

## [2008-1-7] The View from Rhenium Gables

Here at *Rhenium Gables* we are mulching the soil and planting our winter Rhenium seedlings in readiness for next year's crop much as we have done for the last 15 years. However, this year, with the price nearing \$10,000 per kg (\$311 per toz) making it the 8th most precious metal after palladium, with only 50 mtpy of production in all forms, we should not be surprised to be joined by a number of new entrants.

Certainly, 2007 was the year in which Rhenium came of age. Eighty-two years after Ida Noddack first separated the element from a few kilos of molybdenite mined from the banks of the river Rhine, the word Rhenium has come to the apprehension of many far beyond the closed world of metal merchants. Aero-engine companies were said to be desperately searching for long term supply, while the world's largest producer, *Molybdenite of Chile* [on target to produce 26.1 mt in 2007] was fully committed on long term sales contracts. As ever, the beacon that caught people's attention was price. And with such a high price, miners, merchants and consumers were increasingly asking 'why was it not possible to produce more of the stuff?'

In this regard there were two major announcements. The first was Poland's official opening of *KGHM-Ecoren's* new Rhenium recovery circuit at their Lubin copper works. Rhenium, KGHM was saying, was now at the core of their business and would continue to be so. They would produce 2 mtpy in 2007 (4% of total world supply) recovered from flue dusts, aiming to reach 5 mt (or 10% of current supply) by 2010.

In another announcement, Lawrence Matthews of *Johnson Matthey* said at a *Ryan's Notes* conference in the U.S. that JM would also be working to recover Rhenium from scrap Nickel alloy and other waste materials. Sales agents of the renowned platinum producer, it appears, had been getting frustrated with being regularly asked by customers why JM couldn't supply Rhenium as well as the other PGMs.

From our perspective here at *Rhenium Gables* both developments were to be welcomed. The world basically needs more Rhenium and anything leading to better recovery is to be encouraged. Five years ago, when Rhenium was trading at \$1000 per kg all such efforts were impossible because the cost of recovery exceeded the value of the material. So, although, JM, may be, by their own admission, a number of years away from achieving commercial-scale recovery, the intent is there and will only really be workable if current prices are maintained.

However, nothing can change the fact that Rhenium is not just rare in trading terms – it is rare in nature and at 4 parts per billion in the earth's crust, it takes a lot of milling to get from 1 gram to 1 kgs or from 1 kgs to 1 mt. Meanwhile, every order for an aero engine, land-based gas turbine is another order for 25 kgs or so of Rhenium, and every statement made by an aero-engine company about reducing emissions to the upper atmosphere is basically a statement about burning fuel more efficiently and comes down to nickel alloys, turbine blades and Rhenium.

Here at *Rhenium Gables* we are quietly confident that we shall be in the business of Rhenium farming for a number of years to come.

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