

The story about the High Grade Hot Maden Gold-Copper Discovery in North Eastern Turkey

On Friday the 16th of November 2012, a small exploration company called Aegean Metals Group opened for trading on the TSX-V. The first trades took place at a share price of \$0.15, giving the company a market capitalization of C\$4.5 million. What the company did not know at the time was that one of the longest mining bear markets ever was just directly ahead.

Aegean was incorporated four years earlier in 2008 and pursued exploration opportunities in Latin America. In 2011 they changed their focus to Turkey and evaluated a number of grassroots opportunities throughout the country. The “Hot Maden Property” was selected in 2012 because of the large > 5 km alteration zone.

The Hot Maden name originates from the Georgian word “Hot” and the Turkish word “Maden”. The northern part of the property was acquired through a government auction for \$246,676, and the southern part from Teck Resources by issuing 1,550,000 Aegean shares, a 1.5% NSR and a number of work commitments.



Location of Hot Maden in Turkey

Aegean was not the first company with plans to explore Hot Maden. Before the end of the Turkish War of Independence in 1923, Russian interests did small scale mining on the southern part of the property. After modern Turkey was formed, mineral exploration activities were carried out by the Turkish Geological Survey. At Hot Maden samples were collected from surface and also retrieved from old Russian galleries. In the 1970's this was followed up by geophysics and IP surveys, but the anomalies were difficult to interpret.

The first major mining company who saw potential for the property was Anglo American. Anglo drilled 6 widely spaced drill holes in the early 1990's looking for a porphyry system, but never disclosed the results. There are some rumors that one of those drill holes intersected good grades, but it did not point to a porphyry system and Anglo abandoned the property. Teck picked the property up in the mid 2000's, but only completed limited rock chip sampling and did not return. Finally, Aegean knocked on the door.

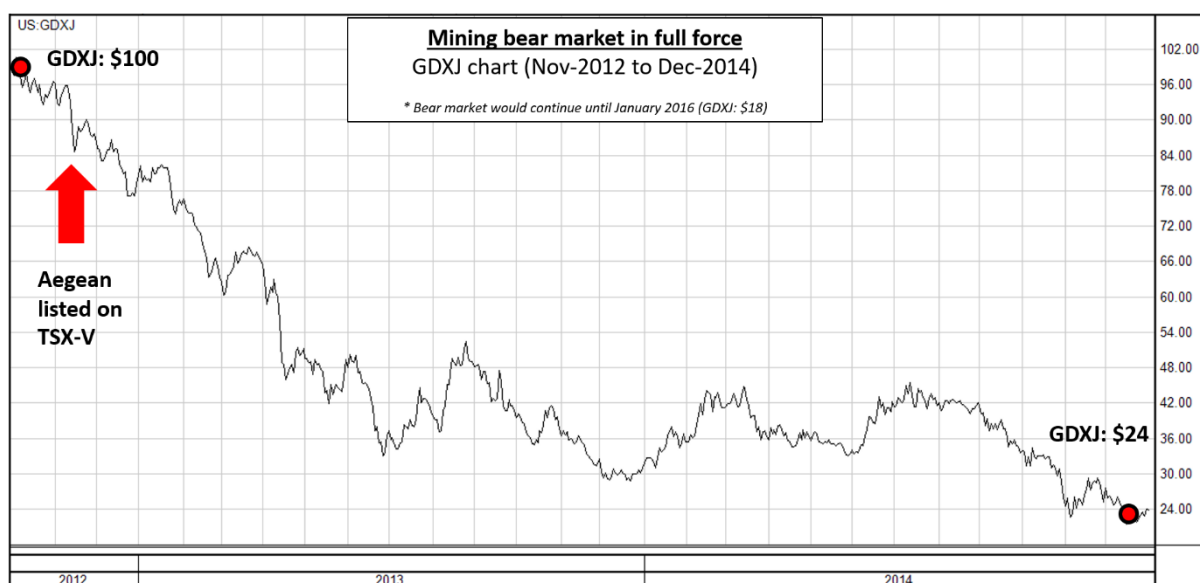
After Aegean completed the acquisitions and TSX-V listing in 2012, first surface rock sampling results were reported, including 1.74 g/t over 90 meters. The rock samples were taken from separate road

cuts 400 meters apart along strike and within stringer-zone-type mineralization in mesozoic volcanic and volcanoclastic rocks. Tom Henriksen (VP Exploration at the time of this news) commented:

"The gold mineralization at the Hot prospect represents a new chapter in the history of the old Hot Maden copper district in northeast Turkey. The nearby Murgul mine and high-grade Cerattepe deposit, both principally VMS/stringer-zone copper deposits, show the potential for a significant VMS discovery at Hot."

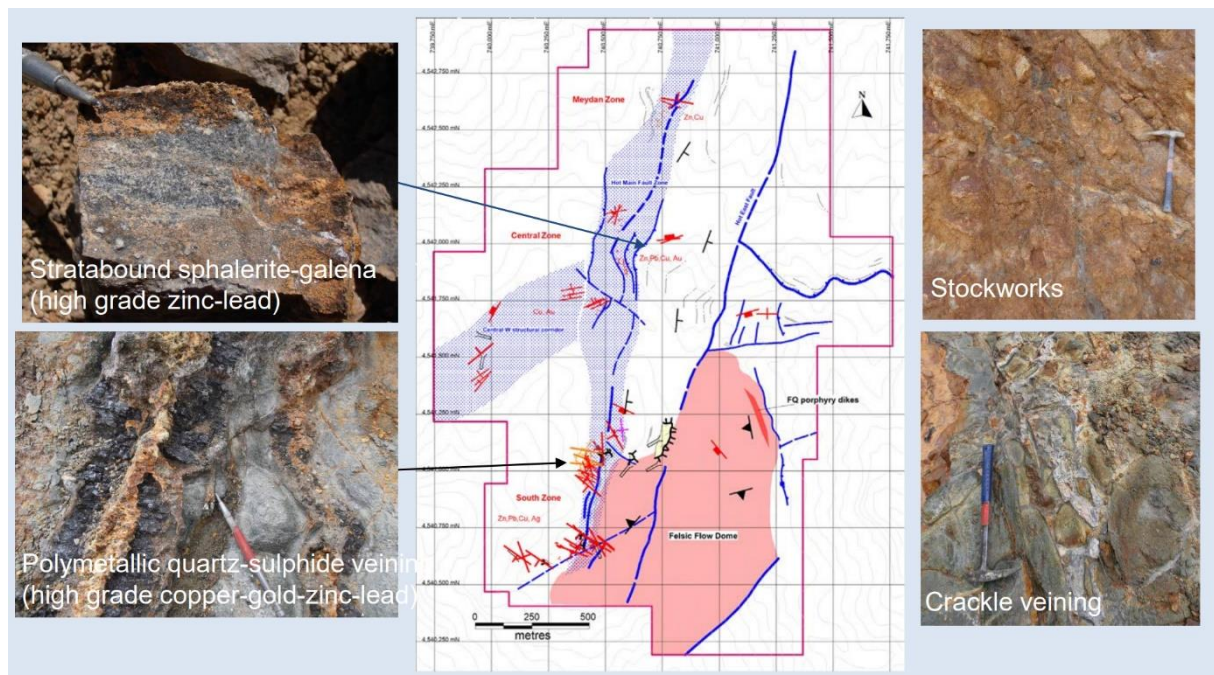
After this positive news it took four months before Aegean reported its next steps. In March 2013 Eric Roth was appointed as President and CEO of the company. Roth was involved in 4 greenfield discoveries as Project Manager and Head of Greenfields Exploration for AngloGold, adding over 20 million inferred ounces of gold (La Colosa, Gramalote, Tropicana, and Mongwalu). After his time at AngloGold, Roth was the CEO of Extorre Gold Mines between 2010 - 2012. Under his lead Extorre made the Cerro Moro discovery in 2010 and ultimately sold it to Yamana in 2012 for \$395 million.

With Roth on-board as CEO, Aegean announced a \$1.5 million private placement at a price of \$0.15 per unit. But investors were not looking for exploration stories in 2013. They were running to the exits instead. Commodities fell across the board, and gold had its worst period since 1983. In June, Aegean informed the market that the private placement would be decreased to \$0.62 million and the price per unit was lowered to \$0.10. It took another two months to close this private placement.



Mining equities bear market

In March of 2014 Aegean announced an earn-in joint venture partner for Hot Maden: Lidya Madencilik, a Turkish mining company. To obtain a 70% interest in the property, Lidya had to incur US\$ 3 million of combined exploration expenditures and cash payments. The deal was closed in July of 2014, and field work started a couple of weeks later with geological mapping and rock chip channel sampling.

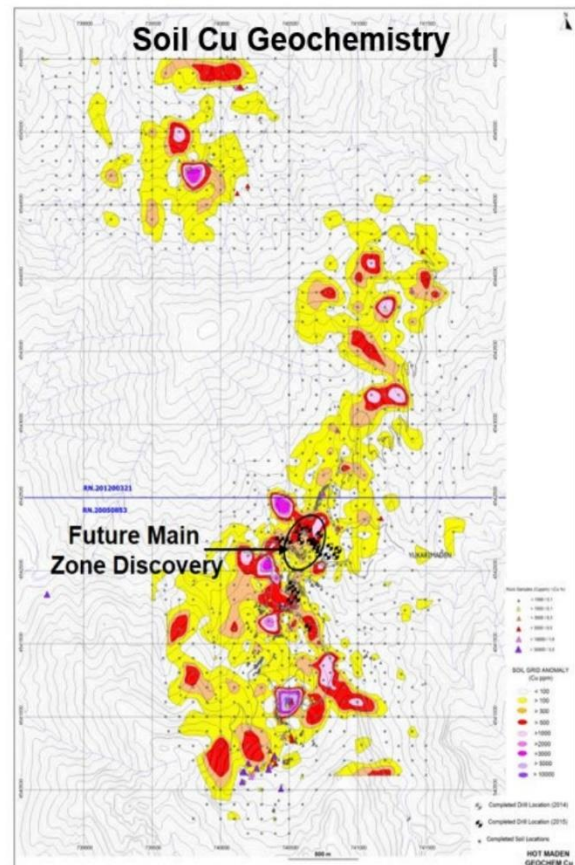
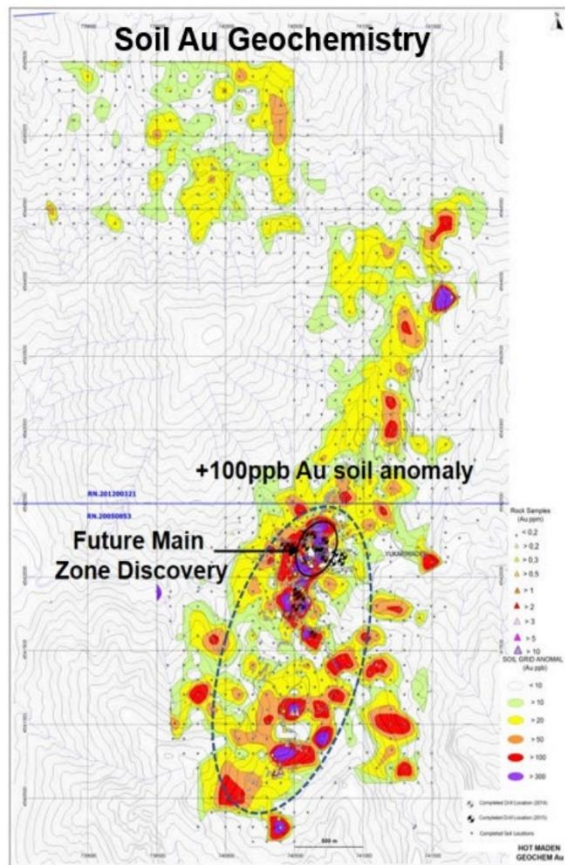


Surface mineralization at Hot Maden

Then in September 2014 a takeover was announced, London listed Mariana Resources entered into a friendly transaction with Aegean to combine their exploration activities. With the Aegean market cap at \$3 million dollar, it was still very difficult to finance exploration work. Mariana was a prospect generator with a market capitalization of £12.9m (~C\$23m). The combined company would be better suited to finance exploration work and find synergies in their South American projects. Aegean received 1.902 Mariana shares for every Aegean share, a takeover value of approximately C\$2.5 million considering the early November shares prices.

While both companies were working on closing the deal, Aegean's partner Lidya started a 1,500 meter drill program in December 2014. Detailed geochemical sampling completed by Aegean and Lidya over the central portion of Hot Maden has resulted in the delineation of strong anomalies of gold, copper, zinc and lead associated with the Hot Maden alteration/mineralization corridor.

Eric Roth remarks, "To have Lidya as a local partner was very important. They worked according to international standards and allowed us to drill the project in a very difficult market. Lidya was not really interested in doing geophysics. They preferred to use geochemistry which was key in designing the drill program"



Soil geochemistry at Hot Maden

Then, two weeks after closing the takeover by Mariana and delisting Aegean, the first drill results were announced on February 2, 2015:

103 meters @ 9.0 g/t Gold and 2.2% Copper

Initially there was skepticism in the market. UK based investors had some bad recent experiences with Turkish exploration projects. Additionally, the mining equities were still in distress, and the more exploration focused North American investors had difficulties buying on the London AIM market. Therefore, the share price did not significantly rise as would be expected after such news. The share price initially moved from £0.011 to an intraday high of £0.0145 a week later.

Eric Roth states, "The core of the discovery hole was fantastic . We knew we had something. It looked like massive sulphides, but then in hole 5 we found brecciation. Therefore we did not understand what exactly we found initially."

He adds, "Steve Todoruk from Sprott USA is known for buying into significant discoveries. He and Brent Cook from Exploration Insights were the first North American investors onsite."

On February 12, Mariana announced the drill results of a scissor hole 100 meters south-east of the discovery hole:

84m @ 20.4 g/t Gold and 1.94% Copper

This resulted in a share price move towards of £0.020 on the day of the announcement, and an intraday high of £0.029 on the day after. But then the share price came back down to £0.016,

followed by an announcement that Mariana closed a £1.8 million capital raise at £0.016 (pre money valuation of £8.8m) with Sprott USA to become a 7.5% shareholder.



Hot Maden project – View looking North

Events following closing of the closing of the capital raise until a year after the discovery hole:

April 22, 2015:	Phase II Drilling at the Hot Maden has Commenced
May 7, 2015:	Positive Preliminary Metallurgical Results
June 8, 2015:	Confirm Continuity and Extension (100m @ 5.6 g/t Au and 1.3% Cu)
June 23, 2015:	Further continuous high grade (109.9m @ 11.9 g/t Au and 1.13% Cu)
July 27, 2015:	Gold copper zone expands (117.3m @ 13.9 g/t Au and 2.0% Cu)
August 18, 2015:	Maiden Resource Estimate 3.0 million ounces @ 11.2 g/t
September 1, 2015:	Mineralization outside of resource (108.2m @ 3 g/t Au and 1.3% Cu)
October 6, 2015:	New discovery 250m South (25.2m @ 7.3 g/t Au)
October 21, 2015:	Completion of £1.77m equity raise at unit price of £0.02
November 12, 2015:	2nd new Southern intersection (39m @ 5.8 g/t and 0.7% Cu)
January 26, 2016:	Execution of joint venture agreement with Lidya
February 8, 2016:	Highest grade Au-Cu intercept (71m @ 32.7 g/t Au and 1.9% Cu)

After a year of providing spectacular drill results and a significant maiden resource estimate, the company's share price barely moved. Even after the amazing intercept of 71m of 32.7 g/t Au and 1.9% Cu every investor could have bought this discovery in the market for £0.0165 per share, which translated into a market cap of approximately £15 million (~C\$28m). But things changed when the markets improved in 2016, along with Mariana obtaining a dual listing on the TSX-V, and receiving a strategic investment from Sandstorm Gold.



Hot Maden Project - 2016 Main Zone Drilling

HTD-77 132.5m (70.5 g/t Au + 11.0% Cu)



HTD-77 146m (28.2 g/t Au + 6.7% Cu)



HTD-72 206.6m (15.9 g/t Au + 2.2% Cu)



HTD-70 231m (9.8 g/t Au + 0.8% Cu)

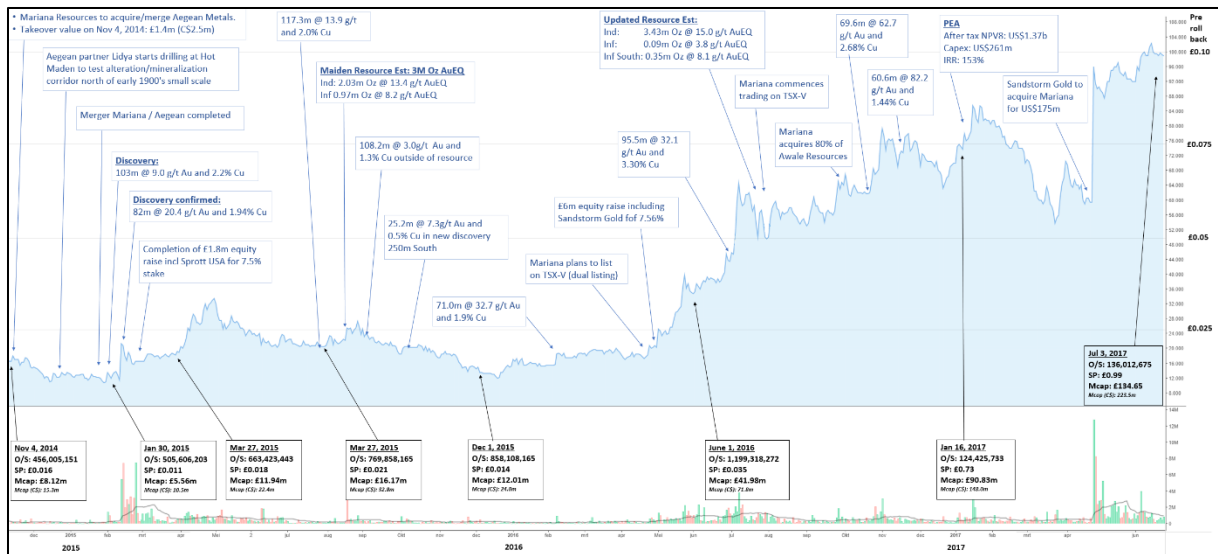


April 19, 2016:	Mariana to Pursue Dual Listing on the TSX Venture Exchange
April 26, 2016:	Placement Including Cornerstone Investment by Strategic Investor
May 4, 2016:	Mariana closes £6m PP with Sandstorm Gold
June 27, 2016:	Mariana to initiate PEA
July 1, 2016:	Rollback 1 for 10
July 5, 2016:	Extension and infill drill results (95.5m @ 32.1 g/t Au and 3.3% Cu)
July 6, 2016:	New directors appointed (Lidya and Sandstorm representatives)
July 25, 2016:	New Resource: 3.43 Moz @ 15 g/t Au Ind, 0.35 Moz @ 8.1 g/t Au Inf
July 26, 2016:	Mariana commences trading on the TSX-V
Oct 7, 2016:	Mariana to acquire 80% of Awalé Resources in Côte d'Ivoire
Oct 26, 2016:	Further exceptional results (69.6m @ 62.7 g/t and 2.68% Cu)
Nov 29, 2016:	Mariana starts drilling on its 100% owned Ergama Cu-Au project
Dec 20, 2016:	Further high grade results (60.6m @ 82.2 g/t Au + 1.44% Cu)
Jan 17, 2017:	PEA results (after tax): NPV8:US\$1.37b, IRR 153%, Capex: US\$261m
Mar 23, 2017:	Additional high grade results (79.0m @ 8.1 g/t and 1.9% Cu)

After another year of great drill results, and a PEA giving the project an NPV of US\$1.37 billion, news came out announcing that Sandstorm Gold was acquiring Mariana Resources and its 30% stake in Hot Maden for US\$ 175 million. While initially called Hot Maden, today it is generally referred to as Hod Maden.

With this news the share price moved to its all-time high of £1.04 (0.104 pre-rollback). Today, Hod Maden is a cornerstone asset for royalty company Sandstorm Gold (market cap C\$ 1.59 billion) and expects first production by mid-2024.

While it took Aegean Metals Group and Mariana Resources a couple of years to get to the drill stage in an extremely difficult market for exploration companies, they managed to make a very significant gold-copper discovery with their partner Lidya Madencilik. It proves that tiny exploration companies can create so much value, that multi-billion dollar companies have to take it over.



Three year chart of Mariana Resources with a timeline of events



Site visit Mariana Resources at Hot Maden