

SUPPORT FOR CONTRACTOR REQUEST

CONTRACTOR: Jonathan Caine

RATE (dollars/hour): \$

PERIOD OF PERFORMANCE: 8/30/1999 to 8/29/2000

STATEMENT OF WORK:

Dr. Caine's primary tasks will be to work with hydrogeologists to produce a representative suite of equivalent hydraulic properties for aquifer strata, including fault zones, fractured damage zones around faults and fault blocks, and to work with hydrologists to incorporate these results into saturated zone groundwater flow simulations of the Yucca Mountain hydrologic system.

ESTIMATED UTILIZATION (hours):

80 hours

PRIOR CONTRACTOR WORK EXPERIENCE WITH SWRI:

None

PROGRAMMATIC NEED FOR CONTRACTOR WORK:

The role of fractures and faults in hydrologic flow has a number of uncertainties associated with it. This work will specifically look at the role of faults and damage zones around faults as hydrologic pathways and barriers.

LIST OF ELIGIBLE CONSULTANTS CONSIDERED:

None

RATIONALE FOR SOLE/SINGLE SOURCE SELECTION:

Dr. Caine is has worked for several years characterizing aquifer heterogeneity and anisotropy due to structural features.

RATIONALE FOR NOT USING SwRI RESOURCES:

Expertise does not exist.

PROJECT NUMBER(S): 20-1402-471, 20-1402-861