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**The Fourth Dimension**

**A Monday Morning Musing from Mickey the Mercenary Geologist**

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I am writing on the plane from Chicago to Albuquerque after two days conducting an investor workshop, speaking on panel discussions, and meeting with management of companies exhibiting at Rich Radez' Chicago Resource Expo. The conference was a big success; well-attended and well-received by both companies and investors. I will have more on the program and ideas on interesting stock plays in the next week or so.

This morning's musing is about space and time and how important they are to accomplish our goals in the natural resource business. Those who have heard me speak over the past two years are familiar with my views on the profession of geology. I am an Earth scientist who practices the art of geology.

Let me elaborate: As geologists, we make maps and take rock samples on the two dimensional space of the earth; that is, within a surface area of the Earth. This is the science of geology as used to find ore. We interpret this information, project it into the third dimension, and predict what will be encountered at depth. Our hypothesis is tested by penetrating with a drill, taking samples, and making maps within a three dimensional space; that is, within a volume of the Earth. A good geologist is able to take two dimensional data and successfully project it into the third dimension. This is the art of geology. In other words, the skill set required to have consistent success with that dogged truth tool, the drill, is an art that separates the ace from the average geologist.

Unfortunately, the Earth scientist may not pay enough attention or have the needed information to understand the fourth dimension, time. Let me give you an example: Patterns from a surface geology map predict that gold ore found on the surface will be encountered at a certain depth. However, a fault that was concealed by gravel cover on the surface has displaced the gold ore body to a different area. The drill hole encounters no gold. In this instance, there are two critical time factors that derailed the geologist's ability to successfully predict location of gold ore within the three dimensional volume. Firstly, the gravel that covered the ore was deposited later than the fault and therefore, the fault was not revealed on the surface. Secondly, the fault movement was later than the deposition of the gold ore. Time is a critical factor to success or failure of discovery.

The fourth dimension is also critical in business success or failure. I will give you another example: Last Sunday, on a so-called "day off", my longtime friend, Tim Tessendorf and I visited an old uranium mine northwest of Grants, New Mexico. The famous Grants Mineral Belt is still the world's second largest

historic uranium producer despite production ceasing in the aftermath of the Three Mile Island fiasco in 1979, collapse of the uranium price, and resulting failure of the USA's uranium industry in the early 1980's.

Tim and I first met in 1981 when we both joined Santa Fe Pacific Mining in Albuquerque, New Mexico. By 1987 Tim and I were both out of jobs after SFPM's staff decimation resulting from exchange of the Lee Ranch coal mine north of Grants for the Mesquite gold mine of Consolidated Goldfields in southeast California. I was lucky enough to land a consulting job in mineral exploration within 24 hours of my firing; Tim, however, was not so fortunate. The mining business was in a bad time and he could not find work as a geologist. But Tim is an astute and resourceful man: he went back to school, studied surveying and graphic technology, and has had a successful career for many years as a draftsman, title researcher, and registered professional surveyor with a local engineering consulting firm.

Tim and I left at 8 am, drove 110 kilometers west to Grants, and then north into the Ambrosia Lake area to re-visit the long defunct Poison Canyon uranium mine. He was geologist at the Poison Canyon mine from 1976 to 1980. We had the requisite topographical map and Tim's memory to serve us. We parked on the newly-graveled main road and hiked about 2.5 kilometers to the former mine site. During the past 28 years of time, the access road is gone; it is now completely covered by blow sand and there is little left except a vague cattle trail. Again at the mine site, nothing remains; it is reclaimed with little evidence of the former open pits or the entrance to the underground mine tunnel. The old mine is now a desolate, windswept, grass and cacti-covered depression surrounded by low mesas. My, how time can change appearances!



### **Poison Canyon Reclaimed Mine Site**

The lowest point in the left center of this photo is the former site of the largest open-pit and the entrance to the underground mine.

In the course of a couple of hours, we explored all the old pits, former area of the offices and shops, reviewed the geological setting, and examined the host rock, the Poison Canyon sandstone of the late

Jurassic Morrison Formation, about 140-150 million years old according to the Geologic Time Scale. Tim spoke of the orebody and the operation, and noted that many high-grade, uranium-bearing petrified logs provided a significant amount of the mine's total uranium production. We then went looking for one of these logs that Tim had discovered while prospecting the Poison Canyon sandstone for more orebodies. It took about 30 minutes of time but Tim's memory is good and we found the log. It is pictured below:



### **Poison Canyon Petrified with Yellow-Green Uranium Minerals on Weathered Surfaces-**

I could not help but reflect on the timing of all this. Tim found this log in July 1976. At that time, it was in an area scheduled for eventual mining but the timing of Three Mile Island and subsequent demise of a viable USA uranium mining industry scuttled those plans. I then thought back to accounts of the early days of uranium prospecting. In the late 1940's and early 1950's, domestic uranium was in drastic short supply, the Cold War and nuclear arms race were in full force, our government had a subsidized program to encourage uranium prospecting, and it had established a uranium-buying station in nearby Milan, New Mexico. Prospectors armed with rock picks and Geiger counters, were swarming everywhere in the Colorado Plateau, searching for uranium-bearing petrified logs. A really big log could make you rich for life, one this size would have provided Tim and I both with more than a year's wages. If this would have happened 60 years earlier in 1948, we would have hiked back to the truck, gotten our picks and shovels, went back, and dug it out. The next day we would have contracted a mule skinner, loaded it on the mules, hauled it out to the nearest road and our pickup truck, loaded the pieces up, and driven 25 kilometers into Milan to the buying station. It would have been weighed and assayed and we would have been paid a year's wages for a couple of days of work. Then we would have raced off to Albuquerque for a s\*\*\*,

shower, and shave, followed by a rendezvous at the Monte Carlo steak house and bar and prospecting for a couple of pretty women to wine and dine and dance and romance. The Monte Carlo is closed on Sunday's so in 2008 Tim and I hit Route 66 Casino on the way home, ate a burger and drank a brew, watched Kobe and the Lakers destroy the Nuggets, and flirted with the waitresses. Tim got a date and I got a phone number. Time doesn't change everything.

But Tim and I were both born in 1952, more than 25 years too late to be Colorado Plateau uranium prospectors. The log has lost its value in 60 years time. The Poison Canyon mine is long gone, the area reclaimed, the uranium left behind way too little to justify the capital expenditure required to extract it. Future uranium mining in New Mexico is awaiting permits and construction of a new regional toll mill. That development is probably five years into future time. Our timing is just bad.

However, one question must be asked: with the myriad of prospectors and their Geiger counters buzzing in the area during the late 40's and early 50's, how could this log have possibly escaped detection? The original Grants Mineral Belt uranium discovery by shepherd Paddy Martinez was made in Poison Canyon in 1951. He went there because his sheep were dying and he thought it might be because of radioactivity from uranium. He wasn't quite right but there is abundant selenium-bearing loco weed in the area (therefore, the name "Poison Canyon"), selenium is a constituent of the uranium deposits, and loco weed is therefore a guide to uranium ore. This log is a few kilometers from the site of the original Grants uranium discovery, clearly visible from 100 meters away, loaded with secondary uranium minerals, obviously high grade, and highly radioactive.

Here is my hypothesis: Time is once again the culprit. As you can see from the photo, the log is barely exposed and largely covered by sand and rock debris. I propose the following:

In the heyday of uranium prospecting, the log did not crop out. It was still entombed within its host, the Poison Canyon sandstone. Since it was not an outcrop, it was not found. The log was exposed sometime between the mid-1950s and 1976, most likely by a flash flood during a late afternoon thunderstorm common to northwestern New Mexico in July and August. Its exposure is simply an accident of erosion over geologic time.

Time is critical to the resource business. After 25 years of dormancy, we once again have a viable domestic uranium exploration industry. What the greenies, the NGO's, and socialistic politicians destroyed thru irrational fear, propaganda, "Chicken Little" policies, and bad science in the early 1980's has now come full circle. It is now green to be pro-uranium and the increased burning of coal over the past three decades to service worldwide electrical demand is now the latest global environmental scapegoat of the eco-social fascists.

Smart investing is also a function of time. I make a living by researching, finding, evaluating, and speculating in undervalued junior resource stocks. What is undervalued today was not undervalued one month or six months or a year ago and, if I make the right choice, it certainly won't be undervalued one or six or twelve months from now.

You must buy and sell to make money in the stock market. I can only shake my head in amazement when a newsletter writer, a stock broker, or an analyst in the junior resource sector says he is a "buy and hold guy". That's a great philosophy for mutual funds in your IRA. Just re-balance those long-term holdings once or twice a year.

However, these microcap venture capital stocks will run up and down like a yo-yo. Almost every Toronto Venture Exchange company shows at least a double in 52 week high and low trading prices. Some are five and ten baggers. These highs and lows in share price often correlate well with liquidity, i.e., high and low trading volumes. Check this out by doing your own research.

I buy an issuer that is undervalued, I sell half when it doubles, I take that money, I find another undervalued stock, and I invest again. I continue to take profits with my remaining zero cost, one-half position in the original buy. By that time, I am playing with the house, someone else's, or maybe even your money.

Junior resource investing is a high risk gamble but we can skew the odds in our favor with careful research and due diligence. The key is picking the right stocks at the right time, i.e., when they are unknown, unwanted, unloved, and undervalued.

That's all for today folks, it's time to go.

Ciao for now,

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The [Mercenary Geologist Michael S. "Mickey" Fulp](#) is a Certified Professional [Geologist](#) with a B.Sc. Earth Sciences with honor from the University of Tulsa, and M.Sc. Geology from the University of New Mexico. Mickey has 30 years experience as an exploration geologist searching for economic deposits of base and precious metals, industrial minerals, uranium, coal, oil and gas, and water in North and South America, Europe, and Asia.

Mickey has worked for junior explorers, major mining companies, private companies, and investors as a consulting economic geologist for the past 22 years, specializing in geological mapping, property evaluation, and business development. In addition to Mickey's professional credentials and experience, he is high-altitude proficient, and is bilingual in English and Spanish. From 2003 to 2006, he made four outcrop ore discoveries in Peru, Nevada, Chile, and British Columbia.

Mickey is well-known throughout the mining and exploration community due to his ongoing work as an analyst, newsletter writer, and speaker.

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