# Building a Strategic Position in the **Fluorspar Sector**

# **Tertiary Minerals plc**

#### **AIM Announcement**

16 February 2016

TERTIARY MINERALS PLC ("Tertiary" or "the Company")

**MB Fluorspar Project Update** 

Completion and Results for Phase 4 Drilling

Tertiary Minerals plc, the AIM traded company building a strategic position in the fluorspar sector, is pleased to announce completion and receipt of analytical results from the Phase 4 drilling programme at its MB fluorspar project in Nevada, USA.

#### **HIGHLIGHTS:**

- Phase 4 drilling programme completed 4 holes for a total of 1,553 metres drilled
- Thick intersections of fluorspar mineralisation encountered in step-out drilling remains open at depth and along strike
- ► Hole 15TMBRC036 located west of the Western Area:
  - ➤ 89.91m grading 12.02% CaF<sub>2</sub> from 120.40m depth (total of 8 significant<sup>(1)</sup> fluorspar intersections)
  - Including 31.99m grading 16.74% CaF<sub>2</sub> from 150.88m (total of 6 higher grade<sup>(2)</sup> intersections above 15% CaF<sub>2</sub>)
- ► Hole 15TMBRC038 located to the north of the Western Area:
  - > 22.86m grading 11.47% CaF<sub>2</sub> from 74.68m depth
- **→ Hole 15TMBRC039 located to the north of the Western Area:** 
  - ➤ 137.16m grading 11.54% CaF2 from 53.34m depth (total of 16 significant fluorspar intersections)
  - Including 32.00m grading 15.81% CaF2 from 185.93m (total of 5 higher grade intersections above 15% CaF2)
- Ore-grade molybdenum (Mo) encountered in the base of hole 15TMBRC036 provides future exploration target

Commenting today, Managing Director, Richard Clemmey said: "Results from the Phase 4 drilling programme continue to grow the known size of the MB deposit, proving both lateral and depth extension of significant fluorspar mineralisation in the Western Area which still remain open in all directions. We now look forward to incorporating these results into our economic evaluation of the project and progressing with the next phases of development this year".

An updated map showing the location of the completed Phase 4 drill holes is available on the Company's website:

http://www.tertiaryminerals.com/projects/fluorspar-projects/mb-fluorspar-nevada-usa

More detailed information and a complete tabulation of significant drilling results for drill holes 15TMBRC036 to 15TMBRC039 are given below. Reported thicknesses are believed to be approximate true thicknesses based on flat-lying mineralisation.

#### **ENQUIRIES**

Tertiary Minerals plc Patrick Cheetham, Executive Chairman Richard Clemmey, Managing Director	Tel: +44 (0)845 868 4580
S P Angel Corporate Finance LLP Nominated Adviser & Joint Broker Ewan Leggat / Tercel Moore	Tel: +44 (0)203 470 0470
Beaufort Securities Limited Joint Broker Jon Belliss / Elliot Hance	Tel: +44 (0)207 382 8300
Yellow Jersey PR Limited Dominic Barretto / Aidan Stanley	Tel: +44 (0)7768 537 739

#### **Detailed Information**

#### **Project Background**

The MB Project claims are located in an area of good infrastructure 19km southwest of the County town of Eureka in central Nevada, USA. Nevada is long recognised as one of the most attractive mining jurisdictions in the world.

Since acquiring the project in late 2012, the Company has reached a number of important Mineral Resource definition milestones. Full details of the results from Phase 1, 2 and 3 drilling have been reported previously by the Company and resulted in the following maiden JORC<sup>(3)</sup> (2012 Edition) Mineral Resource Estimate and subsequent upgrade:

- Maiden JORC<sup>(3)</sup> Mineral Resource Estimate: 38.4 million tonnes grading 10.4% CaF<sub>2</sub>

   April 2014
- Upgraded JORC<sup>(3)</sup> Mineral Resource Estimate: 86.4 million tonnes grading 10.7%
   CaF<sub>2</sub> June 2015

Fluorspar mineralisation at the MB Project occurs over a vertical interval of at least 300m in Ordovician age Pogonip Limestone beneath a cap rock of Eureka Quartzite. It is associated with extensive skarn-type alternation of the host limestone. The footprint of the currently defined Mineral Resource is over one square kilometre (290 acres).

#### **Geophysical Survey and Phase 4 Drilling**

Following the completion of the JORC<sup>(3)</sup> (2012 Edition) Mineral Resource Estimate in June 2015 the Company completed a 166 line-km ground magnetic survey in order to gain an improved geological understanding of the fluorspar deposit and its geological controls. Subsequently, the Phase 4 drill programme was carried out during December 2015 and January 2016 and consisted of 4 holes totalling 1,553 metres.

The programme was successful in achieving its key objective to extend the lateral and depth extent of higher grade mineralisation in the newly discovered Western Area.

**Drill Hole 15TMBRC036** is located approximately 190 metres to the west of the existing Mineral Resource boundary in the Western Area and was drilled to a depth of 484 metres. Multiple significant<sup>(1)</sup> and higher grade<sup>(2)</sup> fluorspar intersections encountered in this hole prove the lateral continuation of the fluorspar mineralisation to the west of the existing Mineral Resource boundary. The hole ends in fluorspar mineralisation grading 11.82% CaF<sub>2</sub> and mineralisation is open at depth.

**Drill Hole 15TMBRC037** is a step out hole located approximately 425 metres northwest of the existing Mineral Resource boundary of the Western Area and was drilled to a depth of 200 metres. The hole was drilled to test the northern extent of the fluorspar mineralisation in the Western Area but was terminated due to a change in lithology from limestone to barren granite. Further work is required to understand the nature of this granite intrusive in relation to the fluorspar mineralisation. It has been observed in historic drilling data that granite was encountered 366m southeast of this hole and acted as a cap to the fluorspar mineralisation which occurred at the lower contact of the granite and the host limestone. In hole 15TMBRC037 fluorspar mineralisation was limited to 4 individual 1.52 metre intersections above 9% fluorspar (CaF<sub>2</sub>) in the limestone above the granite.

**Drill Hole 15TMBRC038** is located approximately 90 metres north from the existing Mineral Resource boundary of the Western Area and was drilled to a depth of 346 metres. A single, thick significant<sup>(1)</sup> fluorspar intersection was encountered in this hole which proves the continuation of the fluorspar mineralisation to the north of the existing Mineral Resource boundary.

**Drill Hole 15TMBRC039** is located approximately 240m southeast of the deep step out hole 14TMBRC027 drilled in the Phase 3 programme, and was drilled to a depth of 523m. The hole was drilled to test the continuation of fluorspar mineralisation in the southern part of the Western Area. Multiple significant<sup>(1)</sup> and higher grade<sup>(2)</sup> fluorspar intersections encountered in this hole demonstrate the lateral continuation of the fluorspar mineralisation in the southern part of the Western Area.

#### **Future Exploration Target**

The fluorine endowment of the MB Project Area is extraordinary. Low grade fluorspar mineralisation is widespread outside of the higher grade intervals that are reported by the Company. For example, the entire thickness of the limestone intersected in hole 15TMBRC036, from beneath the quartzite cap rock to the base of hole, is mineralised to a greater or lesser degree and reports **334m grading nearly 6% fluorspar**. Other holes are similarly mineralised.

Large volumes of fluorine, though rarely on this scale, are most commonly associated the Climax-type porphyry molybdenum (copper) mineral deposits where fluorine tends to form a halo above and around the molybdenum (copper) mineralisation.

Two results of special interest from the Phase 4 drill programme therefore were an intersection of potentially ore-grade molybdenum (Mo), 6.10 metres grading 0.14% MoS<sub>2</sub>, encountered at the base of hole 15TMBRC036 and an intersection of copper (Cu), 1.52 metres grading 0.11% Cu, at the base of the hole 16TMBRC38.

The Company believes that the newly intersected molybdenum and copper mineralisation may point to an underlying porphyry molybdenum-copper deposit and an exciting target for future exploration.

#### The Next Step

Following further evaluation of Phase 4 drilling results the priority for the Company is to move onto the next phases of development for the MB Project in 2016, including:

- Metallurgical testwork
- Economic modelling
- Scoping Study
- Mine Permit planning

#### Foot Notes

- 1. Significant fluorspar (CaF<sub>2</sub>) mineralisation is defined by the Company as a minimum three metre drill intersection above 9% fluorspar (CaF<sub>2</sub>) cut-off and containing a maximum three metre drill intersection below 9% fluorspar (CaF<sub>2</sub>) cut-off. This cut off is currently applied for reporting of the drill results from MB project as this is the cut-off used for the most recent Mineral Resource estimate. However, in the context of reporting drill results it does not imply an economic cut off. An economic cut-off will depend on many factors and will not be determined until feasibility studies, if warranted, are carried out.
- 2. Mineralisation having a weighted average grade of composite sample intervals greater than 15% CaF2.
- JORC is the Australian Code for the reporting of exploration results, Mineral Resources and Ore Reserves
  prepared by the Joint Ores Reserves Committee (JORC) of the Australasian Institute of Mining and
  Metallurgy, Australian Institute of Geoscientists and the Minerals Council of Australia.
- 4. The information in this release has been compiled and reviewed by Mr. Richard Clemmey (BSc, CEng, MIQ, MIMMM, ARSM) who is a qualified person for the purposes of the AIM Note for Mining and Oil & Gas Companies dated June 2009. Mr Clemmey is a Chartered Engineer and a Member of the Institute of Materials, Minerals & Mining.
- Cautionary Note: Traditional analytical methods measure fluorine content and the reported fluorite (CaF<sub>2</sub>, fluorspar) contents are calculated on the assumption that all fluorine is present as fluorite. However small amounts of fluorine can occur in mica and other minerals commonly present in skarn mineralised systems.
- 6. Fluorine analysis Samples from all holes were submitted to Bureau Veritas Minerals Pty Ltd in Australia (ISO-17025 accredited) for analysis. All samples were analysed for fluorine using the fused bead X-ray fluorescence (XRF) method. The samples submitted included various known standards, blanks and field duplicates as a further QA/QC check on the results. The QA/QC checks on the results being reported today are all within acceptable limits and therefore the Company is able to release the data.

#### **Notes to Editors**

Tertiary Minerals plc (ticker symbol 'TYM') is an AIM-quoted mineral exploration and development company building a significant strategic position in the fluorspar sector. Fluorspar is an essential raw material in the chemical, steel and aluminium industries. Tertiary controls two significant Scandinavian projects (Storuman in Sweden and Lassedalen in Norway) and a large deposit of strategic significance in Nevada USA (MB Project).

### Table of Significant<sup>(1)</sup> Drilling Results from Holes 15TMBRC036 to 15TMBRC039

Drill Hole Number	Down Hole Thickness (m)	Grade Fluorspar CaF2%	From (m)	To (m)
15TMBRC036	19.81	9.56	120.40	140.21
15TMBRC036	9.14	12.79	150.88	160.02
15TMBRC036	6.10	13.23	202.69	208.79
15TMBRC036	3.05	15.36	259.08	262.13
15TMBRC036	3.05	11.82	307.85	310.90
15TMBRC036	4.57	9.11	320.04	324.61
15TMBRC036	32.00	12.78	387.10	419.10
15TMBRC036	12.19	13.14	432.82	445.01
15TMBRC038	22.86	11.47	74.68	97.54
15TMBRC039	9.14	10.31	53.34	62.48
15TMBRC039	4.57	10.48	74.68	79.25
15TMBRC039	15.24	10.32	92.96	108.20
15TMBRC039	10.67	10.64	126.49	137.16
15TMBRC039	3.05	13.77	176.78	179.83
15TMBRC039	6.09	16.49	185.93	192.02
15TMBRC039	3.05	10.33	205.74	208.79
15TMBRC039	35.05	12.26	224.03	259.08
15TMBRC039	16.76	12.68	277.37	294.13
15TMBRC039	3.05	11.46	297.18	300.23
15TMBRC039	9.14	9.23	303.28	312.42
15TMBRC039	7.62	11.08	342.90	350.52
15TMBRC039	4.58	12.98	352.04	356.62
15TMBRC039	3.05	10.69	367.28	370.33
15TMBRC039	3.05	9.76	379.48	382.52
15TMBRC039	3.05	9.40	458.72	461.77

# Table of Higher Grade Intervals (>15% CaF<sub>2</sub>)<sup>(2)</sup>

Drill Hole	Down Hole Thickness	Grade Fluorspar	From	
Number	(m)	CaF2%	(m)	To (m)
15TMBRC036	3.05	17.01	150.88	153.92
15TMBRC036	3.05	17.78	156.97	160.02
15TMBRC036	3.05	16.29	202.69	205.74
15TMBRC036	3.05	15.36	259.08	262.13
15TMBRC036	16.76	16.81	387.10	403.86
15TMBRC036	3.04	16.85	432.82	435.86
15TMBRC039	6.09	16.49	185.93	192.02
15TMBRC039	4.57	15.45	225.55	230.12
15TMBRC039	7.62	15.86	251.46	259.08
15TMBRC039	10.67	15.25	277.37	288.04
15TMBRC039	3.05	16.80	353.57	356.62