Datashare 38: Appendixes 1, 2, and 3: *Prediction of lithofacies and reservoir quality using well logs, Late Cretaceous Williams Fork Formation, Mamm Creek field, Piceance Basin, Colorado*
Aysen Ozkan, Stephen P. Cumella, Kitty L. Milliken, and Stephen E. Laubach, AAPG Bulletin, v. 95, no. 10 (October 2011), pp. 1699–1723

Appendix 1. Point-Count Data*,**

Sample Information	Sample	LD2812	LD2834	LD2845	LD2854	LD3551.9
	Well	Bill Barrett 43C-3-792	Bill Barrett 43C-3-792	Bill Barrett 43C-3-792	Bill Barrett 43C-3-792	Bill Barrett 43C-3-792
	Depth (ft)	2812.00	2834.00	2845	2854.00	3551.9
Info	Formation/Unit	Ohio Creek	Ohio Creek	Ohio Creek	Ohio Creek	Upper Williams Fork
	Depositional Environment	Fluvial	Fluvial	Fluvial	Fluvial	Fluvial
	Porosity at 800 psi (%)	7.5	7.5	6.7	2.4	10.4
	Klinkenberg permeability at 800 psi)	0.037	0.039	0.016	0.004	0.472
	Grain density (g/cm3)	2.66	2.65	2.67	2.66	2.63
	Mean grain size (mm)	0.297	0.186	0.137	0.261	0.220
	Sorting (Trask P75/P25)	1.42	1.83	1.30	1.56	1.52
	Mean grain coat coverage (%)	35.00	30.00	30.00	30.00	94.00
Pores	Intergranular Porosity	0.50	0.00	0.00	0.00	1.75
	Moldic Secondary Porosity	0.25	0.00	0.00	0.00	0.88
	Secondary intragranular pores	1.75	1.00	1.20	0.00	1.40
	Frac por, intragran	0.00	0.00	0.00	0.00	0.00
	Frac por, transgran	0.00	0.00	0.00	0.00	0.00
Quartz	Mono quartz undiff	31.50	29.25	42.60	29.50	27.85
	Poly qtz <5 domains	0.75	1.25	2.60	0.25	3.50
	Poly qtz 5+ domains	1.50	2.75	0.00	0.75	0.70
Feldspar	K-feldspar Gr.	8.75	10.00	9.80	12.50	22.94
	Plagioclase Gr.	2.75	2.50	3.20	1.00	5.08
Sedimentary RFs	Shale RF	0.75	7.25	3.60	0.25	0.35
	Clayey rip up clast	0.00	0.00	0.00	0.00	0.00
	Highly deformed argillaceous RF	1.00	0.00	0.00	0.00	0.00
	Siltstone RF	0.25	1.00	0.40	0.50	0.18
	Sandstone RF	0.50	0.00	0.00	1.50	0.00
	Argillaceous chert	0.50	0.00	0.00	1.00	0.18
	Porous chert	0.00	0.00	0.00	0.00	0.00
	Dense chert	4.00	3.25	7.00	3.25	0.00
	Chert undiff	0.00	0.00	0.00	0.00	0.00
	Limestone RF	0.00	0.00	0.00	0.00	0.00
	Dolomite RF	0.50	0.00	0.00	0.00	0.00
	Micritic carb RF	0.00	0.00	0.00	0.00	0.00
	Sparry carb RF	0.00	0.00	0.00	0.00	0.00
	Carb RF undiff	0.00	0.00	0.00	0.75	0.00
Volcanic RFs	Glass	0.00	0.25	0.00	0.00	0.70
	Basalt	0.00	0.00	0.00	0.00	0.00
	Andesitic	0.00	0.00	0.00	0.00	0.70
	Silicic	1.00	0.50	0.00	0.00	0.00
	Altered	2.00	1.00	2.80	1.25	2.28
	Unaltered	0.00	0.00	0.00	0.00	0.00
	Feldspathic VRF	7.00	9.25	3.80	11.25	7.36
	VRF undiff	0.00	0.00	0.00	0.00	0.00
Metamorphic RFs	Slate	0.25	0.00	0.00	0.00	0.00
	Quartzite	0.25	1.75	0.00	0.00	0.00
	Phyllite	0.75	1.75	6.40	1.00	1.05
	Schist	0.50	1.00	0.40	0.50	0.53
	Gneiss	0.25	0.25	0.00	0.00	0.00
	MRF undiff	0.00	0.00	0.20	0.00	0.00
Plutonic RFs	Granitic	4.50	9.00	4.80	5.25	12.78
	Felsic	0.00	0.00	0.00	0.00	0.00
	Mafic	0.00	0.25	0.00	0.00	0.00
	PRF undiff	0.25	0.00	0.00	0.00	0.00
Mineral Grains	Muscovite	0.00	0.00	1.80	0.25	0.70

LD3561	LD3566	LD3573.1	LD3595.5	LD3989.6	LD4004.9
Bill Barrett	Bill Barrett	Bill Barrett	Bill Barrett	Bill Barrett	Bill Barrett
43C-3-792	43C-3-792	43C-3-792	43C-3-792	43C-3-792	43C-3-792
3561.00	3566.00	3573.10	3595.50	3989.60	4004.90
Upper Williams Fork	Upper Williams Fork	Upper Williams Fork	Upper Williams Fork	Upper Williams Fork	Upper Williams Fork
Fluvial	Fluvial	Fluvial	Fluvial	Fluvial	Fluvial
7.6	5.0	6.6	6.1	4.1	11.9
0.040	1.320	0.147	0.003	0.006	0.108
2.65	2.70	2.69	2.66	2.66	2.66
0.213	0.060	0.065	0.100	0.118	0.175
1.46	1.61	1.57	1.10	1.42	1.48
86.00	90.00	90.00	55.00	45.00	100.00
0.00	0.00	0.39	0.75	0.00	0.39
0.00	0.00	0.19	0.00	0.00	0.19
0.75	0.00	0.19	0.50	0.00	0.77
0.00	0.00	0.00	0.00	0.00	0.19
0.00	0.00	0.00	0.00	0.00	0.00
31.75	41.25	41.51	38.75	34.75	43.13
1.25	0.00	0.77	0.50	0.00	2.71
0.00	0.00	0.58	0.25	0.25	1.35
17.25	15.00	17.37	10.50	8.50	8.12
1.25	2.75	5.79	4.50	4.00	3.29
2.50	5.00	3.86	1.00	1.00	0.97
0.00	0.00	0.00	0.25	0.00	0.00
5.25	4.50	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.19
0.25	0.00	0.00	0.00	0.00	0.19
0.00	0.00	0.00	0.00	0.00	0.39
0.00	0.00	0.00	0.00	0.00	0.00
0.25	0.50	1.54	1.00	4.00	3.48
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.97
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	1.25	3.00	3.09
0.00	0.00	1.35	1.00	1.00	3.09
0.00	0.00	0.00	0.00	0.00	0.00
17.50	6.50	6.37	3.00	4.75	3.87
0.00	0.00	0.00	0.50	2.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.25	0.00	0.58
0.00	0.00	0.97	4.00	6.00	3.48
0.00	0.00	0.77	0.50	3.75	0.77
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.50	0.00	0.00	0.00	0.00
5.00	1.50	3.86	3.75	1.75	5.22
1.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.58
0.00	0.00	0.00	0.00	0.00	0.00
0.25	2.50	3.28	0.00	0.25	0.00

Sample Information	Sample	LD4016	LD4381	LD4397	LD4854	LD5715.15
	Well	Bill Barrett 43C-3-792	Bill Barrett 43C-3-792	Bill Barrett 43C-3-792	Bill Barrett 43C-3-792	Bill Barrett 43C-3-792
	Depth (ft)	4016.00	4381.00	4397.00	4854.00	5715.15
Info	Formation/Unit	Upper Williams Fork	Upper Williams Fork	Upper Williams Fork	Upper Williams Fork	Lower Williams Fork
	Depositional Environment	Fluvial	Fluvial	Fluvial	Coastal	Coastal
	Porosity at 800 psi (%)	11.7	4.1	8.4	3.4	7.1
	Klinkenberg permeability at 800 psi)	0.151	0.003	0.030	0.001	0.011
	Grain density (g/cm3)	2.66	2.66	2.65	2.69	2.69
	Mean grain size (mm)	0.376	0.070	0.335	0.143	0.176
	Sorting (Trask P75/P25)	1.48	1.36	1.43	1.64	1.35
	Mean grain coat coverage (%)	100.00	80.00	70.00	40.00	40.00
Pores	Intergranular Porosity	1.25	0.00	0.50	0.25	0.23
	Moldic Secondary Porosity	0.50	0.00	0.25	0.00	0.00
	Secondary intragranular pores	1.00	0.00	1.00	0.50	0.68
	Frac por, intragran	0.00	0.00	0.00	0.00	0.00
	Frac por, transgran	0.00	0.00	0.00	0.00	0.00
Quartz	Mono quartz undiff	42.50	52.64	40.00	36.75	51.83
	Poly qtz <5 domains	1.75	1.76	1.50	1.75	0.91
	Poly qtz 5+ domains	1.00	0.59	0.75	0.00	2.28
Feldspar	K-feldspar Gr.	8.75	10.57	9.75	1.00	2.97
	Plagioclase Gr.	3.00	3.13	2.50	1.75	3.20
Sedimentary RFs	Shale RF	0.50	1.37	1.00	2.50	1.37
	Clayey rip up clast	0.00	0.00	0.00	0.00	0.00
	Highly deformed argillaceous RF	0.00	0.00	0.00	0.00	0.00
	Siltstone RF	0.25	0.78	1.00	0.75	0.68
	Sandstone RF	0.00	0.20	0.50	0.75	0.00
	Argillaceous chert	0.00	0.00	0.00	0.00	0.00
	Porous chert	0.00	0.00	0.00	0.00	0.00
	Dense chert	1.75	1.37	1.25	2.25	1.37
	Chert undiff	0.00	0.00	0.00	0.00	0.00
	Limestone RF	0.00	0.00	0.00	0.00	0.00
	Dolomite RF	0.00	0.00	0.00	5.25	5.25
	Micritic carb RF	0.00	0.00	0.00	0.00	0.00
	Sparry carb RF	0.00	0.00	0.00	0.00	0.00
	Carb RF undiff	0.00	0.00	0.00	0.00	0.00
Volcanic RFs	Glass	1.50	0.59	0.75	0.75	0.00
	Basalt	0.00	0.00	0.00	0.00	0.00
	Andesitic	0.00	0.00	0.00	0.00	0.00
	Silicic	2.25	1.76	3.00	2.50	1.14
	Altered	2.00	3.33	5.00	1.00	2.05
	Unaltered	0.00	0.00	0.00	0.00	0.00
	Feldspathic VRF	5.00	1.76	3.50	5.25	1.14
	VRF undiff	0.00	0.00	0.00	0.00	0.00
Metamorphic RFs	Slate	0.00	0.00	0.00	0.00	0.00
	Quartzite	0.00	0.00	0.00	0.00	0.00
	Phyllite	1.75	4.31	3.50	9.75	3.65
	Schist	0.00	0.39	0.50	2.50	0.46
	Gneiss	0.00	0.00	0.00	0.00	0.00
	MRF undiff	0.00	0.00	0.25	0.00	0.00
Plutonic RFs	Granitic	5.50	2.74	7.00	4.25	2.28
	Felsic	0.00	0.00	0.00	0.00	0.00
	Mafic	0.00	0.00	0.00	0.00	0.00
	PRF undiff	0.00	0.00	0.00	0.00	0.23
Mineral Grains	Muscovite	0.50	0.78	0.00	0.25	0.00

LD5733.1	LD5761.3	LD6039.1	LD6055.8	LD6335	LD6342
Bill Barrett	Bill Barrett	Bill Barrett	Bill Barrett	Bill Barrett	Bill Barrett
43C-3-792	43C-3-792	43C-3-792	43C-3-792	43C-3-792	43C-3-792
5733.10	5761.30	6039.1	6055.80	6335.00	6342.90
Lower Williams Fork	Lower Williams Fork	Lower Williams Fork	Lower Williams Fork	Lower Williams Fork	Lower Williams Fork
Coastal	Coastal	Coastal	Coastal	Coastal	Coastal
7.1	5.6	6.7	8.0	2.8	4.2
0.003	0.002	0.009	0.015	0.002	0.018
2.71	2.73	2.68	2.70	2.76	2.72
0.126	0.184	0.198	0.159	0.091	0.096
1.49	1.51	1.47	1.47	1.50	1.56
30.00	30.00	20.00	20.00	20.00	20.00
0.75	0.00	0.43	0.00	0.00	0.00
0.00	0.00	0.00	0.50	0.00	0.00
1.50	0.25	0.00	0.75	0.25	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
51.25	38.00	45.41	43.25	33.00	41.25
0.25	1.25	0.43	0.25	0.25	0.25
0.25	0.00	2.35	1.50	0.00	0.50
3.75	3.75	5.97	2.25	1.50	0.50
3.00	3.25	2.35	1.50	5.00	5.75
1.00	1.75	2.13	1.50	4.00	4.25
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.25	0.50	0.43	1.25	0.75	1.00
0.00	0.75	1.07	0.25	1.50	0.00
0.00	0.50	0.00	0.00	0.50	0.00
0.00	0.00	0.00	0.00	0.00	0.00
2.00	2.00	1.71	2.00	2.25	2.00
0.00	0.00	0.00	0.00	0.25	0.00
0.00	0.00	0.00	0.00	0.00	0.25
6.00	3.25	0.43	7.50	12.00	14.00
0.50	0.00	0.00	0.00	0.75	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.50	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
2.25	1.50	2.99	2.25	0.25	0.25
1.25	2.50	4.05	3.25	1.50	1.50
0.00	0.00	0.00	0.00	0.00	0.00
0.75	4.00	2.13	1.25	3.50	4.25
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.25	0.25	0.00
4.00	6.75	11.30	11.25	3.00	3.50
0.50	0.75	0.64	1.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.75	3.50	5.33	3.00	0.00	0.50
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.25	0.25	0.00	0.00	0.25	0.00

Appendix 1. Continued

	Biotite	0.25	0.50	1.60	0.25	0.00
	Mica undiff	0.50	0.00	0.00	0.75	0.00
	Chlorite	0.00	0.00	0.20	0.00	0.00
	Zircon	0.00	0.25	0.00	0.00	0.00
	Tourmaline	0.00	0.00	0.20	0.00	0.00
	Rutile	0.00	0.00	0.00	0.00	0.00
	Garnet	0.00	0.00	0.40	0.00	0.00
	Hornblende	0.00	0.00	0.00	0.00	0.00
	Pyroxene	0.00	0.00	0.00	0.00	0.00
	Epidote	0.00	0.25	0.60	0.00	0.18
	Monazite	0.00	0.00	0.00	0.00	0.00
	Sphene	0.00	0.00	0.00	0.00	0.00
	Other hvy/opq	0.00	0.00	0.00	0.00	0.00
	Min gr undiff	0.00	0.00	0.00	0.00	0.00
	Carb fossils	0.00	0.00	0.00	0.00	0.00
	Phos fossils	0.00	0.00	0.00	0.00	0.00
	Amor organic matter	0.00	0.00	0.40	0.00	0.00
Replacements	Calcite rp Kspar	0.00	0.00	0.00	1.25	0.00
	Calcite rp plag	0.00	0.00	0.00	0.00	0.00
	Calcite rp shale RF	0.00	0.00	0.00	0.00	0.00
	Calcite rp carb fossils	0.00	0.00	0.00	0.00	0.00
	Calcite rp undiff	0.00	0.25	0.00	4.50	0.00
	Fe-Calcite rp Kspar	0.00	0.00	0.00	0.00	0.00
	Fe-Calcite rp plag	0.00	0.00	0.00	0.00	0.00
	Dolomite rp undiff	0.00	0.00	0.00	0.00	0.00
	Fe-Dolomite rp Kspar	0.00	0.00	0.00	0.00	0.00
	Fe-Dolomite rp plag	0.00	0.00	0.00	0.00	0.00
	Fe-Dolomite rp shale RF	0.00	0.00	0.00	0.00	0.00
	Fe-Dolomite rp carb fossils	0.00	0.00	0.00	0.00	0.00
	Fe-Dolomite rp undiff	0.00	0.00	0.00	0.00	0.00
	Siderite rp Kspar	0.00	0.00	0.00	0.00	0.00
	Siderite rp plag	0.00	0.00	0.00	0.00	0.00
	Siderite rp shale RF	0.00	0.00	0.00	0.00	0.00
	Siderite rp undiff	0.00	0.00	0.00	0.00	0.00
	Sericite rp Kspar	1.25	2.50	1.40	1.00	3.50
	Sericite rp plag	0.00	0.00	0.00	0.00	0.00
	Sericite rp undiff	0.00	0.00	0.00	0.00	0.00
	Illite rp Kspar	0.00	0.00	0.00	0.00	0.00
	Illite rp plag	0.00	0.00	0.00	0.00	0.00
	Illite rp undiff	0.25	0.00	0.00	0.00	0.00
	Chlorite rp VRF	0.75	0.00	0.00	0.00	0.00
	Chlorite rp undiff	0.50	0.00	0.00	0.00	0.00
	Kaolinite rp K-feldspar	0.00	0.00	0.00	0.00	0.00
	Kaolinite rp muscovite	0.00	0.00	0.00	0.00	0.00
	Kaolinite rp biotite	0.00	0.00	0.00	0.00	0.00
	Kaolinite rp undiff	0.00	0.00	0.00	0.00	0.00
	Pyrite rp undiff	0.25	0.25	0.00	0.00	0.00
	Albite rp Kspar	0.25	0.00	0.00	0.00	0.00
	Albite rp undiff	0.00	0.00	0.00	0.00	0.00
	rp undiff	0.00	0.00	0.00	0.00	0.00
Matrix	Clay matrix, pf	0.00	0.75	1.00	0.00	0.35
	Detrital clay rims	0.25	2.00	0.60	0.00	0.00
	Matrix, undiff	0.00	0.00	0.00	0.00	0.00
Cement	Quartz Cement	17.50	9.00	2.60	1.25	0.70
	Calcite	1.25	0.00	0.00	20.25	0.00
	Fe-Calcite	0.00	0.00	0.00	0.00	0.00
	Dolomite	0.00	0.00	0.00	0.00	0.00
	Fe-Dolomite	0.00	0.00	0.00	0.00	0.00

0.50	3.75	1.16	0.50	1.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.39	0.50	0.00	0.00
0.00	0.00	0.39	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.19
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.19	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.19
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.25	0.00
0.75	0.25	0.00	0.25	0.00	0.00
0.00	0.00	0.19	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.25	0.00
0.00	0.00	0.00	0.00	1.25	0.00
0.00	0.00	0.00	0.25	0.25	0.39
0.00	0.00	0.00	0.75	2.50	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.75	0.00	0.00	0.50	0.50	0.77
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	1.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.50	0.00	0.00
0.00	0.00	0.00	0.25	0.00	0.00
0.00	0.00	0.00	0.25	0.50	0.00
0.00	0.00	0.00	0.00	0.25	0.00
0.00	0.00	0.39	0.75	0.50	0.39
0.00	0.00	0.00	0.75	0.50	0.00
0.00	0.00	0.00	0.25	0.00	0.19
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.25	0.25	0.00
0.50	0.75	0.00	0.00	0.00	0.19
0.00	0.00	0.00	0.25	0.00	0.00
0.00	0.00	0.00	0.25	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	2.75	2.90	0.00	0.00	0.58
1.00	10.00	0.97	0.25	0.00	0.77
0.00	0.00	0.00	1.00	2.50	0.00
10.00	1.25	0.77	14.00	6.75	0.00
0.00	0.00	0.00	1.00	3.50	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00

	Biotite	0.25	0.78	0.00	0.25	0.00
	Mica undiff	0.00	0.00	0.00	0.00	0.00
	Chlorite	0.00	0.00	0.00	0.00	0.00
	Zircon	0.00	0.20	0.00	0.00	0.00
	Tourmaline	0.00	0.00	0.00	0.00	0.00
	Rutile	0.00	0.00	0.00	0.00	0.00
	Garnet	0.00	0.00	0.00	0.00	0.00
	Hornblende	0.00	0.00	0.00	0.00	0.00
	Pyroxene	0.00	0.00	0.00	0.00	0.00
	Epidote	0.00	0.00	0.00	0.00	0.00
	Monazite	0.00	0.20	0.00	0.00	0.00
	Sphene	0.00	0.00	0.00	0.00	0.00
	Other hvy/opq	0.00	0.00	0.50	0.00	0.00
	Min gr undiff	0.00	0.00	0.00	0.00	0.00
	Carb fossils	0.00	0.00	0.00	0.00	0.00
	Phos fossils	0.00	0.00	0.00	0.25	0.23
	Amor organic matter	0.00	0.20	0.00	0.00	0.00
Replacements	Calcite rp Kspar	1.00	0.00	0.00	0.00	0.00
	Calcite rp plag	0.00	0.00	0.00	0.00	0.00
	Calcite rp shale RF	0.00	0.00	0.00	0.00	0.00
	Calcite rp carb fossils	0.00	0.00	0.00	0.00	0.00
	Calcite rp undiff	1.00	0.00	0.00	1.00	0.00
	Fe-Calcite rp Kspar	0.00	0.00	0.00	1.50	0.00
	Fe-Calcite rp plag	0.00	0.00	0.00	2.50	0.00
	Dolomite rp undiff	0.00	0.00	0.00	0.00	0.23
	Fe-Dolomite rp Kspar	0.00	0.00	0.00	0.00	0.00
	Fe-Dolomite rp plag	0.00	0.00	0.00	0.00	0.00
	Fe-Dolomite rp shale RF	0.00	0.00	0.00	0.00	0.00
	Fe-Dolomite rp carb fossils	0.00	0.00	0.00	0.00	0.00
	Fe-Dolomite rp undiff	0.00	0.00	0.00	0.00	0.00
	Siderite rp Kspar	0.00	0.00	0.00	0.00	0.00
	Siderite rp plag	0.00	0.00	0.00	0.00	0.00
	Siderite rp shale RF	0.25	0.00	0.00	0.00	0.00
	Siderite rp undiff	0.00	0.00	0.00	0.00	0.00
	Sericite rp Kspar	0.00	0.39	0.00	0.00	0.00
	Sericite rp plag	0.00	0.00	0.00	0.00	0.00
	Sericite rp undiff	0.00	0.00	0.00	0.00	0.00
	Illite rp Kspar	0.50	0.00	1.25	0.00	0.91
	Illite rp plag	0.00	0.00	0.00	0.00	0.00
	Illite rp undiff	0.00	0.00	0.00	0.00	0.00
	Chlorite rp VRF	0.00	0.00	0.00	0.00	0.00
	Chlorite rp undiff	0.00	0.00	0.00	0.00	0.00
	Kaolinite rp K-feldspar	0.00	0.00	0.00	0.00	0.00
	Kaolinite rp muscovite	1.25	0.00	0.00	0.00	0.00
	Kaolinite rp biotite	0.00	0.00	0.00	0.00	0.00
	Kaolinite rp undiff	0.00	0.00	0.00	0.25	2.74
	Pyrite rp undiff	0.00	0.00	0.00	0.00	0.23
	Albite rp Kspar	0.00	0.00	0.00	0.00	0.23
	Albite rp undiff	0.75	0.00	0.75	0.00	0.46
	rp undiff	0.00	0.00	0.00	0.00	0.00
Matrix	Clay matrix, pf	0.00	2.54	0.00	0.00	0.68
	Detrital clay rims	0.00	2.74	1.50	0.75	0.68
	Matrix, undiff	0.00	0.00	0.00	0.00	0.00
Cement	Quartz Cement	1.25	4.89	9.25	10.50	9.82
	Calcite	0.00	0.00	0.00	0.00	0.00
	Fe-Calcite	0.00	0.00	0.00	2.25	0.00
	Dolomite	0.00	0.00	0.00	0.50	0.00
	Fe-Dolomite	0.00	0.00	0.00	0.00	1.14

0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.25	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.25	0.00	0.00	0.50	0.75	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.25	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.25	0.25
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.75
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.75	0.00
0.25	0.00	0.00	0.00	1.25	0.25
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.50	0.75	0.43	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.21	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.25	0.21	0.75	0.00	0.00
0.50	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
3.00	2.50	1.71	2.00	3.50	4.00
0.00	1.50	0.00	0.00	0.00	0.00
0.00	0.00	0.21	0.25	0.25	0.00
0.00	0.25	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.75	0.00
0.00	0.00	1.28	1.50	0.00	0.50
0.00	0.00	0.43	0.75	1.50	1.00
1.25	0.50	0.00	0.00	0.00	0.00
7.25	11.00	5.33	5.50	3.50	3.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
4.75	4.75	0.64	3.75	15.00	10.50

Appendix 1. Continued

Calcite fracture fill	0.00	0.00	0.00	0.00	0.00
Sericite	0.00	0.00	0.00	0.00	0.00
Illitic pf	0.00	0.00	0.00	0.00	0.00
Smectite	0.00	0.00	0.00	0.00	0.00
Chlorite pf	3.00	0.75	0.00	0.00	0.00
Chlorite pl	1.50	0.00	0.00	0.00	0.53
Kaolinite fine	0.00	0.00	0.00	0.00	0.00
Clay undiff	0.00	0.00	0.00	0.00	0.00
Gypsum	0.00	0.00	0.00	0.00	3.15
Pyrite	0.00	0.00	0.00	0.00	0.00
K-feldspar cmt	0.00	0.00	0.20	0.00	0.00
Albite cmt	0.00	0.00	0.00	0.00	0.35
Hydrocarbon pf	0.00	0.00	0.00	0.00	0.00
Hydrocarbon pl	0.00	0.00	0.00	0.00	0.00
Ti-Oxide pore fill	0.50	0.25	0.20	0.00	0.35
Illitic rp kaolinite	0.00	0.00	0.00	0.00	0.00
	100.00	**100.00**	**100.00**	**100.00**	**100.00**

*rp = replacing; pf = pore-filling; pl = pore-lining; RF = rock fragment.

**Four hundred points were counted in this set of samples; therefore, the true value of constituents (>10% in abundance) is determined graphically from Van der Plas and Tobi (1965) and Howart (1998) as within less than ±3 to 5% of the obtained value at a 95% confidence level.

Van der Plas, L., and A. C. Tobi, 1965, A chart for judging the reliability of point counting results: American Journal of Science, v. 263, p. 87–90.

Howart, R. J., 1998, Improved estimators of uncertainty in proportions, point counting, and pass-fail test results: American Journal of Science, v. 298, p. 594–607.

0.00	0.00	0.00	0.25	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	2.25	1.35
0.00	0.00	0.00	0.00	0.00	7.93
1.00	0.00	0.00	1.25	0.00	0.00
1.25	1.25	3.67	1.50	0.00	0.00
0.00	0.00	0.00	0.75	0.25	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.25	0.25	0.00
0.00	0.00	0.00	0.50	0.25	0.00
0.00	0.00	0.00	0.00	0.25	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.19	0.25	0.00	0.00
0.00	0.00	0.00	0.50	0.00	0.00
100.00	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Calcite fracture fill	0.00	0.00	0.00	0.00	0.00
Sericite	0.00	0.00	0.00	0.00	0.00
Illitic pf	3.00	0.00	1.00	0.50	0.00
Smectite	10.00	0.00	1.50	0.00	0.00
Chlorite pf	0.00	0.00	0.00	0.00	0.00
Chlorite pl	0.00	0.00	0.00	0.00	0.00
Kaolinite fine	0.00	0.00	0.00	0.00	0.00
Clay undiff	0.00	0.00	0.00	0.00	0.00
Gypsum	0.00	0.00	0.25	0.00	0.00
Pyrite	0.00	0.00	0.00	0.00	0.00
K-feldspar cmt	0.00	0.00	0.00	0.00	0.00
Albite cmt	0.00	0.00	0.50	0.00	0.00
Hydrocarbon pf	0.00	0.00	0.00	0.00	0.00
Hydrocarbon pl	0.00	0.00	0.00	0.00	0.91
Ti-Oxide pore fill	0.00	0.00	0.00	0.00	0.00
Illitic rp kaolinite	0.00	0.00	0.00	0.00	0.00
	100.00	**100.00**	**100.00**	**100.00**	**100.00**

0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.75	2.50	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.50	0.00
0.25	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.25	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.50	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.25	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.75	0.25	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.25	0.00	0.43	0.25	0.00	0.00
0.00	0.50	0.00	0.00	0.00	0.00
100.00	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Appendix 2. Well-Log-Core Analyses

Well: Bill Barrett 43C-3-792

Thin Section Depth (ft)	Log Depth (ft)	Description/Classification	
3540.00	3536.5	Porous (Prim+sec); min QO+medium thick, cts clay coats:CHLORITE COATS	A
3542.00	3538.5	Porous (Prim+sec); min QO+medium thick, cts clay coats:CHLORITE COATS	A
3543.00	3539.5	Porous (Prim+sec); min QO+medium thick, cts clay coats:CHLORITE COATS	A
3545.00	3541.5	Porous (Prim+sec); min QO+medium thick, cts clay coats:CHLORITE COATS	A
3546.00	3542.5	Porous (Prim+sec); min QO+medium thick, cts clay coats:CHLORITE COATS	A
3547.00	3543.5	Porous (Prim+sec); min QO+medium thick, cts clay coats:CHLORITE COATS	A
3548.00	3544.5	Porous (Prim+sec); min QO+medium thick, cts clay coats:CHLORITE COATS	A
3549.00	3545.5	Porous (Prim+sec); min QO+medium thick, cts clay coats:CHLORITE COATS	A
3550.50	3547.0	Porous (Prim+sec); min QO+medium thick, cts clay coats:CHLORITE COATS	A
3551.90	3548.5	Porous (Prim+sec); min QO+medium thick, cts clay coats:CHLORITE COATS	A
3553.30	3550.0	Porous (Prim+sec); min QO+medium thick, cts clay coats:CHLORITE COATS	A
3554.00	3550.5	Porous (Prim+sec); min QO+medium thick, cts clay coats:CHLORITE COATS	A
3554.90	3551.5	Porous (Prim+sec); min QO+medium thick, cts clay coats:CHLORITE COATS	A
3556.00	3552.5	Porous (Prim+sec); min QO+medium thick, cts clay coats:CHLORITE COATS	A
3556.85	3553.5	Porous (Prim+sec); min QO+medium thick, cts clay coats:CHLORITE COATS	A
	3545.7	Ave	
	3536.5	Min	
	3553.5	Max	
	15.0	Count	
4002.80	4000.0	Thick smectite coats, high compaction/less primary pore	B
4003.85	4001.0	Thick smectite coats, high compaction/less primary pore	B
4004.90	4002.0	Thick smectite coats, high compaction/less primary pore	B
4005.90	4003.0	Thick smectite coats, high compaction/less primary pore	B
4007.10	4004.0	Thick smectite coats, high compaction/less primary pore	B
4387.00	4382.5	Thick smectite coats, high compaction/less primary pore	B
4387.90	4383.5	Thick smectite coats, high compaction/less primary pore	B
4389.00	4384.5	Thick smectite coats, high compaction/less primary pore	B
4390.00	4385.5	Thick smectite coats, high compaction/less primary pore	B
4391.00	4386.5	Thick smectite coats, high compaction/less primary pore	B
4416.00	4411.5	Thick smectite coats, high compaction/less primary pore/qo+cc cement; fine grained	B
4393.00	4388.5	Thick smectite coats, high compaction/less primary pore/sec pores/minor qtz cmt	B
4394.00	4389.5	Thick smectite coats, high compaction/less primary pore/sec pores/minor qtz cmt	B
4394.90	4390.5	Thick smectite coats, high compaction/less primary pore/sec pores/minor qtz cmt	B
4396.00	4391.5	Thick smectite coats, high compaction/less primary pore/sec pores/minor qtz cmt	B
4398.20	4393.5	Thick smectite coats, high compaction/less primary pore/sec pores/minor qtz cmt	B
4399.00	4394.5	Thick smectite coats, high compaction/less primary pore/sec pores/minor qtz cmt	B
4402.00	4397.5	Thick smectite coats, high compaction/less primary pore/sec pores/minor qtz cmt	B
4403.00	4398.5	Thick smectite coats, high compaction/less primary pore/sec pores/minor qtz cmt	B
4403.90	4399.5	Thick smectite coats, high compaction/less primary pore/sec pores/minor qtz cmt	B
4406.05	4402.0	Thick smectite coats, high compaction/less primary pore/sec pores/minor qtz cmt	B
4008.00	4005.0	Thick smectite coats, lowcompaction/MORE primary pore/RIGID FRAMEWORK?	B
4008.90	4006.0	Thick smectite coats, lowcompaction/MORE primary pore/RIGID FRAMEWORK?	B
4010.00	4007.0	Thick smectite coats, lowcompaction/MORE primary pore/RIGID FRAMEWORK?	B
4011.00	4008.0	Thick smectite coats, lowcompaction/MORE primary pore/RIGID FRAMEWORK?	B
4011.90	4009.0	Thick smectite coats, lowcompaction/MORE primary pore/RIGID FRAMEWORK?	B
4012.90	4010.0	Thick smectite coats, lowcompaction/MORE primary pore/RIGID FRAMEWORK?	B
4013.90	4011.0	Thick smectite coats, lowcompaction/MORE primary pore/RIGID FRAMEWORK?	B
4014.90	4012.0	Thick smectite coats, lowcompaction/MORE primary pore/RIGID FRAMEWORK?	B
4016.00	4013.0	Thick smectite coats, lowcompaction/MORE primary pore/RIGID FRAMEWORK?	B
4016.90	4014.0	Thick smectite coats, lowcompaction/MORE primary pore/RIGID FRAMEWORK?	B
4018.90	4016.0	Thick smectite coats, lowcompaction/MORE primary pore/RIGID FRAMEWORK?	B
4417.00	4412.5	Thick smectite coats, lowcompaction/MORE primary pore/RIGID FRAMEWORK?	B
	4206.5	Ave	

Grain Density (g/cm3)	Porosity (%, at 800 psi)	Kinf (md, at 800 psi)	Mean (mm)	Sorting Classification	Folk Sorting	Std Dev (phi)	Trask Sqrt P75/P25	Trask P75/P25	Thin Section Depth (ft)	Log Depth (ft)	TENS
2.652	9.41	0.125	204	well	0.45	0.46	1.26	1.58	3540.0	3536.5	3913.188
2.659	10.43	0.114	182	mod well	0.50	0.53	1.24	1.55	3542.0	3538.5	3908.507
2.661	10.50	0.451	204	well	0.44	0.44	1.23	1.52	3543.0	3539.5	4041.571
2.654	11.29	0.780	212	well	0.45	0.47	1.27	1.61	3545.0	3541.5	3939.266
2.655	11.16	0.482							3546.0	3542.5	4063.804
2.652	11.56	0.436	144	mod well	0.51	0.66	1.27	1.61	3547.0	3543.5	3999.111
2.647	12.21	0.679	211	mod well	0.51	0.53	1.31	1.71	3548.0	3544.5	3965.344
2.645	12.16	0.823	242	well	0.42	0.42	1.18	1.38	3549.0	3545.5	3986.574
2.671	11.57	0.461	189	well	0.44	0.43	1.22	1.50	3550.5	3547.0	3886.775
2.634	10.41	0.472	220	well	0.43	0.47	1.23	1.52	3551.9	3548.5	3934.251
2.676	9.38	0.210	210	v well	0.33	0.35	1.16	1.35	3553.3	3550.0	3892.460
2.652	10.57	0.755	215	mod well	0.51	0.88	1.25	1.55	3554.0	3550.5	3871.564
2.645	12.14	1.870	328	mod well	0.50	0.50	1.28	1.65	3554.9	3551.5	3888.447
2.650	9.47	0.238	169	well	0.49	0.48	1.30	1.68	3556.0	3552.5	3941.606
2.654	8.27	0.102							3556.9	3553.5	3915.361
2.654	10.70	0.533	210		0.46	0.51	1.25	1.56	3549.2	3545.7	3943.188
2.634	8.27	0.102	144		0.33	0.35	1.16	1.35	3540.0	3536.5	3871.564
2.676	12.21	1.870	328		0.51	0.88	1.31	1.71	3556.9	3553.5	4063.804
15	15	15	13		13	13	13	13	15.0	15.0	15.000
	geomean	0.396									
2.657	9.40	0.095	191	well	0.41	0.42	1.22	1.49	4002.8	4000.0	4175.304
2.650	11.71	0.322	197	well	0.36	0.40	1.20	1.43	4003.9	4001.0	4128.999
2.659	11.87	0.108	175	well	0.43	0.45	1.22	1.48	4004.9	4002.0	4095.398
2.661	10.58	0.067	175	well	0.40	0.41	1.18	1.40	4005.9	4003.0	4069.488
2.656	11.41	0.059	180	mod well	0.55	0.56	1.36	1.86	4007.1	4004.0	4104.927
2.654	11.21	0.059	239	well	0.44	0.97	1.26	1.58	4387.0	4382.5	4343.640
2.654	11.67	0.068	160	well	0.40	0.40	1.22	1.48	4387.9	4383.5	4361.693
2.655	11.03	0.056	155	well	0.42	0.44	1.23	1.52	4389.0	4384.5	4410.673
2.656	11.59	0.070	152	well	0.38	0.38	1.17	1.36	4390.0	4385.5	4433.742
2.659	11.53	0.051	153	well	0.45	0.45	1.25	1.57	4391.0	4386.5	4407.998
2.657	12.53	0.042	376	well	0.43	0.52	1.22	1.48	4416.0	4411.5	4421.873
2.652	10.18	0.048	151	well	0.40	0.42	1.20	1.45	4393.0	4388.5	4352.500
2.651	9.28	0.043	161	well	0.43	0.45	1.23	1.51	4394.0	4389.5	4368.547
2.652	8.96	0.028	160	well	0.39	0.40	1.22	1.48	4394.9	4390.5	4326.421
2.649	9.13	0.033	182	well	0.36	0.40	1.21	1.46	4396.0	4391.5	4349.657
2.650	8.82	0.037	212	well	0.46	0.47	1.25	1.56	4398.2	4393.5	4382.923
2.652	8.42	0.030	205	mod well	0.52	0.51	1.25	1.56	4399.0	4394.5	4359.019
2.653	8.79	0.022	166	well	0.35	0.36	1.17	1.37	4402.0	4397.5	4416.858
2.649	10.04	0.025	185	well	0.39	0.39	1.19	1.41	4403.0	4398.5	4474.363
2.646	10.79	0.072	192	well	0.37	0.39	1.19	1.41	4403.9	4399.5	4377.908
2.659	8.45	0.007	175	well	0.40	0.42	1.19	1.42	4406.1	4402.0	4465.670
2.652	13.29	0.188	181	well	0.41	0.44	1.22	1.50	4008.0	4005.0	4130.670
2.652	14.04	0.325	173	well	0.40	0.40	1.22	1.49	4008.9	4006.0	4037.225
2.652	13.76	0.542	165	well	0.37	0.39	1.20	1.45	4010.0	4007.0	4117.297
2.645	14.70	1.770	337						4011.0	4008.0	4244.009
2.656	13.32	0.340	192	well	0.38	0.40	1.22	1.49	4011.9	4009.0	4040.401
2.652	13.60	0.252	199	well	0.46	0.48	1.24	1.53	4012.9	4010.0	4097.404
2.661	13.27	0.093	203	mod well	0.51	0.52	1.32	1.75	4013.9	4011.0	4404.822
2.660	11.89	0.078	289	well	0.43	0.47	1.25	1.57	4014.9	4012.0	4336.117
2.659	11.74	0.151	376	well	0.43	0.52	1.22	1.48	4016.0	4013.0	4166.444
2.660	9.23	0.054	199	mod well	0.54	0.57	1.35	1.83	4016.9	4014.0	4139.530
2.657	12.43	0.090	197	well	0.38	0.40	1.19	1.41	4018.9	4016.0	4128.665
2.655	13.28	0.075	199	mod well	0.54	0.57	1.35	1.83	4417.0	4412.5	4343.807

SPA	GR	NPHI	RHOB	DRHO	DPHI	HDRS	HMRS	HDCN	SPHI	GR/RHOB	GR/HDRS	GR/NPHI	NPHI/DPHI	NPHI/SPHI
177.696	98.052	0.125	2.520	0.023	0.096	130.699	136.900	7.651	0.12	38.92	0.75	781.91	1.31	1.05
178.773	98.556	0.128	2.477	−0.008	0.121	102.941	125.503	9.714	0.14	39.79	0.96	768.17	1.06	0.93
179.895	92.492	0.136	2.494	0.011	0.111	93.310	102.924	10.717	0.14	37.09	0.99	679.09	1.23	0.95
182.874	85.779	0.132	2.494	0.018	0.111	98.003	102.992	10.204	0.14	34.39	0.88	649.35	1.19	0.92
183.907	92.249	0.132	2.493	0.018	0.111	98.739	102.524	10.128	0.14	37.00	0.93	696.74	1.19	0.92
184.614	99.677	0.136	2.465	0.008	0.128	95.771	98.680	10.442	0.15	40.43	1.04	735.63	1.06	0.93
184.758	95.939	0.140	2.440	0.000	0.143	89.256	94.814	11.204	0.15	39.31	1.07	684.79	0.98	0.95
185.315	91.615	0.143	2.435	−0.003	0.146	83.361	87.975	11.996	0.15	37.62	1.10	640.21	0.98	0.97
186.145	101.157	0.140	2.459	0.007	0.131	103.811	108.652	9.633	0.14	41.13	0.97	725.14	1.06	0.98
187.025	95.825	0.135	2.433	0.001	0.147	111.698	122.791	8.953	0.14	39.39	0.86	711.39	0.92	1.00
187.659	96.946	0.133	2.447	−0.009	0.139	157.252	161.794	6.359	0.14	39.63	0.62	727.83	0.96	0.98
187.549	96.784	0.137	2.447	−0.004	0.139	152.125	149.389	6.574	0.14	39.55	0.64	708.52	0.99	0.99
186.774	93.598	0.138	2.469	0.012	0.126	120.122	128.610	8.325	0.14	37.91	0.78	678.74	1.10	1.00
184.993	91.225	0.128	2.468	0.015	0.127	122.094	141.795	8.190	0.13	36.97	0.75	714.37	1.01	0.97
182.092	93.143	0.120	2.468	−0.005	0.126	117.809	139.034	8.488	0.13	37.74	0.79	778.78	0.95	0.95
184.005	94.869	0.133	2.467	0.006	0.127	111.799	120.292	9.239	0.14	38.46	0.88	712.04	1.07	0.97
177.696	85.779	0.120	2.433	−0.009	0.096	83.361	87.975	6.359	0.12	34.39	0.62	640.21	0.92	0.92
187.659	101.157	0.143	2.520	0.023	0.147	157.252	161.794	11.996	0.15	41.13	1.10	781.91	1.31	1.05
15.000	15.000	15.000	15.000	15.000	15.000	15.000	15.000	15.000	15	15	15	15	15	15
174.050	65.623	0.128	2.523	0.017	0.094	35.945	39.798	27.820	0.14	26.01	1.83	511.48	1.37	0.94
174.023	64.322	0.141	2.512	0.007	0.100	33.731	34.966	29.646	0.14	25.60	1.91	456.51	1.41	0.99
173.856	71.621	0.143	2.465	−0.003	0.128	33.229	33.861	30.094	0.15	29.06	2.16	499.45	1.12	0.97
173.746	69.508	0.132	2.500	0.011	0.107	35.261	38.310	28.360	0.16	27.81	1.97	526.17	1.23	0.85
173.488	58.356	0.144	2.501	0.019	0.107	35.240	37.562	28.377	0.17	23.34	1.66	406.66	1.34	0.85
168.410	70.076	0.115	2.409	−0.012	0.161	40.457	42.839	24.717	0.20	29.08	1.73	609.36	0.71	0.58
167.729	77.294	0.121	2.381	−0.015	0.178	40.811	43.617	24.503	0.21	32.47	1.89	639.85	0.68	0.57
167.336	74.140	0.121	2.397	−0.012	0.169	40.078	46.232	24.952	0.22	30.94	1.85	614.25	0.72	0.55
166.982	64.127	0.121	2.407	−0.001	0.162	41.012	43.756	24.383	0.22	26.64	1.56	529.54	0.75	0.55
167.011	68.305	0.117	2.408	0.001	0.162	44.259	46.125	22.594	0.21	28.36	1.54	582.80	0.72	0.56
163.523	70.889	0.139	2.410	0.020	0.161	41.042	44.557	24.366	0.20	29.42	1.73	508.53	0.87	0.69
166.925	74.010	0.113	2.461	0.012	0.131	44.931	49.905	22.256	0.18	30.08	1.65	656.12	0.86	0.62
166.838	74.368	0.108	2.447	0.008	0.139	49.976	53.157	20.010	0.17	30.39	1.49	686.05	0.78	0.62
166.618	64.712	0.095	2.437	−0.008	0.145	60.982	64.070	16.398	0.17	26.56	1.06	684.06	0.65	0.57
166.588	64.956	0.082	2.441	−0.007	0.142	84.468	95.768	11.839	0.16	26.61	0.77	795.06	0.57	0.50
166.451	56.406	0.085	2.460	0.016	0.131	69.852	84.964	14.316	0.16	22.93	0.81	662.04	0.65	0.53
166.424	83.438	0.108	2.519	0.019	0.096	45.135	47.782	22.156	0.16	33.12	1.85	774.01	1.12	0.66
165.980	74.043	0.115	2.421	−0.013	0.154	49.841	59.650	20.064	0.17	30.58	1.49	643.85	0.75	0.68
166.230	72.564	0.111	2.408	−0.004	0.162	47.051	52.757	21.253	0.18	30.13	1.54	654.91	0.69	0.63
166.369	70.060	0.108	2.389	−0.016	0.174	45.026	45.830	22.209	0.18	29.33	1.56	646.91	0.62	0.62
167.416	90.022	0.102	2.506	0.012	0.104	57.959	67.483	17.254	0.13	35.92	1.55	879.12	0.99	0.80
173.168	57.674	0.165	2.443	0.008	0.141	32.096	33.465	31.156	0.18	23.61	1.80	350.39	1.17	0.90
172.653	61.477	0.174	2.413	0.005	0.159	30.770	32.200	32.499	0.19	25.47	2.00	353.72	1.09	0.93
172.230	60.470	0.179	2.402	0.002	0.166	29.083	31.433	34.385	0.19	25.18	2.08	338.01	1.08	0.95
172.322	59.527	0.184	2.415	0.010	0.158	31.444	34.756	31.803	0.19	24.65	1.89	323.51	1.17	0.97
172.406	58.909	0.182	2.404	0.005	0.164	33.774	36.090	29.608	0.18	24.51	1.74	323.50	1.11	0.99
172.740	55.203	0.170	2.416	0.005	0.157	33.476	34.342	29.872	0.17	22.85	1.65	325.30	1.08	0.98
173.140	62.030	0.148	2.464	−0.002	0.128	34.297	36.775	29.158	0.16	25.17	1.81	418.84	1.15	0.91
173.339	64.615	0.147	2.458	−0.008	0.132	35.996	38.258	27.781	0.16	26.29	1.80	440.75	1.11	0.94
173.113	62.274	0.135	2.453	0.001	0.135	37.856	38.199	26.416	0.15	25.39	1.65	460.61	1.00	0.91
172.793	56.747	0.116	2.480	−0.006	0.119	41.530	46.814	24.079	0.14	22.89	1.37	491.32	0.97	0.84
172.425	68.630	0.132	2.485	0.004	0.116	46.861	50.621	21.340	0.14	27.62	1.46	519.14	1.14	0.97
163.214	74.335	0.141	2.417	0.021	0.157	43.319	44.113	23.084	0.20	30.76	1.72	525.71	0.90	0.70
169.683	67.295	0.131	2.444	0.003	0.141	42.630	46.365	24.811	0.17	27.54	1.65	540.53	0.96	0.77

Appendix 2. Continued

Well: Bill Barrett 43C-3-792

Thin Section Depth (ft)	Log Depth (ft)	Description/Classification	
	4000.0	Min	
	4412.5	Max	
	33.0	Count	
2815.00	2812.0	Qtz-cemented; medium thick, discts clay coats	C1
2858.00	2855.0	Qtz-cemented; medium thick, discts clay coats: CHLORITE COATS; SECONDARY PORES	C1
3562.00	3558.5	Qtz-cemented; medium thick, discts clay coats: CHLORITE COATS; SECONDARY PORES	C1
2802.00	2799.0	Qtz-cemented; medium thick, discts clay coats; coarse-gr	C1
2803.00	2800.0	Qtz-cemented; medium thick, discts clay coats; coarse-gr	C1
2804.00	2801.0	Qtz-cemented; medium thick, discts clay coats; coarse-gr	C1
2809.80	2807.0	Qtz-cemented; medium thick, discts clay coats; coarse-gr	C1
2812.00	2809.0	Qtz-cemented; medium thick, discts clay coats; coarse-gr	C1
2813.10	2810.0	Qtz-cemented; medium thick, discts clay coats; coarse-gr	C1
	2894.6	Ave	
	2799.0	Min	
	3558.5	Max	
	9.0	Count	
2832.00	2829.0	Qtz-cemented; thin clay coats	C2
2844.00	2841.0	Qtz-cemented; thin clay coats	C2
2817.00	2814.0	Qtz-cemented; thin clay coats, coarse grained	C2
2818.00	2815.0	Qtz-cemented; thin clay coats, coarse grained	C2
2819.00	2816.0	Qtz-cemented; thin clay coats, coarse grained	C2
2827.00	2824.0	Qtz-cemented; thin clay coats, coarse grained	C2
2833.10	2830.0	Qtz-cemented; thin clay coats, coarse grained	C2
2834.00	2831.0	Qtz-cemented; thin clay coats, coarse grained	C2
2835.00	2832.0	Qtz-cemented; thin clay coats, coarse grained	C2
2837.00	2834.0	Qtz-cemented; thin clay coats, coarse grained	C2
2838.00	2835.0	Qtz-cemented; thin clay coats, coarse grained	C2
2839.00	2836.0	Qtz-cemented; thin clay coats, coarse grained	C2
2840.00	2837.0	Qtz-cemented; thin clay coats, coarse grained	C2
2841.00	2838.0	Qtz-cemented; thin clay coats, coarse grained	C2
2842.00	2839.0	Qtz-cemented; thin clay coats, coarse grained	C2
2843.00	2840.0	Qtz-cemented; thin clay coats, coarse grained	C2
2845.00	2842.0	Qtz-cemented; thin clay coats, coarse grained	C2
2846.00	2843.0	Qtz-cemented; thin clay coats, coarse grained	C2
2847.00	2844.0	Qtz-cemented; thin clay coats, coarse grained	C2
2848.00	2845.0	Qtz-cemented; thin clay coats, coarse grained	C2
2849.00	2846.0	Qtz-cemented; thin clay coats, coarse grained	C2
2850.00	2847.0	Qtz-cemented; thin clay coats, coarse grained	C2
2851.00	2848.0	Qtz-cemented; thin clay coats, coarse grained	C2
2852.00	2849.0	Qtz-cemented; thin clay coats, coarse grained	C2
2853.00	2850.0	Qtz-cemented; thin clay coats, coarse grained	C2
2856.00	2853.0	Qtz-cemented; thin clay coats, coarse grained	C2
2857.00	2854.0	Qtz-cemented; thin clay coats, coarse grained	C2
3561.00	3557.5	Qtz-cemented; thin clay coats, coarse grained	C2
4000.90	3998.0	Qtz-cemented; thin clay coats, coarse grained	C2
4001.80	3998.5	Qtz-cemented; thin clay coats, coarse grained	C2
4397.00	4392.5	Qtz-cemented; thin clay coats, coarse grained	
	2985.8	Ave	
	2814.0	Min	

Grain Density (g/cm3)	Porosity (%, at 800 psi)	Kinf (md, at 800 psi)	Mean (mm)	Sorting Classification	Folk Sorting	Std Dev (phi)	Trask Sqrt P75/P25	Trask P75/P25	Thin Section Depth (ft)	Log Depth (ft)	TENS
2.654	11.27	0.161	202		0.42	0.46	1.23	1.52	4210.2	4206.5	4273.151
2.645	8.42	0.007	151		0.35	0.36	1.17	1.36	4002.8	4000.0	4037.225
2.661	14.70	1.770	376		0.55	0.97	1.36	1.86	4417.0	4412.5	4474.363
33	33	33	33		32	32	32	32	33.0	33.0	33.000
	geomean	0.080									
2.649	7.41	0.029	181	well	0.45	0.45	1.20	1.44	2815.0	2812.0	3493.435
2.650	10.23	0.069	283	mod well	0.53	0.52	1.30	1.70	2858.0	2855.0	3509.817
2.662	7.77	0.017	159	well	0.49	0.51	1.25	1.55	3562.0	3558.5	3892.460
2.655	8.12	0.067	271	well	0.47	0.48	1.20	1.44	2802.0	2799.0	3383.440
2.665	7.78	0.035	251	well	0.49	0.50	1.29	1.67	2803.0	2800.0	3424.061
2.663	7.45	0.043	234	well	0.43	0.45	1.22	1.49	2804.0	2801.0	3410.688
2.687	5.51	0.015	144	well	0.41	0.41	1.21	1.46	2809.8	2807.0	3440.109
2.658	7.49	0.037	297	v well	0.34	0.36	1.19	1.42	2812.0	2809.0	3445.458
2.651	8.69	0.049	246	well	0.46	0.52	1.27	1.62	2813.1	2810.0	3457.327
2.660	7.83	0.040	230		0.45	0.47	1.24	1.53	2897.7	2894.6	3495.199
2.649	5.51	0.015	144		0.34	0.36	1.19	1.42	2802.0	2799.0	3383.440
2.687	10.23	0.069	297		0.53	0.52	1.30	1.70	3562.0	3558.5	3892.460
9	9	9	9		9	9	9	9	9.0	9	9
	geomean	0.036									
2.663	8.15	0.029	158	well	0.43	0.43	1.23	1.50	2832.0	2829.0	3504.300
2.660	5.41	0.011	119	v well	0.34	0.35	1.17	1.37	2844.0	2841.0	3573.340
2.646	7.48	0.035	203	well	0.44	0.42	1.25	1.57	2817.0	2814.0	3510.319
2.650	7.41	0.030	171	well	0.49	0.52	1.32	1.75	2818.0	2815.0	3506.975
2.657	7.46	0.025	182	mod well	0.52	0.51	1.32	1.75	2819.0	2816.0	3490.593
2.664	6.85	0.007	142	well	0.41	0.42	1.18	1.39	2827.0	2824.0	3502.461
2.642	7.04	0.040	344	mod	0.74	0.74	1.44	2.07	2833.1	2830.0	3463.178
2.647	7.47	0.039	186	mod well	0.59	0.58	1.35	1.83	2834.0	2831.0	3486.247
2.648	7.39	0.030	225	mod well	0.58	0.59	1.32	1.74	2835.0	2832.0	3527.370
2.643	8.65	0.026	221	well	0.42	0.47	1.18	1.40	2837.0	2834.0	3487.918
2.647	5.96	0.040	267	mod well	0.55	0.55	1.29	1.67	2838.0	2835.0	3477.053
2.650	7.27	0.025							2839.0	2836.0	3472.205
2.648	8.27	0.031	173	well	0.38	0.70	1.22	1.49	2840.0	2837.0	3458.497
2.646	8.41	0.036	210	v well	0.33	0.34	1.12	1.25	2841.0	2838.0	3490.426
2.647	7.90	0.038	204	well	0.45	0.46	1.24	1.53	2842.0	2839.0	3579.525
2.646	8.11	0.034	182	well	0.45	0.45	1.24	1.54	2843.0	2840.0	3550.940
2.666	6.74	0.016	137	v well	0.27	0.37	1.14	1.30	2845.0	2842.0	3585.041
2.672	5.46	0.010	132	well	0.35	0.38	1.18	1.39	2846.0	2843.0	3535.895
2.647	9.31	0.036	212	well	0.44	0.45	1.22	1.49	2847.0	2844.0	3528.038
2.653	8.37	0.023	187	well	0.37	0.44	1.18	1.38	2848.0	2845.0	3531.716
2.649	8.25	0.024	182	well	0.45	0.88	1.24	1.53	2849.0	2846.0	3552.110
2.653	7.74	0.025	205	mod well	0.52	0.50	1.30	1.69	2850.0	2847.0	3538.068
2.674			210	well	0.40	0.43	1.21	1.46	2851.0	2848.0	3567.322
2.654	7.79	0.016	169	well	0.39	0.40	1.18	1.39	2852.0	2849.0	3573.841
2.647	6.67	0.018	207	well	0.38	0.76	1.18	1.40	2853.0	2850.0	3516.671
2.648	7.85	0.036	239	well	0.45	0.49	1.24	1.53	2856.0	2853.0	3527.035
2.649	9.38	0.045							2857.0	2854.0	3506.474
2.650	7.57	0.040	213	well	0.37	0.40	1.21	1.46	3561.0	3557.5	3839.301
2.660	4.97	0.010	183	well	0.41	0.41	1.22	1.48	4000.9	3998.0	4128.665
2.660	8.52	0.040	251	well	0.41	0.41	1.22	1.49	4001.8	3998.5	4134.516
2.650	8.39	0.030	335	well	0.35	0.39	1.20	1.43	4397.0	4392.5	4405.825
2.653	7.54	0.028	202		0.44	0.49	1.23	1.53	2988.8	2985.8	3598.447
2.642	4.97	0.007	119		0.27	0.34	1.12	1.25	2817.0	2814.0	3458.497
2.674	9.380	0.045	344		0.74	0.88	1.44	2.07	4001.8	3998.5	4134.516

SPA	GR	NPHI	RHOB	DRHO	DPHI	HDRS	HMRS	HDCN	SPHI	GR/RHOB	GR/HDRS	GR/NPHI	NPHI/DPHI	NPHI/SPHI
163.214	55.203	0.082	2.381	−0.016	0.094	29.083	31.433	11.839	0.13	22.85	0.77	323.50	0.57	0.50
174.050	90.022	0.184	2.523	0.021	0.178	84.468	95.768	34.385	0.22	35.92	2.16	879.12	1.41	0.99
33.000	33.000	33.000	33.000	33.000	33.000	33.000	33.000	33.000	33	33	33	33	33	33
154.777	83.471	0.114	2.530	0.004	0.089	41.352	42.804	24.183	0.15	32.99	2.02	730.28	1.28	0.78
147.379	95.922	0.160	2.499	0.015	0.108	26.644	28.059	37.533	0.17	38.39	3.60	599.14	1.48	0.92
169.108	95.744	0.103	2.510	0.008	0.101	125.979	147.101	7.938	0.11	38.14	0.76	933.17	1.01	0.95
154.333	92.623	0.107	2.520	−0.002	0.095	38.031	38.170	26.294	0.13	36.76	2.44	866.44	1.12	0.82
154.251	131.277	0.116	2.525	−0.006	0.092	40.235	43.364	24.854	0.13	51.99	3.26	1129.75	1.26	0.88
154.973	159.497	0.121	2.534	−0.001	0.087	43.330	47.127	23.079	0.13	62.96	3.68	1313.81	1.39	0.95
155.273	132.302	0.163	2.645	0.036	0.021	50.216	54.010	19.914	0.13	50.02	2.63	810.17	7.85	1.29
153.094	91.355	0.139	2.560	0.011	0.071	49.197	50.120	20.327	0.14	35.68	1.86	658.17	1.95	0.99
152.792	87.079	0.115	2.514	0.009	0.099	42.191	43.726	23.702	0.15	34.64	2.06	755.90	1.17	0.79
155.109	107.696	0.127	2.537	0.008	0.085	50.797	54.942	23.091	0.14	42.40	2.48	866.32	2.06	0.93
147.379	83.471	0.103	2.499	−0.006	0.021	26.644	28.059	7.938	0.11	32.99	0.76	599.14	1.01	0.78
169.108	159.497	0.163	2.645	0.036	0.108	125.979	147.101	37.533	0.17	62.96	3.68	1313.81	7.85	1.29
9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
156.992	117.623	0.102	2.538	−0.001	0.085	51.558	56.073	19.396	0.12	46.34	2.28	1149.78	1.21	0.82
157.095	106.537	0.118	2.532	−0.009	0.088	38.975	40.668	25.658	0.14	42.07	2.73	901.33	1.34	0.82
155.579	74.758	0.113	2.538	0.019	0.085	43.775	44.168	22.844	0.14	29.46	1.71	664.51	1.33	0.78
155.661	76.741	0.114	2.542	0.013	0.082	48.338	53.253	20.688	0.16	30.18	1.59	673.17	1.39	0.72
156.553	99.531	0.165	2.565	0.003	0.068	33.318	35.729	30.014	0.21	38.80	2.99	604.32	2.41	0.79
158.265	113.641	0.135	2.560	−0.017	0.072	38.423	39.071	26.026	0.13	44.40	2.96	844.91	1.87	1.06
156.404	106.326	0.112	2.553	0.015	0.076	44.941	45.969	22.251	0.13	41.66	2.37	950.18	1.47	0.86
155.988	98.247	0.115	2.547	0.015	0.079	44.409	44.402	22.518	0.13	38.57	2.21	858.05	1.45	0.85
155.547	91.940	0.115	2.536	0.002	0.086	43.210	43.178	23.143	0.14	36.25	2.13	798.09	1.35	0.84
155.218	91.631	0.128	2.513	0.006	0.100	39.613	40.485	25.244	0.14	36.47	2.31	718.67	1.28	0.91
155.328	95.727	0.126	2.540	0.017	0.083	37.976	39.249	26.332	0.14	37.68	2.52	758.54	1.52	0.89
155.714	92.541	0.118	2.531	0.008	0.089	37.835	39.268	26.431	0.14	36.57	2.45	781.60	1.33	0.82
155.961	87.486	0.122	2.510	−0.001	0.101	38.028	37.982	26.297	0.15	34.85	2.30	718.86	1.20	0.83
156.105	92.899	0.117	2.502	−0.004	0.106	38.148	37.553	26.214	0.15	37.14	2.44	794.01	1.10	0.79
156.519	98.052	0.112	2.518	0.003	0.097	38.044	37.897	26.286	0.15	38.95	2.58	876.24	1.16	0.75
156.738	96.621	0.114	2.526	−0.002	0.092	39.168	39.090	25.531	0.15	38.25	2.47	850.54	1.24	0.77
156.674	100.441	0.122	2.549	−0.003	0.078	39.908	40.981	25.058	0.14	39.41	2.52	825.32	1.56	0.87
156.125	100.506	0.125	2.533	−0.017	0.087	38.005	38.205	26.313	0.14	39.67	2.64	805.98	1.43	0.90
155.437	87.697	0.130	2.518	−0.001	0.096	36.614	36.854	27.312	0.14	34.83	2.40	674.59	1.35	0.93
154.834	84.576	0.128	2.487	−0.005	0.115	35.565	36.331	28.117	0.14	34.00	2.38	659.72	1.12	0.89
154.477	88.266	0.128	2.496	0.004	0.109	34.830	36.127	28.711	0.15	35.36	2.53	690.12	1.17	0.85
154.587	90.331	0.123	2.523	0.026	0.093	34.643	37.075	28.866	0.15	35.80	2.61	733.80	1.32	0.80
154.697	93.793	0.119	2.519	0.009	0.096	34.200	36.081	29.239	0.14	37.24	2.74	787.51	1.24	0.82
154.642	95.695	0.117	2.523	0.005	0.094	36.571	38.226	27.344	0.12	37.93	2.62	820.71	1.25	0.96
154.283	87.063	0.087	2.540	−0.004	0.083	54.007	61.920	18.516	0.09	34.27	1.61	1003.03	1.04	0.96
150.554	96.296	0.114	2.507	0.013	0.103	36.171	38.189	27.646	0.12	38.41	2.66	846.19	1.10	0.91
148.346	90.477	0.145	2.494	0.008	0.111	28.988	30.535	34.497	0.15	36.28	3.12	622.26	1.31	0.95
170.173	91.793	0.111	2.524	−0.001	0.093	112.211	145.293	8.912	0.11	36.37	0.82	827.71	1.19	1.00
174.077	69.020	0.118	2.579	0.012	0.060	39.071	44.026	25.595	0.12	26.76	1.77	586.90	1.96	0.98
174.048	61.868	0.117	2.565	0.011	0.069	37.422	42.783	26.722	0.13	24.12	1.65	528.78	1.71	0.93
166.479	63.574	0.082	2.438	−0.004	0.144	81.370	102.667	12.290	0.16	26.08	0.78	778.14	0.57	0.50
157.390	91.668	0.119	2.527	0.004	0.091	43.075	46.430	24.839	0.14	36.26	2.29	778.50	1.35	0.86
148.346	61.868	0.087	2.487	−0.017	0.060	28.988	30.535	8.912	0.09	24.12	0.82	528.78	1.04	0.72
174.077	117.623	0.165	2.579	0.026	0.115	112.211	145.293	34.497	0.21	46.34	3.12	1149.78	2.41	1.06
30	30	30	30	30	30	30	30	30	30	30	30	30	30	30

Appendix 2. Continued

Well: Bill Barrett 43C-3-792

Thin Section Depth (ft)	Log Depth (ft)	Description/Classification	
	3998.5	Max	
	30.0	Count	
3564.00	3560.5	Qtz-cemented; thin clay coats bio Sandstone	D1
3569.60	3566.0	Qtz-cemented; thin clay coats bio Sandstone	D1
3570.95	3567.5	Qtz-cemented; thin clay coats bio Sandstone	D1
3566.20	3562.5	Qtz-cemented; thin clay coats bio silts	D1
3571.90	3568.5	Qtz-cemented; thin clay coats bio silts	D1
3573.10	3569.5	Qtz-cemented; thin clay coats bio silts	D1
3563.00	3559.5	Qtz-cemented; thin clay coats bio siltst with minor cc-cmt/tightly cc-cemented coarse sand	D1
3560.00	3556.5	Qtz-cemented; thin clay coats bio siltst/sst Qtz-cemented; thin clay coats, coarse grained;	D1
2807.00	2804.0	Qtz-cemented; thin clay coats, bio; sst/silt with bioturbated shaley lamina	D1
2808.00	2805.0	Qtz-cemented; thin clay coats, bio; sst/siltst	D1
2836.00	2833.0	Qtz-cemented; thin clay coats, bio+Arf pseudomatrix	D1
3565.00	3561.5	Qtz-cemented; thin clay coats, coarse grained; bio; sst/siltst	D1
3567.10	3563.5	Qtz-cemented; thin clay coats, coarse grained; bio; sst/siltst	D1
3568.00	3564.5	Qtz-cemented; thin clay coats, coarse grained; bio; sst/siltst	D1
2824.00	2821.0	Qtz-cemented; medium clay coats, biot+Arf pseudomatrix	D1
2825.00	2822.0	Qtz-cemented; medium clay coats, biot+Arf pseudomatrix	D1
2826.00	2823.0	Qtz-cemented; medium clay coats, biot+Arf pseudomatrix	D1
2828.00	2825.0	Qtz-cemented; medium clay coats, biot+Arf pseudomatrix; coarser	D1
2831.00	2828.0	Qtz-cemented; medium clay coats, biot+Arf pseudomatrix; coarser	D1
	3250.6	Ave	
	2804.0	Min	
	3569.5	Max	
	19.0	Count	
3964.00	3964.0	Qtz-cemented; thin clay coats (illitic) bio sst; qtz cmted with minor cc; mudst CRFs	D2
3974.60	3974.5	Qtz-cemented; thin clay coats (illitic) bio sst; qtz cmted with minor cc; mudst CRFs	D2
3989.60	3986.5	Qtz-cemented; thin clay coats (illitic) bio sst; qtz cmted with minor cc; mudst CRFs	D2
3992.00	3989.0	Qtz-cemented; thin clay coats (illitic) bio sst; qtz cmted with minor cc; mudst CRFs	D2
3992.80	3989.5	Qtz-cemented; thin clay coats (illitic) bio sst; qtz cmted with minor cc; mudst CRFs	D2
3994.00	3991.0	Qtz-cemented; thin clay coats (illitic) bio sst; qtz cmted with minor cc; mudst CRFs	D2
3995.00	3992.0	Qtz-cemented; thin clay coats (illitic) bio sst; qtz cmted with minor cc; mudst CRFs	D2
3995.80	3993.0	Qtz-cemented; thin clay coats (illitic) bio sst; qtz cmted with minor cc; mudst CRFs	D2
	3984.9	Ave	
	3964.0	Min	
	3993.0	Max	
	8.0	Count	
5712.90	5709.5	Qtz-cemented; thin clay coats, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained	E1
5714.00	5710.5	Qtz-cemented; thin clay coats, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained	E1
5715.15	5711.5	Qtz-cemented; thin clay coats, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained	E1
5717.00	5713.5	Qtz-cemented; thin clay coats, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained	E1
5718.20	5714.5	Qtz-cemented; thin clay coats, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained	E1
5719.00	5715.5	Qtz-cemented; thin clay coats, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained	E1
5719.90	5716.0	Qtz-cemented; thin clay coats, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained	E1
5721.20	5717.5	Qtz-cemented; thin clay coats, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained	E1
5722.15	5718.5	Qtz-cemented; thin clay coats, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained	E1
5723.00	5719.5	Qtz-cemented; thin clay coats, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1

Grain Density (g/cm3)	Porosity (%, at 800 psi)	Kinf (md, at 800 psi)	Mean (mm)	Sorting Classification	Folk Sorting	Std Dev (phi)	Trask Sqrt P75/P25	Trask P75/P25	Thin Section Depth (ft)	Log Depth (ft)	TENS
30	29.000	29	28		28	28	28	28	30.0	30	30
	geomean	0.026									
2.667	7.99	0.007	187	well	0.43	0.43	1.22	1.49	3564.0	3560.5	3869.390
2.669	6.33	0.003	101	well	0.45	0.46	1.26	1.58	3569.6	3566.0	3888.280
2.663	6.11	0.003	105	well	0.43	0.46	1.21	1.47	3571.0	3567.5	3957.152
2.700	4.95	1.320	60	well	0.49	0.50	1.27	1.61	3566.2	3562.5	3912.519
2.685	5.47	0.002	48	v well	0.33	0.35	1.19	1.42	3571.9	3568.5	3926.561
2.690	6.58	0.147	65	mod well	0.54	0.59	1.25	1.57	3573.1	3569.5	3946.621
2.685	6.71	0.005	101	well	0.37	0.40	1.18	1.40	3563.0	3559.5	3875.910
2.677	7.42	0.005	122	mod well	0.69	0.67	1.47	2.18	3560.0	3556.5	3861.200
2.676	5.53	0.010	67	well	0.49	0.49	1.27	1.61	2807.0	2804.0	3424.061
2.671	6.87	0.011							2808.0	2805.0	3433.255
2.649	7.16	0.022	211	mod well	0.61	0.61	1.35	1.83	2836.0	2833.0	3501.459
2.684	5.26	0.001	72	v well	0.33	0.33	1.17	1.37	3565.0	3561.5	3932.914
2.696	3.49	0.001	44	well	0.48	0.47	1.23	1.52	3567.1	3563.5	3887.277
2.678	5.93	0.001	65	well	0.44	0.46	1.26	1.59	3568.0	3564.5	3927.731
2.687	6.00	0.006	122	well	0.35	0.36	1.18	1.39	2824.0	2821.0	3502.294
2.671	6.78	0.015	122	v well	0.35	0.37	1.17	1.38	2825.0	2822.0	3487.584
2.673	6.28	0.019	144	well	0.41	0.60	1.24	1.55	2826.0	2823.0	3477.220
2.665	6.99	0.022	180	well	0.44	0.47	1.23	1.51	2828.0	2825.0	3507.978
2.656	7.93	0.027	153	mod	0.79	0.76	1.51	2.27	2831.0	2828.0	3522.689
2.676	6.30	0.086	109		0.47	0.49	1.26	1.60	3253.9	3250.6	3728.531
2.649	3.49	0.001	44		0.33	0.33	1.17	1.37	2807.0	2804.0	3424.061
2.700	7.99	1.320	211		0.79	0.76	1.51	2.27	3573.1	3569.5	3957.152
19	19	19	18		18	18	18	18	19.0	19	19
	geomean	0.009									
2.700	2.26		72	mod well	0.56	0.56	1.27	1.61	3964.0	3964.0	4202.886
2.686	2.55	0.001	51	mod well	0.61	0.60	1.31	1.71	3974.6	3974.5	4122.145
2.662	4.09	0.006	118	well	0.40	0.40	1.19	1.42	3989.6	3986.5	4200.545
2.671	3.82	0.002	100	well	0.38	0.41	1.18	1.40	3992.0	3989.0	4184.999
2.671	5.49	0.003	136	well	0.50	0.50	1.27	1.60	3992.8	3989.5	4208.737
2.661	7.69	0.011	133	mod	0.92	0.89	1.71	2.93	3994.0	3991.0	4236.319
2.671	4.55	0.003	93	well	0.37	0.37	1.18	1.40	3995.0	3992.0	4151.900
2.659	4.12	0.009	169	well	0.48	0.50	1.25	1.55	3995.8	3993.0	4158.587
2.673	4.32	0.005	109		0.53	0.53	1.29	1.70	3987.2	3984.9	4183.265
2.659	2.26	0.001	51		0.37	0.37	1.18	1.40	3964.0	3964.0	4122.145
2.700	7.69	0.011	169		0.92	0.89	1.71	2.93	3995.8	3993.0	4236.319
8	8	7	8		8	8	8	8	8.0	8	8
	geomean	0.004									
2.698	7.81	0.011	181	well	0.43	0.43	1.23	1.52	5712.9	5709.5	5142.023
2.686	8.06	0.012	173	well	0.36	0.37	1.17	1.36	5714.0	5710.5	5138.011
2.689	7.12	0.011	176	v well	0.32	0.33	1.16	1.35	5715.2	5711.5	5168.937
2.688	6.12	0.006	169	well	0.36	0.34	1.19	1.42	5717.0	5713.5	5149.545
2.679	6.59	0.008	167	well	0.42	0.42	1.20	1.44	5718.2	5714.5	5163.754
2.681	6.28	0.008	167	well	0.42	0.42	1.20	1.44	5719.0	5715.5	5146.369
2.683	6.35	0.007	167	well	0.42	0.42	1.20	1.44	5719.9	5716.0	5128.817
2.689	6.39	0.019	195	well	0.47	0.50	1.25	1.55	5721.2	5717.5	5180.973
2.686	6.41	0.004	171	well	0.39	0.37	1.18	1.40	5722.2	5718.5	5231.457
2.683	5.34	0.009	172	well	0.38	0.40	1.17	1.37	5723.0	5719.5	5184.817
2.676	6.24	0.014	192	mod well	0.50	0.51	1.27	1.61	5724.0	5720.5	5180.304
2.677	6.15	0.012	199	well	0.46	0.48	1.24	1.54	5725.0	5721.5	5188.495
2.675	6.16	0.011	181	well	0.42	0.42	1.23	1.52	5725.9	5722.5	5113.103

SPA	GR	NPHI	RHOB	DRHO	DPHI	HDRS	HMRS	HDCN	SPHI	GR/RHOB	GR/HDRS	GR/NPHI	NPHI/DPHI	NPHI/SPHI
167.727	149.126	0.136	2.539	0.007	0.084	54.800	58.599	18.248	0.12	58.74	2.72	1097.32	1.62	1.11
168.374	111.609	0.115	2.561	0.009	0.071	85.750	103.064	11.662	0.11	43.58	1.30	967.98	1.63	1.05
168.314	97.889	0.093	2.558	0.015	0.073	130.554	135.679	7.660	0.12	38.27	0.75	1050.31	1.28	0.80
167.814	155.205	0.138	2.563	−0.016	0.070	51.833	56.237	19.293	0.11	60.57	2.99	1128.77	1.97	1.22
168.143	136.495	0.118	2.555	0.012	0.074	67.163	62.981	14.889	0.12	53.42	2.03	1155.76	1.59	0.98
167.969	133.635	0.126	2.539	−0.004	0.084	74.843	87.425	13.361	0.13	52.63	1.79	1058.91	1.50	0.94
167.928	118.452	0.117	2.535	0.018	0.087	78.264	85.128	12.777	0.11	46.73	1.51	1008.96	1.36	1.02
171.967	118.550	0.126	2.564	−0.013	0.069	68.009	76.140	14.704	0.12	46.23	1.74	937.89	1.83	1.07
157.556	129.034	0.119	2.570	0.004	0.066	41.521	42.571	24.084	0.12	50.21	3.11	1088.90	1.80	0.97
156.855	139.844	0.122	2.621	0.032	0.035	43.855	45.136	22.803	0.12	53.37	3.19	1150.03	3.44	1.01
155.218	89.534	0.123	2.512	0.001	0.100	41.040	42.210	24.366	0.14	35.64	2.18	730.89	1.23	0.88
167.558	161.789	0.145	2.548	0.005	0.078	54.194	60.491	18.452	0.12	63.49	2.99	1116.55	1.85	1.21
168.063	149.971	0.155	2.589	−0.005	0.054	44.727	44.242	22.358	0.11	57.93	3.35	968.80	2.86	1.40
168.177	127.409	0.133	2.580	0.008	0.059	59.839	61.645	16.712	0.11	49.38	2.13	957.96	2.24	1.22
158.997	104.115	0.144	2.567	−0.006	0.068	37.603	41.220	26.593	0.12	40.57	2.77	721.02	2.14	1.18
158.688	106.228	0.140	2.562	0.001	0.070	37.088	39.042	26.963	0.12	41.46	2.86	759.86	1.99	1.13
158.549	112.405	0.138	2.574	−0.006	0.063	38.424	40.480	26.026	0.13	43.68	2.93	814.53	2.18	1.08
158.354	108.504	0.115	2.551	−0.004	0.077	41.071	41.653	24.348	0.12	42.54	2.64	945.98	1.49	0.96
157.387	117.314	0.094	2.589	0.018	0.054	62.988	78.183	15.876	0.12	45.32	1.86	1253.36	1.72	0.80
163.876	124.585	0.126	2.562	0.004	0.070	58.609	63.270	19.009	0.12	48.62	2.36	995.46	1.88	1.05
155.218	89.534	0.093	2.512	−0.016	0.035	37.088	39.042	7.660	0.11	35.64	0.75	721.02	1.23	0.80
171.967	161.789	0.155	2.621	0.032	0.100	130.554	135.679	26.963	0.14	63.49	3.35	1253.36	3.44	1.40
19	19	19	19	19	19	19	19	19	19	19	19	19	19	19
172.688	173.167	0.294	2.581	0.088	0.059	16.452	17.465	60.784	0.20	67.10	10.53	588.60	4.99	1.47
171.650	120.029	0.178	2.605	0.028	0.044	36.670	36.000	27.271	0.13	46.07	3.27	674.32	4.01	1.41
173.931	66.338	0.109	2.633	0.014	0.028	64.333	78.824	15.544	0.08	25.19	1.03	608.60	3.91	1.35
174.882	77.278	0.128	2.556	0.009	0.074	44.079	48.849	22.686	0.12	30.23	1.75	606.10	1.73	1.10
174.775	69.085	0.124	2.539	−0.001	0.084	43.708	47.756	22.879	0.12	27.21	1.58	557.14	1.48	1.03
174.887	64.517	0.122	2.543	0.026	0.082	46.002	52.131	21.738	0.12	25.37	1.40	530.57	1.49	0.99
174.612	63.916	0.123	2.529	0.004	0.090	45.536	53.983	21.961	0.12	25.27	1.40	519.64	1.37	1.03
174.473	78.220	0.119	2.554	−0.006	0.075	46.210	53.437	21.640	0.11	30.63	1.69	657.31	1.58	1.05
173.987	89.069	0.150	2.568	0.020	0.067	42.874	48.556	26.813	0.13	34.63	2.83	592.79	2.57	1.18
171.650	63.916	0.109	2.529	−0.006	0.028	16.452	17.465	15.544	0.08	25.19	1.03	519.64	1.37	0.99
174.887	173.167	0.294	2.633	0.088	0.090	64.333	78.824	60.784	0.20	67.10	10.53	674.32	4.99	1.47
8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
127.297	69.443	0.093	2.521	0.014	0.095	52.429	57.707	19.074	0.13	27.54	1.32	748.30	0.98	0.71
127.070	67.167	0.090	2.542	0.015	0.083	50.775	55.654	19.695	0.13	26.43	1.32	742.99	1.10	0.70
126.935	67.313	0.085	2.537	0.007	0.085	50.360	58.340	19.857	0.12	26.53	1.34	790.06	1.00	0.69
127.559	68.841	0.080	2.547	0.008	0.079	47.244	52.435	21.167	0.12	27.03	1.46	861.59	1.01	0.69
127.724	73.181	0.082	2.537	−0.004	0.085	38.601	42.450	25.906	0.12	28.85	1.90	892.45	0.96	0.70
128.026	73.653	0.081	2.539	−0.004	0.084	35.062	38.278	28.521	0.12	29.01	2.10	910.42	0.96	0.67
127.971	72.206	0.082	2.547	−0.003	0.079	35.225	38.649	28.389	0.12	28.35	2.05	884.88	1.03	0.67
127.916	69.898	0.081	2.528	−0.007	0.091	36.587	39.741	27.332	0.12	27.65	1.91	868.29	0.89	0.68
127.859	75.435	0.076	2.541	−0.001	0.083	38.607	42.263	25.902	0.11	29.69	1.95	988.67	0.92	0.67
127.804	63.211	0.074	2.548	−0.002	0.079	39.782	44.789	25.137	0.11	24.81	1.59	853.05	0.94	0.67
127.774	71.312	0.077	2.570	0.002	0.066	39.715	43.476	25.179	0.11	27.75	1.80	930.96	1.17	0.68
127.692	80.187	0.079	2.556	−0.012	0.074	35.591	38.644	28.097	0.12	31.37	2.25	1011.19	1.08	0.68
127.690	83.926	0.080	2.546	0.002	0.080	35.361	38.295	28.280	0.12	32.97	2.37	1054.35	0.99	0.66
127.884	81.520	0.081	2.538	0.001	0.085	36.664	38.791	27.275	0.12	32.12	2.22	1003.94	0.96	0.68

Appendix 2. Continued

Well: Bill Barrett 43C-3-792

Thin Section Depth (ft)	Log Depth (ft)	Description/Classification	
5724.00	5720.5	Qtz-cemented; thin clay coats, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
5725.00	5721.5	Qtz-cemented; thin clay coats, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
5725.90	5722.5	Qtz-cemented; thin clay coats, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
5726.85	5723.5	Qtz-cemented; thin clay coats, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
5727.90	5724.5	Qtz-cemented; thin clay coats, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
5728.70	5725.0	Qtz-cemented; thin clay coats, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
5729.80	5726.5	Qtz-cemented; thin clay coats, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
5730.90	5727.5	Qtz-cemented; thin clay coats, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
5732.40	5729.0	Qtz-cemented; thin clay coats, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
5733.10	5729.5	Qtz-cemented; thin clay coats, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
5734.20	5730.5	Qtz-cemented; thin clay coats, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
5735.00	5731.5	Qtz-cemented; thin clay coats, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
5735.80	5732.0	Qtz-cemented; thin clay coats, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
5736.90	5733.5	Qtz-cemented; thin clay coats, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
5738.00	5734.5	Qtz-cemented; thin clay coats, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
5739.00	5735.5	Qtz-cemented; thin clay coats, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
5739.90	5736.5	Qtz-cemented; thin clay coats, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
5741.00	5737.5	Qtz-cemented; thin clay coats, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
5742.00	5738.5	Qtz-cemented; thin clay coats, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
5743.40	5740.0	Qtz-cemented; thin clay coats, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
5745.00	5741.5	Qtz-cemented; thin clay coats, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
5745.90	5742.5	Qtz-cemented; no coat/dust rim, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
5747.10	5743.5	Qtz-cemented; no coat/dust rim, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
5749.00	5745.5	Qtz-cemented; no coat/dust rim, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
5750.30	5747.0	Qtz-cemented; no coat/dust rim, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
5751.10	5747.5	Qtz-cemented; no coat/dust rim, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
5752.10	5748.5	Qtz-cemented; no coat/dust rim, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
5753.30	5749.5	Qtz-cemented; no coat/dust rim, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
5755.00	5751.5	Qtz-cemented; no coat/dust rim, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
5756.00	5752.5	Qtz-cemented; no coat/dust rim, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
5757.40	5754.0	Qtz-cemented; no coat/dust rim, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
5759.40	5756.0	Qtz-cemented; no coat/dust rim, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
5760.30	5757.0	Qtz-cemented; no coat/dust rim, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
5761.30	5758.0	Qtz-cemented; no coat/dust rim, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
6039.10	6037.5	Qtz-cemented; no coat/dust rim, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
6040.10	6038.5	Qtz-cemented; no coat/dust rim, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
6041.00	6039.5	Qtz-cemented; no coat/dust rim, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
6042.00	6040.5	Qtz-cemented; no coat/dust rim, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
6043.00	6041.5	Qtz-cemented; no coat/dust rim, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
6044.90	6043.5	Qtz-cemented; no coat/dust rim, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
6047.10	6045.5	Qtz-cemented; no coat/dust rim, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
6051.00	6050.0	Qtz-cemented; no coat/dust rim, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
6052.00	6050.5	Qtz-cemented; no coat/dust rim, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
6052.90	6051.5	Qtz-cemented; no coat/dust rim, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
6054.10	6052.5	Qtz-cemented; no coat/dust rim, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
6054.90	6053.5	Qtz-cemented; no coat/dust rim, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
6055.80	6054.5	Qtz-cemented; no coat/dust rim, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
6057.00	6055.5	Qtz-cemented; no coat/dust rim, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
6058.00	6056.5	Qtz-cemented; no coat/dust rim, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
6059.00	6057.5	Qtz-cemented; no coat/dust rim, coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E1
	5816.8	Ave	
	5709.5	Min	
	6057.5	Max	
	60.0	Count	

Grain Density (g/cm3)	Porosity (%, at 800 psi)	Kinf (md, at 800 psi)	Mean (mm)	Sorting Classification	Folk Sorting	Std Dev (phi)	Trask Sqrt P75/P25	Trask P75/P25	Thin Section Depth (ft)	Log Depth (ft)	TENS
2.672	6.27	0.012	196	well	0.40	0.46	1.23	1.52	5726.9	5723.5	5148.375
2.680	6.65	0.013	219	well	0.38	0.40	1.20	1.44	5727.9	5724.5	5261.546
2.678	6.95	0.014	199	well	0.40	0.71	1.21	1.47	5728.7	5725.0	5275.421
2.692	7.54	0.011	193	well	0.42	0.42	1.20	1.44	5729.8	5726.5	5189.833
2.686	6.77	0.007	172	v well	0.33	0.35	1.21	1.46	5730.9	5727.5	5162.417
2.695	6.99	0.004	149	v well	0.35	0.41	1.18	1.39	5732.4	5729.0	5216.579
2.709	7.08	0.003	126	well	0.41	0.43	1.22	1.49	5733.1	5729.5	5198.191
2.741	6.14	0.003	149	v well	0.35	0.41	1.18	1.39	5734.2	5730.5	5117.784
2.688	7.49	0.009	151	well	0.43	0.46	1.25	1.57	5735.0	5731.5	5166.597
2.692	7.53	0.005	129	well	0.45	0.46	1.25	1.57	5735.8	5732.0	5239.648
2.685	7.83	0.005	158	well	0.38	0.40	1.18	1.39	5736.9	5733.5	5226.107
2.700	6.36	0.004	134	well	0.39	0.38	1.18	1.39	5738.0	5734.5	5136.172
2.690	7.56	0.014	149	well	0.44	0.46	1.24	1.54	5739.0	5735.5	5219.922
2.701	7.42	0.010	132	well	0.43	0.45	1.24	1.55	5739.9	5736.5	5293.475
2.707	4.99	0.022	161	well	0.49	0.47	1.28	1.63	5741.0	5737.5	5240.985
2.691	5.81	0.008	135	well	0.41	0.43	1.23	1.52	5742.0	5738.5	5186.322
2.684	6.41	0.003	176	well	0.41	0.43	1.23	1.50	5743.4	5740.0	5213.570
2.685	5.97	0.003	166	well	0.39	0.59	1.21	1.47	5745.0	5741.5	5139.014
2.684	6.45	0.004	174	well	0.39	0.54	1.20	1.44	5745.9	5742.5	5167.934
2.688	6.70	0.003	212	well	0.37	0.38	1.19	1.42	5747.1	5743.5	5274.752
2.688	6.13	0.003	163	well	0.38	0.38	1.19	1.42	5749.0	5745.5	5310.191
2.699	6.06	0.006	159	v well	0.34	0.35	1.17	1.36	5750.3	5747.0	5241.152
2.684	6.78	0.009	163	v well	0.34	0.35	1.21	1.46	5751.1	5747.5	5203.540
2.679	6.63	0.006	200	v well	0.29	0.33	1.14	1.29	5752.1	5748.5	5175.791
2.688	6.43	0.005	183	well	0.41	0.41	1.20	1.44	5753.3	5749.5	5155.898
2.680	5.97	0.007	185	well	0.37	0.39	1.20	1.44	5755.0	5751.5	5181.307
2.677	5.83	0.007	177	well	0.37	0.38	1.21	1.46	5756.0	5752.5	5247.839
2.693	5.75	0.002	172	well	0.39	0.39	1.19	1.43	5757.4	5754.0	5248.842
2.691	4.97	0.001	170	well	0.37	0.36	1.20	1.43	5759.4	5756.0	5273.750
2.684	6.31	0.002	201	well	0.38	0.40	1.23	1.51	5760.3	5757.0	5308.186
2.731	5.56	0.002	184	well	0.41	0.42	1.23	1.51	5761.3	5758.0	5287.123
2.677	6.74	0.009	198	well	0.38	0.39	1.21	1.47	6039.1	6037.5	5477.525
2.669	7.06	0.004	215						6040.1	6038.5	5394.109
2.668	6.93	0.008	194	well	0.35	0.39	1.20	1.44	6041.0	6039.5	5418.014
2.669	6.41	0.011	234	well	0.43	0.43	1.22	1.50	6042.0	6040.5	5466.826
2.681	5.32	0.009	215	mod well	0.58	0.58	1.34	1.79	6043.0	6041.5	5482.038
2.682	4.33	0.002	220	well	0.37	0.38	1.19	1.43	6044.9	6043.5	5516.474
2.713	5.40	0.021	170	well	0.41	0.42	1.23	1.52	6047.1	6045.5	5498.922
2.676	6.25	0.012	227	v well	0.33	0.40	1.18	1.38	6051.0	6050.0	5640.846
2.674	6.15	0.011	233	well	0.41	0.44	1.24	1.54	6052.0	6050.5	5634.660
2.700	5.18	0.004	161	well	0.35	0.36	1.20	1.44	6052.9	6051.5	5601.562
2.728	7.01	0.003	153	well	0.39	0.38	1.17	1.36	6054.1	6052.5	5584.845
2.722	7.04	0.010	125	well	0.38	0.38	1.18	1.39	6054.9	6053.5	5573.478
2.721	6.88	0.003	159	well	0.37	0.42	1.21	1.47	6055.8	6054.5	5475.017
2.707	7.87	0.008	183	well	0.40	0.40	1.18	1.40	6057.0	6055.5	5370.706
2.707	7.48	0.013	159	well	0.38	0.39	1.23	1.50	6058.0	6056.5	5369.201
2.701	7.02	0.015	169	well	0.49	0.70	1.26	1.59	6059.0	6057.5	5452.617
2.690	6.49	0.008	176		0.40	0.42	1.21	1.47	5819.8	5816.8	5279.695
2.668	4.33	0.001	125		0.29	0.33	1.14	1.29	5712.9	5709.5	5113.103
2.741	8.06	0.022	234		0.58	0.71	1.34	1.79	6059.0	6057.5	5640.846
60	60	60	60		59	59	59	59	60.0	60	60
	geomean	0.007									

SPA	GR	NPHI	RHOB	DRHO	DPHI	HDRS	HMRS	HDCN	SPHI	GR/RHOB	GR/HDRS	GR/NPHI	NPHI/DPHI	NPHI/SPHI
127.914	78.155	0.080	2.563	0.005	0.070	38.151	40.331	26.212	0.12	30.50	2.05	975.72	1.14	0.68
127.777	77.391	0.079	2.581	0.016	0.059	38.823	41.660	25.758	0.12	29.98	1.99	980.88	1.34	0.67
127.191	84.511	0.084	2.549	0.008	0.078	38.889	44.655	25.714	0.13	33.16	2.17	1008.49	1.07	0.67
127.077	88.494	0.090	2.544	0.008	0.081	38.364	42.135	26.066	0.13	34.78	2.31	987.65	1.11	0.68
126.533	75.945	0.093	2.517	−0.008	0.097	37.179	39.162	26.897	0.13	30.18	2.04	814.86	0.96	0.72
126.506	79.147	0.095	2.531	−0.007	0.089	37.532	39.984	26.644	0.13	31.27	2.11	829.63	1.07	0.74
125.907	75.197	0.095	2.544	0.007	0.081	39.299	44.794	25.446	0.13	29.55	1.91	794.89	1.17	0.73
125.427	81.146	0.096	2.540	0.010	0.084	39.723	44.229	25.175	0.13	31.95	2.04	844.39	1.15	0.72
125.036	80.464	0.100	2.555	0.013	0.075	37.414	39.959	26.728	0.13	31.50	2.15	806.25	1.34	0.75
124.759	77.359	0.094	2.541	0.021	0.083	36.984	39.073	27.039	0.13	30.44	2.09	819.48	1.14	0.73
124.814	82.073	0.092	2.506	−0.006	0.104	38.635	42.433	25.883	0.13	32.75	2.12	895.99	0.88	0.69
125.065	98.588	0.092	2.516	−0.014	0.098	36.802	39.738	27.172	0.13	39.19	2.68	1077.47	0.94	0.69
124.620	111.999	0.088	2.547	0.017	0.080	37.630	40.896	26.575	0.13	43.98	2.98	1271.27	1.11	0.69
124.181	149.760	0.086	2.540	0.008	0.083	39.501	44.174	25.316	0.12	58.95	3.79	1737.35	1.04	0.70
123.602	160.244	0.092	2.557	0.001	0.073	35.960	38.752	27.809	0.12	62.68	4.46	1741.79	1.25	0.77
122.802	99.190	0.104	2.557	0.003	0.073	27.842	30.001	35.917	0.12	38.79	3.56	950.09	1.42	0.87
121.806	86.933	0.096	2.543	−0.003	0.081	30.355	31.891	32.944	0.12	34.18	2.86	905.55	1.18	0.81
120.957	82.804	0.088	2.542	−0.006	0.082	31.252	34.606	31.998	0.12	32.57	2.65	940.96	1.07	0.76
120.118	97.532	0.086	2.562	0.005	0.070	31.889	36.771	31.359	0.12	38.07	3.06	1138.06	1.22	0.74
118.580	91.046	0.082	2.567	0.008	0.067	33.664	36.469	29.705	0.12	35.47	2.70	1110.31	1.22	0.68
118.301	86.169	0.081	2.522	−0.020	0.094	36.044	38.038	27.744	0.13	34.16	2.39	1067.77	0.86	0.63
118.027	89.095	0.082	2.530	−0.012	0.089	34.869	36.723	28.679	0.13	35.22	2.56	1090.52	0.91	0.63
117.448	85.356	0.077	2.561	0.008	0.071	33.790	36.770	29.594	0.13	33.33	2.53	1107.09	1.09	0.59
117.092	85.421	0.074	2.563	0.013	0.070	35.489	37.647	28.178	0.13	33.34	2.41	1157.47	1.06	0.58
116.454	86.787	0.090	2.558	0.006	0.073	35.101	37.334	28.489	0.13	33.93	2.47	961.09	1.25	0.72
116.260	91.989	0.086	2.560	0.006	0.072	36.230	37.794	27.601	0.13	35.93	2.54	1073.38	1.20	0.67
116.145	82.024	0.093	2.584	0.011	0.057	34.622	36.018	28.883	0.13	31.75	2.37	883.88	1.62	0.71
116.303	92.671	0.117	2.583	0.025	0.058	37.663	39.038	26.552	0.14	35.88	2.46	793.42	2.01	0.85
116.831	87.047	0.096	2.567	0.008	0.067	36.523	38.212	27.380	0.14	33.90	2.38	909.58	1.43	0.70
117.608	83.601	0.090	2.550	0.002	0.077	39.357	47.894	25.409	0.14	32.78	2.12	930.97	1.16	0.65
170.765	77.164	0.114	2.545	0.032	0.080	40.199	45.142	24.876	0.12	30.31	1.92	676.28	1.42	0.92
171.094	72.011	0.117	2.548	0.030	0.078	41.630	48.079	24.021	0.12	28.26	1.73	616.00	1.49	0.94
171.204	79.147	0.100	2.606	0.013	0.044	36.972	41.777	27.047	0.12	30.38	2.14	794.65	2.25	0.84
171.149	88.169	0.100	2.606	0.009	0.044	35.492	38.436	28.175	0.11	33.83	2.48	884.34	2.27	0.88
171.149	86.315	0.116	2.561	0.043	0.071	40.222	45.485	24.862	0.11	33.71	2.15	745.38	1.63	1.10
170.543	82.788	0.140	2.545	0.082	0.081	54.516	61.928	18.343	0.11	32.54	1.52	591.77	1.74	1.28
170.406	65.850	0.095	2.563	0.008	0.070	43.384	44.810	23.050	0.12	25.70	1.52	690.98	1.36	0.83
170.100	79.553	0.126	2.585	0.015	0.057	44.922	51.999	22.261	0.14	30.77	1.77	630.37	2.23	0.93
169.681	59.543	0.089	2.567	0.010	0.067	55.722	66.720	17.946	0.12	23.20	1.07	667.52	1.32	0.73
168.863	55.122	0.076	2.567	0.017	0.067	69.955	79.370	14.295	0.09	21.47	0.79	722.43	1.14	0.85
167.962	65.346	0.091	2.623	0.026	0.034	60.779	65.786	16.453	0.08	24.91	1.08	715.73	2.69	1.12
166.705	73.051	0.109	2.626	−0.002	0.032	42.195	46.379	23.700	0.11	27.82	1.73	671.43	3.38	1.01
165.711	81.358	0.111	2.552	−0.014	0.076	38.344	43.736	26.080	0.13	31.88	2.12	734.27	1.45	0.86
164.853	73.311	0.109	2.518	−0.007	0.097	38.031	43.458	26.294	0.13	29.12	1.93	670.73	1.13	0.81
164.241	72.027	0.108	2.556	0.003	0.074	36.966	45.672	27.052	0.14	28.18	1.95	668.15	1.45	0.78
163.704	77.082	0.121	2.594	0.018	0.052	32.955	38.890	30.344	0.14	29.72	2.34	637.04	2.35	0.88
135.774	82.221	0.093	2.554	0.007	0.075	39.498	43.573	25.991	0.12	32.20	2.16	904.41	1.31	0.76
116.145	55.122	0.074	2.506	−0.020	0.032	27.842	30.001	14.295	0.08	21.47	0.79	591.77	0.86	0.58
171.204	160.244	0.140	2.626	0.082	0.104	69.955	79.370	35.917	0.14	62.68	4.46	1741.79	3.38	1.28
60	60	60	60	60	60	60	60	60	60	60	60	60	60	60

Appendix 2. Continued

Well: Bill Barrett 43C-3-792

Thin Section Depth (ft)	Log Depth (ft)	Description/Classification	
4854.10	4851.0	Qtz-cemented; thin clay coats, coarse grained; drf+LATE STAGE Fe-cc	E2
4855.00	4852.0	Qtz-cemented; thin clay coats, coarse grained; drf+LATE STAGE Fe-cc	E2
4856.00	4853.0	Qtz-cemented; thin clay coats, coarse grained; drf+LATE STAGE Fe-cc	E2
	4852.0	Ave	
	4851.0	Min	
	4853.0	Max	
	3.0	Count	
6060.45	6059.0	Qtz-cemented; dust-rims/pyrite-coated,coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E3
6061.70	6060.0	Qtz-cemented; dust-rims/pyrite-coated,coarse grained; DRFs+MRFs+minor Fe-dol+hydrocarbon stained+ARF	E3
	6059.5	Ave	
	6059.0	Min	
	6060.0	Max	
	2.0	Count	
5758.40	5755.0	ARF pseuodomatrix sst	F
2823.00	2820.0	Arf pseuodomatrix; bio	F
4019.90	4017.0	Clay matrix rich shale	F
4370.00	4365.5	Clay matrix rich shale	F
6044.00	6042.5	Clay matrix rich shale	F
5328.00	5325.5	Clay matrix rich shale	F
2811.00	2808.0	Clay matrix-rich shale; glauconite-pseudomatrix; thick rxd, detrital clay coats	F
3996.90	3994.0	Clay matrix-rich sst with Arf pseuodomatrix	F
3998.00	3995.0	Clay matrix-rich sst with Arf pseuodomatrix	F
3998.90	3996.0	Clay matrix-rich sst with Arf pseuodomatrix	F
3999.95	3997.0	Clay matrix-rich sst with Arf pseuodomatrix	F
4374.00	4369.5	Clay matrix-rich sst with Arf pseuodomatrix	F
4374.95	4370.5	Clay matrix-rich sst with Arf pseuodomatrix	F
4384.00	4379.5	Clay matrix-rich sst with Arf pseuodomatrix	F
4384.90	4380.5	Clay matrix-rich sst with Arf pseuodomatrix	F
4408.10	4403.5	Clay matrix-rich sst with Arf pseuodomatrix/with layers/patches of calcite cemented areas	F
4409.00	4404.5	Clay matrix-rich sst with Arf pseuodomatrix/with layers/patches of calcite cemented areas	F
4410.00	4405.5	Clay matrix-rich sst with Arf pseuodomatrix/with layers/patches of calcite cemented areas	F
4851.90	4848.5	Clay matrix-rich sst with Arf pseuodomatrix/with patches of Fe-calcite cemented areas; DRF	F
4853.10	4849.5	Clay matrix-rich sst with Arf pseuodomatrix/with patches of Fe-calcite cemented areas; DRF	F
4857.00	4854.0	Clay matrix-rich sst with Arf pseuodomatrix/with patches of Fe-calcite cemented areas; DRF	F
4859.00	4856.0	Clay matrix-rich sst with Arf pseuodomatrix/with patches of Fe-calcite cemented areas; DRF	F
4863.00	4860.0	Clay matrix-rich sst with Arf pseuodomatrix/with patches of Fe-calcite cemented areas; DRF	F
2806.00	2803.0	Ductile-grain rich, detrital clay coats; very fine gr	F
	4439.0	Ave	
	2808.0	Min	
	6042.5	Max	
	23.0	Count	
2800.20	2797.0	Tightly calcite-cemented, coarser	G
2801.00	2798.0	Tightly calcite-cemented, coarser	G
4017.90	4015.0	Tightly calcite-cemented, coarser	G

Grain Density (g/cm3)	Porosity (%, at 800 psi)	Kinf (md, at 800 psi)	Mean (mm)	Sorting Classification	Folk Sorting	Std Dev (phi)	Trask Sqrt P75/P25	Trask P75/P25	Thin Section Depth (ft)	Log Depth (ft)	TENS
2.692	3.43	0.001	143	well	0.50	0.53	1.28	1.64	4854.1	4851.0	4749.518
2.688	3.48	0.002	109	well	0.41	0.78	1.20	1.45	4855.0	4852.0	4700.204
2.691	3.82	0.002	129	well	0.49	0.58	1.25	1.57	4856.0	4853.0	4795.154
2.690	3.58	0.002	127		0.46	0.63	1.24	1.55	4855.0	4852.0	4748.292
2.688	3.43	0.001	109		0.41	0.53	1.20	1.45	4854.1	4851.0	4700.204
2.692	3.82	0.002	143		0.50	0.78	1.28	1.64	4856.0	4853.0	4795.154
3	3	3	3		3	3	3	3	3.0	3	3
	geomean	0.002									
2.738	8.23	0.011	180	v well	0.35	0.38	1.19	1.42	6060.5	6059.0	5509.788
2.764	7.38	0.017	199	well	0.43	0.45	1.18	1.40	6061.7	6060.0	5426.205
2.751	7.81	0.014	189		0.39	0.42	1.19	1.41	6061.1	6059.5	5467.996
2.738	7.38	0.011	180		0.35	0.38	1.18	1.40	6060.5	6059.0	5426.205
2.764	8.23	0.017	199		0.43	0.45	1.19	1.42	6061.7	6060.0	5509.788
2	2	2	2		2	2	2	2	2	2.0	2.000
	geomean	0.014									
2.689	5.02	0.369	201	well	0.36	0.38	1.16	1.35	5758.4	5755.0	5246.502
2.679	4.17	0.018	205	well	0.48	0.57	1.23	1.51	2823.0	2820.0	3477.053
2.692	6.44	0.008	49	mod well	0.61	0.62	1.35	1.81	4019.9	4017.0	4171.459
2.677	4.62	0.009	78	mod well	0.60	0.72	1.36	1.84	4370.0	4365.5	4478.375
2.671	2.46		47	mod	0.85	0.83	1.48	2.18	6044.0	6042.5	5488.558
2.706	3.50	0.001	60	mod	0.73	0.78	1.42	2.02	5328.0	5325.5	4933.065
2.690			74	v well	0.27	0.35	1.16	1.34	2811.0	2808.0	3445.458
2.675	4.23	0.002	64	mod	0.71	0.70	1.45	2.09	3996.9	3994.0	4161.262
2.688	4.51	0.002	81	mod well	0.55	0.53	1.30	1.70	3998.0	3995.0	4142.205
2.689	4.74	1.340	82	well	0.48	0.51	1.24	1.54	3998.9	3996.0	4179.817
2.675	4.74	0.012	146	mod well	0.58	0.57	1.25	1.57	4000.0	3997.0	4174.802
2.677	4.18	0.001	82	mod	0.75	0.74	1.43	2.05	4374.0	4369.5	4422.207
2.690	4.33	0.001	74	well	0.44	0.45	1.26	1.58	4375.0	4370.5	4355.676
2.672	6.87	0.010	83	well	0.45	0.47	1.24	1.53	4384.0	4379.5	4413.515
2.665	7.01	0.007	85	well	0.37	0.38	1.15	1.33	4384.9	4380.5	4450.793
2.681	4.00	0.008	181	well	0.41	0.44	1.22	1.50	4408.1	4403.5	4496.931
2.668			173	well	0.40	0.40	1.22	1.49	4409.0	4404.5	4504.787
2.680	3.52	0.009	165	well	0.37	0.39	1.20	1.45	4410.0	4405.5	4413.013
2.684	2.37		77	mod well	0.51	0.52	1.26	1.59	4851.9	4848.5	4662.759
2.706	3.12	0.001	58	mod well	0.53	0.56	1.27	1.62	4853.1	4849.5	4745.171
2.698	4.13	0.001	102	mod well	0.53	0.61	1.33	1.78	4857.0	4854.0	4876.564
2.694	3.38	0.001	66	mod well	0.59	0.59	1.28	1.64	4859.0	4856.0	4710.903
2.702	3.44	0.001	75	well	0.43	0.43	1.15	1.32	4863.0	4860.0	4808.862
2.673	6.55	0.008	87	mod well	0.69	0.81	1.22	1.50	2806.0	2803.0	3424.228
2.685	4.32	0.095	100		0.52	0.55	1.28	1.65	4442.5	4439.0	4467.815
2.665	2.37	0.001	47		0.27	0.35	1.15	1.32	2811.0	2808.0	3445.458
2.706	7.01	1.340	205		0.85	0.83	1.48	2.18	6044.0	6042.5	5488.558
23	21	19	23		23	23	23	23	23	23	23
	geomean	0.006									
2.679	3.17	0.006	160	mod well	0.50	0.49	1.27	1.61	2800.2	2797.0	3435.930
2.679	6.21	0.026	221	mod well	0.57	0.56	1.33	1.78	2801.0	2798.0	3437.100
2.659	2.40	0.004	261	well	0.40	0.41	1.25	1.56	2854.1	2851.0	3522.522
2.671	2.99	0.002	346	mod well	0.65	0.69	1.49	2.21	4017.9	4015.0	4127.662
2.660	7.03	0.022	251	well	0.36	0.41	1.20	1.44	4391.9	4387.5	4347.819

SPA	GR	NPHI	RHOB	DRHO	DPHI	HDRS	HMRS	HDCN	SPHI	GR/RHOB	GR/HDRS	GR/NPHI	NPHI/DPHI	NPHI/SPHI
158.855	74.823	0.071	2.643	0.009	0.022	67.145	82.106	14.893	0.07	28.31	1.11	1061.32	3.19	0.94
158.578	75.311	0.064	2.656	0.020	0.015	66.949	91.831	14.937	0.09	28.36	1.12	1173.06	4.43	0.69
158.832	76.465	0.092	2.665	0.025	0.009	50.442	58.639	19.825	0.12	28.69	1.52	830.24	10.23	0.76
158.755	75.533	0.076	2.654	0.018	0.015	61.512	77.526	16.551	0.10	28.45	1.25	1021.54	5.95	0.80
158.578	74.823	0.064	2.643	0.009	0.009	50.442	58.639	14.893	0.07	28.31	1.11	830.24	3.19	0.69
158.855	76.465	0.092	2.665	0.025	0.022	67.145	91.831	19.825	0.12	28.69	1.52	1173.06	10.23	0.94
3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
162.240	101.417	0.126	2.562	−0.014	0.071	31.557	36.299	31.688	0.13	39.59	3.21	804.25	1.79	0.97
161.292	192.836	0.146	2.599	−0.003	0.048	28.189	33.511	35.475	0.14	74.19	6.84	1317.19	3.05	1.08
161.766	147.126	0.136	2.580	−0.008	0.059	29.873	34.905	33.582	0.13	56.9	5.0	1060.7	2.4	1.0
161.292	101.417	0.126	2.562	−0.014	0.048	28.189	33.511	31.688	0.13	39.6	3.2	804.3	1.8	1.0
162.240	192.836	0.146	2.599	−0.003	0.071	31.557	36.299	35.475	0.14	74.2	6.8	1317.2	3.1	1.1
2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2	2.0	2.0	2.0	2.0	2.0
116.171	89.160	0.110	2.612	0.026	0.041	35.821	36.786	27.916	0.13	34.14	2.49	809.08	2.71	0.82
159.138	129.457	0.179	2.573	0.002	0.064	29.908	32.628	33.436	0.14	50.32	4.33	722.01	2.81	1.31
172.660	118.290	0.160	2.558	0.003	0.072	31.938	32.422	31.311	0.14	46.24	3.70	741.16	2.20	1.13
172.459	128.677	0.136	2.538	−0.015	0.084	31.944	35.340	31.305	0.09	50.69	4.03	946.15	1.61	1.44
170.957	100.669	0.134	2.546	0.097	0.080	49.826	57.575	20.070	0.10	39.54	2.02	751.82	1.68	1.32
138.681	135.650	0.146	2.644	0.019	0.021	49.649	45.625	20.141	0.07	51.30	2.73	929.11	6.89	2.24
154.102	117.721	0.186	2.653	0.032	0.016	49.412	49.967	20.238	0.13	44.38	2.38	633.25	11.34	1.39
174.473	105.172	0.138	2.613	0.025	0.040	35.739	39.150	27.981	0.11	40.25	2.94	764.88	3.43	1.30
174.105	102.619	0.132	2.601	0.015	0.047	34.061	36.118	29.359	0.09	39.45	3.01	775.07	2.82	1.41
174.187	83.406	0.127	2.593	0.007	0.052	37.020	40.553	27.013	0.10	32.17	2.25	655.71	2.45	1.32
174.018	83.910	0.109	2.579	0.005	0.060	43.885	50.164	22.787	0.11	32.54	1.91	767.70	1.82	1.00
172.411	95.386	0.101	2.566	−0.005	0.068	39.011	42.771	25.634	0.12	37.17	2.45	948.17	1.49	0.87
171.625	116.355	0.114	2.577	0.000	0.061	33.954	37.217	29.452	0.12	45.15	3.43	1017.98	1.86	0.92
170.461	103.757	0.106	2.568	0.001	0.067	34.344	36.609	29.118	0.13	40.40	3.02	983.48	1.59	0.82
169.905	104.700	0.113	2.550	0.007	0.077	38.876	41.699	25.723	0.14	41.05	2.69	929.84	1.46	0.79
167.976	117.298	0.124	2.598	−0.006	0.049	45.869	48.686	21.801	0.11	45.15	2.56	942.91	2.55	1.15
167.949	116.355	0.137	2.593	−0.008	0.052	40.775	44.173	24.525	0.11	44.87	2.85	851.79	2.64	1.24
167.757	104.408	0.136	2.568	0.003	0.067	50.225	60.132	19.910	0.12	40.66	2.08	766.57	2.04	1.14
159.639	98.751	0.132	2.633	−0.031	0.028	40.330	45.169	24.796	0.10	37.50	2.45	748.68	4.73	1.33
159.552	104.456	0.144	2.600	0.005	0.048	36.982	37.167	27.040	0.09	40.17	2.82	727.92	3.02	1.65
159.115	107.025	0.142	2.616	0.022	0.038	22.952	23.274	43.570	0.14	40.91	4.66	752.63	3.74	1.03
159.360	107.951	0.166	2.585	0.033	0.057	26.225	30.676	38.132	0.16	41.77	4.12	648.75	2.93	1.02
159.221	105.578	0.177	2.636	0.025	0.026	23.021	24.173	43.438	0.10	40.05	4.59	598.18	6.79	1.70
157.202	139.860	0.129	2.553	−0.009	0.076	44.051	45.083	22.701	0.12	54.78	3.17	1086.71	1.70	1.05
163.736	107.685	0.137	2.591	0.011	0.053	37.468	40.351	28.030	0.12	41.56	3.02	800.56	3.24	1.23
116.171	83.406	0.101	2.538	−0.031	0.016	22.952	23.274	19.910	0.07	32.17	1.91	598.18	1.46	0.79
174.473	135.650	0.186	2.653	0.097	0.084	50.225	60.132	43.570	0.16	51.30	4.66	1017.98	11.34	2.24
23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
155.494	93.208	0.055	2.630	0.006	0.030	68.922	82.829	14.509	0.07	35.44	1.35	1682.45	1.85	0.76
154.861	97.824	0.082	2.587	0.014	0.055	48.668	49.709	20.548	0.09	37.81	2.01	1188.63	1.49	0.87
153.416	83.211	0.053	2.592	0.000	0.052	92.296	123.022	10.835	0.08	32.10	0.90	1584.96	1.00	0.69
172.306	57.202	0.118	2.504	0.003	0.105	44.809	54.134	22.317	0.13	22.85	1.28	483.94	1.12	0.89
167.066	72.238	0.113	2.451	0.012	0.136	43.254	45.940	23.119	0.19	29.47	1.67	639.84	0.83	0.58

Appendix 2. Continued

Well: Bill Barrett 43C-3-792

Thin Section Depth (ft)	Log Depth (ft)	Description/Classification	
4391.90	4387.5	Tightly calcite-cemented, coarser	G
4405.00	4400.5	Tightly calcite-cemented, coarser	G
4412.90	4408.5	Tightly calcite-cemented, coarser	G
2830.30	2827.5	Tightly calcite-cemented; finer	G
2855.00	2852.0	Tightly calcite-cemented; finer	G
4407.10	4402.5	Tightly calcite-cemented; finer	G
4850.90	4847.0	Tightly calcite-cemented; finer (Fe-cc): DRF frags	G
	3689.7	Ave	
	2797.0	Min	
	4847.0	Max	
	11.0	Count	
6334.00	6332.0	Fe-dol cemented; DRF-rich, Q-rich	H
6335.00	6333.0	Fe-dol cemented; DRF-rich, Q-rich	H
6335.90	6333.5	Fe-dol cemented; DRF-rich, Q-rich	H
6339.00	6337.0	Fe-dol cemented; DRF-rich, Q-rich	H
6339.90	6338.0	Fe-dol cemented; DRF-rich, Q-rich	H
6342.00	6340.0	Fe-dol cemented; DRF-rich, Q-rich	H
6342.90	6341.0	Fe-dol cemented; DRF-rich, Q-rich	H
6341.00	6339.0	Fe-dol cemented; DRF-rich, Q-rich; large rip-ups	H
	6336.7	Ave	
	6332.0	Min	
	6341.0	Max	
	8.0	Count	

K(air) = Permeability to air/gas; K(inf) = Equivalent nonreactive liquid permeability corrected for gas slippage.

Notes on sample preparation and measurements: The samples are trimmed to right cylinders using nitrogen vent gas as the saw blade lubricant. The samples are extracted of any hydrocarbon using Dean-Stark procedures. Direct grain volume measurements are made using a small-volume helium porosimeter, using Boyles' Law principle of gas expansion. Pore-volume and permeability measurements are made with the samples mounted in a rubber-sleeved hydrostatically loaded overburden cell. The samples are tested at multiple net overburden pressures. Porosity values are calculated using the measured grain volume and pore volume data. Apparent grain density is calculated from dry weight and grain volume. Permeability is calculated using Un-Steady State flow equations. Application of an unsteady-state, pressure-transient technique allows Core Laboratories' CMS-300 instrument to generate porosity, permeability, Klinkenberg permeability, Forchheimer inertial resistance factor (Beta), and Klinkenberg slip factor (b) at in-situ stress conditions.

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Grain Density (g/cm3)	Porosity (%, at 800 psi)	Kinf (md, at 800 psi)	Mean (mm)	Sorting Classification	Folk Sorting	Std Dev (phi)	Trask Sqrt P75/P25	Trask P75/P25	Thin Section Depth (ft)	Log Depth (ft)	TENS
2.655	8.98	0.065	175	well	0.43	0.45	1.22	1.48	4405.0	4400.5	4381.419
2.662	6.69	0.004	199	well	0.46	0.48	1.24	1.53	4412.9	4408.5	4399.975
2.659	4.40	0.010	168	well	0.49	0.50	1.25	1.57	2830.3	2827.5	3545.089
2.664	1.98	0.004	159	well	0.49	0.62	1.27	1.62	2855.0	2852.0	3545.758
2.664	7.14	0.010	151	v well	0.33	0.35	1.12	1.26	4407.1	4402.5	4464.835
2.687	2.04		54	well	0.46	0.48	1.19	1.42	4850.9	4847.0	4752.192
2.667	4.82	0.015	195		0.47	0.50	1.26	1.59	3693.3	3689.7	3996.391
2.655	1.98	0.002	54		0.33	0.35	1.12	1.26	2800.2	2797.0	3435.930
2.687	8.98	0.065	346		0.65	0.69	1.49	2.21	4850.9	4847.0	4752.192
11	11	10	11		11	11	11	11	11	11	11
	geomean	0.009									
2.742	2.65	0.001	90	well	0.39	0.41	1.21	1.47	6334.0	6332.0	5548.570
2.759	2.81	0.002							6335.0	6333.0	5522.659
2.754	3.26	0.001	91	well	0.40	0.42	1.22	1.50	6335.9	6333.5	5510.958
2.743	3.41	0.001	93	well	0.42	0.42	1.22	1.48	6339.0	6337.0	5577.490
2.765	3.14	0.003	85	well	0.45	0.45	1.21	1.47	6339.9	6338.0	5612.762
2.698	4.19	0.018	96	well	0.45	0.46	1.25	1.56	6342.0	6340.0	5578.660
2.720	3.40	0.001	96	well	0.40	0.41	1.19	1.41	6342.9	6341.0	5599.221
2.707	4.35	0.002	134	mod well	0.54	0.78	1.27	1.61	6341.0	6339.0	5595.210
2.736	3.40	0.004	98		0.44	0.48	1.22	1.50	6338.7	6336.7	5568.191
2.698	2.65	0.001	85		0.39	0.41	1.19	1.41	6334.0	6332.0	5510.958
2.765	4.35	0.018	134		0.54	0.78	1.27	1.61	6342.9	6341.0	5612.762
8	8	8	7		7	7	7	7	8	8	8
	geomean	0.002									

SPA	GR	NPHI	RHOB	DRHO	DPHI	HDRS	HMRS	HDCN	SPHI	GR/RHOB	GR/HDRS	GR/NPHI	NPHI/DPHI	NPHI/SPHI
166.700	75.863	0.104	2.407	−0.008	0.163	54.044	66.175	18.503	0.16	31.52	1.40	728.05	0.64	0.65
165.676	86.153	0.133	2.515	0.004	0.098	46.578	53.348	21.469	0.15	34.25	1.85	649.23	1.35	0.91
157.785	121.687	0.083	2.603	0.016	0.046	68.962	90.325	14.501	0.11	46.74	1.76	1462.58	1.82	0.74
152.237	93.110	0.067	2.582	0.008	0.058	64.218	67.699	15.572	0.09	36.06	1.45	1385.57	1.15	0.74
167.638	109.707	0.110	2.545	0.010	0.081	53.300	60.655	18.762	0.12	43.12	2.06	996.43	1.36	0.93
159.641	93.500	0.122	2.630	0.013	0.030	58.618	69.452	17.060	0.11	35.56	1.60	768.92	4.07	1.10
161.166	89.428	0.095	2.550	0.007	0.078	58.515	69.390	17.927	0.12	34.99	1.58	1051.87	1.52	0.80
152.237	57.202	0.053	2.407	−0.008	0.030	43.254	45.940	10.835	0.07	22.85	0.90	483.94	0.64	0.58
172.306	121.687	0.133	2.630	0.016	0.163	92.296	123.022	23.119	0.19	46.74	2.06	1682.45	4.07	1.10
11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
165.766	60.323	0.077	2.661	−0.016	0.011	86.069	103.311	11.619	0.06	22.67	0.70	780.38	7.03	1.28
165.125	67.427	0.078	2.656	0.014	0.014	66.088	78.301	15.131	0.09	25.38	1.02	868.90	5.46	0.89
165.043	76.757	0.095	2.622	0.019	0.035	51.669	61.322	19.354	0.11	29.27	1.49	812.25	2.74	0.87
165.130	60.340	0.089	2.693	0.012		40.357	58.256	24.779	0.09	22.41	1.50	681.80	#DIV/0!	1.03
165.516	73.414	0.090	2.651	0.021	0.018	39.394	58.709	25.385	0.07	27.70	1.86	813.00	5.16	1.22
165.985	78.269	0.091	2.602	−0.003	0.047	42.764	43.295	23.384	0.09	30.08	1.83	861.05	1.95	1.02
165.930	82.311	0.115	2.607	−0.005	0.044	45.042	44.869	22.201	0.13	31.58	1.83	718.88	2.63	0.87
165.875	80.550	0.090	2.628	0.019	0.031	42.374	46.967	23.599	0.07	30.66	1.90	896.00	2.87	1.21
165.546	72.424	0.090	2.640	0.007	0.028	51.720	61.879	20.682	0.09	27.47	1.52	804.03	#DIV/0!	1.05
165.043	60.323	0.077	2.602	−0.016	0.011	39.394	43.295	11.619	0.06	22.41	0.70	681.80	#DIV/0!	0.87
165.985	82.311	0.115	2.693	0.021	0.047	86.069	103.311	25.385	0.13	31.58	1.90	896.00	#DIV/0!	1.28
8	8	8	8	8	7	8	8	8	8	8	8	8	7	8

Appendix 3. Reservoir Quality Prediction Spreadsheet

Enter your Data Here								Calculated Variables				
Depth (ft)	GR	NPHI	RHOB	DPHI	HDRS	HMRS	SPHI	GR/RHOB	GR/HDRS	GR/NPHI	NPHI/DPHI	NPHI/SPHI
5755.0	89.160	0.110	2.612	0.041	35.821	36.786	0.13	34.14	2.49	809.08	2.71	0.82
2820.0	129.457	0.179	2.573	0.064	29.908	32.628	0.14	50.32	4.33	722.01	2.81	1.31
4017.0	118.290	0.160	2.558	0.072	31.938	32.422	0.14	46.24	3.70	741.16	2.20	1.13
4365.5	128.677	0.136	2.538	0.084	31.944	35.340	0.09	50.69	4.03	946.15	1.61	1.44
6042.5	100.669	0.134	2.546	0.080	49.826	57.575	0.10	39.54	2.02	751.82	1.68	1.32
5325.5	135.650	0.146	2.644	0.021	49.649	45.625	0.07	51.30	2.73	929.11	6.89	2.24
2808.0	117.721	0.186	2.653	0.016	49.412	49.967	0.13	44.38	2.38	633.25	11.34	1.39
3994.0	105.172	0.138	2.613	0.040	35.739	39.150	0.11	40.25	2.94	764.88	3.43	1.30
3995.0	102.619	0.132	2.601	0.047	34.061	36.118	0.09	39.45	3.01	775.07	2.82	1.41
3996.0	83.406	0.127	2.593	0.052	37.020	40.553	0.10	32.17	2.25	655.71	2.45	1.32
3997.0	83.910	0.109	2.579	0.060	43.885	50.164	0.11	32.54	1.91	767.70	1.82	1.00
4369.5	95.386	0.101	2.566	0.068	39.011	42.771	0.12	37.17	2.45	948.17	1.49	0.87
4370.5	116.355	0.114	2.577	0.061	33.954	37.217	0.12	45.15	3.43	1017.98	1.86	0.92
4379.5	103.757	0.106	2.568	0.067	34.344	36.609	0.13	40.40	3.02	983.48	1.59	0.82
4380.5	104.700	0.113	2.550	0.077	38.876	41.699	0.14	41.05	2.69	929.84	1.46	0.79
4403.5	117.298	0.124	2.598	0.049	45.869	48.686	0.11	45.15	2.56	942.91	2.55	1.15
4404.5	116.355	0.137	2.593	0.052	40.775	44.173	0.11	44.87	2.85	851.79	2.64	1.24
4405.5	104.408	0.136	2.568	0.067	50.225	60.132	0.12	40.66	2.08	766.57	2.04	1.14
4848.5	98.751	0.132	2.633	0.028	40.330	45.169	0.10	37.50	2.45	748.68	4.73	1.33
4849.5	104.456	0.144	2.600	0.048	36.982	37.167	0.09	40.17	2.82	727.92	3.02	1.65
4854.0	107.025	0.142	2.616	0.038	22.952	23.274	0.14	40.91	4.66	752.63	3.74	1.03
4856.0	107.951	0.166	2.585	0.057	26.225	30.676	0.16	41.77	4.12	648.75	2.93	1.02
4860.0	105.578	0.177	2.636	0.026	23.021	24.173	0.10	40.05	4.59	598.18	6.79	1.70
2803.0	139.860	0.129	2.553	0.076	44.051	45.083	0.12	54.78	3.17	1086.71	1.70	1.05
6332.0	60.323	0.077	2.661	0.011	86.069	103.311	0.06	22.67	0.70	780.38	7.03	1.28
6333.0	67.427	0.078	2.656	0.014	66.088	78.301	0.09	25.38	1.02	868.90	5.46	0.89
6333.5	76.757	0.095	2.622	0.035	51.669	61.322	0.11	29.27	1.49	812.25	2.74	0.87
6337.0	60.340	0.089	2.693	−0.008	40.357	58.256	0.09	22.41	1.50	681.80	−11.80	1.03
6338.0	73.414	0.090	2.651	0.018	39.394	58.709	0.07	27.70	1.86	813.00	5.16	1.22
6340.0	78.269	0.091	2.602	0.047	42.764	43.295	0.09	30.08	1.83	861.05	1.95	1.02
6341.0	82.311	0.115	2.607	0.044	45.042	44.869	0.13	31.58	1.83	718.88	2.63	0.87
6339.0	80.550	0.090	2.628	0.031	42.374	46.967	0.07	30.66	1.90	896.00	2.87	1.21
3536.5	98.052	0.125	2.520	0.096	130.699	136.900	0.12	38.92	0.75	781.91	1.31	1.05
3538.5	98.556	0.128	2.477	0.121	102.941	125.503	0.14	39.79	0.96	768.17	1.06	0.93
3539.5	92.492	0.136	2.494	0.111	93.310	102.924	0.14	37.09	0.99	679.09	1.23	0.95
3541.5	85.779	0.132	2.494	0.111	98.003	102.992	0.14	34.39	0.88	649.35	1.19	0.92
3542.5	92.249	0.132	2.493	0.111	98.739	102.524	0.14	37.00	0.93	696.74	1.19	0.92
3543.5	99.677	0.136	2.465	0.128	95.771	98.680	0.15	40.43	1.04	735.63	1.06	0.93
3544.5	95.939	0.140	2.440	0.143	89.256	94.814	0.15	39.31	1.07	684.79	0.98	0.95
3545.5	91.615	0.143	2.435	0.146	83.361	87.975	0.15	37.62	1.10	640.21	0.98	0.97
3547.0	101.157	0.140	2.459	0.131	103.811	108.652	0.14	41.13	0.97	725.14	1.06	0.98
3548.5	95.825	0.135	2.433	0.147	111.698	122.791	0.14	39.39	0.86	711.39	0.92	1.00
3550.0	96.946	0.133	2.447	0.139	157.252	161.794	0.14	39.63	0.62	727.83	0.96	0.98
3550.5	96.784	0.137	2.447	0.139	152.125	149.389	0.14	39.55	0.64	708.52	0.99	0.99
3551.5	93.598	0.138	2.469	0.126	120.122	128.610	0.14	37.91	0.78	678.74	1.10	1.00
3552.5	91.225	0.128	2.468	0.127	122.094	141.795	0.13	36.97	0.75	714.37	1.01	0.97
3553.5	93.143	0.120	2.468	0.126	117.809	139.034	0.13	37.74	0.79	778.78	0.95	0.95
6059.0	101.417	0.126	2.562	0.071	31.557	36.299	0.13	39.59	3.21	804.25	1.79	0.97
6060.0	192.836	0.146	2.599	0.048	28.189	33.511	0.14	74.19	6.84	1317.19	3.05	1.08
5709.5	69.443	0.093	2.521	0.095	52.429	57.707	0.13	27.54	1.32	748.30	0.98	0.71
5710.5	67.167	0.090	2.542	0.083	50.775	55.654	0.13	26.43	1.32	742.99	1.10	0.70
5711.5	67.313	0.085	2.537	0.085	50.360	58.340	0.12	26.53	1.34	790.06	1.00	0.69
5713.5	68.841	0.080	2.547	0.079	47.244	52.435	0.12	27.03	1.46	861.59	1.01	0.69
5714.5	73.181	0.082	2.537	0.085	38.601	42.450	0.12	28.85	1.90	892.45	0.96	0.70
5715.5	73.653	0.081	2.539	0.084	35.062	38.278	0.12	29.01	2.10	910.42	0.96	0.67

Formula Using All Variables and Ratios												
A	B	C1	C2	D1	D2	E1	E2	E3	F	G	H	Likely Lithofacies
		C1				E1			F			C1E1F
									F			F
									F			F
									F			F
				D1					F			D1F
									F			F
									F			F
									F			F
									F			F
					D2				F			D2F
			C2			E1			F	G		C2E1FG
		C1	C2	D1		E1			F			C1C2D1E1F
		C1				E1			F			C1E1F
		C1	C2			E1			F			C1C2E1F
		C1	C2						F			C1C2F
		C1		D1		E1			F			C1D1E1F
		C1		D1		E1			F			C1D1E1F
		C1		D1		E1			F			C1D1E1F
									F			F
									F			F
									F			F
					D2				F			D2F
									F			F
		C1		D1		E1						C1D1E1
											H	H
											H	H
						E1				G	H	E1GH
											H	H
						E1					H	E1H
						E1					H	E1H
											H	H
A												A
A												A
A			C2									AC2
A			C2									AC2
A			C2									AC2
A												A
A												A
A												A
A												A
A												A
A												A
A												A
A												A
A												A
A												A
		C1				E1		E3	F			C1E1E3F
								E3				E3
	B					E1				G		BE1G
						E1				G		E1G
						E1				G		E1G
						E1				G		E1G
						E1						E1
						E1						E1

Appendix 3. Continued

Enter your Data Here								Calculated Variables				
Depth (ft)	GR	NPHI	RHOB	DPHI	HDRS	HMRS	SPHI	GR/RHOB	GR/HDRS	GR/NPHI	NPHI/DPHI	NPHI/SPHI
5716.0	72.206	0.082	2.547	0.079	35.225	38.649	0.12	28.35	2.05	884.88	1.03	0.67
5717.5	69.898	0.081	2.528	0.091	36.587	39.741	0.12	27.65	1.91	868.29	0.89	0.68
5718.5	75.435	0.076	2.541	0.083	38.607	42.263	0.11	29.69	1.95	988.67	0.92	0.67
5719.5	63.211	0.074	2.548	0.079	39.782	44.789	0.11	24.81	1.59	853.05	0.94	0.67
5720.5	71.312	0.077	2.570	0.066	39.715	43.476	0.11	27.75	1.80	930.96	1.17	0.68
5721.5	80.187	0.079	2.556	0.074	35.591	38.644	0.12	31.37	2.25	1011.19	1.08	0.68
5722.5	83.926	0.080	2.546	0.080	35.361	38.295	0.12	32.97	2.37	1054.35	0.99	0.66
5723.5	81.520	0.081	2.538	0.085	36.664	38.791	0.12	32.12	2.22	1003.94	0.96	0.68
5724.5	78.155	0.080	2.563	0.070	38.151	40.331	0.12	30.50	2.05	975.72	1.14	0.68
5725.0	77.391	0.079	2.581	0.059	38.823	41.660	0.12	29.98	1.99	980.88	1.34	0.67
5726.5	84.511	0.084	2.549	0.078	38.889	44.655	0.13	33.16	2.17	1008.49	1.07	0.67
5727.5	88.494	0.090	2.544	0.081	38.364	42.135	0.13	34.78	2.31	987.65	1.11	0.68
5729.0	75.945	0.093	2.517	0.097	37.179	39.162	0.13	30.18	2.04	814.86	0.96	0.72
5729.5	79.147	0.095	2.531	0.089	37.532	39.984	0.13	31.27	2.11	829.63	1.07	0.74
5730.5	75.197	0.095	2.544	0.081	39.299	44.794	0.13	29.55	1.91	794.89	1.17	0.73
5731.5	81.146	0.096	2.540	0.084	39.723	44.229	0.13	31.95	2.04	844.39	1.15	0.72
5732.0	80.464	0.100	2.555	0.075	37.414	39.959	0.13	31.50	2.15	806.25	1.34	0.75
5733.5	77.359	0.094	2.541	0.083	36.984	39.073	0.13	30.44	2.09	819.48	1.14	0.73
5734.5	82.073	0.092	2.506	0.104	38.635	42.433	0.13	32.75	2.12	895.99	0.88	0.69
5735.5	98.588	0.092	2.516	0.098	36.802	39.738	0.13	39.19	2.68	1077.47	0.94	0.69
5736.5	111.999	0.088	2.547	0.080	37.630	40.896	0.13	43.98	2.98	1271.27	1.11	0.69
5737.5	149.760	0.086	2.540	0.083	39.501	44.174	0.12	58.95	3.79	1737.35	1.04	0.70
5738.5	160.244	0.092	2.557	0.073	35.960	38.752	0.12	62.68	4.46	1741.79	1.25	0.77
5740.0	99.190	0.104	2.557	0.073	27.842	30.001	0.12	38.79	3.56	950.09	1.42	0.87
5741.5	86.933	0.096	2.543	0.081	30.355	31.891	0.12	34.18	2.86	905.55	1.18	0.81
5742.5	82.804	0.088	2.542	0.082	31.252	34.606	0.12	32.57	2.65	940.96	1.07	0.76
5743.5	97.532	0.086	2.562	0.070	31.889	36.771	0.12	38.07	3.06	1138.06	1.22	0.74
5745.5	91.046	0.082	2.567	0.067	33.664	36.469	0.12	35.47	2.70	1110.31	1.22	0.68
5747.0	86.169	0.081	2.522	0.094	36.044	38.038	0.13	34.16	2.39	1067.77	0.86	0.63
5747.5	89.095	0.082	2.530	0.089	34.869	36.723	0.13	35.22	2.56	1090.52	0.91	0.63
5748.5	85.356	0.077	2.561	0.071	33.790	36.770	0.13	33.33	2.53	1107.09	1.09	0.59
5749.5	85.421	0.074	2.563	0.070	35.489	37.647	0.13	33.34	2.41	1157.47	1.06	0.58
5751.5	86.787	0.090	2.558	0.073	35.101	37.334	0.13	33.93	2.47	961.09	1.25	0.72
5752.5	91.989	0.086	2.560	0.072	36.230	37.794	0.13	35.93	2.54	1073.38	1.20	0.67
5754.0	82.024	0.093	2.584	0.057	34.622	36.018	0.13	31.75	2.37	883.88	1.62	0.71
5756.0	92.671	0.117	2.583	0.058	37.663	39.038	0.14	35.88	2.46	793.42	2.01	0.85
5757.0	87.047	0.096	2.567	0.067	36.523	38.212	0.14	33.90	2.38	909.58	1.43	0.70
5758.0	83.601	0.090	2.550	0.077	39.357	47.894	0.14	32.78	2.12	930.97	1.16	0.65
6037.5	77.164	0.114	2.545	0.080	40.199	45.142	0.12	30.31	1.92	676.28	1.42	0.92
6038.5	72.011	0.117	2.548	0.078	41.630	48.079	0.12	28.26	1.73	616.00	1.49	0.94
6039.5	79.147	0.100	2.606	0.044	36.972	41.777	0.12	30.38	2.14	794.65	2.25	0.84
6040.5	88.169	0.100	2.606	0.044	35.492	38.436	0.11	33.83	2.48	884.34	2.27	0.88
6041.5	86.315	0.116	2.561	0.071	40.222	45.485	0.11	33.71	2.15	745.38	1.63	1.10
6043.5	82.788	0.140	2.545	0.081	54.516	61.928	0.11	32.54	1.52	591.77	1.74	1.28
6045.5	65.850	0.095	2.563	0.070	43.384	44.810	0.12	25.70	1.52	690.98	1.36	0.83
6050.0	79.553	0.126	2.585	0.057	44.922	51.999	0.14	30.77	1.77	630.37	2.23	0.93
6050.5	59.543	0.089	2.567	0.067	55.722	66.720	0.12	23.20	1.07	667.52	1.32	0.73
6051.5	55.122	0.076	2.567	0.067	69.955	79.370	0.09	21.47	0.79	722.43	1.14	0.85
6052.5	65.346	0.091	2.623	0.034	60.779	65.786	0.08	24.91	1.08	715.73	2.69	1.12
6053.5	73.051	0.109	2.626	0.032	42.195	46.379	0.11	27.82	1.73	671.43	3.38	1.01
6054.5	81.358	0.111	2.552	0.076	38.344	43.736	0.13	31.88	2.12	734.27	1.45	0.86
6055.5	73.311	0.109	2.518	0.097	38.031	43.458	0.13	29.12	1.93	670.73	1.13	0.81
6056.5	72.027	0.108	2.556	0.074	36.966	45.672	0.14	28.18	1.95	668.15	1.45	0.78
6057.5	77.082	0.121	2.594	0.052	32.955	38.890	0.14	29.72	2.34	637.04	2.35	0.88
3964.0	173.167	0.294	2.581	0.059	16.452	17.465	0.20	67.10	10.53	588.60	4.99	1.47

Formula Using All Variables and Ratios													
A	B	C1	C2	D1	D2	E1	E2	E3	F	G	H	Likely Lithofacies
						E1						E1
						E1						E1
						E1						E1
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						E1						E1
						E1						E1
						E1						E1
	B					E1						BE1
			C2			E1						C2E1
			C2			E1						C2E1
			C2			E1						C2E1
			C2			E1						C2E1
			C2			E1						C2E1
						E1						E1
						E1						E1
						E1						E1
						E1						E1
		C1				E1			F			C1E1F
			C2			E1						C2E1
			C2			E1						C2E1
			C2			E1						C2E1
						E1						E1
						E1						E1
						E1						E1
						E1						E1
						E1						E1
			C2			E1						C2E1
						E1						E1
						E1						E1
		C1		D1		E1			F			C1D1E1F
						E1						E1
						E1						E1
			C2			E1						C2E1
			C2			E1						C2E1
						E1						E1
						E1						E1
		C1				E1			F			C1E1F
					D2	E1						D2E1
			C2			E1						C2E1
						E1				G		E1G
						E1				G		E1G
						E1						E1
						E1					H	E1H
					D2	E1						D2E1
			C2			E1						C2E1
	B		C2			E1						BC2E1
			C2			E1						C2E1
						E1						E1
					D2							D2

Appendix 3. Continued

Enter your Data Here								Calculated Variables				
Depth (ft)	GR	NPHI	RHOB	DPHI	HDRS	HMRS	SPHI	GR/RHOB	GR/HDRS	GR/NPHI	NPHI/DPHI	NPHI/SPHI
3974.5	120.029	0.178	2.605	0.044	36.670	36.000	0.13	46.07	3.27	674.32	4.01	1.41
3986.5	66.338	0.109	2.633	0.028	64.333	78.824	0.08	25.19	1.03	608.60	3.91	1.35
3989.0	77.278	0.128	2.556	0.074	44.079	48.849	0.12	30.23	1.75	606.10	1.73	1.10
3989.5	69.085	0.124	2.539	0.084	43.708	47.756	0.12	27.21	1.58	557.14	1.48	1.03
3991.0	64.517	0.122	2.543	0.082	46.002	52.131	0.12	25.37	1.40	530.57	1.49	0.99
3992.0	63.916	0.123	2.529	0.090	45.536	53.983	0.12	25.27	1.40	519.64	1.37	1.03
3993.0	78.220	0.119	2.554	0.075	46.210	53.437	0.11	30.63	1.69	657.31	1.58	1.05
3560.5	149.126	0.136	2.539	0.084	54.800	58.599	0.12	58.74	2.72	1097.32	1.62	1.11
3566.0	111.609	0.115	2.561	0.071	85.750	103.064	0.11	43.58	1.30	967.98	1.63	1.05
3567.5	97.889	0.093	2.558	0.073	130.554	135.679	0.12	38.27	0.75	1050.31	1.28	0.80
3562.5	155.205	0.138	2.563	0.070	51.833	56.237	0.11	60.57	2.99	1128.77	1.97	1.22
3568.5	136.495	0.118	2.555	0.074	67.163	62.981	0.12	53.42	2.03	1155.76	1.59	0.98
3569.5	133.635	0.126	2.539	0.084	74.843	87.425	0.13	52.63	1.79	1058.91	1.50	0.94
3559.5	118.452	0.117	2.535	0.087	78.264	85.128	0.11	46.73	1.51	1008.96	1.36	1.02
3556.5	118.550	0.126	2.564	0.069	68.009	76.140	0.12	46.23	1.74	937.89	1.83	1.07
2804.0	129.034	0.119	2.570	0.066	41.521	42.571	0.12	50.21	3.11	1088.90	1.80	0.97
2805.0	139.844	0.122	2.621	0.035	43.855	45.136	0.12	53.37	3.19	1150.03	3.44	1.01
2833.0	89.534	0.123	2.512	0.100	41.040	42.210	0.14	35.64	2.18	730.89	1.23	0.88
3561.5	161.789	0.145	2.548	0.078	54.194	60.491	0.12	63.49	2.99	1116.55	1.85	1.21
3563.5	149.971	0.155	2.589	0.054	44.727	44.242	0.11	57.93	3.35	968.80	2.86	1.40
3564.5	127.409	0.133	2.580	0.059	59.839	61.645	0.11	49.38	2.13	957.96	2.24	1.22
2821.0	104.115	0.144	2.567	0.068	37.603	41.220	0.12	40.57	2.77	721.02	2.14	1.18
2822.0	106.228	0.140	2.562	0.070	37.088	39.042	0.12	41.46	2.86	759.86	1.99	1.13
2823.0	112.405	0.138	2.574	0.063	38.424	40.480	0.13	43.68	2.93	814.53	2.18	1.08
2825.0	108.504	0.115	2.551	0.077	41.071	41.653	0.12	42.54	2.64	945.98	1.49	0.96
2828.0	117.314	0.094	2.589	0.054	62.988	78.183	0.12	45.32	1.86	1253.36	1.72	0.80
2812.0	83.471	0.114	2.530	0.089	41.352	42.804	0.15	32.99	2.02	730.28	1.28	0.78
2855.0	95.922	0.160	2.499	0.108	26.644	28.059	0.17	38.39	3.60	599.14	1.48	0.92
3558.5	95.744	0.103	2.510	0.101	125.979	147.101	0.11	38.14	0.76	933.17	1.01	0.95
2799.0	92.623	0.107	2.520	0.095	38.031	38.170	0.13	36.76	2.44	866.44	1.12	0.82
2800.0	131.277	0.116	2.525	0.092	40.235	43.364	0.13	51.99	3.26	1129.75	1.26	0.88
2801.0	159.497	0.121	2.534	0.087	43.330	47.127	0.13	62.96	3.68	1313.81	1.39	0.95
2807.0	132.302	0.163	2.645	0.021	50.216	54.010	0.13	50.02	2.63	810.17	7.85	1.29
2809.0	91.355	0.139	2.560	0.071	49.197	50.120	0.14	35.68	1.86	658.17	1.95	0.99
2810.0	87.079	0.115	2.514	0.099	42.191	43.726	0.15	34.64	2.06	755.90	1.17	0.79
2829.0	117.623	0.102	2.538	0.085	51.558	56.073	0.12	46.34	2.28	1149.78	1.21	0.82
2841.0	106.537	0.118	2.532	0.088	38.975	40.668	0.14	42.07	2.73	901.33	1.34	0.82
2814.0	74.758	0.113	2.538	0.085	43.775	44.168	0.14	29.46	1.71	664.51	1.33	0.78
2815.0	76.741	0.114	2.542	0.082	48.338	53.253	0.16	30.18	1.59	673.17	1.39	0.72
2816.0	99.531	0.165	2.565	0.068	33.318	35.729	0.21	38.80	2.99	604.32	2.41	0.79
2824.0	113.641	0.135	2.560	0.072	38.423	39.071	0.13	44.40	2.96	844.91	1.87	1.06
2830.0	106.326	0.112	2.553	0.076	44.941	45.969	0.13	41.66	2.37	950.18	1.47	0.86
2831.0	98.247	0.115	2.547	0.079	44.409	44.402	0.13	38.57	2.21	858.05	1.45	0.85
2832.0	91.940	0.115	2.536	0.086	43.210	43.178	0.14	36.25	2.13	798.09	1.35	0.84
2834.0	91.631	0.128	2.513	0.100	39.613	40.485	0.14	36.47	2.31	718.67	1.28	0.91
2835.0	95.727	0.126	2.540	0.083	37.976	39.249	0.14	37.68	2.52	758.54	1.52	0.89
2836.0	92.541	0.118	2.531	0.089	37.835	39.268	0.14	36.57	2.45	781.60	1.33	0.82
2837.0	87.486	0.122	2.510	0.101	38.028	37.982	0.15	34.85	2.30	718.86	1.20	0.83
2838.0	92.899	0.117	2.502	0.106	38.148	37.553	0.15	37.14	2.44	794.01	1.10	0.79
2839.0	98.052	0.112	2.518	0.097	38.044	37.897	0.15	38.95	2.58	876.24	1.16	0.75
2840.0	96.621	0.114	2.526	0.092	39.168	39.090	0.15	38.25	2.47	850.54	1.24	0.77
2842.0	100.441	0.122	2.549	0.078	39.908	40.981	0.14	39.41	2.52	825.32	1.56	0.87
2843.0	100.506	0.125	2.533	0.087	38.005	38.205	0.14	39.67	2.64	805.98	1.43	0.90
2844.0	87.697	0.130	2.518	0.096	36.614	36.854	0.14	34.83	2.40	674.59	1.35	0.93
2845.0	84.576	0.128	2.487	0.115	35.565	36.331	0.14	34.00	2.38	659.72	1.12	0.89

Formula Using All Variables and Ratios												
A	B	C1	C2	D1	D2	E1	E2	E3	F	G	H	Likely Lithofacies
					D2				F			D2F
					D2							D2
					D2	E1				G		D2E1G
			C2		D2					G		C2D2G
			C2		D2					G		C2D2G
					D2					G		D2G
			C2		D2	E1				G		C2D2E1G
		C1		D1		E1						C1D1E1
		C1	C2	D1						G		C1C2D1G
				D1								D1
		C1		D1		E1						C1D1E1
		C1		D1		E1						C1D1E1
		C1		D1								C1D1
		C1		D1						G		C1D1G
		C1		D1		E1				G		C1D1E1G
		C1		D1		E1						C1D1E1
		C1		D1								C1D1
		C1	C2	D1								C1C2D1
				D1								D1
				D1								D1
		C1		D1		E1						C1D1E1
		C1		D1					F			C1D1F
		C1		D1		E1			F			C1D1E1F
		C1		D1		E1			F			C1D1E1F
		C1	C2	D1		E1			F			C1C2D1E1F
				D1		E1				G		D1E1G
		C1	C2									C1C2
		C1										C1
		C1										C1
		C1	C2			E1						C1C2E1
		C1		D1		E1						C1D1E1
		C1										C1
		C1							F			C1F
		C1	C2		D2							C1C2D2
	B	C1	C2									BC1C2
		C1	C2			E1						C1C2E1
		C1	C2									C1C2
			C2									C2
			C2							G		C2G
			C2									C2
		C1	C2	D1		E1			F			C1C2D1E1F
		C1	C2	D1		E1			F			C1C2D1E1F
		C1	C2	D1		E1			F			C1C2D1E1F
		C1	C2	D1		E1						C1C2D1E1
		C1	C2									C1C2
		C1	C2						F			C1C2F
		C1	C2									C1C2
		C1	C2									C1C2
		C1	C2									C1C2
		C1	C2									C1C2
		C1	C2									C1C2
		C1	C2						F			C1C2F
		C1	C2									C1C2
		C1	C2									C1C2
			C2									C2

Appendix 3. Continued

Enter your Data Here								Calculated Variables				
Depth (ft)	GR	NPHI	RHOB	DPHI	HDRS	HMRS	SPHI	GR/RHOB	GR/HDRS	GR/NPHI	NPHI/DPHI	NPHI/SPHI
2846.0	88.266	0.128	2.496	0.109	34.830	36.127	0.15	35.36	2.53	690.12	1.17	0.85
2847.0	90.331	0.123	2.523	0.093	34.643	37.075	0.15	35.80	2.61	733.80	1.32	0.80
2848.0	93.793	0.119	2.519	0.096	34.200	36.081	0.14	37.24	2.74	787.51	1.24	0.82
2849.0	95.695	0.117	2.523	0.094	36.571	38.226	0.12	37.93	2.62	820.71	1.25	0.96
2850.0	87.063	0.087	2.540	0.083	54.007	61.920	0.09	34.27	1.61	1003.03	1.04	0.96
2853.0	96.296	0.114	2.507	0.103	36.171	38.189	0.12	38.41	2.66	846.19	1.10	0.91
2854.0	90.477	0.145	2.494	0.111	28.988	30.535	0.15	36.28	3.12	622.26	1.31	0.95
3557.5	91.793	0.111	2.524	0.093	112.211	145.293	0.11	36.37	0.82	827.71	1.19	1.00
3998.0	69.020	0.118	2.579	0.060	39.071	44.026	0.12	26.76	1.77	586.90	1.96	0.98
3998.5	61.868	0.117	2.565	0.069	37.422	42.783	0.13	24.12	1.65	528.78	1.71	0.93
4392.5	63.574	0.082	2.438	0.144	81.370	102.667	0.16	26.08	0.78	778.14	0.57	0.50
4851.0	74.823	0.071	2.643	0.022	67.145	82.106	0.07	28.31	1.11	1061.32	3.19	0.94
4852.0	75.311	0.064	2.656	0.015	66.949	91.831	0.09	28.36	1.12	1173.06	4.43	0.69
4853.0	76.465	0.092	2.665	0.009	50.442	58.639	0.12	28.69	1.52	830.24	10.23	0.76
2813.0	80.285	0.113	2.528	0.091	42.104	42.197	0.14	31.76	1.91	708.60	1.25	0.79
5326.5	122.711	0.135	2.611	0.041	65.804	66.528	0.06	47.00	1.86	909.64	3.27	2.17
2811.0	86.917	0.113	2.530	0.090	40.083	41.441	0.15	34.36	2.17	772.59	1.26	0.76
4000.0	65.623	0.128	2.523	0.094	35.945	39.798	0.14	26.01	1.83	511.48	1.37	0.94
4001.0	64.322	0.141	2.512	0.100	33.731	34.966	0.14	25.60	1.91	456.51	1.41	0.99
4002.0	71.621	0.143	2.465	0.128	33.229	33.861	0.15	29.06	2.16	499.45	1.12	0.97
4003.0	69.508	0.132	2.500	0.107	35.261	38.310	0.16	27.81	1.97	526.17	1.23	0.85
4004.0	58.356	0.144	2.501	0.107	35.240	37.562	0.17	23.34	1.66	406.66	1.34	0.85
4382.5	70.076	0.115	2.409	0.161	40.457	42.839	0.20	29.08	1.73	609.36	0.71	0.58
4383.5	77.294	0.121	2.381	0.178	40.811	43.617	0.21	32.47	1.89	639.85	0.68	0.57
4384.5	74.140	0.121	2.397	0.169	40.078	46.232	0.22	30.94	1.85	614.25	0.72	0.55
4385.5	64.127	0.121	2.407	0.162	41.012	43.756	0.22	26.64	1.56	529.54	0.75	0.55
4386.5	68.305	0.117	2.408	0.162	44.259	46.125	0.21	28.36	1.54	582.80	0.72	0.56
4411.5	70.889	0.139	2.410	0.161	41.042	44.557	0.20	29.42	1.73	508.53	0.87	0.69
4388.5	74.010	0.113	2.461	0.131	44.931	49.905	0.18	30.08	1.65	656.12	0.86	0.62
4389.5	74.368	0.108	2.447	0.139	49.976	53.157	0.17	30.39	1.49	686.05	0.78	0.62
4390.5	64.712	0.095	2.437	0.145	60.982	64.070	0.17	26.56	1.06	684.06	0.65	0.57
4391.5	64.956	0.082	2.441	0.142	84.468	95.768	0.16	26.61	0.77	795.06	0.57	0.50
4393.5	56.406	0.085	2.460	0.131	69.852	84.964	0.16	22.93	0.81	662.04	0.65	0.53
4394.5	83.438	0.108	2.519	0.096	45.135	47.782	0.16	33.12	1.85	774.01	1.12	0.66
4397.5	74.043	0.115	2.421	0.154	49.841	59.650	0.17	30.58	1.49	643.85	0.75	0.68
4398.5	72.564	0.111	2.408	0.162	47.051	52.757	0.18	30.13	1.54	654.91	0.69	0.63
4399.5	70.060	0.108	2.389	0.174	45.026	45.830	0.18	29.33	1.56	646.91	0.62	0.62
4402.0	90.022	0.102	2.506	0.104	57.959	67.483	0.13	35.92	1.55	879.12	0.99	0.80
4005.0	57.674	0.165	2.443	0.141	32.096	33.465	0.18	23.61	1.80	350.39	1.17	0.90
4006.0	61.477	0.174	2.413	0.159	30.770	32.200	0.19	25.47	2.00	353.72	1.09	0.93
4007.0	60.470	0.179	2.402	0.166	29.083	31.433	0.19	25.18	2.08	338.01	1.08	0.95
4008.0	59.527	0.184	2.415	0.158	31.444	34.756	0.19	24.65	1.89	323.51	1.17	0.97
4009.0	58.909	0.182	2.404	0.164	33.774	36.090	0.18	24.51	1.74	323.50	1.11	0.99
4010.0	55.203	0.170	2.416	0.157	33.476	34.342	0.17	22.85	1.65	325.30	1.08	0.98
4011.0	62.030	0.148	2.464	0.128	34.297	36.775	0.16	25.17	1.81	418.84	1.15	0.91
4012.0	64.615	0.147	2.458	0.132	35.996	38.258	0.16	26.29	1.80	440.75	1.11	0.94
4013.0	62.274	0.135	2.453	0.135	37.856	38.199	0.15	25.39	1.65	460.61	1.00	0.91
4014.0	56.747	0.116	2.480	0.119	41.530	46.814	0.14	22.89	1.37	491.32	0.97	0.84
4016.0	68.630	0.132	2.485	0.116	46.861	50.621	0.14	27.62	1.46	519.14	1.14	0.97
4412.5	74.335	0.141	2.417	0.157	43.319	44.113	0.20	30.76	1.72	525.71	0.90	0.70
4406.5	75.489	0.108	2.541	0.083	59.002	69.918	0.13	29.71	1.28	699.62	1.30	0.84
4407.5	76.562	0.105	2.504	0.105	50.552	54.422	0.14	30.58	1.51	730.56	1.00	0.76
4409.5	76.579	0.139	2.546	0.080	46.283	53.369	0.16	30.08	1.65	550.13	1.75	0.89
4410.5	64.078	0.132	2.452	0.136	40.035	45.304	0.18	26.13	1.60	486.18	0.97	0.72
4018.0	140.283	0.176	2.593	0.052	30.996	31.009	0.14	54.10	4.53	796.16	3.39	1.27

Formula Using All Variables and Ratios												
A	B	C1	C2	D1	D2	E1	E2	E3	F	G	H	Likely Lithofacies
		C1	C2									C1C2
		C1	C2									C1C2
		C1	C2									C1C2
		C1	C2			E1						C1C2E1
			C2			E1				G		C2E1G
		C1	C2			E1						C1C2E1
			C2									C2
		C1	C2									C1C2
			C2									C2
			C2									C2
							E2					E2
							E2					E2
							E2					E2
	B		C2									BC2
		C1	C2									C1C2
	B											B
	B											B
	B											B
	B											B
	B											B
	B											B
	B											B
	B											B
	B											B
	B											B
	B											B
	B									G		BG
	B									G		BG
	B											B
	B											B
	B											B
	B									G		BG
	B									G		BG
	B									G		BG
	B											B
	B					E1				G		BE1G
	B											B
	B											B
	B											B
	B											B
	B											B
	B											B
	B											B
	B											B
	B											B
	B											B
	B									G		BG
	B											B
			C2			E1				G		C2E1G
	B									G		BG
			C2									C2
	B											B

Appendix 3. Continued

Enter your Data Here								Calculated Variables				
Depth (ft)	GR	NPHI	RHOB	DPHI	HDRS	HMRS	SPHI	GR/RHOB	GR/HDRS	GR/NPHI	NPHI/DPHI	NPHI/SPHI
4019.0	119.379	0.147	2.582	0.059	42.426	46.194	0.13	46.24	2.81	812.65	2.51	1.12
4020.0	97.873	0.140	2.549	0.078	35.757	37.360	0.13	38.40	2.74	699.09	1.79	1.09
4357.0	143.404	0.184	2.590	0.054	40.240	40.563	0.20	55.37	3.56	780.22	3.43	0.94
4362.0	140.364	0.181	2.516	0.098	30.157	31.385	0.12	55.80	4.65	777.21	1.85	1.49
4362.5	129.554	0.167	2.508	0.102	29.312	30.995	0.12	51.65	4.42	777.17	1.63	1.40
4366.5	102.880	0.114	2.539	0.084	47.952	57.173	0.09	40.52	2.15	904.83	1.35	1.29
4367.5	86.445	0.095	2.569	0.066	52.856	59.283	0.09	33.65	1.64	908.99	1.44	1.03
4368.5	83.032	0.094	2.581	0.059	43.955	45.897	0.10	32.17	1.89	888.04	1.59	0.91
4373.5	95.695	0.101	2.554	0.075	53.278	62.272	0.10	37.47	1.80	948.41	1.34	0.97
4374.5	100.002	0.092	2.533	0.088	52.593	63.091	0.10	39.48	1.90	1086.98	1.05	0.91
4375.5	96.605	0.089	2.546	0.080	51.804	57.326	0.10	37.95	1.86	1085.45	1.12	0.86
4376.5	100.165	0.089	2.592	0.052	51.873	55.735	0.11	38.64	1.93	1130.53	1.70	0.81
4377.5	94.703	0.094	2.590	0.053	46.699	54.462	0.12	36.56	2.03	1009.63	1.76	0.79
4378.5	98.019	0.097	2.580	0.059	37.918	41.843	0.12	37.99	2.59	1010.51	1.63	0.78
4381.5	82.463	0.112	2.481	0.118	41.737	45.032	0.17	33.24	1.98	737.59	0.94	0.65
2797.0	93.208	0.055	2.630	0.030	68.922	82.829	0.07	35.44	1.35	1682.45	1.85	0.76
2798.0	97.824	0.082	2.587	0.055	48.668	49.709	0.09	37.81	2.01	1188.63	1.49	0.87
2851.0	83.211	0.053	2.592	0.052	92.296	123.022	0.08	32.10	0.90	1584.96	1.00	0.69
4015.0	57.202	0.118	2.504	0.105	44.809	54.134	0.13	22.85	1.28	483.94	1.12	0.89
4387.5	72.238	0.113	2.451	0.136	43.254	45.940	0.19	29.47	1.67	639.84	0.83	0.58
4400.5	75.863	0.104	2.407	0.163	54.044	66.175	0.16	31.52	1.40	728.05	0.64	0.65
4408.5	86.153	0.133	2.515	0.098	46.578	53.348	0.15	34.25	1.85	649.23	1.35	0.91
2827.5	121.687	0.083	2.603	0.046	68.962	90.325	0.11	46.74	1.76	1462.58	1.82	0.74
2852.0	93.110	0.067	2.582	0.058	64.218	67.699	0.09	36.06	1.45	1385.57	1.15	0.74
4402.5	109.707	0.110	2.545	0.081	53.300	60.655	0.12	43.12	2.06	996.43	1.36	0.93
4847.0	93.500	0.122	2.630	0.030	58.618	69.452	0.11	35.56	1.60	768.92	4.07	1.10

Formula Using All Variables and Ratios												
A	B	C1	C2	D1	D2	E1	E2	E3	F	G	H	Likely Lithofacies
		C1		D1					F			C1D1F
		C1							F			C1F
						E1						E1
			C2			E1				G		C2E1G
						E1				G		E1G
		C1	C2	D1		E1				G		C1C2D1E1G
			C2			E1				G		C2E1G
			C2			E1				G		C2E1G
						E1				G		E1G
				D1		E1				G		D1E1G
						E1						E1
	B											B
										G		G
						E1				G		E1G
										G		G
	B									G		BG
	B									G		BG
	B									G		BG
	B	C1	C2							G		BC1C2G
										G		G
										G		G
		C1	C2	D1		E1				G		C1C2D1E1G
		C1								G		C1G