

15 March 2021



## Alta Expands Exploration Pipeline into Copper and Manganese Mining Districts

### HIGHLIGHTS

- EL applications have been lodged over two of the most significant copper-rich mining districts in Italy at:
  - Monte Bianco EL (8,200 ha) – situated in the Liguria region of the Northern Apennines and,
  - Corchia EL (3,500 ha) – situated in the Emilia Romagna region.
- Mineralisation at both projects is hosted in copper-rich VMS systems mined up to the early 1970s with historical production grades of ca. 7% Cu at the Libiola mine and ca. 3-5% Cu at the Corchia mine, whilst the Gambetesa mine was Europe's largest manganese producer in the late 1960s.
- Exploration will initially target near mine extensions before extending to step-out prospects.

**Alta Zinc Limited (Alta or the Company) (ASX: AZI)** is pleased to announce that it has lodged applications for two exploration licences (ELs) encompassing two of the most commercially significant copper mining districts in Italy. Examples of outcropping mineralisation at the Monte Bianco EL (Libiola site) are in Figures 1 and 2.



**Figure 1: Outcropping massive sulphide lens (chalcopyrite & malachite)**

Geraint Harris, MD of Alta Zinc commented:

**“Since drilling started at Pian Bracca our Italian team have been very focused on exploration at Gorno which has delivered excellent results. Over the last 12 months, we have also considered ways in which to leverage our position in Italy to build an accretive and complementary metals portfolio. We are very excited by our application for these two new base metals projects that offer strong growth potential and to take advantage of the growing EV metal deficit in Europe. These projects are very complementary, however do not take our focus from Gorno and will add significant value for our shareholders.**

**Both ELs have excellent potential to extend the known deposits laterally and at depth, and our plan is to commence an initial low-impact and efficient program of geophysics and surface sampling once granted.”**

Both licences contain multiple high-grade copper mines that produced a significant portion of Italy’s copper and manganese up to the early 1970s. None of the mines or the ELs have been subjected to modern exploration prior to closure. Significant exploration potential exists to expand existing deposits laterally and at depth, and to discover new deposits as shown by analogous Volcanogenic Massive Sulphide (VMS) deposits mined in recent years. This will initially be through the application of low-cost exploration techniques.

Most of the mines closed between the 1940s and early 1970s at a time when commodity prices were low and exploration was not deemed a priority. They were largely exploited from underground and at relatively shallow depths focussing on the high-grade mineralisation which outcropped at surface. There is nominally from 10m to 100m of sedimentary cover over most of the target areas, which would have presented exploration difficulties for techniques available at the time. However, this presents highly prospective target areas for the modern exploration techniques that Alta will apply. Table 1 lists the representative grades understood to be associated with the old mines contained within the ELs.

**Table 1: Representative compositions of sulphide ore from VMS deposits within the EL application areas<sup>1</sup>**

Deposit	Cu (%)	Au (g/t)	Ag (g/t)	Co (%)
	%	g/t	g/t	%
<b>Corchia EL Application: Outer Liguride Deposits</b>				
Corchia	4.7	1.7	8	0.3
Corchia	0.4		106	0.1
<b>Monte Bianco EL</b>				
Libiola	2.5	0.3	5	
Monte Bardeneto	1.6	0.7	1	0.1
Monte Bianco 1	0.7	0.2	3	
Monte Bianco 2	0.6			
Reppia 1	2.9	0.3	1	0.2
Reppia 2	0.9	0.8	1	
Reppia 3	2.2		1	
Reppia 3	19.8	0.1	4	0.1
Ferriere	8.7	0.1	5	
Vigonzano	1.2		4	
Campegli	3.0		8	
Bocassuolo	1.9		4	
Montecreto	0.4		0	
Loreto	1.6		1	

1. Reproduced from *Volcanogenic Massive Sulphide deposits in the northern Apennines (Italy)*, Garuti et al, 2008.



The mines were typified by their unusually high copper grades, for example within the ELs the average grade mined at Libiola was ca 7% Cu and at the Corchia Mine ca 3-5% Cu. The Monte Bianco EL also contains the old Gambetesa mine which was, at the time, the largest manganese mine in Europe and operated from 1939 to 1971, with mined grades of 28-30% Mn to produce around 50,000t of manganese metal per annum.

The ELs are located close to existing infrastructure (roads, centres of population, water and power) and within easy logistical reach of the hub port of Genoa. The EL application areas and the location of the old mines are shown in Figures 3 and 4. The ELs offer year-round exploration access over an extensive historical mining footprint in gently undulating relief below 1,000m level.

Hosted within ophiolite country rocks the mineralisation in the VMS systems consists largely of chalcopyrite with associated oxidised copper species, sphalerite, cobalt and gold. This suite of metals is completely aligned to Alta's strategy of becoming an Italian focused base and battery metals explorer and producer, with the location of these ELs relative to our existing projects and port of Genoa offering tremendous logistical advantages.

VMS deposits are one of the most researched deposit classes, and with their potential to form clusters of closely spaced deposits and their polymetallic ore, can be explored and brought into production with a relatively modest capital cost compared to larger but typically lower grade porphyry systems. Analogous mafic hosted VMS deposits occur in Cyprus (Troodos), Oman (Semail) and Turkey (Ergani) which have extensive zones or lenses of massive, semi-massive and disseminated sulphide mineralisation. The Cyprus deposit, for example, produced more than 1.3 million tonnes of Cu metal over its life from ore grading at 4.5% Cu average. These deposits also contain Se, Co and Ni.



**Figure 2: Example of stockwork mineralisation (chalcopyrite)**

It is expected that the Monte Bianco and Corchia licences will become important projects in Alta's pipeline of Italian opportunities. In advance of the granting of the ELs, Alta will now undertake desktop reviews of the extensive historical records which will provide the basis for an initial low-cost surface sampling, geophysics and remote hyperspectral sensing exploration programme. The large amount of information available will permit the initial exploration budget to be modest in relation to the Company's overall planned exploration expenditure.

Alta's key focus for exploration expenditure remains the flagship Gorno Zinc Project, where drilling is currently continuing in the priority target zones of Pian Bracca and Ponente.

Authorised for ASX release by the Alta Zinc Board.

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### **Competent Person Statement**

Information in this release that relates to Exploration Results is based on information prepared or reviewed by Dr Marcello de Angelis, a Competent Person who is a Fellow of the Australasian Institute of Mining and Metallurgy (AusIMM). Dr de Angelis is a Director of Energia Minerals (Italia) Srl and Strategic Minerals Italia Srl (controlled entities of Alta Zinc Limited) and a consultant of Alta Zinc Limited. Dr de Angelis has sufficient experience which is relevant to the styles of mineralisation and types of deposits under consideration and to the activities being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Dr de Angelis consents to the inclusion in this release of the matters based on their information in the form and context in which it appears.

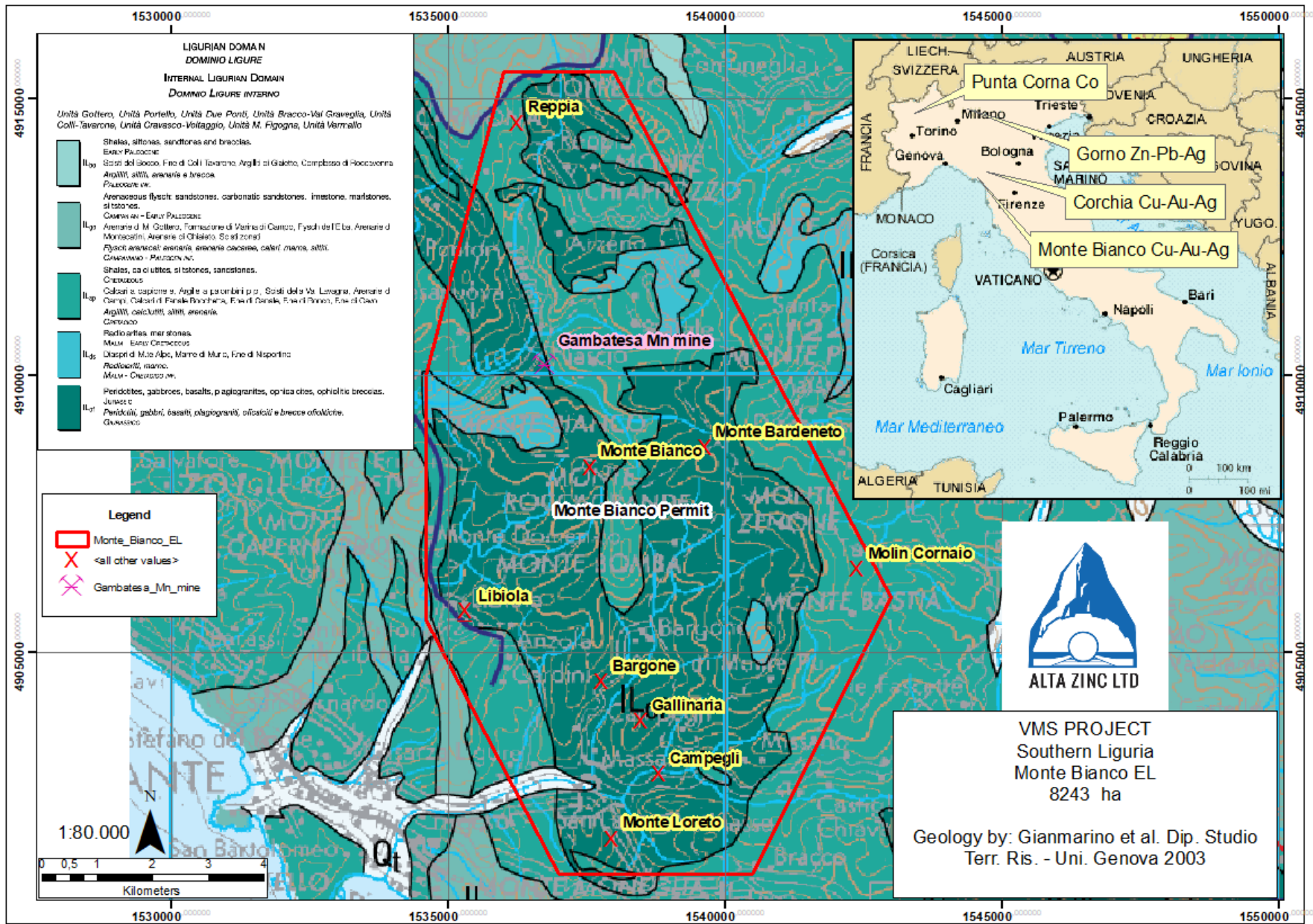


Figure 3: Monte Bianco EL Application Area & Old Mines



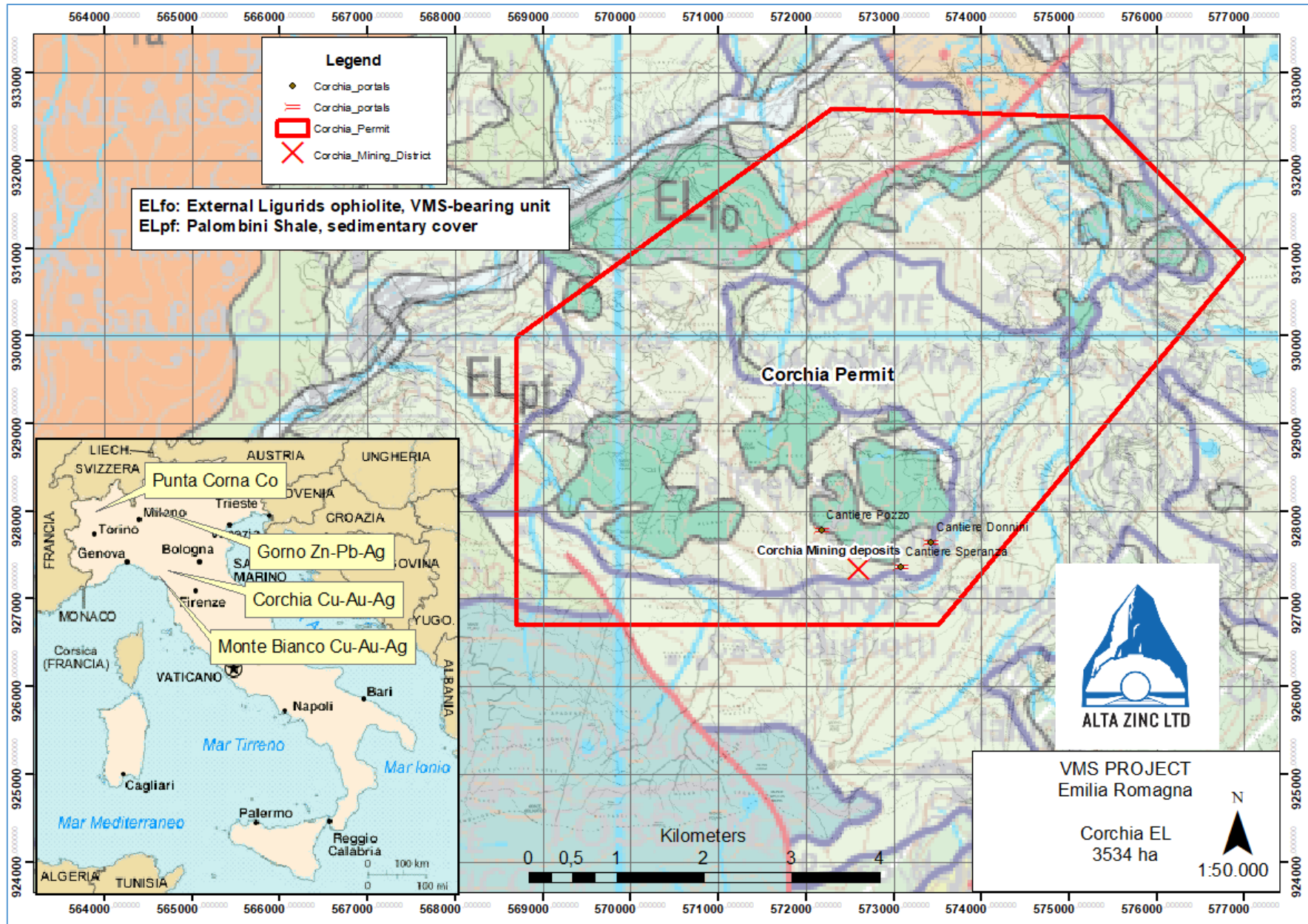


Figure 4: Corchia EL Application Area & Old Mines