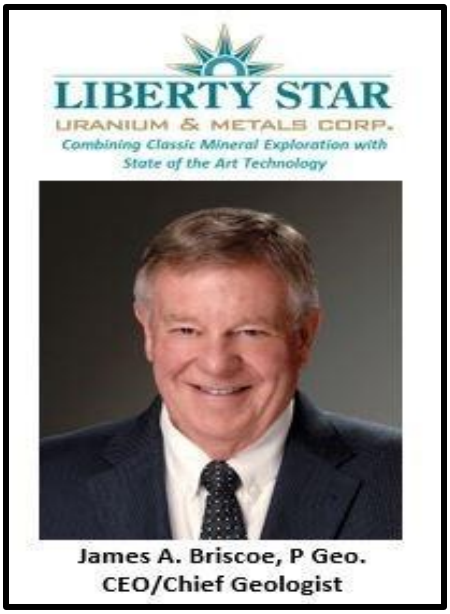


CEO Year End Update: Liberty Star's Financial Prospects, New Targets/New Projects & Hay Mountain Project Resources

-New interest in Hay Mountain by mining companies and large investors

- Other Metals and the Hay Mountain Project

- Revisiting interesting projects throughout southwest USA

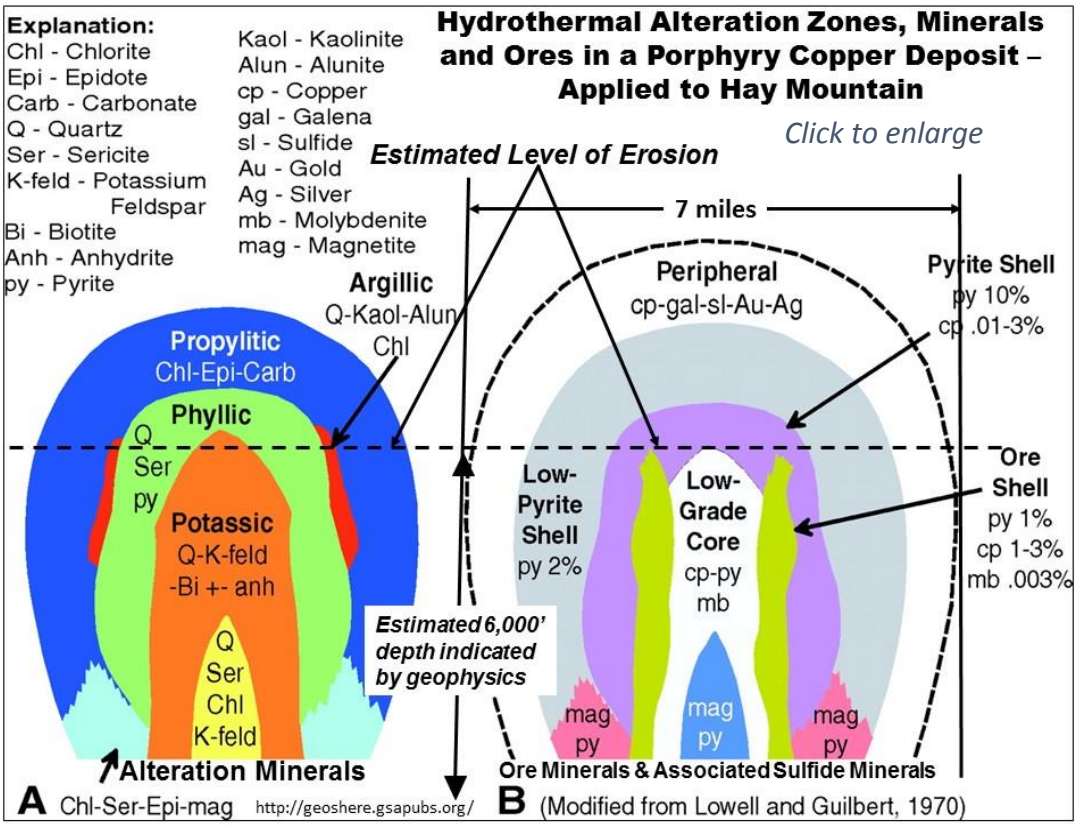
Part 2 | January 10, 2017

New financial interest in Hay Mountain Project

In Part 1 I noted that there is a post-election change in the attitude toward appealing exploration projects like the Hay Mountain Project. In fact, we are talking with large established mining companies about the potential of some type of joint venture and are in contact with experienced funders, which also may be helpful to us. While optimistic, these discussions are early stage and we do not know if there will be a positive outcome. But they could move rapidly as well. What interests these potential investors most about Hay Mountain is that new targets continue to come online as we continue to conduct surface studies via XRF (X-ray fluorescence) on this large porphyry copper target.

Zoned Characteristic of Porphyry Coppers Related to Potential Segregated Metal Production

I should also mention another characteristic of the Hay Mountain target, which has been so obvious to me all along that it never struck me that others less familiar with porphyry coppers may not realize its importance. As part of their porphyry copper model David Lowell and John Guilbert showed that porphyry coppers can be



likened to a giant ice cream popsicle. As you lick away the surface different layers become exposed and if you cut off the top the different layers would have a bullseye likeness. Because we have used vegetation geochemistry to identify the mineral- metal layers, which are like bullseye target rings emanating out from the Hay Mountain porphyry center, the metal zoning pattern becomes very clear. This image only makes sense when a porphyry is standing straight up or approximately so. If regional faulting structures tilt it so it is lying on its side, then it becomes more complex, and the target rings become ovals. At Hay Mountain, the porphyry appears to be straight up or nearly so – perhaps tilted somewhat to the east. As erosion cuts downward, the bullseye rings, which are rings of metals and alteration, are exposed. Because we have covered a large area with reasonably dense geochemistry vegetation samples and assayed them for 64 metal elements we can see that in the center there is gold, copper, iron pyrite and potassium along with, in this case lead. The next ring contains molybdenum, copper, and then the next ring is primarily copper with lesser molybdenum and increasing amounts of zinc. The next ring grades outwards so that molybdenum is no longer present but copper is dominant with increasing amounts of zinc. And then the next ring is zinc and lead with silver and gold and then silver, gold, and manganese, and then manganese and then generally another gold zone, then uranium, then thorium, then rare-earth elements, and unusual elements such as gallium with gold.

How do we know this? About 25 years ago, I, Dr. Gilbert and geochemist Shea Clark Smith completed a massive survey of the North Silverbell and West Silverbell mountains, using vegetation sampling as well as soil sampling, and outlined as many as nine porphyry copper centers in the West Silver Bells, and another 3 and perhaps more in the east side of the exposed alteration zone just like the exposed portion of the Silverbell Mine and these same metal zoning patterns showed up. We then got permission from ASARCO to sample over the North Silverbell deposit (at that time untouched), where we saw the same metal zoning characteristics over the well drilled out ore body. Unfortunately, this zone was withdrawn by the Clinton Administration to form the Ironwood Forest National Monument, ostensibly to preserve the Cactus Ferruginous Pygmy Owl, then thought to be endangered. The 9th Circuit Court of Appeals has found it not to be endangered (2006), but thus little drilling has been done to test the numerous targets carefully defined. The mistaken National Monument is still there preventing mining. The vegetation geochemical anomaly at Hay Mountain was no surprise to us, and in fact, is one of the guidelines we hoped to see. But many practicing exploration geologists do not recognize that this multimetaliferous zoning exists, its importance as an exploration tool, nor its mining implications, nor how to go about collectinng vegetation geochemical samples to determine existance of potential anomalies.

SEGREGATED AND MARKET TIMED METAL PRODUCTION

Because metals prices increase and decrease depending on market demand, as we exploit the Hay Mountain porphyry deposit, when the price of zinc is up as it is now, we can be emphasizing zinc production at the expense of, for example copper, and wait until copper prices go up and then mine copper during its high metal price. Because we have geochem indicated for the base and precious metals, uranium, thorium and rare earth elements, manganese, and gold we can selectively mine these metals during periods of high prices for them.

This generally has not been done before, for several reasons:

1. There wasn't a good way to keep the metals separate in the mining operation (or even be aware that they were there) and now we have a piece of mining equipment (the Vermeer Terrain Leveler) that make such specific metal segregation possible There will be no need for a primary crusher as the Vermeer will cut rock to specifications generally 2-inch minus. This will cut down on capital cost and avoid formations that will go to slime interfering with mill recovery
2. The ability to separate the ore metals in the mine before they go to the mill allows the mill to produce a clean concentrate inexpensively. This will increase our profitability.
3. The X-ray fluorescence analyzer (XRF) will make ore control separating the various metals quite easy. That way we can maximize profitability from the mine for an unusually large number of metals, and delegate low grade to a stock pile for future processing or consign it to the waste pile. Only higher grade ore bearing material will go through the mill and low grade will go to waste or leach and not consume expensive power and reagents.

Other Metals Potential at the Hay Mountain Project

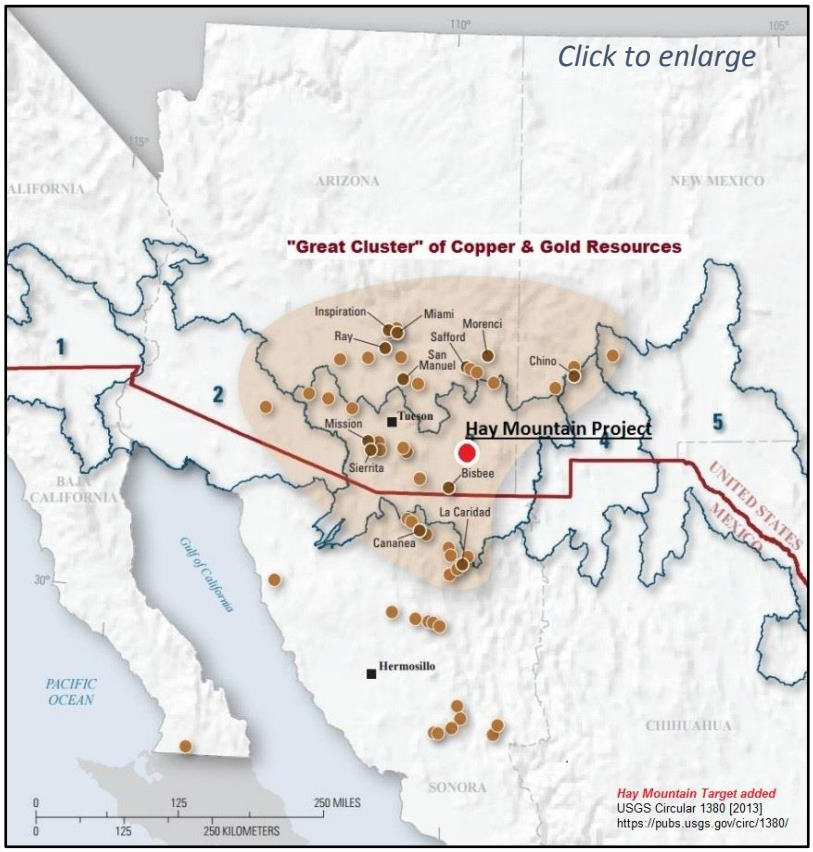
In terms of technological improvements ahead, Hay Mountain should have commercially important amounts of zinc and manganese, which are typical of limestone hosted porphyry copper deposits and is exemplified by the nearby Bisbee porphyry copper. The Hay Mountain target is such a deposit, and those metals are indicated in our geochemical studies. This is a positive development for us since many types of new batteries are being tested and designed. Among the innovative designs is a zinc – manganese battery which can be recharged up to five thousand times. Compare this with the lithium-ion battery in your smart phone, which can only take approximately 300 charges before it is worn out and needs to be replaced. I wonder whether lithium will be the battery of choice in the long run.
Other metals are surprisingly present and their presence is somewhat incongruous. I'll talk more about them when we have more details.

Surface as well as underground mining equipment is already making transitions into automated control and electric vehicles. Underground battery powered electric vehicles and other equipment have been in use for some time as electric power emits no fumes that must be evacuated by powerful fans from the underground workings. This lowers costs and provides a healthier workers environment. In the not distant future many of these machines will be automated probably using specialty metals in their manufacture. Large amounts of copper will be used in this worldwide transition.

It is hard to know what metals will be most important in the intermediate to long-term future. Few of us thought rare earth metals would be critical to our future – or lithium. But Hay Mountain has most of these elements and we will determine which ones are of potential economic importance. But you can be sure copper, molybdenum, gold; zinc and manganese will be in the forefront of importance.

I have more to say regarding the future under a Trump business friendly administration and some of the technologies we can expect to see in the foreseeable future.

New Projects-New Targets



During the slow period of the last few years, while waiting for permits to be processed, we've explored the possibility of additional projects beyond or in addition to Hay Mountain. We have already talked about some precious metals properties i.e. gold and silver [*Recap of Liberty Star Current Events, Part 2* 8.17.2015]. For those who know my background, which spans some 52 years in the exploration business, I have amassed a lot of ideas and details for targets in existing mining districts and alteration zones. Many of those which I recommended many years ago have become significantly productive mines, including a number that have been mined out, but not by my clients, employers. As frustrating as this has been for me, it does indicate that my ideas have been outstanding for many years. For many reasons, including depressed metal prices, I have

simply not been able to convince management or money sources to act on my recommendations – to their and my detriment. Also, land withdrawals from a confiscatory federal bureaucracy made a few of them suddenly unavailable without warning after we had spent considerable exploration funds on them – Silverbell and North Pipes to name two. But that still leaves many targets near producing mines in the southwestern United States that I am aware of and that have not yet been tested.

One target (we will call it for convenience ***Copper Mountain***), which I first visited and recognized and recommended drilling in 1973 before it was drilled by others, now has had a drilled-out mineral body that has been metallurgically tested, which makes it a proto ore body of heap leachable copper containing as much as 200 million tons of ore grade copper but never has been mined. It appears to be available for purchase. The entity that owns it cannot see a way to put it in production. **We do.** We will move in that direction as time and finances permit. **A special approach will make this a viable, open pit mineable ore body.** If it can be purchased, it should produce approximately $8 billion at $4 a pound copper. These are gross figures, not including mining and ancillary costs, or taxes, but because of our operational plans, mining and processing will be very cost effective, yielding a high profit margin- perhaps 45% ROI before taxes. The very mining of this ore body will expose additional ore of large tonnage and good to high grade.

Another, ***Copper Hollow*** as we have named it, is a project that was a byproduct of a visit to yet another property. I remember looking at the mountains that host it and being intrigued by some familiar features. This was 10 years or more ago! Investigating some new satellite imagery confirmed those features. This copper-gold veined altered oval basin sits in southwest USA in a small mountain range that is mostly private property. This project will need a good deal more surface study, including geochem and *ZTEM* geophysics, but my instinct and training tells me this is a place to spend exploration time and money. The target is a porphyry copper-gold system of about a square mile in extent, with polymetallic mineralization projected to be in lower Paleozoic limestone that have been shown to be particularly receptive to mineral replacement and the creation of high grade mineral zones throughout southeastern Arizona, New Mexico and Northern Mexico. If mineralization is continuous across the whole basin it could be of large tonnage +10 billion tons and high grade.

Another tentative target in the southwest USA is a mine that we have expertise in operating. The current owners do not have that expertise. We will propose an operating agreement whereby we operate and explore and will share the profits, which should be significant, with them. This mine has been poorly operated for almost five decades. We know how to correct the inherent problems and have an operating methodology that will allow separating high grade material from low grade so that it can be leached effectively, lowering operating costs

dramatically. Underground high grade copper, lead, zinc, silver, gold and molybdenum would be targeted as well.

We also visualize construction of a processing plant which would be helpful increasing the productivity and lowering the cost of the Hay Mountain mine, and many other mines on a fee basis. We are working toward that end. **This could be something President Trump could champion.**
These other opportunities will remain secondary to the Hay Mountain Project for now.

Phased exploration and development work at Hay Mountain is and will remain our primary focus in the coming months.

I wish to thank all our shareholders who stood with us during this extended metals downturn, which has been deeper and more extended than any person now living has ever seen. I believe we are through the darkness and have come out into the light. 2017 feels prosperous and I believe good things lie ahead.

RISK FACTORS FOR OUR COMPANY ARE SET OUT IN OUR 10-K AND OTHER PERIODIC FILINGS FILED WITH THE SEC ON EDGAR.

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Review the Hay Mtn. Near Surface Phase 1 Plan Presentation (PDF)

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