

## APPENDIX G-1

### Core Description for Well A-10-26-80-07

WELL: PEX PCEJ CHARD DV-10-26				LOCATION: 10-26-80-7 WY			
FORMATION: WABISKAW - MCMURRY				CORE DEPTH: 314 - 392.5			
SURMONT - 861				LOG DEPTH: 314 - 392.5			
DEPTH	GRAIN SIZE AND LITHOLOGY	FACIES	SEDIMENTARY STRUCTURES	CONTACTS	POROSITY	SATURATION	COMMENTS
310							Facies 1: Light gray, fissile shale with very thin siltstone streaks and parallel laminations. Deposition - shallow shelf.
315		1					
320		2					Facies 2: Light gray, very slightly glauconitic siltstone with sparse very fine-grained sandstone lenses (possible burrow structures). Deposition - shallow shelf
325	Kw Kmc	3 4 5	M Glauconitic SS	G	N	N	
330		6	M	E	F	C	Facies 3: Drab, light gray-green, massive, very fine to lower fine-grained glauconitic sandstone. This facies commonly fines upward into siltstone. Massive bedding is inferred to be complete bioturbation. Deposition - shallow shelf to lower shoreface
335		7		A	N	N	
340		5			G	C	
345		6		G / F	S	P	Facies 4: Black, highly fissile shale that is commonly transitional at the base and gradational to sharp at the top of the facies. Deposition - shallow shelf
350		7		G			
355		8a			N	N	Facies 5: Black and light brown, very fine to upper fine-grained, massive to cross-stratified, bitumen-stained and saturated sandstone. Depending on overall thickness and interbedded sediments, this facies was deposited in various types of tidal channels including sand wave, tidal channel, and tidal creek environments.
360		8a		E			
365		8b			S		Facies 6 - Black to light gray, bitumen occluded and stained, very fine to fine-grained sandstone with common burrow structures and ripple laminated heterolithic strata. Ripple laminations include both wave and current ripples. Deposition was in tidal flat environments that fringed main channel systems, such as sand flats and sand-dominated levees.
370		6/7		G	G / F	C to N	
375				A			
380					N	N	Facies 7: Gray, light brown, and black, very fine to fine-grained sandstone that grades into slightly inclined ripple laminated heterolithic strata that are moderately burrowed and bioturbated. Sandstone laminations are commonly oil-stained or saturated. Wave ripples are common. Deposition was in tidal flat environments that were marginal to active tidal channels. These mixed flats were either farther from active channel systems or included abandonment phases of active channel deposition.
385		8b					
390		OX		E			
393		8					

  

Facies 8 - Light gray, blocky to slightly fissile, shale with minor burrow structures. This facies has carbonaceous-lined root structures, coal flecks, plant debris, and thin coal beds. Deposition was in interfluvial environments that locally became fresh water swamps. This facies could also have fringed tidal flats and developed in coastal areas where fresh water lenses persisted (fresh water to brackish marsh environments).

Facies 8a - Dark gray, fissile and burrowed shale and slightly silty shale. Burrow structures are sand-filled and locally oil-stained. Faint parallel laminations are common. Deposition was in bay environments that persisted lateral to shoreface and migrating tidal channel systems. In several cores, inferred shoreface sandstones, near the top of the McMurray Formation, capped this facies indicating proximity to open marine environments.

Facies 8b - Light gray to gray, blocky to slightly fissile, shale, silty shale, and sparsely sandy shale with burrow structures and red siderite nodules. Sand-filled burrow structures are commonly oil stained. Deposition was in distal tidal flat environments some distance from active channel systems. These mud flat sediments graded into mixed flats or fresh water marsh environments.

Facies 9: Gray to light brown, very fine to coarse-grained sandstone. This facies was deposited as fluvial channels near the base of the McMurray and commonly cut into the underlying Devonian beds. Porosity is commonly poor, however, in several cores this facies is oil saturated.