

Uranium – Waiting for Godot or Forging Ahead?

The long-held theory during the prolonged mining sector slump was that Uranium as an energy metal could potentially break away irrespective of the rest of the metals space. How true they were, but not in the way they intended, for just as the mining space has broken out of its swoon the Uranium price has not only been left behind but has gone into reverse. This is truly dismaying for the trigger for a uranium rebound was supposed to be the Japanese nuclear restart and yet it has had zero effect and indeed maybe has somehow (though the logic escapes us) resulted in a lower price.

Admittedly the cheap seats never understood that the Japanese kept taking uranium under their contracts all through the closure period so now that plants are reopening they did not need to go on a buying binge. If anything, they did not need to change one iota what they were acquiring. And also they were acquiring under contracts, not in the spot market, which is notorious for its divergence from the long-term price paid by the big players for guaranteed supplies.

Vague Stirrings

The yellow mineral had made fools and liars of many in recent years, including ourselves. That said, every dog has its day and some of the things that weighed on the uranium price (most notably the Japanese plant shutdown) are retreating as issues. At the risk of being made to look foolish again, we think the tide has turned for Uranium and would not be surprised to see it close to \$40 per lb by year end and break through \$50 per lb by the end of next year. This is scarcely the stuff of which booms are made but players in the uranium space need the price going consistently in one direction to restore confidence. As we have seen before the WORST thing is a spike

because it inevitably presages a plunge.



This is a mineral that needs a consolidation and a slow build NOT another pump and dump.

The Tale of Three Processors

Rather than focus on miners or even explorers, we thought it might be useful to look at the provision of processing facilities. After all hard rock mining or ISL/ISR extraction of Uranium from the ground is not enormously complicated or costly. The key part of the process is owning a processing facility and whether one builds it from scratch or buys an existing one then the permitting and environmental approvals are a key component of the equation.

In recent times we have come across two up-and-coming US-focused “millers” (Peninsula Energy and Western Uranium while last year we looked at Anfield Resources).

Peninsula Energy (PEN.ax) is Australian-listed but operates mainly in the US (though it has some Uranium assets in South Africa). It's not correct of us to call Peninsula's Lance facility in Wyoming a mill as it is not grinding anything. It attracts our attention though because we have long ago tired of all the sound and fury of UEC's promotional efforts on their ISL activities in Texas and found Peninsula refreshing in the way they have “just got on with it”.

Production at Lance commenced in December 2015 with construction on-schedule and on-budget building to 2.3mn lbs of U308 per annum. Peninsula wants to acquire a satellite deposit (as its plant capacity is licensed for 3mn lbs p.a.).

- Stage 1 (equity funded) production rate of up to 700,000 lbs p.a. of U308 over 2H15 to 1H17
- Stage 2 development plan based on debt funding and

construction in H1 2017 with additional production of 500,000 lbs p.a. of U308 over 2H17 to 2019 (1,200,000lbs)

- Stage 3 development plan based on debt funding and construction in 2018 –19 with additional production of 1,100,000 lbs p.a. of U308 2H19 onwards (2,300,000lbs)

The ISL plant is state of the art and up and running. Here is the osmosis facility. 

Western Uranium (WUC.cx) was created by a transaction between Homeland Uranium Inc. and Pinon Ridge Mining LLC. following the acquisition of Pinon Ridge Mining LLC at \$3.00 per share (post consolidation price) and the name change to the current designation. Confusingly its website is www.blackrangeminerals.com which has the potential to muddle matters with the company that had originally tried to buy the mill that Anfield Resources acquired.

In any case, In August 2014, WUC acquired its mining assets from Energy Fuels and in September 2015 acquired additional properties from Black Range Minerals. The most interesting part if the milling ambitions but it is worth mentioning that it claims to have is the second largest uranium resource holder in the United States with assets totaling over 100mn pounds of U308 and 35mn pounds of vanadium at its Sunday Mine Complex is fully permitted and production at the project is slated to commence later in 2016

It plans to build the licensed and permitted Piñon Ridge Mill site near Nucla, Colorado. This mill project was part of a package, sold in August 2014 by Energy Fuels, including historic uranium production sites and uranium exploration projects (including the Sunday Complex, the Willhunt and San Rafael projects, the Sage and Van 4 mines, and the Farmer Girl, Dunn and Yellow Cat projects) to a private investor group led by Baobab Asset Management and former Energy Fuels president George Glasier, who now heads WUC.

The mining assets are located along the Colorado-Utah border. Energy Fuels retained a 1% production royalty on all of the properties. Energy Fuels had acquired Piñon Ridge in 2007, and had been looking to build a 500 ton per day mill there and first received a licence in 2011. The company subsequently acquired the already operational 2,000 ton per day White Mesa mill in Utah, meaning it no longer needed to construct a mill at Piñon Ridge. WUC's goal is that production should begin in 2017

Western also holds an exclusive license to use ablation mining technology, a technology that improves the efficiency of the sandstone hosted uranium mining process

As for **Anfield Resources (ARY.v)** it has been relatively quiet of late. In mid-August of 2015 the company made its move into uranium, but not much has happened since. At that time, it entered into a definitive agreements with the Russian energy materials group, Uranium One, to acquire the Shootaring Canyon uranium mill located in Garfield County, Utah, and a portfolio of conventional uranium assets containing a historical estimate of U_3O_8 resource of 6.8 million pounds of U3O8. The deal, which was valued at around US\$5mn, is to be settled over a period of up to four years with a combination of cash and shares.

The Shootaring Canyon mill is a small conventional acid--leach facility that is permitted to process up to 750 tonnes of ore per day, with a capacity to process up to 1,000 tonnes per day. The mill was built in 1980 and during its period of operation it produced and sold 27,825 pounds of U3O8 (with recoveries of 90%). In an oft-heard story, the mill ceased operations in 1982 due to the depressed price of uranium, and has since been kept on care and maintenance, and apparently is in "good" condition. It also has at its disposal some surface stockpiles at the facility with a historical estimate of

250,000 pounds of U308 at an average grade of 0.13% U308. Maybe of most importance though is that the Shootaring Canyon Mill is one of only three licensed uranium mills in the United States.



Going back one sees that this asset was sold by Uranium One only in November 2014 to the aforementioned Australian company, Black Range Minerals (ASX: BLR) who were going to pay \$10mn for the mill. Anfield clearly been profited from being the buyer on the rebound when that deal came to grief. Whether it will actually get the mill into operation again remains the question at this point.

Supply Crunch

Hard core Uranium bulls know how Moses felt when he was destined to wander forty years in the desert and never get to see the Promised Land. The great hope had been that the Japanese reopening would help matters and yet it hasn't (at least not yet). The second hope (quite a vain one) was that the Germans would see the light on their unilateral closure actions (and they have not). The one consolation being that everyone else in Europe regards the Germans as crazy for taking the action they did while still mouthing platitudes to low carbon emissions and ramping up coal-fired power at the same time!



Source: Western Uranium

Probably all one needs to know is encompassed in the preceding table, which says more than any number of price charts. There is massive future demand baked into construction schedules that, with the amounts of money expended, will not be derailed.

Current production (and even planned production below) is not even vaguely able to meet this demand.



Source: Peninsula Energy

Conclusion

Is there a trend in the uranium space beyond the ever lower spot price? We believe that, yes, there is. Quite clearly exploration (anywhere, but the Athabasca) is for the birds. The market won't fund it and investors won't give credit for whatever you find. Paradoxically though, we have stumbled on these two examples of companies that are moving rapidly to production with nary a mention of the type of bloated budgets and phone-book thick PFS/BFS underpinnings that keep Uranium wannabes and their investors in a state of permanent expectation/disappointment/trepidation.

Hopefully this will be the start of a trend. Heavyweight investors (whether they be Resource Capital at Peninsula or Baobab Asset Management at Western Uranium) are clearly not fazed by the current flaccid spot price or the torpid Germans and are looking for the payday when the post-Fukushima phase comes to its inevitable end.

Uranium Round-Up – Like Herding Sheep

I almost regret the idea of doing a round-up of the uranium names out there. It is a sure sign that a mining sub-space has been through the wringer when the online “lists” of uranium companies include companies that have long since either gone bust, been taken over or gone into the recycling hopper and emerged reborn as Rare Earth or some other specialty metal

seeker. One very slick interactive site (updated prices/moves and hi-los) with a listing of the “space” did not have Fission Uranium (TSX: FCU) amongst its players in the space despite its near \$400mn market cap. It would seem that the online sources make the sector look more moribund than it really is. They also had Ucore listed in their seventeen “surviving” uranium stocks.

Therefore it does the space no good that the “shop-windows” for the Uranium department store look like the space has closed down (and not just for refurbishment).



Gathering information on which companies are still in the land of the living and which are actually focused on uranium is somewhat like herding sheep.

The space, of course, burgeoned at least twice in the last ten years and both of these blooms were followed by mass die-back. The Uranium sub-space became in many ways the densest populated sub-space, after gold/silver, in the Canadian exchanges in particular, with Australia a substantial distance behind (but with companies that were larger on average and more mid-tier) while the London market fielded a mere handful of juniors. The crash of 2008 proved to be severely weakening for most and then the Fukushima debacle was another deadly blow. The REE (rare earth elements) and Graphite booms provided an escape hatch that proved there was life after death for a uranium junior, though some might have wished they had never made the change to Rare Earths, in particular.

Those that have tended to survive have done so because they were more advanced when the hammer-blows fell. Those with moose (literally) pasture have not survived at all. Considering how stubbornly the uranium price has stayed at or near its lows there has been a flow of notable deals. Notable amongst these were the Dennison move on Fission Energy (from

which the aforementioned Fission Uranium was the newco spin-out) and then just last week there was further consolidation with Energy Fuels move on Uranerz.

The uranium space has quite a few feisty players that show up the rather static non-movers and non-shakers in the rest of the mining space. The year 2013 was particularly lively with sharp elbows flailing away at each other. In the case of Fission Uranium it went on, rather smartly after its spinout, to absorb Alpha Minerals in a bulking up exercise that cost around \$180mn.

Energy Fuels is also a serial deal doer having previously acquired Strathmore Minerals, one of our favoured stocks in the third quarter of 2013. The company also showed it was not afraid of market conditions when it had taken over Titan Uranium in a \$25mn deal in late 2011, just a few months after the Fukushima event.

Dennison, around the same time as Fission moved on Alpha, had thwarted Mega Uranium's move on Rockgate Capital, by over-bidding Mega's offer.

The latest deal

The uranium year got off to an auspicious start with the aforementioned acquisition by Energy Fuels of Uranerz Energy Corp. in an all-stock deal valued at more than \$150 million. Under the proposal, each Uranerz share will be exchanged for 0.255 common share of Energy Fuels. Let's hope this is a trend that will continue to bubble along.

The combined company will be the largest uranium miner in the U.S. and has long-term sales contracts with U.S. nuclear reactors.

Clearly the deal size is creeping up for Energy Fuels.

Off on a Tangent

Then there is the situation at Anfield Resources (TSXV: ARY) where the very interesting purchase of the Shootaring mill in Utah had the potential to lift them to another league but has been bogged down in prolonged and torturous financing issues. With the company having to agree a financing with a "debt" group we have never heard of, we suspect that either the mill deal will revert back to original owner Uranium One (something that happened before when ASX-listed Black Range Minerals could not close their acquisition of it) or Anfield ends up in a "pound of flesh" deal (hopefully not like that which was the downfall of Maudore Minerals).

Shootaring is an interesting chess piece in the uranium vertical integration game in the US, so watch for it becoming available again.

Conclusion

Consolidation is the name of the game. In other mining sub-spaces it is given lip-service... while in the uranium space actions speak louder than words. The fog of post-Fukushima confusion and despair is lifting and now targets are becoming clearer for majors and mid-tiers who view the surviving juniors as a wolf-pack views a sheep herd. We could conjure with a few names and definitely NexGen Energy (TSXV: NXE), that we wrote of a while back, with its proximity to some of Fission's assets looks a tasty leg of lamb. Ucore is not a uranium target per se but has embedded within it some very sexy uranium assets that the market has long overlooked due to the company's focus being different for so long now. These could yet be a money-spinner through disposal or demerger.

With the energy space coming under the microscope in the wake of the oil price collapse, uranium is starting to look like the better end of the space after years in the doghouse. With any luck it too can be a double beneficiary of rotation into mining AND rotation into alternative energy sources. On top of this we have the slow return to normality in Japan and the

ever-present threat that Russia's sales of its remaining ex-warhead material might be disrupted in some tit-for-tat action against the US.

All in all, these are the bluest skies uranium has seen for years now and consolidation looks set to continue while there are so many bargain companies lying around, with reported resources which could only be replaced with exploration work at a cost that is multiples of the levels the current juniors are valued at by the markets.