

**Trip Report**  
**Muping gold project**  
**Yantai, China**

The second half of a trip last September to **Majestic Gold Corp's (MJS-V; closing off 5 cents at \$0.70 on 240,800 shares)** gold projects in China was a brief visit to its Yantai area holdings, in coastal Shandong province in China's northeast. I have just finished a requested follow-up to those holdings last week. In particular I visited operations in the main Muping project areas. MJS is doing exploration to earn-in on projects in the Yantai area that are already producing at small scale. On this trip I got a better handle on exploration potential and production costs. For the first time in China I got a start to a costs outline for production, which is to be the start of a broader costs outlining. This is important since China produces gold from much lower grade material than most places can.

The September trip focused on the more remote Sawayaerdun project in China's far west. This project is within the Tian Shan belt that hosts some very large deposits in neighboring countries including the 170 million oz Muruntau deposit in Uzbekistan. The Majestic project is of the same type and offers a "big picture" component to its portfolio in an under-explored belt that could produce the goods to move China up from its current fourth ranking for domestic gold output. MJS recently released soil sampling results that indicate several new zones for testing this coming summer, confirming a large scale potential. We will outline Sawayaerdun in a comprehensive report on MJS in a future Journal, but for now suffice it to say the project does have the parts to host a large gold deposit system.

The Muping belt is within the municipality of Yantai on the northern part of the Jiaodang Peninsula. This is Shandong's northeastern

corner, across the Yellow Sea from Seoul Korea. In China a "City" is a sizable administrative area surrounding an urban centre, within provincial and national jurisdictions above it. The Yantai urban centre has a population of 1.5 million, and is administrative centre of Yantai City with a 6.5 million population spread through 13,700 square km. Yantai City is about 20% of China's annual gold output at about 1.15 million oz in 2003.

China's gold output has grown tenfold over the past 20 years, and Yantai district's has grown apace with this. Both a weak drilling technology and low mining costs has meant much exploration in China is done by excavating workings rather than "drilling-off" a reserve as would be the case in the West. Many mines therefore grow over time rather than being designed to "optimal" scale. In Yantai the focus has been the westernmost belts that now produce about 600,000 oz of gold per annum. MJS has one joint venture in this belt, the 17 square km Fushan concession that sends ore to a small floatation and heap leach operation. This joint venture is separate from the balance of the Yantai holdings, and though we visited it in September I will leave it aside for now.

The Muping ground Majestic is earning in on is the eastern and least explored of three major belts in Yantai. The original Muping mine is excluded from the JV, but a lot of ground surrounding it including 3 small production areas is in the JV. Muping mine has been operating for 20 years at a 350-tonne/day rate. Initial ore grades from its underground mine were in the 6-7 g/t range, but the mine is now sending 4.5 g/t material to its plant and drawing from other deposits to maintain capacity. These are typical numbers for China.

The gold is associated with pyrite and minor amounts of other sulphide minerals, in shear zones and quartz veins. The Muping plant employs two stage crushing, single stage grinding, and a two stage flotation system (that segregates minerals based on differing surface tension) to deliver a concentrate grading 80 g/t gold to an on site smelter. The configuration is a little unusual by western standards, but the essentials are typical for this deposit type.

Like all of the deposits in Yantai district, Muping is part of an orogenic gold belt. Precambrian and younger Mesozoic aged granites hosts most of the deposits in the district, with at least one important exception. The younger granites presumably generated the heated fluids system that created the deposits.

The Muping holdings will be the focus of work by MJS through the winter season. Majestic is earning in on 17 concessions (several of which were just farmed out to another Canadian explorer), covering significant portions of a 50 km long belt. Work is progressing on two fronts, sizing up potential to expand the small Songjiagou operation and exploring for new deposits.

The big picture work will be to locate new zones, primarily under valley fill cover within known gold trends. Shear hosted orogenic deposits have pyrite as the main alteration product, easily eroding so that deposits hide in low lying areas. These can be targeted using geophysical techniques standard in Canada but that have seen much less use in China. MJS is putting plans in place now to get the geophysical targeting done on portions of the belt. Past work by China's Geological Institute, including limited drill programs, give some areas of focus to get started with. Chinese drills are designed to drill only near-

vertical holes, which is a poor way to test these sub vertical systems.

I visited the small **Heiniutai** mine, a shaft accessed deposit on a low hill within valley cropland; it was found by local farmers. This is a narrow pyrite bearing shear zone grading about 10 g/t gold. It should show a strong geophysical contrast with its granite host. This is the ore type that has kept the Muping operation going for 20 years, and turned the Yantai region into a million plus oz/annum producer. Geophysics could quickly outline new potential for the market to chew on.

Hilly areas have some exposed vein deposits. I had a look at the **Wu Zhah Shan** vein that is delivering a small amount of ore to a local 25 tonne per day plant. The mine geologist indicates this vein is running 6-7 g/t gold, with higher grades to 13 g/t and thicker sections to 1.5 metres. It is located in a hillside and has had limited drill testing because of the topography, but has been traced for 700 metres. Mining is done up the vein (raise mining) and ore shoveled into push carts. Outside the adit some hand cobbing is done to ensure higher grade material is sent to the plants; this is done by eye by keying in on the lead-copper sulphide minerals in the vein. I was told they can break even sending 1.5 g/t material to the plant, since the operation I just described costs about \$10/tonne. I view these vein deposits as "additional" targets at this point, though exploration could locate more substantial veins.

The main operating mine in the MJS joint venture, and its current focus of exploration, is **Songjiagou**. This is a somewhat atypical deposit since it is hosted by a conglomerate unit, a thick cobble bed likely deposited during a major break in the rock building process and then compressed into a solid rock. Because it is porous, the gold bearing fluids that moved into it along a series of shear planes were

broadly dispersed. The deposits are being mined through a 160 metre shaft and workings on 4 levels, though only the deeper part has been a production focus to date. There is a good concentration of mineralized structures within a 400 x 700 metre area, and the project is untested beyond this. While the mine is being operated as a "high-grade" system, MJS will also test its potential as bulk tonnage pitable deposit. This potential looks substantial.

Highest grades are on the fluid channeling structures, and these can exceed 100 g/t gold and do return +20 g/t on a regular basis. The mine engineer indicated the main "F2" structure averages 6-7 g/t gold but that they are trying to maintain 3 g/t to the mill. The main area mined to date is 12 metres thick and mining has been done by raise mining from the 4<sup>th</sup> to 3<sup>rd</sup> levels. Other than being more labor intensive, employing push carts (on tracks) and shovels where higher wage areas would be mechanized, this is a standard and well run operation.

There are at least three structures with 10s of metres of pyrite bearing silica alteration adjacent to them. At least the core area where the F2 and F1 structures are has the appearance of a pitable / bulk underground deposit. Past sampling indicates considerable portions of the intervening alteration carry some gold. MJS is now sampling the walls to determine an average grade for this material. Samples have been sent to the lab from the lower two levels. Though the focus of this work is bulk tonnage analysis, the high-grade portions will be tested where they are available (where they have not been mined out).

With this information in hand they will be positioned to bring in equipment that can drill angle holes and properly test both the bulk tonnage and high-grade potential. Bulk

tonnage potential aside, once drill testing to depth and on-trend has begun we expect a significant high-grade resource to be outlined. There is a lot of room here for a multi million oz gold resource.

I got some basic numbers for Songjiagou's costs on this trip. They need some further explanation to reconcile numbers from different sources, but I think these are the same sort of differing distinctions made at multi-faceted operations elsewhere. Even very small gold plants here get ore from several sources, and small mines may also have ore allocated to different plants. These problems aside, this is the first time I have been given any cost indications in China so this is a welcome start. I will check these figures and sort out some of the confusion for later reporting.

This operation currently has a throughput of 120 tonnes per day. Site engineers indicated that costs per tonne, using 8.3 Yuan per US\$, are for mining about \$10 and for plant about \$3-4. They indicated they maintain a 3 g/t gold grade to the plant, and expected a 70% gold recovery. Separately, a set of figures for the operation were provided for Songjiagou from the main office, indicating that last year it produced 54.85 kg (1,760 oz) of gold from 41,246 tonnes of ore. This equates to a recovered grade of only 1.3 g/t. "Total cost" was listed as \$5,810/kilo, or \$180 per oz. Direct mining cost is \$3.60/tonne and processing cost \$4.15/tonne, though the two tonnages are not identical. Further allocations to the mine were about \$28,500 for development at a unit cost of \$68/m; based on a 2 x 2.1 m tunnel, this appears to be about twice the per tonne rate for "mining". The apparent differences could be reconciled by the first set including development and overhead allowances. Several smaller operations near the main Songjiagou mine,

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including a small pit, could also explain discrepancies.

The most important number is obviously the cost per oz, but I do not know if the cited "total" figure of \$180/oz includes a capital allowance. I was also told the Songjiagou operation employs 200 people, and that miners are paid about 800 Yuan per month or about US\$1,150 a year. Though I didn't get a payroll burden figure this wage rate explains why labor-intensive underground mining can be done at such low grades in China.

The main producers in the western Zhaoyuan trend that is up scaling from 600,000 to 700,000 oz per annum, produces from underground at an average grade of less than 3 g/t gold. While more work is needed to flesh out costs here, these grade ranges are in keeping with information from visits to other parts of China, including bits from independent operators.

Costs will get sorted out as programs move forward. For the moment I think MJS has strong potential to produce grades that the market can like even before factoring in lower costs. As results come in and the scale

potential is better outlined, the company can continue to see gains. Majestic has just announced bringing in Trans America Industries (TSA-V) as a partner on some Yantai ground. Both new ground, in a 4<sup>th</sup> trend, and some existing ground is included in this. MJS also announced a placement for up to \$3.15 million at \$0.70 per unit (with attached 12 month warrants at 90 cents), which with funds in hand is enough to move it through the next work phases.

Majestic has been seeing strong volumes since confirming past results at its Sawayaerdun exploration project in September reporting. It had a very strong market in late '03 ahead of confirmation on what had looked like a strong project Slovakia. In that case they could not confirm past results and the stock went into a tailspin. That is now behind it and MJS has become a strong trader as a China gold play. We consider it a **Speculative Buy** ahead of confirmation testing results at Songjiagou, and for further outlining and testing of other Chinese gold targets.

<http://www.majesticgold.net/>

1-866-282-8398 Ω

Regards for now, David Coffin and Eric Coffin

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