Cross Section A – A’

The new cross section (A – A’), extending from boring 32201-N183 to boring 32203-52, crosses the Southeast fault between borings 32203-39 and 32203-45. The offsets between the sands at the fault are very similar to those seen on cross section C – C’, which was reviewed in the 8/21/2012 telephone conference call with Region 6. The new cross section A – A’ crosses the Southeast fault about 400 feet southwest of cross section C – C’. Based on these cross sections, the top of Sand B in the graben (where PAA-1 mining will occur) is offset from the base of Sand A south of the fault by approximately 77 feet on cross section A – A’ and 73 feet on cross section C – C’, preventing any direct communication between Sand B inside the graben with Sand A south of the graben.

Regarding the two mapped faults in the Mine Permit Area, Dr. William Galloway in his Direct Testimony stated:

> “… there is no evidence suggesting that the faults currently serve as a hydraulic connection between the sands, and there is substantial data refuting that possibility.”

Dr. Galloway’s conclusions, along with the significant offset between Sand B and Sand A, indicate that Sand B is not in communication with Sand A near the Church wells.