



11 May 2020 AIM: AAU

# KIZILCUKUR JORC RESOURCE UPDATE

Ariana Resources plc ("Ariana" or "the Company"), the AIM-listed exploration and development company operating in Europe, is pleased to announce an update of its JORC compliant Mineral Resource Estimate for the Kizilcukur Project ("Kizilcukur" or "the Project"). Kizilcukur is 100% owned by Ariana through its subsidiary Galata Madencilik San. ve Tic. Ltd. in Turkey.

# Highlights:

- Global Mineral Resource Estimate is revised to c. 21,100 oz gold (Au) and 0.62 Moz silver (Ag) contained metal on three main veins.
- Significant improvement in resource category and grade, with 85% of the tonnage in Measured and Indicated (M+I) categories: 218,317 t @ 2.72 g/t Au and 77.04 g/t Ag.
- 46% of the M+I tonnage is located within the higher-grade Zeki Main Vein, with a grade of 3.62 g/t Au and 82.54 g/t Ag, upon which trial mining operations have commenced.
- Company is considering options to develop this satellite deposit as a source of ore for the Kiziltepe processing plant.

# Dr. Kerim Sener, Managing Director, commented:

"This is a significant improvement over the previous resource estimate, which integrates the latest drilling data and geological modelling. Most of the resource now sits within the lower risk Measured and Indicated categories, in comparison to the previous estimate which contained only Indicated and Inferred Resources. This is largely the result of the in-fill diamond drilling that was completed on the higher-grade Zeki Vein in early 2019.

"While the initial plans for the Project comprise development across up to three shallow open pits, there is further exploration potential which has been defined in deeper drilling on the Zeki Vein and along strike of the other veins. However, further work would need to be completed before this potential is better understood. No further drilling is planned on the Project until fullscale mining operations are able to be established.

*"In the meantime, we intend to continue with trial mining at the site and to commence an initial bulk processing trial at the Kiziltepe processing plant when operational conditions permit."* 

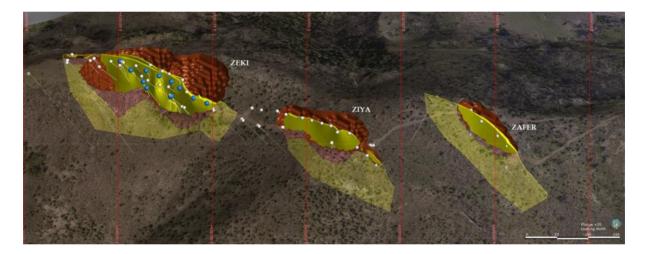
This announcement contains inside information for the purposes of Article 7 of EU Regulation 596/2014.

#### **Resource Estimate**

Following the completion of a diamond drilling programme during the winter of 2018-19, for a total of 745.8 meters, the geological teams at Ariana in conjunction with consultants Coffey, a Tetra Tech Company, undertook a new resource estimate for Kizilcukur. The recent diamond drilling coupled with all previous drilling and channel sampling results on the veins at Kizilcukur were used for the estimation (Figure 1).

The new Kizilcukur JORC 2012 compliant Mineral Resource estimate is based on 30 diamond, 26 Reverse Circulation ("RC") and 26 rock-saw channels, representing a total of 4,229.35 m of sampling. Ariana completed the wireframe geological modelling of the mineralisation zones in Leapfrog (see JORC Table 1). Several vein zones were modelled from the sectional interpretations, which are orientated NW and typically dip steeply at up to 85 degrees towards the southwest (Figure 1) comprising three main areas, Zeki, Ziya and Zafer.

Wireframes were constructed using sectional polylines defined by a cut-off of 1.0 g/t gold for vein material. Wireframes were snapped to silver intercepts if gold results were not available in the section in order to maintain continuity in the mineralisation wireframe. No top-cut for gold or silver was used prior to sample compositing. Density was set at 2.55 g/cm<sub>3</sub>.



**Figure 1:** Three-dimensional model of the Kizilcukur vein system looking due north, showing the modelled ore zones within Whittle optimised pit-shells (based on the 2016 resource) and current drilling. Historical drill hole collars are shown as white dots, while the 2019 in-fill drilling is shown with blue dots.

Tetra Tech completed a block model interpolation and reported the Mineral Resource Estimate using Datamine Studio RM using the wireframes, and using refined search and estimate parameters following a review of input parameters by both Ariana and Tetra Tech (Table 1). Dynamic anisotropy was used in Datamine during the estimation of grades into the block model as this better represents the grade distribution along the vein by considering the varying orientation of the vein along its strike. A minimum of 2 and maximum of 50 samples were used for the estimation. The Inverse Distance Squared (ID2) method was selected as the most suitable method of interpolation in this deposit. The estimate for each vein zone was completed separately. The Mineral Resource Estimate was reported using a lower reporting cut-off of 1 g/t gold.

**Table 1:** Summary 2020 Kizilcukur JORC 2012 compliant Mineral Resource estimate, based on 56 drill holes and 26 rock-saw channels (dated 9 May 2020). Reporting is based on a 1 g/t Au cut off. Figures in the table may not sum due to rounding.

Kizilcukur	Density (g/cm₃)	Tonnes (t)	Au (g/t)	Ag (g/t)	Au (oz)	Ag (oz)
Measured	2.55	130,511	2.79	84.11	11,716	352,939
Indicated	2.55	87,805	2.60	69.01	7,342	194,826
Measured + Indicated	2.55	218,317	2.72	78.04	19,058	547,765
Inferred	2.55	37,344	1.75	57.31	2,098	68,813
Global Total	2.55	255,660	2.57	75.01	21,156	616,578

### **Project Summary**

The Kizilcukur Project consists of one operational licence located in the Balikesir Province in Western Turkey (coordinates: 626150 mE; 4360440 mN). The property lies 22km to the northeast (straight line) and 70km by road from the Kiziltepe Sector of the Company's Red Rabbit Project. A royalty is payable to Dogu Akdeniz Mineralleri San. ve Tic. Ltd. of 2% Net Smelter Return on commercial production from the Project. Ariana has the option to sell the project to Zenit Madencilik San. ve Tic. A.S. (the operating company for the Kiziltepe Mine) at three times the exploration cost.

The Project covers an area containing a series of sub-parallel quartz veins hosted by ophiolitic units that trend northwest and extend for about two kilometres. The veins exhibit classic low-sulphidation epithermal features and attains a maximum true width of 8m. The Zeki Vein extends over a strike length of 820m. Composite rock-chip sampling of 80m strike along this quartz vein returned encouraging assay results of 6m at 3.3 g/t gold, 2m at 9.6g/t gold and 1m at 7.2 g/t gold prior to drill-testing. The peak rock-chip assay result in this area was 152 g/t gold and 1,320 g/t silver.

Trial mining commenced within the central part of the Zeki Pit during 2017. This pit is the largest and highest grade of the three pits defined following Whittle optimisation of the Kizilcukur resource in 2016. The General Directorate of Mining Affairs approved blasting operations on the licence as part of the Mining Permit (as announced on 18 November 2015). Further trial mining is planned for 2020.

#### **Contacts:**

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### Editors' Note:

#### **Competent Persons:**

The information in this report that relates to Mineral Resources is based on information compiled by Ms. Ruth Bektas of Coffey Geotechnics Ltd, A Tetra Tech Company, who is a Chartered Fellow of the Geological Society of London (CGeol FGS). Ms. Bektas has appropriate experience relevant to the styles of mineralisation and type of deposit under consideration and to the subject matter of the report to qualify as Competent Person and defined in the 2012 edition of the Australasian Code for the Reporting of Exploration Results Mineral Resources and Ore Reserves (JORC Code). Ms. Bektas consents to the inclusion in the report of the matters based on her information in the form and context in which it appears.

The information in this announcement that relates to exploration results is based on information compiled by Dr. Kerim Sener BSc (Hons), MSc, PhD, Managing Director of Ariana Resources plc. Dr. Sener is a Fellow of The Geological Society of London and a Member of The Institute of Materials, Minerals and Mining and has sufficient experience relevant to the styles of mineralisation and type of deposit under consideration and to the activity that has been undertaken to qualify as a Competent Person as defined by the 2012 edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code) and under the AIM Rules - Note for Mining and Oil & Gas Companies. Dr. Sener consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

#### About Ariana Resources:

Ariana is an AIM-listed mineral exploration and development company operating in Europe. It has interests in gold production in Turkey and copper-gold assets in Cyprus. The Company is developing a portfolio of prospective licences in Turkey, which contain a depleted total of 1.5 million ounces of gold and other metals (as at April 2020).

The Red Rabbit Project is comprised of the Company's flagship assets, the Kiziltepe and Tavsan gold projects, and is part of a 50:50 Joint Venture with Proceea Construction Co. Both assets are located in western Turkey, which hosts some of the largest operating gold mines in the country and remains highly prospective for new porphyry and epithermal deposits. The Kiziltepe Sector of the Red Rabbit Project is fully permitted and is currently in production. The total depleted resource inventory at the Project and its wider area is c. 500,000 ounces of gold equivalent (as at April 2020). At Kiziltepe a Net Smelter Return ("NSR") royalty of up to 2.5% on production is payable to Franco-Nevada Corporation. At Tavsan an NSR royalty of up to 2% on future production is payable to Sandstorm Gold.

The 100% owned Salinbas Gold Project is located in north-eastern Turkey and has a total resource inventory of c. 1 million ounces of gold equivalent. The project comprises three notable licence areas: Salinbas, Ardala and Hizarliyayla, all of which are located within a multi-million ounce Artvin Goldfield. The "Hot Gold Corridor" contains several significant gold-copper projects including the 4Moz Hot Maden project, which lies 16km to the south of

Salinbas and 7km south of Hizarliyayla. A NSR royalty of up to 2% on future production is payable to Eldorado Gold Corporation on the Salinbas Gold Project.

Ariana is also earning-in to 50% of UK-registered Venus Minerals Ltd ("Venus"). Venus is focused on the exploration and development of copper-gold assets in Cyprus.

Panmure Gordon (UK) Limited are broker to the Company and Beaumont Cornish Limited is the Company's Nominated Adviser.

For further information on Ariana you are invited to visit the Company's website at www.arianaresources.com.

Ends.

# JORC Code, 2012 Edition – Table 1

#### Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or 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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Reverse circulation (RC) sampling: Samples were collected at 1 m intervals and split using a two-stage riffle splitter, running each sample through twice.</li> <li>Diamond Drilling: Full core was split using a rock saw and half-core samples were taken at variable intervals ranging from 0.43 m to 1 m. Core recovery was recorded into the database.</li> </ul>
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul> <li>Pre-2015 drilling was undertaken by HQ diameter diamond drilling (1792 m).</li> <li>2015 drilling was undertaken by RC drilling (1598 m).</li> <li>2018-19 drilling was undertaken by NQ diameter diamond drilling (746 m).</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <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> <li>Recoveries were monitored and recorded into the sampling database.</li> <li>Overall core recovery for diamond drilling in 2018-2019 is &gt;75%. The figure is low due to recoveries falling below 10% where historic workings and cavities were intercepted. Holes without old workings had recoveries of up to 95%.</li> <li>Overall recovery for RC drilling is &gt;90% and &gt;85% for mineralised zones. Recoveries fall below 10% where historic workings and cavities were intercepted.</li> </ul>

Criteria	JORC Code explanation	Commentary
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>All diamond core holes were logged lithologically using a coded logging system for rock type, grain size, colour, alteration and any other relevant observations.</li> <li>Mineralised zones were identified from observation of mineralogy, lithological characteristics. Portable XRF analysis was conducted post drilling, to provide supporting geochemical data for non-sampled regions. Areas identified as geochemically anomalous by pXRF were further sampled. The pXRF was calibrated with the calibration disks on a regular basis.</li> <li>Logging of RC samples was carried out on washed samples with geological characteristics recorded to a database.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	Sample     Weigh raw sample and log into global tracking system.     Drying of excessively wet samples in drying ovens.
Quality of assay data	• The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered	QC procedures for 2015 drilling included the insertion of certified

Criteria	JORC Code explanation	Commentary
and laboratory tests	<ul> <li>partial or total.</li> <li>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.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	reference standards, blank samples, duplicates and umpire laboratory check samples to monitor the accuracy and precision of laboratory data. The protocol followed included the insertion of one standard, one blank and two duplicates; each batch corresponding to 22 drilling samples. The overall quality of QA/QC meets or exceeds the currently accepted industry standards, to ensure the validity of the data used for resource estimation purposes.
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>All samples were submitted to the internationally accredited laboratory of ALS Global in Turkey (ISO 9001:2008 accredited).</li> <li>At the resource definition stage three staged duplicates; one field, one crush and one pulp, are inserted into each 22 sample batch.</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>All collar positions were located initially by hand-held GPS and later surveyed by a professional surveyor using DGPS equipment. Downhole deviation surveys were routinely carried out in all holes, using a down-hole Gyro on 4 m intervals. The Gyro data was then later calibrated with Flex-it survey tool data and corrected to ED50 UTM 35N.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <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> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Due to the steep terrain, drill spacing is largely dependent on accessible sites. In many instances more than one hole was drilled from a single site with drill hole separation achieved by using diverging downhole trajectories.</li> </ul>
Orientation of data in relation to geological structure	<ul> <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> <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> <li>The dip of the vein mineralisation for most of the deposit is steeply dipping to subvertical, striking 310° NW. Local grade continuity follows the dip of the mineralisation for the entire deposit. Drill hole trajectories were angled in order to intersect the mineralisation.</li> <li>No biases are expected from the drilling direction.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>The measures taken to ensure sample security for samples used for analysis and QA/QC include the following:         <ol> <li>Chain of Custody is demonstrated by both Company and ALS Global in the delivery and receipt of sample materials.</li> </ol> </li> </ul>

Criteria	JORC Code explanation	Commentary
		<ol> <li>Upon receipt of samples, ALS Global delivers by email to the Company's designated Quality Control Manager, confirmation that each batch of samples has arrived, with its tamper-proof seal intact, at the allocated sample preparation facility.</li> <li>Any damage to or loss of samples within each batch (e.g.,</li> </ol>
		total loss, spillage or obvious contamination), must also be reported to the Company in the form of a list of samples affected and detailing the nature of the problem(s).
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	Reviews on sampling and assaying results were conducted for all data internally.

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	<ul> <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> <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> <li>The Kizilcukur Project consists of one operational license (No. 200700970) 100% owned by Ariana Resources through its Turkish subsidiary Galata Madencilik San. Ve. Tic. Ltd.</li> <li>It is located in the Balikesir Province in Western Turkey (coordinates: 626150 mE; 4360440 mN).</li> <li>A royalty of 2% Net Smelter Return on commercial production from the Project is payable to Dogu Akdeniz Mineralleri San. Ve Tic. Ltd.</li> <li>There are no known impediments to the current operations.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Pre-2007, Eurogold identified the occurrence of gold and silver at Kizilcukur through various stream sediment sampling programmes.</li> <li>Kefi Minerals Plc acquired the project in 2007.</li> <li>In 2007, systematic rock and channel sampling was undertaken by Kefi for 485 samples.</li> <li>In 2008, Kefi completed 1,185.2 m of diamond drilling for 8 holes. During this time Kefi also contracted external polished block and other petrological analyses.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>In 2009, Kefi completed an initial soil sampling programme for 452 samples.</li> <li>In 2011, Kizilcukur was acquired by Ariana Resources.</li> </ul>
Geology	• Deposit type, geological setting and style of mineralisation.	• The Project covers an area containing a series of sub-parallel quartz veins hosted by ophiolitic units that trend northwest and extend for about two kilometres. The veins exhibit classic low- sulphidation epithermal features and attain a maximum true width of 8 m. The Zeki vein extends over a strike length of 820 m.
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <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> <li>Diamond drilling for a total of 745.8 m (for 13 holes) was completed during Q1 2019 at the Kizilcukur Project. All drilling was conducted within the limits of the previously optimised Zeki open pit. The primary objective of the programme was to: 1) provide in-fill drilling data for the Zeki vein at a depth of approximately 25 m along the strike limit of the planned Zeki open pit and; 2) identify the potential for high grade shoots in areas not previously tested by drilling.</li> <li>Hole_ID dip azimuth East North RL z_on_topo interception depth Max_Depth KCR-D01-18 59 48 626144 4360668 1180 1179 17-20.1 35.7</li> <li>KCR-D02-18 56 61 626120 4360672 1176 1177 37.6-44 60.7</li> <li>KCR-D03-18 70 65 626103 4360701 1174 1174 26.1-29.7 65.7</li> <li>KCR-D05-19 68 26 626102 436072 1174 1174 24.9-26.5 62.6</li> <li>KCR-D05-19 60 51 626164 4360631 1181 1181 15.3-23.1 30.7</li> <li>KCR-D05-19 50 52 626197 4360620 1179 1179 6-11.3 45</li> <li>KCR-D07-19 50 52 626197 4360620 1179 1179 6-11.3 45</li> <li>KCR-D07-19 50 52 626197 4360620 1179 1179 6-11.3 45</li> <li>KCR-D07-19 50 52 626197 4360620 1179 1179 6-11.3 45</li> <li>KCR-D07-19 59 50 626244 4360583 1181 1181 013.4, 21.5-23.5 49.7</li> <li>KCR-D07-19 59 50 626244 4360581 1175 1175 1.1-8 111</li> <li>KCR-D07-19 59 50 626244 4360583 1175 1175 1.1-8 111</li> <li>KCR-D01-19 67 83 626188 436007 1173 1172 4.3-5.3, 47.3-48.3, 64.45-65.4 76.3</li> <li>KCR-D11-19 66 3 626184 4360671 1173 1172 40.8-41.7, 68.9-69.9 85.5</li> <li>KCR-D12-19 69 55 626140 4360641 1177 1176 83.3-85.9 94.5</li> <li>KCR-D13-19 59 54 626145 4360628 1173 1173 64.1-64.8 83.4</li> </ul>
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>Significant down-hole intercepts calculated for the Kizilcukur drilling programme, using a 0.5 g/t Au minimum cut-off and allowing for 0.5 m internal dilution. Arranged in order of significance from high to low. Au equivalent (g/t) is calculated based on a gold-silver price ratio of 70:1.</li> </ul>

Criteria	JORC Code explanation	Commentary						
		Hole No.	From (m)	To (m)	Intercept (m)	Grade Au (g/t)	Grade Ag (g/t)	Au Equiv. (g/t)
		KCR-D09-19	2	8	6	4.21	205.85	7.15
		KCR-D07-19	6	11.3	5.3	4.04	171.9	6.50
		KCR-D02-18	37.6	44	6.4	3.44	89.28	4.72
		KCR-D11-19	40.8	41.7	0.9	30.27	184	32.9
		KCR-D08-19	0	4	4	2.41	171.99	4.87
		KCR-D05-19	15.3	23.1	7.8	1.11	36.1	1.62
		KCR-D01-18	17	20.1	3.1	2.71	79.61	3.85
		KCR-D06-19	8.7	13.4	4.7	1.37	37.95	1.91
		KCR-D06-19	0	2.7	2.7	0.6	114	2.23
		KCR-D06-19	5.1	7.2	2.1	0.92	107	2.45
		KCR-D03-18	26.1	29.7	3.6	0.55	59.3	1.39
Relationship between mineralisatior widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul> <li>Down hole le</li> <li>See Table at</li> </ul>		ue wid	th not kn	own.	1	·

Criteria	JORC Code explanation	Commentary
Diagrams	<ul> <li>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.</li> </ul>	<figure><figure></figure></figure>
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	• Intercepts depths stated in the drill hole information but not stated in the data aggregation methods section are lower grade intersections. Widths of intercepts are stated.
Other substantive exploration data	<ul> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul> <li>In 2011, Ariana completed an Induced Polarisation (IP) study to aid geological modelling and identify the resistive and chargeable properties of the Kizilcukur vein system.</li> <li>In 2012, detailed 1:500 scale mapping of outcropping epithermal</li> </ul>

In 2012, detailed 1:500 scale mapping of outcropping epithermal

Criteria	JORC Code explanation	Commentary
		<ul> <li>veins was conducted.</li> <li>In 2013, larger scale geological mapping (1:5,000) was conducted over the main project area, with the assistance of pXRF analysis for rock typing.</li> <li>In 2018, a detailed soil pXRF survey was completed for 562 samples.</li> </ul>
		EXEMPLE       Exemple
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>To date, historic and recent exploration activities have identified approximately 2.3 km of anomalous outcropping epithermal veins within the Kizilcukur license. Presently, only 35% (0.8 km) of the exposed vein system have been drill-tested due to outcrop accessibility and infrastructure. Drill testing the remaining 65% of the known vein system may be undertaken in the future.</li> <li>Ariana also have longer term plans to explore (using airborne geophysics), for potential shallow seated intrusive porphyries, which are likely sources for the Kizilcukur mineralisation and other associated mineralisation within the nearby district.</li> </ul>

Section 3 Estimation and Reporting of Mineral Resources (Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	<ul> <li>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</li> <li>Data validation procedures used.</li> </ul>	<ul> <li>The Kizilcukur resource data is stored in a MS Access Datashed database and is managed using MS Access and Excel software.</li> <li>Data was logged onto field sheets which were then entered into the data system directly by geologists working on the Project.</li> <li>Data was validated on entry into the database, or on upload from the earlier MS Access databases, by a variety of means including the enforcement of coding standards.</li> <li>Laboratory data has been received in digital format and uploaded directly to the database.</li> <li>Original data sheets and files have been retained and are used to validate the contents of the database against the original logging.</li> <li>Independent consultants Coffey Geotechnics Ltd, a Tetra Tech company performed a visual validation by reviewing drill holes on section in Datamine Studio RM mining software.</li> </ul>
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul> <li>Ariana staff have visited the site on numerous occasions, and supervised all 2015 and 2018-2019 drilling, sampling and other operations at all times in order to introduce appropriate logging, sampling and drilling protocols.</li> <li>Ruth Bektas BSc, CGeol, FGS of Coffey Geotechnics Limited, A Tetra Tech Company (Tetra Tech) is acting as the CP for this study and has been on site during active drilling and exploration programmes. The site will be re-visited at a later date if further work is required.</li> </ul>
Geological interpretation	<ul> <li>Confidence in (or conversely, the uncertainty of ) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> </ul>	<ul> <li>Sub-vertically-dipping vein-hosted mineralisation.</li> <li>Interpretations by Ariana of geological surfaces derived from 3D modelling of drill hole lithological data.</li> <li>The Project covers an area containing a series of sub-parallel quartz veins hosted by ophiolitic units that trend northwest and extend for about two kilometres. The veins exhibit classic low-</li> </ul>

	• 7	he factors affecting continuity both of grade and geology.	sulphidation epithermal features and attains a maximum true width of 8 m. The Zeki Vein extends over a strike length of 820 m.
Dimensions	le	The extent and variability of the Mineral Resource expressed as ength (along strike or otherwise), plan width, and depth below urface to the upper and lower limits of the Mineral Resource.	<ul> <li>In plan orientation, the deposit comprises four main lodes ranging in strike length from 140 m to 350 m over an overall strike length of 900 m.</li> <li>One primary lode with minor footwall lodes and hanging-wall lodes in the northwest and isolated lode towards the east.</li> <li>Lodes typically vary from 2 to 6.5 m in thickness with main lode averaging 2.5 m thickness.</li> <li>Mineralisation has vertical extents of approximately 100 m.</li> </ul>
Estimation and modelling techniques	<ul> <li>a, a, a</li></ul>	The nature and appropriateness of the estimation technique(s) pplied and key assumptions, including treatment of extreme grade alues, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and arameters used. The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes ppropriate account of such data. The assumptions made regarding recovery of by-products. Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage haracterisation). In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. May assumptions about correlation between variables. Description of how the geological interpretation was used to control the resource estimates. Discussion of basis for using or not using grade cutting or capping. The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	<ul> <li>Drill hole sample data was constrained within: Semi-manually constructed orebody wireframes defined by nominal 1 g/t Au cut off. Several &lt;1 g/t Au intervals which contained silver intercepts were included to maintain geological continuity.</li> <li>Sample data was composited to a 1 m downhole length using a 0.2 g/t Au cut-off and maximum 1 m internal waste.</li> <li>An analysis of the grade distribution characteristics of the domain composites for each deposit was undertaken. Following analysis of the data it was decided that a top cut was not required. Both gold and silver were modelled.</li> <li>A block model was constructed using a 10 m E by 15 m N by 5 m RL parent block size.</li> <li>Estimation was carried out using inverse distance squared (ID<sub>2</sub>) at the parent block scale. Three estimation passes were undertaken using specific composite data for each separate domain/lode.</li> <li>A percentage model was used to report precisely the volume of material within each block. Material from historical underground mining has not been subtracted as the extent of these is not clear. Surface trial mining material has been depleted from the resource as updated topography was used.</li> </ul>

	Vein	Pass	Max	Medium	Min	Dip	Dip ∆≂imutb	Pitch	Min Camalae	Max Samples	Dh limiter
	Zeki Main	1	30	15	7.5	80	220	50	2	50	4
	Zeki Main	2	60	30	15	80	220	50	2	50	4
	Zeki Main	3	120	60	30	80	220	50	2	50	no
	Zeki 2	1	30	15	7.5	80	220	50	2	50	4
	Zeki 2	2	60	30	15	80	220	50	2	50	4
	Zeki 2	3	120	60	30	80	220	50	2	50	no
	Zafer	1	30	15	7.5	80	220	50	2	50	no
	Zafer	2	60	30	15	80	220	50	2	50	no
	Zafer	3	120	60	30	80	220	50	2	50	no
	Ziya	1	30	15	7.5	80	220	50	2	50	no
	Ziya	2	60	30	15	80	220	50	2	50	no
	Ziya	3	120	60	30	80	220	50	2	50	no
ether the tonnages are estimated on a dry basis or with natural isture, and the method of determination of the moisture content.	Tonnes	have	been e	estima	ted on	a dry	basis.				

Moisture

Cut-off parameters	• The appl	basis of the adopted cut-off grade(s) or quality parameters lied.	• Measured, Indicated and Inferred Resources have been reported above a 1.0 g/t Au cut-off grade, i.e., economical cut-off. This is the same cut-off applied in previous estimates.
Mining factors or assumptions	mini dilut reas pote mini may	umptions made regarding possible mining methods, minimum ing dimensions and internal (or, if applicable, external) mining tion. It is always necessary as part of the process of determining sonable prospects for eventual economic extraction to consider ential mining methods, but the assumptions made regarding ing methods and parameters when estimating Mineral Resources of not always be rigorous. Where this is the case, this should be ported with an explanation of the basis of the mining assumptions de.	<ul> <li>No mining factors (i.e. dilution, ore loss, recoverable resources at selective mining block size) have been applied.</li> <li>It is assumed that the deposit will be an open pit operation with ore material trucked to the nearby Kiziltepe Mine carbon-in-leach plant for gold and silver extraction.</li> </ul>
Metallurgical factors or assumptions	ame dete cons rega whe Whe	basis for assumptions or predictions regarding metallurgical enability. It is always necessary as part of the process of ermining reasonable prospects for eventual economic extraction to sider potential metallurgical methods, but the assumptions arding metallurgical treatment processes and parameters made en reporting Mineral Resources may not always be rigorous. ere this is the case, this should be reported with an explanation of basis of the metallurgical assumptions made.	<ul> <li>No metallurgical assumptions have been built into the resources because there is no intent at this point in time to convert the Mineral Resource into a Mineral Reserve.</li> <li>Initial metallurgical test work has been carried out at the Laboratory at the Kiziltepe Mine, with gold recoveries of 82 to 91%.</li> </ul>
Environmen- tal factors or assumptions	Assudisp detection cons proce pote may thes thes	umptions made regarding possible waste and process residue posal options. It is always necessary as part of the process of ermining reasonable prospects for eventual economic extraction to sider the potential environmental impacts of the mining and cessing operation. While at this stage the determination of ential environmental impacts, particularly for a greenfields project, or not always be well advanced, the status of early consideration of se potential environmental impacts should be reported. Where se aspects have not been considered this should be reported with explanation of the environmental assumptions made.	<ul> <li>The CP is not aware of any known environmental or permitting issues on the projects, however, the estimate of Mineral Resources may be materially affected should such related issues arise.</li> </ul>
Bulk density	<ul> <li>Whe assu frequ repri-</li> <li>The meti- etc), with</li> <li>Disco</li> </ul>	ether assumed or determined. If assumed, the basis for the umptions. If determined, the method used, whether wet or dry, the uency of the measurements, the nature, size and resentativeness of the samples. bulk density for bulk material must have been measured by hods that adequately account for void spaces (vugs, porosity, , moisture and differences between rock and alteration zones in the deposit. cuss assumptions for bulk density estimates used in the luation process of the different materials.	<ul> <li>A bulk density of 2.55 g/cm<sub>3</sub> has been applied, based on calculations on drill core density measurements.</li> <li>Further work is recommended for more accurate density measurements, with densities of up to 2.7 g/cm<sub>3</sub> possible based on experience with several other vein-hosted deposits in the area.</li> </ul>

Classification	•	The basis for the classification of the Mineral Resources into varying confidence categories. Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). Whether the result appropriately reflects the Competent Person's view of the deposit.	•	<ul> <li>Mineral Resources have been classified on the basis of c in geological and grade continuity using the drilling densi geological model and modelled grade continuity.</li> <li>Measured Mineral Resources have been defined by a 30 m search ellipse.</li> <li>Indicated Mineral Resources have been defined by a 60 m search ellipse.</li> <li>Inferred Mineral Resources have been defined in areas b indicated search ellipse to the limits of the resource wiref</li> </ul>							
					Density	Tonnes t	Au g/t	Ag g/t	Au oz		
				Measured	2.55	130,511	2.79	84.11	11,716		
				Indicated	2.55	87,805	2.60	69.01	7,342		
				Meas+Ind	2.55	218,317	2.72	78.04	19,058	_	
				Inferred	2.55	37,344	1.75	57.31	2,098	_	
				Total	2.55	255,660	2.57	75.01	21,156		
Audits or reviews	•	The results of any audits or reviews of Mineral Resource estimates.	•	The ID <sub>2</sub> model was validated against the input drill hole composites for each domain by visual comparisons carried out against the composited drill hole samples for each domain against the modelled block grade. A comparison was made between the analytical volumes of the resource wireframes and the volumes reported through volumetric functions. The difference was less than 0.001%. Thus, a high level of confidence is appropriate for the model reports. The estimated grades were validated against average Au and Ag grade statistics for each lode.							
Discussion of relative accuracy/ confidence	•	Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate. The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be	•	The Mineral Resource estimate at the global level for the Measured and Indicated Resources based on the estimation technique and data quality and distribution is considered to be adequate for the classification. Inferred Resources have a lower level of confidence outside of this range.							

relevant to technical and economic evaluation. Docume	entation should
include assumptions made and the procedures used.	

- These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.

NOTE: Sections 4 and 5 are not relevant to this work as no reserves are being estimated and there is no estimation or reporting of diamonds or other gemstones in this project.

#### **Glossary of Technical Terms:**

"Ag" the chemical symbol for silver;

"Au" the chemical symbol for gold;

"cut-off grade" The lowest grade, or quality, of mineralised material that qualifies as economically mineable and available in a given deposit. May be defined on the basis of economic evaluation, or on physical or chemical attributes that define an acceptable product specification;

"g/t" grams per tonne;

"Indicated resource" a part of a mineral resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a reasonable level of confidence. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. The locations are too widely or inappropriately spaced to confirm geological and/or grade continuity but are spaced closely enough for continuity to be assumed;

"Inferred resource" a part of a mineral resource for which tonnage, grade and mineral content can be estimated with a low level of confidence. It is inferred from geological evidence and has assumed, but not verified, geological and/or grade continuity. It is based on information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that may be limited or of uncertain quality and reliability;

"Inverse Distance Squared" a conventional mathematical method used to calculate mineral resources. Near sample points provide a greater weighting than samples further away for any given resource block;

"JORC" the Joint Ore Reserves Committee;

"JORC 2012" is the current edition of the JORC Code, which was published in 2012. After a transition period, the 2012 Edition came into mandatory operation in Australasia from 1 December 2013;

"m" Metres;

"Measured resource" a part of a Mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a high level of confidence. It is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drillholes. The locations are spaced closely enough to confirm geological and grade continuity.

"oz" Ounces;

"t" Tonnes;

Ends.