Several companies have made their Uteland Butte cores available to UGS for this study. This will allow for a comprehensive, regional evaluation of the study interval with a focus on facies characterization, changing depositional environments, and mechanical analysis. Future research will include detailed core descriptions (including mineralogy, RockEval, vitrinite reflectance, etc.), additional geochemical analysis (Hydrogen Index, Oxygen Index, etc.), and additional geomechanical analysis.

UTELAND BUTTE CORE ANALYSIS

Cored interval: 6647-6669.7, 6672-6707 ft (core shifted up ~7.5 ft to match logs)

**Panel 3**

**Well name: 14-1-46**
Operator: Shell Rock Oil Co.
API: 467711306
Location: UT, BEX No. 3, Duchesne County, UTHI 30204, UTM N 649580
Cored interval: 6655-6689 ft (core drilled up ~10 ft to match logs)
Core location: UT/CO, Ressman Centre

**Well name: UT 2-30D-54**
Operator: Shell Rock Oil Co.
API: 467711307
Location: UT, BEX No. 3, Duchesne County, UTHI 30206, UTM N 6495814
Cored interval: 6655-6689 ft (core drilled up ~10 ft to match logs)
Core location: UT/CO, Ressman Centre

**Well name: GD 16G-35-9-15**
Operator: QEP Resources
API: 4301333827
Location: UT, GD, No. 35, Duchesne County, UTHI 67084, UTMN 6363081
Cored interval: 5900-5930 ft (core drilled up ~5 ft to match logs)
Core location: GD Resources

**Well name: GD 1G-34-9-15**
Operator: QEP Resources
API: 4301333833
Location: UT, GD, No. 34, Duchesne County, UTHI 67084, UTMN 6275752
Cored interval: 5500-5530 ft (core drilled up ~1 ft to match logs)
Core location: GD Resources

**CONCLUSIONS**

- The Uteland Butte is laterally continuous across the Ciutee Basins, but questions remain as to how much of the unit has been influenced by faulting.
- The Uteland Butte is composed of interbedded organic-rich limestone, shale, and dolomite, often in regular shallowing upward cycles.
- Permeability for these dolomite intervals is very high, between 15 and 30%, but porosity is very low, unless fractures are present.

**Carrier bed?**

**Static Poisson’s ratio = 0.27**

**Dynamic Poisson’s ratio = 0.30**

**Dynamic Young’s modulus = 11.57 x 10^6 psi**

**Dynamic Young’s modulus = 10.90 x 10^6 psi**

- Most fractures in the Uteland Butte are near-vertical and often isolated to individual beds.
- TMD values average 9.1% in the northeastern Bill Basin core (with a high of 13.7%) and average 5.1% in the northern UD/CO core (high of 10.9%).
- Reservoir quality data indicate that the mixed type II/III kerogen is mostly in the oil generation window.
- Currently, the most productive zone of the Uteland Butte is in the central basin, mixed type II/III kerogen.

**Subsequent research will focus on well completion strategies to help unlock the Uteland Butte production outside the current area.**