Turkey has very diverse mineral deposits due to its extremely complex geology and tectonic setting. A wide variety of primary metallic minerals and a significant amount of lignite are produced in the country along with its world leading boron production from its world class boron deposits. Turkey has a long mining history going back over 9,000 years but only recently has its mineral existence and sustainability been properly appreciated by both international and non-governmental local investors. Changes in Turkish Mining law during the past decade have stimulated investment in the mining sector and provide an opportunity for Turkey to become a leading producer of gold and an emerging producer of base metals. In this article, we will examine the copper mining industry of Turkey and you will find the latest updates and information about Turkey’s most important copper producers and most important copper projects.

There is excellent potential for both Cyprus-type and Kuroko-type VMS deposits in Turkey, especially in the productive northeastern Black Sea coast area (the Pontide Belt). Exceptionally, Siirt - Madenköy Copper Mine which is to date one of the most important VMS deposits of the country, is located at the south-east of Turkey on the border folds. A detailed Project summary of Park Elektrik’s Siirt - Madenköy Copper Mine can be found later in this article.

On the other hand, there are some important porphyry Cu-Au-Mo deposits recently found and these advanced level projects are planning to start production in a couple of years. Turkey also has a variety of skarn deposits following the general trend of the porphyry belts, yet most of the known deposits do not appear to have sufficient tonnage in-situ to be mined economically, but exploration to date has been simple and inadequate. Only the Fe skarns appear to immediately exhibit obvious mineability. Divriği with its 133.8 million tons of 56% Fe and 0.5% Cu reserves is a good example of economical skarn deposits and there is rising interest in sedimentary-rock hosted Cu in central Turkey (Figure 1).
Copper production of Turkey covers just 20% of the country’s copper needs currently and is losing ground due to the rapid economic growth and demand for refined Copper which contributed in excess of 5 billion USD negative to a current account deficit in Base metals in 2012. There is only one copper smelter in the country and most of the companies involved in copper mining produce concentrate to be exported and imported back as final refined copper products. In order to overcome this deficit the country needs more copper smelters along with higher production.

Eti Bakır’s (Cengiz Holding) Kastamonu situated - Küre mine and Artvin situated - Murgul copper mine produce enough concentrates to keep Eti Bakır’s copper smelter at full capacity. Eti Bakır’s copper smelter which is located at Samsun, a coastal city at Black Sea Region, produces 40,000 tons/year of blister copper and 220,000 tons/year sulfuric acid.

The 2012 Turkish copper ore exportation realized 457.4 million USD with an increase of 23.06% in value while 2012 monthly average copper prices were around 1 - 10% higher than 2011 monthly copper prices so the export volume also increased. Turkey definitely needs more copper smelter projects in order to meet country’s copper needs, which continue to grow.

Focusing on Turkey’s most important copper mines and their production levels and starting from Park Elektrik’s (Ciner Group) Siirt - Madenköy Copper Mine which is one of the most important copper projects today. Some brief production numbers of Eti Bakır’s Kastamonu - Küre and Artvin - Murgul mines can be found later in the article. Subsequently Inmet Mining’s Çayeli Bakır project, Demir Export’s (Koç Holding) Giresun - Lahanos mine, Nesko’s (Yıldızlar SSS Holding) Yenice mine introductions will take place.

The important advanced stage copper - polymetallic projects are; Columbus Copper Corp.’s (formerly Empire Mining Corp.) Karapinar and Demirtepe projects, Aldridge Minerals’ Yenipazar polymetallic project, Özdoğan İnşaat Ltd.’s Balikesir - Havran Cu-Mo project, RCR’s (Red Crescent Resources) Sivas and Hakkari copper projects, Pilot Gold and Teck Resources joint venture İzmir - Halilağa porphyry Cu-Au project, Alacer Gold’s Çevizlidere Cu-Au-Mo and Karakartal Cu-Au porphyry projects, Mediterranean’s Taç - Çorak Cu-Au deposit, Özaltın Holding’s Cerrattepe Cu-Au porphyry project. Summaries follow the mine updates hereunder.

**PARK ELEKTRIK’S SIİRT - MADENKÖY COPPER MINE**

Ciner Group’s Park Elektrik AŞ operates Siirt Madenköy copper mine since last quarter of 2006, after the privatization of the project from Eti Bank. With the capacity of 1,000,000 tonnes/year production from underground, Siirt Madenköy becomes Turkey’s largest producing metallic mine. The mine life of the project is more than 20 years and the company is on the transition process from underground to open-pit mining. According to a JORC compliant report, the reserve of the project is 40 million tonnes (31 million tonnes measured). Please find a more detailed summary of the project at page 28.

**ETİ BAKİR’S KASTAMONU - KÜRE AND ARTVİN - MURGUL MINES**

Purchased by Cengiz Holding via the Turkish privatization of the production assets of Eti Bank, the company undertakes copper mining at Kastamonu Küre and Artvin Murgul facilities and operates the copper smelting factories at Samsun. Production of copper and pyrite concentrate at the Kastamonu Küre facilities are realized with an annual capacity of 1,000,000 tons ore, 90,000 tons copper concentrate and 400,000 tons pyrite concentrate and the Murgul plant extracts raw copper ore over 2,700,000 tonnes per year through 3 open-pit mines, and processes to produce 75,000 tonnes of copper concentrate per year for supply of Concentrate Copper to Samsun Smelting Facilities. The Küre Mine and Samsun Smelter plants launched in 1973 for processing the copper ore deposits at the Black Sea region, joined into Cengiz Holding’s structure in 2004, the Murgul facilities were acquired in 2006. Today the Samsun Smelter is the sole facility that produces copper metal from ore in Turkey and the facilities consist of Smelting, Sulfuric Acid and Concentrator facilities. In addition, a Hydro-electric Power Plant with an installed capacity of 2 x 2.35 MW at Murgul mine, has been built and operated to generate power within the frame of production license.

**Kastamonu Küre Mine:**

3 open-pit and 1 underground mine; 1,000,000 tonnes/year run-of-mine copper production; 90,000 tonnes/year copper concentrate. The company is still working for improvement on the capacity of production and percentage of copper tenor and a cobalt leaching facility is under design together with BRGM/France technology (Bio Leach Plant).
**Artvin Murgul Mine:**

3 open-pit mine; 2,660,000 tonnes/year run-of-mine copper production; 75,000 tonnes/year copper concentrate. The company is still working for improvement on the capacity of production and percentage of copper tenor. A Hydroelectric Power Plant with the capacity of 2 x 2.35 MW operates at the site.

**INMET MINING’S ÇAYELİ BAKIR MINE**

Çayeli is an underground copper and zinc mine wholly owned by Inmet Mining. The mine is located east of the town and port of Rize, approximately 7.5 km from the Black Sea and development began in early 1990 and commercial production commenced in November 1994. Çayeli Bakır İşletmeleri AŞ (CBI), a wholly owned subsidiary of Inmet, has the surface rights to operate on the immediate mine property and the deposit is a VMS Kuroko type with the mining method being transverse sublevel retreat with paste and waste filling. The mine is expected to operate until at least 2019 and the mineral reserves of the mine from a NI43-101 report dated back 2006 are as follows:

<table>
<thead>
<tr>
<th>Category</th>
<th>Mtn (t)</th>
<th>Cu%</th>
<th>Zn%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proven</td>
<td>4.70</td>
<td>3.77</td>
<td>5.89</td>
</tr>
<tr>
<td>Probable</td>
<td>6.90</td>
<td>3.57</td>
<td>5.8</td>
</tr>
<tr>
<td>Total</td>
<td>11.60</td>
<td>3.65</td>
<td>5.87</td>
</tr>
</tbody>
</table>

It produces three types of concentrates: copper concentrate, copper and zinc bulk concentrate and zinc concentrate and these concentrates are sold to a number of international and domestic smelters and traders.

At Çayeli, Inmet produced 31,400 tonnes of copper and 40,700 tonnes of zinc in 2012. For 2013 the company plans to produce 27,800 - 30,900 tonnes of copper and 35,900 - 39,900 tonnes of zinc with 1.02 - 1.09 USD cash cost per pound of copper.

**DEMİR EXPORT’S GİRESUN – LAHANOS MINE**

Demir Export AŞ started mining activities at Lahanos (Giresun) Underground Copper Mine in 1990. Mining activities ceased several times between 1994 and 2006 because of fluctuations of metal prices in the global market. Copper concentrate production continues at Lahanos without production break since 2006.

Total number of workforce employed at Lahanos Copper Mine is around 130. Cut and fill underground mining method is the principal mining method for ore production at Lahanos. Production is divided into five sublevels according to the geometrical layout of the ore body. Production levels are designed to start from the bottom of the ore body and advance in upward direction. Cemented rockfill is used to backfill the depleted underground stopes.

Run of mine ore is then milled at the onsite flotation plant. Processing plant established in 1992, runs at 500 tonnes per day capacity. Annual run of mine production from the underground mine is nearly 130,000 tons and 15,000 tons per annum of copper concentrate is produced from the processing plant.

800,000 tons of run of mine ore and 100,000 tons of copper concentrate had been produced since 2006. Produced copper concentrate is being exported to overseas smelters in Europe and China.

**TURKEY’S IMPORTANT ADVANCED STAGE COPPER PROJECTS**

**ALDRIDGE MINERALS’ YENİPAZAR POLYMETALLIC PROJECT**

The Yenipazar polymetallic VMS deposit (Ag, Cu, Pb, Zn) is the Aldridge Minerals’ most advanced property and is located at the geographic center of Turkey, approximately 220 km east-southeast of the capital of Turkey, Ankara. The Yenipazar Project has a currently deter-
Columbus Copper Corporation (formerly Empire Mining Corporation) is a mineral exploration and development company operating principally in Turkey, Serbia and Albania.

In Turkey, Columbus Copper together with First Quantum Minerals is progressing exploration on its Karapinar and Demirtepe copper-gold projects in the Bursa area. First Quantum has been granted an option to acquire a 51% interest in the project by making a payment to Columbus of CAN$1.5 million and completing staged exploration expenditures of CAN$8.5 million within three years, with a minimum firm commitment in the first year of CAN$2.5 million. First Quantum can earn an additional 19% interest in the project for a total interest of 70% by delivering a technical report on the properties delineating a resource of not less than 1,000,000 tonnes of copper and making a decision to advance the project to commercial production.

Karapinar Project
At Karapinar porphyry copper project drilling by Columbus in 2011 led to the identification of a secondary enrichment blanket of 60 m at 0.93% copper beneath a 40m thick zone of oxide copper. Combined oxide and enrichment zones return 0.63% copper over a thickness of 100 m, in addition to previously identified long mineralized intervals, including 221 m (from surface) grading 0.36% copper, 51 ppm molybdenum and 0.1 ppm gold. Latest interpretation has identified distinct intrusion phases, one of them characterized by quartz-magnetite-chalcopyrite veinlets accounting for primary copper higher than 0.5% and gold higher than 0.15 g/t. The mineralized porphyry body remains open in all directions laterally and in depth and further drilling is ongoing.

Demirtepe Project
At Demirtepe, the company announced a significant new discovery in January 2011. The discovery hole intersected significant copper-gold-silver skarn mineralization including 2.02% copper, 0.96 g/t gold and 21.64 g/t silver over 47.35 m from 112.2 m to 159.55 m, which included 8.0 m of 9.1% copper, 4.68 g/t gold and 95.3 g/t silver. Follow-up drilling by Columbus has identified multiple additional high grade zones in the copper-gold-silver-molybdenum skarn. The mineralization is hosted in high quality wollastonite, forming an important and strategically located wollastonite deposit. The size of the mineralized system, as indicated by the 1,000 by 500 meter soil geochemical anomalies, geophysical anomalies, and scattered old workings suggests that the skarn mineralization is driven by a deeper blind porphyry system. Interpretation has led to the identification of the SW extension as potentially hosting the deep porphyry source; testing by drilling and deep geophysics is pending.

In addition to Karapinar and Demirtepe, Columbus Copper is advancing work on its other licenses in Turkey, Serbia and Albania aiming to create a strong portfolio of exploration projects in the region.
mined strike length of at least 1,700 metres averaging 200 metres in width and approximately 20 metres in thickness at depths between 30 and 190 metres. During 2012, Aldridge successfully completed a 10,000 m diamond drilling program, which confirmed the continuity of the resource and resulted in a better understanding of the geology of the Yenipazar deposit and its mineralized zones. Aldridge is currently building on its December 2010 Preliminary Economic Assessment with a feasibility study that it is expect to complete in March 2013.

(Please find Aldridge Minerals’ news release dated 11/26/2012 for detailed information)

**COLUMBUS COPPER’S KARAPINAR AND DEMIRTEPE PROJECTS**

Please find detailed information about the projects at the page 23.

**ÖZDOĞU İNŞAAT LTD’S BALIKESİR - Havran Cu-Mo Project**

 Özdoğu İnşaat Ltd. won the government tender of the rights for the copper - molybdenum mine located at the Balıkesir Province Tapioca village region on 17.11.2007 by the General Directorate of Mining Affairs (MİGEM). The company obtained its “Operating License” from MİGEM at 06.03.2008. It is the positive certificate of “Environmental Impact Assessment (CED)” from “Ministry of Environment and Urbanization” on 20.11.2009, the “Business and Work Permits” from Balıkesir Province Special Administration Directorate in 20.08.2010 and finally “Forest Permits” from “Ministry of Forest and Water Affairs”.

According to MTA’s (Mineral Research & Exploration General Directorate) drilling reports related to the licence area which covers 1439 hectares, the resource of the Havran deposit revealed as 17.5 million tonnes @ 0.32% Cu and 0.04% Mo. After the positive results of subsequent drillings driven by Özdoğu, the resource increased to 26 million tonnes and the company is planning an open pit mine in line with the new drilling results and exploration, while a feasibility study has begun for the underground production. During the mine life time which is estimated at 13 years, the company will produce Cu and Mo concentrates with the ROM tonnage for ore and waste mined running at around 3 million tonnes/year indicating a low stripping ratio. On 30.10.2012 the company announced that 6,650 tonnes of 22 - 25% Cu and 150 tonnes of 46 - 48% Mo have been produced and the company is conducting a research - development project to reach 28% grade for Cu and 55% for Mo in its concentrates.

**RCR’S (RED CRESCENT RESOURCES LTD TSX-RCB, FFX-7RC) SİVAS COPPER PROJECT (SCP) AND HAKKARI COPPER PROSPECTS**

The SCP development belongs to the Tethyan Orogenic Belt of Turkey and the activity that was associated with its formation. The geological setting and alteration patterns at the Kapılı Tepe property at Kızılmezra are very similar in their orogeny and genesis to several large economic deposits being mined and developed elsewhere in Turkey, e.g. Cevizli-dere Copper Project in Ovacık county of Tunceli by Tunçpinar Madencilik a JV between Alacer Gold and Çalık Group; and Muratdere Copper/Molybdenum/Gold project also in Tunceli recently bought by Lodos Maden AŞ a wholly owned subsidiary of Pragma Financial Consulting AŞ Notably both of these deposits are smaller and lower grade than the SCP with no apparent upside potential.

The most important observations are;

- All of these sulphides indicate Volca-

nic Massive Sulphide origin and the latter two; chalcocite and covellite are interesting as strong indicators for a significant zone of secondary enrichment (supergene) of a major copper sulphide deposit. Generally though we are looking at a broadly disseminated copper deposit with secondary nickel and gold within an extensively altered shear zone;

- The “silicified carbonate zone” is inter-

preted as a “listvenite”. Listvenite is an original Russian term, however these rocks (carbonate-rich alteration products of ultramafic rocks) are found in the lower ultramafic parts of many greenstone belts worldwide where it is often referred to as quartz-carbonate-fuchsite schist (e.g. Bar-

berton greenstone belt in the Mpu-

malanga province of South Africa). As such Listvenites have a common spatial and temporal association with orogenic-type gold deposits.

<table>
<thead>
<tr>
<th>Category</th>
<th>Tonnnes (M oz)</th>
<th>Au (M oz)</th>
<th>Ag (M oz)</th>
<th>Cu (M oz)</th>
<th>Pb (M lbs)</th>
<th>Zn (M lbs)</th>
<th>Cu (M lbs)</th>
<th>Ag (M oz)</th>
<th>Au Eq (M oz)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicated</td>
<td>29,669,000</td>
<td>0.95</td>
<td>31.3</td>
<td>0.31</td>
<td>0.90</td>
<td>29.85</td>
<td>204.8</td>
<td>20.9</td>
<td>1.89</td>
</tr>
<tr>
<td>Inferred</td>
<td>369,000</td>
<td>0.47</td>
<td>25.5</td>
<td>0.94</td>
<td>1.89</td>
<td>1.88</td>
<td>0.01</td>
<td>29.0</td>
<td>2.30</td>
</tr>
</tbody>
</table>

Total Mineral Resources of Yenipazar Project

The physical structural confinement that defines the SCP mineralised zones, i.e. the Main Zone ("MZ") and the South-East Zone ("SEZ"), along with the detailed geochemical and deep IP ("Induced Polarisation") geophysical profiles that have been generated, initially by Falconbridge and subsequently independently verified by consultants to RCR, the surface mapping and chip sampling, the structural geological review and lastly the drilling and core sampling, collectively define a number of clear physically measurable blocks of potential resources.

The actual measured physical dimensions of the shear hosted mineralisation, and the dip orientation which is aligned to the clearly visible and mapped struc-
ture of approximately 40° degrees to the south-east, enable a purely volumetric calculation of the listvenite mineralised MZ. This equates to approximately 240 million cubic metres in-situ which, when discounted conservatively for geological (-35%), mining (-15%) and other (-15%) losses represents at least 260Mt of potential mineralised material as resource. Falconbridge estimated, within the wide outcrop target area only, some 200Mt for the MZ and therefore with all the evidence and independent assessment, one can say that it is a high probability to confirm a reserve of between 150Mt and 250Mt. Such a body at a grade of 0.8% Cu, 0.25% Ni and 0.12g/t Au could contain approximately 5 billion pounds (2.27Mt) of copper, 1.1 billion pounds (499kt) of nickel and 1.1 million ounces of gold.

Collectively the SEZ blocks display higher grade mineralisation both at surface and in the buried material than the MZ and which appears on average, to be 75% higher grade both for primary copper and the by-product nickel and gold values.

This could be attributed to localised enrichment and/or less time exposure to the oxidizing process.

Through the utilisation of the measured dimensions of the blocks and accounting for losses in the same way as the MZ, but with higher attributable geological losses of up to 50% due to the later faulting, with a measured average dip of +30°, the estimated total tonnage in the SEZ area is approximately 130Mt of mineralised material.

Falconbridge estimated a target of 100Mt for the SEZ in the same area and therefore with all the evidence and independent assessment it is possible to say that it is a high probability to confirm a reserve of between 80Mt and 130Mt. Such a reserve at a grade of 1.2% Cu, 0.5% Ni and 0.25g/t Au could contain approximately 2.5 billion pounds (1.13Mt) of copper, 1.1 billion pounds (499kt) of nickel and 800 thousand ounces of gold. In total then the SCP represents in-situ potential for 7.5 billion pounds (3.4Mt) of copper and up to 1.8 Million ounces of gold, with an upside by product of nickel potentially between 0.5 and 2 billion pounds (0.23 to 0.91Mt) subject to the degree of silicification of the sulphides. With no current NI43-101 Independent Technical Report and/or Resource Statement RCR has not as yet engaged anyone to complete any independent Mining studies. However with the fact that there is sufficient data and information with respect to the spatial nature and overall dimensions of the targeted mineralised zones for extraction, this makes it possible for a concept mine design to be executed in house.

Falconbridge did exactly this during their term of project ownership and produced a concept mine design for an open pit with a twenty (20) year life. What was unclear though is whether they planned a single pit or multi-pit operation, although the study was certainly serious and classed at least as an OME (“Order of Magnitude Estimate”).

Any mine design at the SCP is of course clearly to be premised on a multiple open pit design in the potentially foreseeable years of the life of mine which will be at least 20 to 25 years. This will deliver large flexibility in the operational ability to sustainably deliver ROM ore either within a specified grade range, allowing high grading if required to take advantage of price peaks in the commodities cycle and allow blending to optimise Leach pad delivery and process management as a whole.

Within the confines of the future confirmation of the mineralised zones being open at depth, underground designs for extension of mine life may be contemplated at that time. It is envisaged that the MZ will be mined by one large pit centred in the wide outcropping zone. This main pit would be ramped up to produce 4Mtpa or 20,000 tonnes per day (“tpd”) for the first five years, then 6Mtpa or 30,000 tpd for a second five year period, then 8Mtpa or 40,000 tpd for a third five year period and finally 10Mtpa or 50,000 tpd for the balance of the life of the mine which will be at least another five years.

As far as the SEZ is concerned this will be mined via a number of smaller pits, at least four in number over the life of mine and these may at some stage interconnect with each other in some areas. These pits would be ramped up sequentially to produce 2Mtpa or 10,000 tonnes per day (“tpd”) for the first five years, then 3Mtpa or 15,000 tpd for a second five year period, then 4Mtpa or 20,000 tpd for a third five year period and finally 5Mtpa or 25,000 tpd for the balance of the life of the mine which will be at least another five years.

Collectively then the SCP is to be designed for expansion over four phases in fifteen years after an initial two year resource confirmation, mine and pilot plant establishment and operation. This design is planned to deliver 360t of Cu equivalent (Cu and Ni) from the pilot plant process and followed by a total of 36kt Cu in Phase 1 (years three to seven), 72kt Cu in Phase 2 (years eight to twelve), 108kt Cu in Phase 3 (years nine to nineteen) and 144kt Cu in Phase 4 (years eighteen to twenty two).

Cumulatively the SCP could be expected to deliver in its life more than 2Mt of Cu and significant by-products of nickel (300kt to 900kt dependant on silicification effects) and gold (750,000 oz to 1 Moz).

It was announced in late 2012 by RCR (TSX-RCB) that it was looking to monetize (sell) the SCP as its size and requirements for development capital are beyond the capability and capacity of the Junior company. No announcements have been made since but it is believed that strong interest has been shown by a number of companies and that talks are ongoing for its transfer to a new owner and Turkey is looking forward to the development of this potentially very significant project.

Hakkari Copper Projects

RCR undertook a significant satellite imagery survey of the overall project area and extensions in Hakkari very early on in its tenure and work in the province.
in 2008. The results identified a number of significant anomalies within its area of control and in its licences already held by the company.

Further ground truthing was done during 2009 by its geological teams and this confirmed Gossans of significant size and with strong potential for economic mine development. Grab samples taken at the time delivered significant measured polymetallic grades for Copper, Gold, Zinc, etc.

These deposits offer the company significant developmental upside although to date the lack of capital availability has forced focus on its high grade (greater than 25% Zn) oxide Zinc deposits which outcrop strongly over a strike in excess of 80km. The strong progression to being cash positive from Zinc Mining & Concentration sales in 2013 is expected to give the company a greater ability to invest in the development of the Hakkari Copper deposits from 2014 onwards.

PILOT GOLD AND TECK RESOURCES JOINT-VENTURE İZMİR - HALİLAĞA PORPHYRY CU-AU PROJECT

Halilağa is development-track copper-gold porphyry located in northwest Turkey, discovered by Fronteer Gold. The project is located in a regional industrialized zone that includes large open pits, a major power plant, and tile factories. Power lines from a nearby coal-fired generating station run through the property. The project is interpreted to be a single widespread mineralized system containing porphyry-related high-sulphidation style gold and copper-gold mineralization.

Since its discovery in 2007, Halilağa has grown rapidly with significant widths of copper-gold mineralization extending over a strike length of 1,200 m and a width of up to 850 m, with thicknesses ranging over 600 m. Metallurgical work has also been undertaken with excellent initial results and a final concentrate grade of 35 - 40% copper with 85-90% overall copper recovery was achievable. Gold grades in the final concentrate were approximately 25 grams per tonne with overall gold recovery in the range of 65 - 70%.

Pilot Gold’s 60% joint venture partner, Teck Resources Limited’s Turkish subsidiary is the project operator.

18,000 m of drilling was completed in 2011, culminating in a project-first resource estimate that returned an Indicated resource of 1.665 million oz Au at 0.31 g/t Au, 1.112 billion lbs Cu at 0.30% Cu (168,167,000 tonnes); and an Inferred resource of 1.661 million oz Au at 0.26 g/t Au, 1.107 billion pounds of copper at 0.23% copper (198,668,000 tonnes).

Alacer Gold picked up the Cevizlidere tenements in 2000 and conducted a stream sediment sampling campaign to identify anomalous mineralization. This work was followed up in 2002 with a soil and rock geochemical sampling program designed to identify drill targets. Based on this work, a highly successful drill campaign was conducted in 2003 which led to the discovery of the Cevizlidere deposit in the very first hole drilled: 580m at 0.39% Cu, 0.14g/t Au and 52ppm Mo. Further drilling was undertaken in 2004 and 2005, leading to a declared mineral resource which remains open to the southeast and at depth.

The rock types at Cevizlidere include Mesozoic limestones overlain by Tertiary andesitic flows and pyroclastic rocks. These units are cut by multiple intrusive phases, varying from the early “crowded” feldspar porphyry to massive dacite porphyry to narrow, late-stage, phenocryst-poor, feldspar porphyry dikes, all of which combine to make up a NW-SE elongate composite porphyry stock.

Cevizlidere falls in the copper-gold-molybdenum class of porphyry copper deposits. The mineralization is associated with multiple porphyry intrusions and zoned alteration and mineralization.

Alacer Gold is the operator of Cevizlidere, which is a 50/50 joint venture with Turkish partner Lidya Madencilik San. ve Tic. AŞ and is currently undertaking preparatory work prior to recommencing drilling at Cevizlidere.

Karakartal Project

Karakartal is located roughly 550 km east of Ankara, Turkey. The project is 115 km by road from Erzincan, Turkey and about 15 km south-southeast from the town of Ilìç (population 2,500). Karakartal is roughly 10 km from by road from the Çöpler mine.

Alacer Gold picked up the Karakartal tenements in 1998 and conducted a targeting exercise, culminating in an initial eight-hole diamond drill program in 2001. This work was followed up in 2008 with a campaign involving 22 holes for a
total of nearly 7,800m of diamond drilling. The information from these drilling programs was used to estimate an initial mineral resource for Karakartal.

Karakartal is a copper-gold porphyry system hosted in variably altered diorite that has intruded a sequence of carbonates and metasedimentary units. Copper mineralization as primary sulphides is seen as chalcopyrite with rare secondary covellite and chalcosite. Oxide copper is malachite, with azurite and neotocite. The copper mineralization is commonly developed as part of a weak quartz stockwork with the quartz veins being less than 1cm in width. The best copper mineralization is associated with the potassic alteration zone.

Drilling at Karakartal during 2012 has been aimed at better defining and extending the current resource as well as testing nearby targets. Alacer Gold is the operator of Karakartal, which is a 50/50 joint venture with our Turkish partners Lidya Madencilik San. ve Tic AŞ (“Lidya Mining”).

MEDITERRANEAN’S TAÇ - ÇORAK CU-AU DEPOSIT
Mediterranean Resources Ltd. is actively working on its two 100% owned properties which were in Teck Cominco’s possession during 90’s and they spent more than 4 million USD for the development of the projects. During 2006 Mediterranean spent 3.1 million USD more for the exploration activities on Taç, after which it earned an undivided interest in the properties, and during 2007 Mediterranean spent 4.5 million USD of exploration on Taç and Çorak. On March 2008, Mediterranean announced new NI 43-101 compliant resource estimates for Taç and Çorak. Highlights of the study are as follows:

- Indicated resource of 1,598,417 ozs of gold at both Taç and Çorak on a gold-equivalent basis with a threshold of 13 USD/tonne contained metal value (and inferred resource of 730,889 ozs);
- At Taç, indicated resource of approximately 58.0 million lbs of contained copper; (and inferred resource of approximately 8.0 million lbs of contained copper);
- Also at Çorak, indicated resource of approximately 654,334 ozs of silver on a capped basis with a threshold of 13 USD/tonne contained metal value (and inferred resource of 887,627 oz of silver);
- Also at Çorak, indicated resource of approximately 340 million lbs. of zinc, (and inferred resource of 82 million lbs. of zinc); and indicated resource of approximately 141million lbs. of lead, (and inferred resource of 34.7 million lbs. of lead);
- Metallurgical testing has clearly indicated flotation to be the most appropriate method of metal recovery and concentration.

ÖZALTIN HOLDING’S CERRATTEPE CU-AU PORPHYRY PROJECT
 Özaltin Holding, originally works for construction and energy sector, took a big step to the mining industry after the company won the tender for around 95.7 million TRY (54 million USD) in February 2012. According to the agreement, Özaltin Holding should start the production in three years after the operation license has been granted. The company should produce minimum 500,000 tonnes of run-of-mine and 10,000 tonnes blister copper annually, in the borders of Turkey. If Özaltin Holding could not meet the requirements, all the exclusive rights will be transferred to the second highest bidder, Eti Bakır (Cengiz Holding) according to the tender agreement. According to the report prepared by Inmet Mining Corp, the previous owner of the project on 2007, during the expected mine life from 2009 to 2014, the company was planning to produce total 1.4 million tonnes at a grade of 8.7% copper.

REFERENCES
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“All the project summaries in this article are collected from companies and/or press releases and up-to-date websites of the companies. Outdated or unconfirmed information about projects are excluded from the article.”

CONTACTS