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Figure 1. Iron ore open pit Erzberg

Leopoldstein Lake and a small pool of water called “Black Puddle” are situated near the road leading from Eisenerz to Hieflau in Austria. For centuries, the people there had seen Aquarius who lived in his cave below the pool. Sometimes, during nice weather he would come ashore and bathe in the sun. It was believed that he possessed a great treasure, so the people wanted to catch him. He was shy and so he didn’t go out if someone was nearby. Besides, he was as slippery as a fish, so it was impossible to catch him. Therefore, people had to resort to trickery.

One nice, warm and sunny morning, they set out a roast, wine and clothing covered with tar from the in-

side, and they hid and waited. After a while, Aquarius came out of his cave and curiously looked at the placed items. He grabbed the roast, drank the wine, dressed up, danced, and in the end, he laid down to rest. The roast, wine and weariness had taken their toll and soon he was quickly fast asleep. The people carefully crept up and succeeded in tying him up despite the fact that he woke up and fought with all his strength to break free. He failed, so he took the people to the valley at the foot of the ore mountain now known as Erzberg (see **Figure 1**) and promised them a great treasure if they released him. Since this is what they were hoping for, the people asked him: “What will you give us?” Aquarius answered: “Listen to me very carefully and choose wisely: A golden foot will soon disappear, silver heat will be spent with time and an iron hat will remain forever, or in transla-



Figure 2. Aquarius in the underground mine

tion: gold for 10 years, silver for 100 years or iron ore forever. Choose wisely and never be humbled!”. “We want the hat of iron ore!”, they cried. Aquarius (see **Figure 2**) pointed to the mountain and said: “There is a hill. It will give you an iron ore forever and more! Now take me back to my cave.”

People believed his promise, took him back and released him. He immediately disappeared into the depths. The earth shook, the water began to foam and turned into blood and from the depths came a somber voice: “You forgot to ask me the best of all – the precious stones and the meaning of the cross in the walnut.” The people were scared, quickly fled and since then, Aquarius was never seen again. To the present day, no one has interpreted the last words of Aquarius.

His promise would be realised if people still used hammers to obtain raw materials as in the time of this legend. However, he didn’t predict the significant progress in mining which is available today. Currently, the annual production in this mine is 8.4 million tons of raw material from which it gets about 2.1 million tons of iron ore and the remaining 6.3 million tons is disposed of as gangue and Aquarius’ promise remains questionable.

However, it can also be viewed differently, because the share of useful minerals in the raw material will decrease over time since the “richer” deposits were already opened and numerous other deposits are in areas where exploitation already ended, so for exploitation, the remaining deposits are in areas with lower content of useful minerals. Therefore, as of today, gangue may contain a higher share of useful minerals than “newly opened”



Figure 3. “Hauly” – the largest taxi in the world



Figure 4. Presentation of the legend in the subsurface of the mine

deposits because older mineral processing technology couldn’t “extract” all the useful minerals. Thus, it is not uncommon that gangue becomes a source of “new deposits”, potentially interesting for processing again. Gangue of this mine contains up to 20% of iron, so the legend of Aquarius and its promise still lives on ... While still working, this open pit mine can be visited and a ride can be taken in the biggest taxi in the world called “Hauly” (see **Figure 3**).

It is 11.5 m long, 4.5 m wide, can carry 62 passengers, has an engine power of 641 kW (860HP) and a top speed of 60 km/h. Also, the train called “Katl” can take you into the underground to hear first-hand all about this deposit and mine, see numerous mining machines and still enjoy the legend of Aquarius through a presentation (see **Figure 4**).