**KEFI Minerals Plc** 



AIM: KEFI

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# KEFI Minerals Plc ("KEFI Minerals" or the "Company")

# DRILLING RESULTS AT ARTVIN PROJECT, TURKEY

KEFI Minerals, an AIM-quoted gold and copper exploration company with projects in Turkey and the Kingdom of Saudi Arabia, is pleased to announce the assay results from its recently completed diamond drilling programme at the Company's Artvin Project located in the Eastern Pontide Belt in northeastern Turkey.

The Artvin Project is a joint venture with a subsidiary of Centerra Gold Inc. ("Centerra"), which is currently funding exploration in order to earn up to 70% of the Artvin Project upon expenditure of US\$6m. KEFI Minerals is the manager of the joint venture.

The objective of the 2009 drilling programme was to further test at the Yanikli Prospect, the extensive alteration system, with coincident gold, silver and base metals geochemical anomalism; and a large (1,250m x 800m) induced polarisation ("IP") chargeability anomaly.

All four diamond drillholes totalling 1,125m intersected wide intervals of strongly propyllitic- to phyllic-altered andesitic volcanic rocks with widespread disseminated and vein-style pyrite +/- lesser sphalerite-galena-chalcopyrite mineralisation. Anomalous assays include 1.95m at 0.64g/t Au and 25.2g/t Ag from 137m. Hole AYDD007 returned 1.3m at 2.26% Cu from 301.8m and 1.6m at 1.61% Zn from 213m. Hole AYDD008.returned the widest zone of anomalous zinc mineralisation viz. 67m at 0.25% Zn from 88m, including 2m at 1.12% Zn from 124m. The chargeability anomaly is explained by the high levels of alteration-related pyrite in the host andesitic volcanic rocks.

The style of alteration and mineralisation suggests that the property has potential for volcanogenic massive sulphide copper-zinc deposits and porphyry-style copper-gold deposits. Surface geochemical sampling and geological mapping has outlined an extensive altered zone, comprising strongly propyllitic- and phyllic-altered mafic to felsic volcanics, hosting vein-style and disseminated gold, silver base metals mineralisation. Soil, rock chip and channel chip sampling delineated a series of gold, silver and base metals anomalies over a 1.75km x 1.50km area, with maximum soil values of 2.4g/t Au and maximum rock chip values of 5.1g/t Au being returned. These geochemically anomalous zones, with selected geological targets, were tested in late 2008 by diamond drilling. The best intercepts recorded from the 2008 drilling programme were 2m at 20.9g/t Au, 14m at 1.0g/t Au, 64m at 0.35% Zn and 44m at 0.57% Zn.

Petrologic analysis of drill core from hole AYDD006 identified dioritic intrusive rocks. This, along with other rock types and alteration assemblages, suggests that the Yanikli Prospect forms part of the distal portions of a porphyry-style copper-gold system. Examples of this type of system occur at Berta and at Ardala, 15km and 25km southwest, respectively, of the Yanikli Prospect.

# KEFI Minerals' Managing Director, Jeff Rayner, commented that:

"Results from the initial diamond drilling programme at Yanikli in 2008 were encouraging. The results from the second-phase diamond drilling programme in 2009, whilst of a lower grade,



indicate that our understanding of the nature of, and controls on, the alteration and mineralisation is increasing. It is important that we continue to develop that understanding and we are now evaluating the results of this drilling programme, in conjunction with Centerra, to plan the next phase of work to be carried out on the Artvin Project."

### **Description of Second-Phase Drilling Programme**

The second-phase diamond drilling programme at the Yanikli Prospect was completed on 15<sup>th</sup> December 2009. Four holes were completed for an aggregate of 1,125.2m of HQ core. The drilling was carried out by Pozitif Sondaj, an Ankara-based drilling contractor. Detailed lithological logging of the drill core was undertaken and intervals with alteration +/- mineralisation +/- veining were selected for sampling. Half HQ core samples were collected at 1-2m intervals with 469 samples (including 18 standards) being submitted to ALS Chemex in Izmir for analysis.

Hole ID	Easting	Northing	Elevation (m)	Declination	Azimuth (UTM)	Final Depth (m)
AYDD006	258935	4578960	1520	-50°	270°	302
AYDD007	259270	4578475	1686	-45°	90°	313.5
AYDD008	259170	4578265	1650	-50°	90°	306.7
AYDD009	258873	4578600	1500	-55°	135°	203

### **Location of Drillholes**

References in this announcement to exploration results and potential have been approved for release by Mr Malcolm Stallman, B.App.Sc. Mr Stallman is a geologist and has more than 20 years' relevant experience in the field of activity concerned. He is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM) and has consented to the inclusion of the material in the form and context in which it appears.

### Enquiries

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### About the Artvin Project

The Artvin Project is located in the Artvin Province of northeastern Turkey and comprises 15 tenements, which cover approximately 254km<sup>2</sup> within the eastern portion of the Eastern Pontide Belt. The Eastern Pontide Belt is a major metallogenic province in the eastern Black Sea coastal region and is prospective for VHMS deposits, porphyry copper-gold deposits and epithermal gold-silver mineralisation.

The Artvin Project comprises 15 tenements, which cover approximately 254km<sup>2</sup>, and is subject to a Joint Venture agreement with a subsidiary of Centerra Gold Inc., a Canadian-based gold mining and exploration company listed on the Toronto Stock Exchange.

### About KEFI Minerals

KEFI Minerals commenced trading on AIM in December 2006 and was formed with the aim of creating shareholder value through the discovery and exploitation of gold and copper deposits.



In **Turkey**, KEFI Minerals currently has the following exploration projects:

- 1. At Derinin Tepe in the Western Anatolia Region, low-sulphidation epithermal quartz veins have been identified with gold and silver mineralisation.
- 2. At Artvin, in northeastern Turkey, extensive hydrothermal alteration and gold and base metal mineralisation have been recognised in the project area, as well as historical workings indicating potential for economic mineralisation. Artvin is a joint venture operated by KEFI Minerals and funded by a subsidiary Centerra Gold Inc, who has the right to earn up to 70% interest in the property by spending US\$6 million.
- 3. Bakir Tepe, in southwestern Turkey, is prospective for VHMS polymetallic deposits. High-grade gold and copper crop out on the peripheries of a shallowly buried geophysical chargeability anomaly. The project is a joint venture with a subsidiary of Centerra Gold Inc. Centerra has the right to earn a 51% interest in the project upon contributing US\$750,000 to the joint venture over two years with a minimum expenditure of US\$350,000 in the first year. The joint venture is still in its first year. KEFI Minerals is the manager of the joint venture.
- 4. At Yatik, in the Western Anatolia Region, low-sulphidation epithermal quartz veins with gold and silver mineralisation have been identified.
- 5. At Gumushane in eastern Turkey, areas of extensive hydrothermal alteration have been recognised in the project area, as well as coincident areas of interest identified through interpretation of Aster data.
- 6. Hasancelebi, in central Turkey, is prospective for high-sulphidation epithermal gold mineralisation and Iron-Oxide Copper-Gold ("IOCG") mineralisation.
- 7. Muratdag, in the Western Anatolia Region, is prospective for Carlin-style epithermal gold mineralisation.

In the Kingdom of **Saudi Arabia**, KEFI Minerals has a minerals exploration joint venture with leading Saudi construction and investment group Abdul Rahman Saad Al-Rashid & Sons Company Limited ("ARTAR"). KEFI Minerals is the operating partner with a 40% interest and the joint venture's primary target is the discovery and development of a >1 million ounce gold deposit in the under explored Precambrian Shield in Saudi Arabia.

EMED Mining has agreed to provide technical and administrative systems and personnel to KEFI Minerals on a cost-recovery basis, thus enabling KEFI Minerals to reduce overheads and spend more on exploration.

KEFI Minerals' Board of Directors is comprised of Mr. Harry Anagnostaras-Adams (Chairman), Mr. Jeffrey Rayner (Managing Director), Professor Ian Plimer (Deputy Chairman) and John Leach (Finance Director).

Further information on KEFI Minerals is available at <u>www.kefi-minerals.com</u> and the Company's AIM code is "KEFI".

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