



Session: Exploration
Tuesday, Sept. 23
10:15am – 12:15pm
Room N261, Las Vegas Convention Center, Upper Concourse

Title: How We Used to Find Uranium and Will These Techniques Work Now?

Presenter: Dean T. Wilton, Executive Vice President and COO, Neutron Energy

Abstract:

During the 1970's "boom" in uranium exploration and development in the western United States those of us who participated in the exploration programs of the time were "blessed" with readily available rotary drill rigs which could be used at a relatively economical cost. The availability of the effective tool [along with gamma logging units] served as a platform to easily and quickly test our targets. Our geological models were developed from the recognition of geochemical cells [oxidation/reduction interfaces] and roll fronts in the tertiary basins of Wyoming and Texas coastal plain, and the fluvial channel-hosted tabular deposits of the Colorado plateau. At the same time, our target identification and selection was somewhat [to significantly] influenced by the presence of small to large-scale uranium and Triassic sediments of the Colorado plateau. At the same time, some of our more innovative competitors attempted to apply these mineralization models to more frontier areas elsewhere in the US [and other parts of the world]. As a result of these efforts considerable uranium mineralization was discovered, but much of it was never developed. And, during this period, there was little effort on the part of the environmental regulators to require exploration permits for our drilling programs.

Then, the uranium exploration industry fell into our own "nuclear winter". While we appear to be emerging from the "nuclear winter" there is still not much real uranium exploration being conducted in the United States, but there is considerable re-evaluation of previously outlined uranium mineral deposits.

It is the author' opinion that many of the currently known, yet undeveloped uranium deposits were not brought into production because of technical and/or economical considerations. Furthermore, we believe that there will be a real need to discover significant new uranium deposits in order to fulfill the fuel needs of the

nuclear energy utilities. While we believe that the exploration tools from the 1970's remain valid and effective in the search for new uranium deposits in the US, we are firm in our belief that the more comprehensive utilization of fundamental geology, as well as exploration geochemistry and geophysical methods for mapping will be combined to discover the new deposits that the utility industry will require. This comprehensive and application use of all of the tools in the exploration geologists "tool box", which we term "uranium systematic" will lead to more effective and successful exploration programs.