

# Important Developments From Junior Nickel - Iron Producer: Fe-Ni Mining

Being one of the main nickel ore producer of Turkey, Fe-Ni Mining took a “great step for a beginner” by their words. Until last year, the increasing prices

of nickel appetized many companies in Turkey like around the world and Fe-Ni Mining did a great job over a decade, exporting a decent number

of nickel ore every year. We’ve met with Birol Kaya, the general manager, at their office in Ankara and asked about Fe-Ni Mining’s future and past.

Fe-Ni Mining’s Adatepe - Belek Nickel Mine





► Can you provide us an introduction for the company? Which minerals are in the interest of Fe-Ni Mining?

► Birol Kaya (BK): SENKA Company, as a pioneer of Fe-Ni Mining Company is established in 1987 and engaged in the areas of mining, construction and con-

tracting businesses. The company began to produce iron ore from its licenced areas around Karaçam village, Eskisehir in 2000. From that date forward, raw materials such as limestone, clay, gypsum, trass and iron ores were provided for several cement factories and state owned companies throughout Turkey. In accordance

with developing mining activities and technologies, plans and programs have been preparing for exploration, exploitation and marketing of all kinds of metallic ores and industrial raw materials.

Due to acceleration at world nickel prices in recent years, exploration activities ►

A View From Belek Nickel Ore Mine



for nickel ores have been drastically increased in Turkey. In this context, nickel silicate grades in lateritic iron-nickel ores (limonitic and hematitic ores) at Karaçam concession areas became important.

Nickel ores are produced as testing purposes from the above mentioned areas between 2005 and 2008 years and re-exported as the amounts of 10,000 wmt to 60,000 wmt. Within this period, it is observed that the demands to our nickel ores to be processed by foreign companies were grown.

For all above mentioned reasons, in order to follow significant developments at mining sector of Turkey and other countries, to produce ores within the sensibility of social and environmental merits and to contribute to the coun-

try's economy by exporting ores, Fe-Ni Mining Company is founded. Except the supplier workers upon the contracts, the number of technical and administrative staff and all kinds of laborer of the company is arrived to 100.

#### ▶ What is the size of the ore production of Fe-Ni Mining?

▶ (BK): After the foundation of Fe-Ni Mining Company, exploration activities for tonnage and grade estimations improved at the licenced areas around Karaçam, Eskişehir. By revising the geological maps of the areas, in addition to known and presently operating Adatepe sector, significant new reserves from Belek and Ağılın Sivrisi sectors have been discovered.

Beginning from mid-2011, proven reserves have been exposed on the basis of core drilling activities at Adatepe and Belek sectors. According to geological data and core logging and analysis, evaluation studies are carried out by a mining software, thus the reserve and grade potential of ores and development of mine have been determined.

Produced and exported nickel ore amounts are respectively 100,000 and 155,000 wmt in 2009 and 2010 years and 300,000 wmt in 2011. Exportation in last three years is implemented from two seaports of Marmara Sea.

#### ▶ What are the reserves for iron and nickel ores?

▶ (BK): Keeping on searching for nickel ores by core drilling activities, possible and probable reserves are substituted by proven reserves. Up to now, on the basis of geological and analytical data collected from both licenced areas, total reserves are estimates as 6,000,000 wmt.

#### ▶ Could you give us some information on the geology of your mine? Do you have any other mineralization in the field besides nickel and iron?

▶ (BK): Mainly serpantinized peridotites of ophiolitic melange crop out in mining areas as host rocks. Lateritic (residual) type nickel and iron deposits formed by processes of weathering lie at the top of those rocks. Limonitic and hematitic zones are observed in mineralization areas. Nickel ores in these zones consist of some cobalt bearing nickeliferous limonites and rarely garnierite veins. There is no other mineralization in the study areas.

#### ▶ What are Fe-Ni Mining's expansion plans?

▶ (BK): In respect of 25 year experiences and taking into account of developments at mining sector both in Turkey and the world, A Research and Development Department and one Foreign Affairs Department are constituted in order to apply modern exploration and production techniques and marketing processes. Within this framework, project



based studies have been implementing by the Geological and Mining Engineering Departments of Hacettepe University - Ankara, Ankara University and Dokuz Eylül University - İzmir.

Furthermore, besides the present licenced areas, prospecting and discovering of new metallic, mainly iron and nickel, ores and industrial raw material areas can be counted among our future expectations.

We believe the efficacy of enriched nickel ores by ore processes which will be gained both from our licenced and newly discovered and produced areas by us.

▶ How is Fe-Ni Mining trying to engage with local communities and how do you deal with the environmental consequences of mining?

▶ (BK): As a company embracing basic rights principle of "respect to community and nature", we are in close and warm relationships with the local communities managing the localities of villages in and around of our licenced areas. As an example, we can proudly announce that the halves of our laborers are employed from the nearest vicinity.

Within the context of new Turkish Mining Law, published on June 24, 2010 with the number of 5995 give great importance on environmental consequences of mining areas. Within this framework, in order not to damage the community health and environment, scientifically and technically designated exploration and exploitation activities and infrastructural facility formations are inherited. Abiding to this arbitrament of the mining law, our company is implementing all the responsibilities in the proper sense.

▶ Where would you like to see Fe-Ni Mining in 5 years' time?

▶ (BK): Making the proven reserves definite at our present open pit areas, to progress increasingly production activities and achieving of new iron and nickel ore areas throughout Turkey constitute our main goals. Additionally, instead of raw ore, marketing of enriched nickel ores by establishing ore processing plants is our future expectation.

▶ Currently, as you just mentioned there is no nickel enrichment facility in our country. Being one of the few companies in our country engaged in nickel production, what do you think about enrichment of your nickel ore before exporting it?

▶ (BK): Looking at this matter as Turkey' point of view, the concept of marketing of nickel ores after enrichment processes becomes economically important.

▶ What do you think about the general trending of nickel prices and production in the world? Do you have any short term expectations in order to demand of the market and prices?

▶ (BK): According to the 2011 LME's statistical data, average nickel price of 99.80 % purity (minimum) was around 22,000 USD. In recent years, export ratio of nickel ores increased and pure nickel consumption also raised accordingly. In the continuation of increasing demand, it can be expected that the nickel ore prices will remain at these levels or may be a bit higher. Therefore, we save our optimism that there will be no drastic changes of prices in short-terms. ●



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