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FSG: AC: 7203/DELNP/2012

THE CONTROLLER OF PATENTS THE PATENT OFFICE DELHI

August 30, 2021

Attention: Mr. Ashfaque Ahmad Assistant Controller of Patents & Designs

Written Submissions pursuant to formal hearing held on August 16, 2021

Dear Sir,

re. WEIR MINERALS AUSTRALIA LTD. Indian [National Phase] Patent Application No. 7203/DELNP/2012 Filed: August 17, 2012 Out of international Appin. No. PCT/AU2011/000092 dated February 01, 2011 Priority dates: February 05, 2010- Australian Application No. 2010900457 October 01, 2010- Australian Application No. 2010904416

This is with reference to the formal hearing held on August 16, 2021, and the objections conveyed through the official communication dated July 12, 2021.

As agreed at the hearing, the claims of the instant application have been revised. The revisions made to the claims can be summarized as follows:

• Claim 1 has been amended by narrowing down the range of the volume % of the refractory material in the hard metal material from 5-50 volume % to greater than 10 to 50 volume %.

Claim 1 has been amended by specifying that the refractory material <u>consists of</u> (instead of comprises which was present previously) a <u>component (b)</u> which is "*particles of a chemical mixture of carbides and/or nitrides and/or borides of any two or more of titanium, zirconium, hafnium, vanadium, niobium, tantalum, chromium, molybdenum, and tungsten.*"

Support for component (b) can be found in a number of passages in the PCT specification, including on page 5, lines 1-8 which reads as follows: "The particles of the refractory material may be carbides and/or borides and/or nitrides of more than one transition metal where the particles are a chemical mixture (as opposed to a physical mixture) of the carbides and/or borides

and/or nitrides of the transition metals. In other words, in the case of carbides, the particles of the refractory material may be of the type described as (M1,M2) C, where "M" is a transition metal. One example that is discussed further herein in (Nb,Ti)C."

Claim 1 has been further amended by specifying that "*the particles are insoluble in the host metal at its casting temperature*." Support for this feature can be found in a number of passages in the PCT specification, including on page 3, lines 17-31. This passage includes a definition of "insoluble".

Claim 1 has also been amended by incorporating the subject matter of pending claim 11 therein and thereby specifying that *"the host metal comprises a ferrous alloy (such as a steel, a cast iron), a stainless steel, an austenitic-manganese steel or an iron-based or a nickel-based or a cobalt-based superalloy.*

Support for this feature can be found in a number of passages in the PCT specification, including on page 5, lines 25-28 which reads as follows "The host metal may be a ferrous alloy (such as a steel or a cast iron), a stainless steel, an austenitic-manganese steel such as a Hadfield steel, or a iron-based or nickel-based or cobalt-based superalloy."

- Claim 2 remains unchanged;
- Claims 3 to 7 have been deleted;
- Claim 8 has been amended and re-numbered as claim 3 by incorporating the subject matter of pending claims 9 and 10 therein;
- Claims 9 and 10 have been deleted;
- Claims 11 and 12 have been deleted;
- Claim 13 has been amended and re-numbered as claim 4. The amendments to re-numbered claim 4 are in line with the amendments carried out in amended claim 1.
- Claim 14 has been re-numbered as claim 5;
- Claim 15 has been deleted;
- Claim 17 has been amended and re-numbered as claim 6 by incorporating the subject matter of claim 18 therein;
- Claim 18 has been deleted;
- Claims 19, 20 and 21 have been merged together as claim 7.

The dependencies have been changed accordingly.

This has necessitated retyping pages 27 to 28 of the specification which are submitted herewith along with a marked up copy of the revised claims showing the amendments made therein.

Revised claims 1-7 are therefore submitted herewith.

The objections raised by the Learned Controller in the above-mentioned official communication are responded to herein below:

Objection 1: Clarity and conciseness-

<u>As discussed and agreed upon at the hearing</u>, it is respectfully submitted that the revised claim 1, has been drafted in a two-part format with all the essential technical features that are critical in achieving the desired objective of the present invention being present in a "*characterized in that*" clause.

Therefore, the inventive features have been characterized in the revised claim 1 by incorporating all the essential, novel and inventive features therein, as called for, by the Learned Controller.

Accordingly, reconsideration and waiver of this objection is respectfully requested.

Objection 2: Formal Requirement-

1. <u>As discussed and agreed upon at the hearing</u>, we are respectfully submitting herewith a Petition under Rule 137 and the prescribed fee for regularizing the irregularity in filing the proof of right document out of the stiplulated time.

Accordingly, reconsideration and waiver of this objection is respectfully requested.

2. <u>As discussed and agreed upon at the hearing</u>, it is respectfully submitted that no extra official fee for pages or claims is required to be paid.

We provide herein below the relevant calculations for the convenience of the Learned Controller.

The instant national phase application was filed in India on August 17, 2012 with 34 pages, 30 claims and two priority dates.

Therefore, the calculation of the official fee as applicable in 2012 was as follows:

Official filing fee = **Rs. 4000/-**

Fee for one extra priority application = **Rs. 4000/-**

Official filing fee for 4 extra pages in excess of 30= Rs. 4 x 400/- = Rs. 1600/-

Official filing fee for 20 extra claims in excess of 10= Rs. 20 x 800/- = Rs. 16000/-

Therefore, the <u>total official fees</u> which were payable were: Rs. 4000/- + Rs. 4000/- + Rs. 1600/- + Rs. 16000/- = **Rs. 25,600/-**

It is respectfully submitted that the said amount of **Rs. 25, 600/-** has already been paid to the Indian Patent Office at the time of national phase entry into India as indicated on Form 1, as filed.

Accordingly, reconsideration and waiver of this objection is respectfully requested.

Objection 3: Lack of Inventive step-

The Controller has cited the following documents against the subject matter of claims of the present invention on the alleged ground of lack of inventive step under Section 2(1)(ja) of the Patents Act, 1970:

D1: WO9411541 A1;
D2: JPS60169515 A;
D3: US6013141 A;
D4: US5030519 A;
D5: DE4419996 A1; and
D6: US20040060742 A1

In this regard, it is respectfully submitted that the claims of the present invention have been revised as shown in the marked-up copy submitted herewith.

Revised claim 1 of the present invention is directed to:

"A hard metal material in the form of a casting comprising greater than 10 and up to 50 volume % particles of a refractory material with particle sizes less than 500 microns dispersed in a host metal,

characterized in that: the refractory material consists of

(a) particles of carbides and/or nitrides and/or borides of one of zirconium, hafnium, vanadium, niobium, tantalum, chromium, and molybdenum; and/or

(b) particles of a chemical mixture of carbides and/or nitrides and/or borides of any two or more of titanium, zirconium, hafnium, vanadium, niobium, tantalum, chromium, molybdenum, and tungsten,

and wherein the particles are insoluble in the host metal at its casting temperature and the host metal comprises a ferrous alloy (such as a steel, a cast iron), a stainless steel, an austenitic-manganese steel) or an iron-based or a nickel-based or a cobalt-based superalloy." <u>As discussed and agreed upon at the hearing</u>, we provide hereunder our comments for overcoming the objections in view of the cited document D1 to D6.

D1 only discusses the addition of titanium carbide and tungsten carbide, wherein the carbides are coated with iron or an iron alloy with the objective of improving wettability of the powder. Revised claim 1 of the present invention does not include the feature of coating the particles with iron or an iron alloy. The coating is intended to alter the manner in which the particles interact with the refractory material by improving their wettability. Improving the wettability of the particles in D1 would therefore be understood by the skilled person to be an important feature of its disclosure.

In example 1 of D1 the metal produced is described as comprising a "*duplex nature of the carbides with a dark core suggests the outer part of the carbide is W rich and the inner Ti rich*". A skilled person would understand from this that the carbides of D1 are <u>not</u> chemically uniform or in a single phase and therefore would not understand them to be a chemical mixture of the type required by component (b) of revised claim 1 of the present invention. <u>A chemical mixture would be understood</u> by the skilled person to be a generally uniform mixture.

Solubility of refractory particles has an important impact on the present invention. Claim 1 of the present invention requires that the refractory particles be insoluble in the host material at the casting temperature. This is a key feature of the invention which results in a key separation of the host metal and the refractory particles in each phase, so as to optimize properties of the resulting material for wear resistant applications. A skilled person would understand that insoluble does not include partially soluble.

In D1 the focus is on improving the wettability of the carbides by adding a coating to help address the high carbide solubility difficulties experienced in D1. Example 1 of D1 show that after the carbide coating treatment, 10% powdered carbides were added but that a subsequent chemical analysis of the product showed that only about 5% of the added carbide was recovered giving 5% of the carbide. Therefore, it will be clear to a skilled person that the carbides in D1 are <u>not</u> insoluble and as a result the addition of 10% only results in a product with 5% carbide remaining (that is, 50% of the added carbide). In the present invention, because of the requirement that the carbides are insoluble at the casting temperature, a casting yield of 98% or more is achieved. Therefore the feature of the carbide particles being insoluble at the casting temperature is a clear point of novelty over D1.

The volume of the refractory particles in revised claim 1 of the present invention is important. Revised claim 1 requires 10-50 volume% particles in the refractory

material. In contrast, D1 "seeks" an alloy carbide content in the range 0.01% to 20% by volume and preferably in the range 3-10%. This is therefore a desideratum established by D1. However, as discussed above, only around 5% of refractory particles is in fact achieved using the disclosure of D1. A skilled person is therefore taught by D1 to add 10% of refractory particles in order to produce a product including 5% refractory particles. So although D1 describes 0.01-20% as a desideratum it fails to disclose this range being achieved in the end product and a skilled person would understand from the ranges disclosed that adding 20% carbide would therefore result in around 10% realized carbide. The solubility issues of D1 therefore teach that a maximum of 10% carbide particles can be achieved if 20% are added (by extrapolation form the 10%/5% example1). Thus the ranges required by claim 1 are not achieved by D1.

It is clear from the above that the present invention as claimed in revised claim 1 differs from the disclosure of D1 by both percentage of carbide particles in the material and by the fact that the particles are insoluble in the host material, thereby making the claim novel.

As far as inventive step is concerned, the present invention addresses the technical problem of how to provide metal materials with improved wear resistance. This is solved by the claimed invention by providing refractory particles at 10-40% by volume which are insoluble in the host material. A skilled person presented with the disclosure of D1 would not be led towards the concept of using particles which are insoluble in the host material, or of producing material with the claimed volume range of particles of the present invention in revised claim 1.

D2 discloses the use of a small amount of tungsten carbide particles to inoculate a melt containing a larger amount of tungsten in solution, with the inoculated particles being provided to act as nucleation sites for tungsten carbide that precipitates from the melt as the melt solidifies.

More particularly, D2 discloses a method in which a ferrous alloy is heated up to the temperature range 1200-1700°C (depending of the tungsten content) in order to fully dissolve all elements in the alloy to form a single phase liquid. During casting, the liquid metal is inoculated with up to 2 wt.% tungsten carbide particles which are either added to a liquid metal stream during pouring into a mould or added to the mould prior to pouring. The inoculated particles facilitate forming fine precipitates from solution in the resultant solidified material. The finely dispersed tungsten carbide particles in the final microstructure form during the solidification process by a process of nucleation and growth from solution. D2 teaches a casting process consisting of the formation of tungsten carbides by precipitation from a single phase liquid during solidification in a mould. On the other hand, the present invention is a casting method that includes (a) forming a liquid metal that contains insoluble

refractory particles in suspension in the liquid (that is, forms a two phase slurry) and (b) pouring the slurry into a mould to produce a casting containing a fine dispersion of insoluble, hard particles in the microstructure.

The disclosure in D2 is confined to precipitating <u>tungsten carbide</u> particles from a melt and the use of tungsten carbide particles to inoculate the melt.

There is <u>no</u> disclosure of the use of materials other than tungsten carbide in D2. In accordance with revised claim 1 of the present invention, the refractory particles dispersed in the claimed hard metal material do <u>not</u> include tungsten carbide particles. On this basis alone, revised claim 1 of the present invention is novel over the disclosure in D2.

It is also submitted that in addition to the above, amended claim 1 involves an inventive step. In particular, there is <u>no</u> basis to conclude that the disclosure in D2, which is confined to precipitating tungsten carbide particles from a melt and the use of tungsten carbide particles to inoculate the melt, makes obvious a hard metal material that comprises 10-50 volume % particles of a refractory material dispersed in a host metal, wherein the refractory material comprises particles of carbides and/or nitrides and/or borides of any one or more than one of titanium, zirconium, hafnium, vanadium, niobium, tantalum, chromium, and molybdenum as defined in revised claim 1 of the present invention.

D3 discloses an indefinite chill roll alloy composition containing carbon ranging from 2.5 to 4.0% by weight of the alloy and the carbon is present as free graphite in an amount ranging from 2-7%, preferably 3-6%, of the total carbon. The composition further includes niobium which ranges from 0.3-6.0% and is present essentially as discrete niobium carbide particles in the alloy. D3 further includes a chill roll shell formed from the alloy and produced by a method including the steps of providing a molten indefinite chill roll composition, adjusting the composition by adding niobium in an amount sufficient to produce a molten batch containing 0.3 to 6.0% niobium based on the total weight of said molten batch, providing a stoichiometric amount of excess carbon to form niobium carbide and casting the molten batch to form the chill roll shell. The method of D3 may be useful to form indefinite chill roll containing significant quantities of carbides from other element that form carbides having low carbide solubilities near the eutectic point of the iron alloy, while maintaining sufficient free graphite in the alloy to produce an alloy having the properties required for chill roll applications.

It is respectfully brought to the attention of the Learned Controller that D3 was also cited in another jurisdiction such as in the European search opinion for inventive step in combination with D1 towards those method claims which are no longer

present in the revised claim set. In particular, D3 does not disclose the essential technical features as required in revised claim 1 of the present invention.

D4 discloses a tungsten carbide-containing hard alloy. The use of tungsten carbide as a refractory particle is not covered by revised claim 1 of the present invention. The revised claim set of the present invention only includes tungsten carbide as a chemical mixture of carbides/nitrides/borides. Such a chemical mixture is not disclosed or taught in D4.

D5 relates to very specific applications of vanadium carbides for cutting tools. Throughout D5 there are references to <u>powder cladding</u> and other powder methods (e.g. sintering), which are outside the scope of the claims (in relation to casting and cast products). The object of D5 is to provide a highly wear-resistant composite material for cutting tools. D5 discloses vanadium carbides having a grain size of less than 30 microns being embedded in a proportion by volume of from 15 to 18% in a steel matrix having a grain size of from 1 to 20 microns and a hardness of from 62 to 66 HRC, consisting of from 0.4 to 0.9 per cent by weight of C from 0.3 to 0.8 per cent by weight of Mn from 0.4 to 1.0 per cent by weight of Si from 2.8 to 8.0 per cent by weight of Cr from 0.0 to 5.0 per cent by weight of Mo from 0.0 to 15.0 per cent by weight of Mo from 0.0 to 15.0 per cent by weight of Co remainder: Fe.

D6 discloses a composition intended for use in hardened rock bits and other cutting/drilling tools. The disclosed composition lies outside the revised claim set – e.g. D6 uses sintered spherical WC with very high wt.%, which would is outside the claimed 10-50 vol.%. See, for example, paragraphs 0022-0023 of D6.

The revised claims of the present invention are thus inventive over documents D1 to D6, taken alone or in combination.

Accordingly, reconsideration and waiver of this objection is respectfully requested.

Based on the amendments effected to the claims and the arguments summarized herein, it is believed that this application is in order for grant of a patent.

Accordingly, allowance thereof is respectfully requested

Yours faithfully,

Aashigne Chakeraborty

Aashique Chakraborty [Registered IN/PA No. 2117] of Groser & Groser Agent for the Applicant

Enclosures:

- 1. Revised claim pages;
- 2. Marked-up copy of revised claims.;
- 3. Petition under Rule 137; and
- 4. Official fee of Rs. 8000/-

We Claim:

1. A hard metal material in the form of a casting comprising greater than 10 and up to 5-50 volume % particles of a refractory material with particle sizes less than 500 microns dispersed in a host metal,

characterized in that wherein the refractory material comprises consists of

(a) particles of carbides and/or nitrides and/or borides of <u>one of</u> any one or more than one of titanium, zirconium, hafnium, vanadium, niobium, tantalum, chromium, and molybdenum; <u>and/or</u>

(b) particles of a chemical mixture of carbides and/or nitrides and/or borides of any two or more of titanium, zirconium, hafnium, vanadium, niobium, tantalum, chromium, molybdenum, and tungsten,

and wherein the particles are insoluble in the host metal at its casting temperature and the host metal comprises a ferrous alloy (such as a steel, a cast iron), a stainless steel, an austeniticmanganese steel) or an iron-based or a nickel-based or a cobalt-based superalloy.

2. The hard metal material casting as claimed in claim 1 wherein the particles of the refractory material are selected from (a) niobium carbide containing refractory particles and (b) particles of a chemical mixture of niobium carbide and titanium carbide.

3. The hard metal material casting as claimed in claim 1 or claim 2 wherein the particles of the refractory material also comprise tungsten.

.4. The hard metal material casting as claimed in any one of claims 1 to 3 comprises 5-40 volume % particles of the refractory material dispersed in the host metal.

5. The hard metal material casting as claimed in claim 4 comprises greater than 10 volume % and no more than 40 volume % particles of the refractory material dispersed in the host metal.

6. The hard metal material casting as claimed in claim 5 comprises greater than 15 volume % and no more than 40 volume % particles of the refractory material dispersed in the host metal.

7. The hard metal material casting as claimed in any one of claims 1 to 3 comprises greater than 10 volume % particles of the refractory material dispersed in the host metal.

<u>3.8.</u> The hard metal material casting as claimed <u>in any one of claims 1 to 2</u> claim 7 comprises <u>comprising</u> greater than 15 volume % particles of the refractory material dispersed in the host metal, <u>preferably less than 30 volume % particles of the refractory material dispersed in the host metal, and preferably less than 25 volume % particles of the refractory material dispersed in the host metal.</u>

9. The hard metal material casting as claimed in any one of the preceding claims comprises less than 30 volume % particles of the refractory material dispersed in the host metal.

10. The hard metal material casting as claimed in any one of the preceding claims comprises less than 25 volume % particles of the refractory material dispersed in the host metal.

11. The hard metal material casting as claimed in any one of the preceding claims wherein the host metal comprises a ferrous alloy (such as a steel or a cast iron), a stainless steel, an austenitic-manganese steel, or an iron-based or a nickel-based or a cobalt-based superalloy.

12. The hard metal material casting as claimed in claim 11, wherein the ferrous alloy is a steel or a cast iron.

<u>4</u>.13. A method of manufacturing a component of a hard metal material comprising:

(a) forming a slurry of a hard metal material comprising greater than 10 and up to 5-50 volume % particles of a refractory material with particle sizes less than 500 microns dispersed in a liquid host metal in an inert atmosphere, with the refractory material consisting of that comprises (a) particles of carbides and/or nitrides and/or borides of one of any one or more than one of titanium, zirconium, hafnium, vanadium, niobium, tantalum, chromium, and molybdenum; and/or (b) particles of a chemical mixture of carbides and/or nitrides and/or borides of any two or more of titanium, zirconium, hafnium, zirconium, hafnium, vanadium, niobium, tantalum, chromium, chromium, molybdenum, and tungsten.

and wherein the particles are insoluble in the host metal at its casting temperature and the host metal comprises a ferrous alloy (such as a steel, a cast iron), a stainless steel, an austeniticmanganese steel or an iron-based or a nickel-based or a cobalt-based superalloy. with particle sizes less than 500 microns dispersed in a liquid host metal in an inert atmosphere, and

(b) pouring the slurry into a mould and forming a casting of the component <u>such as in an</u> <u>inert atmosphere.</u>

5.14. The method as claimed in claim 4 13 comprises forming the slurry and thereafter forming the casting of the component in a chamber under vacuum conditions which remove air from the chamber and supplying an inert gas, such as argon, into the chamber.

15. The method as claimed in claim 13 or claim 14 comprises selecting the production parameters to form the slurry in step (a) with a required fluidity for processing in step (b).

16. The method as claimed in claim 15 wherein the production parameters comprise any one or more of the particle size, shape, reactivity, density, and solubility of the refractory materials.

<u>6</u>.17. The method as claimed in any one of claims 13 to 16 claim 4 or claim 5, wherein the refractory material is less than 400 microns particle size, <u>and preferably less than 150 microns</u> <u>particle size</u>.

18. The method as claimed in any one of claims 13 to 17 wherein the refractory material is less than 150 microns particle size.

<u>7.19.</u> The method as claimed in any one of claims 4 to 6 13 to 18 comprises selecting one or more than one of (a) the refractory material to have a smaller thermal contraction than the host metal

20. The method as claimed in any one of claims 13 to 19 comprises selecting (b)-the density of the refractory material, compared to the density of the host metal in the liquid state to control the dispersion of the particles of the refractory material in the host metal and (c)

21. The method as claimed in any one of claims 13 to 20 comprises selecting the refractory material to have minimal solid solubility in the liquid host metal.

We Claim:

1. A hard metal material in the form of a casting comprising greater than 10 and up to 50 volume % particles of a refractory material with particle sizes less than 500 microns dispersed in a host metal,

characterized in that the refractory material consists of

(a) particles of carbides and/or nitrides and/or borides of one of zirconium, hafnium, vanadium, niobium, tantalum, chromium, and molybdenum; and/or

(b) particles of a chemical mixture of carbides and/or nitrides and/or borides of any two or more of titanium, zirconium, hafnium, vanadium, niobium, tantalum, chromium, molybdenum, and tungsten,

and wherein the particles are insoluble in the host metal at its casting temperature and the host metal comprises a ferrous alloy (such as a steel, a cast iron), a stainless steel, an austeniticmanganese steel or an iron-based or a nickel-based or a cobalt-based superalloy.

2. The hard metal material casting as claimed in claim 1 wherein the particles of the refractory material are selected from (a) niobium carbide containing refractory particles and (b) particles of a chemical mixture of niobium carbide and titanium carbide.

3. The hard metal material casting as claimed in any one of claims 1 to 2 comprising greater than 15 volume % particles of the refractory material dispersed in the host metal, preferably less than 30 volume % particles of the refractory material dispersed in the host metal, and preferably less than 25 volume % particles of the refractory material dispersed in the host metal.

4. A method of manufacturing a component of a hard metal material comprising:

(a) forming a slurry of a hard metal material comprising greater than 10 and up to 5-50 volume % particles of a refractory material with particle sizes less than 500 microns dispersed in a liquid host metal in an inert atmosphere, with the refractory material consisting of (a) particles of carbides and/or nitrides and/or borides of one of zirconium,

hafnium, vanadium, niobium, tantalum, chromium, and molybdenum; and/or (b) particles of a chemical mixture of carbides and/or nitrides and/or borides of any two or more of titanium, zirconium, hafnium, vanadium, niobium, tantalum, chromium, molybdenum, and tungsten,

and wherein the particles are insoluble in the host metal at its casting temperature and the host metal comprises a ferrous alloy (such as a steel, a cast iron), a stainless steel, an austeniticmanganese steel or an iron-based or a nickel-based or a cobalt-based superalloy, and

(b) pouring the slurry into a mould and forming a casting of the component such as in an inert atmosphere.

5. The method as claimed in claim 4 comprises forming the slurry and thereafter forming the casting of the component in a chamber under vacuum conditions which remove air from the chamber and supplying an inert gas, such as argon, into the chamber.

6. The method as claimed in claim 4 or claim 5 wherein the refractory material is less than 400 microns particle size, and preferably less than 150 microns particle size.

7. The method as claimed in any one of claims 4 to 6 comprises selecting one or more than one of (a) the refractory material to have a smaller thermal contraction than the host metal, (b) the density of the refractory material, compared to the density of the host metal in the liquid state to control the dispersion of the particles of the refractory material in the host metal, and (c) the refractory material to have minimal solid solubility in the liquid host metal.

Dated this 17th day of August, 2012.

Aashigne Chakenaborty

Aashique Chakraborty [Registered IN/PA No. 2117] Agent for the Applicants Of Groser & Groser

IN THE MATTER OF The Patents Act, 1970

and

IN THE MATTER OF The Patents Rules, 2003

and

IN THE MATTER OF An Application For Patent No. 7203/DELNP/2012 Filed on: August 17, 2012

by

WEIR MINERALS AUSTRALIA LTD.

PETITION UNDER RULE 137

We, **WEIR MINERALS AUSTRALIA LTD**., an Australian company, of 1 Marden Street, Artarmon, New South Wales 2064, AUSTRALIA, the applicants in respect of the aboveidentified application and the petitioners herein present as follows:

- 1. That we are the applicants in respect of Indian Patent Application No. 7203/DELNP/2012 which was filed as a national phase entry in India on August 17, 2012 out of International Application No. PCT/AU2011/000092 dated February 01, 2011;
- 2. That such application was placed on file claiming priority dates of February 05, 2010 and October 01, 2010 from Australian Patent Application Nos. 2010900457 and 2010904416, respectively, in respect of which we were the applicants;
- 3. That the filing of the corresponding Australian application in our name without any objection thereto being raised by the Australian Patent Office is conclusive proof that the Australian Patent Office was satisfied that we possessed the right to the invention and as a result, the right to make other applications in respect of the said invention;
- 4. That in making the present Indian Application No. 7203/DELNP/2012, we did do so NOT by virtue of any assignment to us of the right to apply in India since we already possessed such right;
- 5. That this was the prevailing principle followed in India ever since the Patents Act, 1970 came into force;

- 6. That by virtue of a decision dated October 28, 2013, the Intellectual Property Appellate Board has expressed a differing view as a result of which we submitted the proof of right document on May 28, 2019, from the inventor to the applicant, WEIR MINERALS AUSTRALIA LTD, and whereby the right to make the application in India was vested in us;
- 7. That for the reasons mentioned, the "proof of right" document was not submitted within the period prescribed by Rule 10 of the Patents Rules, 2003 (as amended);
- 8. That failure to submit such document could be deemed to constitute an irregularity in procedure;
- 9. That such irregularity was not intentional;
- 10. That the irregularity referred to may be obviated without detriment to the interests of any person;
- 11. That under Rule 137 of the Patents Rules, 2003 (as amended), the Controller has the general power to obviate such irregularity in procedure;
- 12. That there has been no wanton delay or laches on our part in complying with the requirements of Rule 10 of the Patents Rules, 2003 (as amended).

In the circumstances narrated, we respectfully request the Controller to obviate the irregularity described herein and to accept on record the proof of right document from the inventor to the applicant, WEIR MINERALS AUSTRALIA LTD., establishing that we possessed the right to file the present application in India.

For this kindness, the petitioners shall be ever grateful.

Dated this 30th day of August, 2021.

WEIR MINERALS AUSTRALIA LTD. by their Attorneys

Aashigne Chakeneborty

Aashique Chakraborty [Registered IN/PA No. 2117] of Groser & Groser Agent for the Applicants

To: -The Controller of Patents The Patent Office, Delhi.