20th June 2019

Drilling Returns Further Thick High-Grade Gold Intercepts at Kavaklitepe Gold Project in Turkey

Preliminary 4-metre composite assay results received from the recently completed 3,700 metre RC drill program (38 holes) at the Kuzey, Discovery and Guney Prospects.

- **New Kuzey zone infill drilling results include:**
  - **KT-77: 20.0m @ 15.60 g/t Au, including 12.0m @ 24.67 g/t Au;**
  - **KT-78: 16.0m @ 4.72 g/t Au, including 8.0m @ 7.99 g/t Au;**
  - **KT-64: 44.0m @ 1.90 g/t Au, including 8.0m @ 5.50 g/t Au;**
  - **KT-56: 24.0m @ 2.14 g/t Au; including 4.0m @ 5.45 g/t Au, and**
  - **KT-53: 36.0m @ 2.06 g/t Au, including 8.0m @ 4.14 g/t Au.**
- **New results are in addition to 2016 and 2018 Kuzey drill results that included: 16m @ 4.7 g/t Au from 82.1m at KT-09 and 24m @ 4.15 g/t Au from 52m at KTRC-35, 9m @ 5.25 g/t Au from surface at KT-02 (top 6.6 m is oxide), 7.8m @ 7.3 g/t Au from 3.3m at KT-03 (top 5.5 m is oxide) and 28m @ 2.78 g/t Au from 16m at KTRC-29;**
- **New Discovery zone drill results include: KT-42: 8.0m @ 0.74 g/t Au, KT-43: 8.0m @ 1.20 g/t Au and KT-44: 8.0m @ 1.26 g/t Au;**
- **Individual 1 metre samples of the 4 metre RC composite gold mineralised intervals are being submitted to the assay laboratory for analysis with assay results expected in July;**
- **Upon receipt of the 1 metre sample results the Kavaklitepe JV partners will be in a better position to comment on the significance of the gold mineralisation defined in this RC drill campaign and future work on the project.**

Zenith Minerals Limited ("Zenith" or "the Company") is pleased to advise that initial 4 metre composite assay results from follow-up drill testing have now been received from the Kavaklitepe Gold Project located within the highly gold endowed western region of Turkey.

Based on these preliminary 4 metre composite results the drill program has successfully defined gold mineralisation over the length of the 900 metre long Kuzey Prospect (north prospect) with indications of more than one high-grade shoot. New Kuzey infill results from drill holes KT-51 to KT-78) include: **KT-77: 20.0m @ 15.60 g/t Au, including 12.0m @ 24.67 g/t Au, KT-78: 16.0m @ 4.72 g/t Au, including 8.0m @ 7.99 g/t Au, KT-64: 44.0m @ 1.90 g/t Au, including 8.0m @ 5.50 g/t Au, KT-56: 24.0m @ 2.14 g/t Au; including 4.0m @ 5.45 g/t Au, and KT-53: 36.0m @ 2.06g/t Au, including 8.0m @ 4.14 g/t Au,** (Figures 1, 2, 3 & 4). These drill intersections are interpreted to be close to true thickness of the gold mineralisation. New continuous rock chip sampling along drill access tracks at Kuzey returned **16.0m @ 4.6 g/t Au and 4.0m @ 3.73 g/t Au** (Table 3 and Figure 5). Kuzey is one of three gold mineralised zones within the Kavaklitepe Project, the others being Discovery and Guney.

New drilling at the Discovery Prospect (drill holes KT-41 to KT-46) shows consistent, shallow west dipping gold mineralisation over a strike length of 600 metres. New Discovery zone drill results include: **KT- 42: 8.0m @ 0.74 g/t Au, KT-43: 8.0m @ 1.20 g/t Au and KT-44: 8.0m @ 1.26 g/t Au** (Figure 5). These drill intersections are also interpreted to be close to true

Corporate Details

ASX: ZNC

Issued Shares (ZNC)	212.8M
Unlisted options	4.15M
Mkt. Cap. ($0.08)	A$18M
Cash (31st Mar 19)	A$1.1 M
Debt	Nil

Directors

Michael Clifford:
Managing Director

Mike Joyce:
Non-Exec Chairman

Stan Macdonald:
Non-Exec Director

Julian Goldsworthy:
Non-Exec Director

Graham Riley:
Non-Exec Director

Major Shareholders

HSBC Custody. Nom.	12.8%
Nada Granich	5.4%
Miquilini	4.3%
J P Morgan	4.1%
Abingdon	4.1%

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thickness of the gold mineralisation. In addition, new continuous rock chip sampling along drill access tracks at Discovery returned **8.0m @ 1.28 g/t Au, 4.0m @ 3.17 g/t Au and 4.0m @ 1.81 g/t Au** (Table 3 and Figure 5).

New drilling at the Guney Prospect (drill holes KT-47 to KT-50) returned a maximum of 8.0m @ 0.28g/t Au from surface in drill hole KT-49.

Gold mineralisation at Kavaklitepe is hosted in fault zone breccias and shear zones that are both subparallel to and cross-cut foliation in the host shales and schists in association with arsenic and antimony.

Individual 1 metre samples of the 4-metre composite gold mineralised intervals are being submitted to the assay laboratory for analysis with assay results expected in July. Significant gold results are summarised in Tables 1 & 2 whilst details are included in JORC 2012 tables appended to this release.

Exploration and evaluation of the Kavaklitepe gold project is managed by Teck Anadolu Madencilik Sanayi v. Ticaret A.S. ("Teck"), a Turkish affiliate of Teck Resources Limited through the Turkish joint venture company Kavak Madencilik A.S. partly owned by Zenith Minerals Limited. As previously advised (ASX Release 23rd April 2019) Zenith elected not to contribute its share of joint venture funds towards this drill program. The exact level of dilution will depend on final invoiced program costs, but it is estimated that Zenith's share of the joint venture holding company is now approximately 25%.

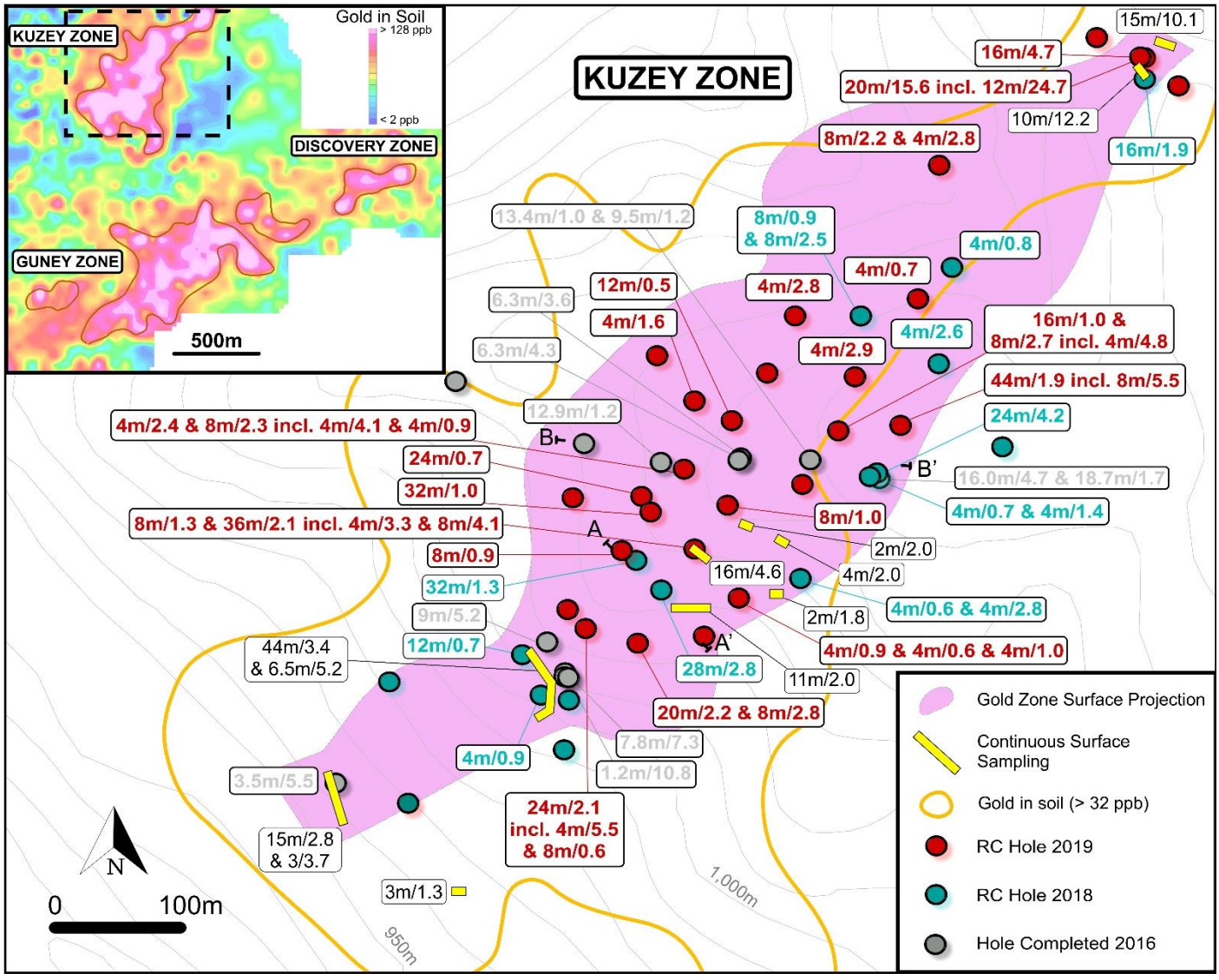

Figure 1: Kavaklitepe Kuzey Zone Drill Hole Locations, Gold Intersections & Location of Cross Sections (A-A' & B-B') – (Legend: 20m/15.6 is 20.0m @ 15.6 g/t Au)

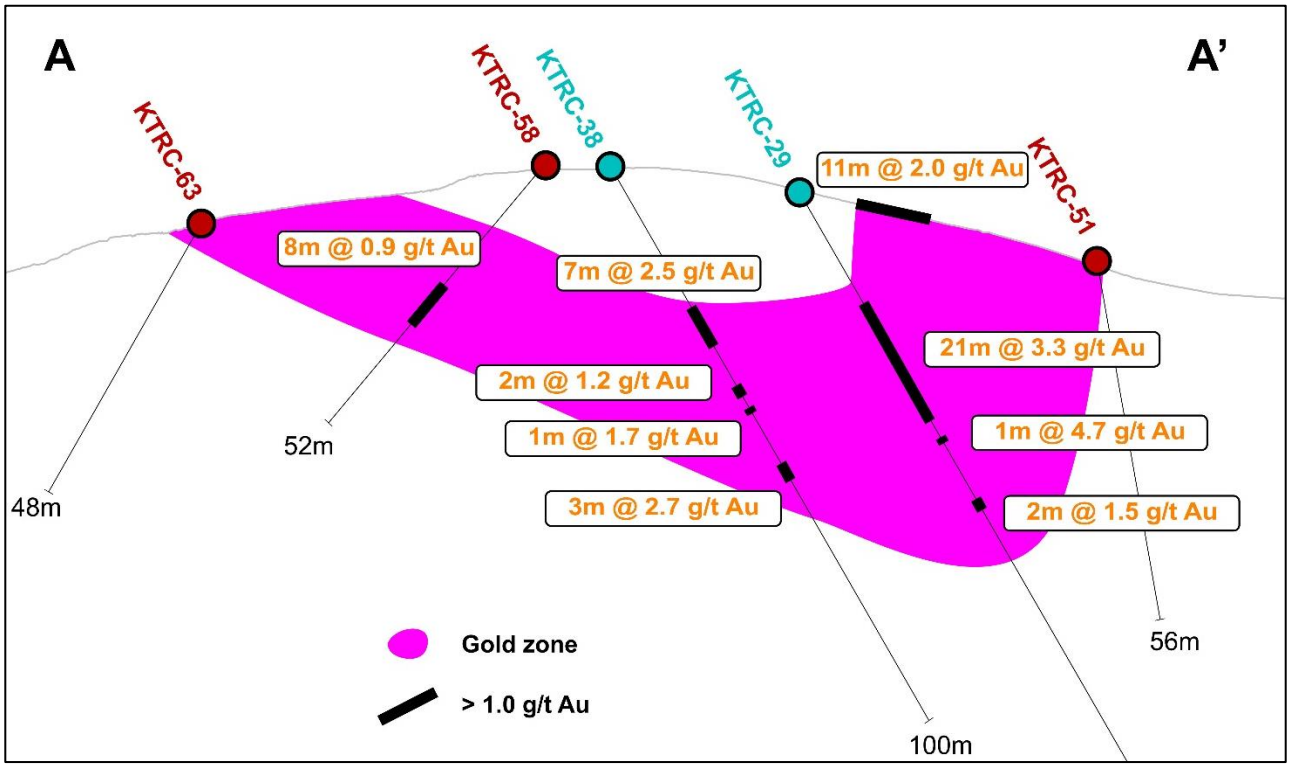

Figure 2: Kavaklitepe Kuzey Zone Preliminary Cross Section A-A'– (Refer to Figure 1 for Location of Cross Section)

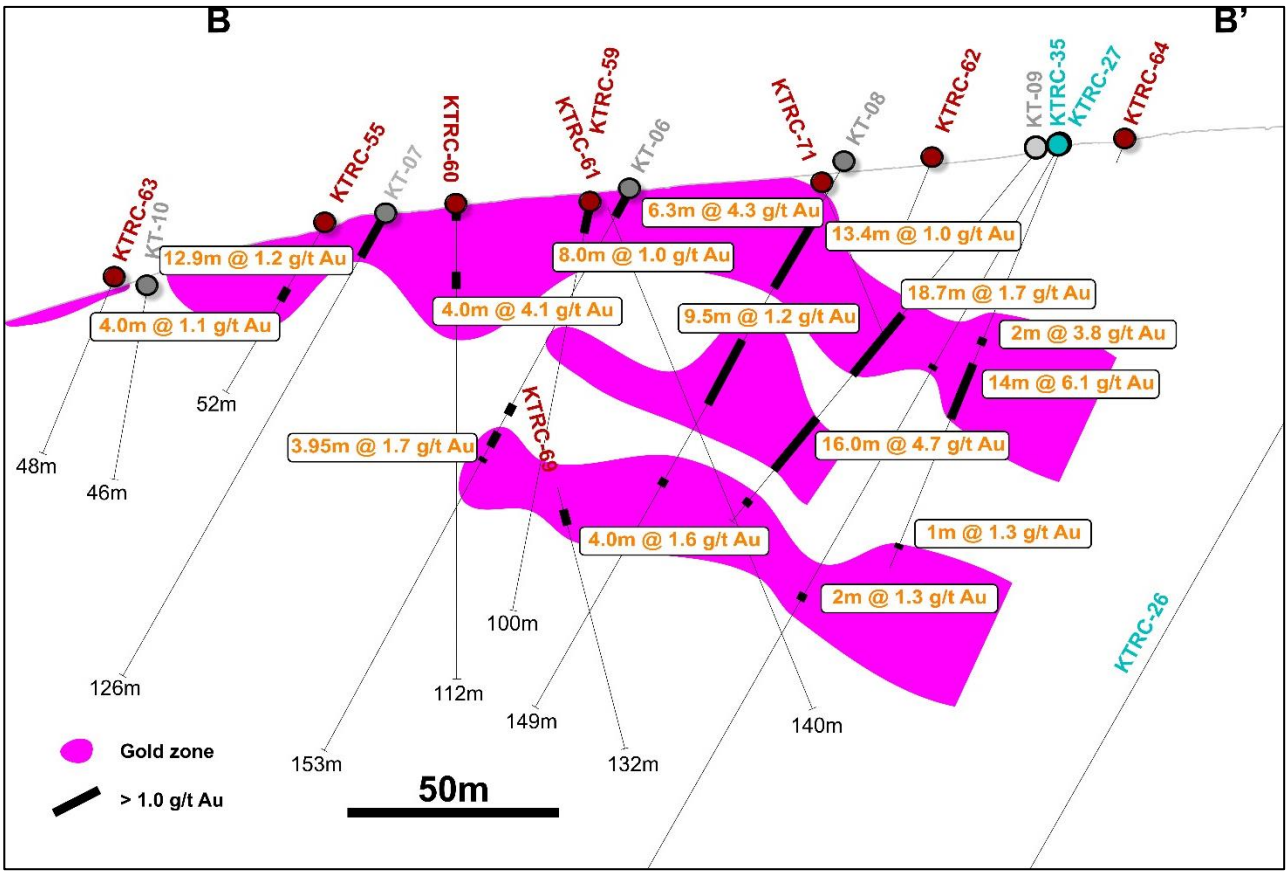

Figure 3: Kavaklitepe Kuzey Zone Preliminary Cross Section B-B'– (Refer to Figure 1 for Location of Cross Section)

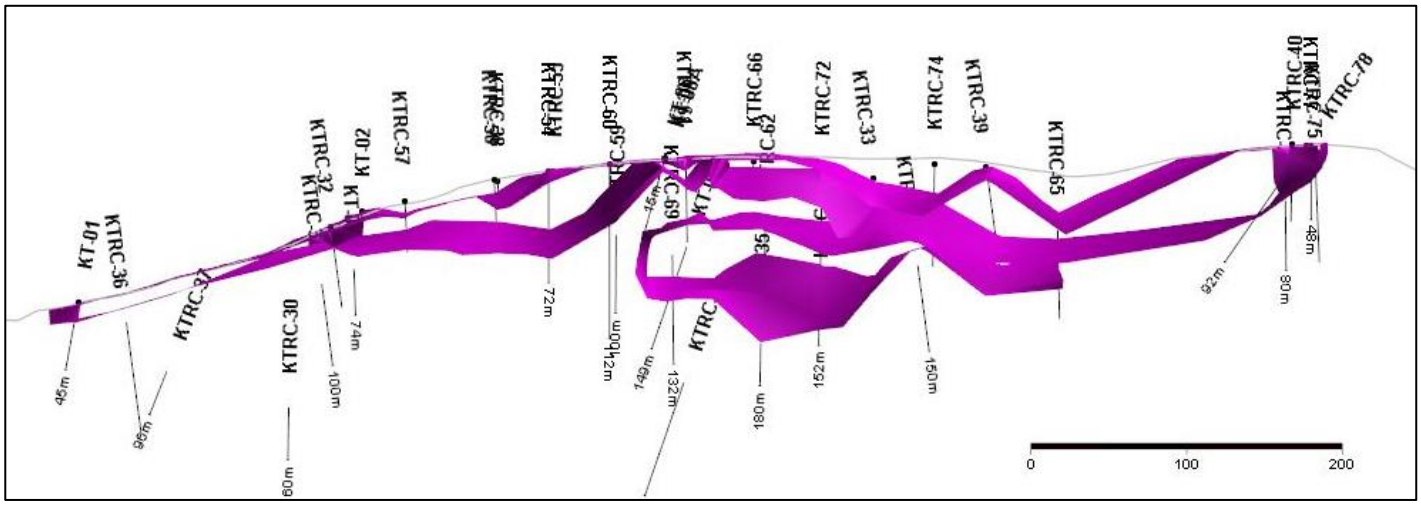

Figure 4: Kavaklitepe Kuzey 3D View of Gold Zones Looking North West (Revised Preliminary Interpretation)

Background

RC drilling in early 2019 was completed to determine the continuity, size and tenor of gold mineralisation intersected during the 2016 maiden short-hole diamond drilling program (KT-01 to KT-25) and the 2018 RC drill program (KTRC-26 to KTRC-40) at the Kavaklitepe gold project in western Turkey. Zenith considers the 2016 & 2018 programs 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.

Kuzey Zone

Drilling completed in 2016 (11 holes (KT-01 to KT-11, including KT-06A) provided an initial wide spaced test of only 360m of the 900m by 250m wide Kuzey Zone gold-in-soil anomaly target (Figures 1 & 5). Near surface oxide and transition gold mineralisation is interpreted to occur as a flat lying zone extending over the full 900m length of the prospect.

Better intersections from the 2016 drill program 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, KT-06A ; **6.3m @ 3.6 g/t Au** from surface and KT-07 ; **12.9m @ 1.2 g/t Au** from surface.

Deeper drill results previously reported (5th 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, and **9.5m @ 1.2 g/t Au** from 56.8m.

RC drill testing in late 2018 (KTRC-26 to KTRC-40) returned thick high-grade gold intersections at the Kuzey zone including: **21m @ 3.29 g/t Au within 26m @ 2.89 g/t, 14m @ 6.09 g/t Au and 8m @ 2.29 g/t Au** (ZNC ASX Release 11th December 2018 and 23rd April 2019).

In addition, continuous rock chip sampling at the Kuzey Prospect has previously returned wide zones of high-grade gold mineralisation at surface, including: **54.0m @ 3.33 g/t Au (including 21.5m @ 7.2 g/t Au) and 44.0m @ 3.37 g/t Au** (ZNC ASX Release 23rd April 2019).

The 3700m, 2019 RC drill program operated and funded by JV partner Teck Anadolu Madencilik Sanayi v. Ticaret A.S. ("Teck") a Turkish subsidiary of Teck Resources Limited, commenced in late-April 2019 (the subject of this ASX release) and was designed to follow-up on results from the 2016 & 2018 drilling and previous surface sampling programs.

Discovery and Guney Zones

In 2016 drilling at the Discovery Zone (2 holes (KT-18A and KT-23) intersected gold mineralisation 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 (Figure 5). The roadside sampling was conducted as an initial test of the 400m long gold-in-soil anomaly at the Discovery Zone.

Drilling at the **Guney Zone** (2016 - 11 holes (KT-12 to KT-17 & KT-19 to KT-22 & KT-24 to KT-25) has been technically difficult, 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 @ 1.4 g/t Au from 12.5m and 1.3m @ 0.6 g/t Au from 17.2m before being abandoned in a cavity and drill hole KT-21 drilled on the northern part of the prospect 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.

RC drilling undertaken in 2019 at the **Discovery and Guney Zones** and documented in this ASX release (refer to Table 1 and Figure 5) was completed to follow-up on the previous drill results as well as test bedrock targets where rock traverse sampling along drill access tracks in 2018 returned gold results, including: **8m @ 1.77 g/t Au, 8m @ 1.74 g/t Au, including 4m @ 3.17 g/t Au** (ZNC ASX release 23rd April 2019), supported by new sampling completed in 2019 detailed in this release, including: **8.0m @ 1.28 g/t Au, 4.0m @ 3.17 g/t Au and 4.0m @ 1.81 g/t Au.**

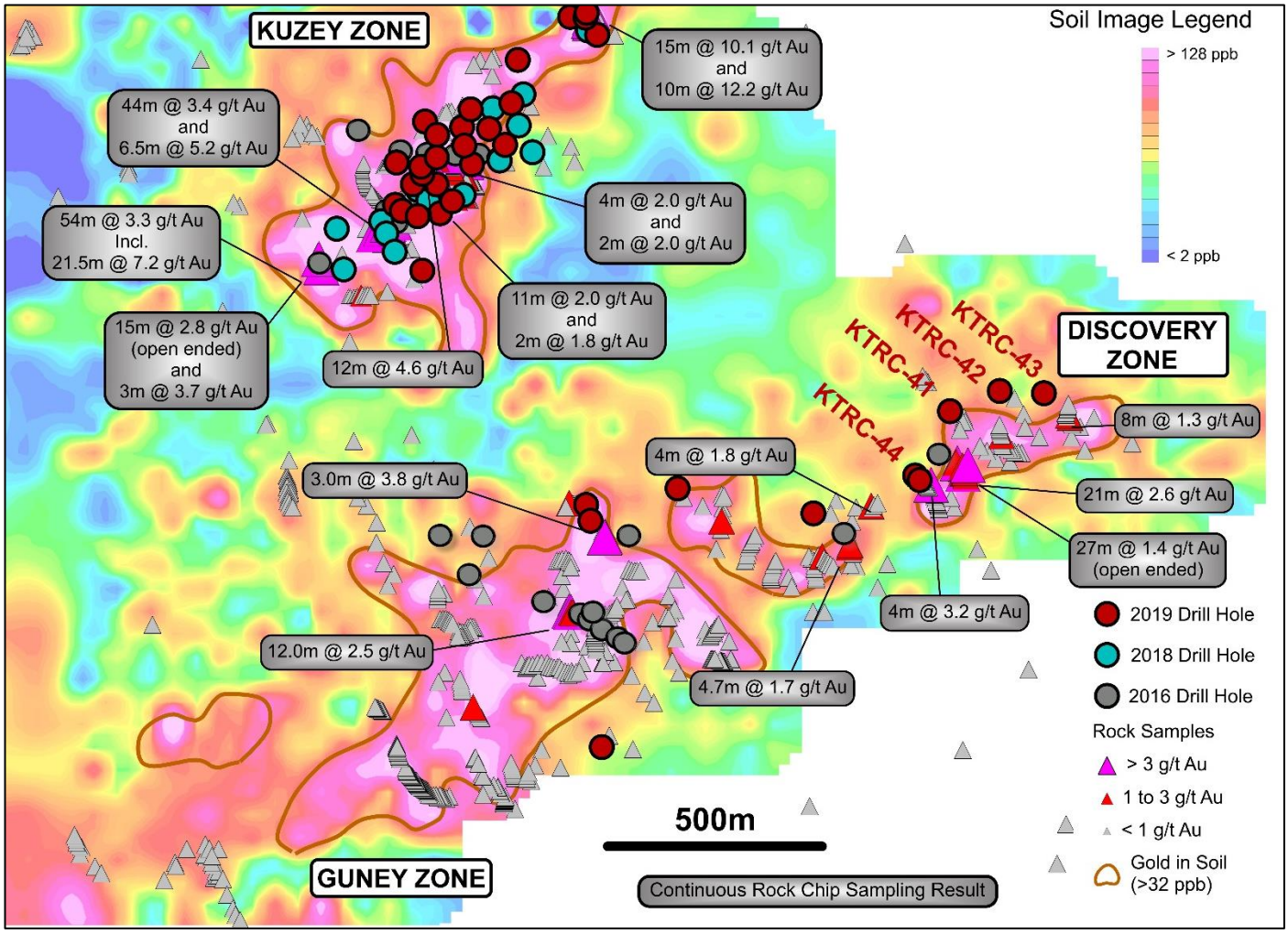

Figure 5: Plan Showing Kavaklitepe Project Gold Geochemistry & Location of Drill Holes in Discovery Zone With Significant Drill Results

Drilling and Sampling Data Summary

Table 1- Kavaklitepe New 2019 RC Drilling Significant Gold Intersections from Preliminary 4m Composite Assay Results (lower cut-off grade 0.5 g/t Au, higher cut-off grade 3.0 g/t Au, max 4m internal dilution)

Hole ID	From (m)	To (m)	Interval (m)	Gold (g/t)	Comments
KTRC-41	56	60	4	0.73	Discovery Zone - Result from 4m composites, 1m samples are being submitted for re-assay
KTRC-42	64	72	8	0.74	Discovery Zone - Result from 4m composites, 1m samples are being submitted for re-assay
KTRC-43	52	60	8	1.20	Discovery Zone - Result from 4m composites, 1m samples are being submitted for re-assay
KTRC-44	16	24	8	1.26	Discovery Zone - Result from 4m composites, 1m samples are being submitted for re-assay
KTRC-45	28	32	4	0.96	Discovery Zone - Result from 4m composites, 1m samples are being submitted for re-assay
KTRC-46	160	164	4	0.57	Discovery Zone - Result from 4m composites, 1m samples are being submitted for re-assay
KTRC-47					Guney Zone - NSR
KTRC-48					Guney Zone - NSR
KTRC-49					Guney Zone - NSR
KTRC-50					Guney Zone - NSR
KTRC-51					Kuzey Zone - NSR
KTRC-52	16	20	4	0.90	Kuzey Zone - Result from 4m composites, 1m samples are being submitted for re-assay
and	28	32	4	0.62	
and	36	40	4	0.95	
KTRC-53	0	8	8	1.28	Kuzey Zone - Result from 4m composites, 1m samples are being submitted for re-assay
	20	56	36	2.06	
including	28	32	4	3.34	
and	48	56	8	4.14	
KTRC-54	16	48	32	0.97	Kuzey Zone - Result from 4m composites, 1m samples are being submitted for re-assay
KTRC-55	0	24	24	0.70	Kuzey Zone - Result from 4m composites, 1m samples are being submitted for re-assay
KTRC-56	8	32	24	2.14	Kuzey Zone - Result from 4m composites, 1m samples are being submitted for re-assay
including	12	16	4	5.45	
and	40	48	8	0.58	
KTRC-57					Kuzey Zone - NSR
KTRC-58	24	32	8	0.87	Kuzey Zone - Result from 4m composites, 1m samples are being submitted for re-assay
KTRC-59	0	8	8	1.00	Kuzey Zone - Result from 4m composites, 1m samples are being submitted for re-assay
KTRC-60	0	4	4	2.41	Kuzey Zone - Result from 4m composites, 1m samples are being submitted for re-assay
and	12	20	8	2.33	
including	16	20	4	4.11	

and	28	32	4	0.90	
KTRC-61	48	60	12	0.52	Kuzey Zone - Result from 4m composites, 1m samples are being submitted for re-assay
KTRC-62	16	32	16	0.98	Kuzey Zone - Result from 4m composites, 1m samples are being submitted for re-assay
and	60	68	8	2.65	
including	60	64	4	4.80	
KTRC-63					Kuzey Zone - NSR
KTRC-64	40	84	44	1.90	Kuzey Zone - Result from 4m composites, 1m samples are being submitted for re-assay
including	56	64	8	5.50	
and	116	120	4	0.97	
KTRC-65	20	28	8	2.21	Kuzey Zone - Result from 4m composites, 1m samples are being submitted for re-assay
and	44	48	4	2.79	
KTRC-66					Kuzey Zone - NSR
KTRC-67	4	24	20	2.17	Kuzey Zone - Result from 4m composites, 1m samples are being submitted for re-assay
and	44	52	8	2.77	
KTRC-68					Kuzey Zone - NSR
KTRC-69	72	76	4	1.58	Kuzey Zone - Result from 4m composites, 1m samples are being submitted for re-assay
KTRC-70					Kuzey Zone - NSR
KTRC-71					Kuzey Zone - NSR
KTRC-72	20	24	4	2.92	Kuzey Zone - NSR
KTRC-73	32	36	4	2.76	Kuzey Zone - Result from 4m composites, 1m samples are being submitted for re-assay
KTRC-74	32	36	4	0.7	Kuzey Zone - Result from 4m composites, 1m samples are being submitted for re-assay
KTRC-75					Kuzey Zone - NSR
KTRC-76					Kuzey Zone - NSR
KTRC-77	0	20	20	15.67	Kuzey Zone - Result from 4m composites, 1m samples are being submitted for re-assay
including	0	12	12	24.67	
KTRC-78	0	16	16	4.72	Kuzey Zone - Result from 4m composites, 1m samples are being submitted for re-assay
including	0	8	8	7.99	
and	32	40	8	5.58	
including	32	36	4	8.44	

Table 2- Kavaklitepe Prospect 2019 RC Collars (38 RC holes)

HOLE	East (m)	North (m)	RL	Depth (m)	Azimuth	Dip
KTRC-41	6918	7067	1075	98	155	-60
KTRC-42	7026	7113	1107	92	180	-60
KTRC-43	7156	7109	1129	76	175	-60
KTRC-44	6848	6920	1088	48	180	-60
KTRC-45	6844	6922	1087	80	220	-60
KTRC-46	6617	6841	1109	180	0	-90
KTRC-47	6319	6897	1076	90	150	-60
KTRC-48	6111	6858	1024	132	150	-60
KTRC-49	6125	6812	1041	76	150	-60
KTRC-50	6147	6322	1062	148	330	-60

KTRC-51	5794	7507	1031	56	135	-80
KTRC-52	5819	7534	1036	72	315	-75
KTRC-53	5786	7570	1049	80	0	-90
KTRC-54	5755	7597	1050	72	0	-90
KTRC-55	5748	7608	1050	52	315	-50
KTRC-56	5707	7512	1031	68	135	-60
KTRC-57	5695	7526	1031	56	320	-50
KTRC-58	5734	7569	1045	52	320	-50
KTRC-59	5810	7602	1055	100	315	-75
KTRC-60	5779	7628	1054	112	0	-90
KTRC-61	5813	7663	1057	140	135	-60
KTRC-62	5891	7657	1065	140	315	-60
KTRC-63	5698	7607	1037	48	315	-60
KTRC-64	5937	7660	1070	152	315	-60
KTRC-65	5965	7850	1044	120	135	-55
KTRC-66	5840	7698	1056	136	315	-65
KTRC-67	5745	7501	1034	80	130	-55
KTRC-68	5753	7380	997	48	315	-60
KTRC-69	5787	7678	1050	132	135	-70
KTRC-70	5759	7711	1042	100	135	-60
KTRC-71	5865	7617	1059	152	135	-60
KTRC-72	5903	7696	1064	152	315	-60
KTRC-73	5860	7740	1053	120	315	-60
KTRC-74	5949	7752	1055	120	315	-60
KTRC-75	6139	7907	1071	100	320	-55
KTRC-76	6079	7942	1062	80	135	-70
KTRC-77	6116	7928	1067	48	0	-90
KTRC-78	6111	7928	1067	92	235	-55

Table 3- New 2019 Kavaklitepe Continuous Rock Chip Samples from Drill Access Tracks - Significant Gold Intersections (lower cut-off grade 1.0 g/t Au, no internal dilution) refer to Figure 5 for sample locations.

Sample	Interval (m)	Gold (g/t)	Comments
KVTrk-31	4.0	1.80	Unaltered schist within 7% iron oxide
KVTrk-31	4.0	3.20	10% iron oxide in shear zone
KVTrk-31	4.0	1.20	15% iron oxidised earthy material
KVTrk-32	8.0	1.28	Schist (might be a block), pervasive intense iron oxide, weak limonite oxidation, manganese oxide?
KVTrk-32	7.0	1.99	Fault gauge, pervasive moderate hematite oxidation, weak jarosite, rare schist pieces, limestone bearing silica bands, partly brecciated, weak ankerite alt.
KVTrk-32	4.0	1.13	Fault gouge, Moderate to intense hematite oxidation, weak limonite, jarosite
KVTrk-32	4.0	1.16	Fault gouge, pervasive moderate hematite, limonite and jarosite oxidation.

KVTrk-33	4.0	1.04	Clay altered shear zone having intense limonite after pyrite
KVTrk-34	4.0	1.04	Clay altered shear zone having intense limonite after pyrite
KVTrk-34	16.0	4.61	Intense oxide shear zone
KVTrk-34	4.0	3.73	High grade Fe oxidised shear zone

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.

20th June 2019

For further information contact:

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

Kavaklitepe Gold Project, Turkey (ZNC diluting)

- Refer to this ASX release for details.

<u>American Lithium Projects (Bradda Head earning initial 55%)</u>

Zacatecas Lithium Brine Project, Mexico

- Lithium brines to 2.1% lithium reported in sampling conducted by the Mexican Government from solar evaporation ponds for salt production (10km west of Zenith's new tenure) - Compelling geophysical targets – permitting for drilling in progress.

San Domingo Lithium, Arizona USA

- 9km x 1.5km lithium pegmatite field, initial surface sampling returned: 5m @ 1.97%Li_2O including 2.4m @ 2.49% Li_2O (ASX Release 18th Oct 2017) - Drill permits received.

Spencer & Wilson Salt Flat Lithium Brine Projects, Nevada USA

- Two lithium brine targets in producing lithium region - Geophysical surveys & infill sampling prior to drilling

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

- Maiden Mineral Resource Estimate for Burro Creek East pending, further drilling planned to test Western Claim Area.

<u>Australian Projects</u>

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

- 3 known VHMS massive sulphide deposits - JORC resources, 50km of strike of host rocks.
- 2011 drilling: 13.2m @ 3.3% copper, 4.0% zinc, 30g/t silver & 0.4g/t gold - Drilling planned to extend known deposits, geophysics, geochemistry to detect new targets (ASX Release 15th Feb 2015).

Split Rocks Lithium, Nickel-Cobalt & Gold, WA (ZNC 100%)

- 100% owned exploration licences covering 500km^2 in emerging Forrestania lithium district.

Tate River Gold QLD (ZNC earning up to 70%)

- Trenching returned 5m @ 3.9g/t Au as well as widespread strongly anomalous gold zones such as 166m @ 0.14g/t Au (ASX Release 21st Sep 2017). New targets identified at Far East and Far North prospects.

Red Mountain Gold-Silver Project QLD (ZNC 100%)

- Initial reconnaissance rock chip sampling results up to 114 g/t silver and 0.69 g/t gold, associated with strong, open ended silver soil anomaly (ASX Release 25th July 2017). Follow-up sampling completed, awaiting results

Waratah Well Lithium -Tantalum Project WA (ZNC 100%)

- Extensive outcropping pegmatites (3km x 2km) encouraging lithium rock chip sample results up to 1.75% Li_2O as well as widespread, high-grade tantalum up to 1166ppm Ta_2O_5 (ASX Release 29th Jul 2017 & 27th Apr 2018).

Earaheedy Manganese Project, WA (ZNC 100%) - Manganese province discovered by ZNC, potential DSO drill intersections (+40%Mn)

The Company has released all material information that relates to Exploration Results, Mineral Resources and Reserves, Economic Studies and Production for it's projects on a continuous basis to the ASX and in compliance with JORC 2012. The Company confirms that it is not aware of any new information that materially affects the content of this ASX release.

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	*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.*	RC drilling & continuous rock chip channel sampling.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	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.
	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.	Reverse circulation drilling was used to obtain 4 m samples from which ~3 kg was crushed in the laboratory and then pulverised before analysis using 30g charge fire assay with an AAS finish. 1m samples of mineralised intervals have been submitted to the same laboratory for analysis and will be reported once assay results have been received. Continuous roadcut rock chip channel sampling was used to obtain 4m length samples from which ~3 kg was crushed in the laboratory and then pulverised before analysis using 30g charge fire assay with an AAS finish.
Drilling techniques	*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.).*	Reverse circulation (RC) face sampling hammer and continuous roadcut rock chip channel sampling by field technician supervised by field geologist.

Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	RC recovery based on visual estimates and cross-checked by weighing random intervals.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	RC drill holes were generally completed in 1 day or less and samples were able to be kept dry and not impacted by ground water. The samples are therefore considered representative of the intervals drilled. Roadcut faces were cleaned down prior to sampling, continuous rock chip channels were cut using a geological pick and samples were collected and bagged.
	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.	Good sample recovery throughout drill, no recovery -grade bias noted
Logging	*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.*	RC drill holes and roadcuts have been geologically logged by a qualified geologist
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	Logging recorded the lithology, oxidation state, colour, alteration, veining, presence or absence of sulphide minerals and species. A representative chip sample is retained for each 1m interval of each drill hole.
	The total length and percentage of the relevant intersections logged.	All drill holes are logged in full.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	No drill core for new results reported in this release.
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	Samples are 4m in length taken directly from rotary cone splitter on RC drill rig, 1m samples to be submitted for re-assay of gold mineralised intervals. Continuous roadcut channel samples were not sub-sampled or split.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Samples were sent to Bureau Veritas laboratory in Ankara Turkey, the samples were crushed and assayed by fire assay in Vancouver Canada
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	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	*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.*	No selective sampling.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Each sample was approximately 3kg in weight and selected to be representative of the drill interval sampled. Maximum sample weight of continuous roadcut channel samples was 7.5kg, average 3.4kg.
Quality of assay data and laboratory tests	*The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*	The samples were crushed and assayed by fire assay (near total digestion).
	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.	No data from geophysical handheld tools has been reported in this release.
	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.	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	*The verification of significant intersections by either independent or alternative company personnel.*	At least two joint venture company personnel observed the assayed samples.
	The use of twinned holes.	No twin holes have yet been completed.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Field data were all recorded on hardcopies and then entered into an electronic database
	Discuss any adjustment to assay data.	No adjustments were made.
Location of data points	*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.*	Sample coordinates were recorded using a differential GPS with plus/minus 0.3m accuracy.
	Specification of the grid system used.	The grid system used is metric.
Location of data points - continued	*Quality and adequacy of topographic control.*	Topography control is based on differential GPS readings and 1m digital terrain model.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	Drill sections at Kuzey are nominally 50m spacing with holes at approximately 40 – 50m along lines, whilst drill holes at Discovery are at approximately 100m spacing.

	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.	This data alone will not be used to estimate a mineral resource or ore reserve
	Whether sample compositing has been applied.	Samples are 4m in length taken directly from rotary cone splitter on RC drill rig, 1m samples to be submitted for re-assay of gold mineralised intervals. Continuous roadcut rock chip channel samples were 4m in length.
Orientation of data in relation to geological structure	*Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*	The drill orientation is appropriate to test the orientation of mineralisation. Near surface oxide mineralisation is interpreted to be flat lying, whilst deeper fresh rock intersections also appear to be relatively flat lying to east dipping at Kuzey with north east plunging higher-grade gold shoots. Discovery zone appears to be approximately 600m in length, 4 – 6m wide and dips moderately west. Mineralisation extends to 50 – 100m down-dip and remains open to NE, SW and down-dip. Drill holes at Discovery appear to be well orientated to intersect the gold mineralised zone and the orientation of sampling appears to be not bias any structures. Continuous roadcut rock chip channel samples were generally taken across strike.
	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.	No material bias.
Sample security	*The measures taken to ensure sample security.*	Samples were subject to a chain of custody procedure until delivered to the laboratory
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	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	*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.*	The Kavaklitepe Project is in Central Western Turkey. Exploration and evaluation of the Kavaklitepe gold project is managed by a Turkish affiliate of Teck Resources Limited through the Turkish joint venture company Kavak Madencilik A.S. that is 30% owned by Zenith Minerals Limited. As previously advised (ASX Release 23rd April 2019) Zenith elected not to contribute its 30% share of joint venture funds towards this latest 2019 drill program

		and its share of the JV company will dilute to approximately 25%.
	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.	All tenure is 100% held by a subsidiary company of Teck with no known impediment to future granting of a mining lease.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	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.
Geology	*Deposit type, geological setting and style of mineralisation.*	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	*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:*	Refer to Figures 1-5 and Tables 1 - 3 in body of text of this report.
	o easting and northing of the drill hole collar	
	o elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar	
	o dip and azimuth of the hole	
	o down hole length and interception depth	
	o hole length.	

	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.	
Data aggregation methods	*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.*	Drill intersections reported in this release are based on initial 4m composite samples calculated using the following criteria: • Minimum reportable average gold grade of intercept of 0.5 g/t Au • Length weighted arithmetic average gold grades; • Lower cut-off gold grade of 0.5 g/t Au; • Maximum length of internal dilution 4m; • No high-grade gold top cuts; Treatment of repeat assays (arithmetic average of all repeat fire assay results). Continuous roadcut rock chip channel samples: • Minimum reportable average gold grade of intercept of 1.0 g/t Au • Length weighted arithmetic average gold grades; • Lower cut-off gold grade of 1.0 g/t Au; • Maximum length of internal dilution 4m; • No high-grade gold top cuts; Treatment of repeat assays (arithmetic average of all repeat fire assay results).
	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.	Reporting of higher gold grade sub-intervals: ○ Minimum reportable average gold grade intercept of 3.0 g/t Au; ○ Lower cut-off gold grade of 3.0 g/t Au; ○ Maximum length of internal dilution 4m; ○ No high-grade gold top cuts; and ○ Treatment of repeat assays (arithmetic average of all repeat fires assay results)
Data aggregation methods - continued	*The assumptions used for any reporting of metal equivalent values should be clearly stated.*	No metal equivalents used.
Relationship between mineralisation widths and intercept lengths	*These relationships are particularly important in the reporting of Exploration Results.*	Reported mineralised intercepts are down-hole lengths for RC holes and generally represent true widths of mineralisation.
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	Down hole lengths are interpreted to be close to true widths.

	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').	Down hole lengths are interpreted to be close to true widths
Diagrams	*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.*	Refer to descriptions and diagrams in body of text
Balanced reporting	*Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	High- and low-grade cut-offs of all new 2019 drill holes KTRC-41 to KTRC-78 provided in Table 1 in body of text of this release
Other substantive exploration data	*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.*	There is no other significant exploration data that is reportable at this stage of the project
Further work	*The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).*	Further drilling will be required to define a Mineral Resource. Upon receipt of the 1-metre sample results the Kavaklitepe JV partners will be in a better position to comment on the significance of the gold mineralisation defined in this RC drill campaign and the proposed future work programs.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Refer to diagrams in body of text