



30TH. ANNUAL SDSU GEOLOGY ALUMNI FIELD TRIP

SUNDESERT NUCLEAR POWER PLANT SITE

GEOLOGY, GEOMORPHOLOGY & OPAL HILL MINE

SATURDAY & SUNDAY FEBRUARY 27 & 28th 2016

Our 30th Annual SDSU Geology Department Alumni field Trip/Campout will be in the Lower Mojave Desert east of the Palo Verde Mts. and SW of Blythe, CA. **Bill Elliott, SDSU Graduate and local Engineering Geologist** worked with FUGRO, Inc. on SUNDESERT Nuclear Generating siting studies in 1974. His written summary of the 1977 Early Site Review Report will be included as a part of the Field Trip Handout.

All SDSU Geology Students, Faculty and Alumni are encouraged to attend. Especially Students... you will be alums one day so you might as well start getting involved in Alumni activities now!

Saturday Morning: we will leave the Oxbow Campground along the Colorado River about 10:00 AM for our **"4-Wheel Drive Only"** journey to the site where SUNDESERT was proposed to be built. We will then travel north to the Bradshaw Trail and then west to look at ancient Pediments/Alluvial Fans/Soil Profiles and Desert Varnished-covered (patina) surfaces. Next, we will head south on Wiley Well / Milpitas Wash road to look at vertical exposures of mid-Tertiary Red Beds, manganese veins and a natural desert watering hole – all hidden away in a deep slot canyon. We hope to have SDSU students present recent Red Beds mapping, tentative conclusions, and questions yet to be answered at this stop. From here we plan to return to camp via Milpitas Wash road to SR-78 and then north towards Palo Verde.

Sunday Morning: we will leave the campground at 0900 on another **"4-Wheel Drive Only"** excursion to the Opal Hill Fire Agate Mine (no shafts or adits, just surface blasting and excavation.) The mine was abandoned several years ago and ownership is currently in limbo. June Franklin, SDSU Graduate, did her Senior Thesis on this area in 1981 and may be joining us if her schedule allows? Bring your rock hammers, sledgehammers, picks, chisels, safety glasses & gloves for a couple hours of "Rock Hounding". We will then head back to the campground for those that need to return early. For those with a more leisurely schedule we've proposed a final optional stop on the way back to San Diego close to SR-78 and Milpitas Wash Road for a Bouse Formation update at the outcrop where we camped last year for those who have not seen that exposure?

Camping: We will be camping at the "Oxbow " Bureau of Reclamation campground (http://www.blm.gov/az/st/en/prog/recreation/camping/dev_camps/oxbow.html) It is a small campground with pit toilets, fire rings, tables but no water. It is on a "First Come" basis and fees are \$15/night (1/2 price with Golden Age Passport.) Bring your own firewood, water etc. Temperature averages range from lows in the 40's to highs in the 80's so be prepared. Coordinates: 33-23'-15.00"N, 114-42'-42.81"W. RV's welcome but no hookups!

Directions to Camp site: From SDSU take I-8 east about 50 miles past El Centro to Ogilby Rd. / S34, north on Ogilby Rd. for 25 miles to Hwy 78. Right turn on Hwy 78 and go about 25 miles, you will pass a Border Patrol Inspection Station, Midway Well turnoff and eventually reach farmland. When you reach the farmland go about two miles and look for Colorado River/Cibola Refuge signs (green and brown), turn right and follow graded road about ½ mile to top of levee ("T" intersection), turn right go about 100 yards and turn left into the campground. From LA Area take I-10 east towards Blythe. On the outskirts of Blythe follow SR-78 south to Palo Verde, a small community on the Imperial County Line. Continue 2.8 miles past Palo Verde and look for Colorado River/Cibola Refuge signs. Turn left and follow above directions. Look for SDSU Geology signs and flagging. There will be someone in camp Friday afternoon, and if the weather is good, there will be folks camping Sunday night also. Supplies/Services/Fuel: I would advise everyone to top off their fuel tanks in El Centro at the 4th. St. exit. There are fast food places and fuel on both sides of the freeway and a market on the south side. In Blythe there is fuel and an Albertson's Market at the 7th St. exit which is 4 miles past the SR-78 exit. Closest fuel from the Campground is in Palo Verde, open only during the day. You are responsible for your own food, refreshments and camping fees.

Communications: Cell phone service is good in Campground, very limited on much of Saturday's journey. Family Service Radios (FRS) channel 4 with no "Tones" will be monitored and used during caravanning. Just call for the SDSU Geology Field Trip Group and remember that the range on FRS radios is limited to a couple of miles! For those with 2 Meter Amateur Radio capability there is a low level repeater between Quartzsite & Blythe, 145.310 (-) pl-107.2 and National Simplex 14 6.520 (also used during the day trips) we will be monitoring both, call for K6GHN (Bill) or N6SZO (Joe). The Black Mt. Repeater 27 miles N-W of Yuma 147.120 (+) pl-103.5 may be useful on the way out from San Diego

Notes / Important Information: If you have any questions regarding this trip, email or call me. If you think you have a better than 85% chance of attending try to let me know by February 22nd. so we can have enough handouts for everyone and set up car pools for the trip. Again... High-Clearance 4-Wheel Drive Vehicles will be Required on both Saturday and Sunday ! If you will not be driving a 4X4 vehicle, please coordinate ride-sharing for Saturday and Sunday with me or others you know that will be driving 4 X 4 high clearance-vehicles. As Always If any of you SDSU Geo-Alumni are interested in becoming involved with any of our Alumni Activities such as our Annual Banquet, our monthly lunch and planning meetings or would like to assist with future Alumni Field Trips, or, have a special place in mind that would be good for a future Alumni Field Trip, please let me know. Thank You,

Joe Coronas, SDSU Geology Alumni Field Trip Chairman. jcorones@gmail.com, Home 858.484.3582, Cell 858.603.5545.