<i>Data spacing and distribution</i>	<i>Data spacing for reporting of Exploration Results.</i>	Maiden drill program on Kuzey Prospect, drill hole locations are shown in maps in the text of this release.
	<i>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.</i>	These data alone will not be used to estimate mineral resource or ore reserve
	<i>Whether sample compositing has been applied.</i>	No sample compositing applied, samples are generally 1 to 2m in length.
<i>Orientation of data in relation to geological structure</i>	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>	Maiden drill program, orientation and controls on mineralised zones are as yet poorly understood.
	<i>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.</i>	Maiden drill program, orientation and controls on mineralised zones are as yet poorly understood.
<i>Sample security</i>	<i>The measures taken to ensure sample security.</i>	Samples were subject to a chain of custody procedure until delivered to the laboratory
<i>Audits or reviews</i>	<i>The results of any audits or reviews of sampling techniques and data.</i>	Sampling techniques are consistent with industry standards



## 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	<i>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.</i>	<p>The Kavaklitepe Project is located in Central Western Turkey. An affiliate of Teck may earn a 70% interest in the Kavaklitepe gold project from Zenith by spending US\$700,000 in property expenditures including a minimum of 1500m of drilling. Following the initial option stage both companies can then continue to explore or develop the property by contributing their pro-rata costs or they may elect to dilute their interests according to a standard industry formula. If Zenith reduces its equity below 10% then the remaining interest may be compulsorily acquired by Teck in exchange for a 5% net profit interest royalty.</p> <p>Should Teck not exercise its initial option to earn 70% equity then Zenith will own 100% of the project with Teck retaining a 2% net smelter royalty.</p>
	<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>	All applications are 100% held by a subsidiary company of Teck with no known impediment to future granting of a mining lease.
Exploration done by other parties	<i>Acknowledgment and appraisal of exploration by other parties.</i>	<p>Columbus Copper discovered mineralization at Kavaklitepe in 2013 by following up a stream sediment anomaly to a stream bed outcrop that returned 5.2 grams per tonne ("g/t") gold. Subsequently a small trench in a nearby road cut returned 2.6 g/t gold over 21 metres of exposure. About 1.4 kilometres northwest from the discovery outcrop four samples from a gold bearing breccia zone returned 28.2 g/t, 21.7 g/t, 6.7 g/t and 3.6 g/t gold respectively (Columbus Copper release March 1, 2013). Further rock sampling along a road bank in this zone confirmed the presence of high-grade gold mineralization returning 54.0 metres of continuous rock chips with an average grade of 3.3 g/t gold, including 21.5 metres grading 7.2 g/t gold. A total of 2,127 soil samples were also collected on the Property in 50 metre x 50 metre and 100 metre x 100 metre grids covering an area of approximately 11 square kilometres, of which 176 samples returned gold grades higher than 50 ppb, 112 - higher than 100 ppb and 40 - higher than 250 ppb with 9 of these samples containing more than 1000 ppb (1 g/t) gold. The soil sampling outlined a potentially mineralized zone measuring 850 metres by 250 metres and continuing for another 800 metres to the southwest and possibly displaced by a northwest-southeast trending fault at its southern margin. There are strong, coincident arsenic and antimony anomalies.</p>
Geology	<i>Deposit type, geological setting and style of mineralisation.</i>	The project comprises gold mineralisation hosted in a variety of host rocks including schists, breccias and



		meta-sedimentary rocks, the style of mineralisation is not yet clearly understood.
Drill hole Information	<i>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:</i>	<p>Refer to table in body of text</p> <p>All intercept lengths reported are downhole lengths as the orientation of mineralisation is not yet known.</p>
	<i>o easting and northing of the drill hole collar</i>	
	<i>o elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i>	
	<i>o dip and azimuth of the hole</i>	
	<i>o down hole length and interception depth</i>	
	<i>o hole length.</i>	
	<i>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.</i>	
Data aggregation methods	<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>	<p>Drill intersections reported in this release are calculated using the following criteria:</p> <ul style="list-style-type: none"> <li>• Minimum reportable average gold grade of intercept of 1.0 g/t Au</li> <li>• Length weighted arithmetic average gold grades;</li> <li>• Lower cut-off gold grade of 0.5 g/t Au;</li> <li>• Maximum length of internal dilution 2m;</li> <li>• No high-grade gold top cuts;</li> </ul> <p>Treatment of repeat assays (arithmetic average of all repeat fire assay results);</p>
	<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>	<p>Reporting of higher gold grade sub-intervals,</p> <ul style="list-style-type: none"> <li>o Minimum reportable average gold grade intercept of 3.0 g/t Au;</li> <li>o Lower cut-off gold grade of 1.0 g/t Au;</li> <li>o Maximum length of internal dilution 1m;</li> <li>o No high-grade gold top cuts; and</li> <li>o Treatment of repeat assays (arithmetic average of all repeat fires assay results)</li> </ul>
Data aggregation methods - continued	<i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i>	No metal equivalents used.
Relationship between mineralisation widths and intercept lengths	<i>These relationships are particularly important in the reporting of Exploration Results.</i>	Reported mineralised intercepts are down-hole lengths
	<i>If the geometry of the mineralisation with respect to the drill hole angle is known, its</i>	Maiden drill program, orientation and controls on mineralised zones are as yet poorly understood.



	<i>nature should be reported.</i>	
	<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>	Down hole lengths, true width not known
<i>Diagrams</i>	<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>	Refer to descriptions and diagrams in body of text
<i>Balanced reporting</i>	<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>	All results included in maps in the body of text
<i>Other substantive exploration data</i>	<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>	There is no other significant exploration data that is reportable at this stage of the project
<i>Further work</i>	<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>	Drilling is in progress to test subsurface grade continuity and extents.
	<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>	Refer to diagrams in body of text