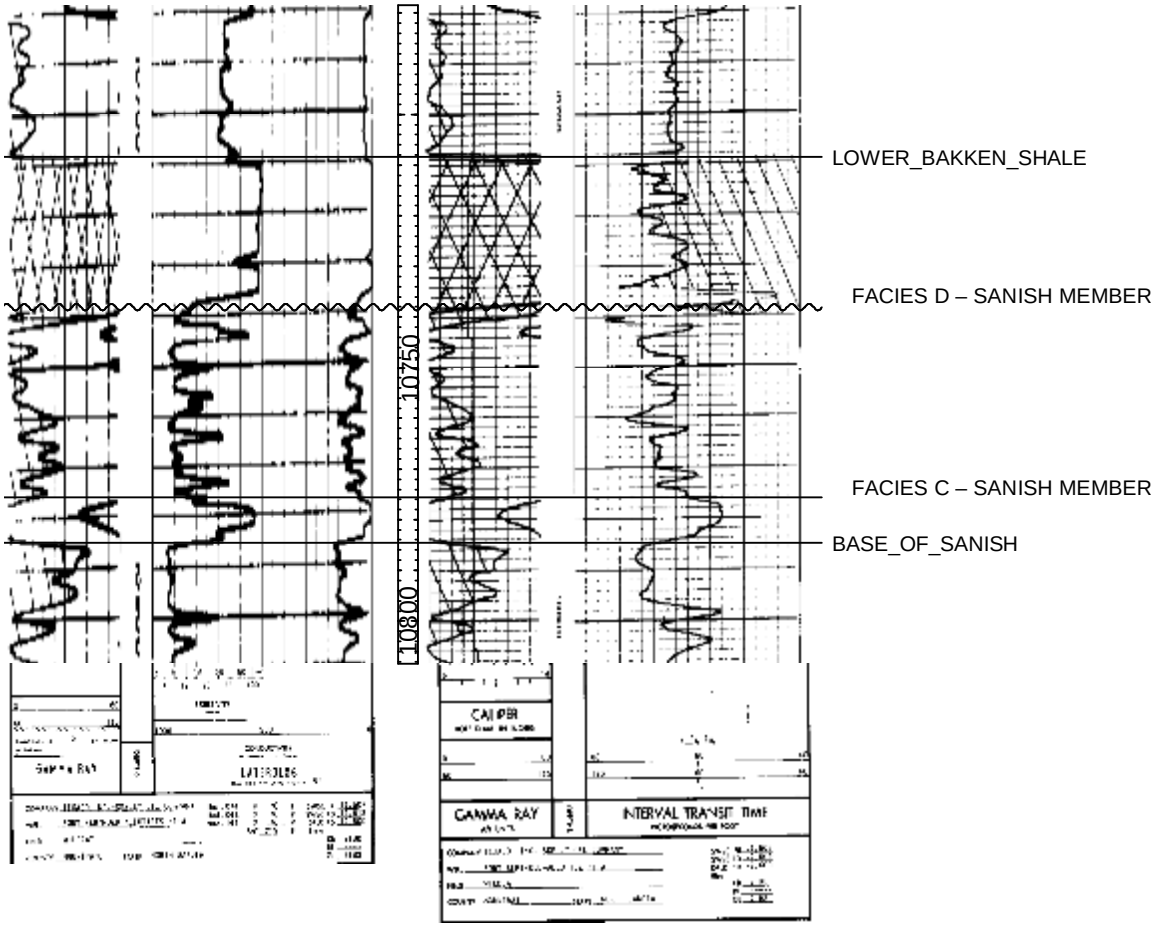
Appendix A.5
Core #5
Fort Berthold – Allottees #1-A Core Descriptions
150N 93W Sec 4
Core to Log = - 6.8

Depth (ft)	Composition	Primary Structures	Secondary Structures	Single Diagnostic Criteria	Additional Diagnostic Criteria	Facies
10,740' – 10,744.8'	Grayish black (N2) to dark black (N1) shale	Parallel-laminations, very Thin				LBS
10,744.8' – 10,745.5'	Light Brown sandy dolomite (88 - 125µ) with large calcite (Anhydrite?) nodules/structures	Massive	Bioturbation (?) and pyrite nodules.			D
10,745.5' – 10,746'	Light green (5 G 8/1) to greenish gray (5 G 6/1) slightly dolomitic shale (60%) to very light gray silty dolomite (N8) (40%), 66-88µ, well-sorted, tightly packed	Parallel-laminations, cross-laminations, SSD, dark layering	Fluid escape structures, pyrite nodules and laminations, bioturbation?			D
10,746' - 10,748'	Light green to greenish gray slightly dolomitic shale (50%) to very light gray silty dolomite (50%), 66-88µ, well-sorted, tightly packed	Parallel-laminations, cross-laminations, SSD, dark layering	Desiccation cracks, scour surfaces, energy decrease features, loading features, brecciation, pyrite nodules	-Mud drapes -Uni- and bidirectional Reactivation surfaces -Bottom sets -Flame structures	-Flaser bedding -Syneresis cracks	D
10,748' – 10,749'	Light green to greenish gray slightly dolomitic shale (60%) to very light gray silty dolomite (40%), 66-88µ, well-sorted, tightly packed	Parallel-laminations, cross-laminations, SSD, dark layering	Desiccation cracks, scour surfaces, energy decrease features, loading features, brecciation, pyrite nodules	-Mud drapes -Uni- and bidirectional Reactivation surfaces -Bottom sets -Flame structures	-Flaser bedding -Herringbone x-bedding -Syneresis cracks	D
10,749' – 10,750'	Light green to greenish gray slightly dolomitic shale (70%) to very light gray silty dolomite (30%), 66-88µ, well-sorted, tightly packed	Parallel-laminations, cross-laminations, SSD, dark layering	Desiccation cracks, scour surfaces, energy decrease features, loading features, brecciation, pyrite nodules	-Mud drapes -Uni- and bidirectional Reactivation surfaces -Bottom sets -Flame structures	-Flaser bedding -Herringbone x-bedding -Syneresis cracks	D
10,750' – 10,755'	Light green to greenish gray slightly dolomitic shale 50%) to very light gray silty dolomite (50%), 66-88µ, well-sorted, tightly packed	Parallel-laminations, cross-laminations, SSD, dark layering	Desiccation cracks, scour surfaces, energy decrease features, loading features, brecciation, pyrite nodules	-Mud drapes -Uni- and bidirectional Reactivation surfaces -Bottom sets -Flame structures	-Flaser bedding -Herringbone x-bedding -Syneresis cracks	D
10,755' – 10,758'	Light green to greenish gray	Parallel-laminations,	Desiccation cracks, scour	-Mud drapes -Uni- and	-Flaser bedding -Herringbone x-	D

	slightly dolomitic shale (60%) to very light gray silty dolomite (40%), 66-88µ, well-sorted, tightly packed	cross-laminations, SSD, dark layering	surfaces, energy decrease features, loading features, brecciation	bidirectional Reactivation surfaces -Bottom sets -Flame structures	bedding -Syneresis cracks	
10,758' – 10,759'	<u>Missing large Part</u> Light green to greenish gray slightly dolomitic shale (60%) to very light gray silty dolomite (40%), 66-88µ, well-sorted, tightly packed	Parallel-laminations, cross-laminations, SSD, dark layering	Desiccation cracks, scour surfaces, energy decrease features, loading features, brecciation	-Mud drapes -Uni- and bidirectional Reactivation surfaces -Bottom sets -Flame structures	-Flaser bedding -Herringbone x-bedding -Syneresis cracks	D
10,759' – 10,760'	Light green to greenish gray slightly dolomitic shale 50%) to very light gray silty dolomite (50%), 66-88µ, well-sorted, tightly packed	Parallel-laminations, cross-laminations, SSD, dark layering	Desiccation cracks, scour surfaces, energy decrease features, loading features, brecciation	-Mud drapes -Uni- and bidirectional Reactivation surfaces -Bottom sets -Flame structures	-Flaser bedding -Herringbone x-bedding -Syneresis cracks	D



Described Cored Interval: 10,740’ – 10,760’.