

## Interview with Robert W Mosig, CEO of Platina Resources Limited

### 采访 Platina Resources 有限公司董事执行官 Robert W Mosig

*Asian Metal: Robert, thank you very much for participating in this interview with Asian Metal. Would you like to give a brief introduction of your company and your project?*

*亚洲金属网: Robert, 非常感谢您参与亚洲金属网的访问。请您简单介绍一下贵公司和项目好吗?*

Robert: Hi Vivian, many thanks for the opportunity to talk with you and your readers of Asian Metal.

你好 Vivian。非常感谢这次机会和你本人还有亚洲金属网的读者聊聊。

Platina Resources is an exploration and development company which has been listed on the Australian Stock Exchange (ASX code PGM) since 2006. Our focus is on precious and specialty metals, particularly platinum group metals and the strategic metal scandium. Our Company has 100% ownership of two advanced projects. The first is our flagship project, the Owendale Scandium and Platinum project in central New South Wales, Australia, and the second is a massive deposit of platinum group metals and gold on the remote eastern coast of Greenland.

普拉提纳资源是一家 2006 年在澳交所上市的勘探和开发公司（股票代码：PGM）。我们主要专注于贵金属和特种金属，特别是铂族金属和战略性金属钪。公司 100%拥有两个优势项目。第一个是我们的旗舰项目，位于澳大利亚新南威尔士州中部的欧文代尔钪和铂项目，以及第二个位于格陵兰岛东海岸的铂族金属和金的大型矿床。

However, we are totally focussed on Owendale, where we have plans to start producing 30 tonnes per annum of 99.9% purity Scandium Oxide and some associated small platinum production by the end of 2018. Owendale is one of the largest and highest grade scandium deposits in the world. We are currently completing environmental studies as part of our final feasibility Studies on the Owendale project which contains over 9000 tonnes of scandium within a JORC compliant resource. The scandium and platinum mineralization at Owendale is a unique association which outcrops from surface to about 40 metres of depth. Accordingly mining will be by simple open pit methods and the scandium and platinum will be extracted in two autoclaves using the conventional and well known High Pressure Acid Leach method.

然而，我们目前主要专注于欧文代尔，我们计划于 2018 年之前开始进行生产，每年生产 30 吨纯度为 99.9%的氧化钪及其伴生的少量铂产品。欧文代尔是世界上最大、品位最高的钪矿床之一。欧文代尔项目蕴藏符合 JORC 标准超过 9000 吨的钪资源，目前我们正要完成作为可行性研究一部分的环境研究。欧文代尔钪和铂的矿化是非常罕见的结合，而且离地表只有大概 40 米的深度。因此，采矿只需采用简单的露天开采方式，钪和铂将通过传统的为人所熟知的高压酸浸方式通过两个高压锅进行提取。

We are on track to become the first producer in Australia of scandium, an exciting and valuable metal where we expect to see big demand from industry.

我们正向成为澳大利亚第一个钪生产商的方向迈进，我们也期望看到各行业对钪作为一种令人振奋且有价值的金属的大量需求。

*Asian Metal: Congratulations on reaching this stage. How would you summarize your company's key strengths at present?*

*亚洲金属网: 对贵公司取得现阶段的成绩表示祝贺! 请您总结一下当前贵公司的主要优势好吗?*

Robert: Like most companies in the mining sector worldwide, Platina has had to make some serious costs cutting measures including staff reductions. So we are currently operating on a small core of staff.

就好像世界上很多矿业公司一样, 普拉提纳也不得不采取一些认真的降低成本的措施, 包括裁减人员。所以目前我们通过一个比较小的核心团队运营。

However, our company has always maintained a strong geological team within the Company; our geologists discovered Owendale and developed it by drilling, sampling and development to the advanced stage that it is right now. In more recent times, we have identified the extremely high significance of scandium demand in Asia, and our local China Representative, a graduate China law major, continues to help guide us throughout Asia for scandium offtakes, facilitating introductions and other corporate and marketing discussions. Of course, it also helps immensely when an emerging mining company such as Platina has a well experienced board of directors, such as we do.

但是, 我们公司始终保证公司内部具有强大的地质团队: 我们的地质师们通过钻孔, 采样和开发发现欧文代尔并将其发展至更高级阶段, 那就是现在。最近不久之前, 我们确认了亚洲市场对钪的极高的显著的钪需求, 还有我们毕业于中国法学专业的当地的中国代表, 一直帮助引导我们就整个亚洲关于钪包销, 促进引见以及其他企业和推广谈判。当然, 一个像普拉提纳那样富有经验的董事会对一个新兴的矿业公司有着很大的帮助。

*Asian Metal: I'm glad to hear that. I am wondering why you decided to enter scandium industry and mining the project?*

*亚洲金属网: 很高兴听到这个消息。您为什么决定进入钪行业并开采这个项目呢?*

Robert: Well, that's a very interesting question Vivian. I think it's very fair to say that no one has ever really gone exploring for or wanting to develop a pure scandium deposit before...it's such a rare commodity and until our discovery, scandium had only been produced as a by-product from other mines in places like Russia. However, as I mentioned earlier, Platina is unashamedly a platinum group metals explorer and developer. It just happens that at Owendale there is extremely high scandium accompanying our platinum mineralization. In fact, when we finally achieve production, Owendale will be a high grade scandium mine uniquely combined with some associated platinum credits.

那是一个很有趣的问题, Vivian。我想很公正地说, 以前从来没有任何人真的去勘探或者想过去开采一个纯钪的矿床。在我们的发现之前, 钪是一种很稀缺的商品, 钪一直都是在其他地方好像俄罗斯那样的矿山作为副产品而生产。然而, 就如我之前提到的, 无可否认的是普拉提纳作为一家铂族金属勘探和开发公司。只是碰巧欧文代尔有着超乎想象的钪且伴随着铂矿化。事实上, 当我们最终进行生产的时候, 欧文代尔将成为独特的伴生着铂成分的钪品位最高的矿床。

And the reason we wish to remain involved in mining the Owendale scandium deposit is because we see some excellent monetary benefits and returns for shareholders from this highly strategic metal.

我们希望继续参与开采欧文代尔钪床，还因为我们看到了股东可以从这个高战略性的金属中得到很好的金钱收益和回报。

*Asian Metal: Would you like to introduce the development of scandium projects in global market?*

*亚洲金属网: 请您向我们介绍一下全球市场钪项目的发展好吗?*

Robert: Right now, as I have mentioned earlier, scandium is produced in small amounts as a by-product essentially from rare earth and uranium mines in Russia and China. Australia has a regular habit of turning up some very large and unique mineral deposits. The Argyle Diamond mine is a good example of Australia exhibiting a large and slightly (geologically) different type of diamond deposit. In the case of scandium, Australia has again demonstrated its unique geology with three advanced scandium deposits, all rapidly heading for production and all contained within a soft easily mineable rock termed a laterite. Our project, Owendale undoubtedly deserves the top most position because of its very high scandium grade, its very large scandium resource, Owendale's very low development capital and operating costs, and it's accompanying platinum credits which potentially add more profits. I believe Australia will be the major scandium world supplier in the near term future, with Platina's Owendale right at the forefront.

目前而言，如我之前谈到的，钪原本都是从俄罗斯和中国的稀土矿和铀矿中作为副产品少量生产的。澳大利亚有个传统，就是挖掘出一些非常大而且独特的矿藏。Argyle 钻石矿就是澳大利亚展示一个而且有些不同（地质）类型的金刚石矿的一个很好的例子。就钪而言，澳大利亚通过三个优质的钪矿再次展现了其独特的地质，全部都正快速地准备生产中而且全部都是蕴藏在松软的可进行简易开采的叫做红土的岩石里。我们的欧文代尔项目无疑占据着最高位置，因为其有着超高的钪品位和非常大的钪资源量，它的开采成本和运营成本都是非常低的，而且伴生着铂成分将有可能使利润增加。我相信在不久的将来，由普拉提纳的欧文代尔开始，澳大利亚将会成为世界上最主要的钪供应商。

*Asian Metal: Please analyse the supply of scandium in global market.*

*亚洲金属网: 请您分析一下全球市场的钪供应*

Robert: Again, a very important question Vivian. There are no exact records kept for the scandium market globally. Platina's fairly deep investigations over the past few years lead us to believe that the current global market for scandium is about 15 tonnes per annum. This is used to a lesser extent in production of lighting, bicycles, baseball bats etc. However, there are two emerging industries that threaten to use very large amounts of scandium...the aviation industry and the fuel cell industry, where the race is on with the latter to produce a cheap, environmentally friendly electricity supply which is not created from using up our finite fossil fuels.

再次，这是一个很重要的问题，Vivian。世界范围内没有明确的关于钪市场的数据。在过去一些年普拉提纳比较深入的研究使我们相信，目前全球钪的需求量大概是每年 15 吨。一定程度上用于生产照明产品，自行车和棒球棒等等。然而，有两个新兴产业将会大量使用钪：

航空航天行业和燃料电池行业，通过后者试图生产一种便宜的，环保而友好的电力供应，而不是通过使用我们有限的化石燃料。

So, whilst the current demand for scandium is relatively modest, the potentially cheap and vast Australian scandium supply will create the big demands for this metal. Estimations by reputable groups suggest supply will definitely increase from the current level.

所以，尽管目前对钪的需求相对温和，但是潜在的廉价而且丰富的澳大利亚钪供应将创造对该金属更大的需求。享有声誉的机构估计供应肯定会从目前水平得以提高。

*Asian Metal: Scandium is mainly applied into scandium aluminum alloys and solid oxide fuel cells industries. Would you like to introduce the detail application of scandium aluminum alloys and solid oxide fuel cells?*

*亚洲金属网：钪主要应用于铝钪合金和固体氧化物燃料电池产业。请您介绍一下铝钪合金和固体氧化物燃料电池产业的具体应用好吗？*

Robert: Yes, these are the two industries which will grow from the development of a consistent Australian scandium supply. In the case of aluminium alloys, suffice to say that with the addition of scandium into aluminium a 'super' alloy is born. Scandium aluminium alloys already have direct value in the aircraft industry and the aerospace industry in general, where their addition creates a more robust and lighter aircraft.

好的，这两个行业将会随着澳大利亚钪的持续供应发展而增长。关于铝合金，我想说的是通过在铝添加钪的新型超级合金已经诞生。通常说来，铝钪合金在飞机制造业和航空航天行业已产生直接价值，除此以外铝钪合金还创造了更强和更轻的飞机。

And in the case of solid oxide fuel cells, essentially, if natural gas is passed through a medium of zirconia crystals coated with scandium oxide, water, carbon dioxide and electricity are produced. Remote regions of the world, like the isolated mining town scattered over the vast dimensions of Western Australia, for instance, could greatly benefit from this cheap and environmentally friendly energy supply.

固体氧化物燃料电池而言，大致上将天然气通过涂有氧化钪的氧化锆晶体介质，将会产生水，二氧化碳和电力。世界上的偏远地区，例如偏僻的分布在西澳广阔范围的矿业城镇可以极大地从这种廉价且环保的能源供应中受益。

*Asian Metal: May I know your opinion about the development of scandium aluminum alloys and solid oxide fuel cells industries in the coming -10 years?*

*亚洲金属网：请问您对未来十年铝钪合金和固体氧化物燃料电池行业的发展的意见？*

Robert: Well, with the aerospace industry, and no pun intended here, the sky is the limit for the demand increase for scandium aluminium alloys. This will be an exciting decade ahead for this industry. I suppose the aerospace industry has been waiting for a consistent supply of scandium to come along, and Australia (and particularly Owendale) can provide this.

好的。关于航空航天，此处带双关语（我可不是开玩笑的），天空有多大，铝钪合金的需求增长空间就有多大。未来十年将是这个行业令人振奋的十年。我认为航空航天行业一直在等待着钪的持续供应跟上来，而澳大利亚（特别是欧文代尔）可以满足到这个愿望。

In terms of the solid oxide fuel cell industry, scandium might have a slightly slower path to dominance, given that the fossil fuel price has become extremely competitively priced, and it

remains a dominant alternative supplier of energy to the fuel cell industry despite its environmental issues. However, I also believe that the next decade will see scandium's use in fuel cells as well.

关于固体氧化物燃料电池产业方面，尽管化石燃料有着环境问题，考虑到化石燃料的价格变得十分具有竞争性以及其在电力供应行业仍然保留着主导地位，钪要占据主导地位还需要一定时间。不管怎样，我还是相信未来十年将会看到钪在燃料电池行业的应用。

*Asian Metal: How do you think the outlook for scandium demand in the coming 5-10 years?*

*亚洲金属网: 您如何看待未来5-10年钪的需求量前景?*

Robert: Undoubtedly, in 5 to 10 years from now we will all have witnessed the birth of the demand for a new metal, scandium.... And I'm very pleased at where our company Platina sits in supplying this blossoming scandium demand.

毫无疑问地，从现在开始的未来5到10年时间里，我们将共同见证对新型金属钪需求的诞生。同时我为我们公司普拉提纳在这百花绽放的钪供应中所处的位置而感到非常高兴。

*Asian Metal: Thanks you for your time again, Robert. Looking forward to hearing more exciting news about Platina Resources.*

*亚洲金属网: 再次感谢您抽时间接受我们访问, Robert。我们期待听到更多 Platina Resources 令人激动的消息。*

Robert: Thanks Vivian, I look forward to keeping you and your readers updated on Owendale's and scandium's progress!

谢谢 Vivian。我期待着与你和你的读者分享欧文代尔和钪进展的信息。