

AIPG Fall 2009 Field Trip – Sonora, Mexico November 13 and 14, 2009

Get your cameras and passports ready. Dawn Garcia has been very busy getting the final details in place for the fall field trip. This will be a weekend field trip to northwestern Sonora. The first day will be a visit to the world-class gold mine operated by Fresnillo PLC. We will have a tour of the mine and possibly the new mine construction at Soledad-Dipolos. All visitors to the mine will be required to bring their own steel-toed boots. No children are allowed; however, should anyone wish to skip the mine tour, a day at the beach is a great alternative. The second day would be a visit to various world-class petroglyphs near Caborca. There will be some walking and hill-climbing, but no long hikes are anticipated. Overnight accommodations will be at Puerto Peñasco (aka Rocky Point). The mine is about one hour's drive from Puerto Peñasco. Most of the drive is on state highway, but the last 15 minutes is on a graded (well-maintained) unpaved road maintained by the mine. The petroglyphs are within a 2 hours drive. There is likely to be dirt roads encountered during day 2, also.

La Herradura Mine

La Herradura Mine and Soledad-Dipolos Project is an open pit, heap leach gold mine that commenced operations in January 1998 as a joint venture between Fresnillo PLC and Newmont Mining Company (Newmont) under the Mexican subsidiary, Penmont. The planned production is an average of 40,000 tonnes per year of ore mined expected for the remaining life of mine. The current mine plan anticipates that production will end in 2018. Fresnillo's Soledad-Dipolos project, located about 10 kilometers away, will be an open pit gold mine with an average ore grade similar to Herradura. Construction is to be completed by the end of 2009 and operations will begin in 2010 with a project mine life of 11.5 years. It is expected to produce at a peak rate of approximately 100,000 ounces of gold annually.

La Herradura Mine is located within the basement rocks of the Caborca Terrain of northern Mexico. These units are overlain by thrust sediments and cut by intrusives emplaced during the

development of the Continental Jurassic Arc. The ore body formed by mesothermal mineralization associated with high-angle structural zones oriented N30°W, along the Jurassic age Mojave-Sonora Mega-Shear. The gold mineralization occurs within broad shear zones containing dilational quartz veins emplaced into biotite and quartzofeldspathic-biotite gneiss. Typically, the mineralized veins have relatively shallow dips, ranging between 60° and 45° eastward. Gold occurs in native form and as electrum.

Petroglyphs

The area around Caborca is considered to be "the best of the best" by petroglyph aficionados. In the small hills around town there are hundreds of petroglyphs dating from 800–1200AD. Hundreds of rocks are carved with anthropomorphic, zoomorphic and geometric designs, including some very elaborate and complex ones. The Mogollon peoples inhabited the area from approximately 600 B.C. to 1400 A.D. Other native

inhabitants included the Anasazi (100 B.C. to 1450 A.D.) and the Hohokam (300 B.C. to 1400 A.D.). One prized area is the Cerro Calera, which is a small area where the carvings are in large masses all over the hill, even king-sized murals.

Logistics - The field trip is scheduled for November 13 through 16, 2009.

Field trip itinerary:

Friday Nov. 13 - Travel to Puerto Peñasco and stay in the Peñasco del Sol Hotel

Saturday Saturday Nov. 14 - **La Herradura Mine**

- Meet in lobby at 8:30 and drive to mine
- Presentation and tour of mine
- Lunch at mine cafeteria (provided by Fresnillo PLC)
- Continued tour of mine
- Return to Puerto Peñasco
- Dinner with meeting at The Point (included in cost of field trip) arrive and stay in Puerto Peñasco

Sunday Nov. 15 - **Petroglyphs**

- Meet in lobby at 8am and depart to Caborca
- Meet our local guide (Jose Valenzuela) at 10am
- Visit two archaeological sites: Ejido La Calera and Templo Pueblo Viejo
- Late lunch in Caborca prior to additional sight-seeing and returning to Puerto Peñasco

Monday Nov. 16 - depart Puerto Peñasco (or enjoy the beach, and/or stops at El Pinacate Reserve and Organ Pipe National Monument) and return to home

Costs for the field trip: \$100 for both Saturday and Sunday (includes Saturday lunch and dinner, and Sunday lunch) -or- \$40 for Saturday (includes lunch and dinner \$60 for Sunday (includes lunch only, plus guide and fees for archaeological sites)

Let Erick Weiland know immediately if you are attending [EWeiland@pirnie.com]
Checks should be made out to AZ Section of AIPG and sent to Erick at:

Erick Weiland Malcolm Pirnie One South Church Avenue, Suite 1120 Tucson, AZ 85701

We have a block of rooms booked at a discounted rate [\$79 single/double) at the Peñasco del Sol Hotel (very nice). Details of how to book these rooms will be provided to those interested in the field trip.

Please note that the mine tour will require steel-toed boots.

*** New Federal travel rules require a valid US passport when re-entering the US from Mexico* * Participants should obtain passports or get them renewed in time to attend the field trip***