

**U.S. DEPARTMENT OF ENERGY
OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT**

**PRESENTATION TO
THE NUCLEAR WASTE TECHNICAL REVIEW BOARD**

**SUBJECT: SUMMARY OF THE ROCK
MECHANICS PROGRAM**

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ROCK MECHANICAL EXPERIMENTAL PROGRAM

OBJECTIVE

**COLLECT DATA OF SUFFICIENT BREADTH TO SUPPORT
A WIDE RANGE OF ANTICIPATED AND UNANTICIPATED
ANALYTICAL AND EMPIRICAL ACTIVITIES**

ROCK MECHANICS STUDIES

- 8.3.1.15.1.1 LABORATORY THERMAL PROPERTIES**
- 8.3.1.15.1.2 LABORATORY THERMAL EXPANSION TESTING**
- 8.3.1.15.1.3 LABORATORY DETERMINATION OF MECHANICAL
PROPERTIES OF INTACT ROCK**
- 8.3.1.15.1.4 LABORATORY DETERMINATION OF MECHANICAL
PROPERTIES OF FRACTURES**
- 8.3.1.15.1.5 EXCAVATION INVESTIGATIONS**
- 8.3.1.15.1.6 IN SITU THERMOMECHANICAL PROPERTIES**
- 8.3.1.15.1.7 IN SITU MECHANICAL PROPERTIES**
- 8.3.1.15.1.8 IN SITU DESIGN VERIFICATION**

STATUS OF PROGRAM

- **LABORATORY TESTING IS CONTINUING**
- **DESIGN ANALYSES ARE ONGOING**
- **FIELD TESTING IS ON HOLD**

1989 VIEW OF NEAR-TERM FIELD ACTIVITIES

- **PROTOTYPE THERMAL STRESS EXPERIMENT**
- **SCOPING ROCK-MASS "STRENGTH" TESTS**
- **EQUIPMENT AND INSTRUMENT CHECKOUT**
- **UNHEATED BLOCK**