

CORE DESCRIPTION, FEDERAL NO. 17-3 WELL, COVENANT FIELD, SEVIER COUNTY, UTAH

Unit #	Nature of Basal Contact	Measured Depth (m)	Lithology	Sedimentary Structures	Facies	Notes
21	Sharp	6756		Core Continues Sinawava Member, Temple Cap Formation		red-brown color
		6757				
20				dark band of wispy/wavy black laminae	WAM	incipient WAM facies(?)
18		6758			WAM	continued light color deformation bands(?) fractures
		6759				
17		6760		medium angle foreset lamination	SAM	cross-cut by deformation band(?) or dual fracture zone
		6761				
		6762				
		6763				
16		6764		last wispy laminae, candidate hiatus (J-1 unconformity?)	SAM	dark banded zone - wet time of erg, possible marine encroachment (glauconite (green) grain found at 6763.5 ft)
		6765				
15				upper fine sandstone, massive (non-descript)	STC	calcrete(?) that has been dolomitized(?)
13	Sharp	6767		two avalanche sets	LTC transitioning to STC	slightly steeper laminae relative to deformation band
		6768				
		6769				
		6770				
		6771				
		6772				
12	Sharp	6773		only 3 ft but begins and ends with high angle trough cross-stratification	LTC transitioning to STC	deformation band(?), vertical fracture swarm inclined fracture swarm
		6774				
		6775				
		6776				
11	Slightly sharp (not knife edge - a bit fuzzy)	6777		depositional lamination is near horizontal-dune toe dune toe(?)	LTC	inclined fracture swarm, bitumen stained open fault
		6778				
		6779				
		6780				
		6781				
		6782				
		6783				
		6784				
		6785				
		6786				
10	Sharp	6787		good toe of dune	LTC	conjugate fractures
		6788				
		6789				
		6790				
		6791				
		6793				
		6794				
		6795				
		6796				
		6797				
9				no dune toes observable here	STC(?)	fragments with different orientation, suspect something structural here
8	Sharp	6798		fine grained avalanche(?) band deposits	LTC	deformation band(?), fractures
		6799				
		6800				
		6801				
		6802				
		6803				
		6804				
		6805				
		6806				
		6807				
7	Sharp	6808		avalanche band	LTC	deformation bands
		6809				
		6810				
		6811				
		6812				
		6813				
		6814				
		6815				
6	Sharp	6816		bimodal grain size from upper fine to upper medium massive	LTC	fracture mosaic (chicken wire)
		6817				
5	Sharp	6818		planar lamination (toe of dune)	LTC	no core
		6819				
4	Sharp	6820		conjugate fracture set - one en echelon, one inclined (closed fractures)	LTC	fault(?)
		6821				
		6822				
		6823				
		6824				
		6825				
3	Sharp	6826		bimodal lamination from upper fine and upper medium	LTC	no core
		6827				
		6828				
		6829				
2	Sharp	6830		high angle trough cross-stratification	STC	no core
		6831				
1				massive bedded upper fine sandstone with two laminae of upper medium sandstone	RWE	
				indication of planar lamination	RWE	
				chunks of sandstone; one chunk has coarse grains		
				Base of Core		

Explanation

Lithology

- Granular Sandstone
- Sandstone
- Sandy Limestone
- Mudstone

Bedding and Sedimentary Structures

- Trough Cross-Stratification
- Foreset Lamination
- Avalanche Deposit
- Planar Lamination
- Massive
- Wispy/Wavy Laminae
- Sandstone Fragments

Contacts

- Bedding Plane
- Scoured/Unconformity
- Fault

Navajo Facies

- Dune
- LTC - Large Trough Cross-Stratification
- STC - Small Trough Cross-Stratification
- RWE - Reworked Eolian
- WAM - Wavy Algal Mat
- SAM - Sandy Algal Mat

Diagenesis

- Fractures
- Deformation Bands
- Alteration (Dolomitization)