

Appendix M: Connectivity and Pore Volume

CONGLOMERATE									
ZONES	System Tract	Total volume in BCF (x10 ⁹ ft ³)	Pore volume (x10 ⁶ RB)	Connected volume in BCF	Connectivity (%)	Porosity > 5%		Porosity > 10%	
						Connected volume in BCF	Connectivity (%)	Connected volume in BCF	Connectivity (%)
Marmaton A-B	TST	64	1182	62	96.0	53	80.0	21	20.0
	HST	348	5156	339	97.4	287	82.5	75	21.6
	TST	32	433	25	76.6	17	53.9	6	18.3
	HST	192	2542	187	97.4	142	74.0	32	16.9
Marmaton C	TST	32	472	26	81.4	21	64.7	7	20.5
	HST	467	7055	456	97.6	376	80.5	121	25.9
Marmaton D	TST	40	590	27	67.6	22	53.6	7	17.3
	HST	479	6732	468	97.7	366	76.4	99	20.6
Marmaton E	TST	33	457	30	88.3	21	63.8	5	15.8
	HST	337	4913	329	97.6	264	78.3	67	19.9
Marmaton F	TST	44	587	39	89.1	28	63.7	7	15.4
	HST	243	2985	220	90.5	129	53.1	67	27.6
SANDSTONE									
ZONES	System Tract	Total volume in BCF (x10 ⁹ ft ³)	Pore volume (x10 ⁶ RB)	Connected volume in BCF	Connectivity (%)	Porosity > 5%		Porosity > 10%	
						Connected volume in BCF	Connectivity (%)	Connected volume in BCF	Connectivity (%)
Marmaton A-B	TST	31	382	18	57.7	12	37.1	3	6.0
	HST	206	2219	186	90.3	115	55.8	13	6.3
	TST	24	257	17	69.7	10	43.3	2	7.1
	HST	117	1305	106	90.6	70	59.7	10	8.4
Marmaton C	TST	23	283	14	61.5	9	41.0	3	11.3
	HST	291	3303	270	92.8	173	59.5	26	8.9
Marmaton D	TST	35	328	25	71.3	13	37.8	1	1.6
	HST	282	2736	259	91.8	147	52.1	7	2.4
Marmaton E	TST	26	269	16	61.1	9	35.5	1	3.9
	HST	267	2754	256	95.9	149	55.8	14	5.1
Marmaton F	TST	34	324	25	73.2	12	34.2	1	3.0
	HST	359	3273	349	97.2	176	49.0	5	1.3

Table M-1. Total volumes, connected volumes, pore volumes, and connectivities for conglomerates and sandstones at transgressive system tracts and highstand system tracts of each zone. See figure 18 for the histograms and explanation. Conglomerates and sandstones in the highstand system tracts have greater connectivities than those in transgressive system tracts. Conglomerates mostly have higher connectivities than sandstones. Highstand system tracts have greater pore volume than transgressive system tracts both for conglomerates and sandstones. Conglomerates have greater bulk volume and pore volume than sandstones except Marmaton F interval.