



DINNER MEETING – Thursday, April 25, 2024 – IN ONTARIO

Mineral Exploration in the Arabian Nubian Shield - the Last Terrestrial Frontier

PRESENTED BY: Scott McKeag, Project Manager, Alpha Exploration, Eritrea, Africa

TIME: 6:00 pm *Social*

7:00 pm *Dinner and Presentation*

LOCATION: Dave & Buster's Conference Room
4821 Mills Circle
Ontario, CA 91764

HOSTED BY: SoCal Section of SME

COST: RSVP - Professional \$45, Student \$15
At door - Professional \$55, Student \$25



RSVP by: Thursday, April 18, 2024

All are welcome! Come mingle with fellow geologists, engineers, and miners!

Register for the event via email to Carrie Hartford chartford@jenike.com by April 18, 2024.

You can pay via Venmo @SMESoCal or you can pay with credit card via Eventbrite:

<https://www.eventbrite.com/e/mineral-exploration-in-the-arabian-nubian-shield-the-last-terrestrial-frontier-tickets-858576695007?aff=oddtcreator>

ABSTRACT: The Arabian Nubian Shield (ANS) is one of several large ancient metamorphic cratons on earth. The ANS is Neoproterozoic making it the youngest of the cratons. The ANS is the result of accretion of many juvenile island arcs to the northeastern margin of Gondwanaland during the closing of the Mozambique Sea at around 800 mybp. Due to this, the ANS is highly endowed with volcanogenic massive sulfide (VMS) deposits and deep-seated porphyry copper deposits (PCD). Due to a series of multiple micro-plate collisions and subsequent orogenic events it is also well endowed with orogenic gold deposits. Due to social-political events of the past 200 years, the ANS has been largely off-limits to modern exploration and is considered underexplored and highly prospective. The ANS is found in the countries of Ethiopia, Eritrea, Sudan, Egypt, Saudi Arabia, and Yemen, surrounding the Red Sea.

Alpha Exploration, its predecessors, and its founder Alasdair Smith have been involved in Eritrean Exploration for more than 20 years beginning soon after its successful fight for independence from Ethiopia. This activity has resulted in several discoveries including the Zara Gold Mine and the huge Emba Daro VMS deposit.

Today Alpha Exploration, a junior explorer, holds the Kerkasha Concession and is actively advancing three grassroots discoveries to resource status. The most advanced project is the Aburna orogenic gold prospect with the Anagulu porphyry copper deposit and Tolegimja VMS deposit being largely idled by lack of funds and



personnel. Most people outside the exploration industry believe that mineral deposits are discovered by the major mineral companies such as BHP, Barrick, and Newmont. The truth is almost all mineral deposits are found by junior explorers and are sold or lost to the large mining houses. It is a cut-throat business with billions of dollars made, lost, and stolen during the cyclical nature of the business. In the industry, location and timing are everything, with geology playing a very minor role.

BIOGRAPHY: Scott McKeag has a BSc in Earth Science from Cal Poly Pomona (1982) and a MSc in Geology from the University of Otago, New Zealand (1987). During his more than 30 years of involvement in the mineral and environmental industries, he worked at the Morning Star gold Mine in San Bernardino County as chief geologist from 1988 to 1990, at the Kensington gold mine in Juneau, Alaska as senior production geologist, and at the Nixon Fork gold mine in McGrath, Alaska as chief geologist. He has spent the past 12 years of his career in the ANS for Barrick at Jabel Sayid, in Saudi Arabia (third largest VMS on earth), and for the Qatari government in Sudan. Scott is known for his work on orogenic deposits, VMS deposits, and porphyry copper deposits (PCD). He is credited with discovering the Jebel Ohier PCD in Sudan, the first documented copper porphyry in the Arabian Nubian Shield. For the past 3 years, he has worked for Alpha Exploration in Eritrea and is advancing three projects to resource status, namely the Anagulu PCD property, the Tolegimja, VMS prospect, and the Aburna orogenic gold deposit.



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