

Things are Looking UP

It was somewhere between as much as 2 million years ago and maybe as little as 350,000 years ago that your ancestor and mine may have warmed themselves as they sat around a fire enjoying the delights of a barbecued mammoth steak and possibly staring in hypnotic, wonderment towards the star-filled heavens.

The night sky must have been impressive back then with no pollution from any light source, other than the camp fire, and it doesn't take a lot of imagination to believe that the spectacle was ample replacement for the high definition, wide screen, colour TV that most humans enjoy watching today.

Many anthropologists attribute the ability to cook meals as a major landmark in the acceleration in the growth of the human brain that likely contributed to the unprecedented evolution of our species. Fire and heat were the critical components in our ability to cook the meals, although in recent times I'm thankful for the self-cleaning oven and microwave that have also played their part.

Over the same period of 2 million years, or longer, the earth cycled in and out of what can only be called ice ages, each lasting approximately 100,000 years in duration, interrupted by inter-glacial periods that each provided up to 20,000 years of more temperate relief from a world where large, thick ice sheets covered wide Polar Regions that extended much closer to the equator from both North and South.

By the way, before you get too set against "Global Warming", we are 18,000 years into our most recent inter-glacial period and closer to what could well be a descent into another extended ice-age.

The energy industry in Canada has taken hit after hit in recent times from those opposed to oil & gas projects, exploration programs, oil sands, pipelines, fracking, carbon and to anything remotely considered non-renewable such as fossil fuels.

All population projections suggest a continued rise well into the next century and the continued demand for energy will also increase as humans live longer lives; need to cook meals; heat and cool homes; and fuel their transport needs.

As Indian, African, and Asian populations move closer in parity with the living standards enjoyed by their European & North American cousins, there will be an ever increasing demand for energy, and if anyone thinks that renewables will soon replace oil & gas, you may want to think again.

Many believe that technology will be the saviour of the human race and in many ways they are probably right. Just look to the heavens again, all our ancestors could see were the twinkling stars, the planets, sun & moon, with the occasional meteor shooting across the night sky.

They had little knowledge about the Universe and what those little spots of light really were, and likely made up stories to make sense of it all.

With our technology, the "Hubble" telescope; the voyager missions into deep space; an orbiting space station and countless manned trips to the Moon and soon to Mars, our understanding far

outweighs theirs. The images that we can view looking back in time of far-off galaxies, star systems and events that occurred closer and closer to the creation of the Universe are stunning.

I should point out that without energy, the unquenchable thirst for knowledge and committed leadership none of these adventures into Space would have been possible.

"We choose to go to the moon in this decade and do the other things, not because they are easy, but because they are hard" President J.F. Kennedy

Along the same lines in the seismic industry we have been exploring for resources under the surface of the planet for decades. Artisans first used "*witching*" techniques, then progressed to using geophones to pick up reflected and refracted sound from an energy source to map the subsurface.

Geophone technologies, techniques and equipment have greatly advanced over the years to the point where interpretation of the vast quantity and quality of data acquired today bears little resemblance to, and is greatly superior to, what was available for the geophysicists, geologists, processors and interpreters of the 50's & 60's.

Very relevant is the analogy comparing the high definition, wide screen, colour TV with the first tiny, black & white TV that my family gathered around when I was a kid, 60 years ago. We thought it was fantastic at the time, even though the image was grainy, intermittent and would periodically scroll uncontrollably. I remember that when the limited programming was over, we would continue to sit and stare at the screen until the image gradually disappeared into an ever shrinking little white dot. Today's high resolution TV images are beyond belief in quality and reality.

This year we have seen an uptick in seismic programs, with some of these programs in areas that have already been shot several times and about which, you would think, everything was known. This is not the case however, and we expect seismic exploration activity to continue well into the future as the newer technologies are deployed, better results are realized and the demand for energy increases.

The challenges remain on the environmental and regulatory side, and maintaining competent employees and keeping them safe, in what is now a very protracted season, will be as equally challenging going forward for the remaining seismic companies and contractors after what was without doubt, the worst downturn for the seismic community.

I can state with cautionary optimism that things are finally looking up.