"#citation: Kirkland, Douglas W., Denison, Rodger E., and Walter E. Dean, 2000, Parent brine of the Castile evaporites (Upper Permian), Texas and New Mexico, in Journal of Sedimentary Research vol. 70 no. 3, p. 749-761."

UNM Phillips 1

Sample Member Delta SW ±error Lithology

"13,224A" Anhydrite IV -223.5 ±1.5 Anhydrite laminae

"13,224C" Anhydrite IV -224.9 ±0.9 Calcite laminae

"13,225A" Anhydrite IV -222.6 ±1.2 Anhydrite laminae

"13,306A" Anhydrite III -225.8 ±1.8 Anhydrite laminae

"13,306C" Anhydrite III -225.3 ±1.8 Calcite laminae

"13,307A" Anhydrite III -224.4 ±1.5 Anhydrite laminae

"13,295A" Halite II -226.3 ±1.5 Anhydrite breccia

"13,284A" Halite I -215.8 ±1.1 Anhydrite breccia

"13,272A" Halite I -223.7 ±1.4 Nodular Anhydrite

"13,231A" Anhydrite I -224.9 ±1.0 Anhydrite laminae

"13,231C" Anhydrite I -226.1 ±1.3 Calcite laminae

"13,245A" Anhydrite I -226.6 ±1.6 Anhydrite laminae

"13,242A" Anhydrite I -225.7 ±1.8 Anhydrite laminae

"13,235A" Anhydrite I -223.6 ±1.2 Anhydrite laminae

"13,226A" Anhydrite I -223.8 ±1.5 Anhydrite lamina

"13,229A" Anhydrite I -224.4 ±1.8 Anhydrite laminae

"13,256C" Basal Limestone -189.0 ±1.7 Calcite laminae

"13,257C" Basal Limestone -203.7 ±1.8 Calcite laminae

"13,258C" Basal Limestone -183.0 ±1.7 Calcite laminae

Union University

Sample Member Delta SW ±error Lithology

"13,308A" Halite III -223.6 ±1.8 Anhydrite laminae

intercalated with halite

"13,300A" Anhydrite III -225.7 ±1.8 Nodular anhydrite

"13,302A" Anhydrite III -224.3 ±0.9 Anhydrite laminae

"13,302C" Anhydrite III -226.8 ±1.9 Calcite laminae

"13,293A" Halite II -225.5 ±1.8 Anhydrite laminae

intercalated with halite

"13,294A" Halite II -225.6 ±0.9 Anhydrite laminae

intercalated with halite

"13,286A" Anhydrite II -226.4 ±1.7 Nodular anhydrite

"13,287A" Anhydrite II -225.4 ±1.7 Anhydrite laminae

"13,288A" Anhydrite II -225.7 ±1.4 Anhydrite laminae

"13,288C" Anhydrite II -224.1 ±0.8 Calcite laminae

"13,290A" Anhydrite II -226.1 ±1.9 Anhydrite laminae

"13,290C" Anhydrite II -225.4 ±1.9 Calcite laminae

"13,274A" Halite I -225.3 ±1.7 Anhydrite laminae

intercalated with halite

"13,278A" Halite I -226.0 ±1.8 Anhydrite laminae

intercalated with halite

"13,283A" Halite I -225.1 ±1.4 Anhydrite laminae

intercalated with halite

"13,259A" Halite I -225.9 ±1.6 Nodular anhydrite

"13,263A" Anhydrite I -225.0 ±0.2 Nodular anhydrite

"13,239A" Anhydrite I -224.5 ±0.6 Anhydrite laminae

"13,237A" Anhydrite I -226.5 ±1.7 Anhydrite laminae

"13,254C" Basal Limestone -201.6 ±1.5 Calcite laminae

"13,255C" Basal Limestone -203.8 ±1.8 Calcite laminae

UNM Cowden 4

Sample Member Delta SW ±error Lithology

"13,228A" Halite I -224.9 ±1.5 Anhydrite breccia

"13,234A" Anhydrite I -223.8 ±1.3 Anhydrite laminae

"13,223A" Anhydrite I -223.9 ±1.6 Anhydrite lamina

"13,238A" Anhydrite I -226.8 ±1.3 Anhydrite laminae

"13,232A" Anhydrite I -225.5 ±1.8 Anhydrite laminae

"13,244A" Anhydrite I -226.7 ±1.7 Anhydrite laminae

"13,241A" Anhydrite I -223.8 ±1.3 Anhydrite laminae

"13,230A" Anhydrite I -223.3 ±1.6 Anhydrite laminae

"13,236A" Anhydrite I -226.3 ±1.8 Anhydrite laminae

UNM Cowden 2

Sample Member Delta SW ±error Lithology

"13,233A" Anhydrite I -224.1 ±1.5 Anhydrite laminae

"13,243A" Anhydrite I -224.2 ±1.3 Anhydrite laminae

"13,240A" Anhydrite I -224.1 ±1.6 Anhydrite laminae

"13,227A" Anhydrite I -224.4 ±1.3 Anhydrite laminae

Outcrop samples

Sample Member Delta SW ±error Lithology

"13,309C" Halite III -223.7 ±0.6 Calcite laminae\*

1789G Anhydrite III -225.2 ±1.4 Gypsum laminae#

7855G Anhydrite III -224.7 ±1.5 Gypsum laminae

"13,321-1G" Anhydrite III -225.4 ±2.8 Gypsum lamina

"13,321-2G" Anhydrite III -225.4 ±1.7 Gypsum lamina

"13,321-3G" Anhydrite III -223.4 ±1.7 Gypsum lamina

"13,321-4G" Anhydrite III -225.2 ±1.2 Gypsum lamina

"13,321-5G" Anhydrite III -224.8 ±1.1 Gypsum lamina

"13,321-6G" Anhydrite III -224.8 ±1.2 Gypsum lamina

"13,321-7G" Anhydrite III -225.8 ±1.4 Gypsum lamina

"13,321-8G" Anhydrite III -224.9 ±1.2 Gypsum lamina

"13,321-9G" Anhydrite III -225.1 ±1.4 Gypsum lamina

Notes:

"Sample 13,209 is from about 2 km northeast of the Texas-New Mexico state"

"line along US Highway 62, Eddy Co., NM"

"Samples 1789G, 7855G, and 13,321-1G through 13,321-9G are from"

about 1.2 km northeast of the Texas-New Mexico state line in a large

"roadcut along US Highway 62, Eddy Co., NM "

\* section nearly devoid of calcium sulfate

"# designation ""gypsum lamina"" or ""gypsum laminae"" indicates that the "

sample is from a section containing alternating gypsum and calcite laminae