FOSSIL ENERGY

DOE/BC/14936-10 (Appendix II)
(DE98000475)

GEOLOGIC AND ENGINEERING CHARACTERIZATION OF GERALDINE FORD FIELD, REEVES AND CULBERSON COUNTIES, TEXAS - CORE DESCRIPTION

Topical Report - 1997

By
Shirley P. Dutton
Mohammad A. Malik
George B. Asquith
Mark D. Barton
Andrew G. Cole
John Gogas
Sigrid J. Clift
Jose I Guzman

April 1998

Performed Under Contract No. DE-FC22-95BC14936

Bureau of Economic Geology
The University of Texas at Austin
Austin, Texas

National Petroleum Technology Office
U. S. DEPARTMENT OF ENERGY
Tulsa, Oklahoma

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Distribution Category UC-122

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Prepared for
U.S. Department of Energy
Assistant Secretary for Fossil Energy

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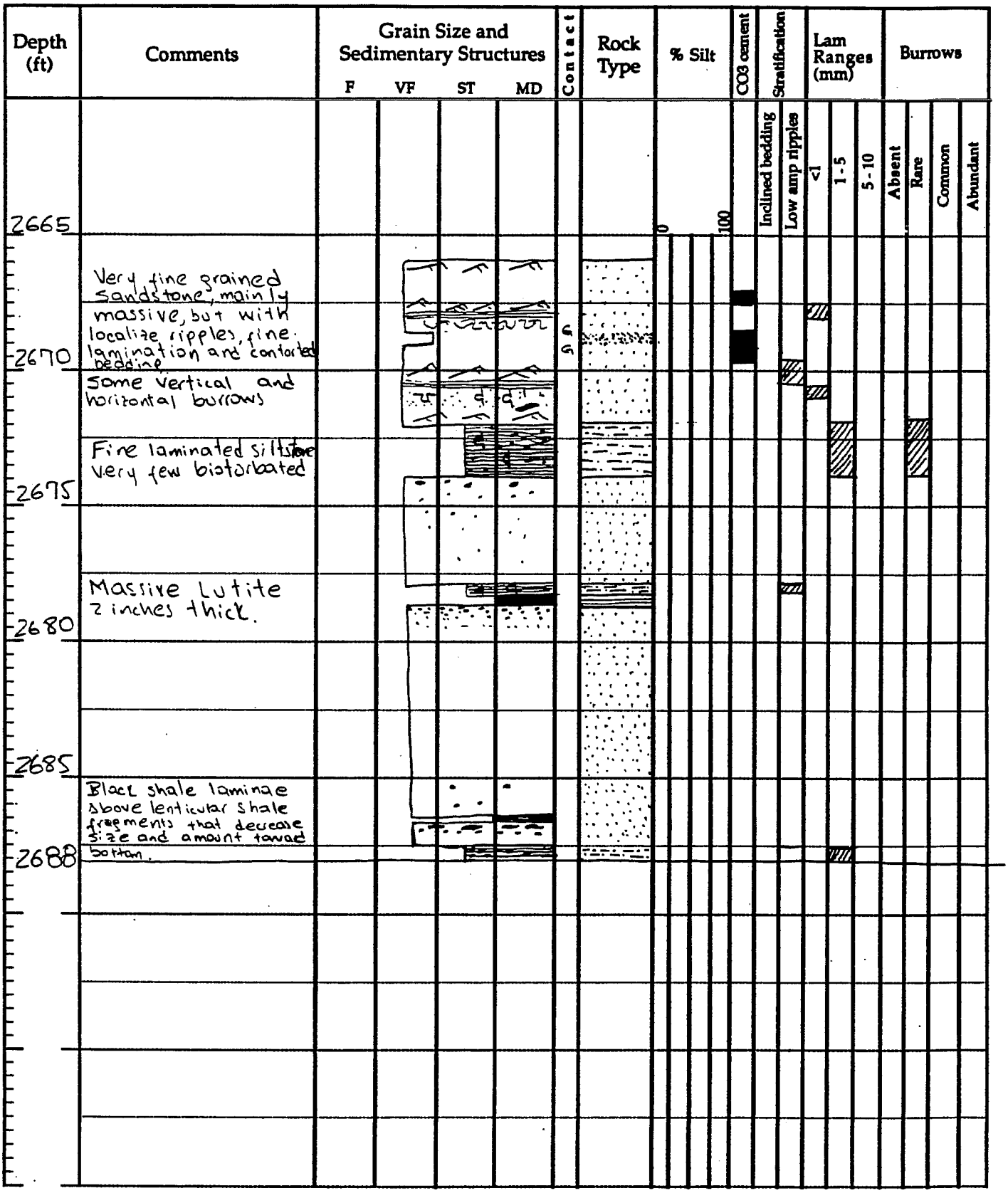
FGU3

Well RAMSEY 18-15 Core depth (+) 2666 (-) 2688 = _____ Log depth @ _____

Formation _____ Location _____ Logged by _____ Date _____

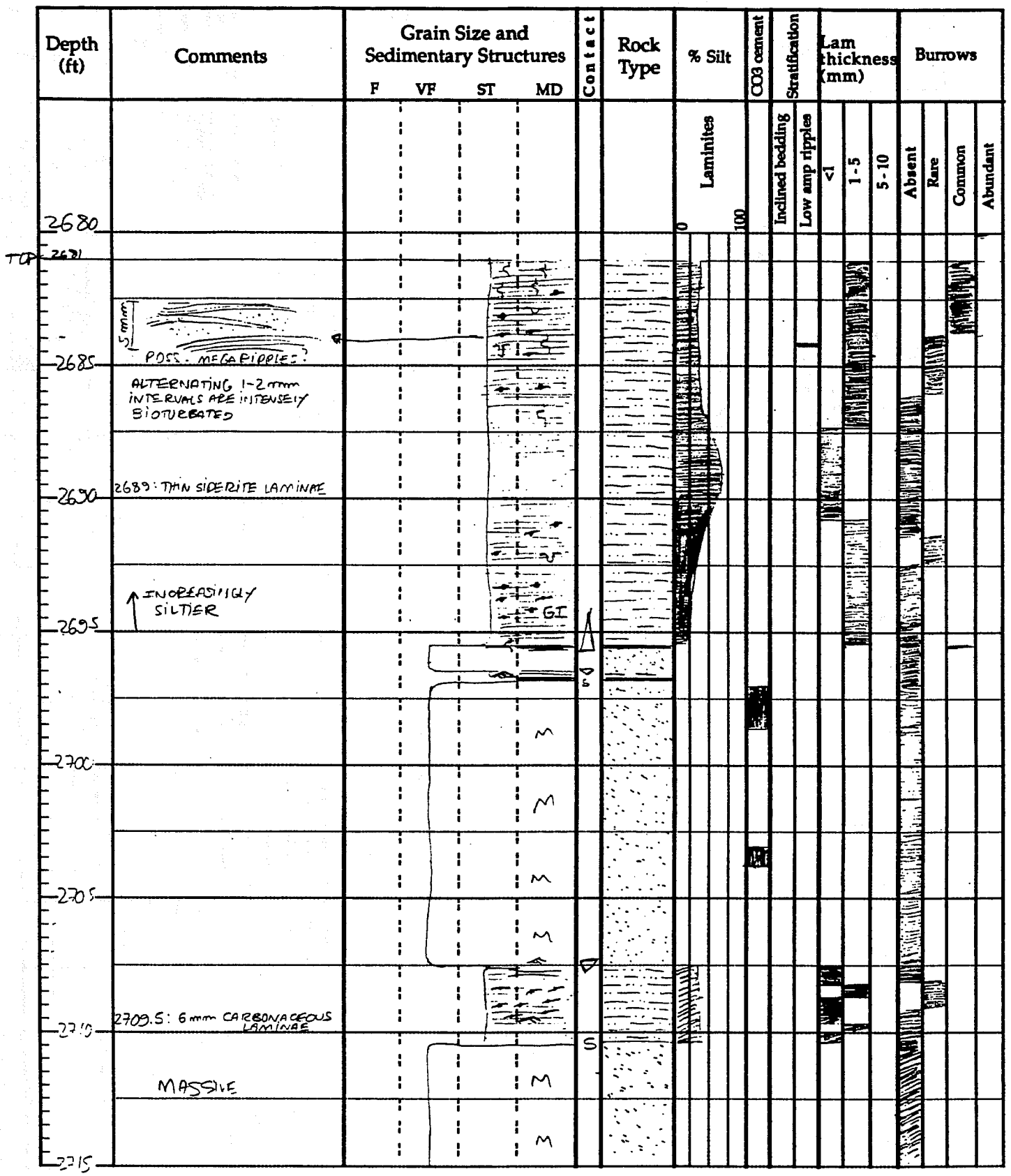


1 of 1

FGU5

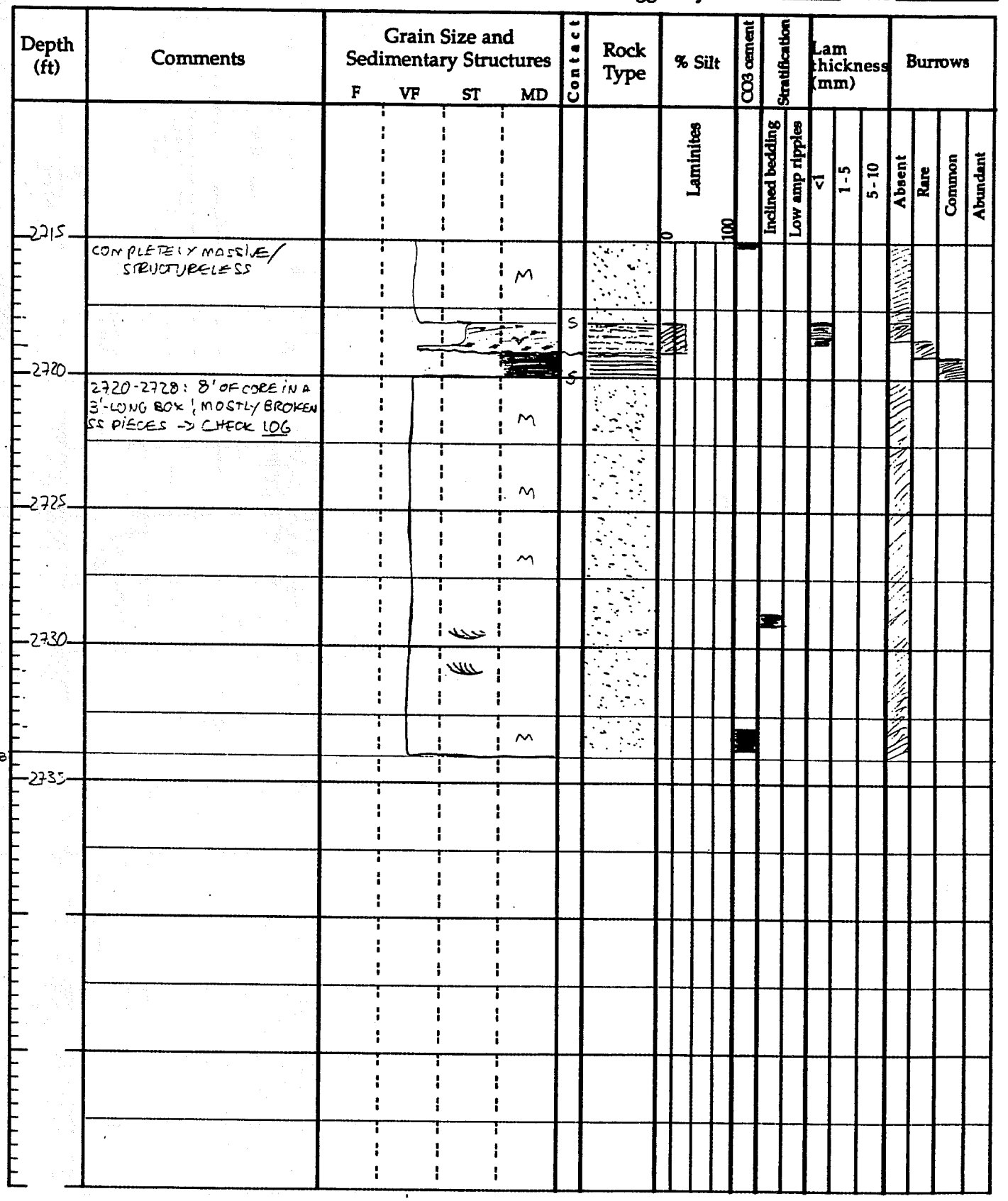
Well Ramsey 18-17 Core depth (+) 2681 (-) 2734 = 53' Log depth @ _____

Formation _____ Location _____ Logged by Jose Date 07/10



Well Ramsey 18-17 Core depth (+) 2681 (−) 2734 = _____ Log depth @ _____

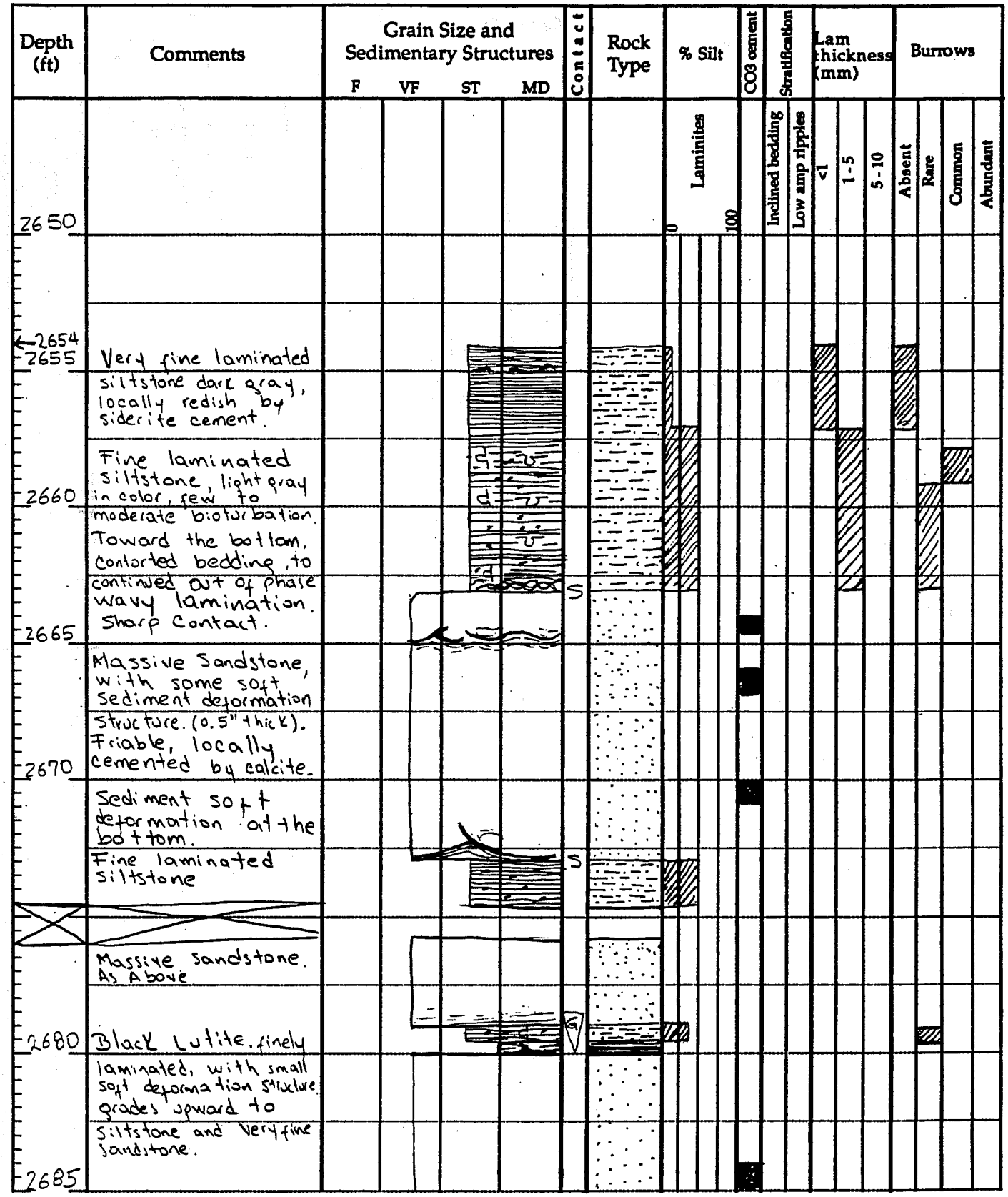
Formation _____ Location _____ Logged by JDSK Date 07/10



FGU6

Well RAMSEY 18-12 Core depth (+) 2654 (−) 2697 = _____ Log depth @ _____

Formation _____ Location _____ Logged by _____ Date _____



Well RAMSEY 18-12 Core depth (+) 2654 = _____ Log depth @ _____

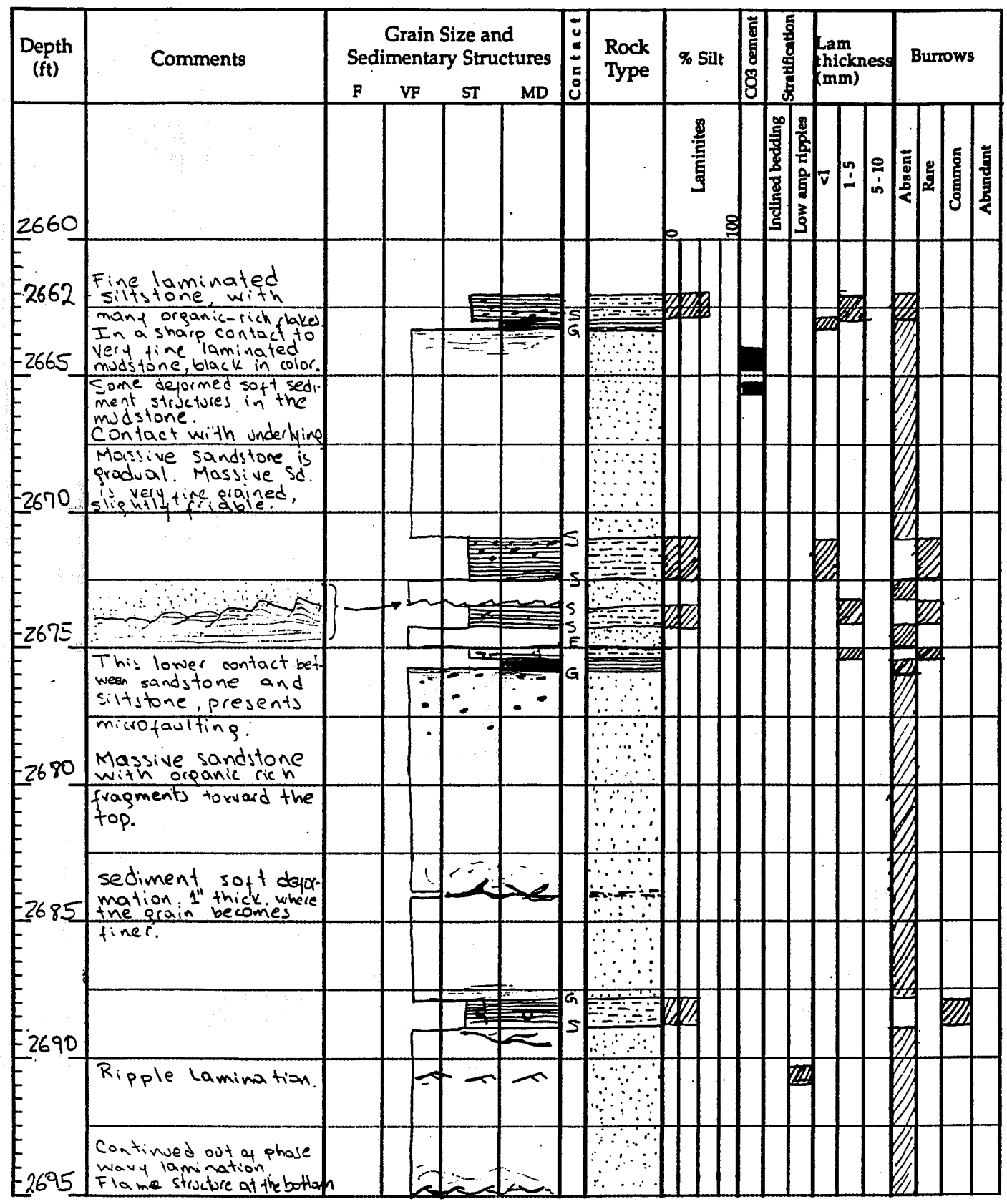
Formation _____ Location _____ (−) 2697 Logged by _____ Date _____

Depth (ft)	Comments	Grain Size and Sedimentary Structures (F, VF, ST, MD)	Contact	Rock Type	% Silt (Laminites 0–100)	CO3 cement	Stratification (Inclined bedding, Low amp ripples)	Lam thickness (mm) (<1, 1-5, 5-10)	Burrows (Absent, Rare, Common, Abundant)
2685									
2690	Very fine grained		S						
	Massive Sandstone, with some ripple lamination and planar lamination where the grain becomes finer.								
2695									
←2697									
2700									

FGU7

Well RAMSEY 18-14 Core depth (+) 2662 (−) 2756 = _____ Log depth @ _____

Formation _____ Location _____ Logged by _____ Date _____



Well RAMSEY 18-14 Core depth (+) 2662 (-) 2756 = _____ Log depth @ _____

Formation _____ Location _____ Logged by _____ Date _____

Depth (ft)	Comments
2695	
	MISSED SECTION 27'
2722	
	Very fine grained sd. good sorting, many sedimentary structures.
2725	
	Ripple lamination toward top. Discontinued wavy lamination. Locally bioturbated.
2730	The bottom could be
	erosive, with irregular surface and many ripup clasts. Fine laminated siltstone
	planar lamination high angle. Ripple lamination. Highly bioturbated toward bottom.
2735	
	MISSED SECTION 15'
2750	
	Very fine grained sd. With many sedim. struc. Ripple lamination,
	parallel lamination, Through cross bedding. Microfaulting toward
2755	
	bottom.
2756	

Grain Size and Sedimentary Structures: F VF ST MD

Contact

Rock Type

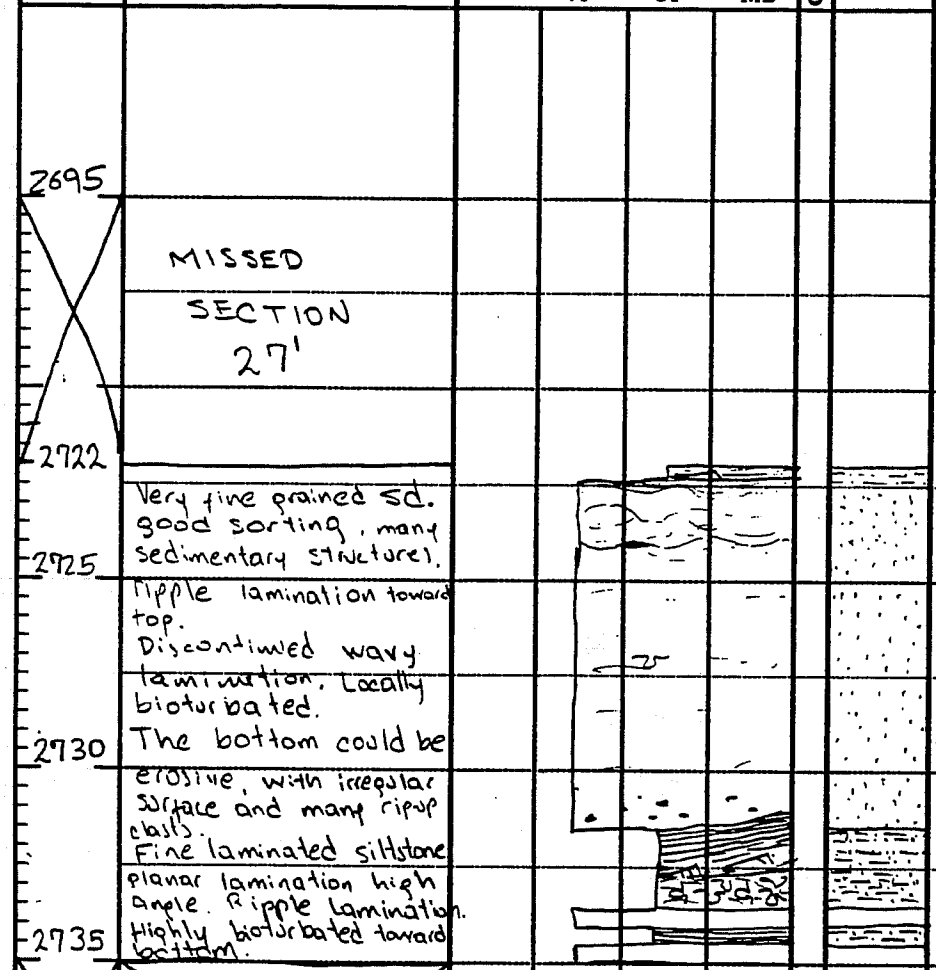
% Silt: Laminites 0 100

CO3 cement

Stratification: Inclined bedding; Low amp ripples

Lam thickness (mm): <1; 1-5; 5-10

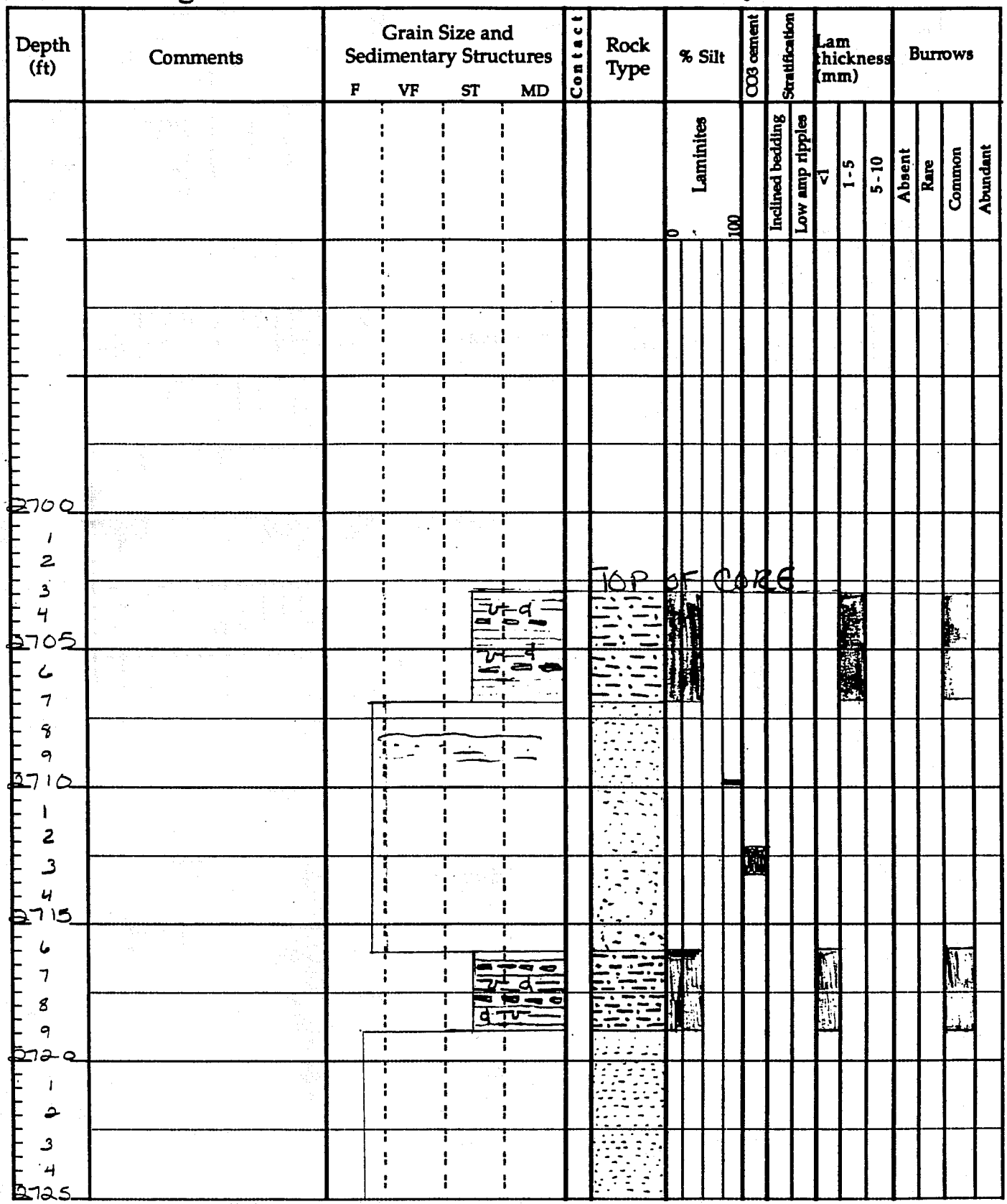
Burrows: Absent; Rare; Common; Abundant



FGU 14

Well Ramsey 18-9 Core depth (+) 2755.5 (-) 2703.0 = Log depth @

Formation Ramsey Location Logged by Sigrid Date 7-1-96



Well Ramsey 18-9 Core depth (+) 2755.5 - (-) 2703.0 = _____ Log depth @ _____

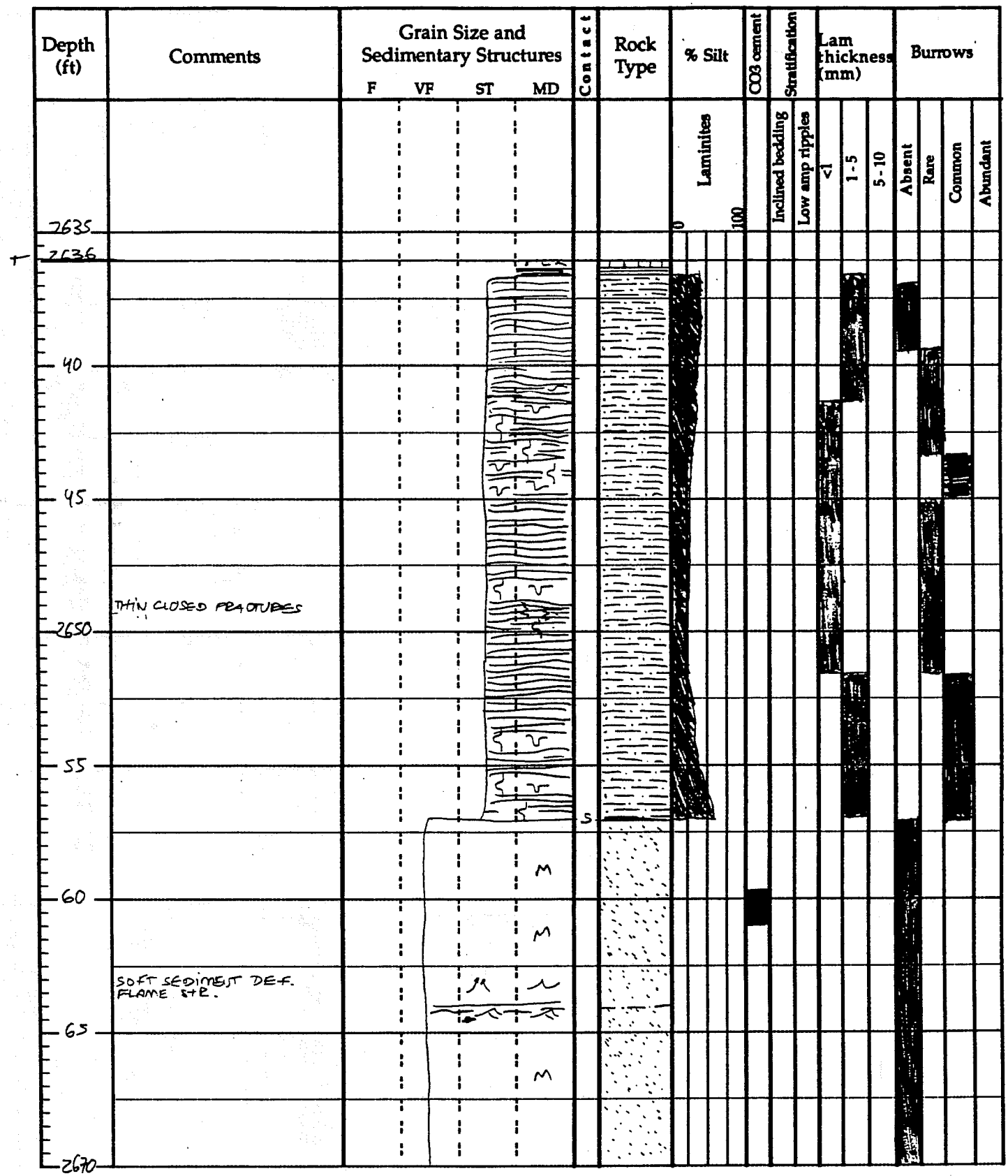
Formation Ramsey Location _____ Logged by Sigrid Date 6-28-96

Depth (ft)	Comments	Grain Size and Sedimentary Structures (F VF ST MD)	Contact	Rock Type	% Silt (Laminites 0–100)	CO3 cement	Stratification (Inclined bedding; Low amp ripples)	Lam thickness (mm) (<1; 1-5; 5-10)	Burrows (Absent; Rare; Common; Abundant)
2725									
6	friable massive SS								
7	Cm. size organic feature at 27.1 ft.								
8									
9	Climbing ripples. Organic debris more abundant at top & bottom of interval		L						
2730			S						
1	SS typically friable.								
2	SS color changes from tannish gray to tan at 31.0. Contact is sharp								
3	CO_3 cmted zone 31.0-33.5 ft								
4	Grn size reaches uvf. Wispy low-angle lams at 33.8								
2735									
6									
7	MISSING BOX from 2736-2739								
8									
9	CO_3 cmted interval from 39.0-39.7 ft								
2740									
1	SS becomes more friable moving up through interval.								
2	fining upward sequence from wavy discont. organic lams to silt size								
3	organic cm. thick wavy lam. Coarsens upward through rippled bedding to lvg with mm organic clasts to massive SS.								
4									
2745	Abundant CO_3 cmt. at 48.0								
6	Sharp boundary from silt/organic/ lvf laminite to lvf/uvf massive SS.								
7	Burrows at 47.7 & 47.9								
8			S						
9	abundant organic clasts & burrowing Laminae chewed up by burrowing								
2750									
1	Clasts are aligned horizontally with laminae.								
2	Sandier lams contain some lvf size qtz. grns.								
3									
4									
2755									
	Burrowing is rare. NO organic clasts								
	Bottom core								
2760									

NOTE - Laminites display "sets" of <1mm organic/siltstone laminae with >1mm silt/lvf laminae that are generally burrowed (horizontal?). Organic clasts in laminites are mm size and can be distributed

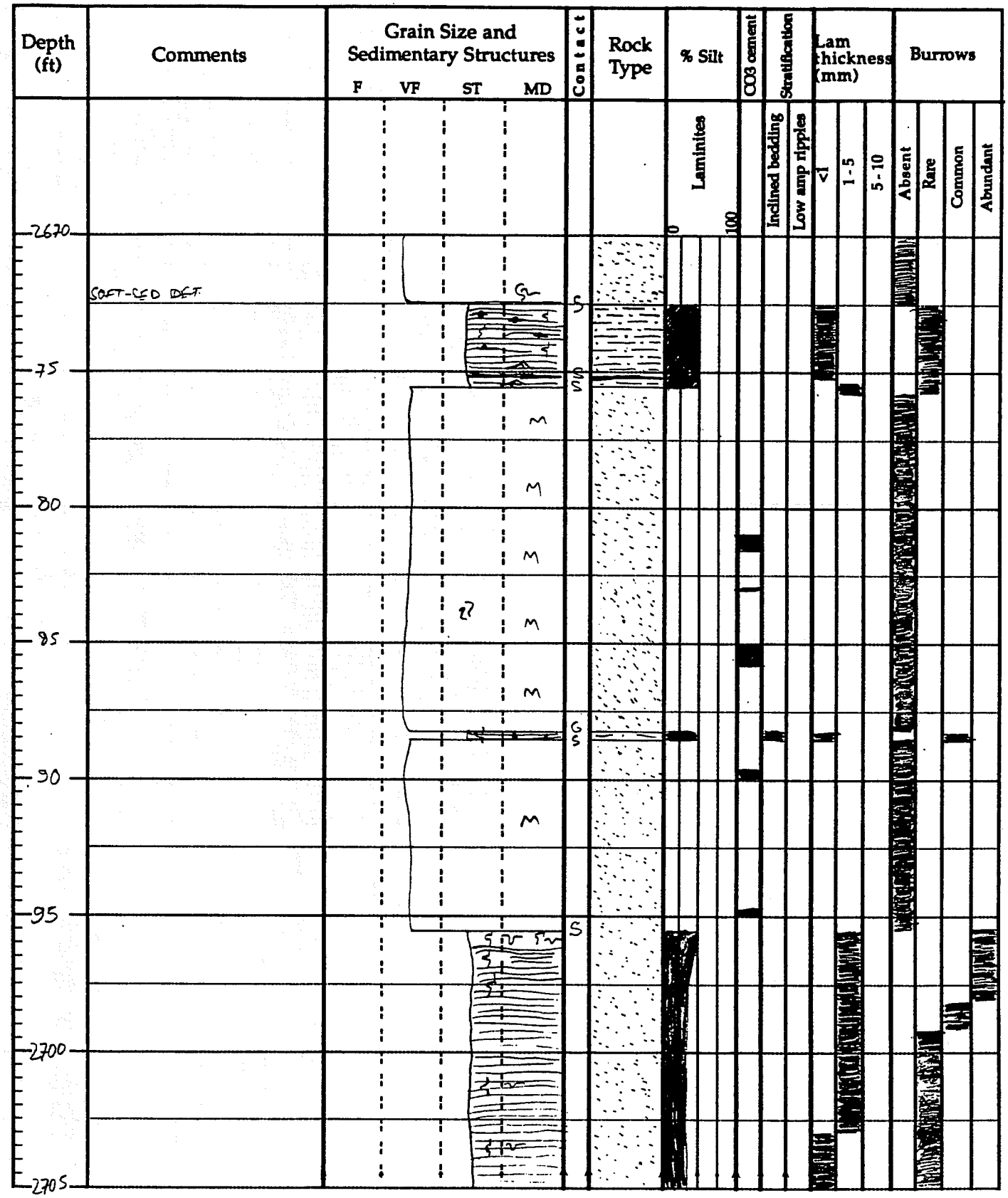
Well RAMSEY 18-7 (FGU-12) Core depth (+) 2636 (-) 2750 = 114' Log depth @ _____

Formation _____ Location _____ Logged by _____ Date _____



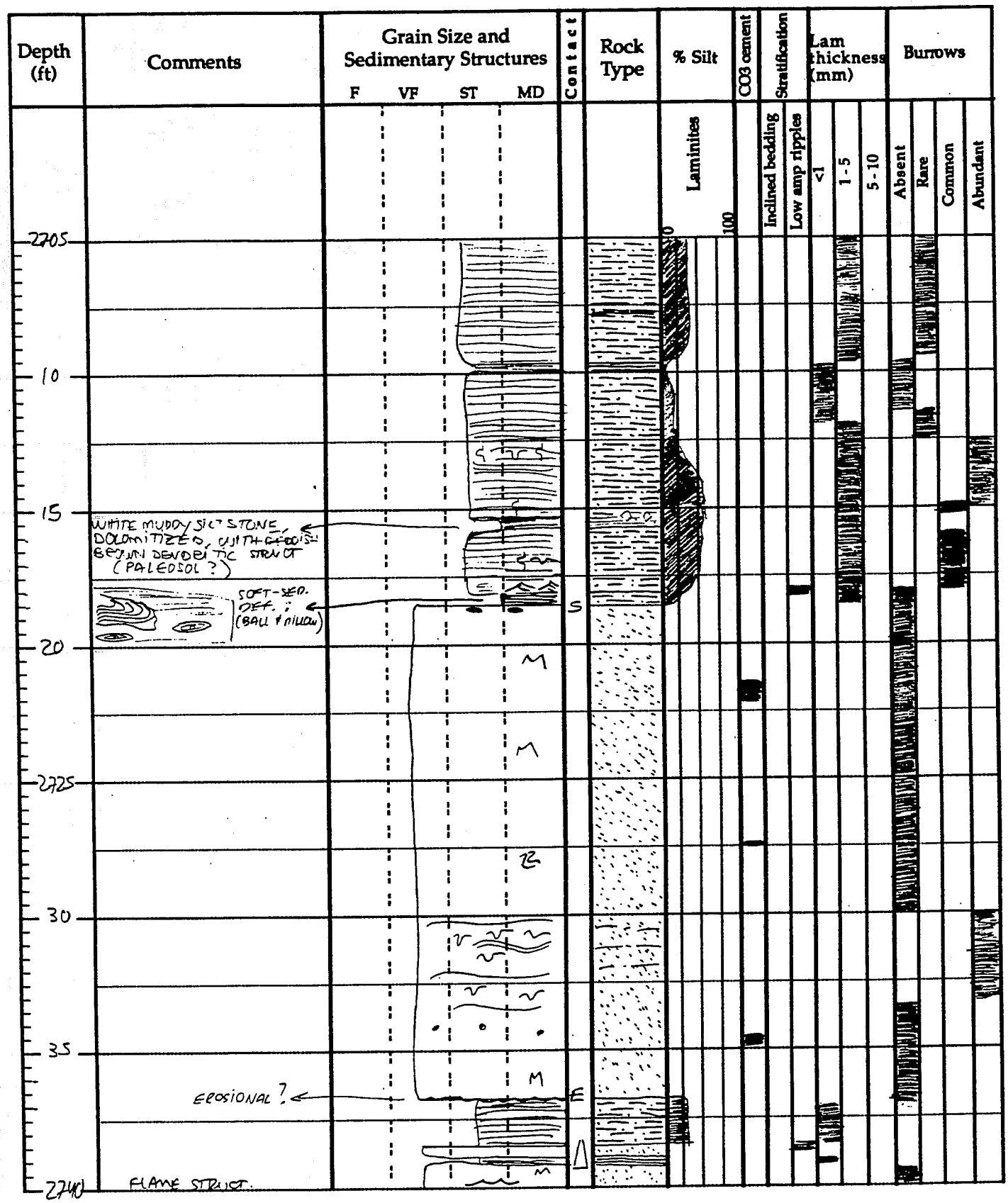
Well Ramsey 18-7 (FOU-12) Core depth (+) 2636 (−) 2750 = _____ Log depth @ _____

Formation _____ Location _____ Logged by _____ Date _____



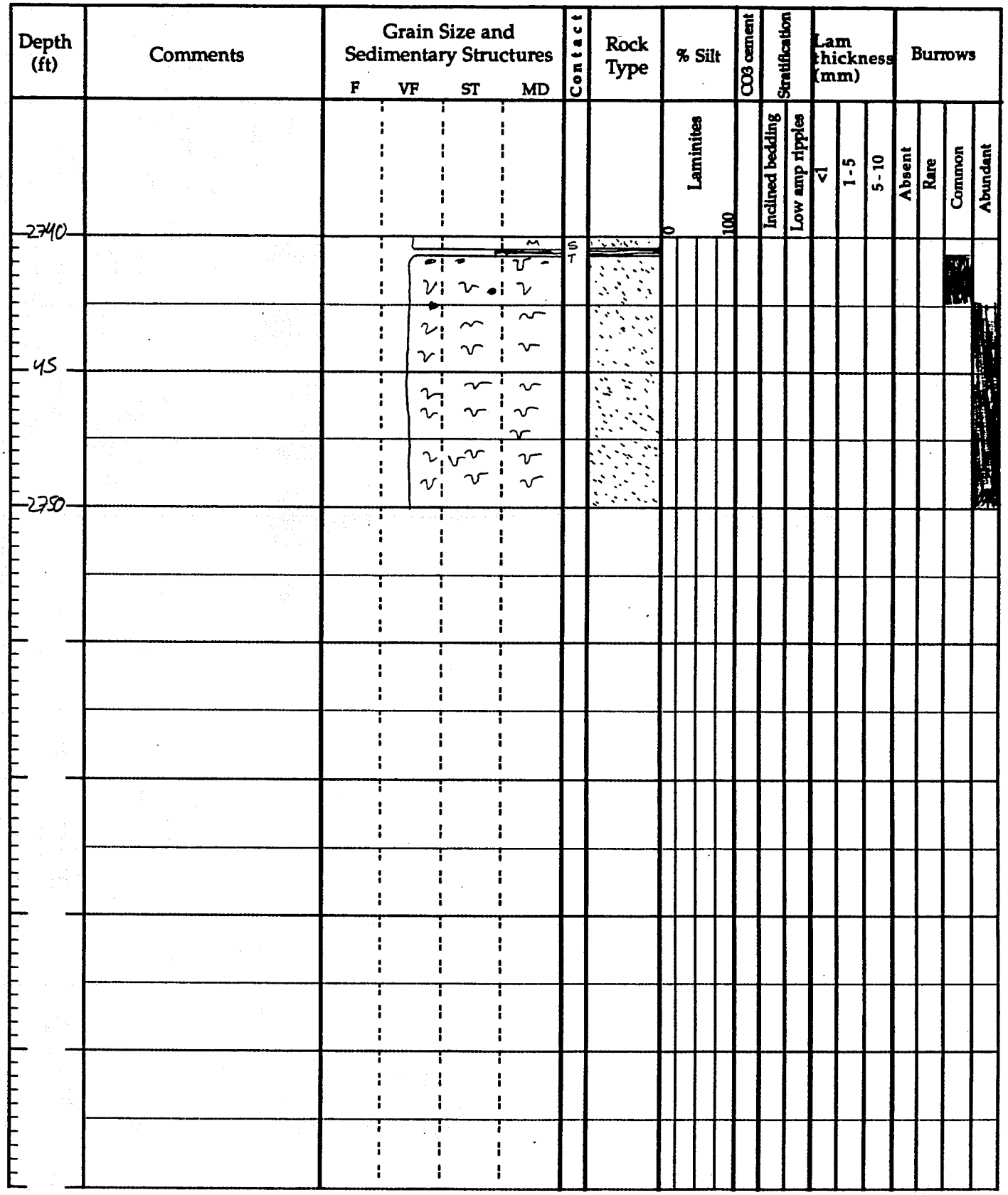
Well RAMSEY 18-7 (FGU-17) Core depth (+) 2636 / (-) 2750 = _____ Log depth @ _____

Formation _____ Location _____ Logged by _____ Date _____



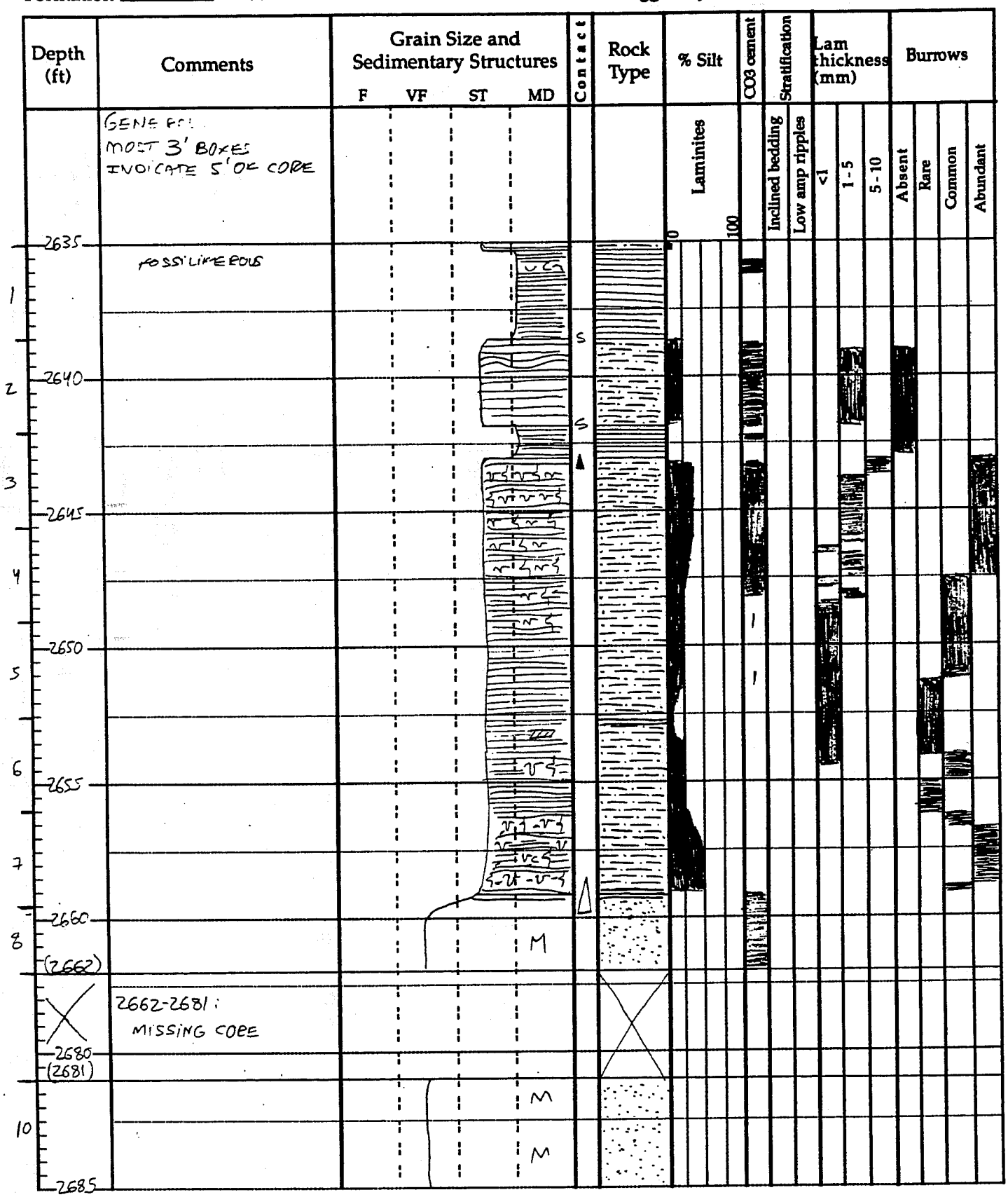
Well Ramsey 18-7 (FQ-17) Core depth (+) 2636 (−) 2750 = _____ Log depth @ _____

Formation _____ Location _____ Logged by _____ Date _____



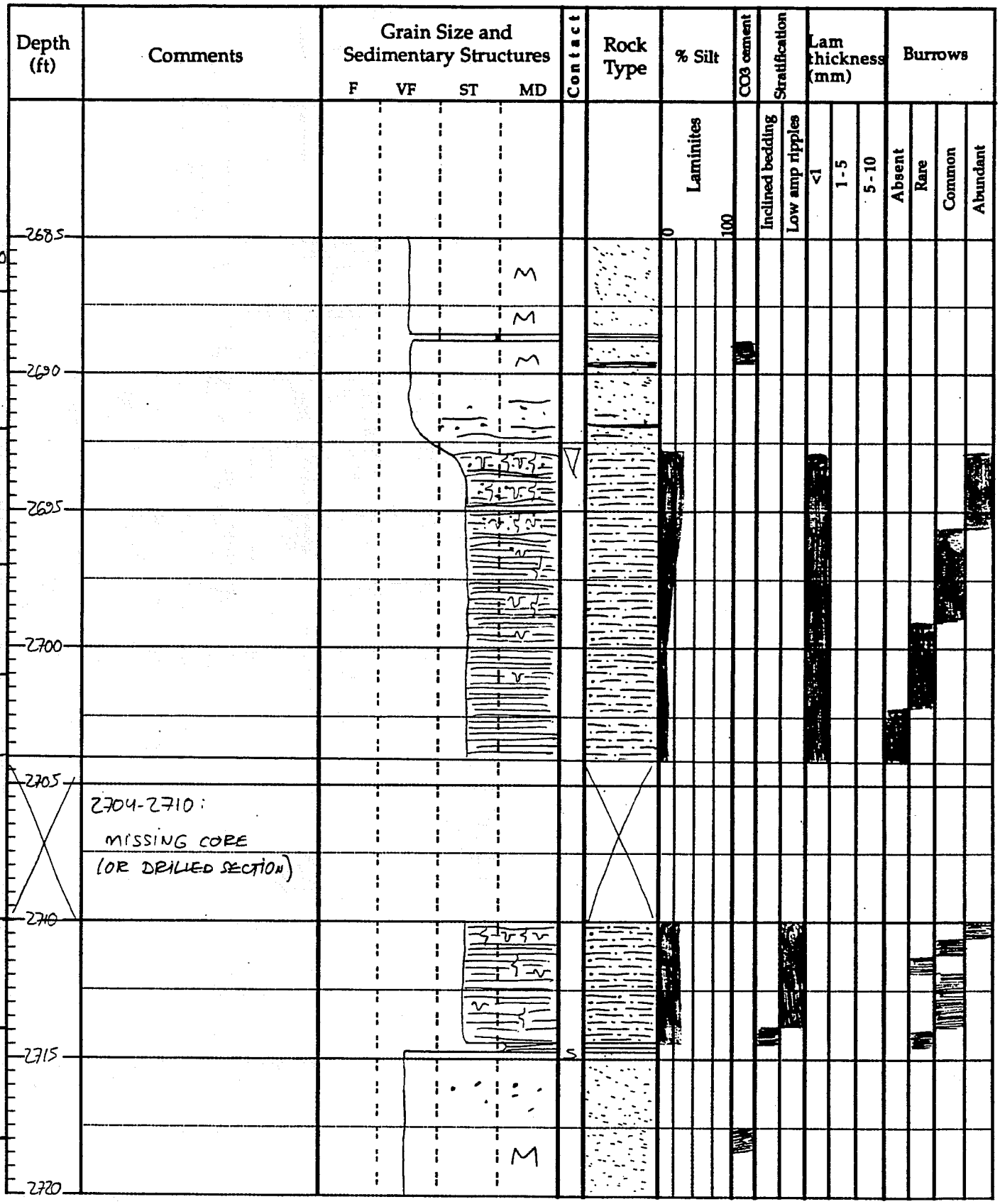
Well Ponse / 18-1 (FG420) Core depth (+) 2635 (-) 2794 = _____ Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 9/20/96



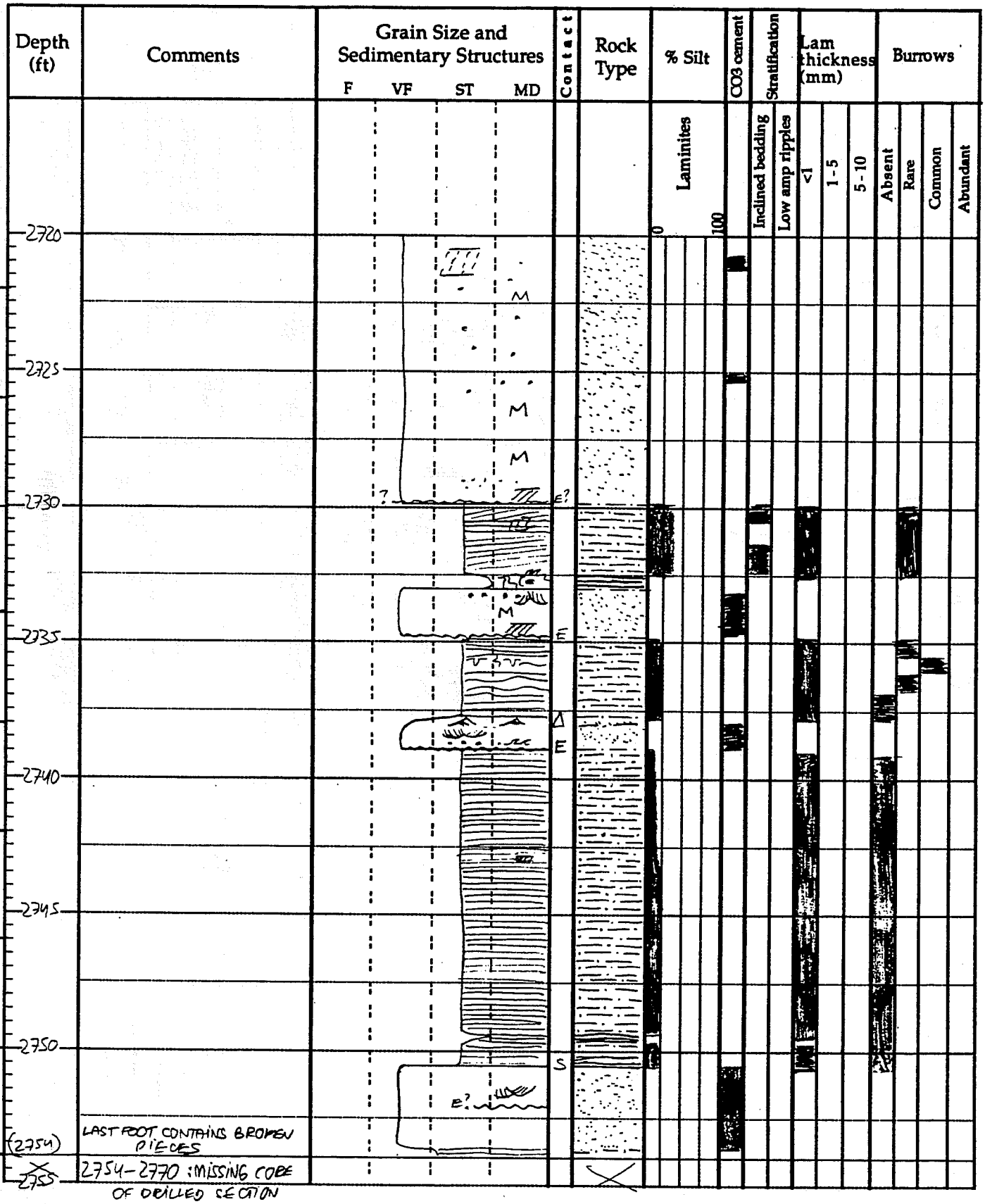
Well Ramsey 18-1 Core depth (+) 2635 (-) 2794 = _____ Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 9/20/96



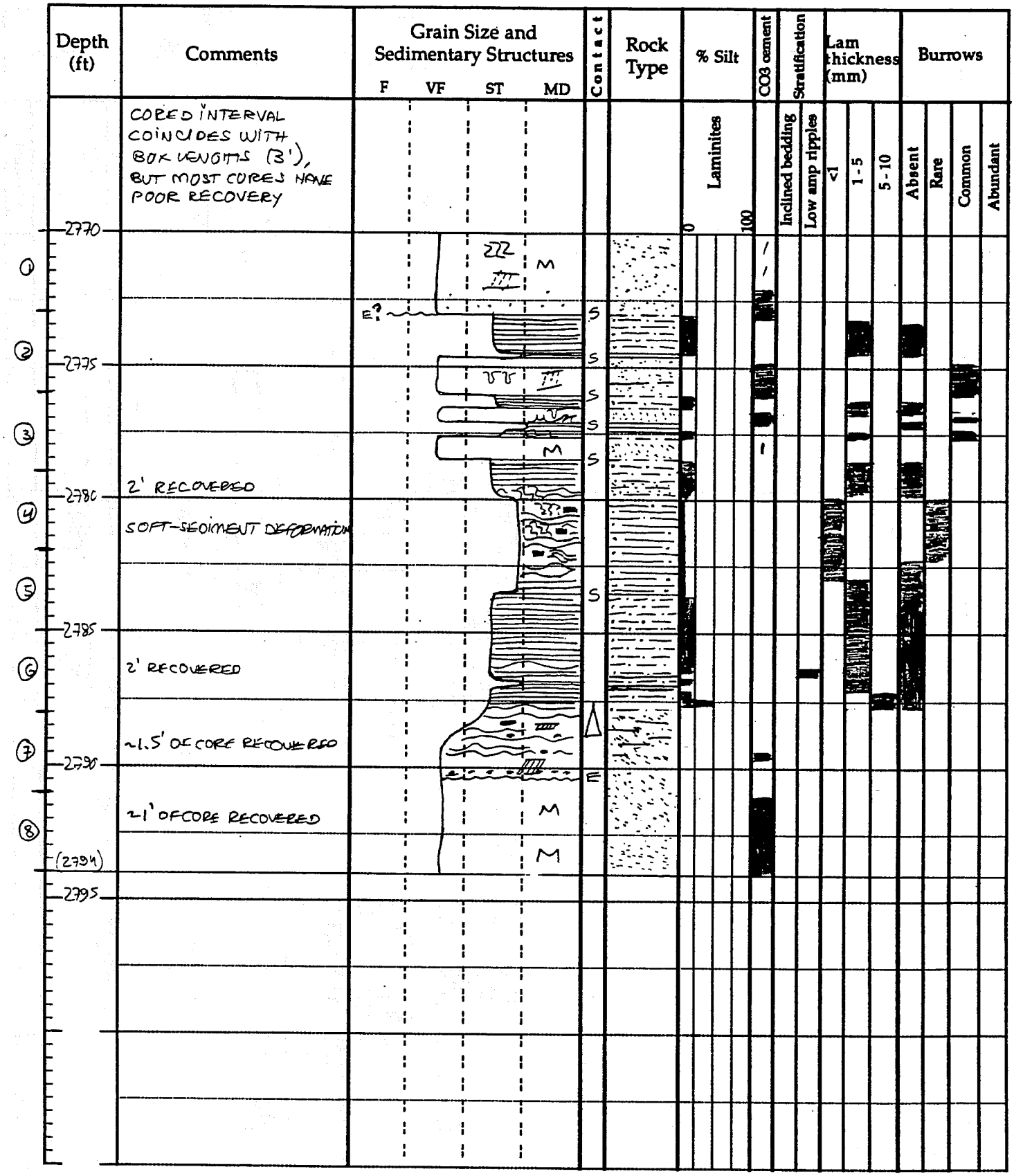
Well Ramsey 184 Core depth (+) 2635 (−) 2794 = _____ Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 9/20/96



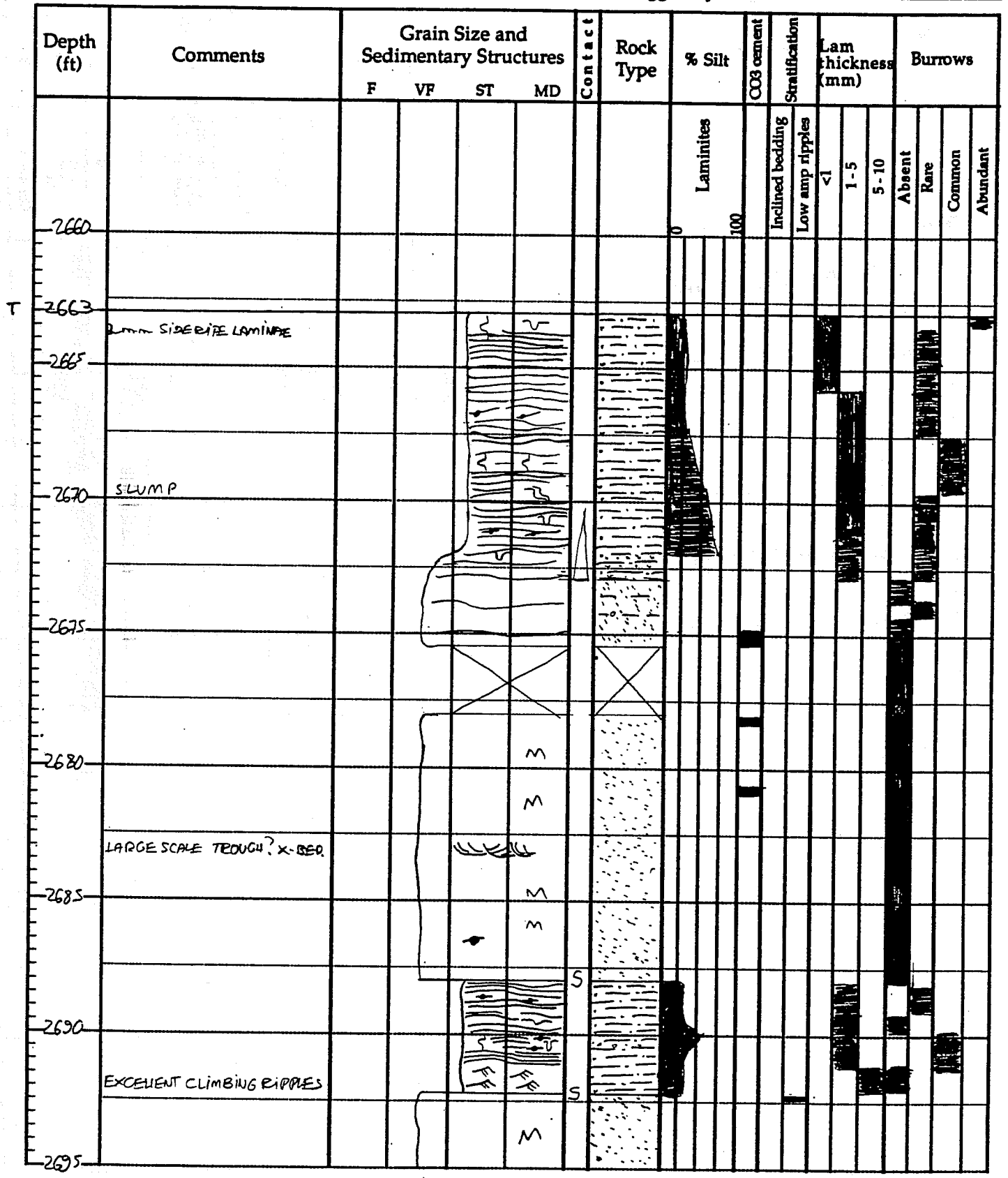
Well Ramsey 18-1 Core depth (+) 2635 (−) 2794 = _____ Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 09/20/96



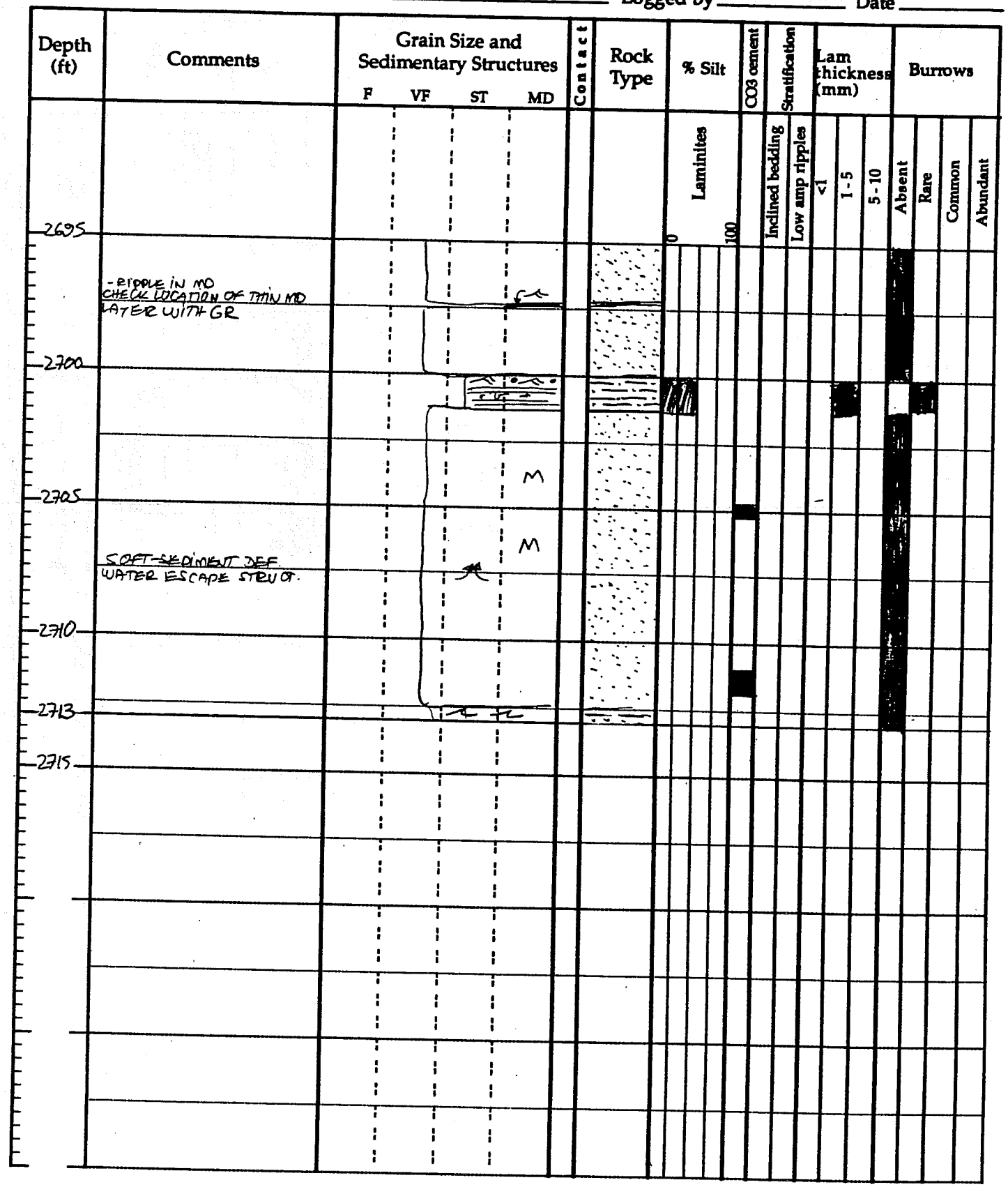
Well RAMSEY 18-11 (FED-22) Core depth (+) 2663 (-) 2713 = _____ Log depth @ _____

Formation _____ Location _____ Logged by CARLOS Date _____



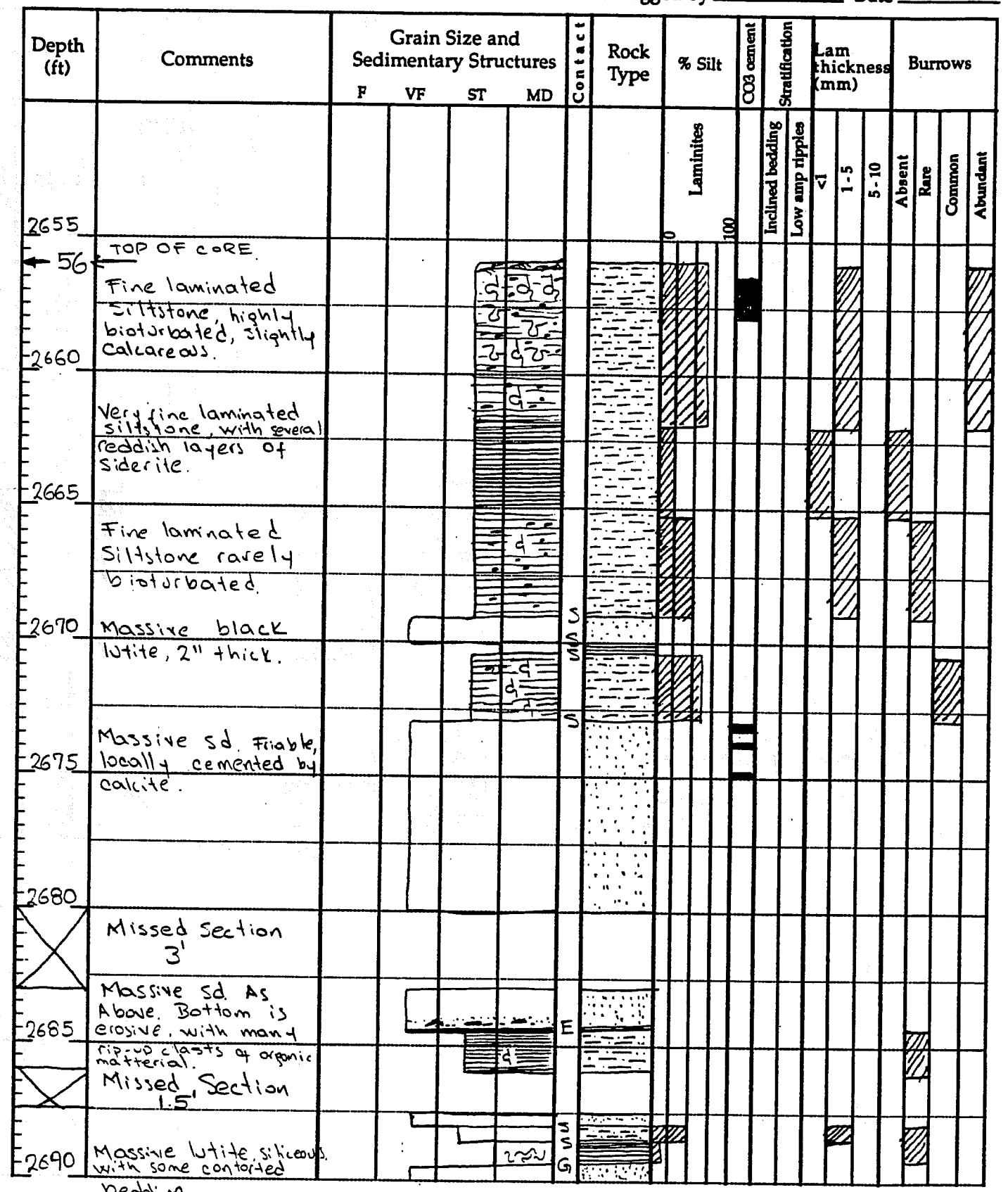
Well RAMSEY 18-11 Core depth (+) 2663 (-) 2713 = _____ Log depth @ _____

Formation _____ Location _____ Logged by _____ Date _____



Well RAMSEY 13-4 (FGU 30) Core depth (+) 2659 (−) = Log depth @

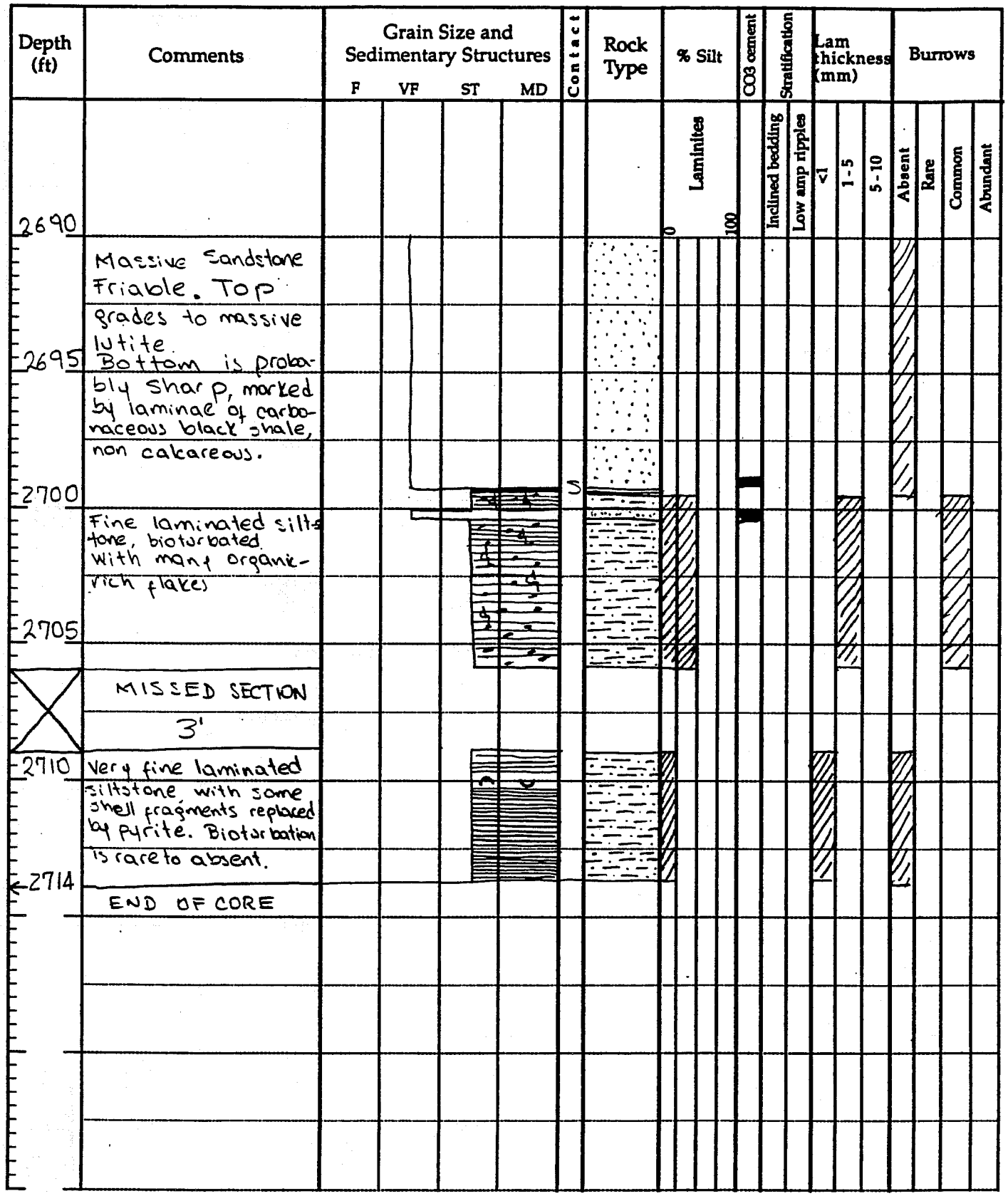
Formation Location Logged by Date



FGU 30

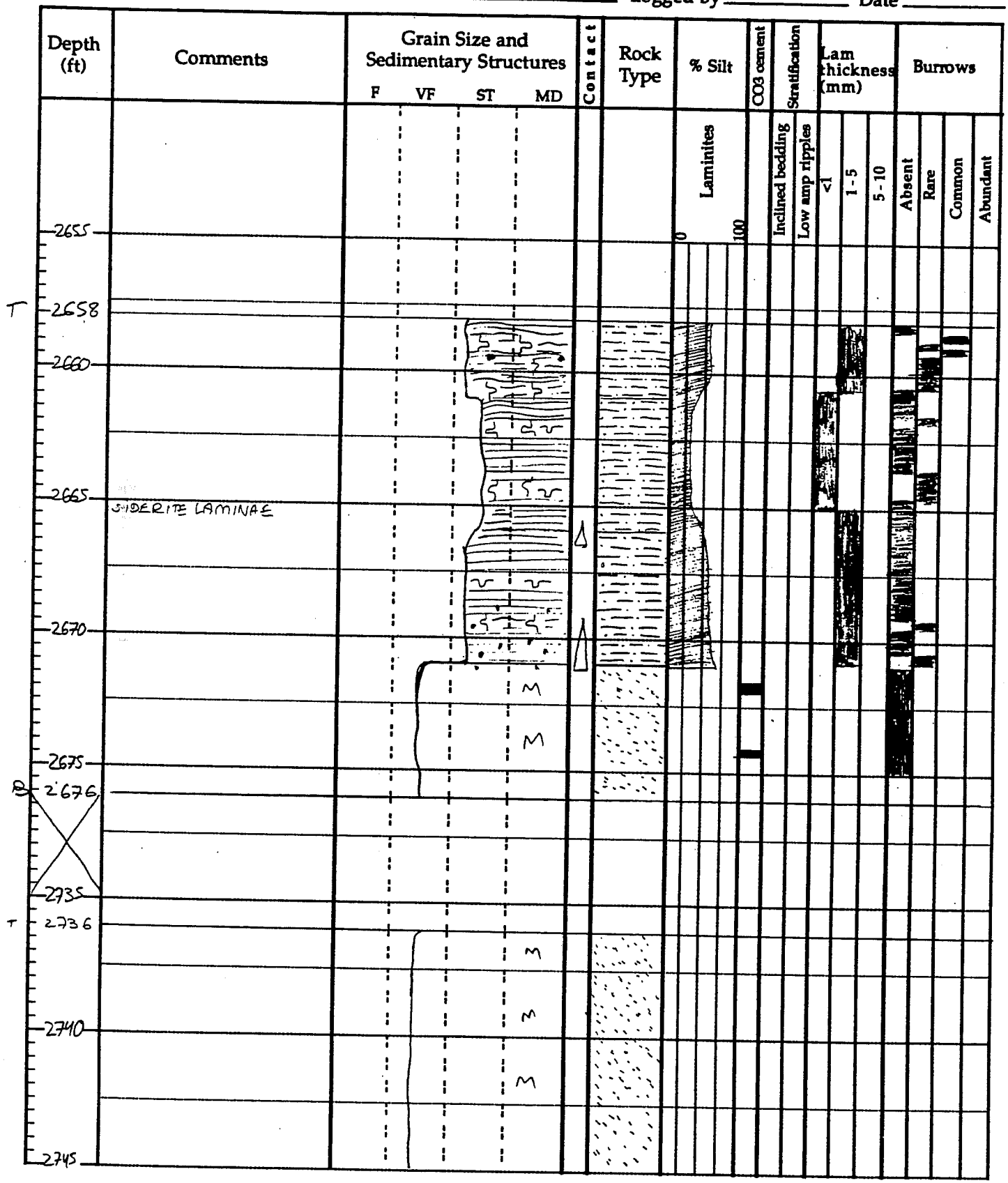
Well RAMSEY 13-4 Core depth (+) 2656 (-) 2714 = _____ Log depth @ _____

Formation _____ Location _____ Logged by _____ Date _____



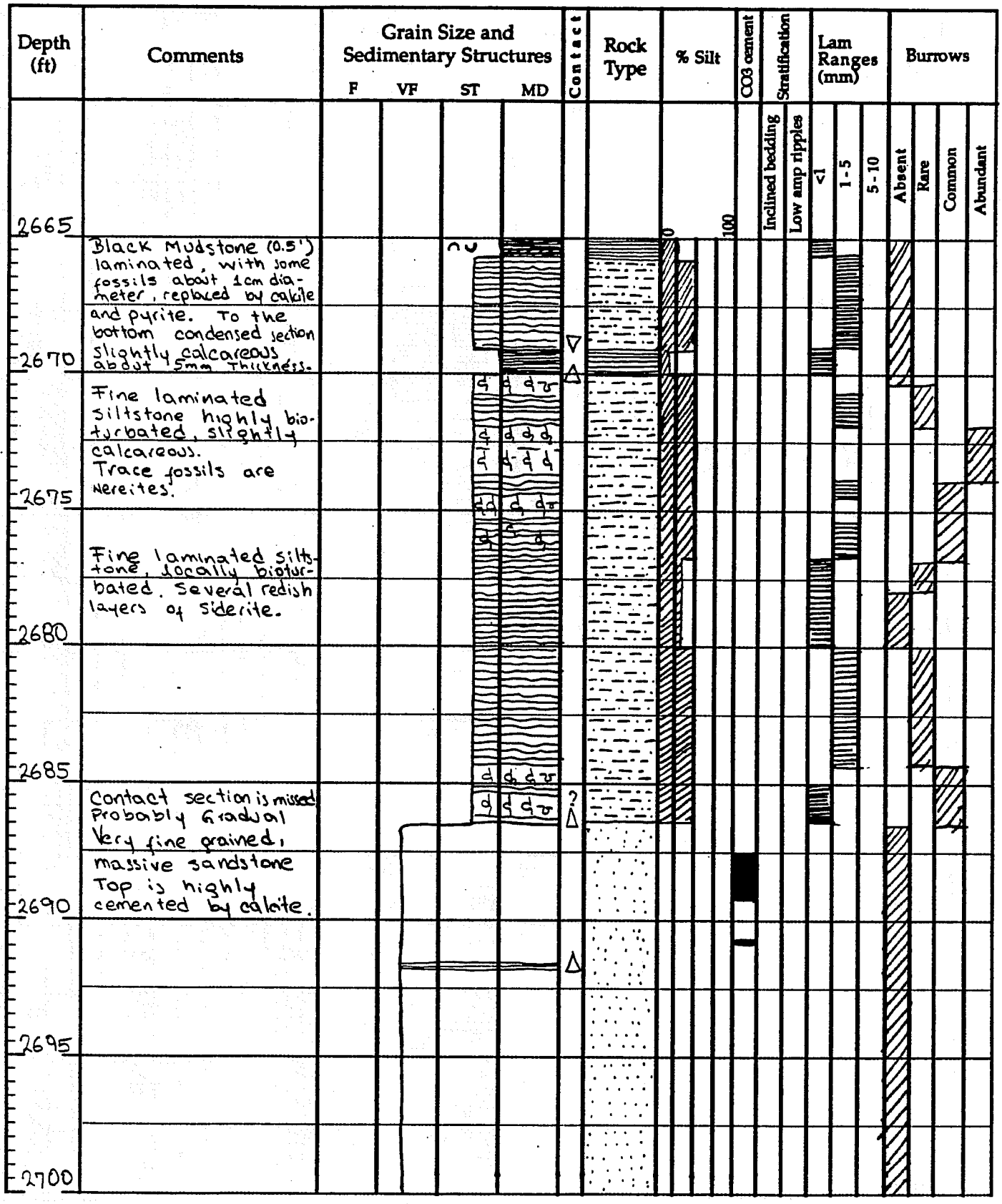
Well RAMSEY 10-3 (FGU-35) Core depth (+) 2658 (-) 2676 = 2736 2763 Log depth @ _____

Formation _____ Location _____ Logged by _____ Date _____



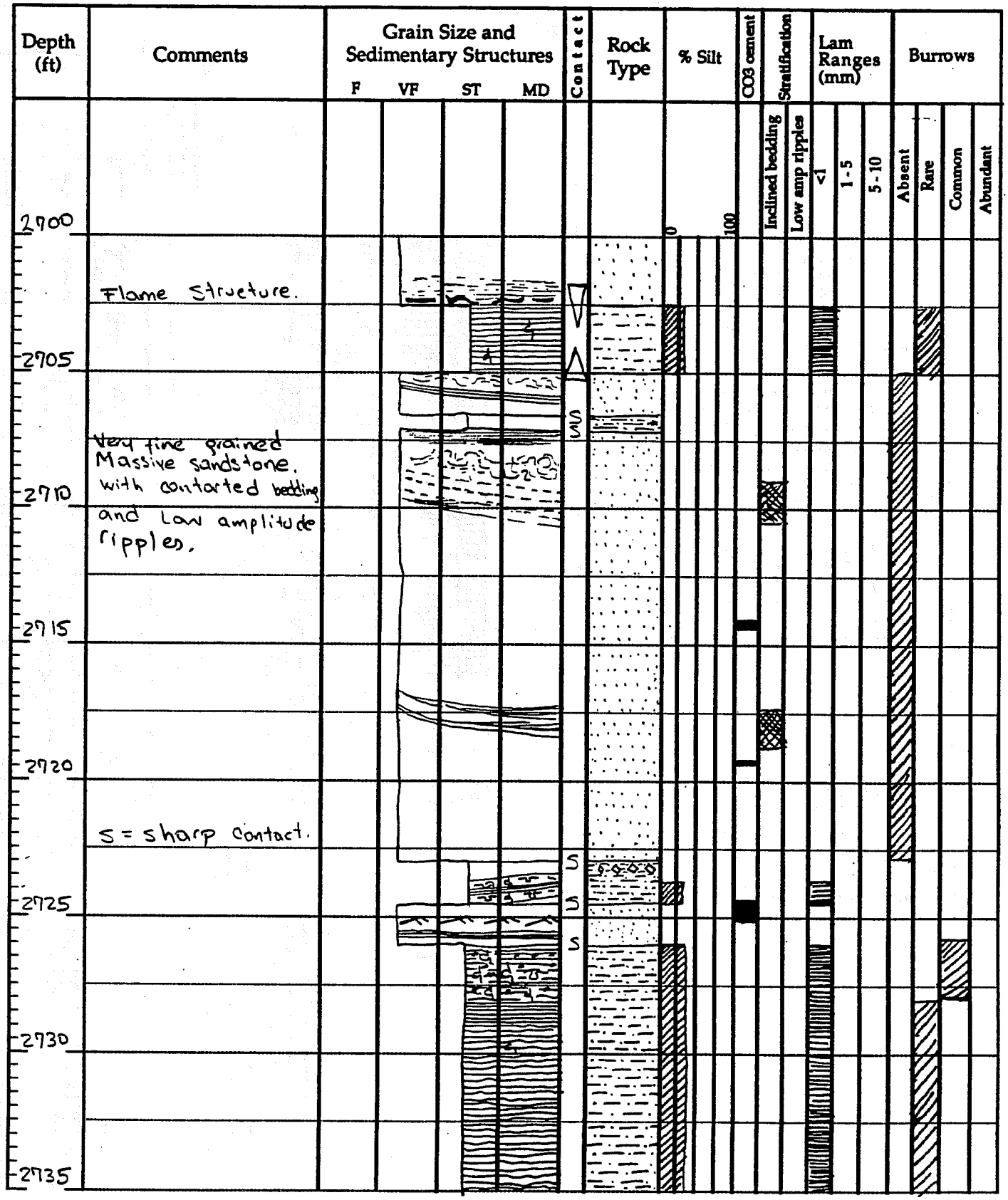
Well FGU 40 RAMSEY 19-8 Core depth (+) 2665 (−) 2781.5 = _____ Log depth @ _____

Formation _____ Location _____ Logged by _____ Date _____



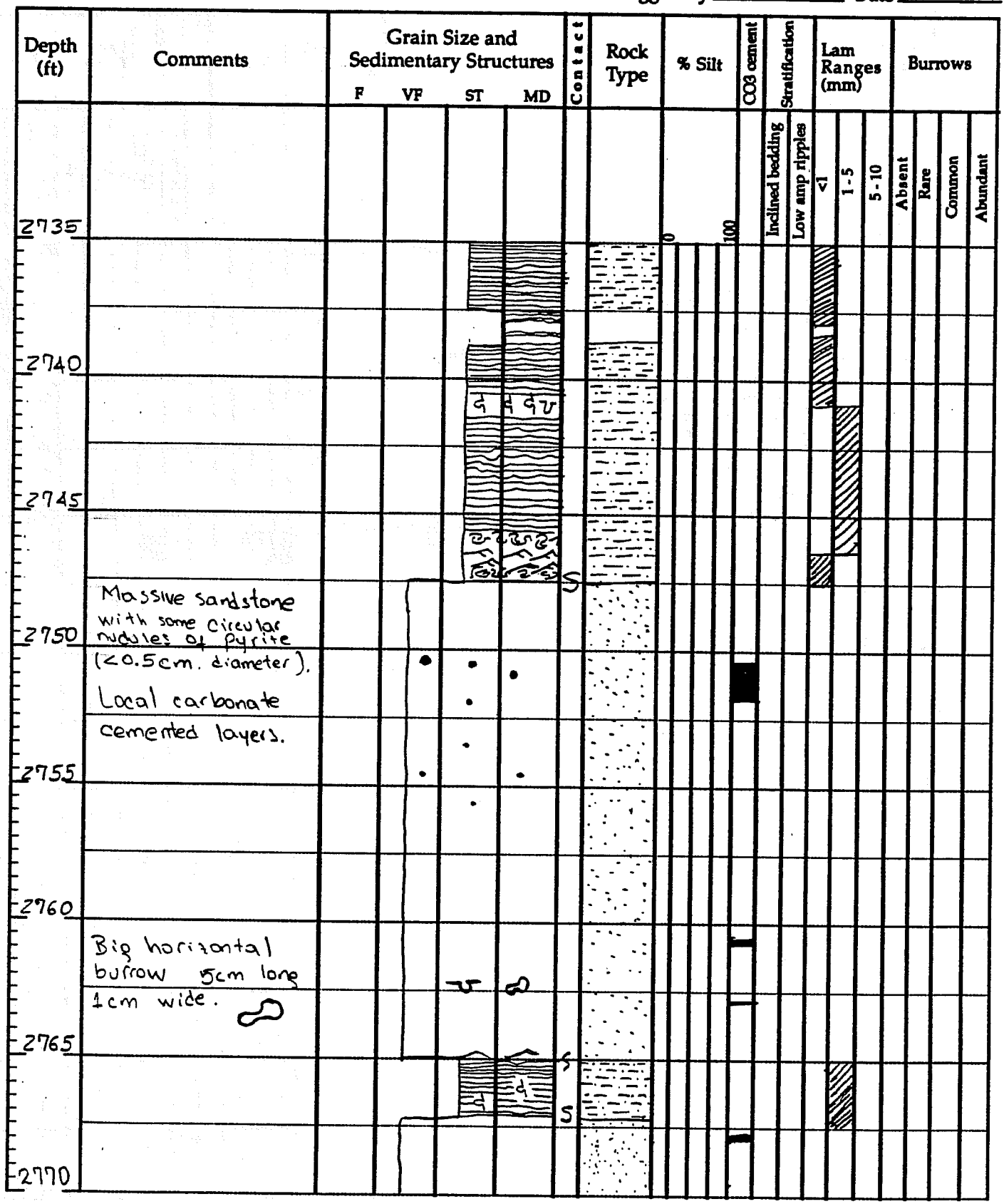
Well RAMSEY 19-8 Core depth (+) 2665 (−) 2781.5 = _____ Log depth @ _____

Formation _____ Location _____ Logged by _____ Date _____



Well RAMSEY 19-8 Core depth (+) (–) _____ = _____ Log depth @ _____

Formation _____ Location _____ Logged by _____ Date _____



Well RAMSEY 19-8 Core depth (+) (–) _____ = _____ Log depth @ _____

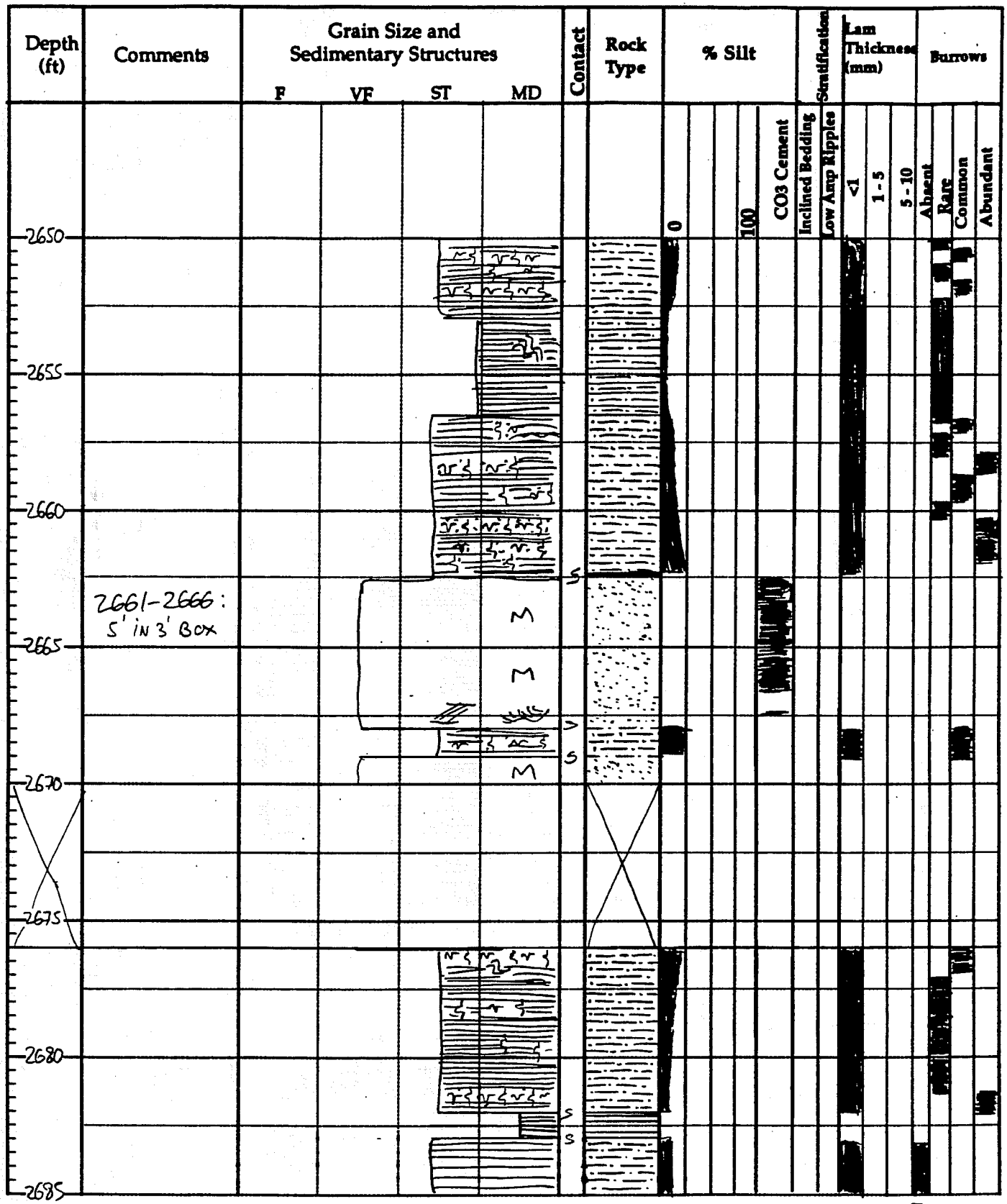
Formation _____ Location _____ Logged by _____ Date _____

Depth (ft)	Comments	Grain Size and Sedimentary Structures: F	VF	ST	MD	Contact	Rock Type	% Silt (0 – 100)	CO_3 cement	Stratification: Inclined bedding	Low amp ripples	Lam Ranges (mm): <1	1-5	5-10	Burrows: Absent	Rare	Common	Abundant
2770																		
	Vertical burrows or "pipe" structures formed by water escape. They are 5cm long and less than 1mm. wide with a black material at the top of each one. A lot of bioturbation at the bottom. G = Gradual contact																	
2775																		
2780																		
						G												
2785																		
27																		

4 of 4

Well Ramsey 24-2/FGU-44 Core depth (+) 2650 (-) 2728 = _____ Log depth @ _____

Formation _____ Location _____ Logged by JOE Date 10/24/25



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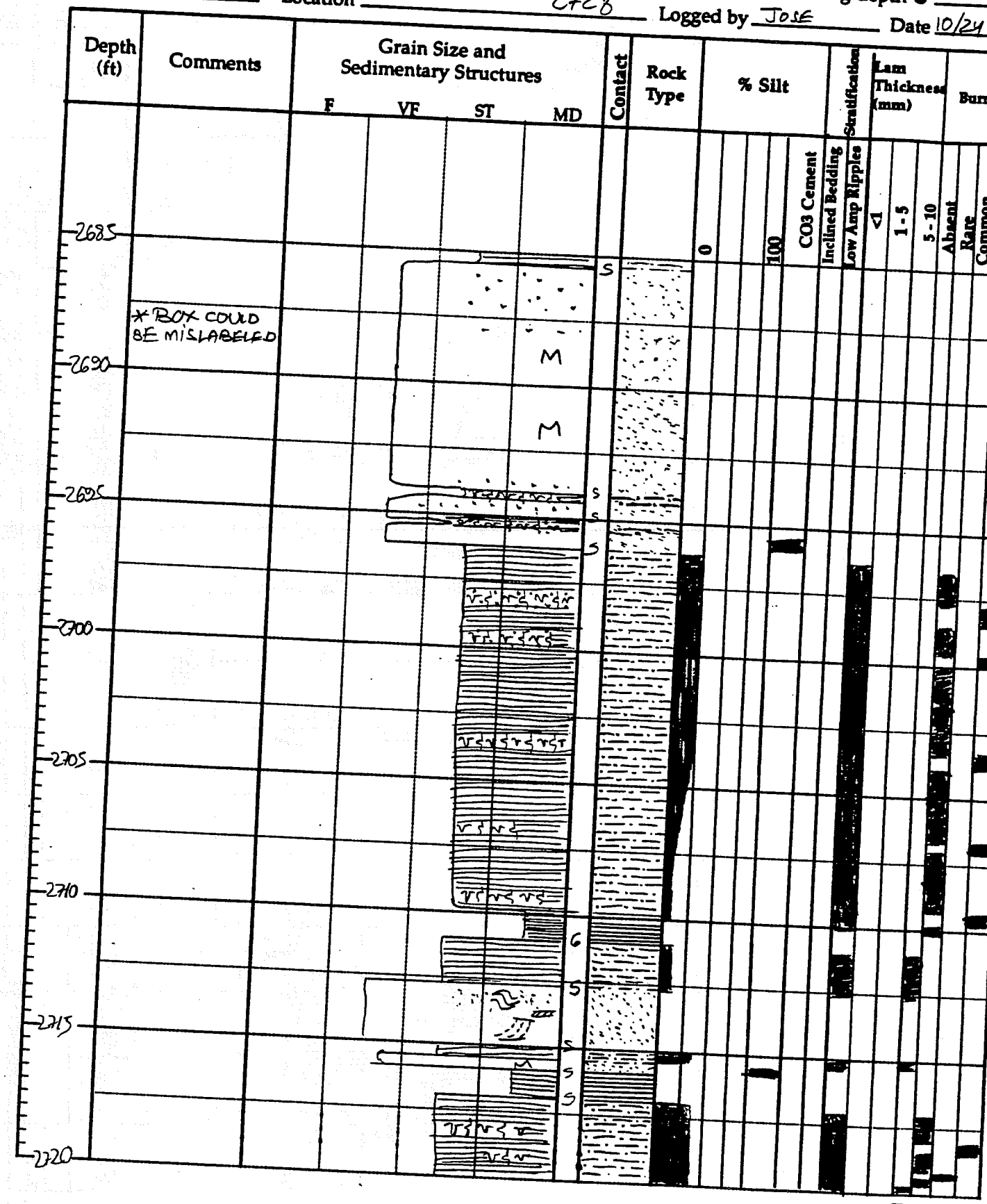
Well Ramsey 24-2 / FW-44 Core depth (+) 2650 (-) 2728 = _____ Log depth @ _____

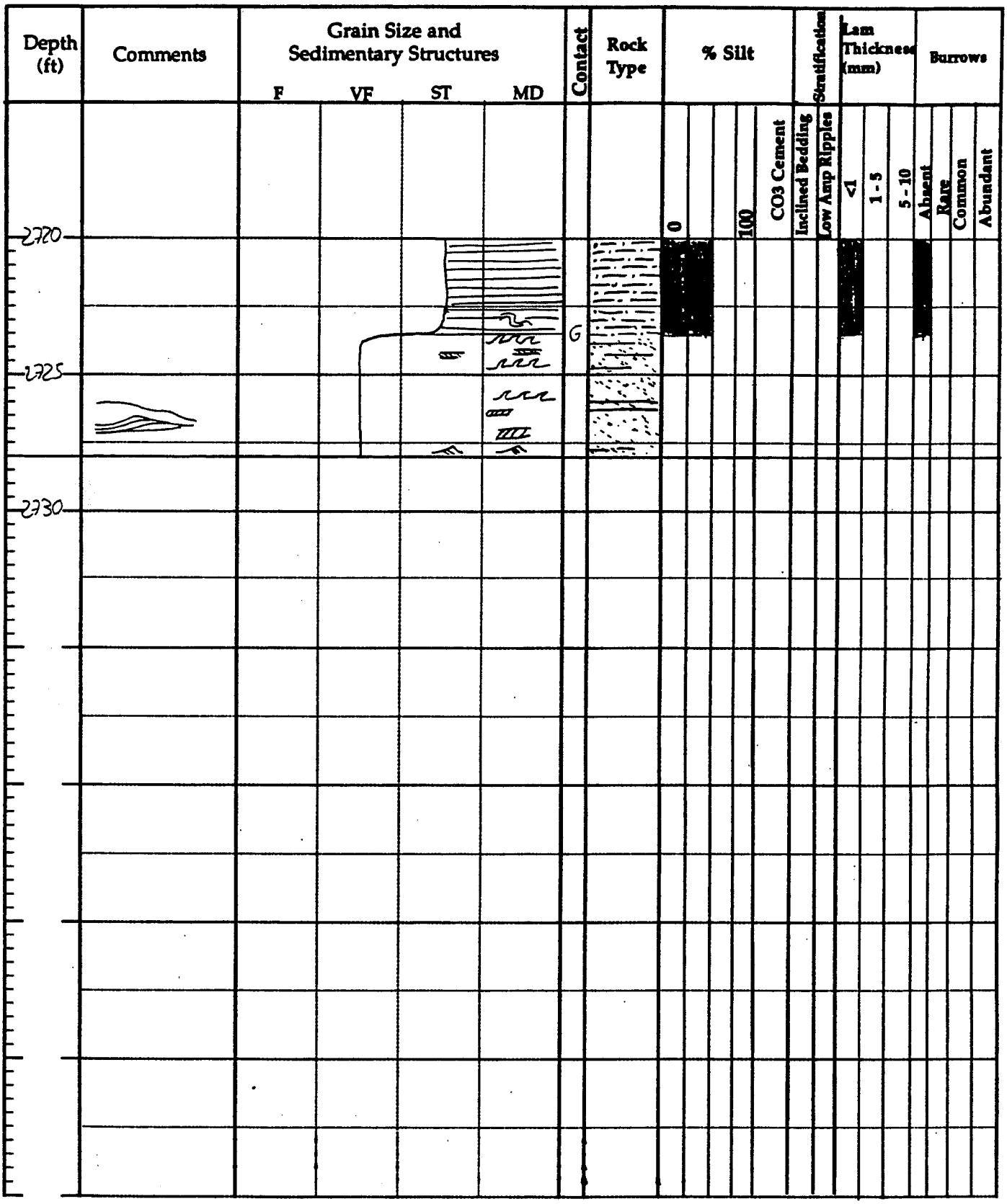
Formation _____ Location _____ Logged by Jose Date 10/24



Bureau of Economic Geology

Well Ramsey 24-2 / FGU-44 Core depth (+) 2650 (-) 2728 = _____ Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 10/28/96



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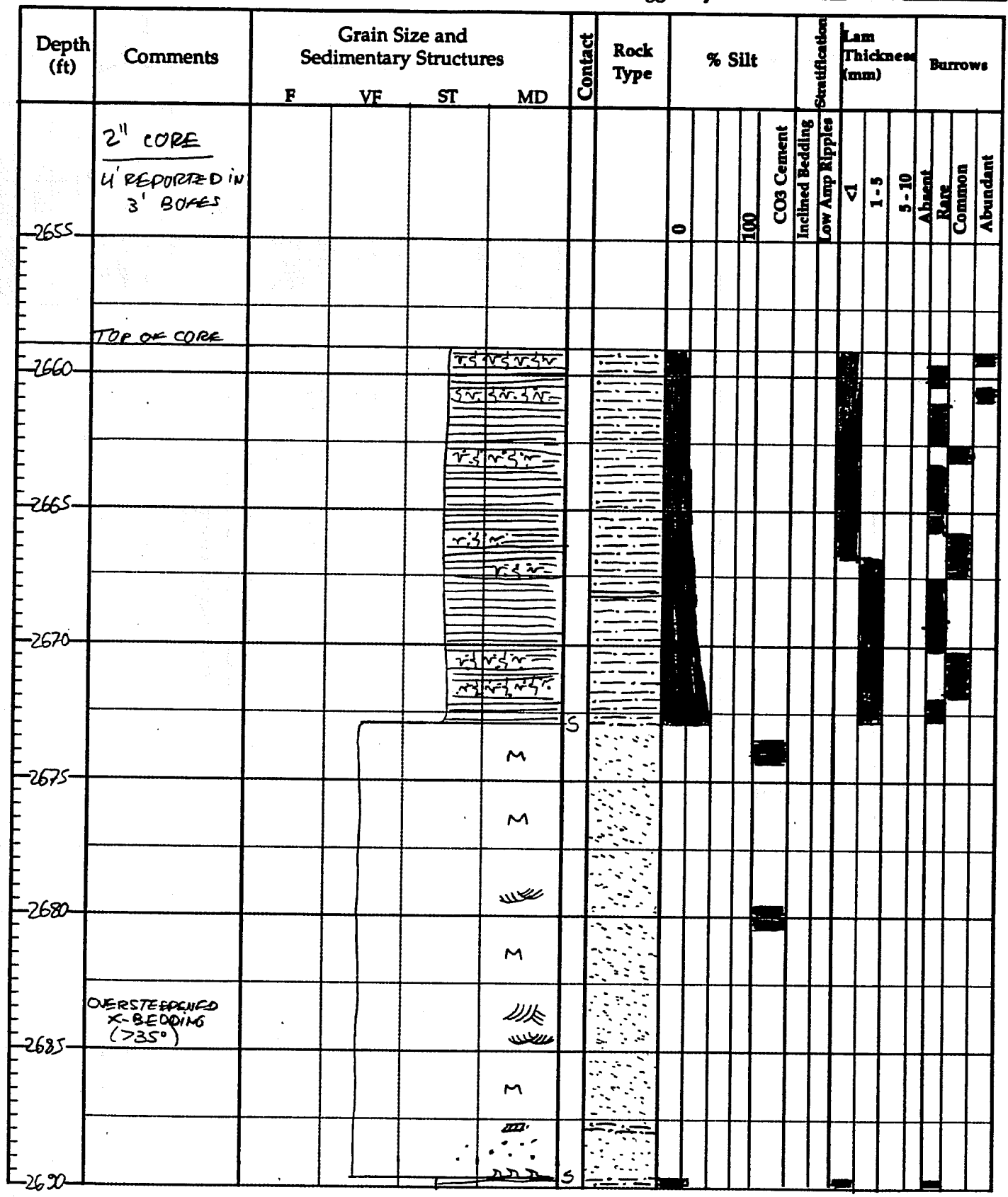
Well RAMSEY 19-6/FGU-47 Core depth (+) 2659 (-) 2710 = _____ Log depth @ _____

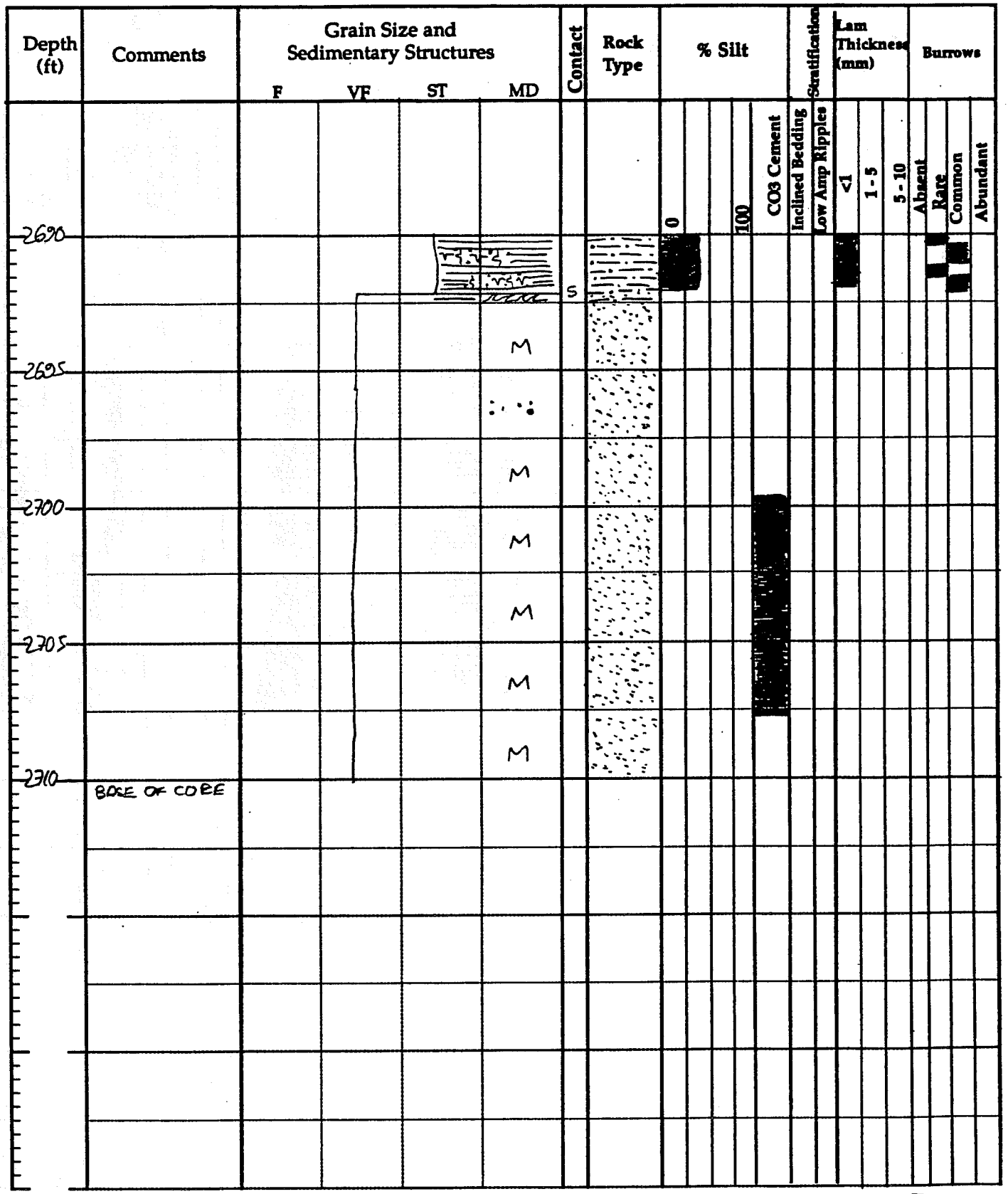
Formation _____ Location _____ Logged by JOSE Date 10/24/96



Bureau of Economic Geology

Well Ramsey 1-6 / FGU-47 Core depth (+) 2659 (-) 2710 = _____ Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 10/24/96



Bureau of Economic Geology

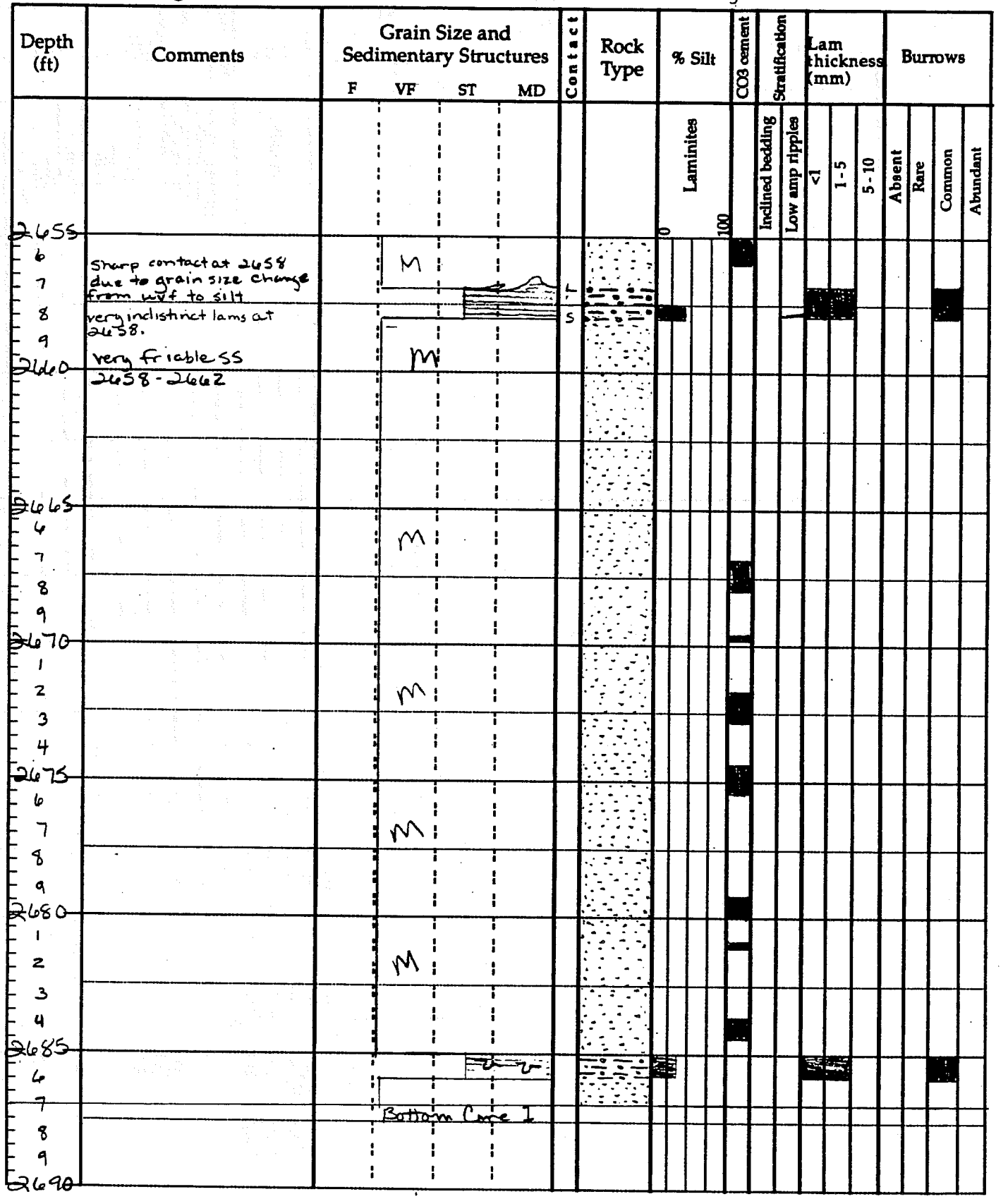
Well Ramsey 19-48(FG45O) Core depth (+)2649-2687 (–) _____ = _____ Log depth @ _____

Formation Ramsey Location _____ Logged by Sigrid Date 10-8-96

Depth (ft)	Comments	Grain Size and Sedimentary Structures (F VF ST MD)	Contact	Rock Type	% Silt (0 Laminites 100)	CO3 cement	Stratification (Inclined bedding, Low amp ripples)	Lam thickness (mm) (<1, 1-5, 5-10)	Burrows (Absent, Rare, Common, Abundant)
2649									
6									
7									
8									
9		Top Core							
2650		CORE MISSING			2649-2650				
1									
2	faint lams at 2652.	S							
3									
4		M							
2655									

Well Ramsey 19-48 (FGU 50) Core depth (+) 2649 - 2687 (−) = _____ Log depth @ _____

Formation Ramsey Location _____ Logged by Sigrid Date 10-7-96



☆ NOTE - 4 ft core labeled on each 3 ft box

71.9
72.8

Well Ramsey 19-46 (FGU 51) Core depth (+) 2679 - (-) 2738 = _____ Log depth @ _____

Formation Bell Canyon Location _____ Logged by Sigrid Date 7-25-96

Depth (ft)	Comments	Grain Size and Sedimentary Structures (F VF ST MD)	Contact	Rock Type	% Silt (0 Laminites 100)	CO3 cement	Stratification (Inclined bedding; Low amp ripples)	Lam thickness (mm) (<1; 1-5; 5-10)	Burrows (Absent; Rare; Common; Abundant)
2670		TOP CORE							
1	3cm. thk lutite. Almost all mud size grns. Almost no silt		S						
2		p							
3		p							
4									
2675									
6									
7									
8			S						
9			S						
2680									
1									
2	wispy, loaded, → organic-rich laminations								
3									
4	rip up clasts 3mm thk lutite.		S						
2685									
6									
7									
8	A few organic clasts distributbuted in this interval								
9									
2690									
1									
2									
3									
4									
2695									

Many 3 ft boxes were marked with 4 ft of core.

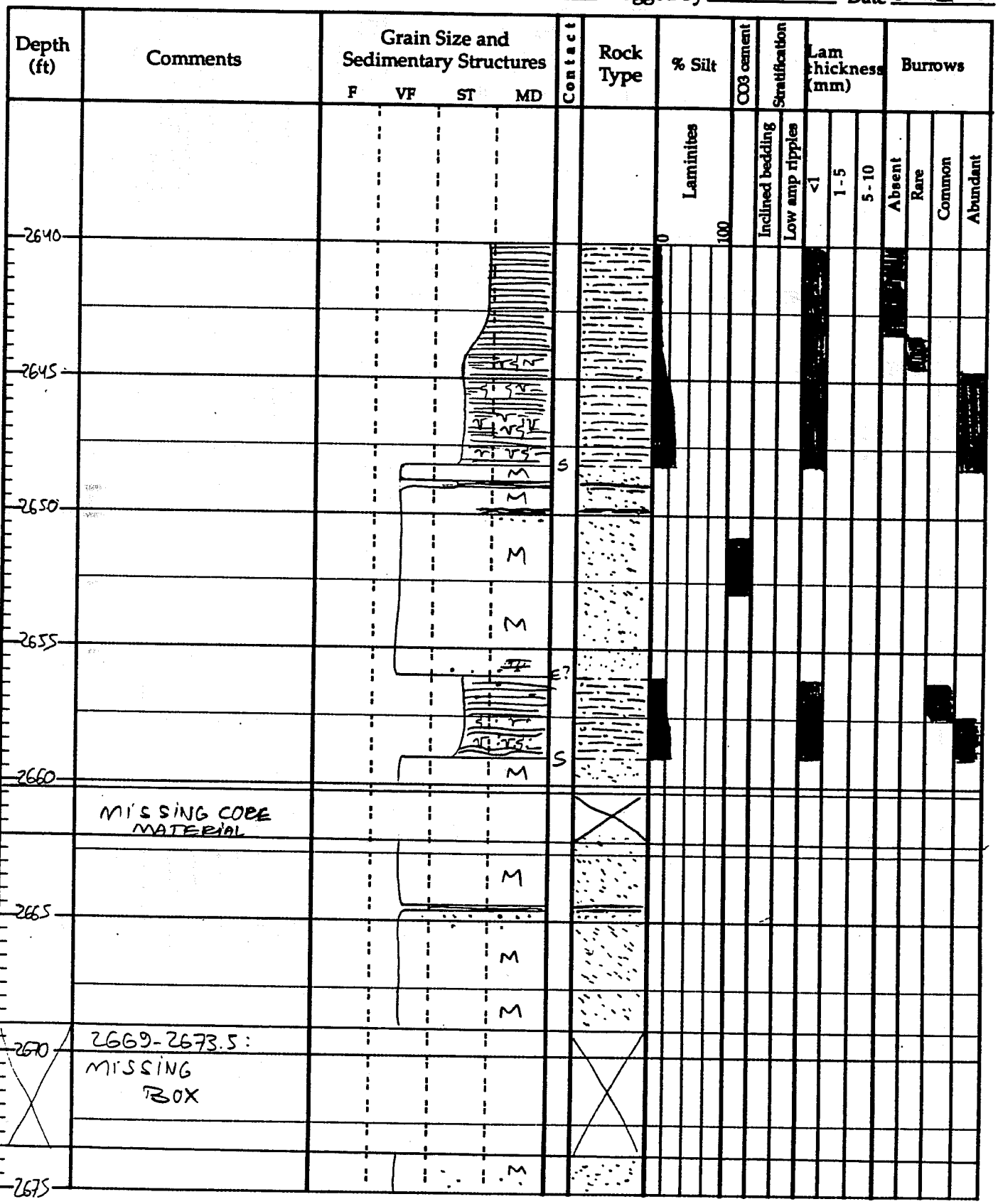
Well Ramsey 19-14 (FGU 51) Core depth (+) 2670- (-) 2738 = _____ Log depth @ _____

Formation Bell Canyon Location _____ Logged by Sgrid Date 7-25-96

Depth (ft)	Comments	Grain Size and Sedimentary Structures (F / VF / ST / MD)	Contact	Rock Type	% Silt (0 – Laminites – 100)	CO3 cement	Stratification: Inclined bedding	Stratification: Low amp ripples	Lam thickness (mm): <1	Lam thickness (mm): 1-5	Lam thickness (mm): 5-10	Burrows: Absent	Burrows: Rare	Burrows: Common	Burrows: Abundant
2695															
6															
7															
8															
9															
2700															
1	A patch of calcite cmt at 2700.2 patch ←														
2															
3	fining up to 3mm thk lutite														
4	Contorted lams due to burrowing														
2705		Bottom core													
27.27		TOP CORE													
8															
9	mm size pyrite blebs	P P P													
2730															
1															
2	mm size pyrite blebs	P P													
3															
4															
2735															
6															
7	Pyrite blebs horizontally aligned	P P P													
8	Contorted features														
9		Bottom core													
2740															

Well RAMSEY 19-42/FGU-53 Core depth (+) 2640 (−) 2677 = _____ Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 09/12/96



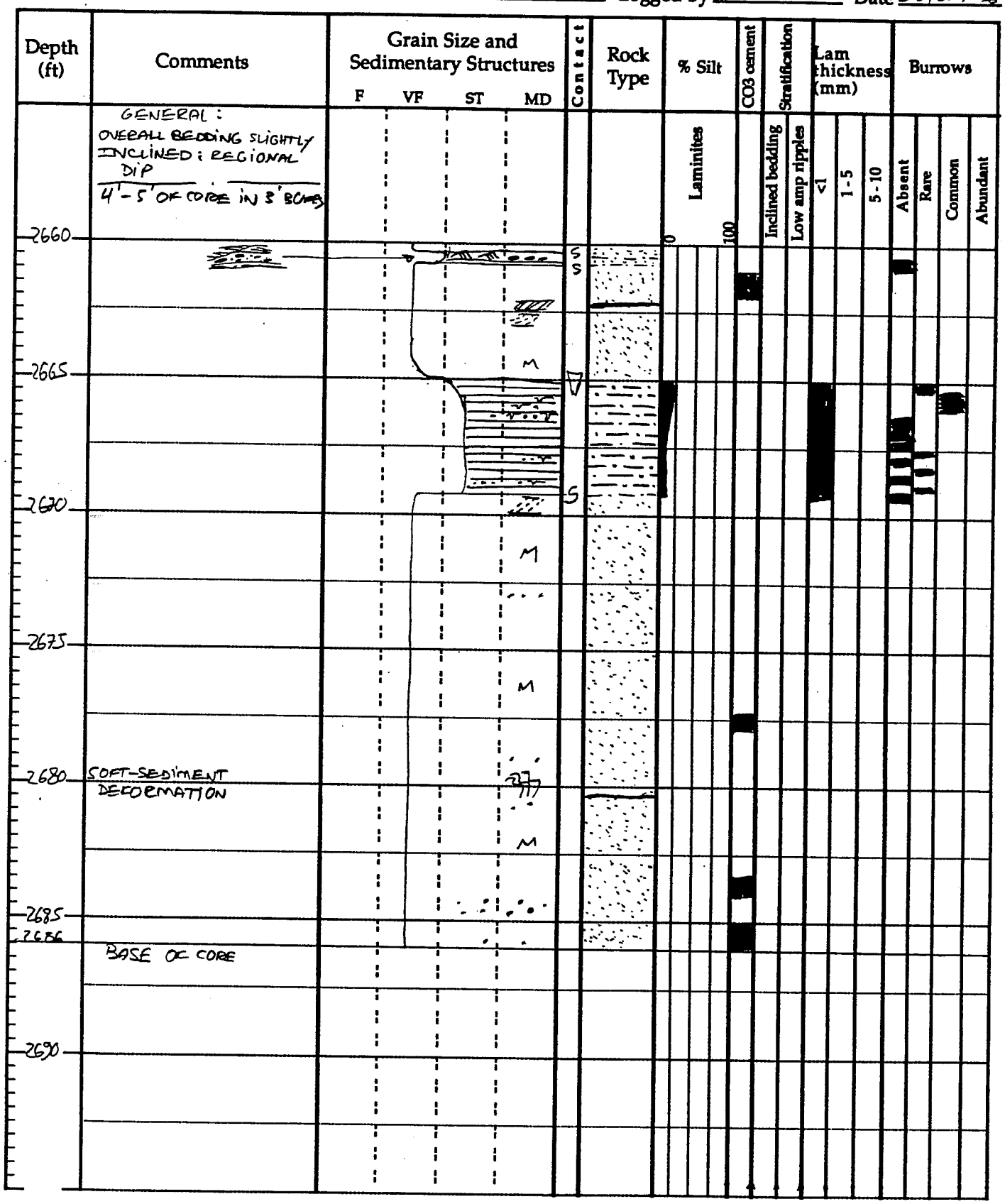
Well Ramsey 19-42/FGU-53 Core depth (+) 2640 (−) 7677 = _____ Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 03/12/26

Depth (ft)	Comments	Grain Size and Sedimentary Structures (F, VF, ST, MD)	Contact	Rock Type	% Silt (Laminites 0–100)	CO3 cement	Stratification: Inclined bedding	Stratification: Low amp ripples	Lam thickness (mm): <1	Lam thickness (mm): 1-5	Lam thickness (mm): 5-10	Burrows: Absent	Burrows: Rare	Burrows: Common	Burrows: Abundant
2675		M													
	BASE OF CORE														
2680															

Well RAMSEY 19-31 (FGU-54) Core depth (+) 2660 (-) 2686 = _____ Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 08/23/96



Well Ramsey 19-10 (FGU 55) Core depth (+)(−) 2653-2702 Log depth @ _____

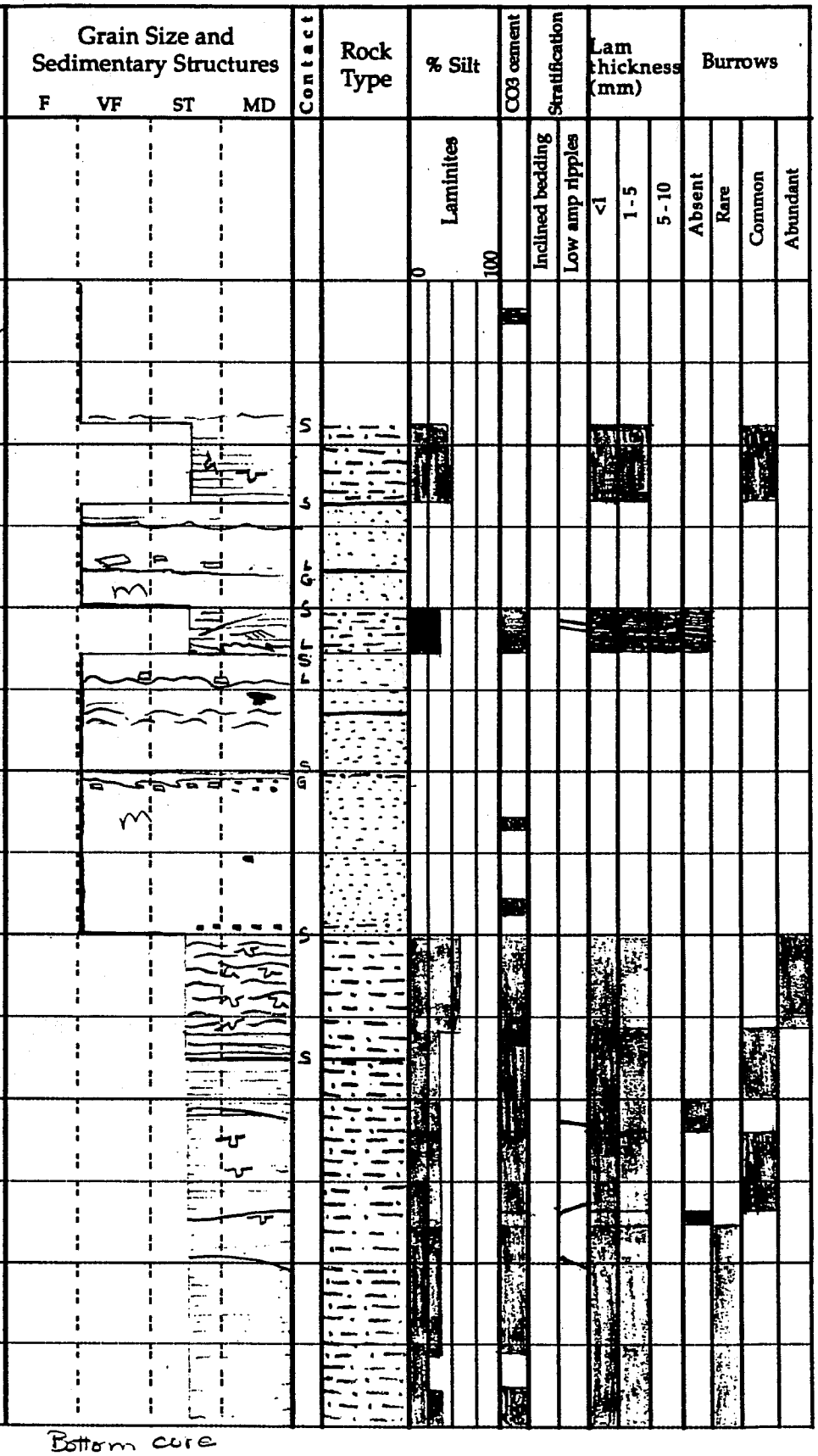
Formation Ramsey-Bell Location Culberson Co. TX Logged by Sigrid Date 10-3-96

Depth (ft)	Comments	Grain Size and Sedimentary Structures (F, VF, ST, MD)	Contact	Rock Type	% Silt (0–100)	Laminites	CO3 cement	Stratification: Inclined bedding	Stratification: Low amp ripples	Lam thickness (mm): <1	Lam thickness (mm): 1-5	Lam thickness (mm): 5-10	Burrows: Absent	Burrows: Rare	Burrows: Common	Burrows: Abundant
2650																
1																
2																
3				Top Core												
4																
2655																
6																
7																
8																
9																
2660																
1	Wispy lams at 2661.6															
2																
3																
4																
2665	Wispy lams, mm thick organic-rich lam at top overlain by more wispy lams															

Well Ramsey 19-10 (FGU 55) Core depth (+) (-) 2653-2700 Log depth @

Formation Ramsey-Bell Location Logged by Sigrid Date 10-1-96

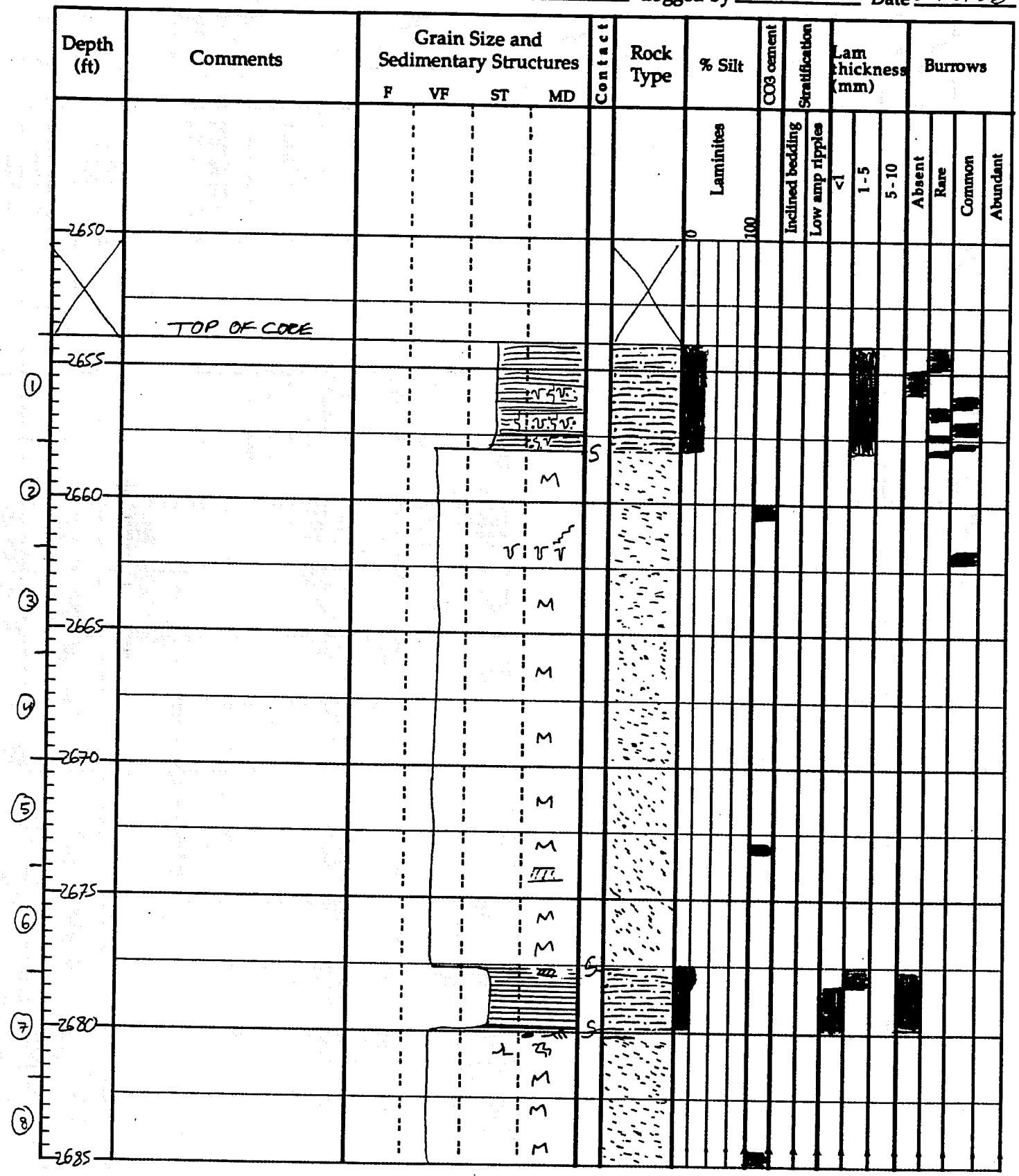
Depth (ft)	Comments
2665	
6	calcite cmted. zone is mottled throughout interval
7	
8	
9	wispy lams at base of ss
2670	
1	
2	1cm. thick lutite at 2671
3	2mm thick organic rich lam. & wispy lams
4	gradual fining up
2675	
6	faulting (photo available)
7	
8	There is some calcite cement distributed throughout interval but only heavily calcite
9	
2680	cemented areas are noted
1	
2	
3	
4	cm. thick silt/organic layer with mm size organic clasts
2685	
6	>1mm lams dominate 2685-2688 interval
7	
8	
9	4cm. thick organic-rich lam (lutite?)
2690	
1	
2	
3	
4	
2695	
6	~1cm thick interval of iron-stained lams at 2695.3
7	
8	
9	
2700	



Bottom core

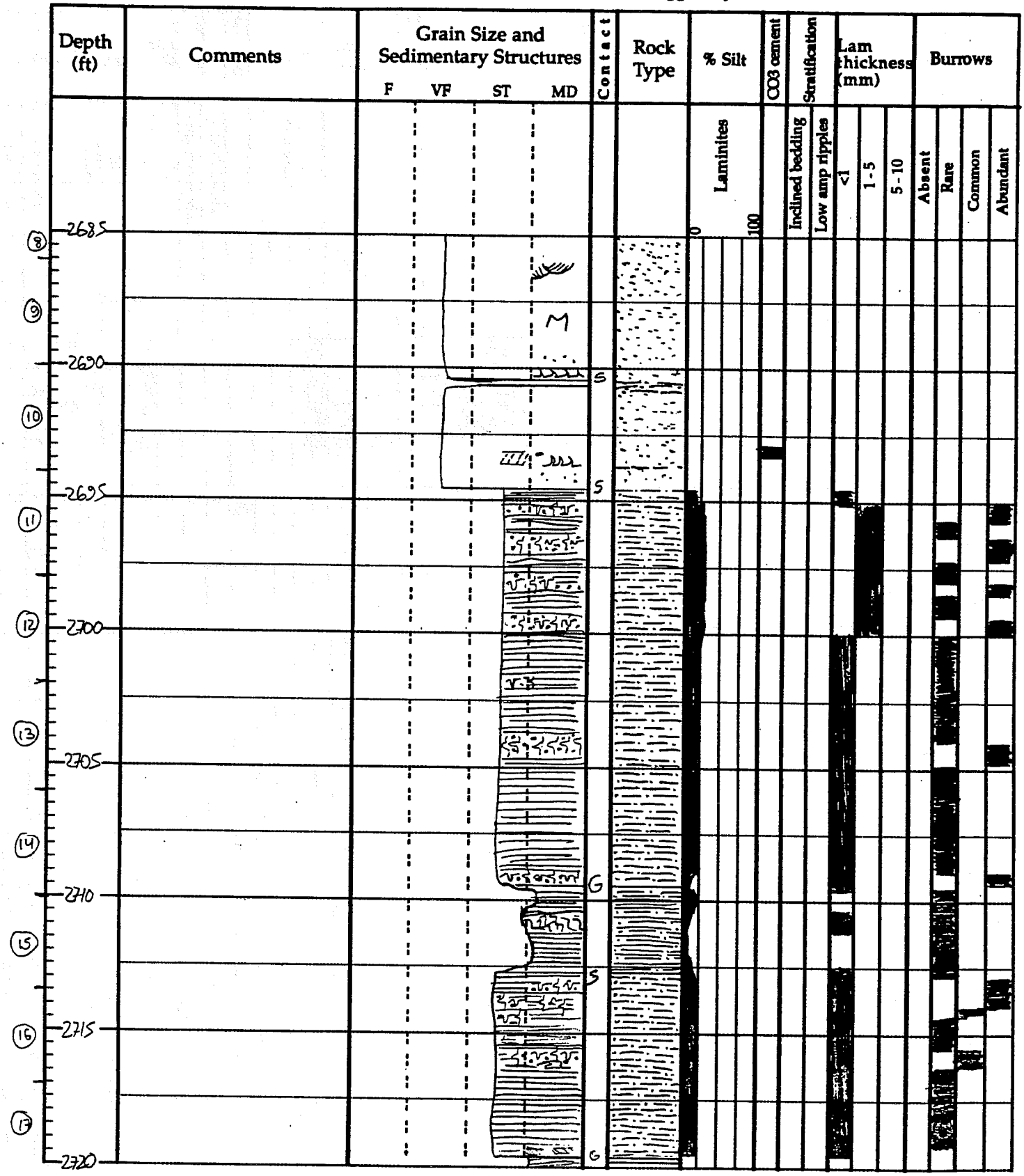
Well Ramsey 10-7 (FGU-56) Core depth (+) 2654 (-) 2765 = _____ Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 09/10/96



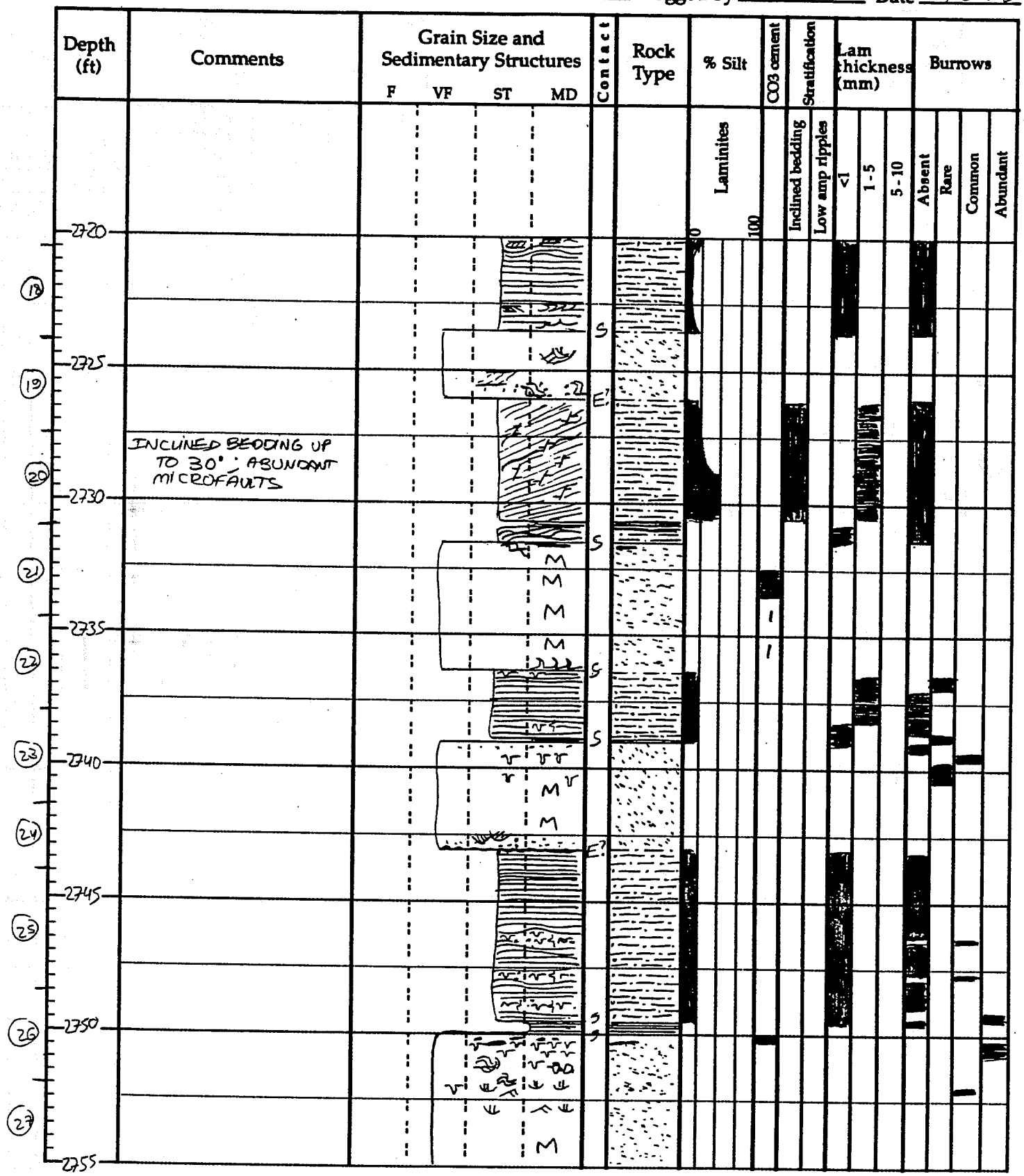
Well Ramsey 197 (FGU-56) Core depth (+) 2654 / (−) 2765 = _____ Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 9/10/96



Well RAMSEY 19-7 (FGU-56) Core depth (+) 2654 (-) 2765 = _____ Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 09/10/96



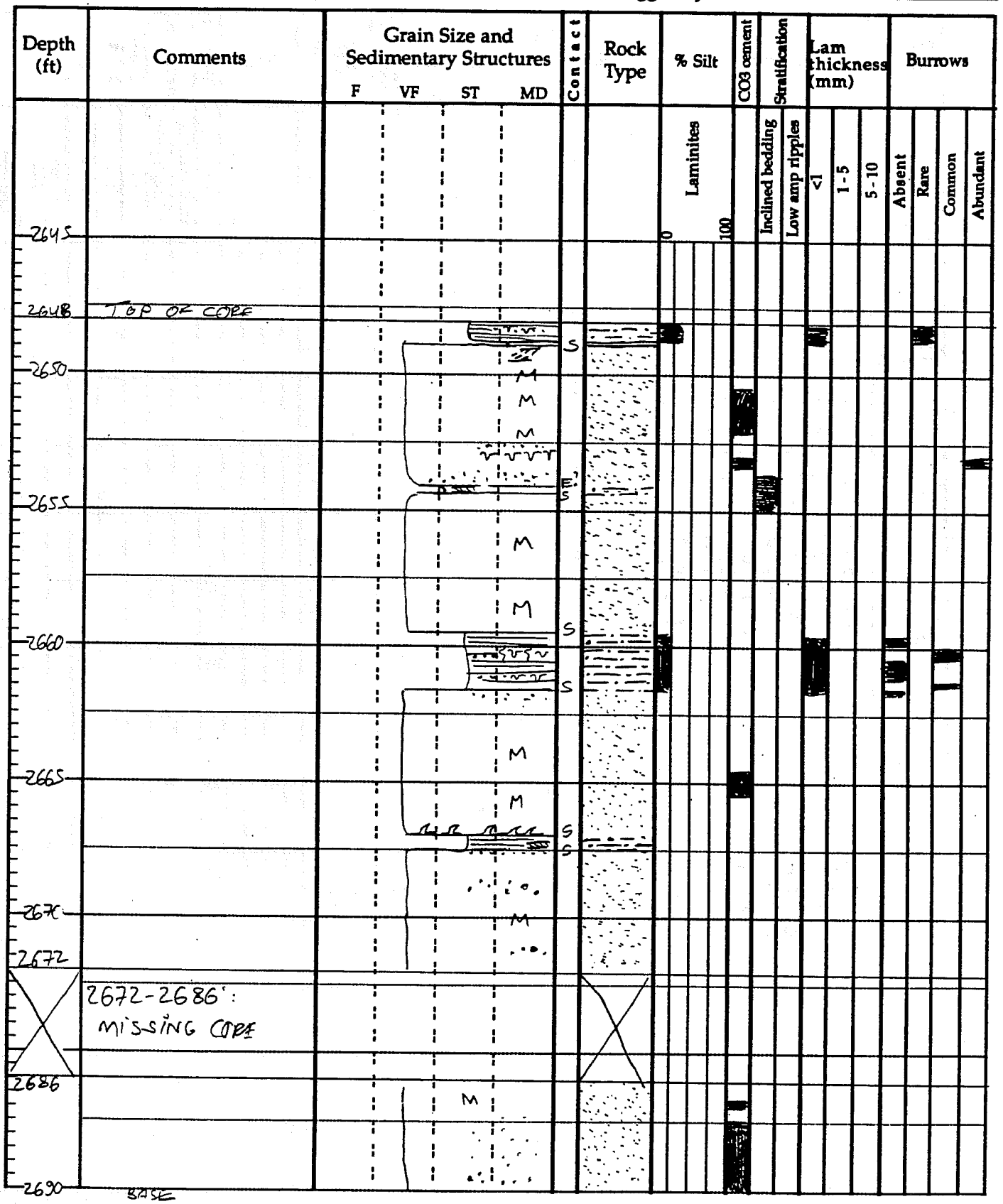
Well Ramsey 19-7 (FGU-56) Core depth (+) 2654 (−) 2765 = _____ Log depth @ _____

Formation _____ Location _____ Logged by Jose Date 09/10/96

Depth (ft)	Comments	Grain Size and Sedimentary Structures (F, VF, ST, MD)	Contact	Rock Type	% Silt (Laminites 0–100)	CO_3 cement	Stratification: Inclined bedding	Stratification: Low amp ripples	Lam thickness (mm): <1	Lam thickness (mm): 1-5	Lam thickness (mm): 5-10	Burrows: Absent	Burrows: Rare	Burrows: Common	Burrows: Abundant
2755															
(28)		M				1									
		M				1									
2760 (29)		V V V													
(30)		M													
2765	BASE OF CORE														

Well Ramsey 19-32 (FGU-58) Core depth (+) 2648 (−) 2690 = _____ Log depth @ _____

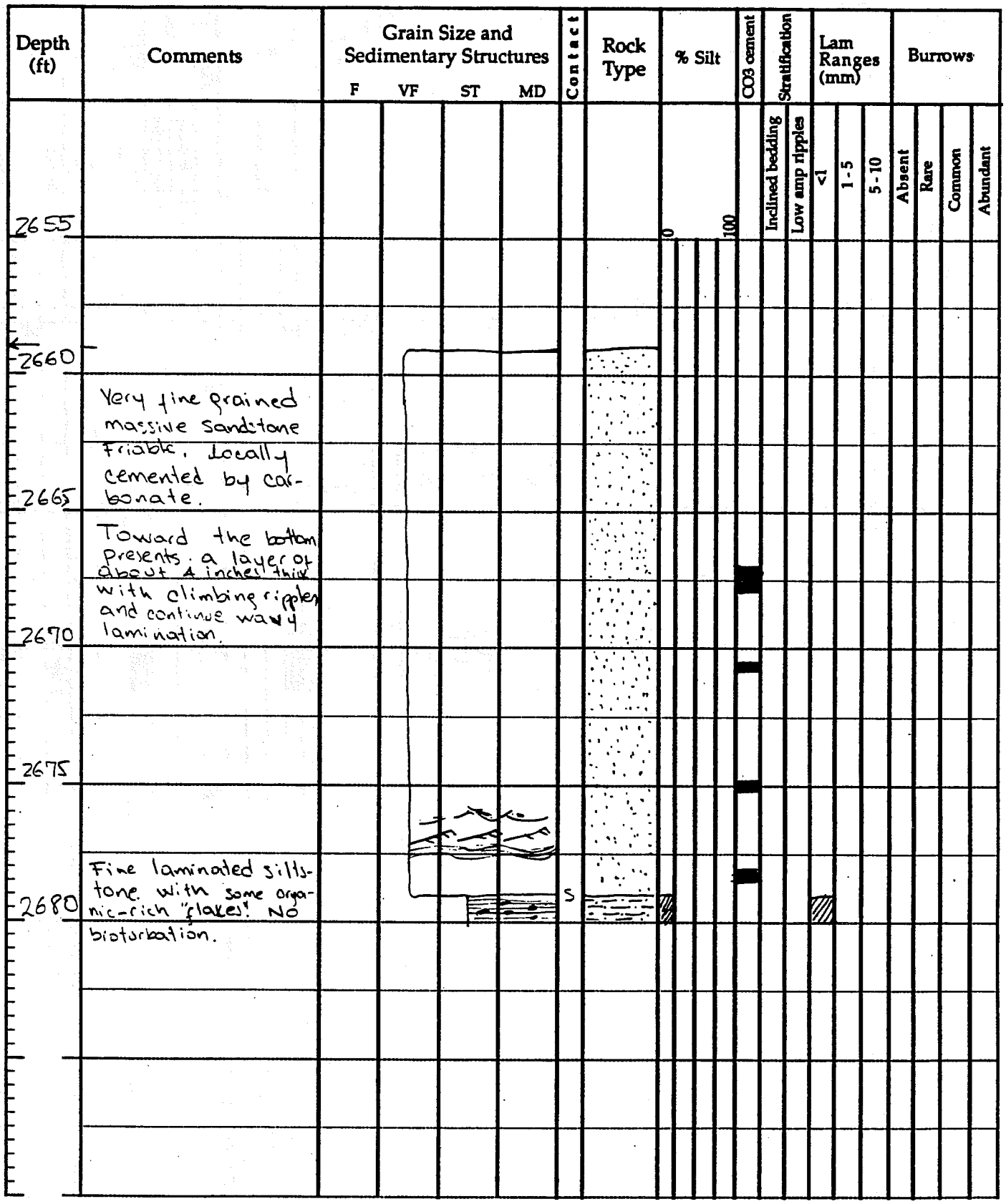
Formation _____ Location _____ Logged by Jose Date 08/26



FGU 59

Well RAMSEY 19-40 Core depth (+) 2659 (-) 2680 = _____ Log depth @ _____

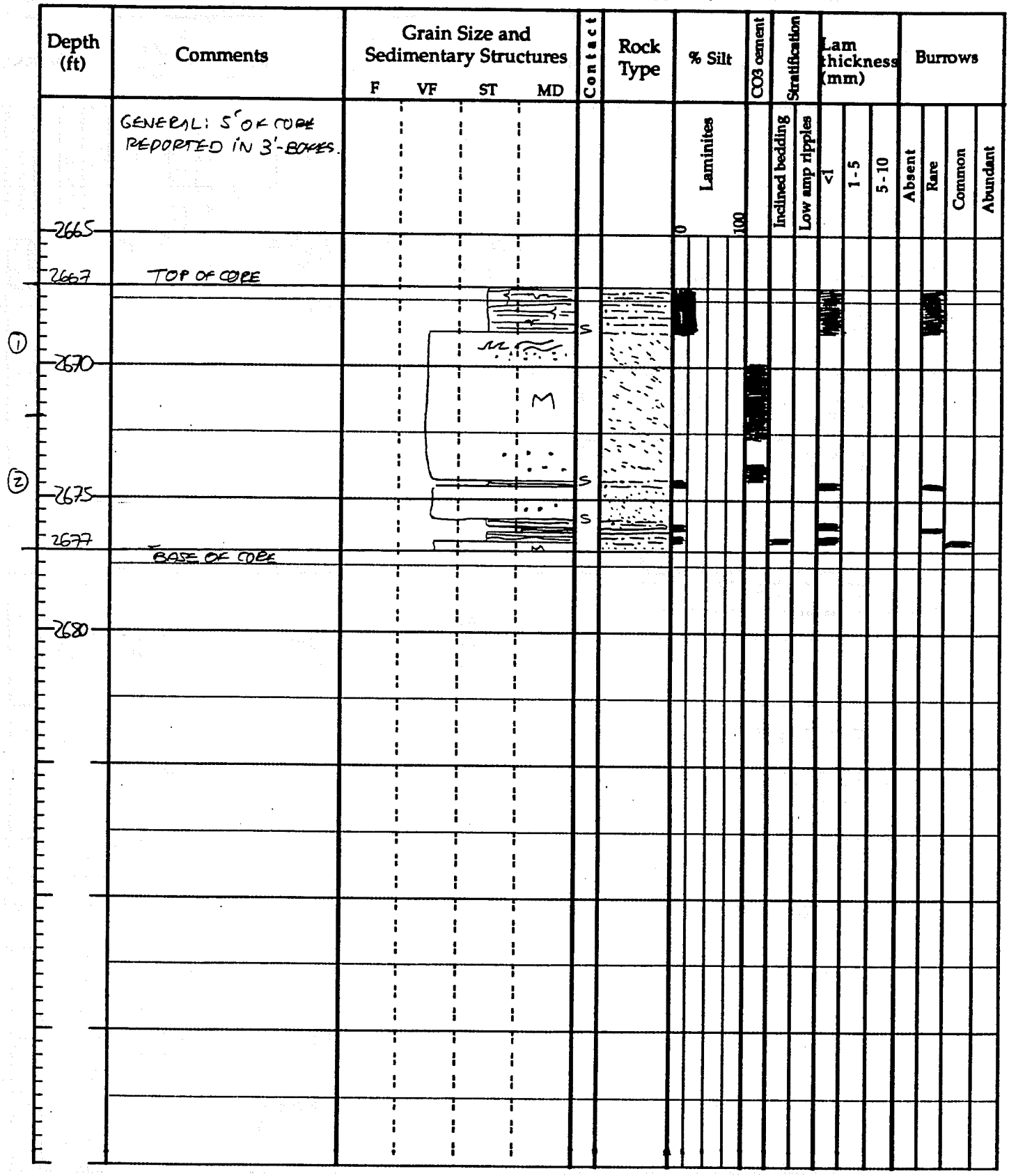
Formation _____ Location _____ Logged by _____ Date _____



1 of 1

Well RAMSEY 19-37 (FGU-61) Core depth (+) 2667 (−) 2677 = _____ Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 09/12/95



Some missing section through Ss

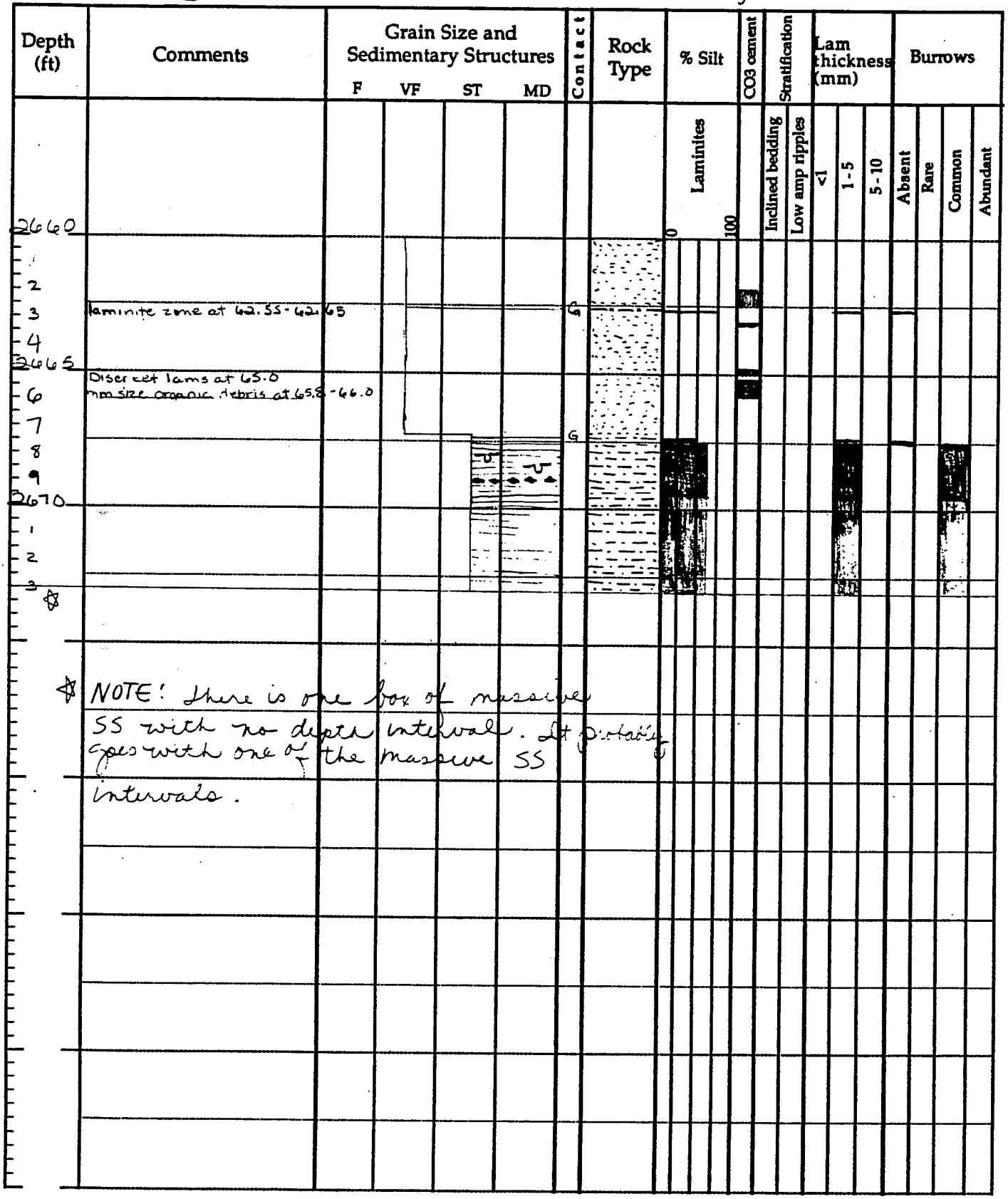
Well FGU 63 Ramsey 19-21 Core depth (+) 2625 = 2673 Log depth @ _____

Formation Ramsey Location _____ Logged by Siegrist Date 6-18-96

Depth (ft)	Comments	Grain Size and Sedimentary Structures (F / VF / ST / MD)	Contact	Rock Type	% Silt (0–100)	Laminites	CO3 cement	Inclined bedding	Stratification: Low amp ripples	Lam thickness (mm): <1	1-5	5-10	Burrows: Absent	Rare	Common	Abundant
2625																
6																
7	2mm erosional lutite lam at 2626.7 ft. Low amp ripples (15mm tk) at 26.9 ft. Contorted lams at 27.3-27.5		E													
8																
9																
2630																
	Distinct discolorated patches throughout Ss. Ss becomes more friable between 37.0 - 39.0 ft															
2635																
	Contact between Ss and laminites - low amp organic-rich ripples ~20 mm tk. Note vertical burrowing at 38.0. Clasts present		G													
2640																
1			S													
2			S													
3	Some intervals very friable Ss															
2645																
6	2645.0 - 2649.0 MISSING															
7																
8																
9																
2650																
1	CO_3 cmted zone at 50.0-50.3. Massive SS, friable															
2																
3	2651.5 - 2655.0 MISSING															
4																
2655																
6	Massive SS friable															
7																
8																
9	Massive SS friable. Soft sed defm at 58.5-58.85															
2660	Organic debris common in this interval															

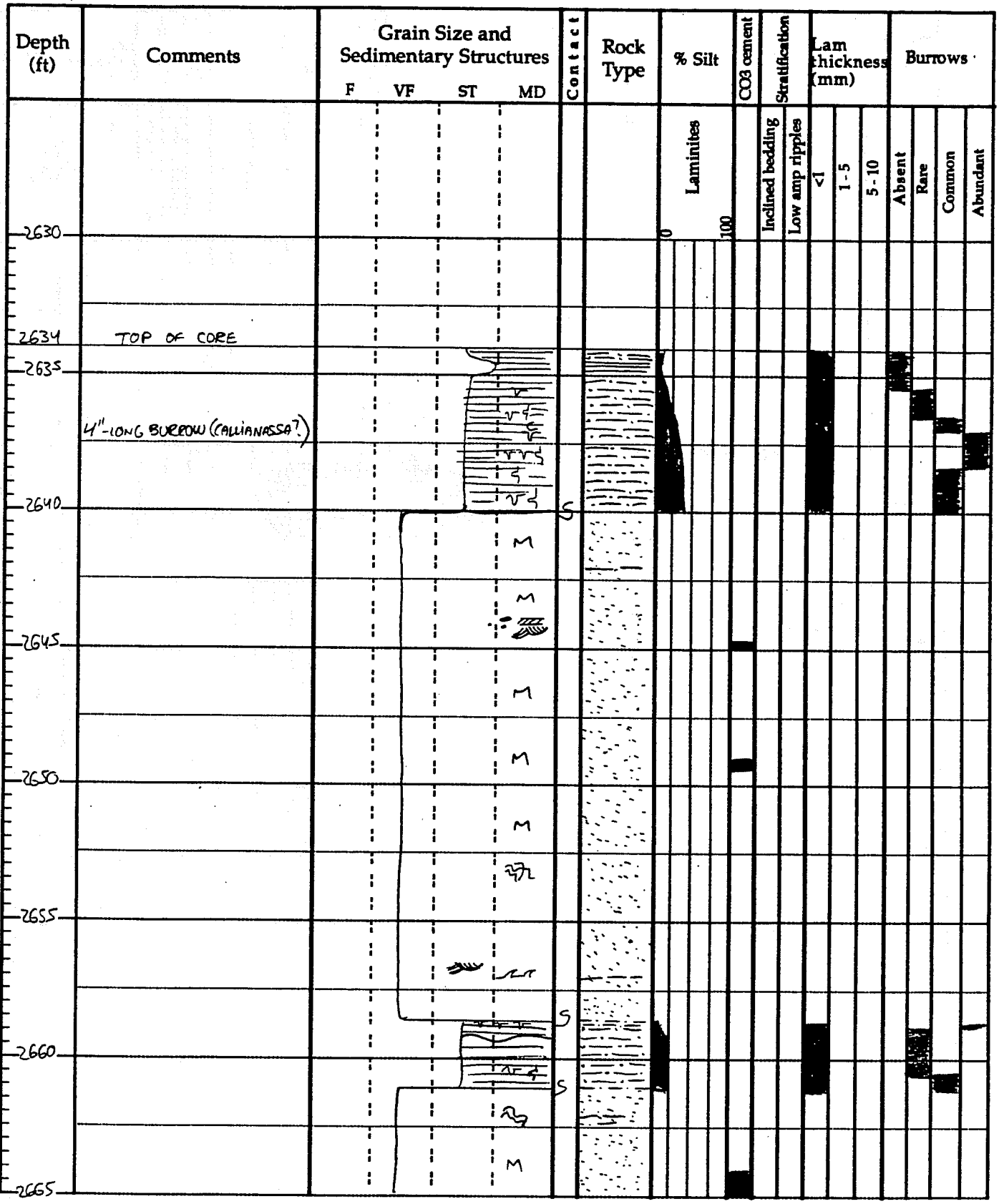
Well FGU 63 Ramsey 19-21 Core depth (+)(−) 2625-2673 = _____ Log depth @ _____

Formation Ramsey Location _____ Logged by Sigrid Date 6-19-96



Well Ramsey 19-30 / FGU-64 Core depth (+) 2634 (−) 2687 = 53' Log depth @ _____

Formation _____ Location _____ Logged by Jose Date 08/15/96



Well Ramsey 19-30/FGU-64 Core depth (+) 2634 (–) 2687 = _____ Log depth @ _____

Formation _____ Location _____ Logged by Jose Date 08/15/26

Depth (ft)	Comments	Grain Size and Sedimentary Structures (F VF ST MD)	Contact	Rock Type	% Silt (0 – Laminites – 100)	CO3 cement	Stratification (Inclined bedding; Low amp ripples)	Lam thickness (mm) (<1; 1-5; 5-10)	Burrows (Absent; Rare; Common; Abundant)
2665		M							
		M							
2670		M							
	SOFT-SEDIMENT DEFORMATION		S						
2675									
	2676-82': MISSING CORE								
2680									
	5' OF CORE IN 3' BOX	M							
2685		M							
2687	BASE OF CORE								
2690									

This Core presents many missed intervals. Sections four feet long are in a three feet box,

FGU 67

Well RAMSEY 19-18 Core depth (+) 2656 (−) 2693 = _____ Log depth @ _____

Formation _____ Location _____ Logged by _____ Date _____

Depth (ft)	Comments	Grain Size and Sedimentary Structures (F, VF, ST, MD)	Contact	Rock Type	% Silt (Laminites 0–100)	CO3 cement	Stratification (Inclined bedding, Low amp ripples)	Lam thickness (mm) (<1, 1-5, 5-10)	Burrows (Absent, Rare, Common, Abundant)
2655									
←2656	Very fine grained sandstone, massive, friable, locally presents inclined bedding. With a layer or carbonate cement. The bottom presents sediment soft deformation structure.		S						
2660									
2665									
	Fine laminated siltstone, with vertical and horizontal burrows. Top and bottom contacts are sharp.		S						
2670									
2675									
	Very friable, massive sandstone, locally presents horizontal planar lamination where grain size becomes finer.								
2680									
2685									
2693									

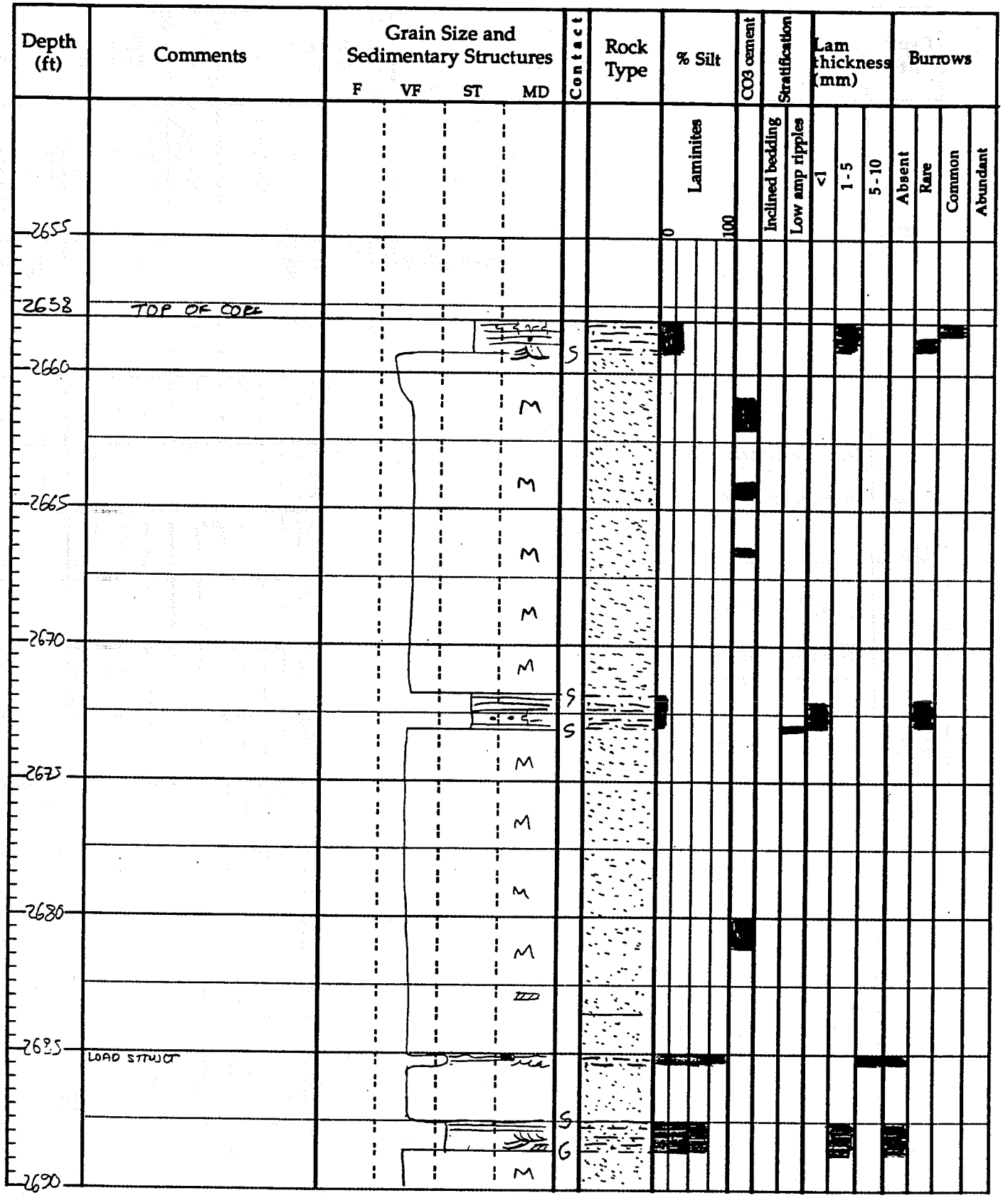
Well Ramsey 19-30-1 (FG4 68) Core depth (+) 2654 - 2670 (−) = _____ Log depth @ _____

Formation Bell Canyon Location _____ Logged by Sigrid Date 7-18-96

Depth (ft)	Comments	Grain Size and Sedimentary Structures (F VF ST MD)	Contact	Rock Type	% Silt (Laminites 0–100)	CO3 cement	Stratification: Inclined bedding	Stratification: Low amp ripples	Lam thickness (mm): <1	Lam thickness (mm): 1-5	Lam thickness (mm): 5-10	Burrows: Absent	Burrows: Rare	Burrows: Common	Burrows: Abundant
2654				TOP CORE											
2655															
6	Grn size increases from uvf to lf at bottom of sand unit														
7		FS	L												
8															
9		MISSING CORE													
2660															
2665															
2666															
7		M													
8															
9		M													
2670		Bottom core													

Well Ramsey 19-US/FGU-79 Core depth (+) 2658 (−) 2739 = 81' Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 08/09



Well Ramsey 19-45/FGU-79 Core depth (+) 2658 (−) 2739 = _____ Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 08/09

Depth (ft)	Comments	Grain Size and Sedimentary Structures (F VF ST MD)	Contact	Rock Type	% Silt (Laminites 0–100)	CO3 cement	Stratification: Inclined bedding	Stratification: Low amp ripples	Lam thickness (mm): <1	Lam thickness (mm): 1-5	Lam thickness (mm): 5-10	Burrows: Absent	Burrows: Rare	Burrows: Common	Burrows: Abundant
2690															
		M	S												
			S												
2695		M													
		M													
	SLIGHT EFFERVESCENCE FAINT CLIMBING RIPPLES FLAME? FLUIDIZ. STRUCTURE	~?													
2700															
2702															
	2702'-2724':														
2720	MISSING OR NOT RECOVERED														
2724															
2725															
		M													
2730		M													
		M													
	WARNING: 2733-39: ALL IN 1 BOX	M													
2735			S												
			S												
2739		M													
2740	BASE OF CORE														

Well Ramsey 19-14 (FGU 91) Core depth (+) 2633 - (-) 2661 = _____ Log depth @ _____

Formation Bell Canyon Location _____ Logged by Sigrid Date 6-25-96

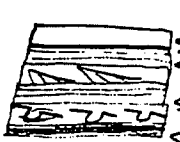
Depth (ft)	Comments	Grain Size and Sedimentary Structures: F	VF	ST	MD	Contact	Rock Type	% Silt: Laminites 0–100	CO3 cement	Stratification: Inclined bedding	Low amp ripples	Lam thickness (mm): <1	1-5	5-10	Burrows: Absent	Rare	Common	Abundant
2630																		
1																		
2																		
3	TOP OF CORE																	
4	thickner laminae contain vfg size sand.																	
2635																		
6	up to 1cm thick lam area; wavy, discontinous lams 0.15ft thick					S												
7																		
8																		
9	unconformable contact at 38.8ft, coarsening upward from 8cm thick lutite into lvf ss with abundant organic clasts.					V												
2640																		
1	Ripples at 38.9 ft a																	
2																		
3						E												
4									3									
2642																		
6	Very subtle lams. Some are horizontal. Some are wispy, discont. Base is					S												
7						E												
8	distinctive erosional																	
9	contact. Some current drag below contact.					I												
2650						S												
1																		
2						S			7									
3	mm thick lutite, becoming more silt-rich upward.																	
4	Sharp contact between silt and lvf sand unit above (at 2650.0)					S			7									
2655																		
6	fining upward sequence 0.1ft thick from vf to silt dominated																	
7	with organics. Distinct grn size change at top from																	
8	Organic rich / silt to vf sd.																	
9	Sharp contact at 51.5. mm																	
2660	thick lutite, becoming siltier																	
1	with climbing ripples in laminae																	
Note: →	Sand size grns range from lf to lvf. more indurated intervals; tend to be silt to vf. more friable intervals range from lf to lvf.																	

Well Ramsey 26-3 (FGU 101) Core depth (+) 2594- (-) 2614 = _____ Log depth @ _____

Formation Bell Canyon Location _____ Logged by Sigrid Date 8-7-96

Depth (ft)	Comments	Grain Size and Sedimentary Structures (F, VF, ST, MD)	Contact	Rock Type	% Silt (Laminites 0–100)	CO3 cement	Stratification: Inclined bedding	Stratification: Low amp ripples	Lam thickness (mm): <1	Lam thickness (mm): 1-5	Lam thickness (mm): 5-10	Burrows: Absent	Burrows: Rare	Burrows: Common	Burrows: Abundant
4				TOP CORE											
2595	organic clasts are horizontally deposited.														
6															
7															
8															
9															
2600															
1															
2															
3		MISSING CORE		2601-2604											
4															
2605	Some int grns. present	M	S												
6	Organic clasts abundant but some could be remnants of burrowing.														
7															
8															
9				MISSING CORE 2607-2611											
2610															
11															
12	abundant burrowing at 2612.0														
13															
14															
2615		2614.0 Bottom Core													

☆



0.2 ft at 2604.5 ft

Well Ramsey 76-1 / FGU-102 Core depth (+) 2566 / (-) 2578 = _____ Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 10/16/95

Depth (ft)	Comments	Grain Size and Sedimentary Structures (F / VF / ST / MD)	Contact	Rock Type	% Silt (0 – 100)	CO3 Cement	Stratification: Inclined Bedding	Stratification: Low Amp Ripples	Lam Thickness (mm): <1	Lam Thickness (mm): 1 - 5	Lam Thickness (mm): 5 - 10	Burrows: Absent	Burrows: Rare	Burrows: Common	Burrows: Abundant
2595 2565	TOP OF CORE														
		M													
		M													
2600 2590		M													
		//													
2605 2575		M													
		£?	A												
	BOTTOM OF CORE														
2610 2580															

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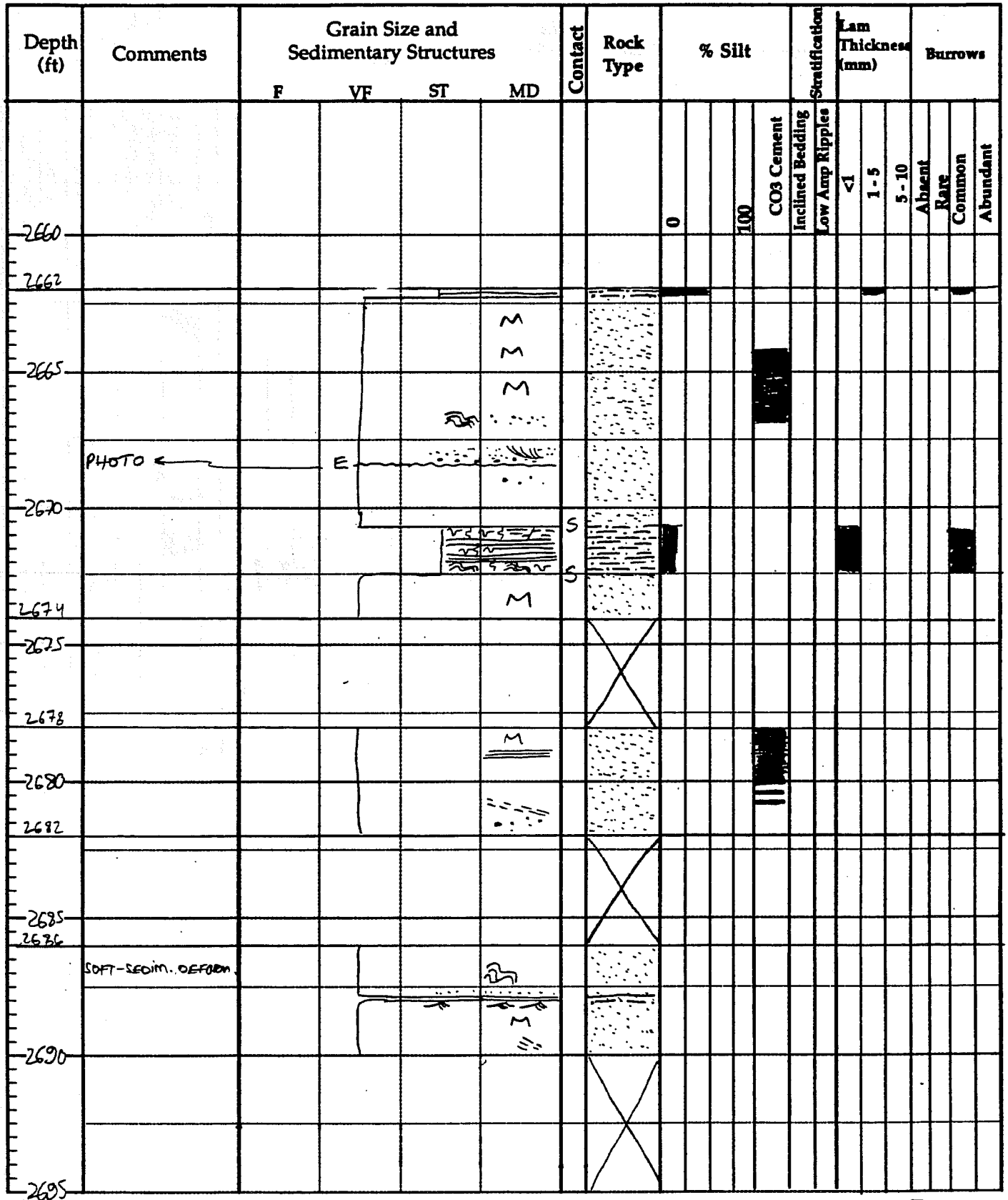
Well Ramsey 19-44/FGU-109 Core depth (+) 2662 / (−) 2699 = _____ Log depth @ _____

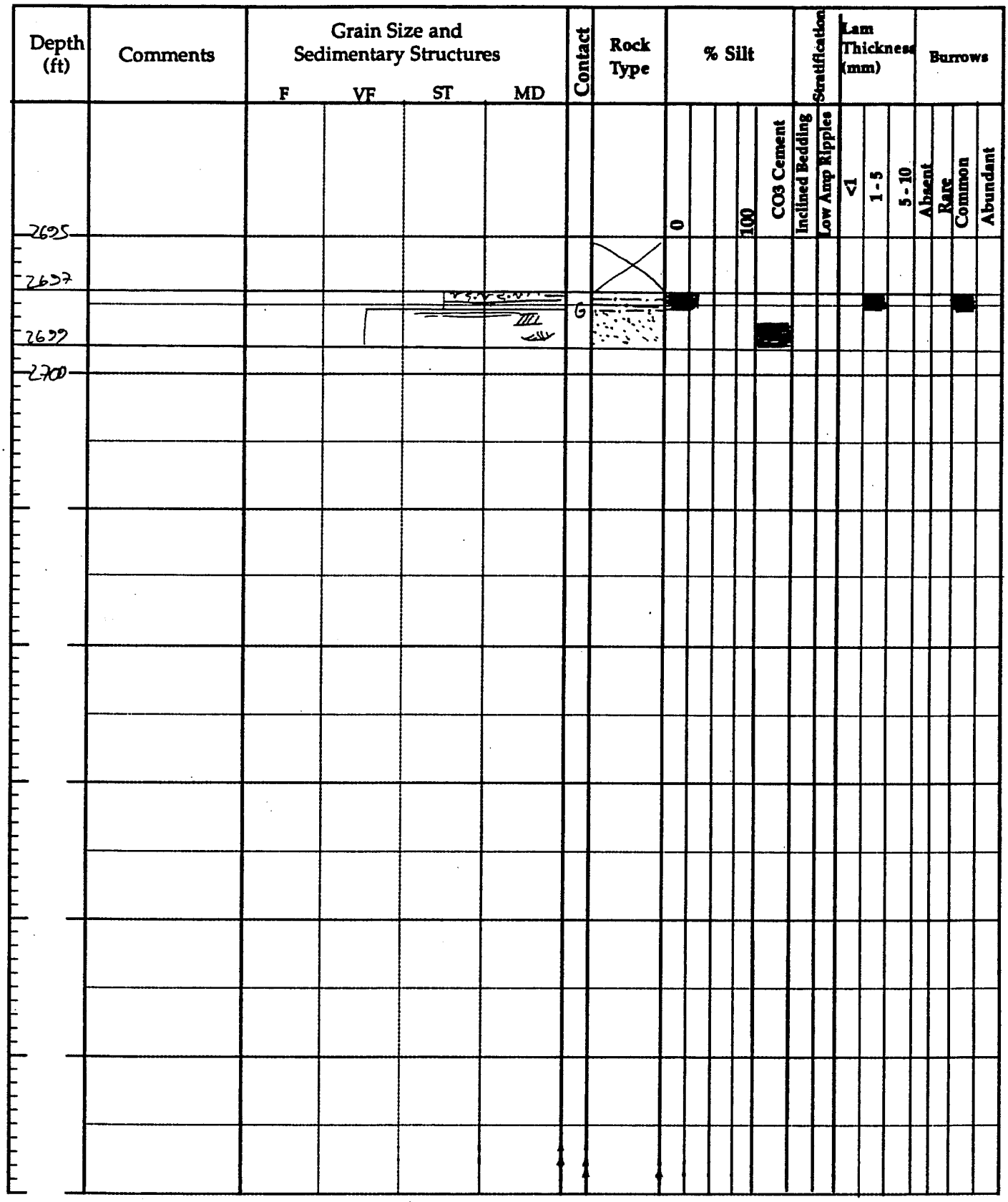
Formation _____ Location _____ Logged by Jose Date 10/22/96



Bureau of Economic Geology

Well Ramsey 19-44/FGU-109 Core depth (+) 2662 = _____ Log depth @ _____

Formation _____ Location 2699 Logged by JOSE Date 10/22/98



Bureau of Economic Geology

Well Ramsey 19-39 (FGU 110) Core depth (+) 2652- (−) 2689 = _____ Log depth ● _____

Formation _____ Location _____ Logged by Sigrid Date 10-25-96

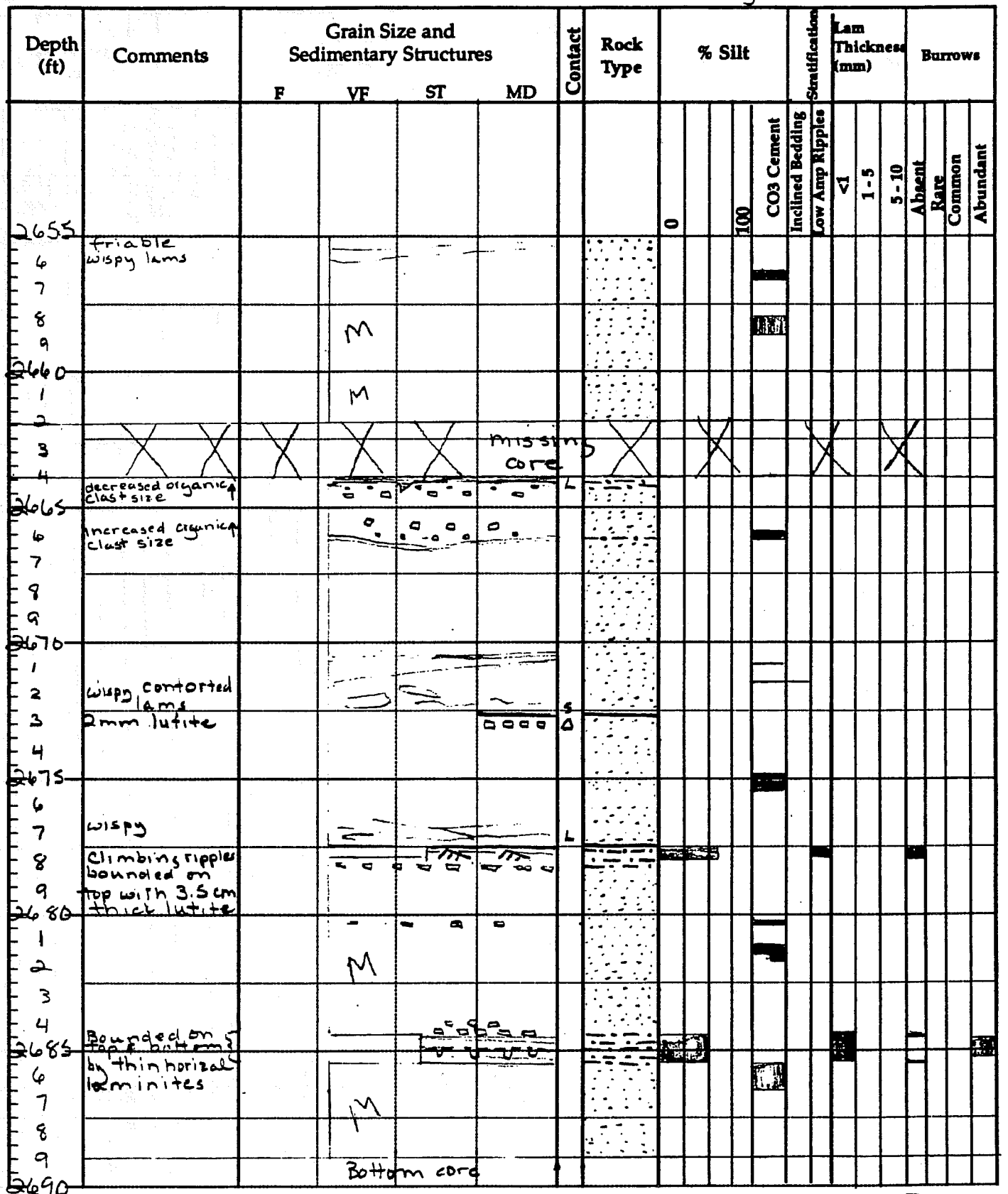
Depth (ft)	Comments	Grain Size and Sedimentary Structures: F	VF	ST	MD	Contact	Rock Type	% Silt: 0	100	CO3 Cement	Stratification: Inclined Bedding	Low Amp Ripples	Lam Thickness (mm): <1	1 - 5	5 - 10	Burrows: Absent	Rare	Common	Abundant
2650																			
1																			
					Top Core														
2																			
3																			
4	A 12° A 8° 230° from horizontal																		
2655																			

Dips decrease upward from 30° - 0°

Bureau of Economic Geology

Well Ramsey 19-39 Core depth (+) (−) 2652 - 2689 = _____ Log depth @ _____

Formation _____ Location _____ Logged by Sigrid Date 10-22-96

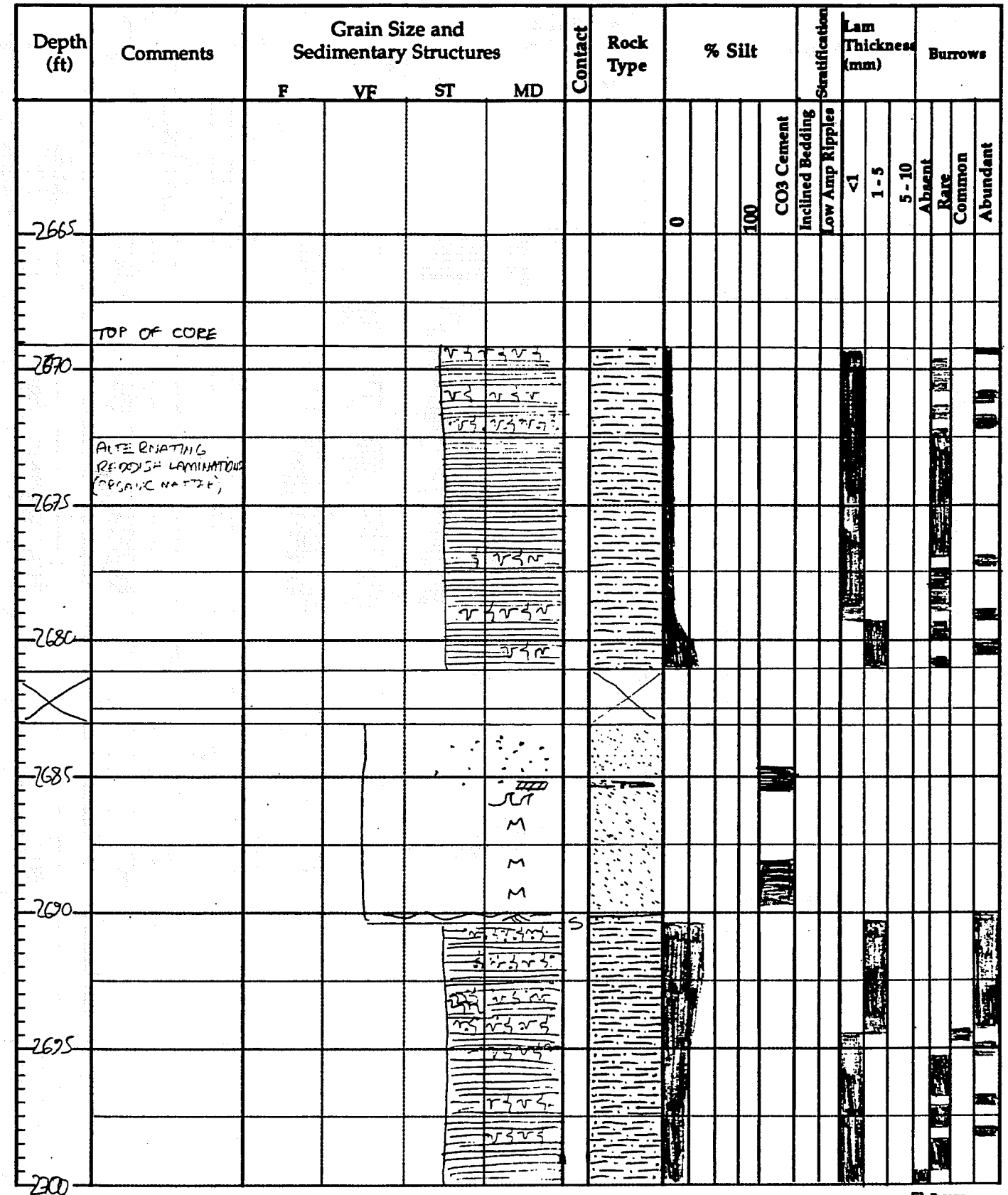


Bureau of Economic Geology

* 8 ft boxes were labeled with 4-5 ft of core

Well FGU-119 / RAMSEY 76-4 Core depth (+) 2669 (−) 2724.5 = _____ Log depth @ _____

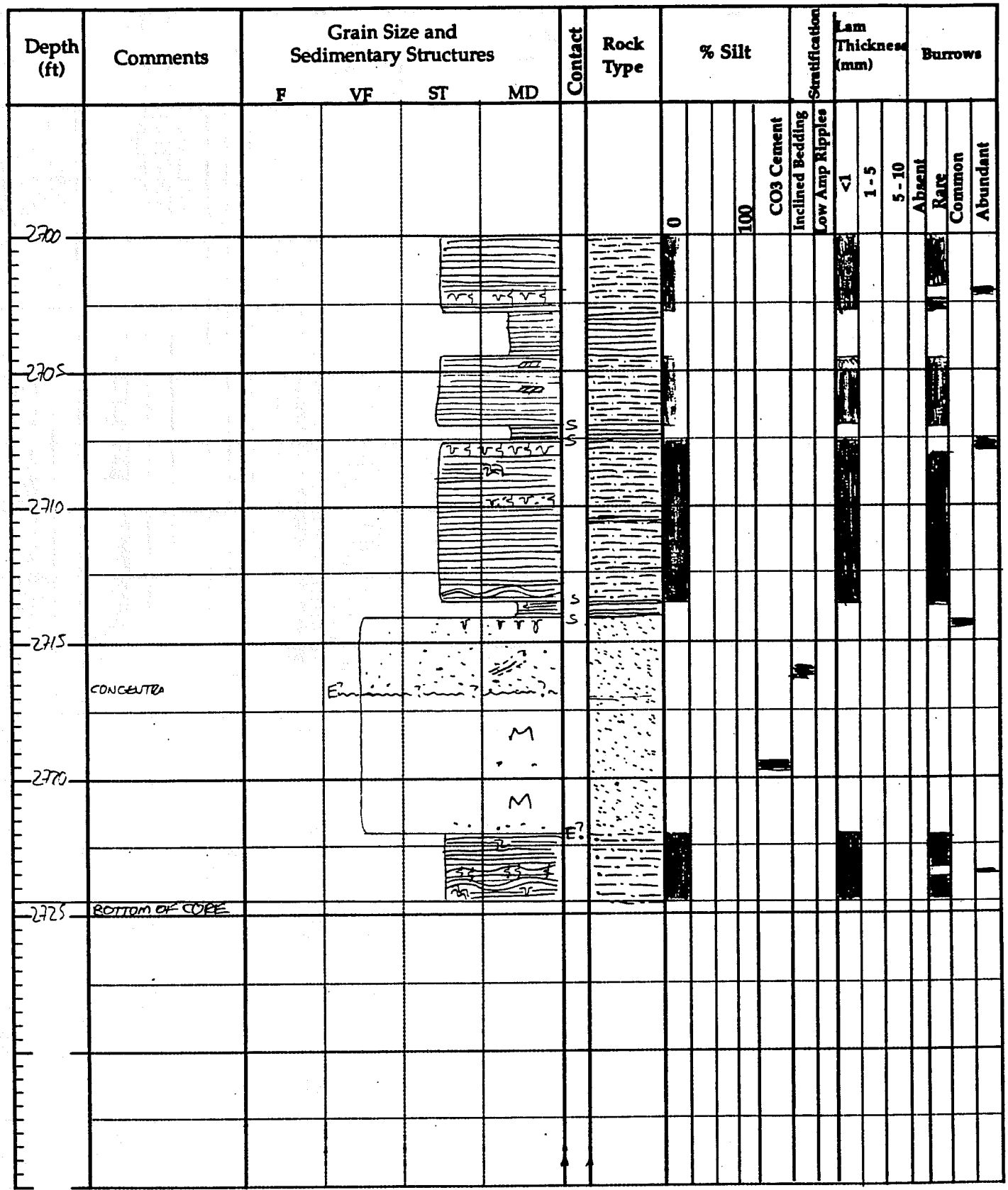
Formation _____ Location _____ Logged by JOSE Date 10/16/96



Bureau of Economic Geology

Well EQU-119/RAMSEY Core depth (+) 2669 (–) 2724.5 = _____ Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 10/16/96



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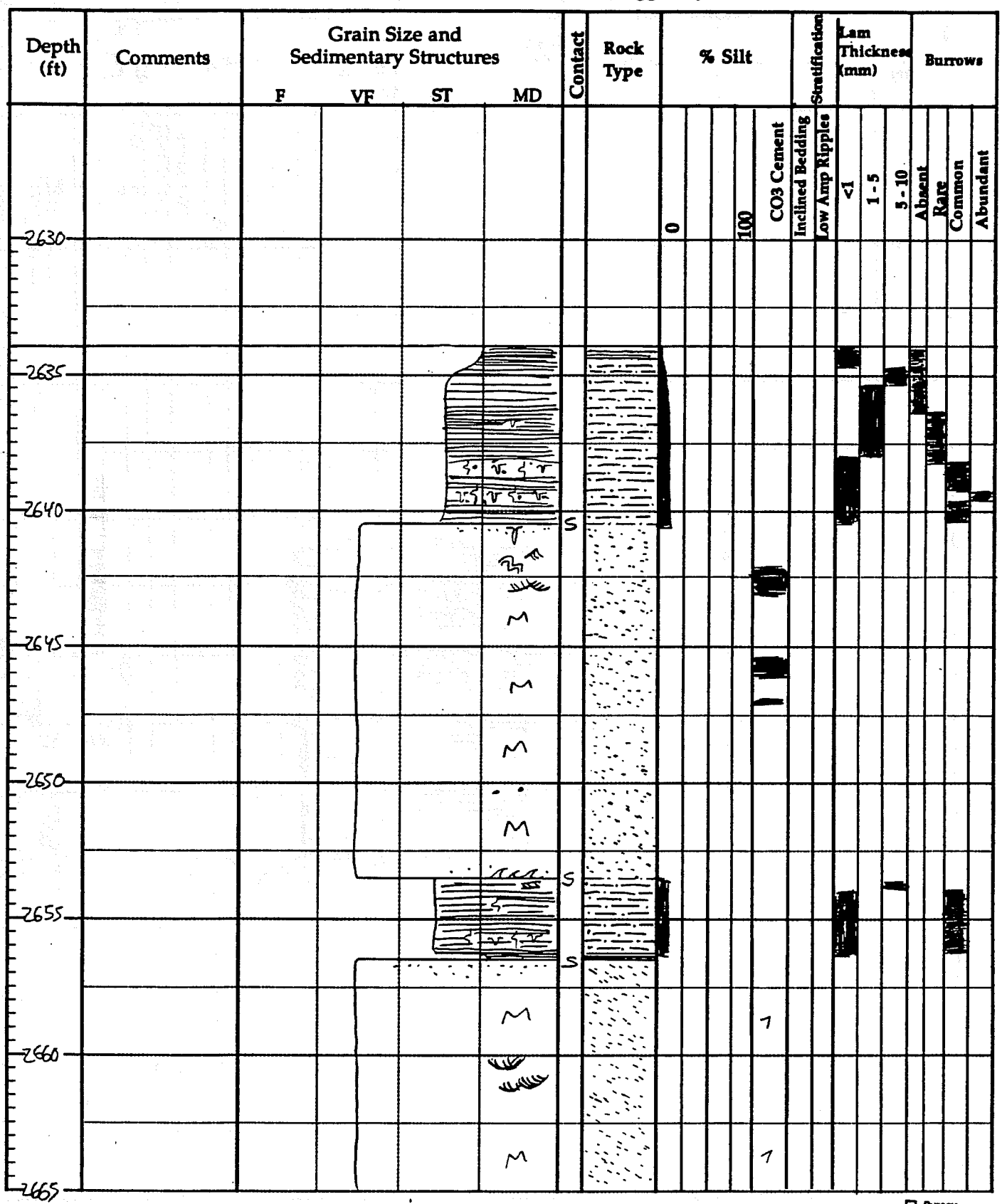
Well EGU-130/Ramsey 36-14 Core depth (+) 2634 (−) 2688 = _____ Log depth @ _____

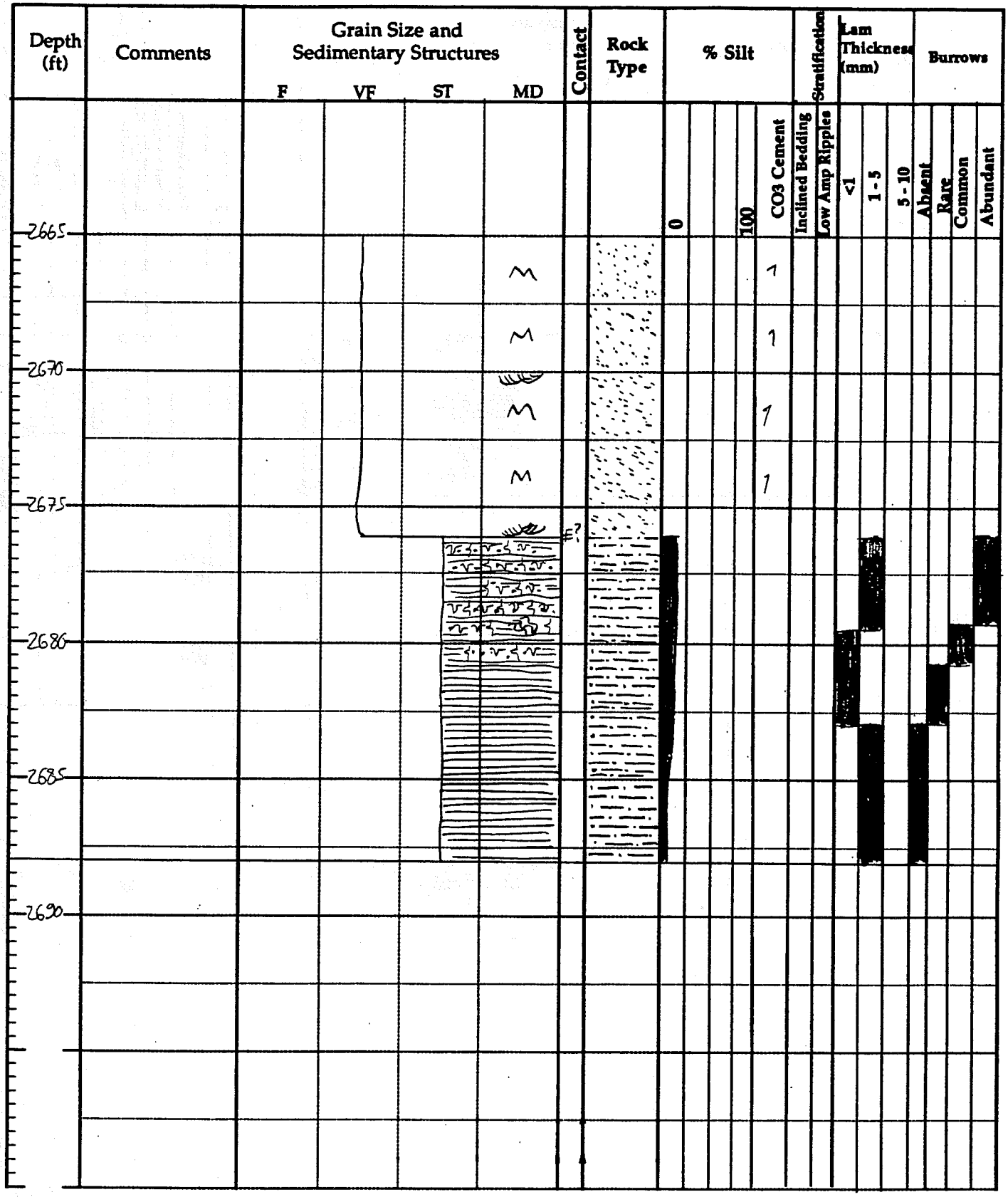
Formation _____ Location _____ Logged by Jace Date 10/18/95



Bureau of Economic Geology

Well FGU-130/RAMSEY 36-14 Core depth (+) 2634 (-) 2688 = _____ Log depth @ _____

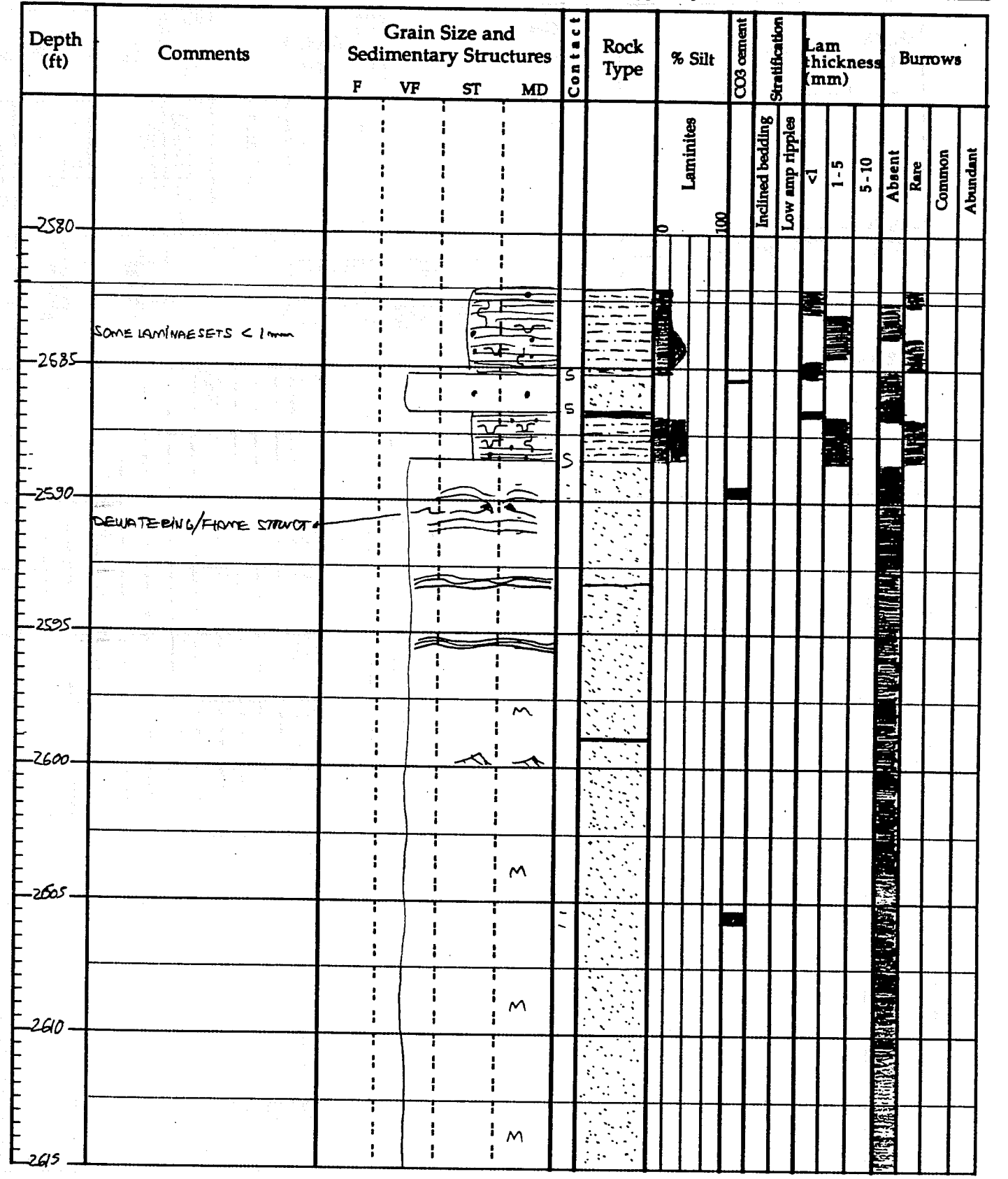
Formation _____ Location _____ Logged by JOSE Date 10/18/96



Bureau of Economic Geology

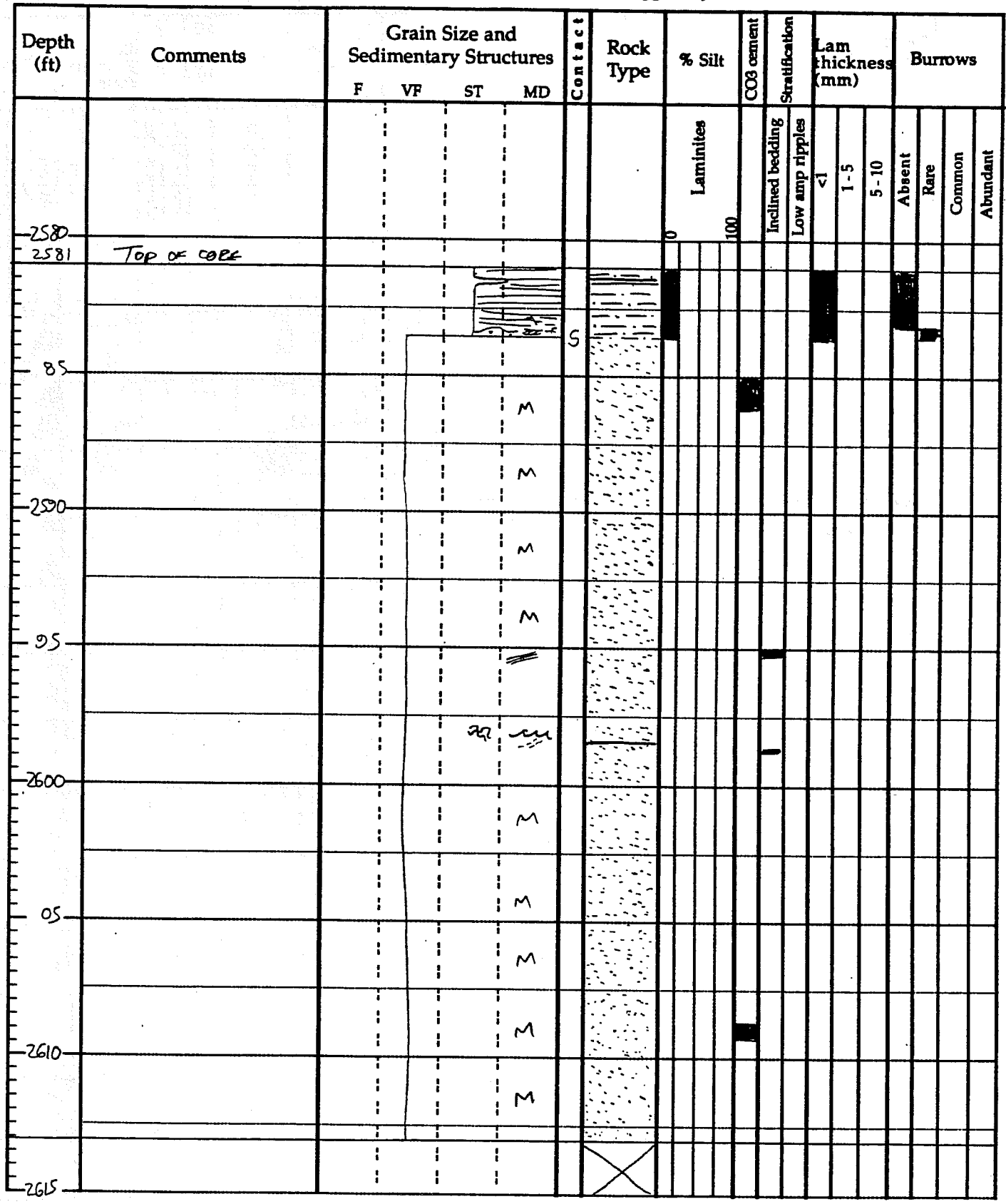
Well RAMSEY 36-6 (FGU-132) Core depth (+) 2582 (-) 2619 = 37' Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date _____



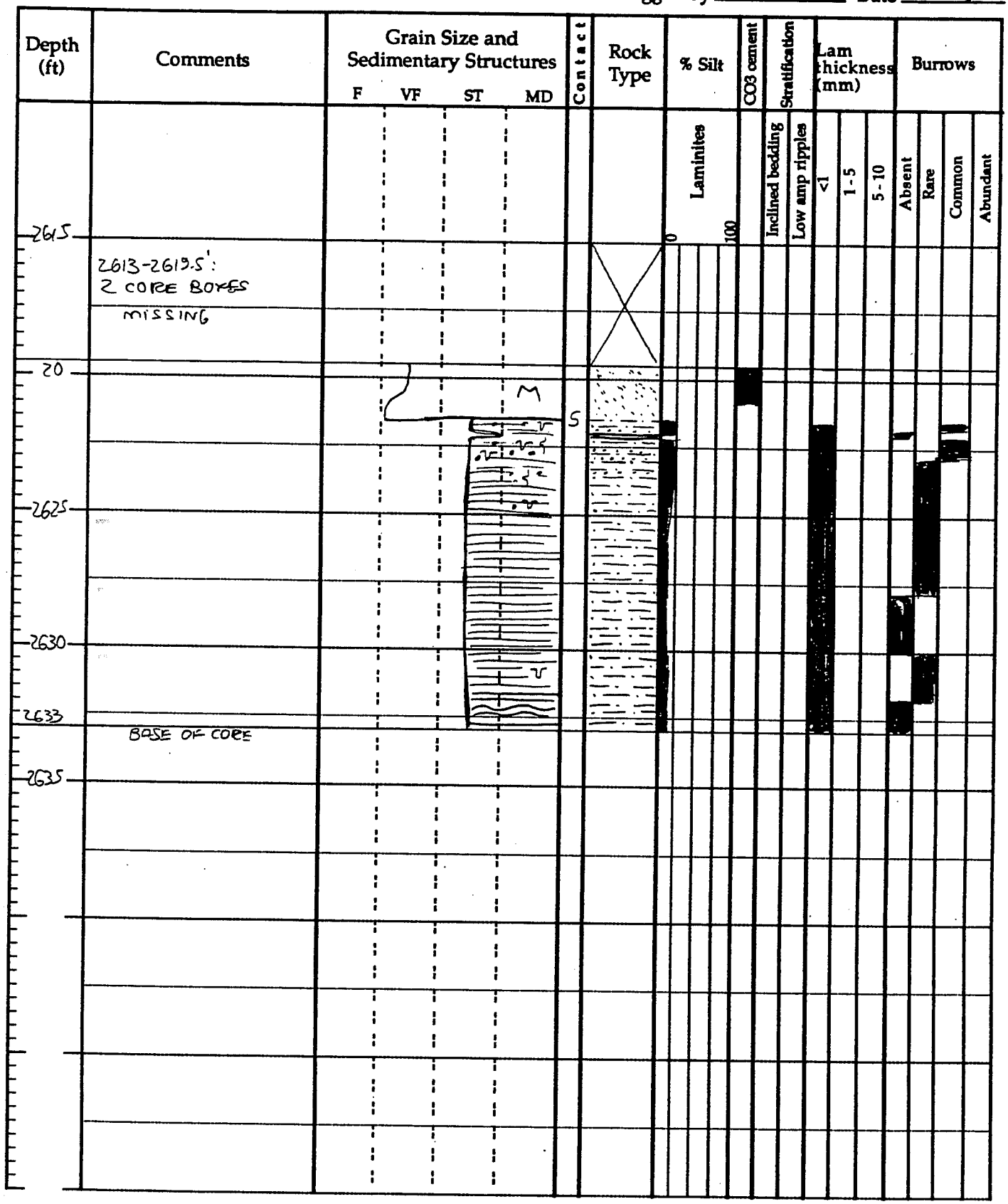
Well Ramsey 36-3/FGU-133 Core depth (+) 2581 (−) 2633 = 52' Log depth @ _____

Formation _____ Location _____ Logged by Jose Date 08/09



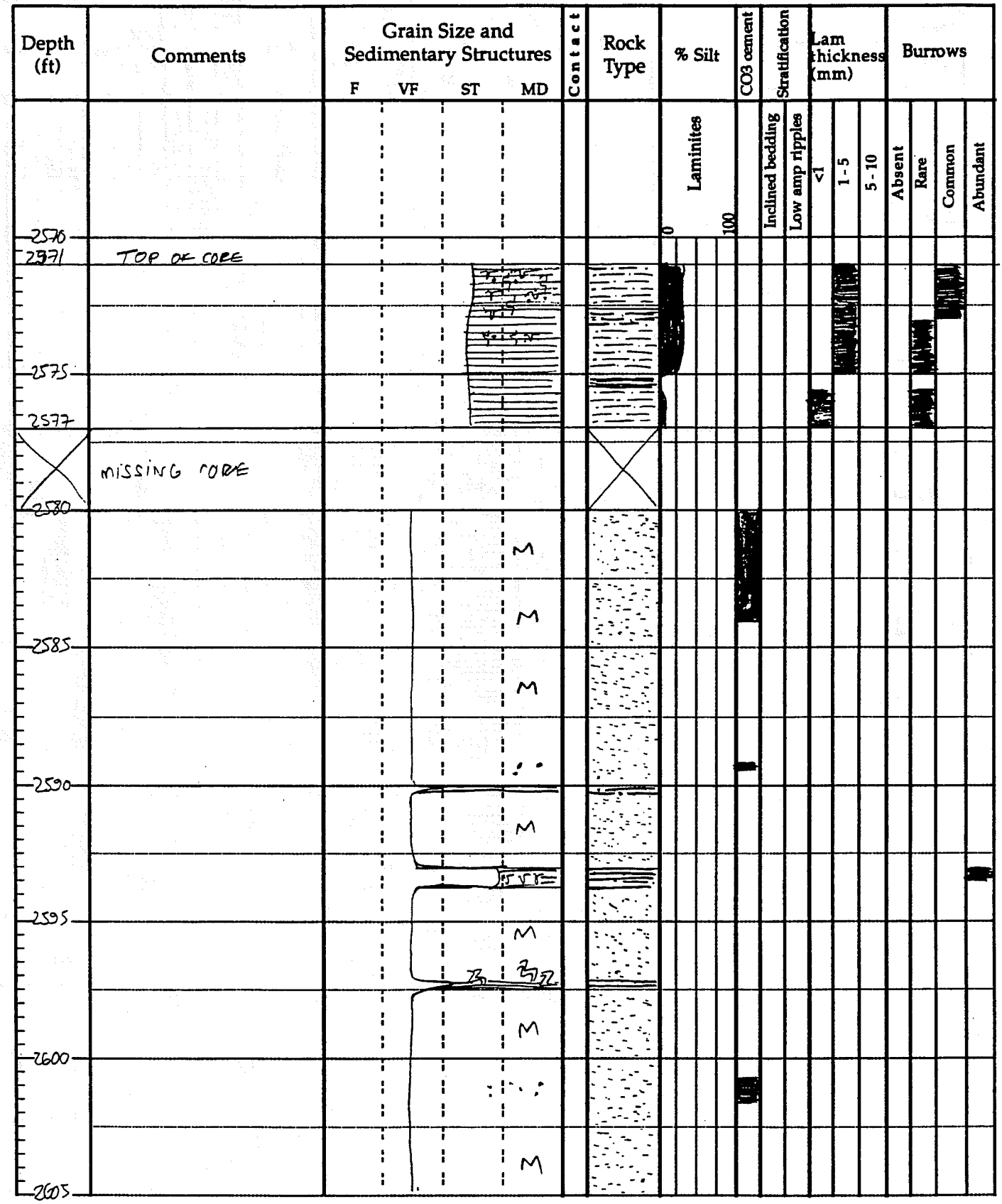
Well RAMSEY 36-3/FGU-133 Core depth (+) 2581 (–) 2633 = _____ Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 08/09



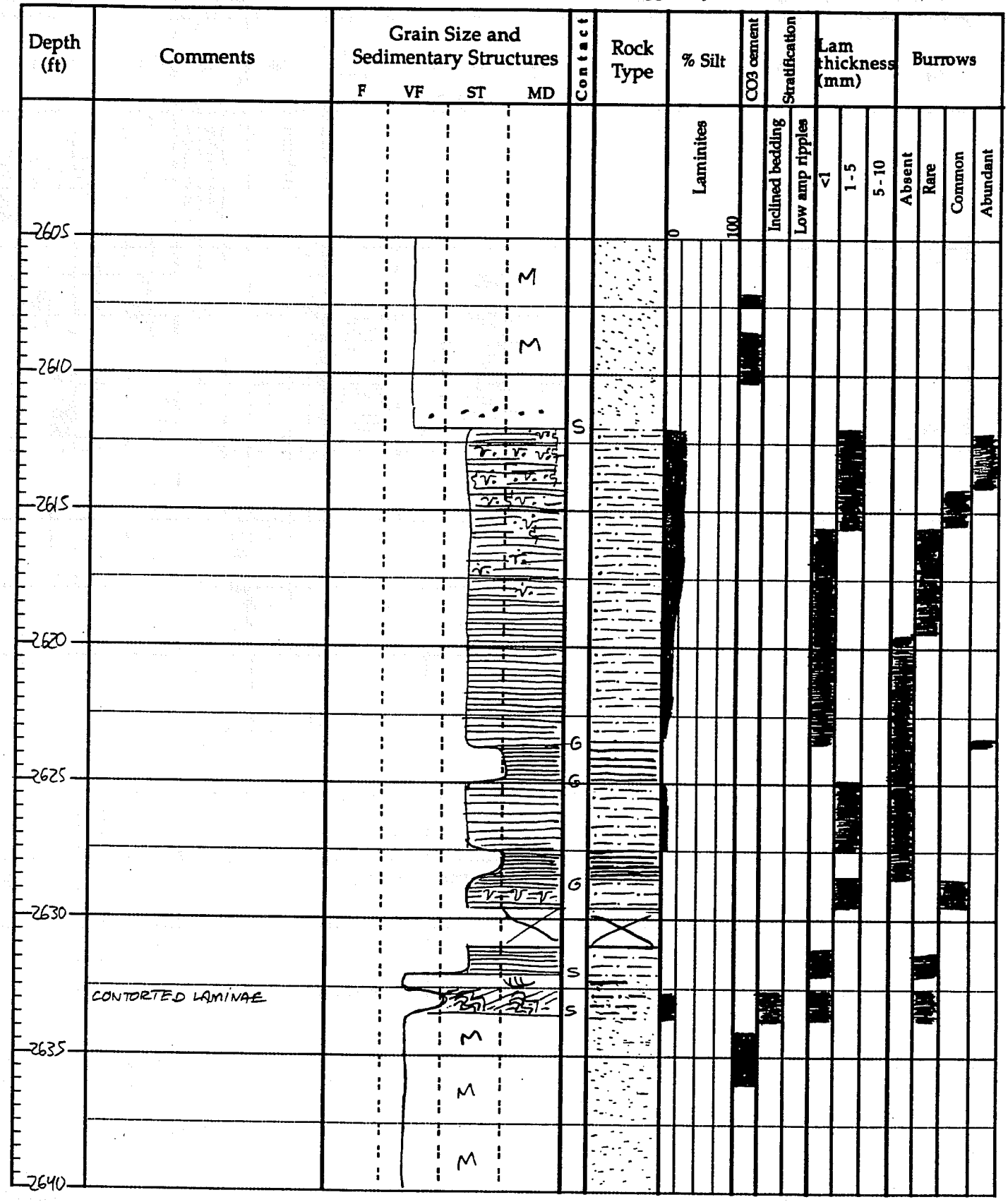
Well FGU-144/RAMSE, 36-5 Core depth (+) 2571 (−) 2644 = _____ Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 10/10/96



Well FGU-144/RAMSEY 36-5 Core depth (+) 2571 (−) 2644 = _____ Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 10/10/96



Well FGU-144/RAMSEY 36-5 Core depth (+) 2571 (−) 2644 = _____ Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 10/10/96

Depth (ft)	Comments	Grain Size and Sedimentary Structures (F / VF / ST / MD)	Contact	Rock Type	% Silt (Laminites 0–100)	CO3 cement	Stratification: Inclined bedding	Stratification: Low amp ripples	Lam thickness (mm): <1	Lam thickness (mm): 1-5	Lam thickness (mm): 5-10	Burrows: Absent	Burrows: Rare	Burrows: Common	Burrows: Abundant
2640															
		M													
2645	BASE OF CORE-2644'														

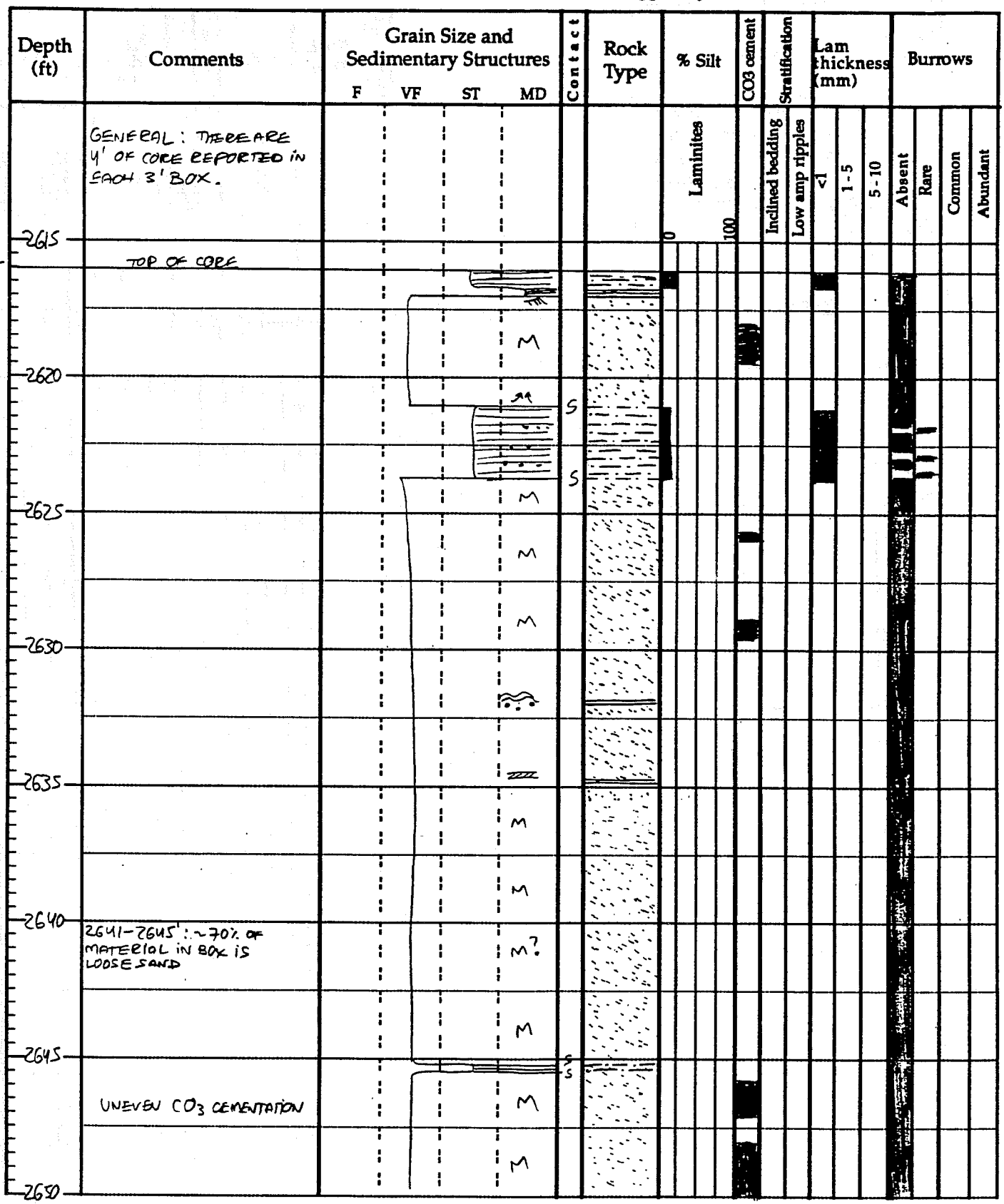
Well FGU-143 Core depth (+) 2563 (-) 2593 = _____ Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 08/26/9[illegible]

Depth (ft)	Comments	Grain Size and Sedimentary Structures (F, VF, ST, MD)	Contact	Rock Type	% Silt (0 – Laminites – 100)	CO3 cement	Stratification: Inclined bedding	Stratification: Low amp ripples	Lam thickness (mm): <1	Lam thickness (mm): 1-5	Lam thickness (mm): 5-10	Burrows: Absent	Burrows: Rare	Burrows: Common	Burrows: Abundant
2560	CORES ARE 2" IN DIAM. - LAID OUT IN PAIRS IN 3' BOXES (IE, A BOX MAY HOLD UP TO 6' OF CORE) SOME BOXES CONTAIN 8' OF CORE														
2563	TOP OF CORE														
2565															
		M													
		M													
2570		M													
		M													
2575		M													
		M													
2580															
		M													
		M													
2585		M													
		M													
2590		M													
2593		M													
	BASE														
2595															

Well RAMSEY 36-8 (FGU-145) Core depth (+) 2616 (−) 2658 = 42' Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 08/07



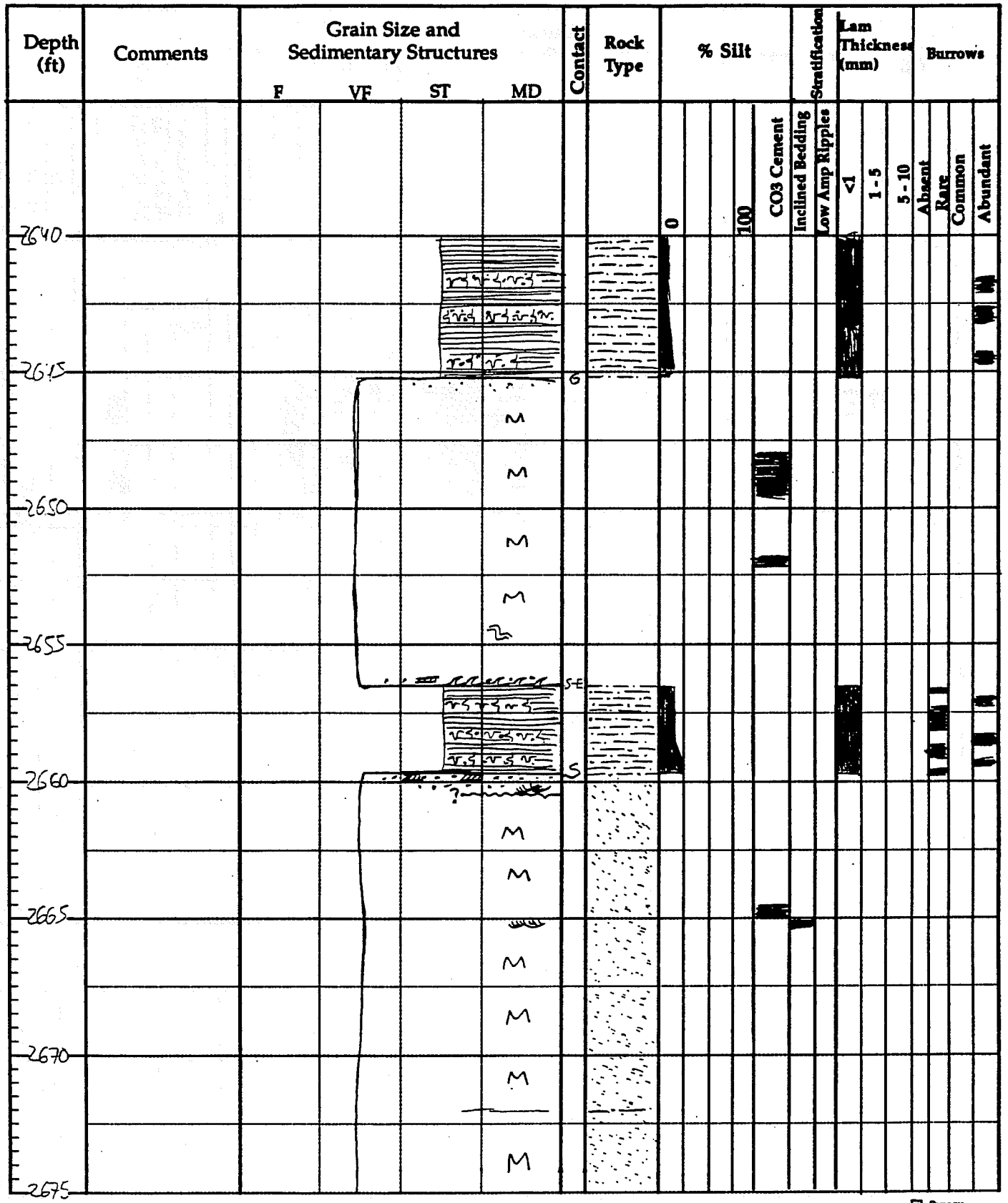
Well RONSEY 36-8 (FGU-145) Core depth (+) 7616 (−) 2658 = _____ Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 08/07

Depth (ft)	Comments	Grain Size and Sedimentary Structures (F / VF / ST / MD)	Contact	Rock Type	% Silt (Laminites 0–100)	CO_3 cement	Stratification: Inclined bedding	Stratification: Low amp ripples	Lam thickness (mm): <1	Lam thickness (mm): 1-5	Lam thickness (mm): 5-10	Burrows: Absent	Burrows: Rare	Burrows: Common	Burrows: Abundant
2650	UNEVEN CO_3 CEMENTATION (IRREGULAR BANDS)	MD = M													
2655		MD = M													
2658	FLAME STRUCTURE AT CONTACT BASE OF CORE	MD = M	E												
2660															

Well FGU-146 / Ramsey 36-12 Core depth (+) 2640 (-) 7685.5 = _____ Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 10/17-18/25



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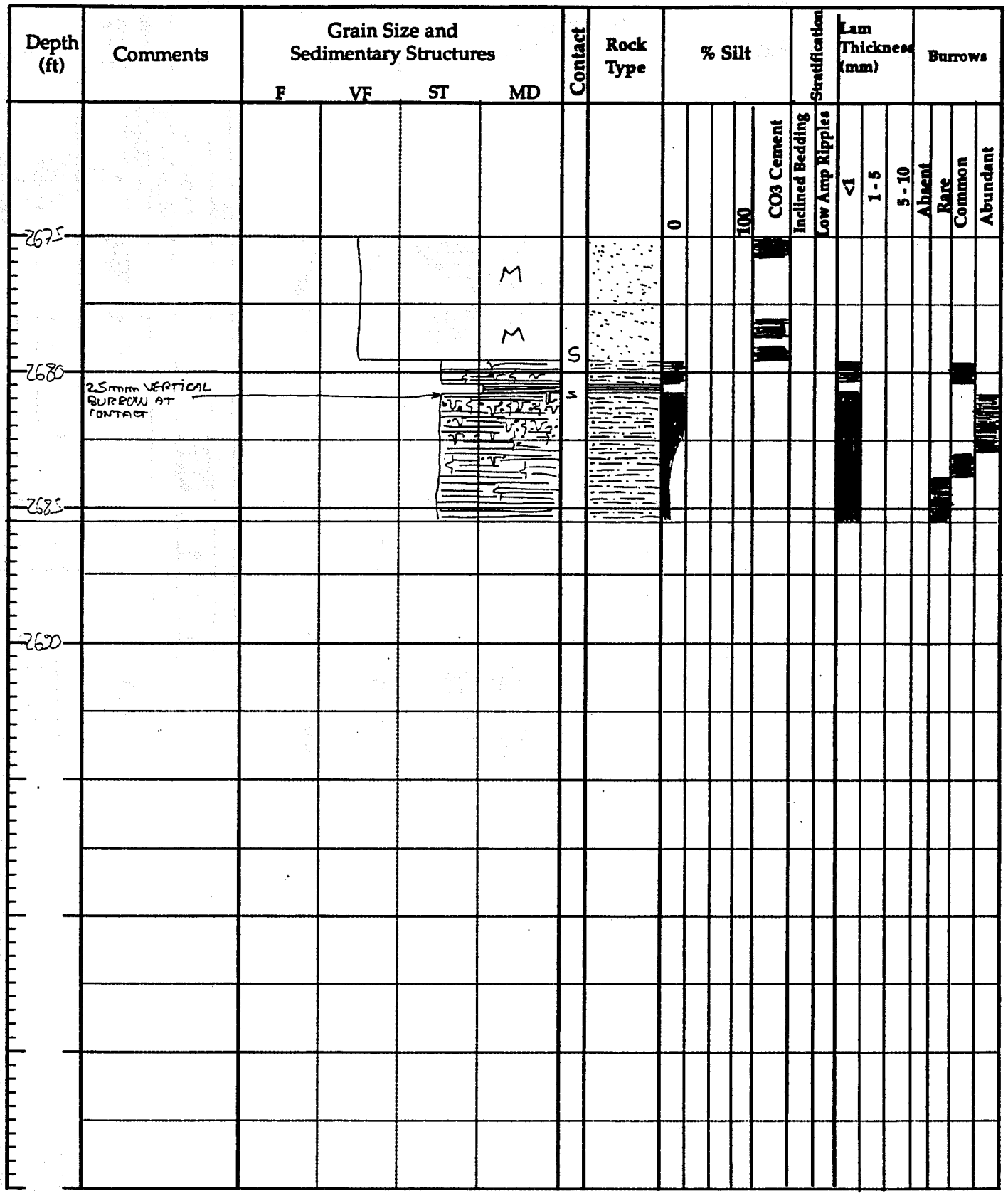
Well FGU-146/RAMSEY 36-12 Core depth (+) 2640 = _____ Log depth @ _____
(–) 2685.5
Formation _____ Location _____ Logged by JOSE Date 10/17-18/95



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Well Ramsey 36-11 (FGU14B) Core depth (+) 2640 - (-) 2714 = _____ Log depth @ _____

Formation Bell Canyon Location _____ Logged by Sigrid Date 7-24-96

Depth (ft)	Comments	Grain Size and Sedimentary Structures (F, VF, ST, MD)	Contact	Rock Type	% Silt (0 – Laminites – 100)	CO3 cement	Stratification (Inclined bedding; Low amp ripples)	Lam thickness (mm) (<1; 1-5; 5-10)	Burrows (Absent; Rare; Common; Abundant)
2640	TOP CORE								
1	Deep Rust colored laminae 1 to 5 mm thick in 2640-2640.9 interval								
2									
3	Yellow colored 6mm thick set of laminae								
4									
2645									

Well Ramsey 36-11 (FGU 148) Core depth (+) (−) _____ = _____ Log depth @ _____

Formation Bell Canyon Location _____ Logged by Sigrid Date 1-24-96

Depth (ft)	Comments	Grain Size and Sedimentary Structures (F VF ST MD)	Contact	Rock Type	% Silt (Laminites 0–100)	CO3 cement	Stratification: Inclined bedding	Stratification: Low amp ripples	Lam thickness (mm): <1	Lam thickness (mm): 1-5	Lam thickness (mm): 5-10	Burrows: Absent	Burrows: Rare	Burrows: Common	Burrows: Abundant
2645															
6	fines upward from lvf to silt to 1cm thick lutite. Sharp contact between lutite & laminite		G												
7															
8															
9		M													
2650															
1															
2															
3															
4			S												
2655															
6			S												
7															
8															
9	Contorted lams														
2660	3mm thick lutite lam														
1															
2															
3		FS	L G												
4															
2665															
6		M													
7															
8															
9															
2670															
1		M													
2															
3	MISSING CORE FROM 2672-2676														
4															
2675															
6															
7	Some faint lams														
8	Some calcite cmt throughout														
9		M													
2680	Well indurated														

Many 3ft core boxes were marked having 4ft of core

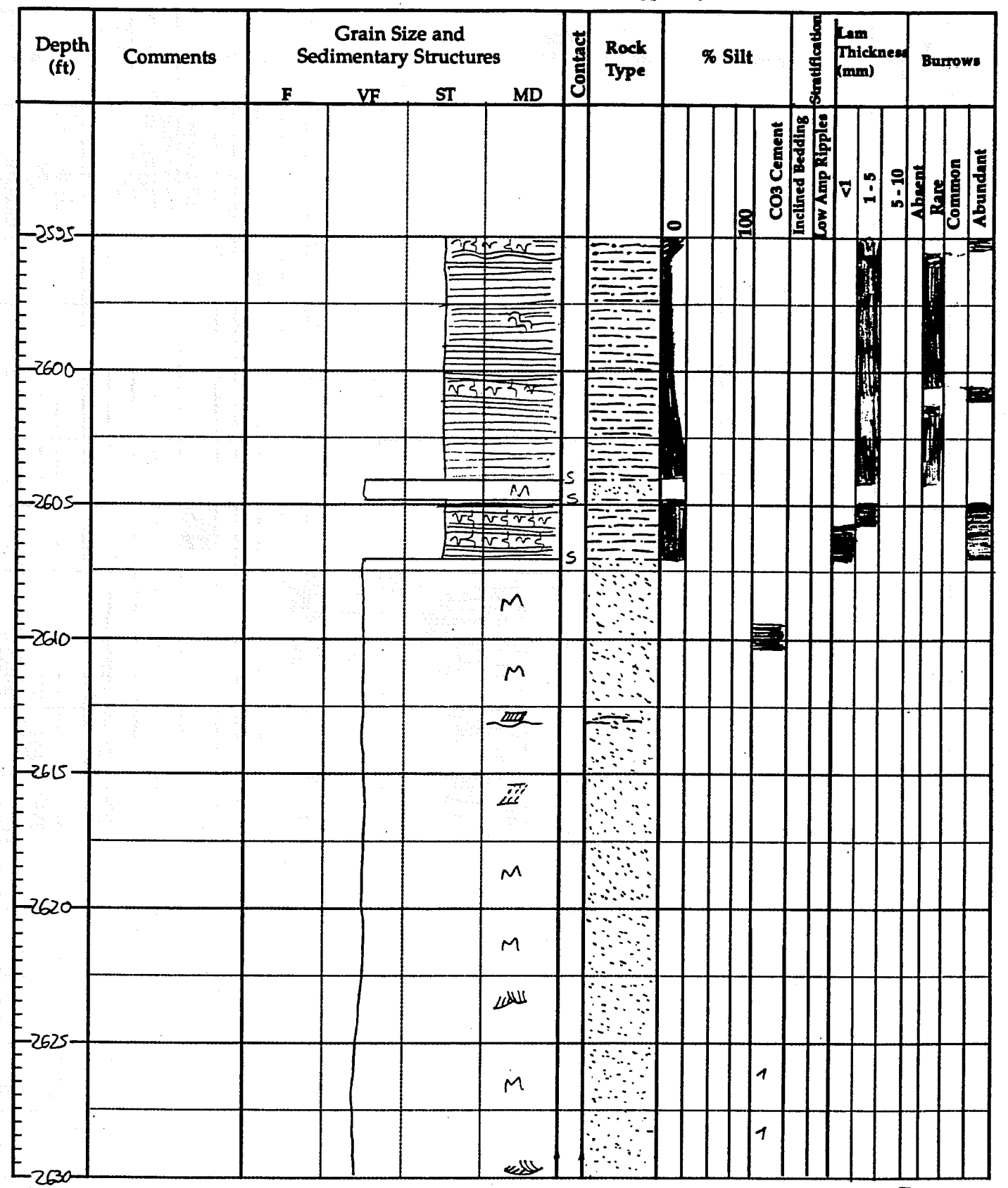
Well Ramsey 36-11 (FGU 148) Core depth (+) 2640 - (-) 2714 = _____ Log depth @ _____

Formation Bell Canyon Location _____ Logged by Sigrid Date 7-19-96

Depth (ft)	Comments	Grain Size and Sedimentary Structures (F, VF, ST, MD)	Contact	Rock Type	% Silt (Laminites 0–100)	CO3 cement	Stratification: Inclined bedding	Stratification: Low amp ripples	Lam thickness (mm): <1	Lam thickness (mm): 1-5	Lam thickness (mm): 5-10	Burrows: Absent	Burrows: Rare	Burrows: Common	Burrows: Abundant
2680			S												
1															
2	5 ft interval														
3	in 3 ft box.														
4															
2685															
6	varying amts of														
7	calcite cmt from														
8	2680.2 - 2683 ft.														
9															
2690															
1															
2															
3	cm. thick silt lams														
4	with abundant calcite cmt														
2695															
6															
7	5mm thick lam with abundant pyrite flakes at 2696.3 Rust color														
8	mud size grns.														
9															
2700															
1															
2	fining up to lutite at 2701.35														
3															
4		M													
2705															
6															
7															
8															
9		M													
2710															
1															
2			E												
3	Laminites look stirred up Is it abundant burrowing?														
4			S												
2715	BOTTOM CORE														

Well FGU-149/RAMSEY 36-7 Core depth (+) 2595 (−) 2649 = _____ Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 10/21/96



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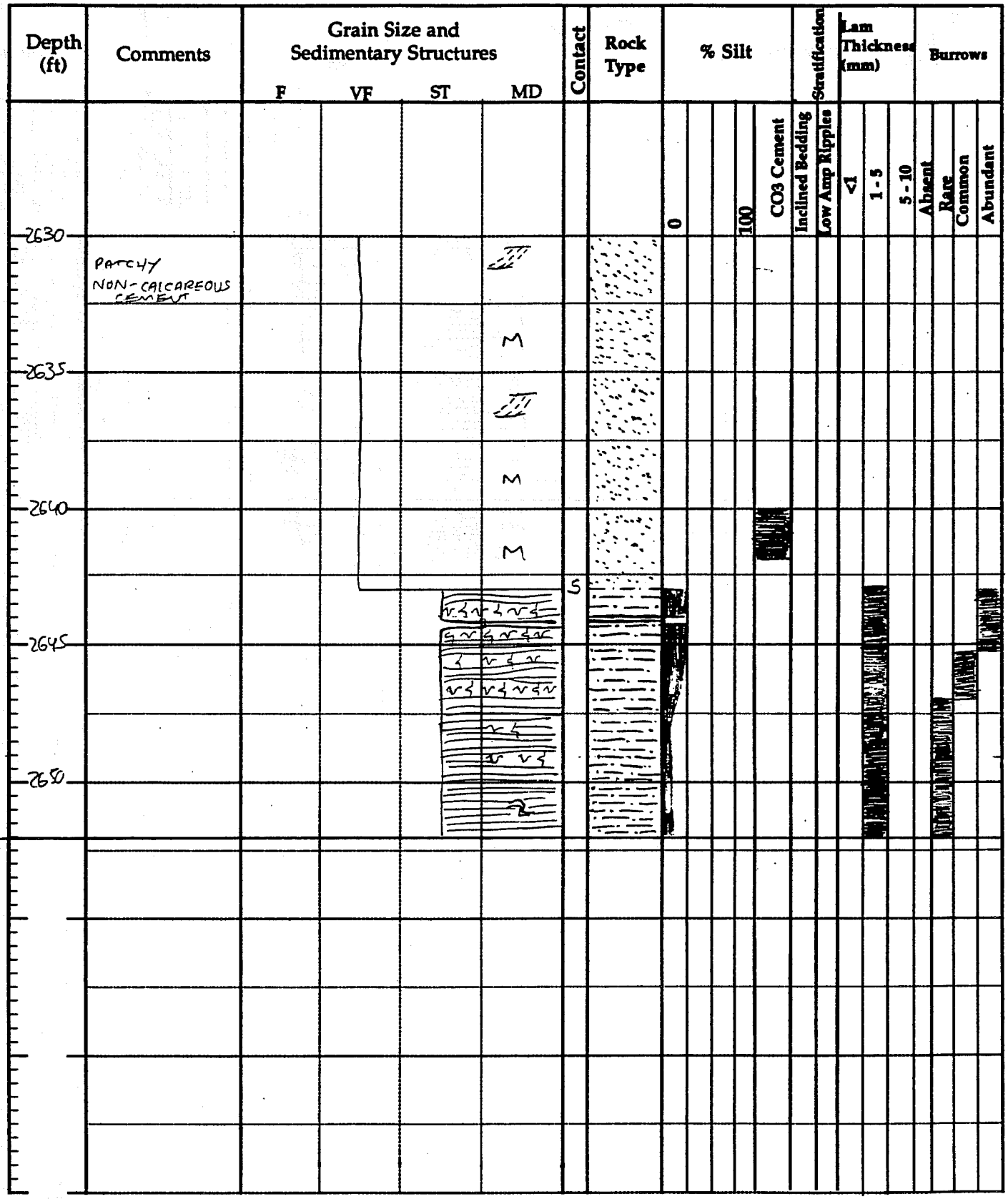
Well FGU-149 / RAMSEY 36-7 Core depth (+) 2595 (−) 2640 = _____ Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 10/21/96



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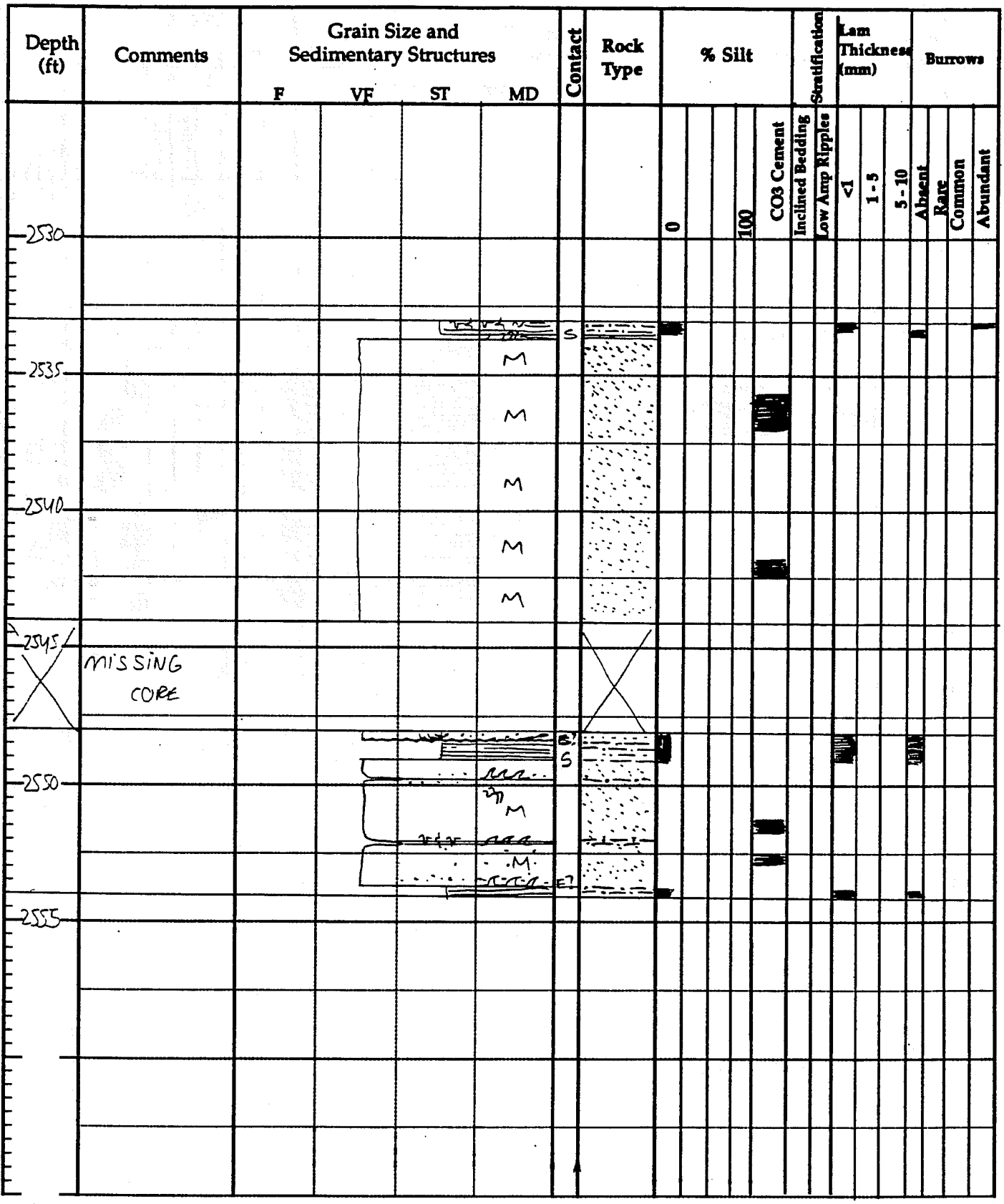
Well FGU-170 Ramsey 34-5 Core depth (+) 2533 (−) 2554 = _____ Log depth @ _____

Formation _____ Location _____ Logged by Jose Date 10/17/96



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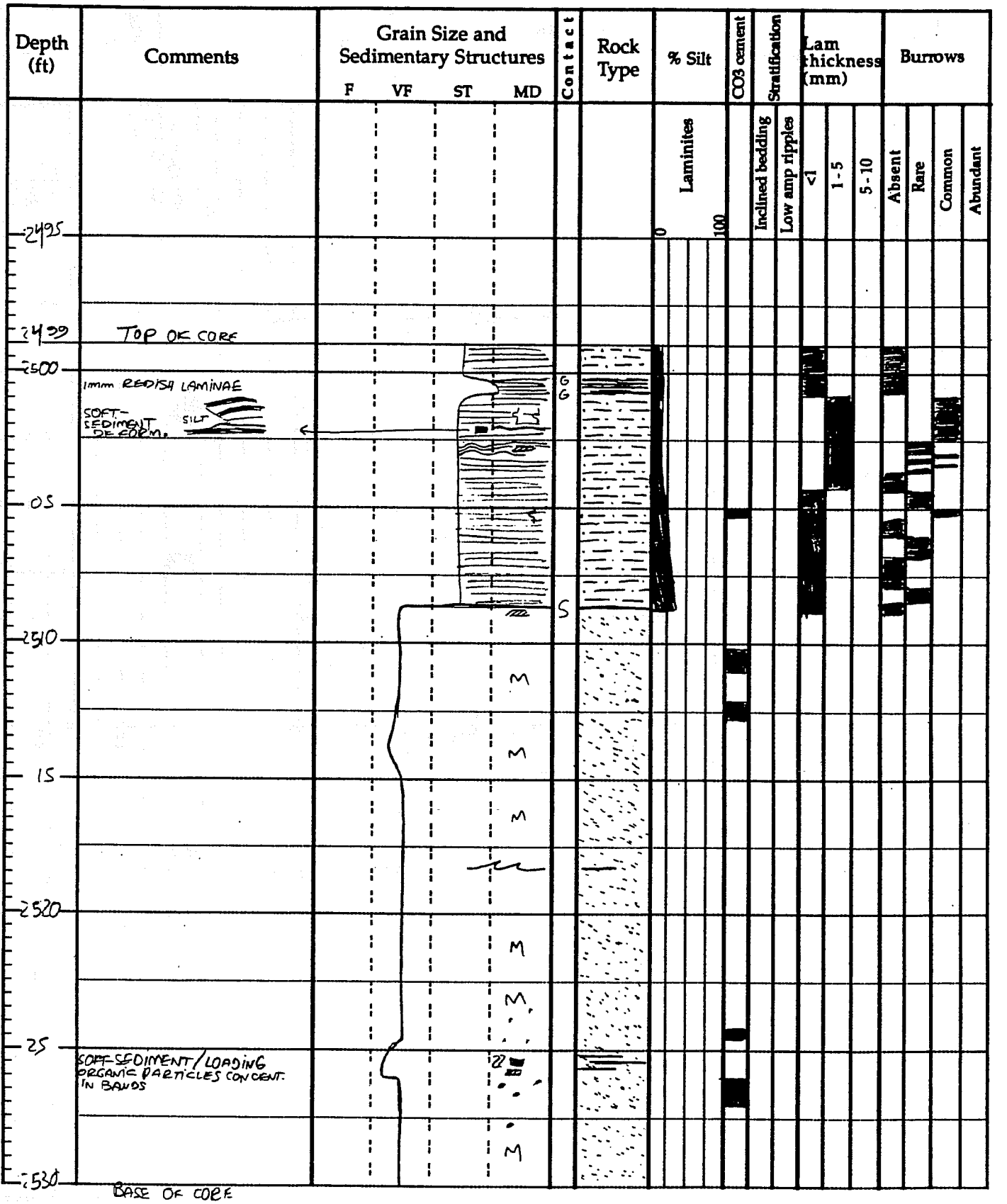
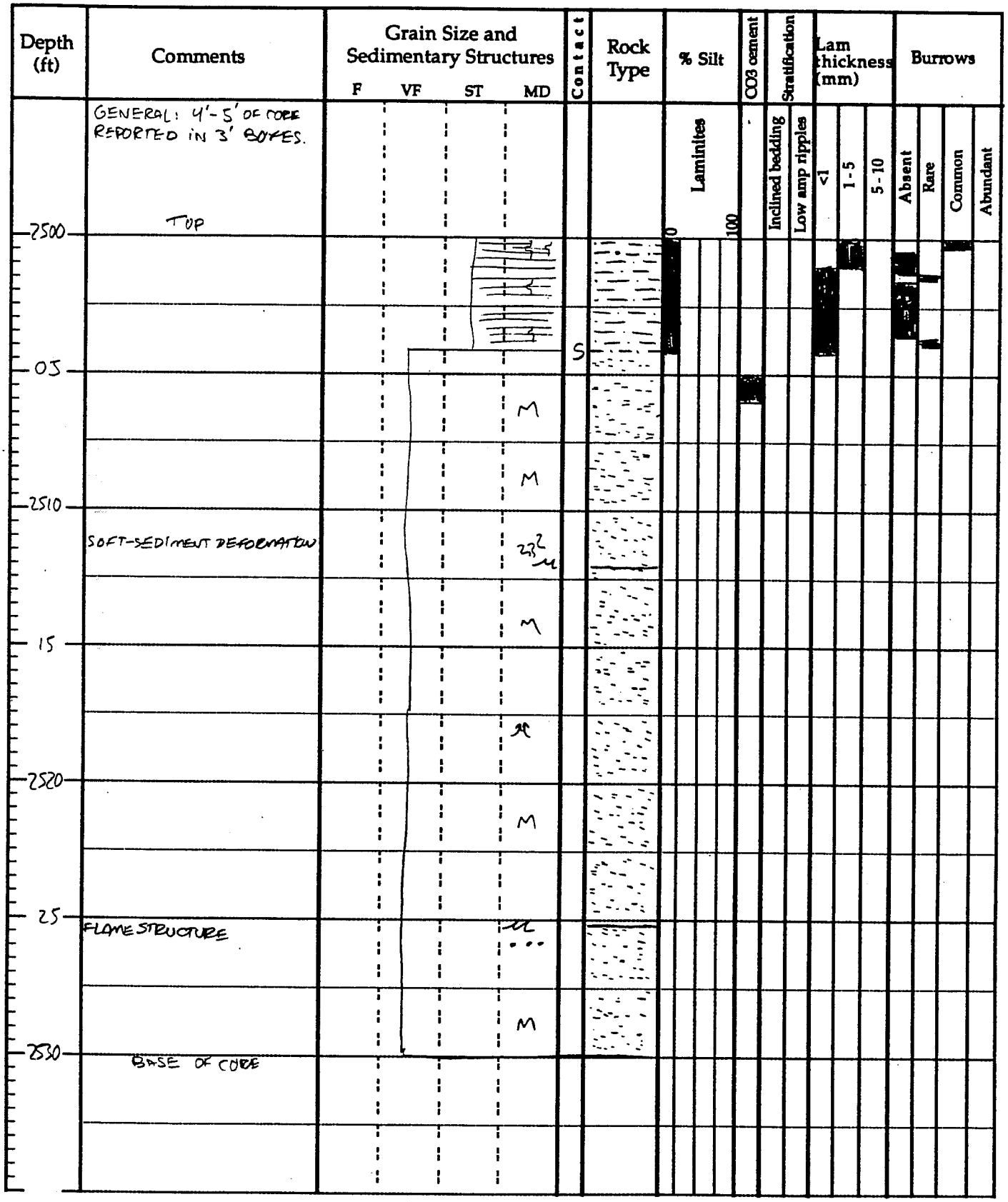
Well RAMSEY 34-6/FGU-184 Core depth (+) 2499 (−) 2530 = 31' Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 08/08

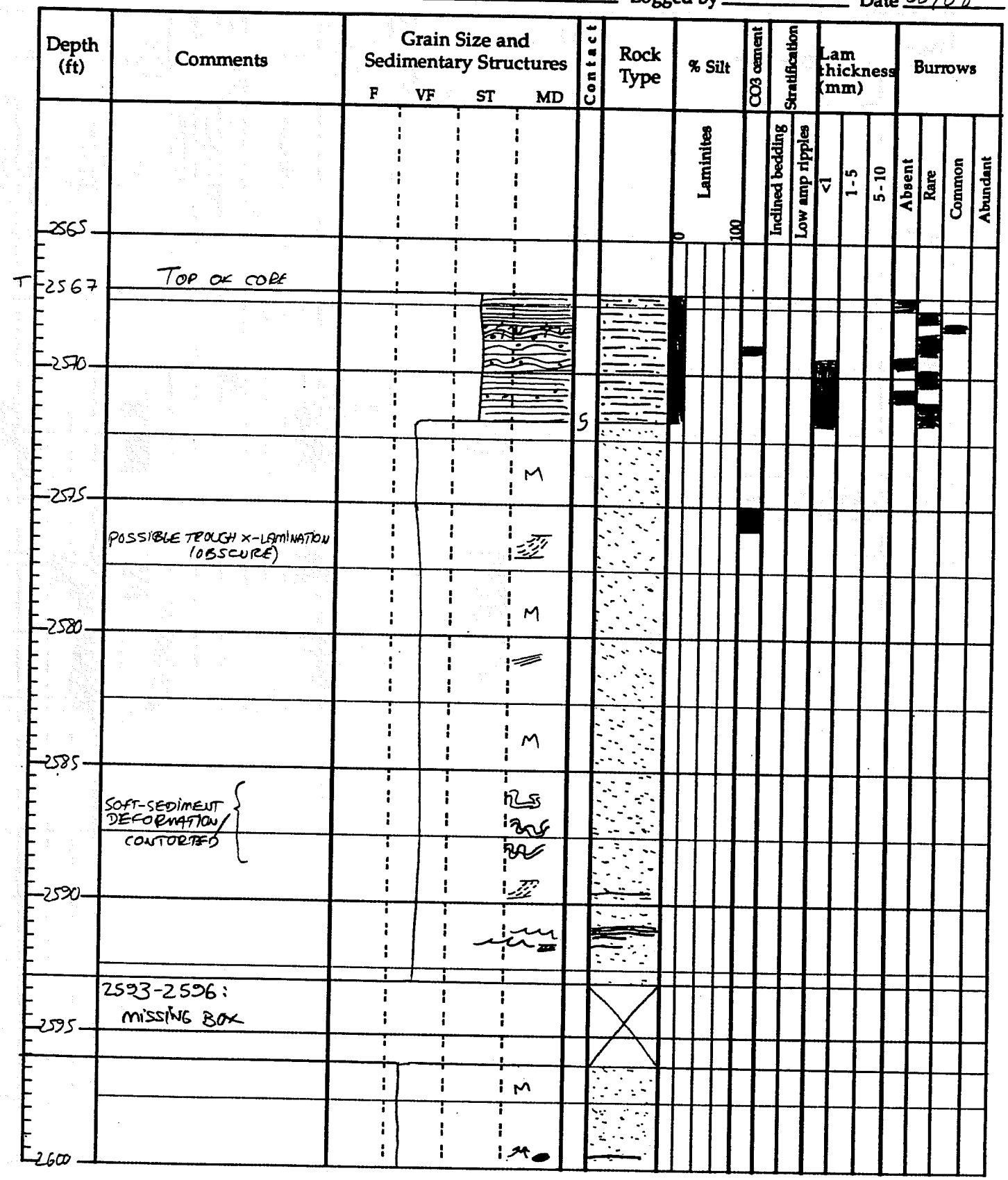


Well Ramsey 34-8/FGU-185 Core depth (+) 2500 (−) 2530 = 30' Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 08/07-08

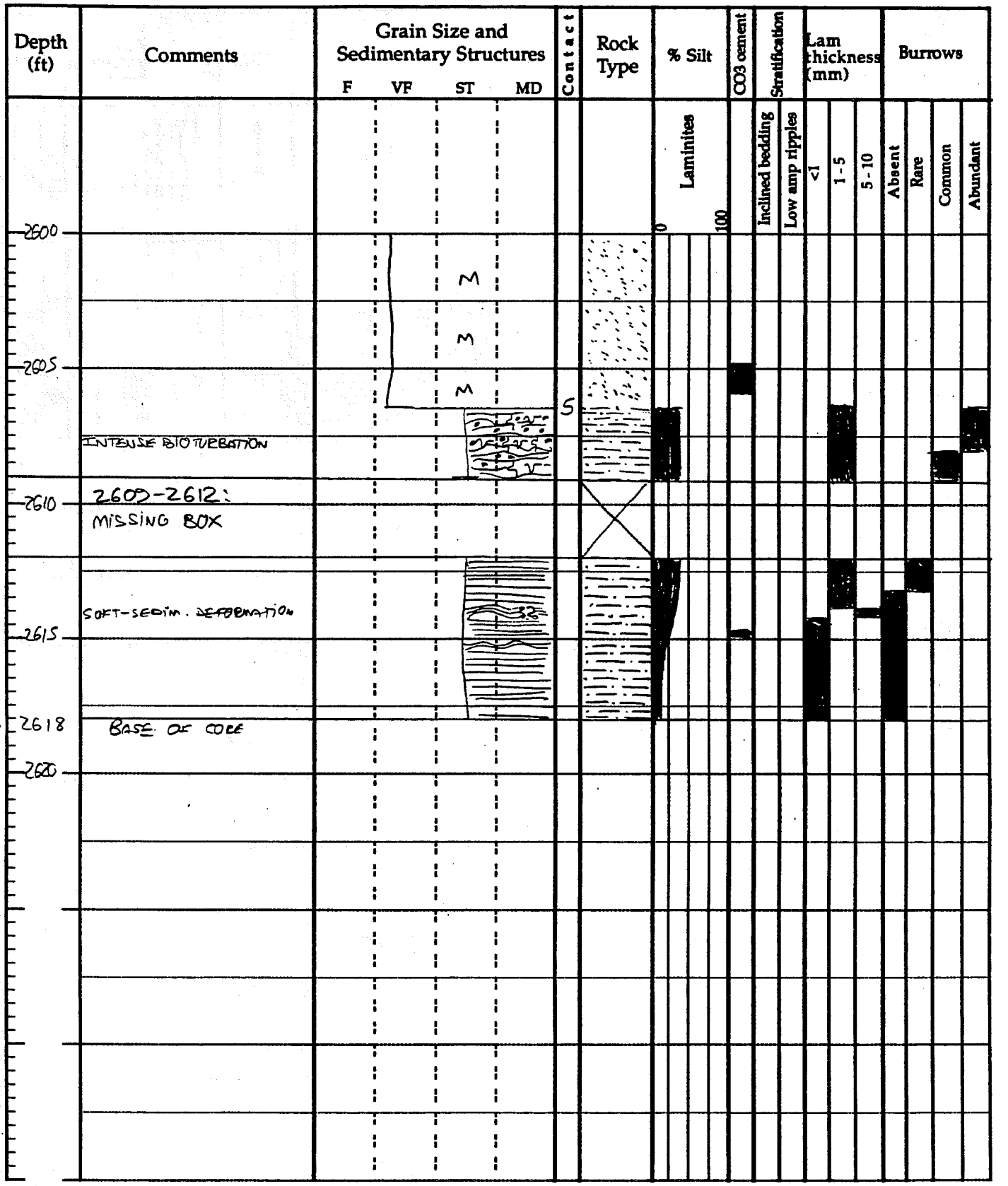


Well Ramsey 34-4 / FGU-189 Core depth (+) 2567 = 51' Log depth @ _____
(-) 2618
Formation _____ Location _____ Logged by JOSE Date 08/08



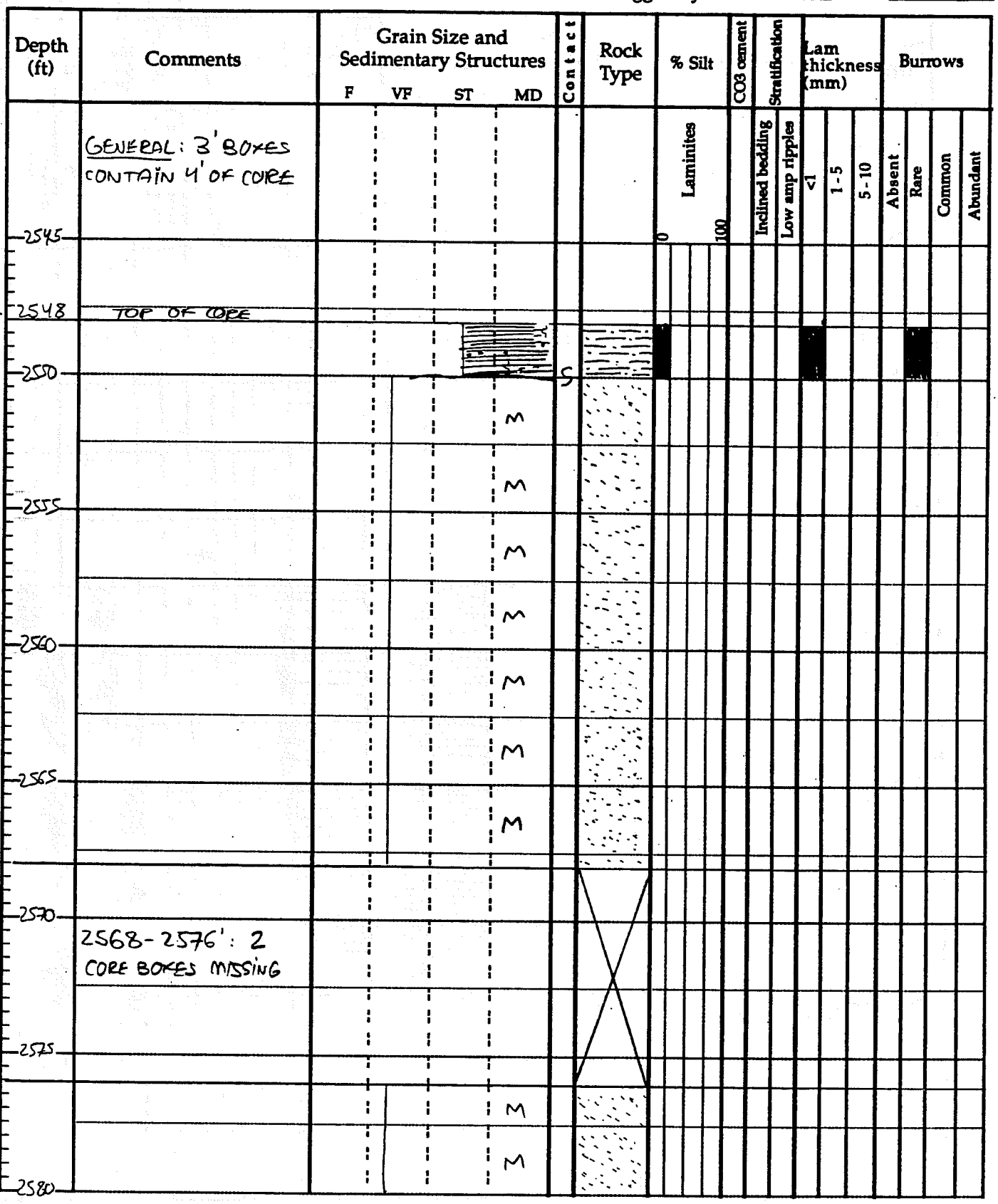
Well RAMSEY 34-4 / FCU-189 Core depth (+) 2567 (−) 7618 = _____ Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 08/08



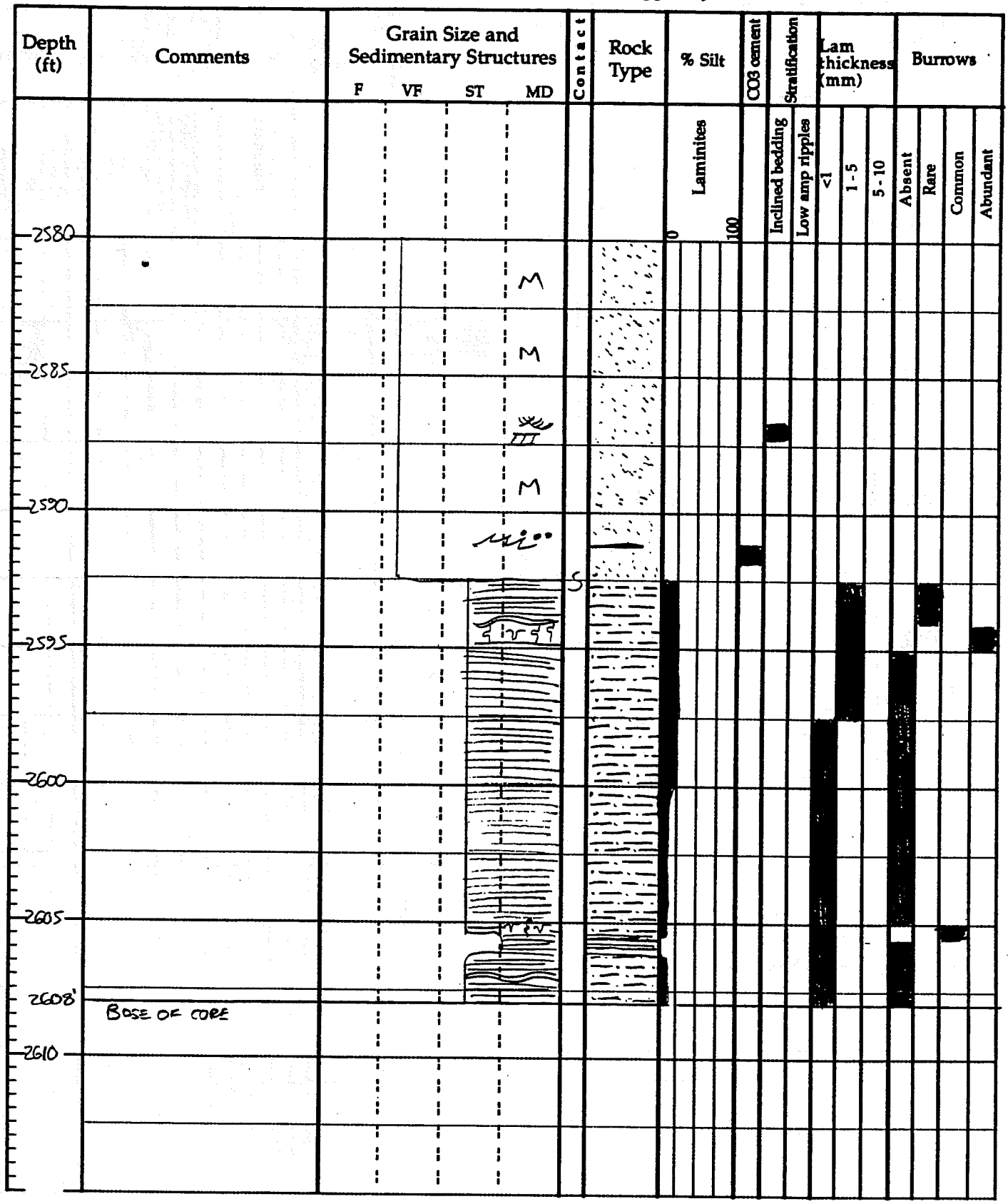
Well RAMSEY 34-2/FGU-190 Core depth (+) 2548 (−) 2608 = 60' Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 08/08



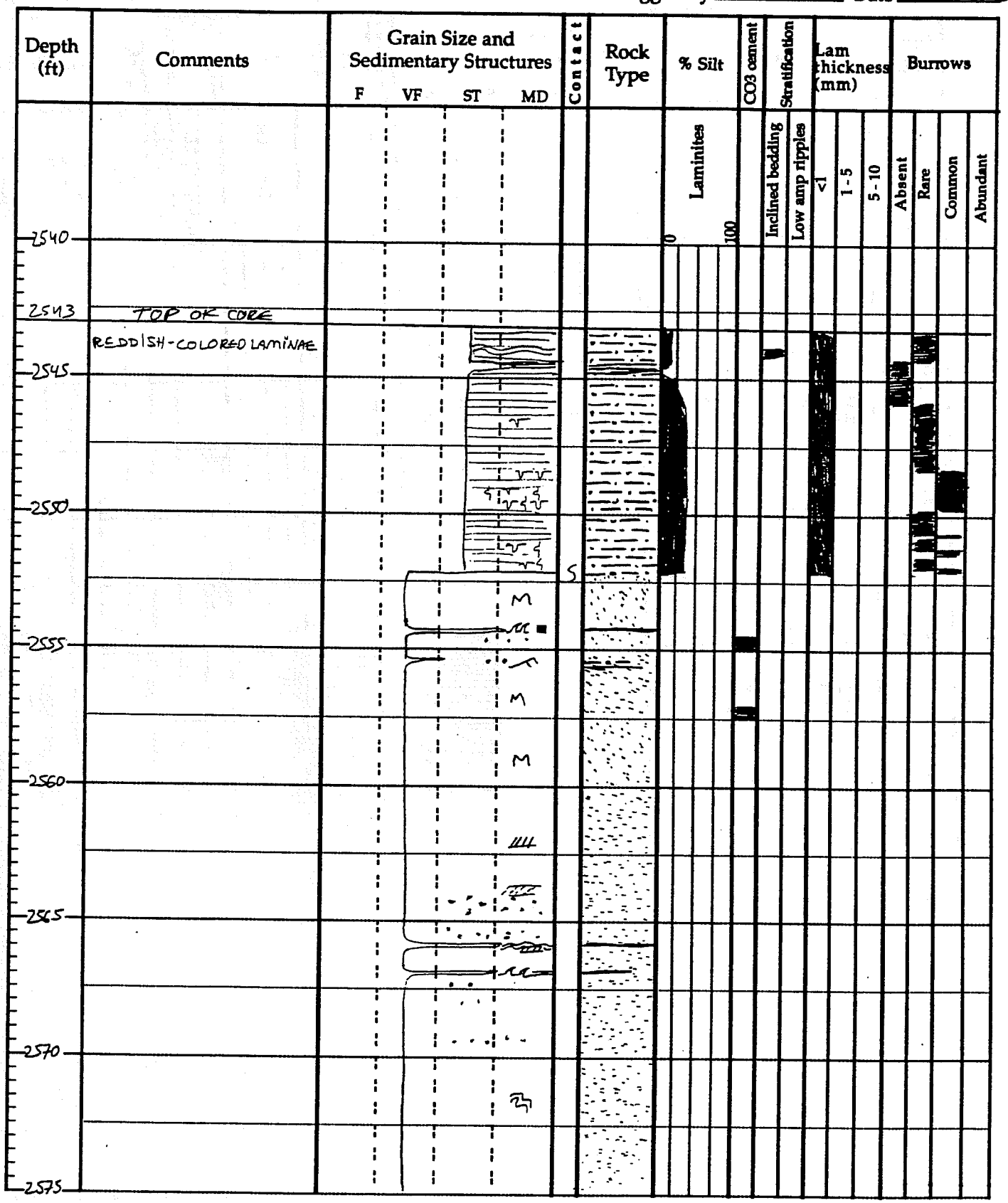
Well Ramse/34-2/FGU-190 Core depth (+) 2548 (−) 2608 = _____ Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 08/08



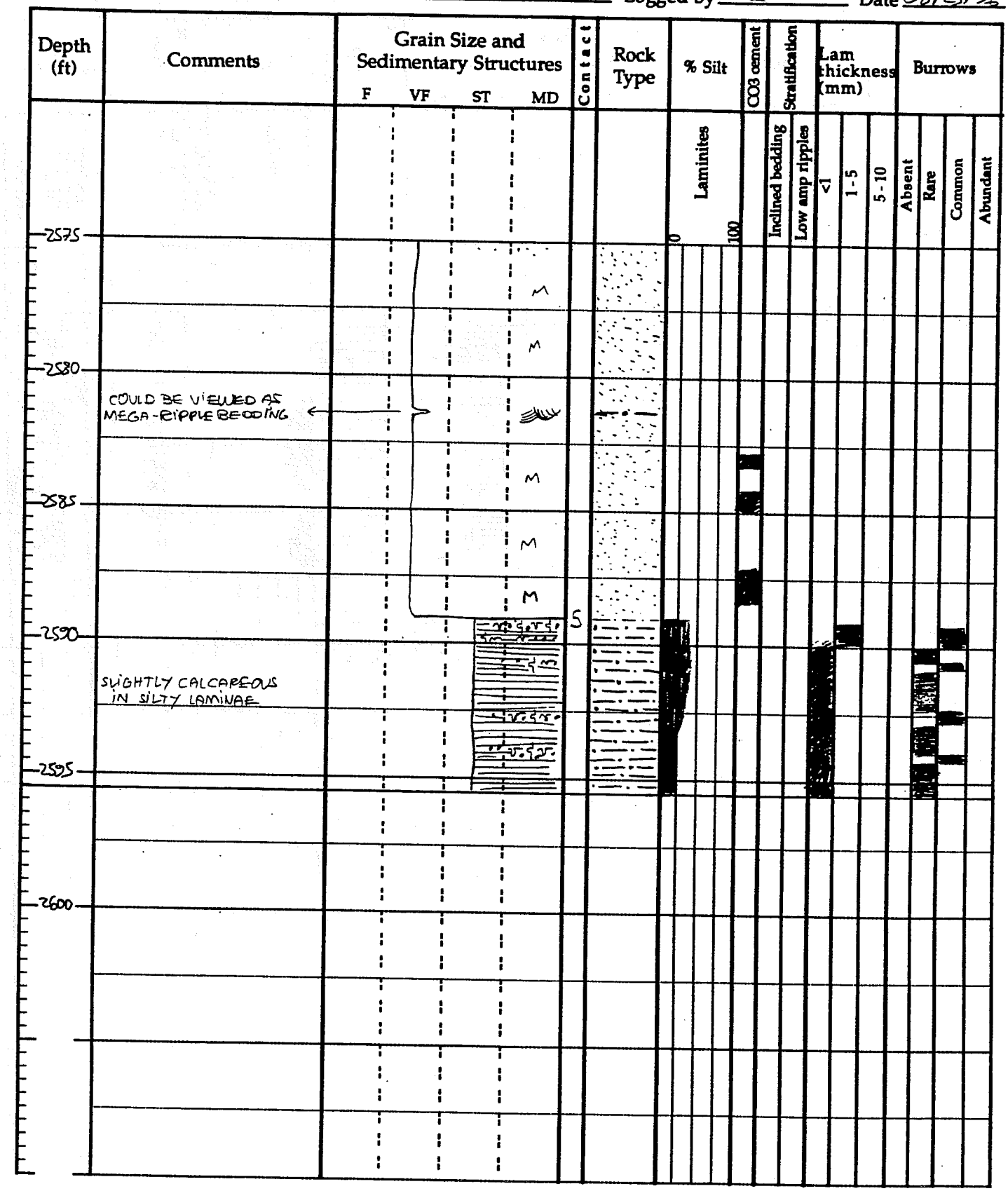
Well Ramsey 38-1 (FCU-200) Core depth (+) 2543 (−) 2595.5 = _____ Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 08/23/96



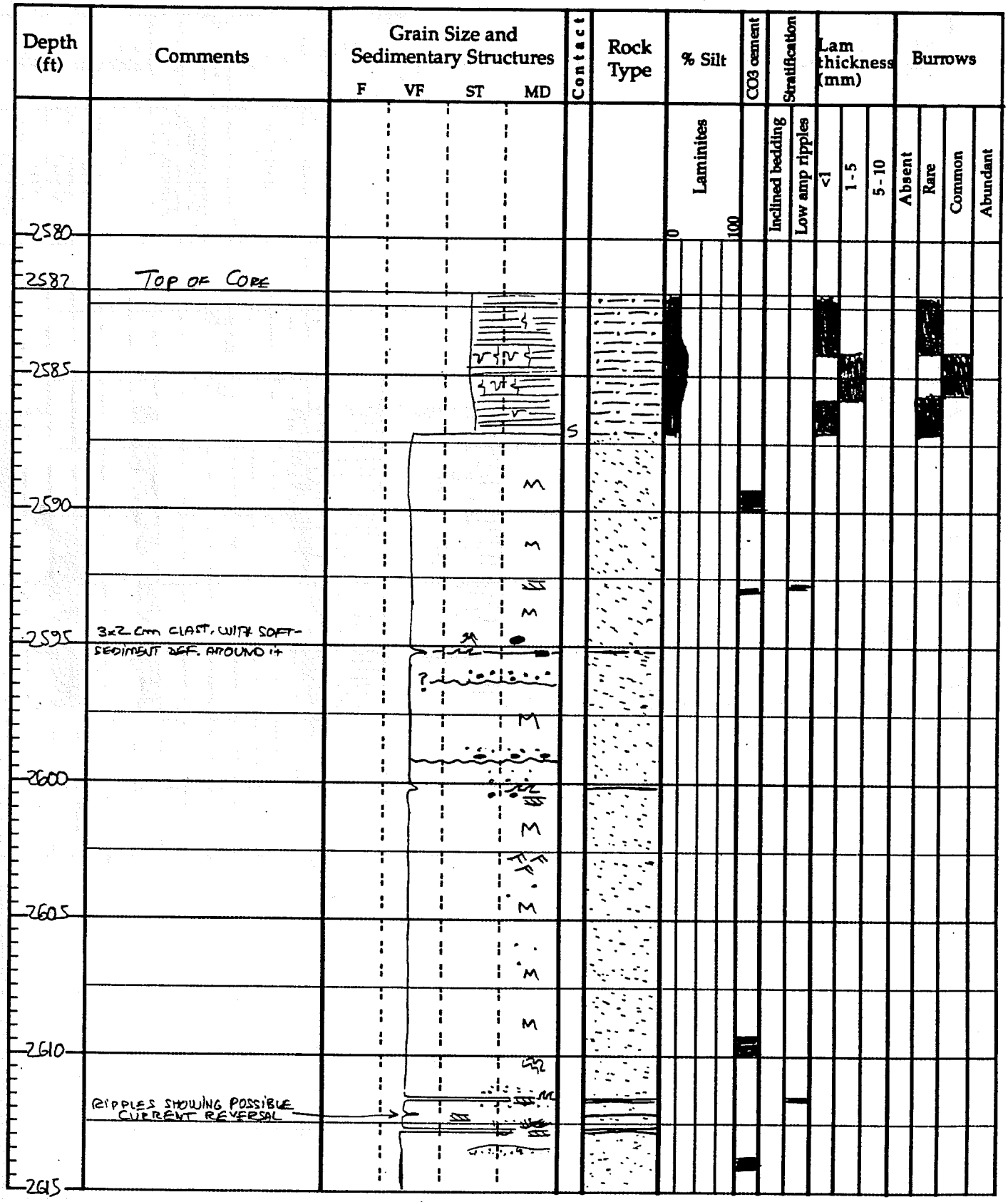
Well RAMSEY 38-1 (FGU-200) Core depth (+) 2543 (−) 2595.5 = _____ Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 08/23/96



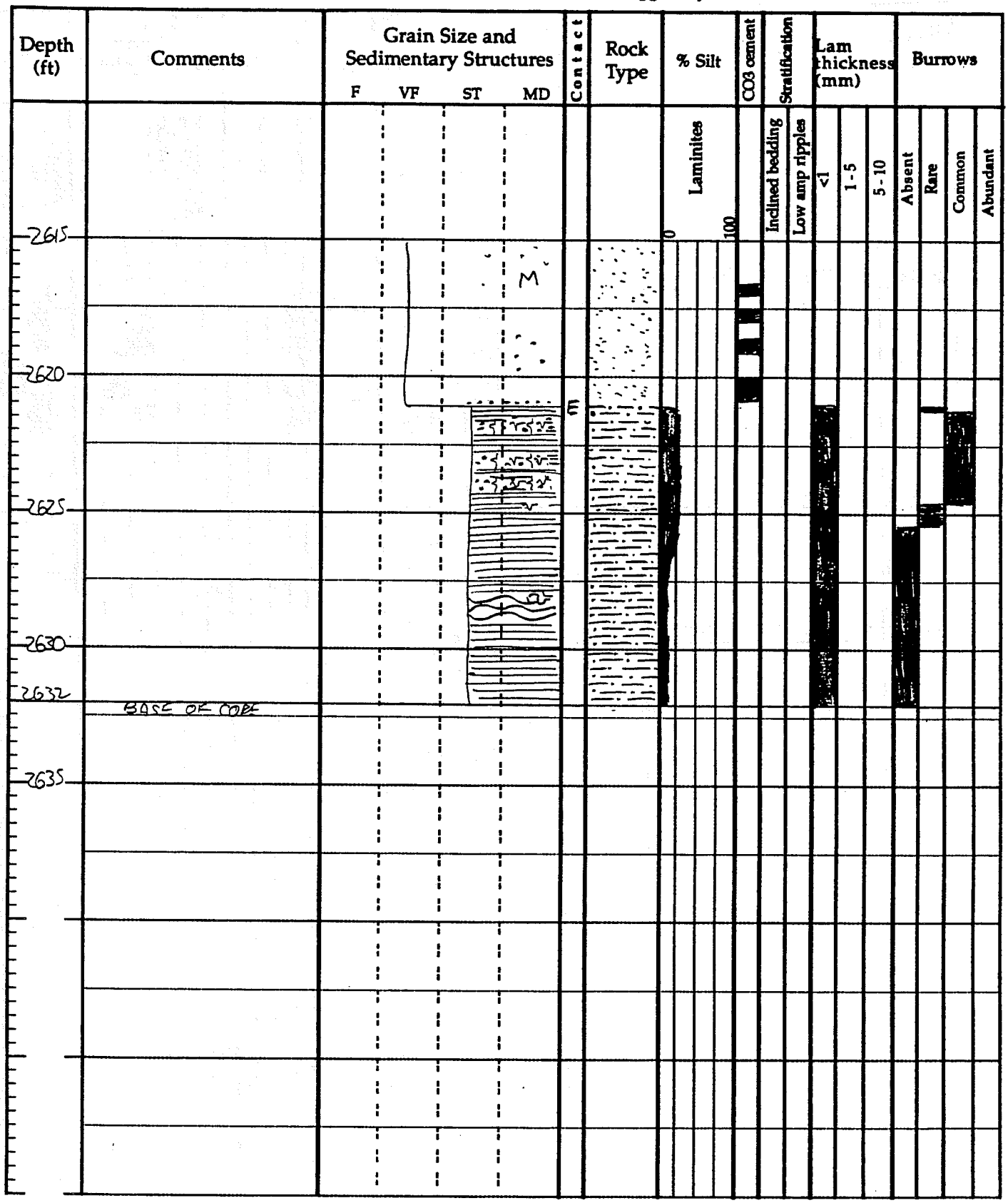
Well Ramsey 38-4 (FGU-220) Core depth (+) 2582 (−) 2632 = _____ Log depth @ _____

Formation _____ Location _____ Logged by Jose Date 08/23/96



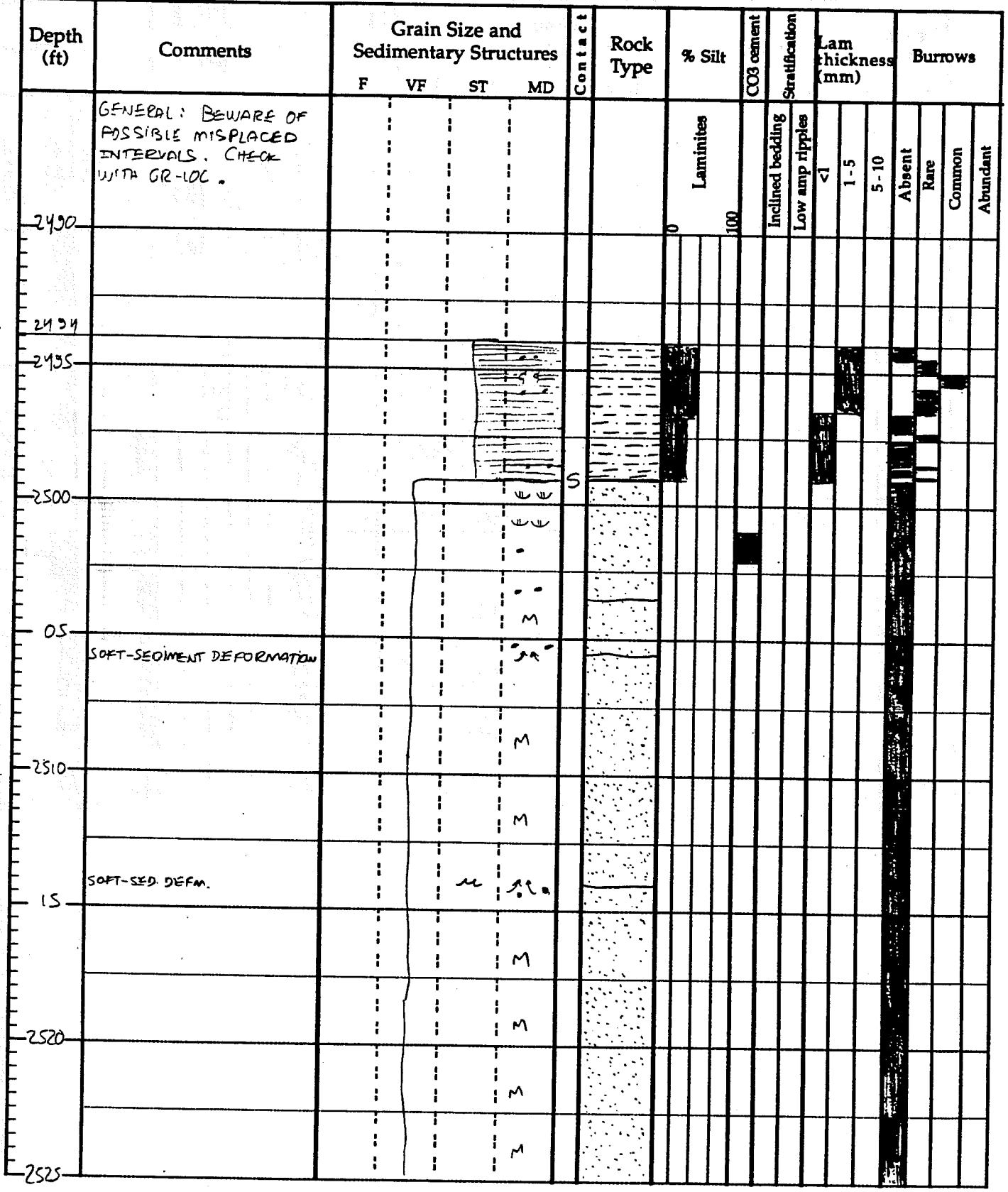
Well Ramsey 38-4 (FGU-220) Core depth (+) 2582 (−) 2632 = _____ Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 08/23/96



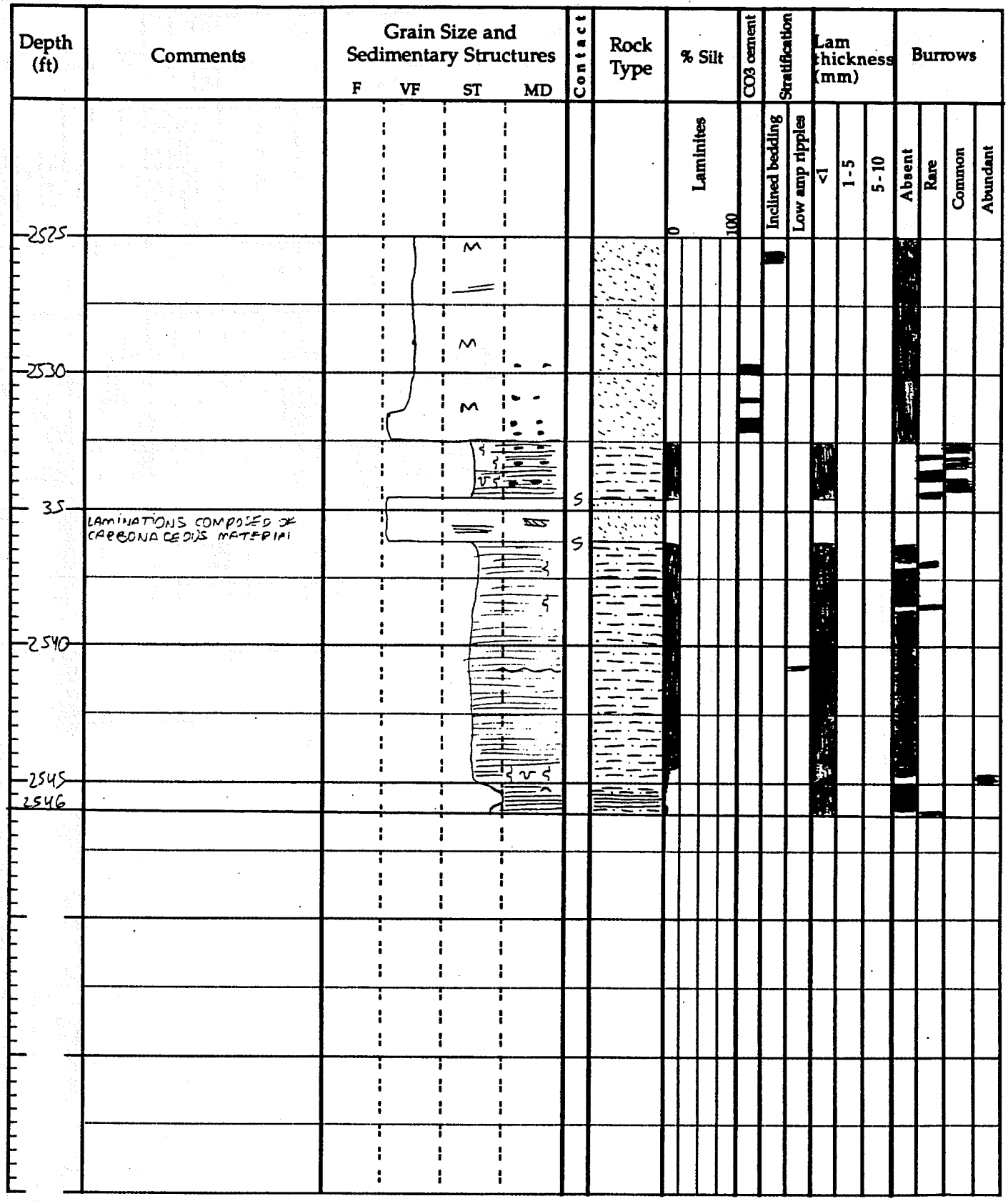
Well RAMSEY 38-8 (FGU 222) Core depth (+) 2494 / (−) 2546 = 52' Log depth @ _____

Formation _____ Location _____ Logged by JO SF Date 08/06



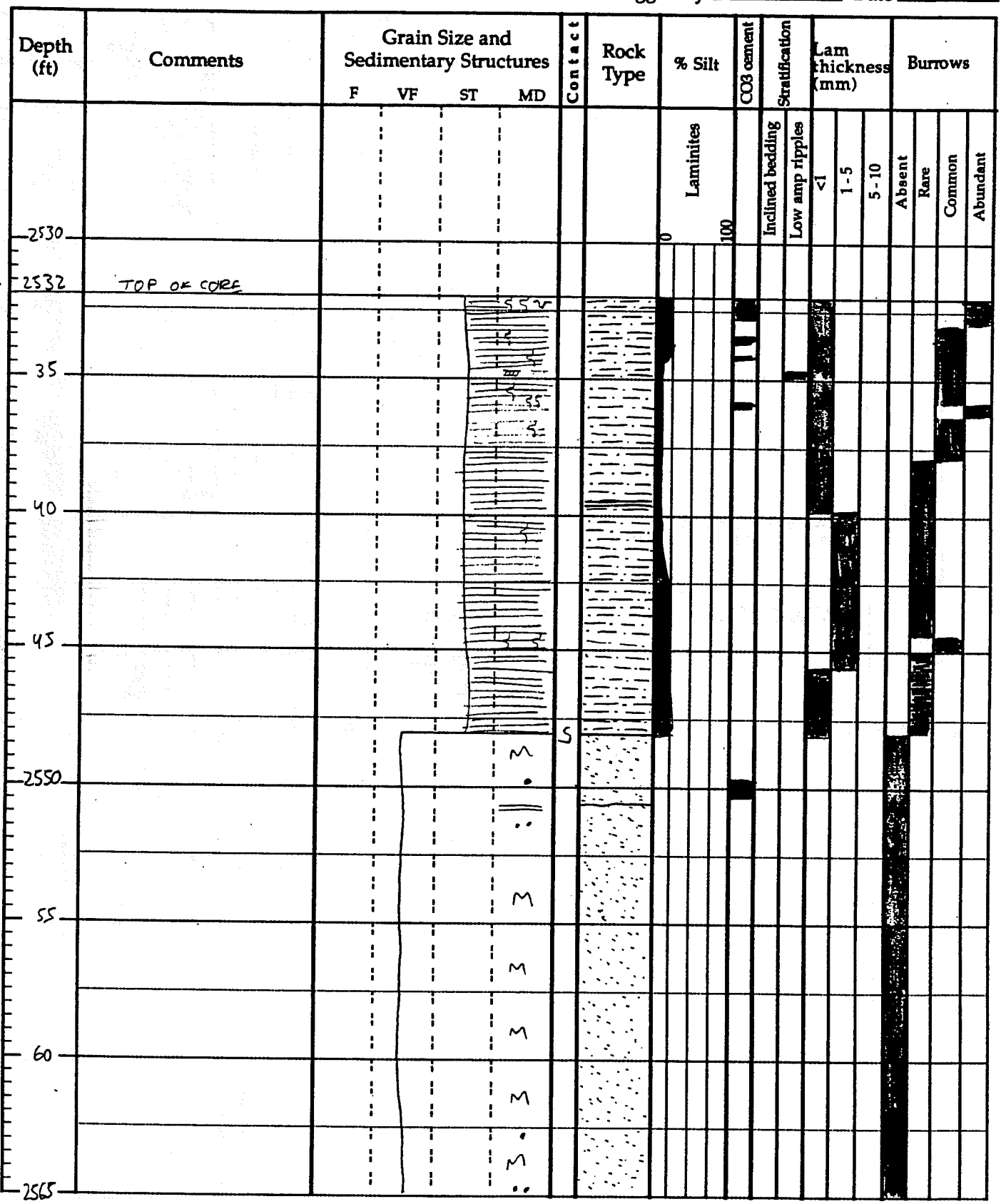
Well RAMSEY 38-8 (FW 38-8) Core depth (+) 2494 (−) 2546 = _____ Log depth @ _____

Formation _____ Location _____ Logged by JOE Date 08/06



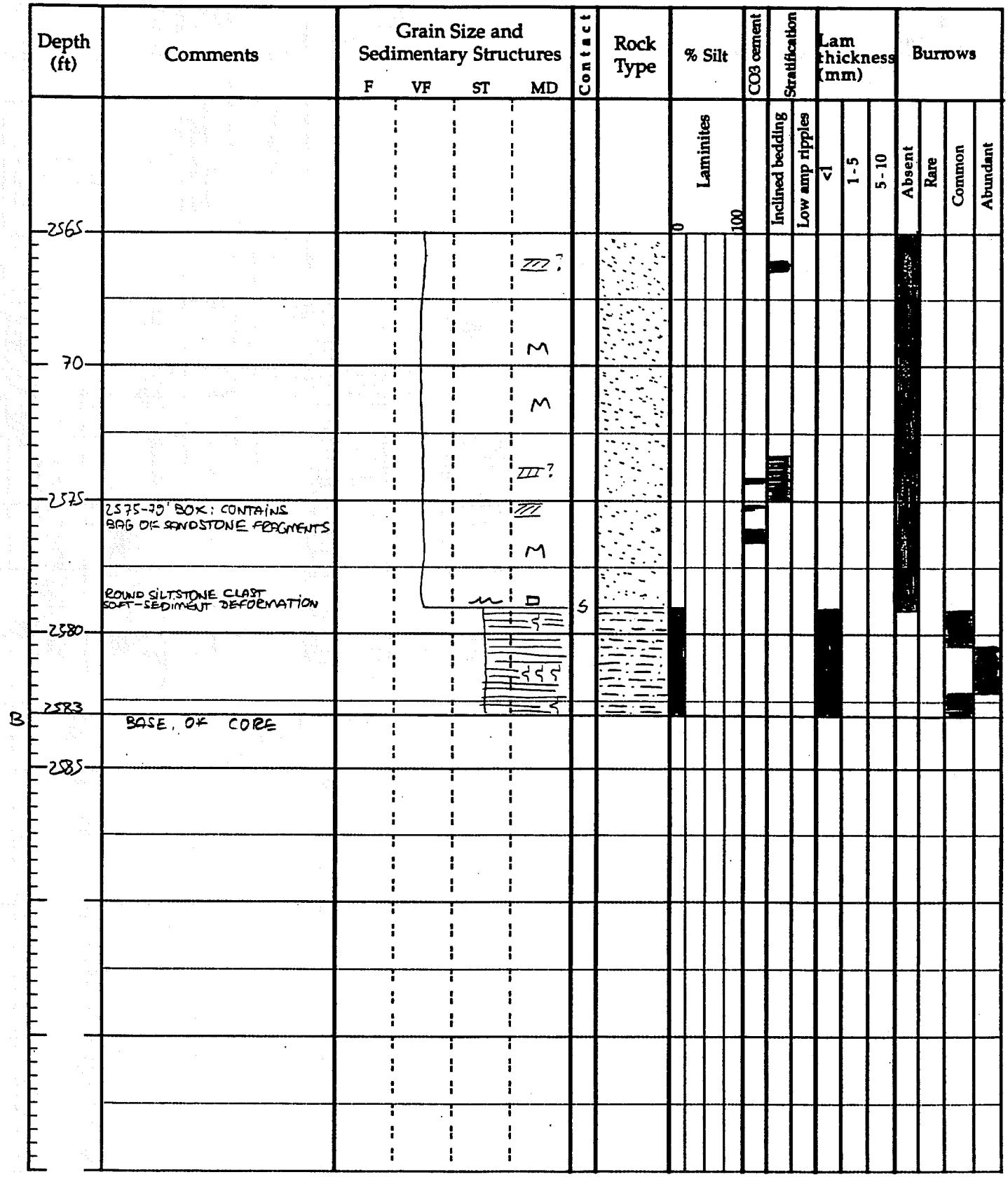
Well Ramsey 38-7 (FGU-228) Core depth (+) 2532 (-) 2583 = 51' Log depth @ _____

Formation _____ Location _____ Logged by Jose Date 08/07



Well RAMSEY 38-7 (FGU-228) Core depth (+) 2532 (−) 2583 = _____ Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 08/07



Well Ramsey 38-6 (FGU 230) Core depth (+) 2575-2635 = _____ Log depth @ _____

Formation _____ Location _____ Logged by Sigrid Date 10-16-96

Depth (ft)	Comments	Grain Size and Sedimentary Structures (F, VF, ST, MD)	Contact	Rock Type	% Silt (0 – 100)	CO3 Cement	Stratification: Inclined Bedding	Stratification: Low Amp Ripples	Lam Thickness (mm): <1	Lam Thickness (mm): 1-5	Lam Thickness (mm): 5-10	Burrows: Absent	Burrows: Rare	Burrows: Common	Burrows: Abundant
2575	Top core														
6															
7															
8	Anhydrite xtals at 79.6														
9															
2580															
1															
2															
3	3cm thick calcite layer at 83.4														
4	Interlaminated Gypsum/calcite condensed sections at 86.25, 86.5, 87.45, 88.4, 88.75, 89.45		S												
2585															
6															
7															
8															
9	4.5cm thick calcite layer at 89.2		S												
2590															
1															
2															
3	7mm thick inter-lam gypsum/calcite layer														
4			P P												
2595	at 2593.62, Pyrite also present		S												
6															
7															
8															
9															
2600															

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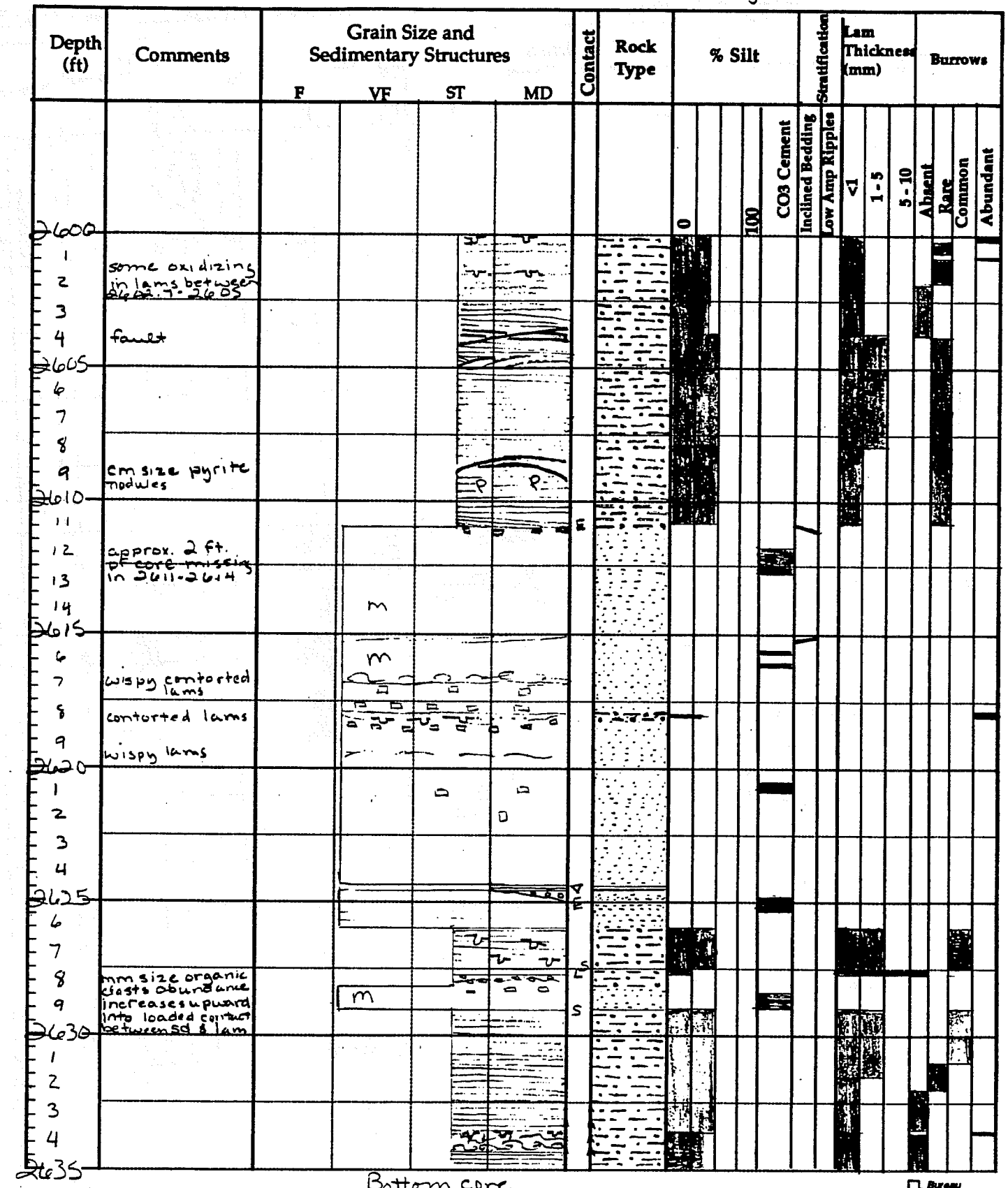
Well Ramsey 38-6 (FGU 230) Core depth (+)(-) 2575-2635 = _____ Log depth @ _____

Formation _____ Location _____ Logged by Sigrid Date 10-14-96



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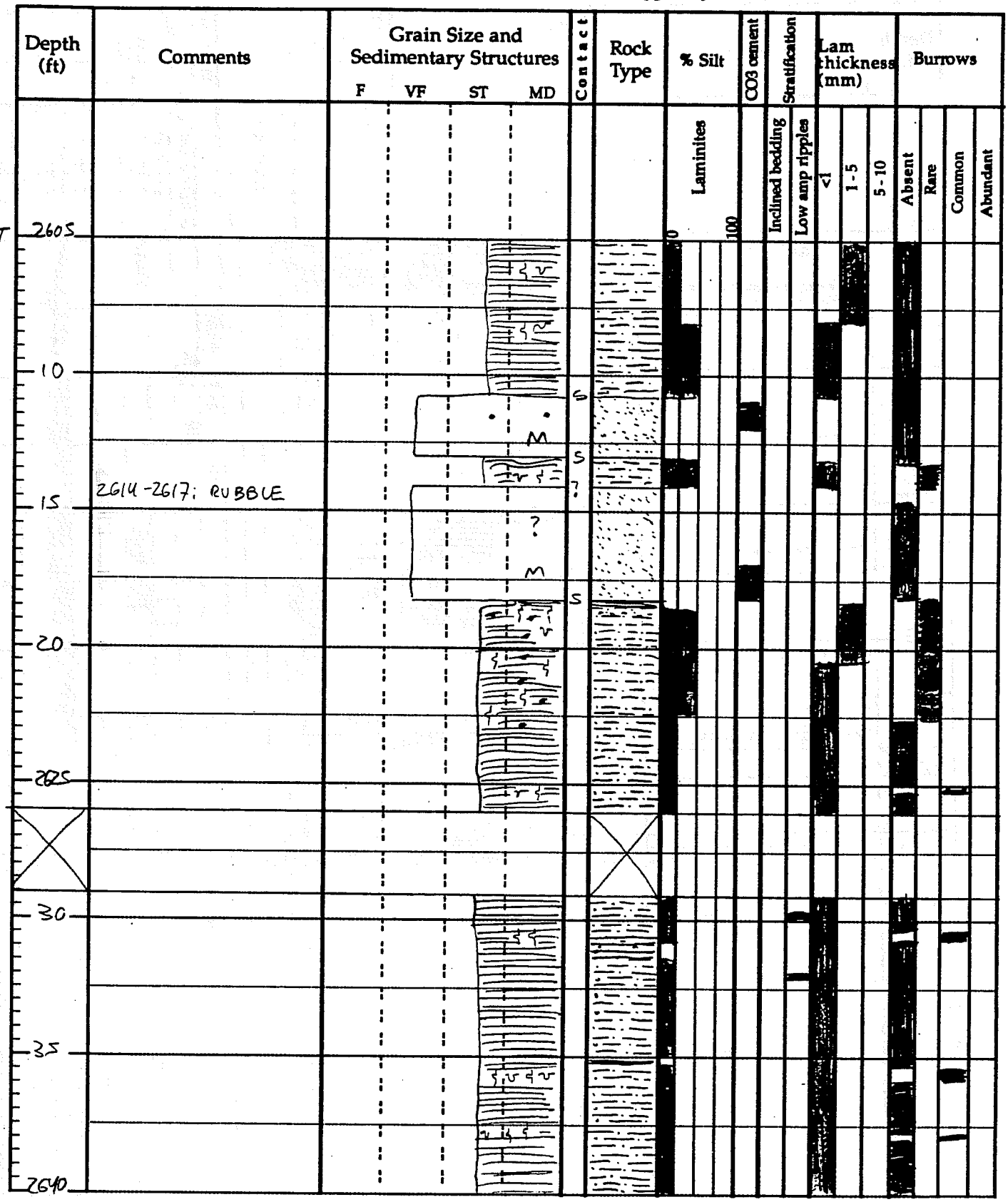
FGU 235

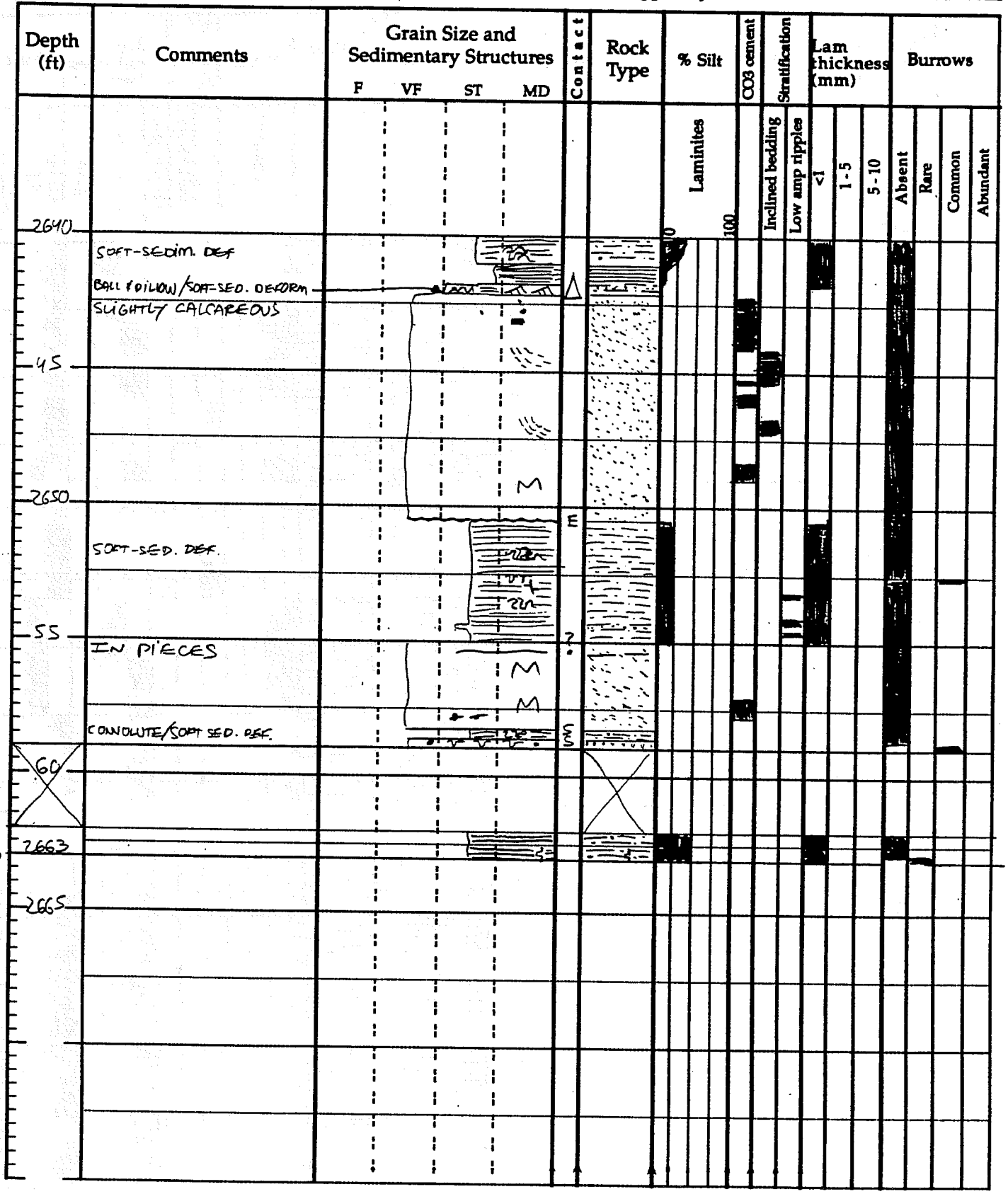
Well Ponse / 38-10 Core depth (+) 2605 (−) 2663 = 58' Log depth @ _____

Formation _____ Location _____ Logged by Jose Date 07/16



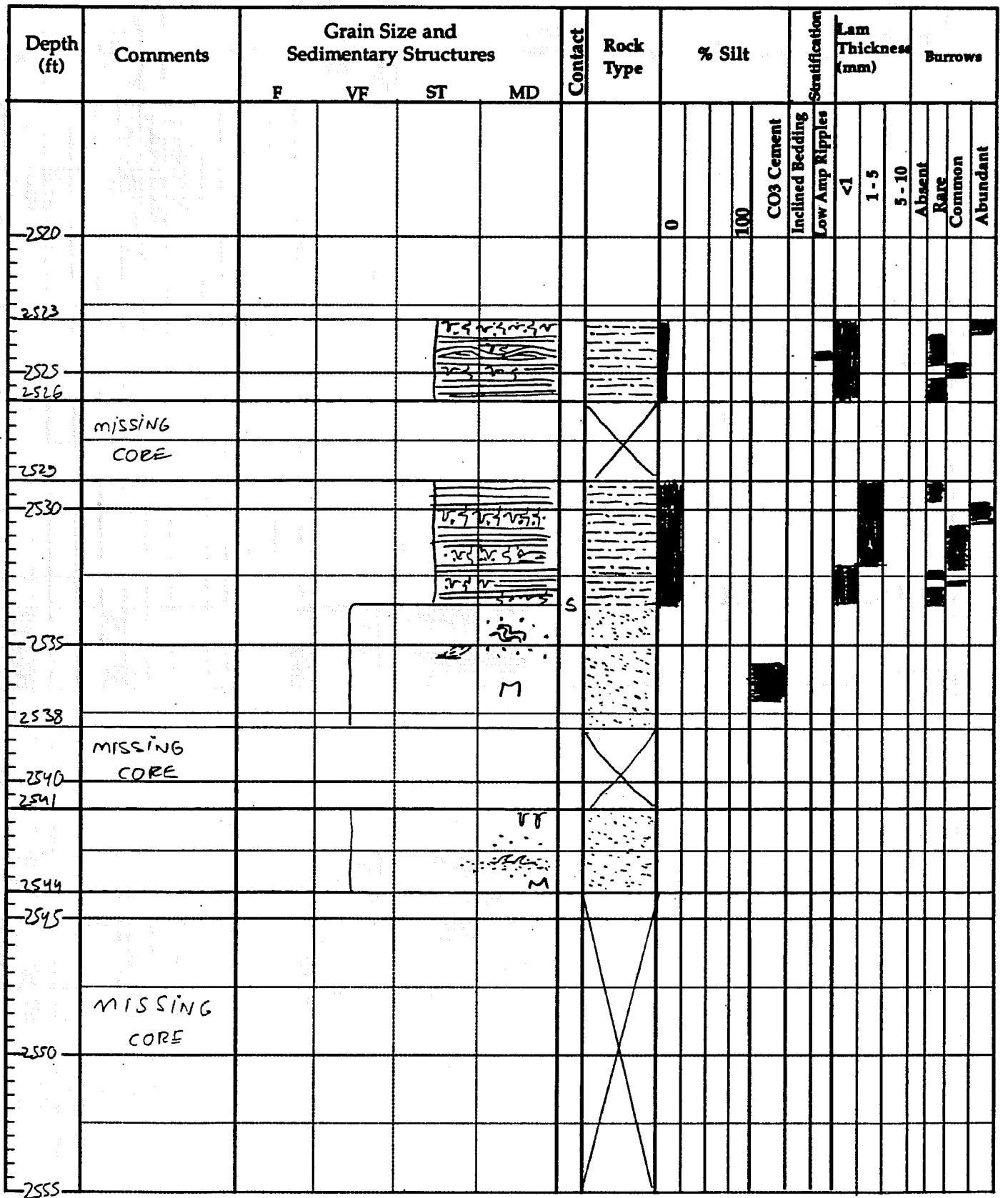
Well Ramsey 38-10 Core depth (+) 2605 (-) 2663 = _____ Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 07/16



Well RAMSEY 38-11 / FGU-237 Core depth (+) 2523 (−) 2583.5 = _____ Log depth @ _____

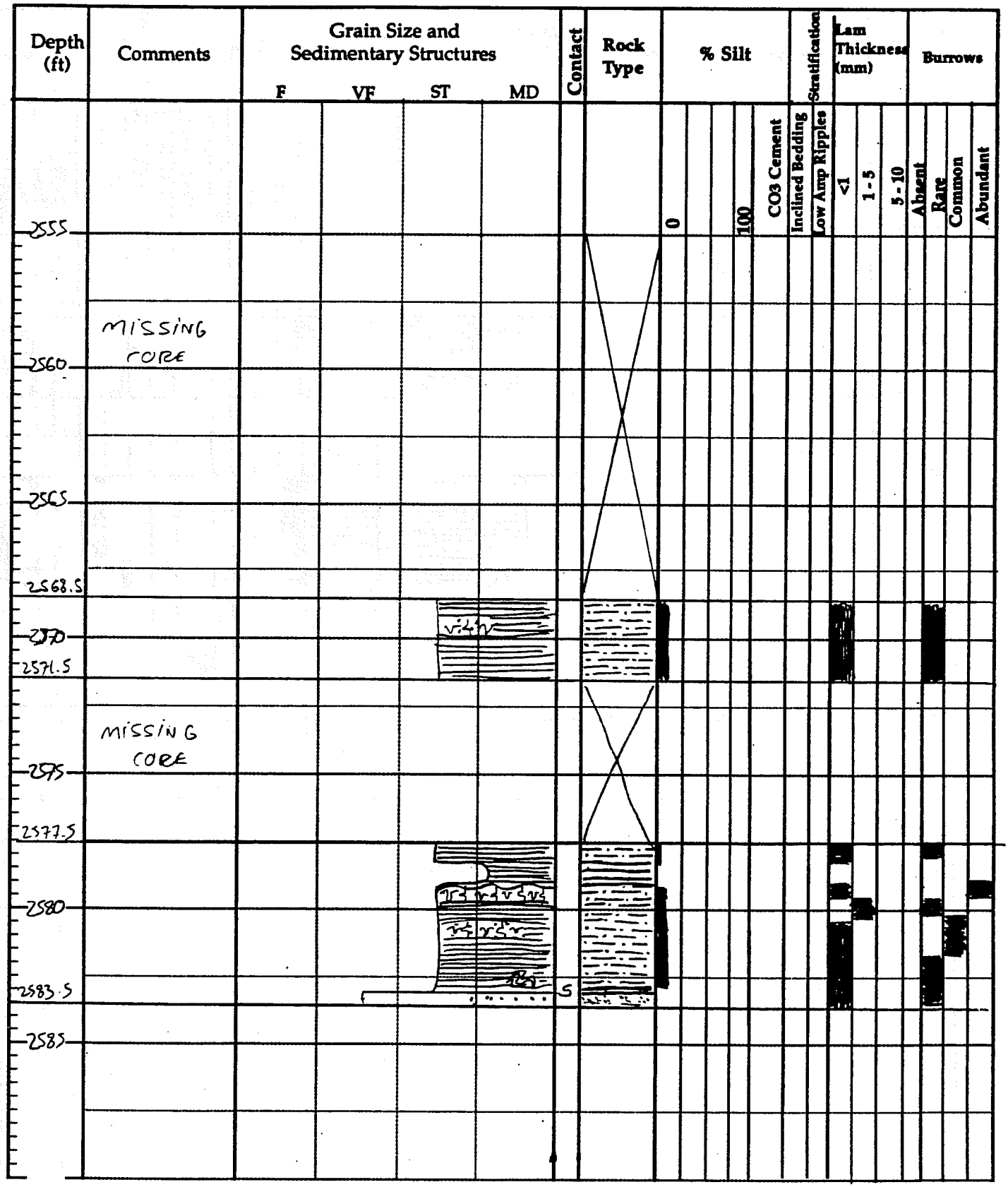
Formation _____ Location _____ Logged by JOSE Date 10/22/96



Bureau of Economic Geology

Well Ramsey 38-11 / FGU-237 Core depth (+) 2523 (−) 2583.5 = _____ Log depth @ _____

Formation _____ Location _____ Logged by Jose Date 10/22/96



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Well Ramsey 38-12 (FGU 244) Core depth (+) 2559-2600 (−) = _____ Log depth @ _____

Formation Ramsey Location Culberson Co. TX Logged by Sigrid Date 10-4-96

Depth (ft)	Comments	Grain Size and Sedimentary Structures (F VF ST MD)	Contact	Rock Type	% Silt (Laminites 0–100)	CO3 cement	Stratification (Inclined bedding; Low amp ripples)	Lam thickness (mm) (<1; 1-5; 5-10)	Burrows (Absent; Rare; Common; Abundant)
2559				Top Core					
2560									
1									
2									
3									
4									
2565									

Well Ramsey 38-12 (FGU 244) Core depth (+) 2559 - 2600 = _____ Log depth @ _____

Formation Ramsey Location _____ Logged by Sigrid Date 10-3-96

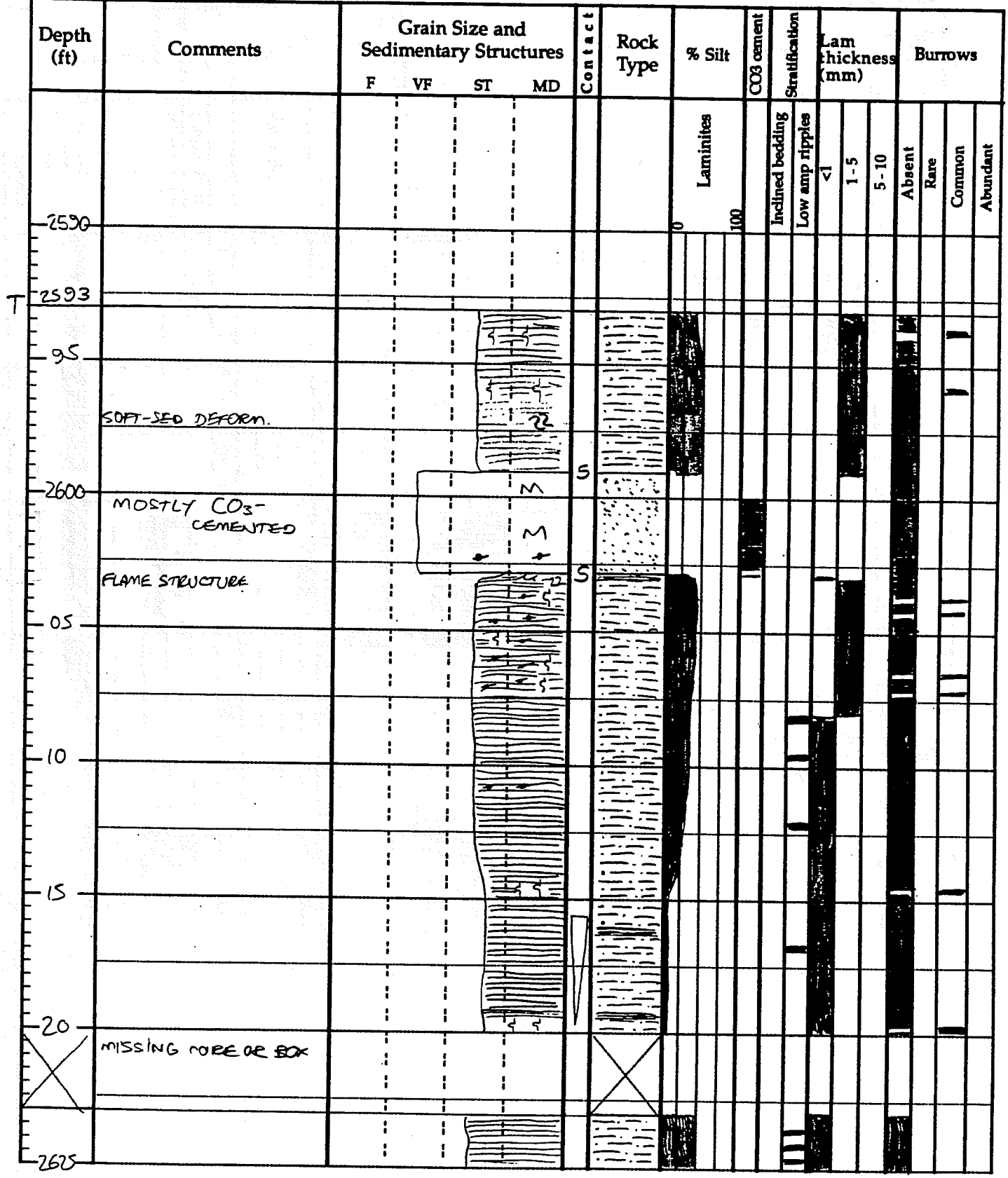
Depth (ft)	Comments	Grain Size and Sedimentary Structures (F / VF / ST / MD)	Contact	Rock Type	% Silt (Laminites 0–100)	CO_3 cement	Stratification: Inclined bedding	Stratification: Low amp ripples	Lam thickness (mm): <1	Lam thickness (mm): 1-5	Lam thickness (mm): 5-10	Burrows: Absent	Burrows: Rare	Burrows: Common	Burrows: Abundant
2565															
6															
7			S												
8	Organic clast from 2568 - 2569.5		S												
9															
2570															
1	Some wispy lams thru 2571. 1-5 mm size organic clasts		δ												
2															
3															
4															
2575															
6															
7															
8															
9															
2580															
1	Interval 2581-2590 is very friable														
2															
3															
4															
2585															
6															
7															
8															
9															
2590															
1															
2															
3															
4															
2595															
6	subtle lams at 95-95.6														
7															
8															
9	no bioturbation 25 mm below sand/laminite contact		S												
2600															

Bottom Core

FGU 245

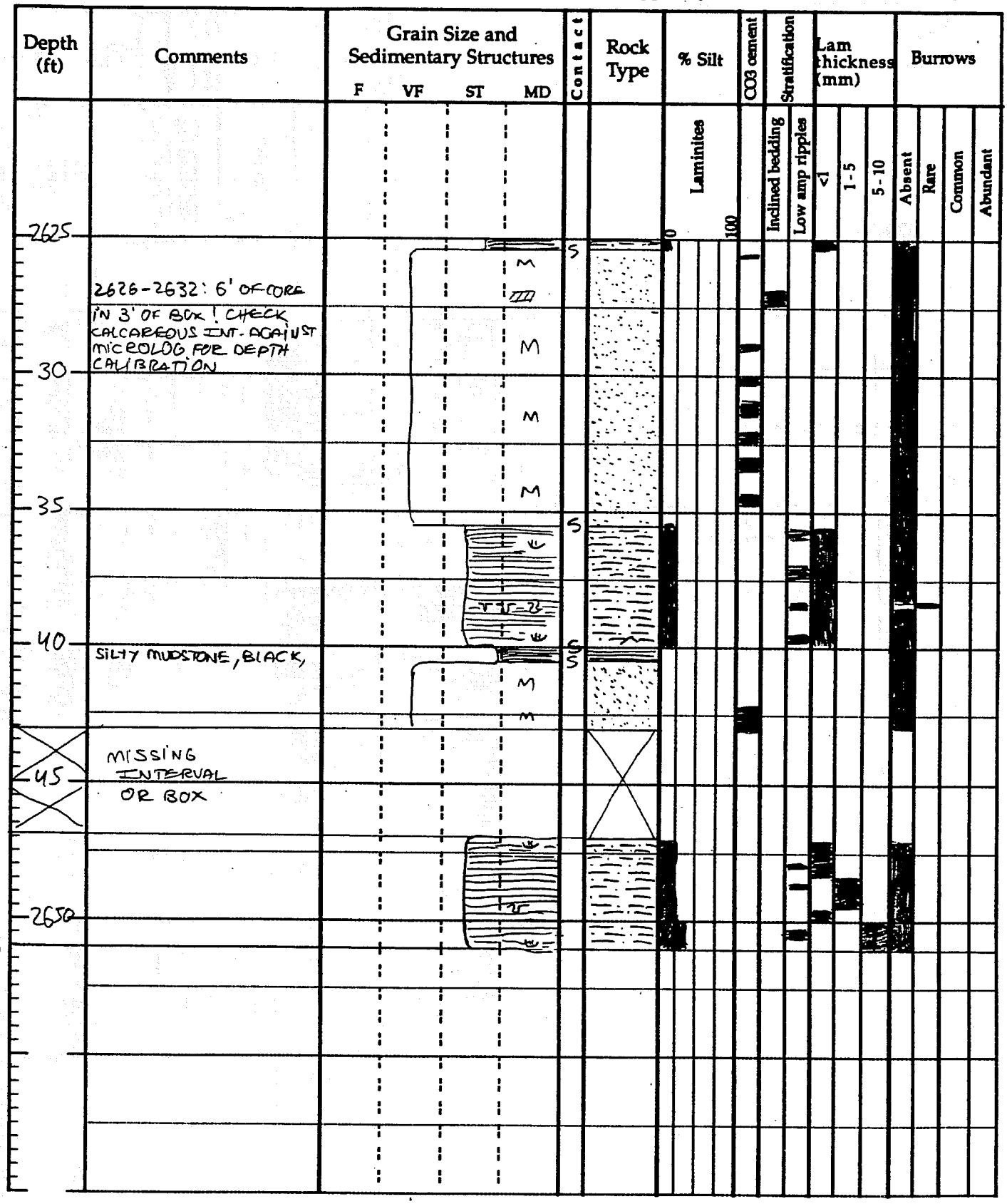
Well RAMSEY 38-16 Core depth (+) 2593 (−) 2651 = 58' Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 07/16



Well RAMSE-1 38-16 Core depth (+) 2593 (−) 2651 = _____ Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 07/16



Well Ramsey 38-13 (FGU 249 Core depth (+) 2557-2591 (-) 2611-2614 = _____ Log depth @ _____

Formation Ramsey Location Culberson Co. Tx Logged by Sigrid Date 2-7-96

Depth (ft)	Comments	Grain Size and Sedimentary Structures (F VF ST MD)	Contact	Rock Type	% Silt (0 – Laminites – 100)	CO3 cement	Stratification: Inclined bedding	Stratification: Low amp ripples	Lam thickness (mm): <1	Lam thickness (mm): 1-5	Lam thickness (mm): 5-10	Burrows: Absent	Burrows: Rare	Burrows: Common	Burrows: Abundant
2565															
6															
7		Top Core 1													
8															
9	friable ss 2568.5-71.0	M													
2570															

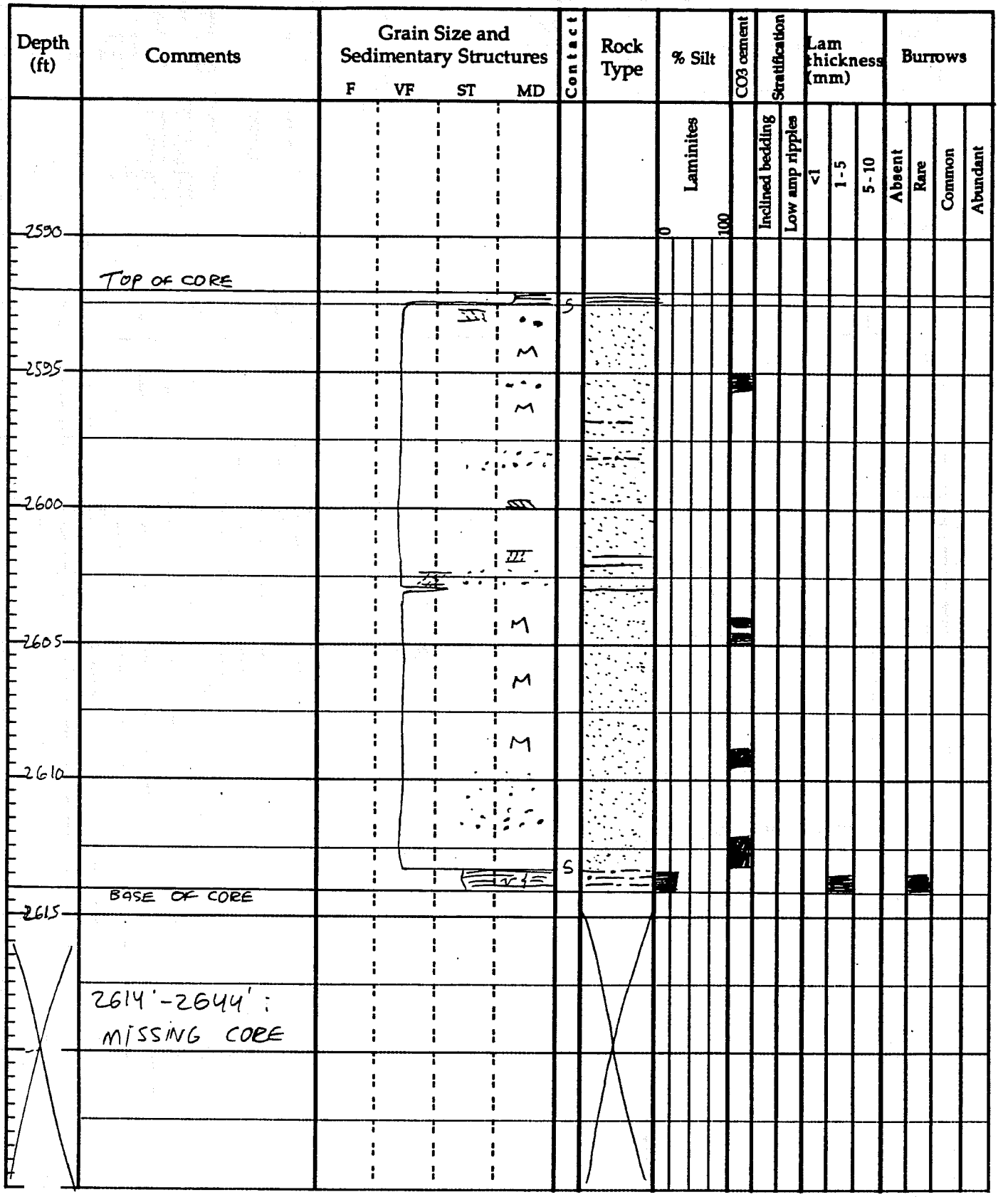
*Note - 3 ft boxes were labeled with 4 ft core/box

Well Ramsey 38-13 (FG4249) Core depth (+) 2567-2591 (−) 2611-2614 = _____ Log depth @ _____

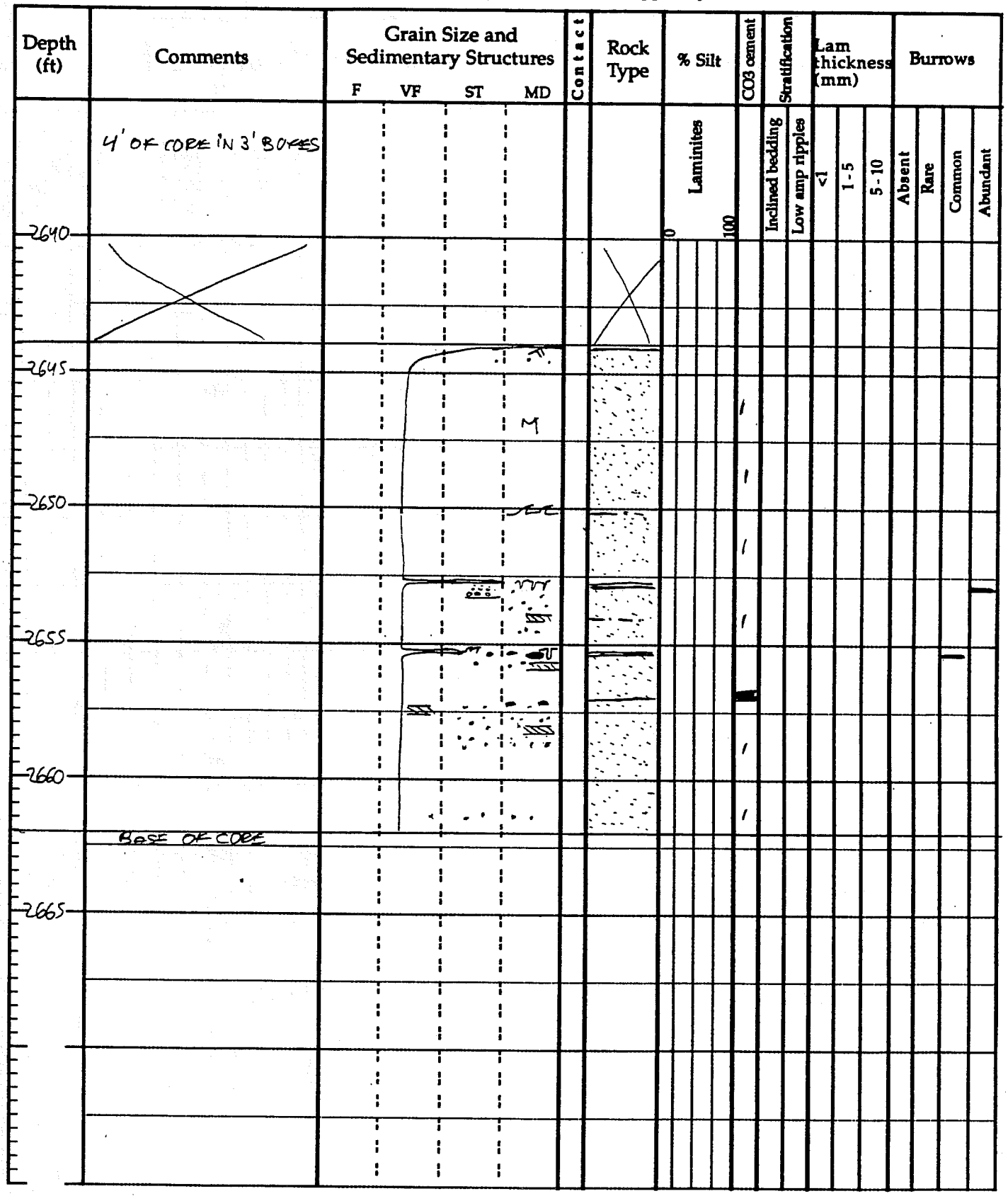
Formation Ramsey Location _____ Logged by Sigrid Date 10-7-96

Depth (ft)	Comments	Grain Size and Sedimentary Structures (F VF ST MD)	Contact	Rock Type	% Silt (Laminites 0–100)	CO3 cement	Stratification: Inclined bedding	Stratification: Low amp ripples	Lam thickness (mm): <1	Lam thickness (mm): 1-5	Lam thickness (mm): 5-10	Burrows: Absent	Burrows: Rare	Burrows: Common	Burrows: Abundant
2570		M													
2575	some calcite cmt present 2575-2579.														
		M													
2580															
1															
2															
3		M													
4															
2585															
6															
7															
8	wispy lams present at base of calcite cmted zone	M													
9															
2590															
1			S												
		Bottom Core 1													
2															
3															
4															
2595															
2610															
11				Top Core 2											
12	9mm thick lutite at base of laminite interval		S												
13		M													
14		Bottom core 2													
2615															

Well Ramsey 38-14 (FGU-256) Core depth (+) 2592-2614 = _____ Log depth @ _____
(−) 2644-2662
Formation _____ Location _____ Logged by JOSE Date 08/23/96

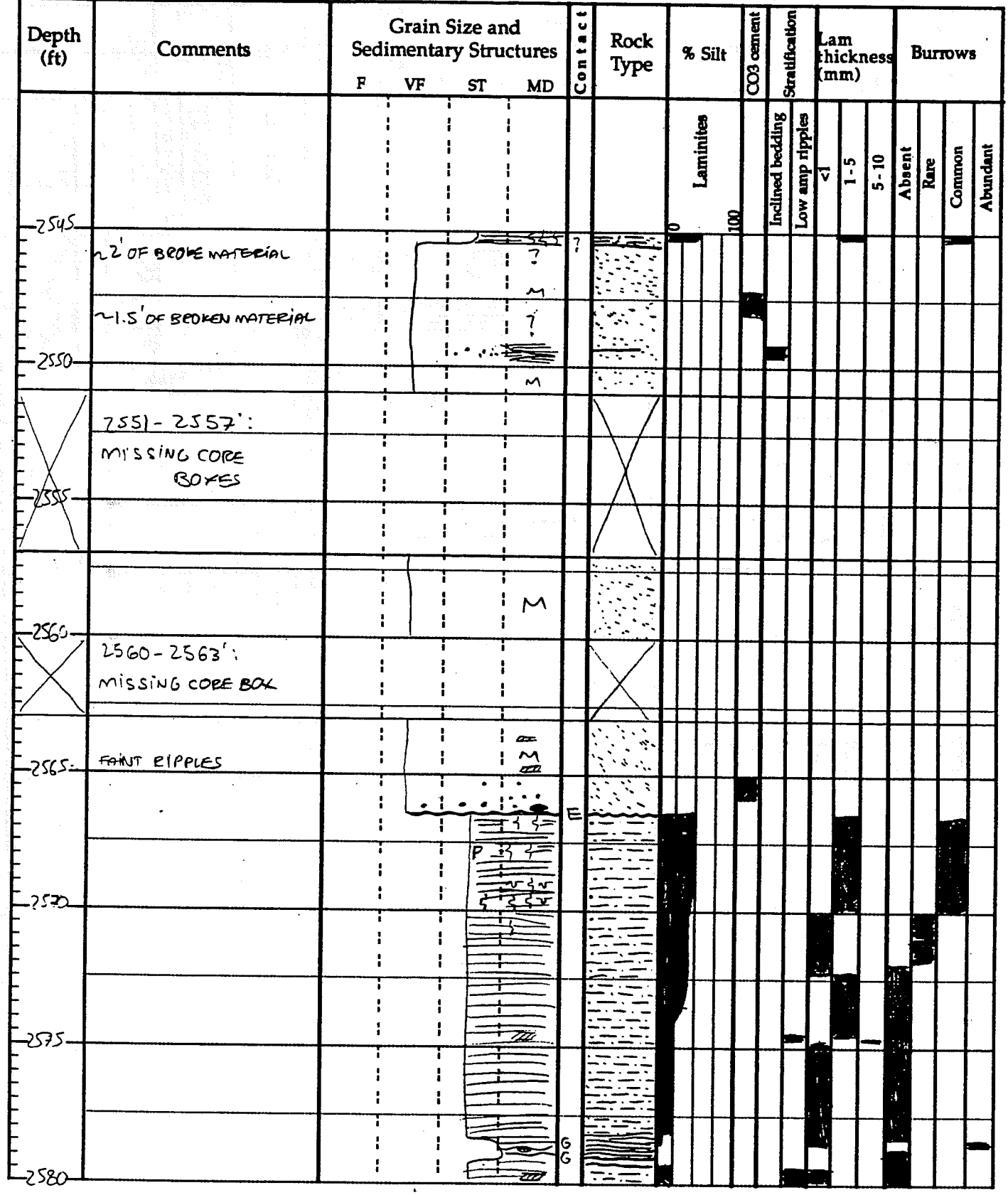


Well Ramsey 38-14 (FGU-256) Core depth (+) 2592-2614 = _____ Log depth @ _____
Formation _____ Location _____ (–) 2644-2662 Logged by Jose Date 08/23/96



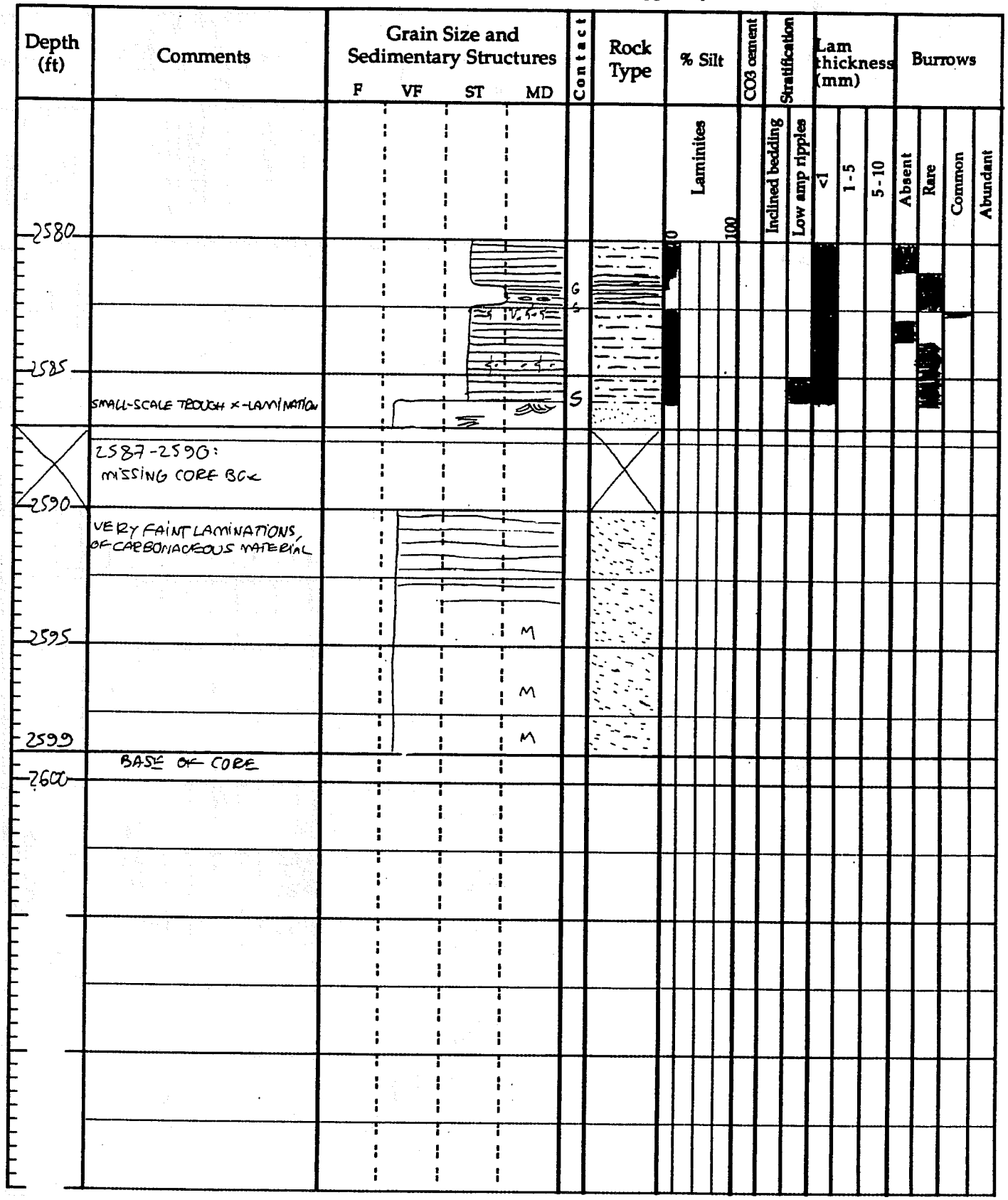
Well Ramsey 46-6 (FGU-266) Core depth (+) 2545 / (−) 2599 = 54' Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 08/13



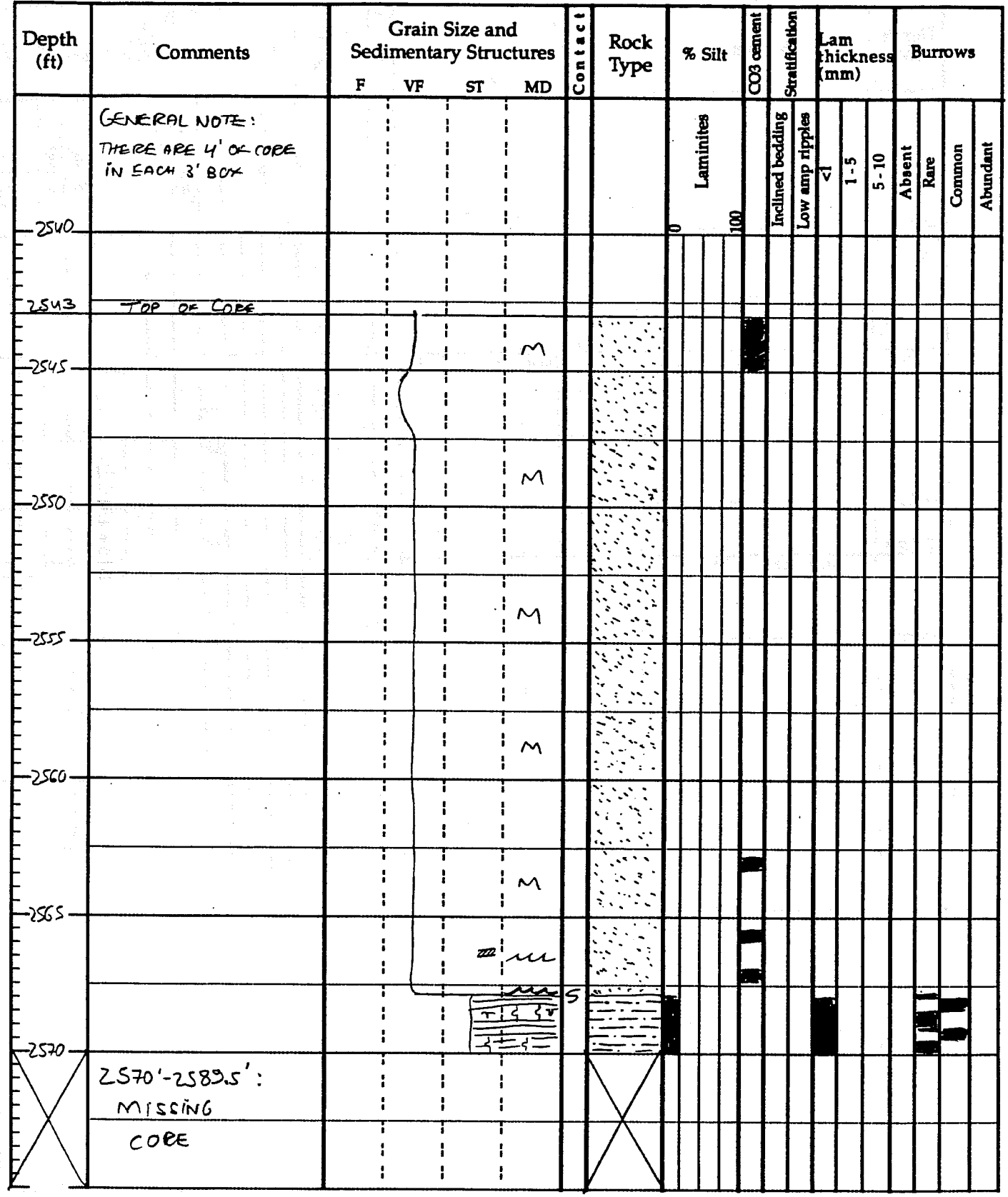
Well Ramsey 46-6 (FGU-766) Core depth (+) 2545 (−) 2599 = _____ Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 08/13



Well RAMSEY 46-11 (FGU-767) Core depth (+) 2543 (−) 2597 = 54' Log depth @ _____

Formation _____ Location _____ Logged by JOE Date 08/13



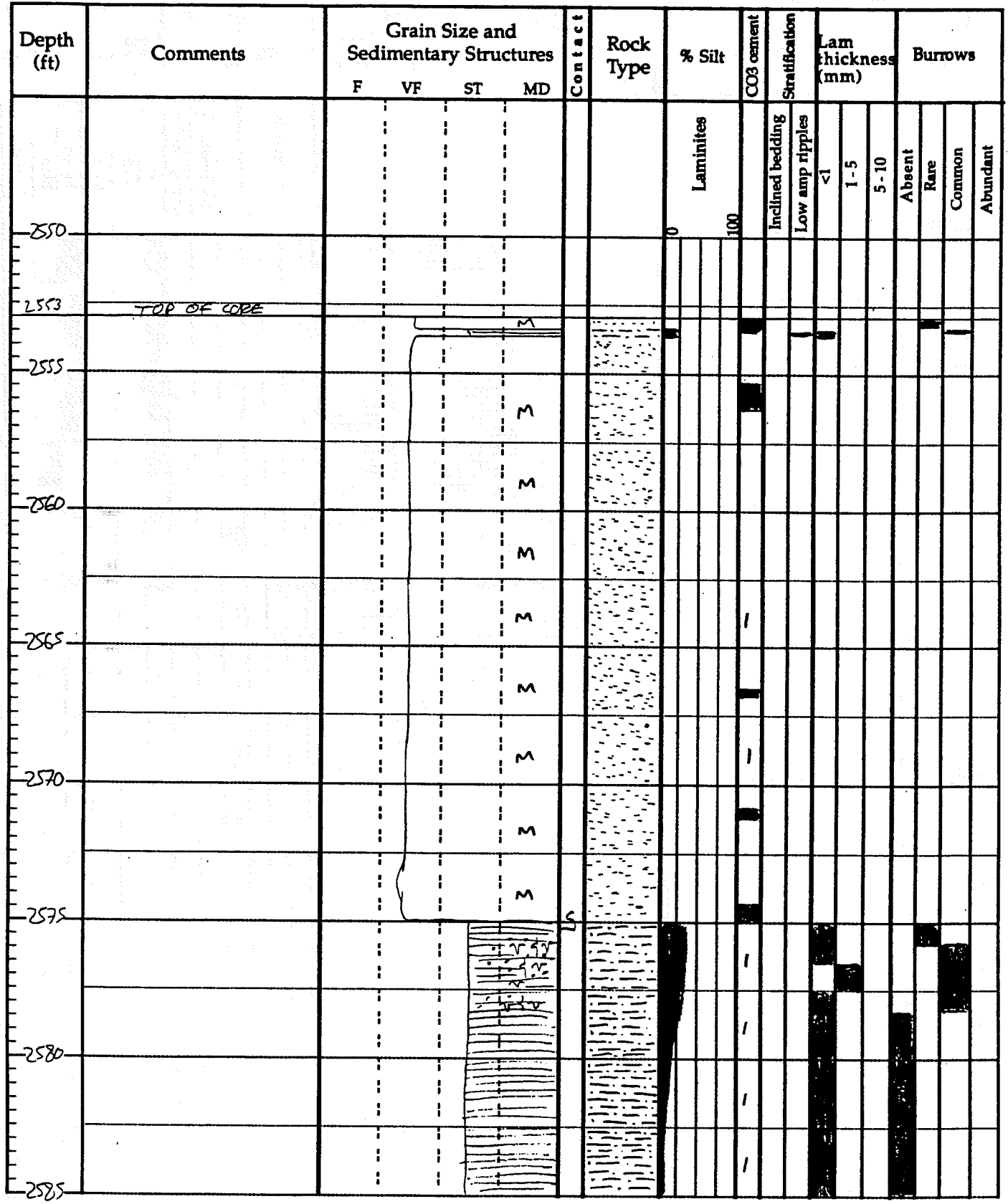
Well Ramsey 46-11 (FGU-262) Core depth (+) 2543 (−) 2597 = _____ Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 08/13

Depth (ft)	Comments	Grain Size and Sedimentary Structures (F / VF / ST / MD)	Contact	Rock Type	% Silt (0 – Laminites – 100)	CO_3 cement	Stratification: Inclined bedding	Stratification: Low amp ripples	Lam thickness (mm): <1	Lam thickness (mm): 1-5	Lam thickness (mm): 5-10	Burrows: Absent	Burrows: Rare	Burrows: Common	Burrows: Abundant
2585															
2590		M													
2595		M													
2597	BASE OF CORE	M													
2600															

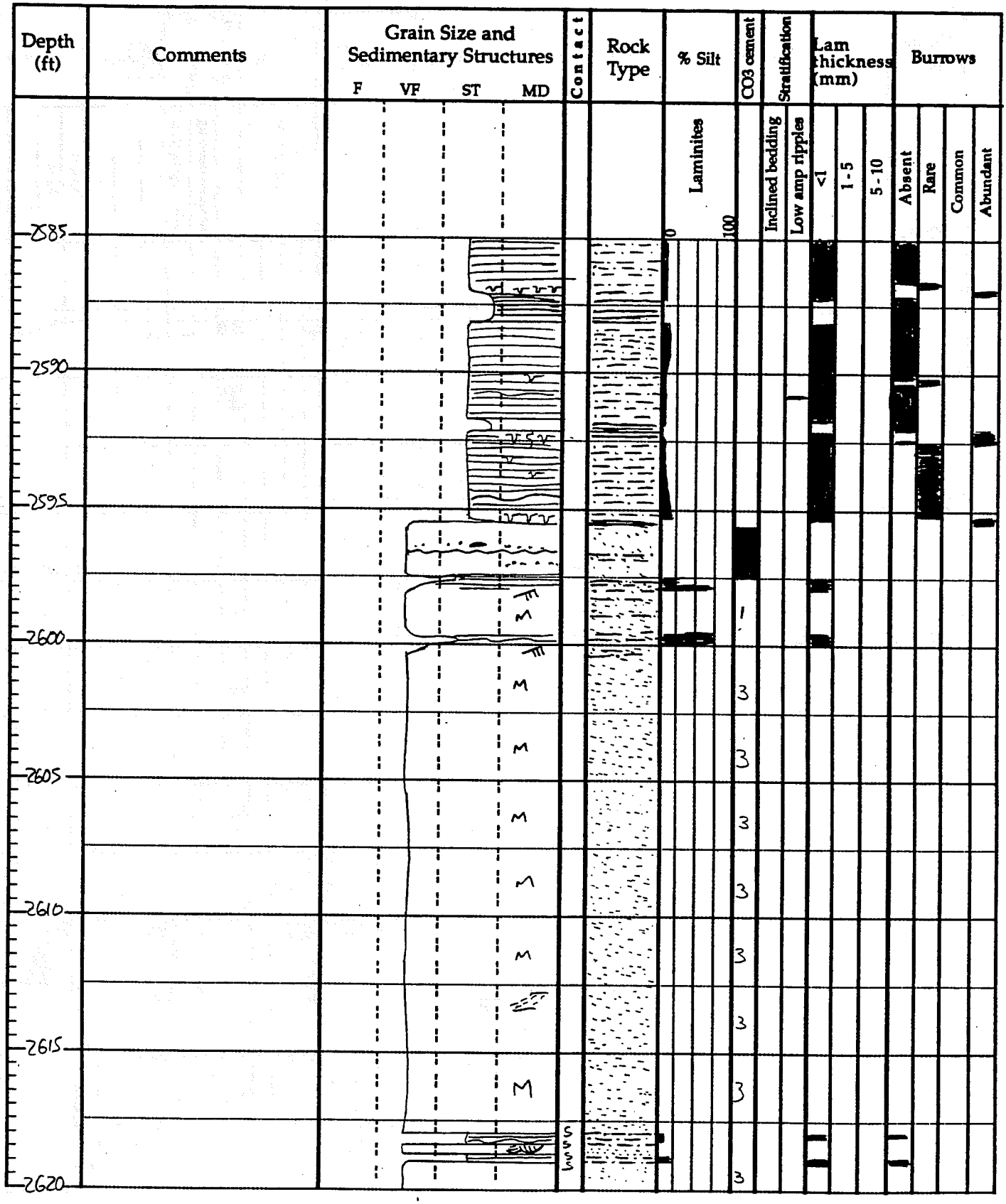
Well RAMSEY 46-7/FGU-270 Core depth (+) 2553 (-) 2661 = _____ Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 08/16/96



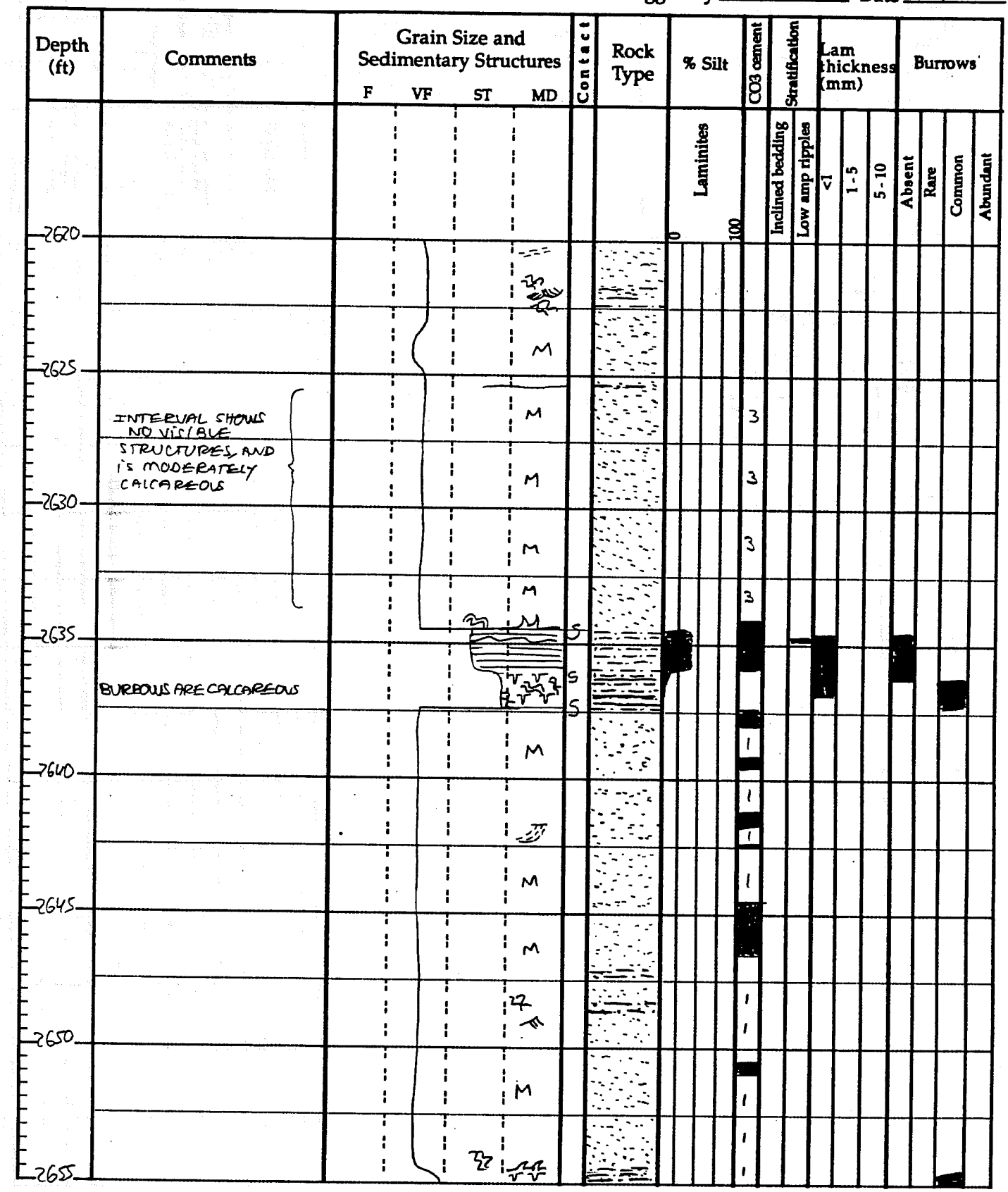
Well RAMSEY 46-7/FGU-270 Core depth (+) 2553 (−) 7661 = _____ Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 08/16



Well RAMSEY 46-7/FGU-270 Core depth (+) 2553 (−) 2661 = _____ Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 08/16



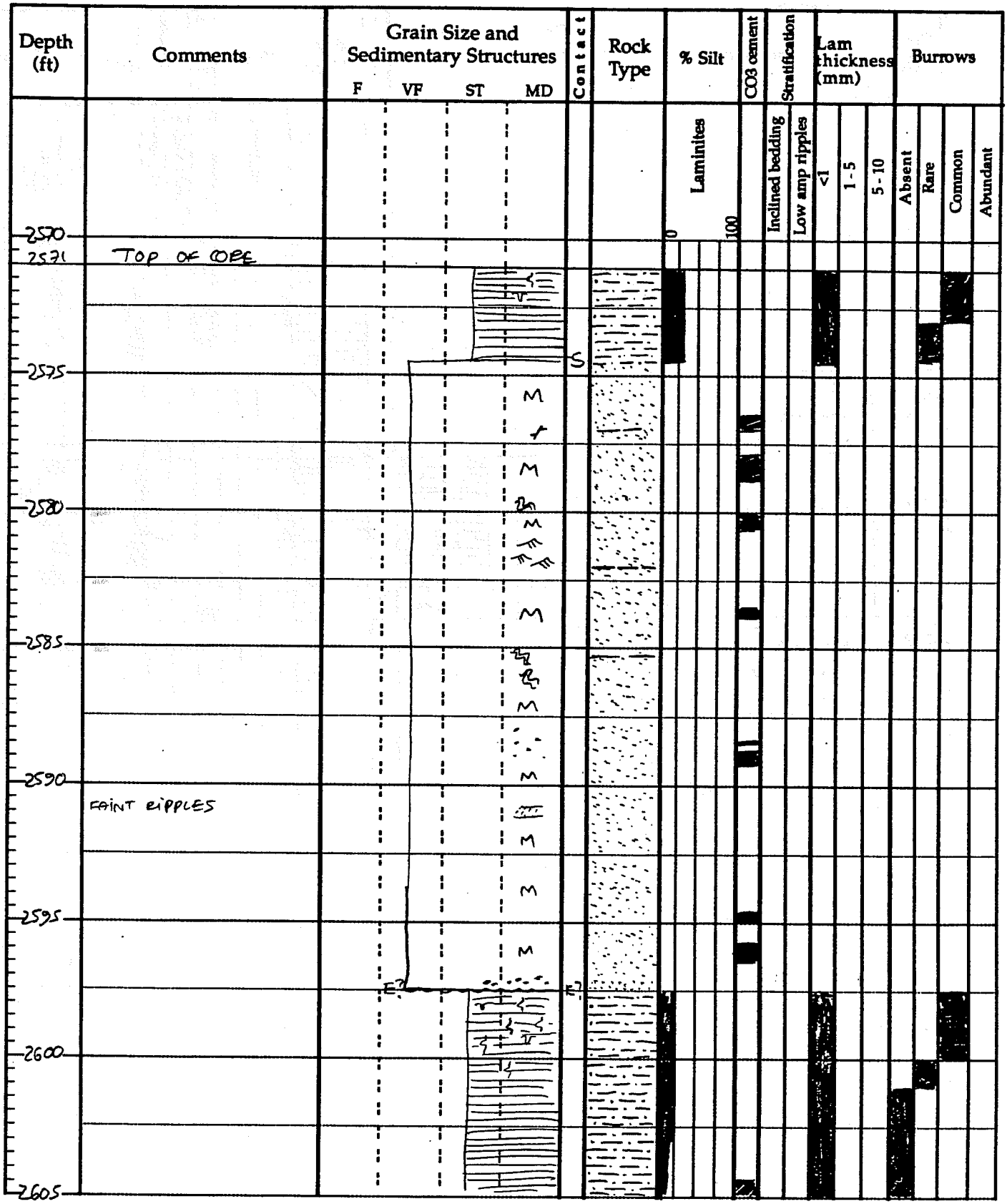
Well RAMSEY 46-7/FGU-270 Core depth (+)(−) 2553 = 7661 Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 08/16

Depth (ft)	Comments	Grain Size and Sedimentary Structures (F VF ST MD)	Contact	Rock Type	% Silt (0 Laminites 100)	CO3 cement	Stratification: Inclined bedding	Stratification: Low amp ripples	Lam thickness (mm): <1	Lam thickness (mm): 1-5	Lam thickness (mm): 5-10	Burrows: Absent	Burrows: Rare	Burrows: Common	Burrows: Abundant
7655															
	DARK BANDING, PROBABLY DUE TO CONCENTRATION OF CARBONACEOUS MATERIAL	M				1									
						1									
	SLIGHTLY CALCAREOUS	M													
7660						1									
7661		M													
	BASE OF CORE														
7665															

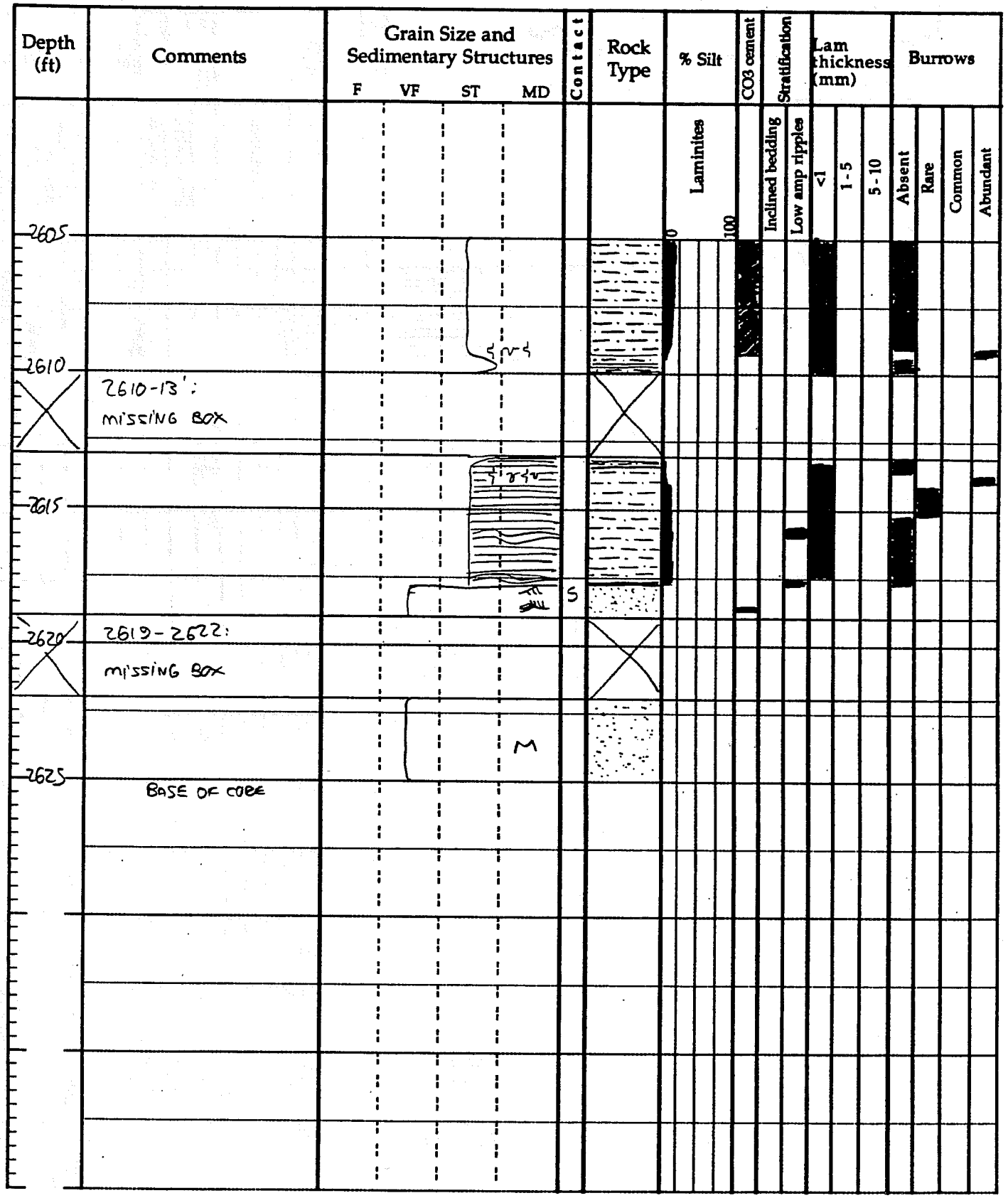
Well Ramsey 46-4/FGU-272 Core depth (+) 2571 (−) 2625 = 54' Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 08/15



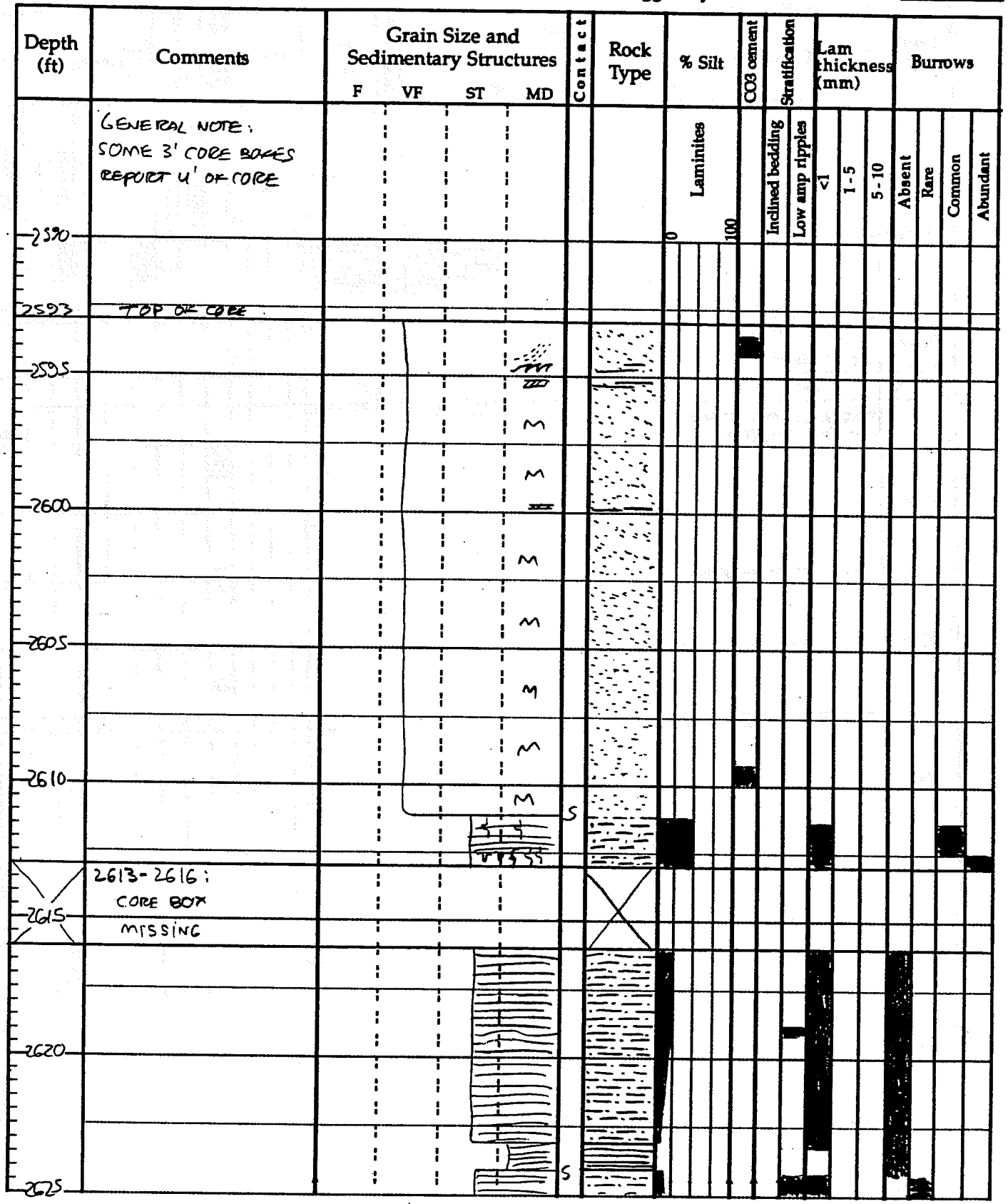
Well Ramsey 46-4/FGU-272 Core depth (+) 2571 (−) 2625 = _____ Log depth @ _____

Formation _____ Location _____ Logged by Jose Date 08/15



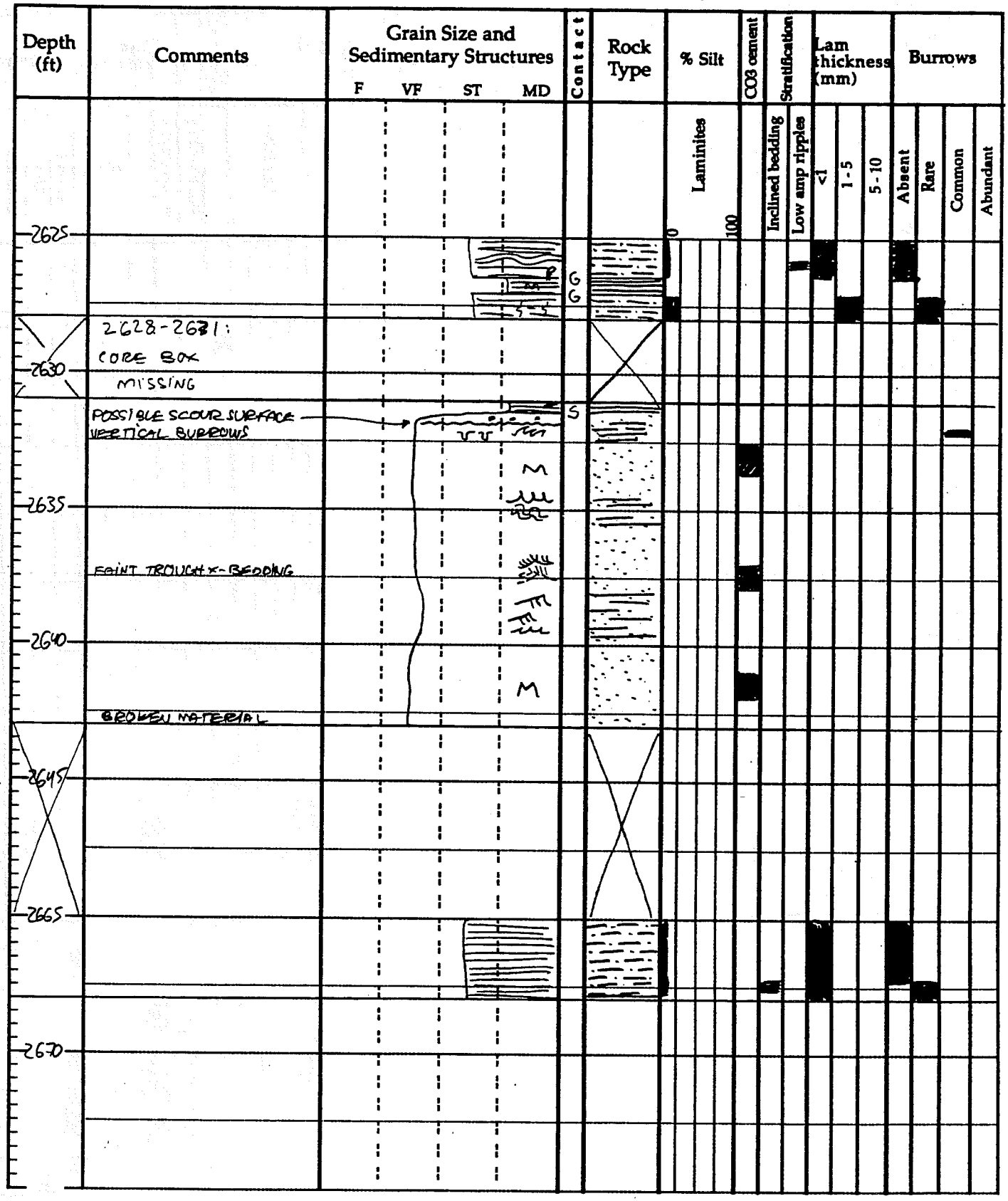
Well Ramsey 46-1 (FGU-281) Core depth (+) 2590 / (−) 2645/65-68 = 58' Log depth @ ___

Formation ___ Location ___ Logged by JOSE Date 08/13



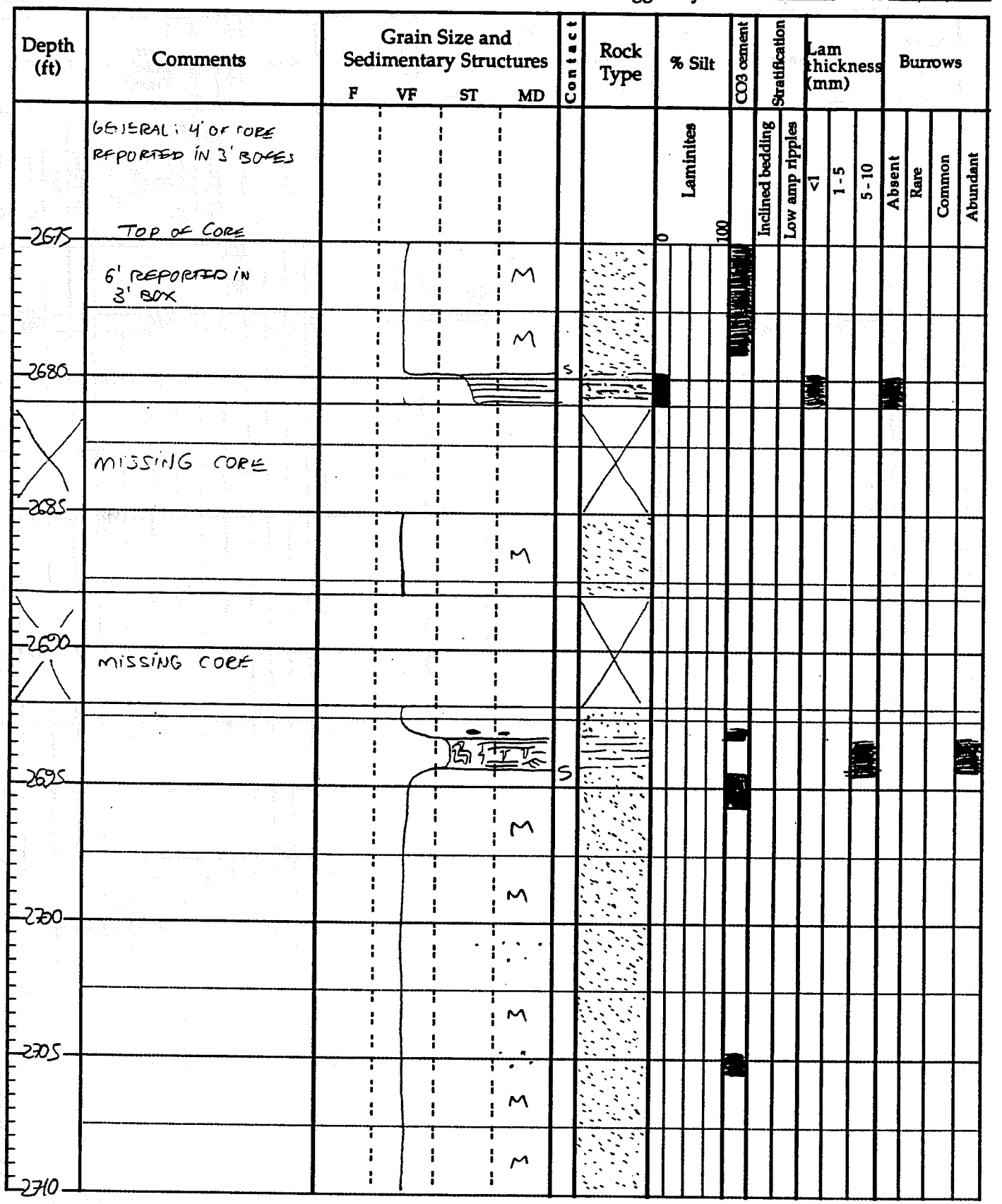
Well _____ Core depth (+) (−) _____ = _____ Log depth @ _____

Formation _____ Location _____ Logged by _____ Date _____



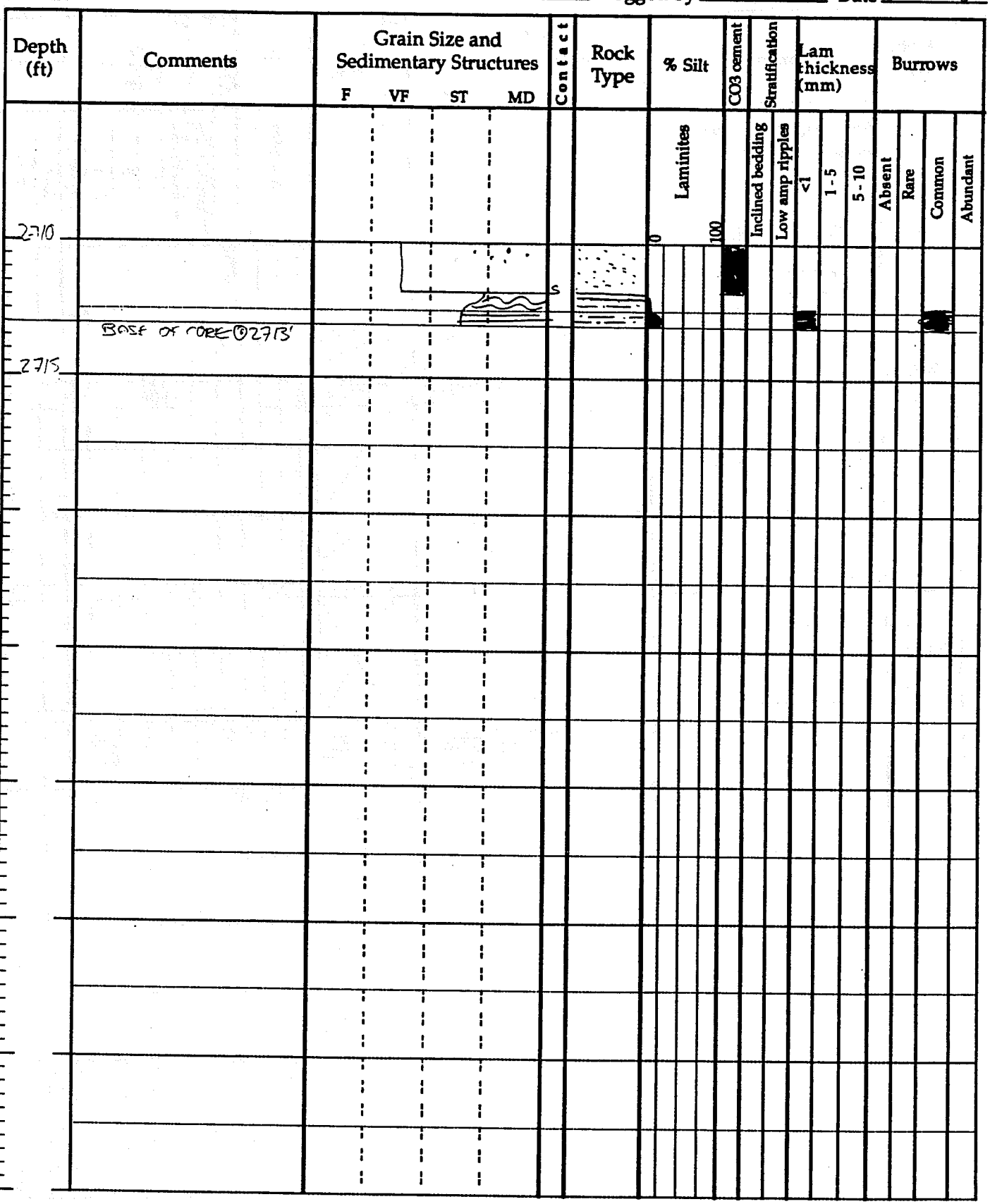
Well RAMSEY 19-47/FGU-291 Core depth (+) 2675 (−) 2713 = _____ Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 10/10/96



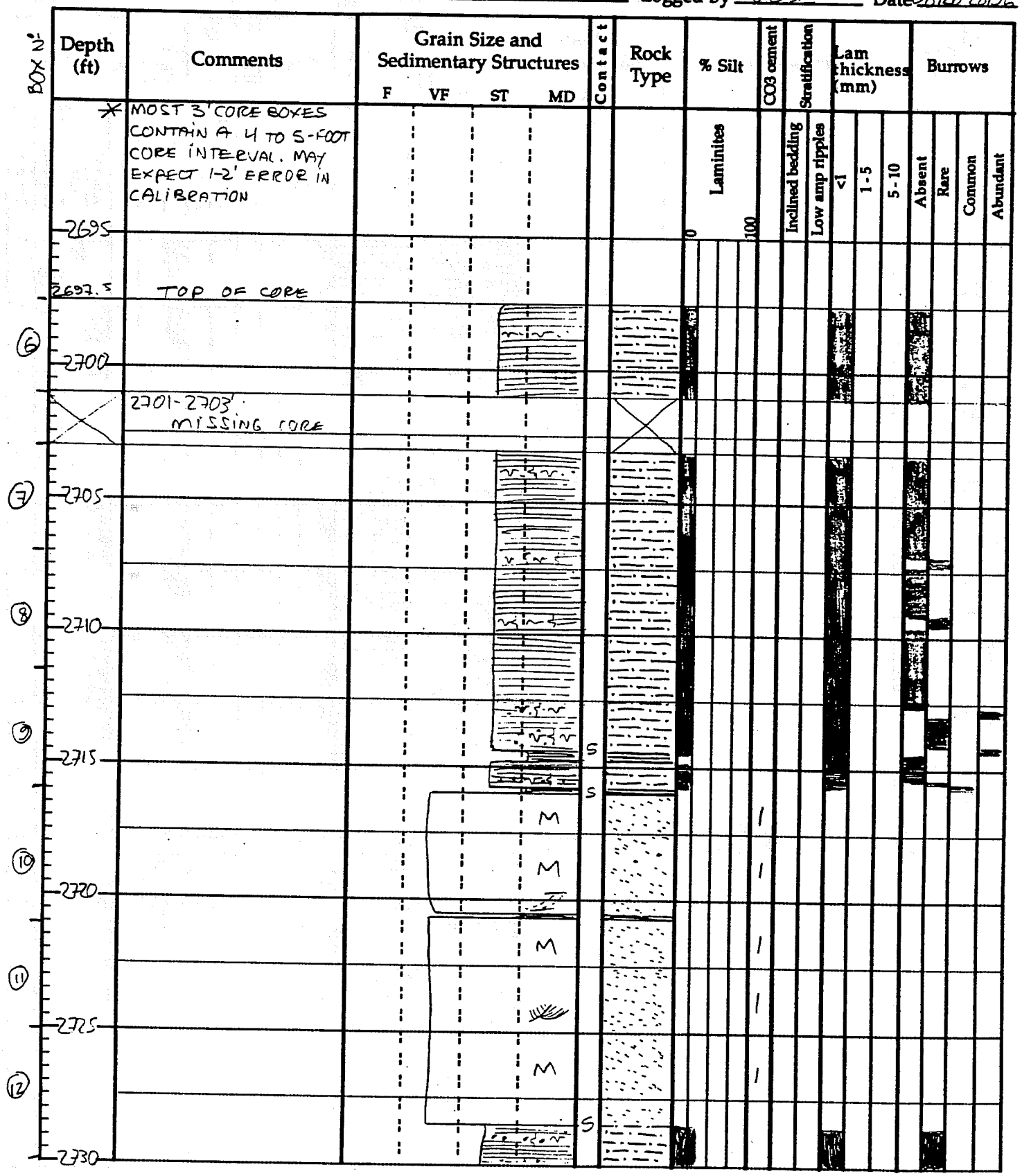
Well RAMSEY 13-47 / FGU-291 Core depth (+) 2675 (−) 2713 = _____ Log depth @ _____

Formation _____ Location _____ Logged by JOE Date 10/10/98



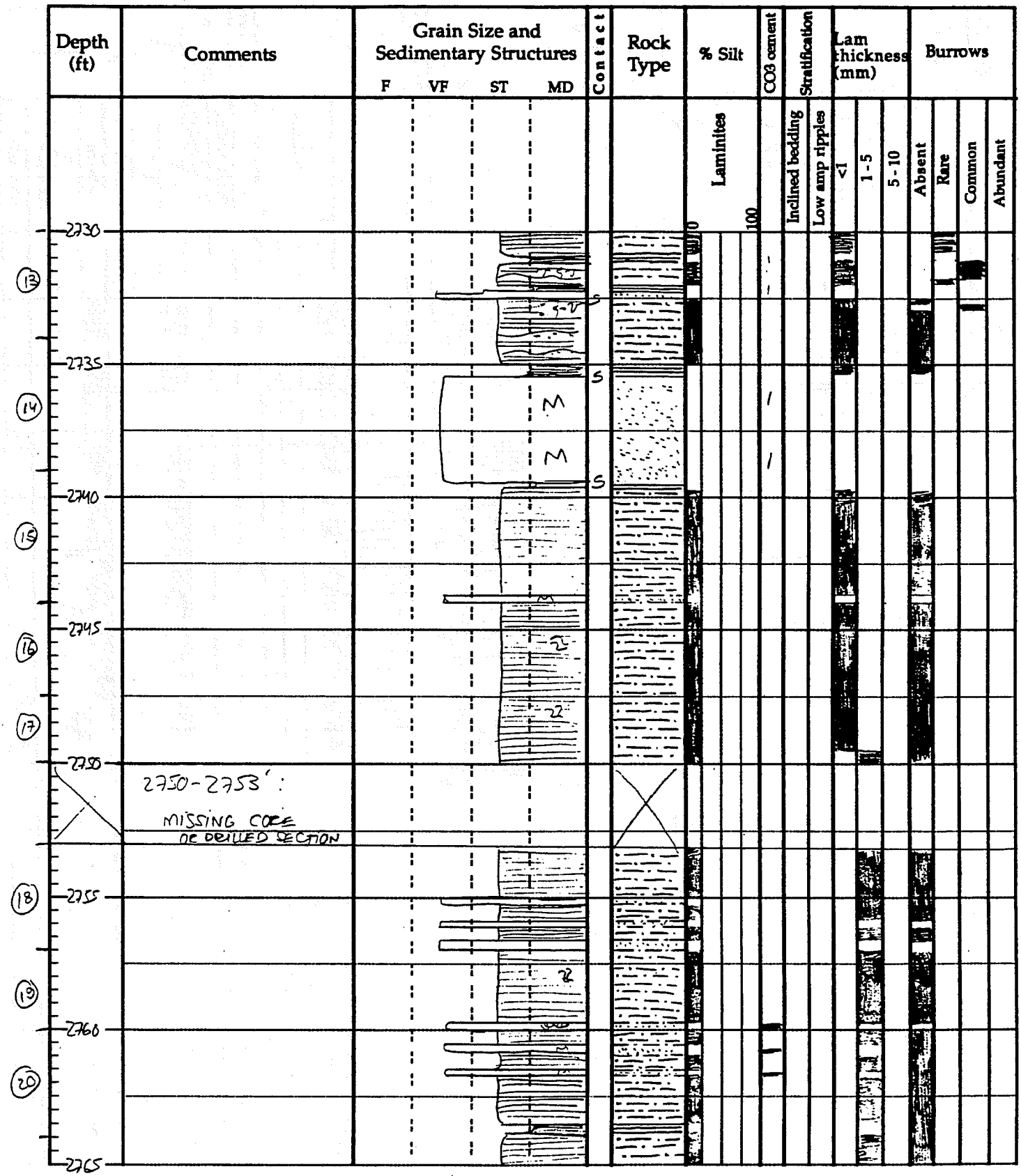
Well Ramsey 24-1 (FGU-292) Core depth (+) 2697.5' (−) 2888 = _____ Log depth @ _____

Formation _____ Location _____ Logged by Jose Date 08/26-28/96



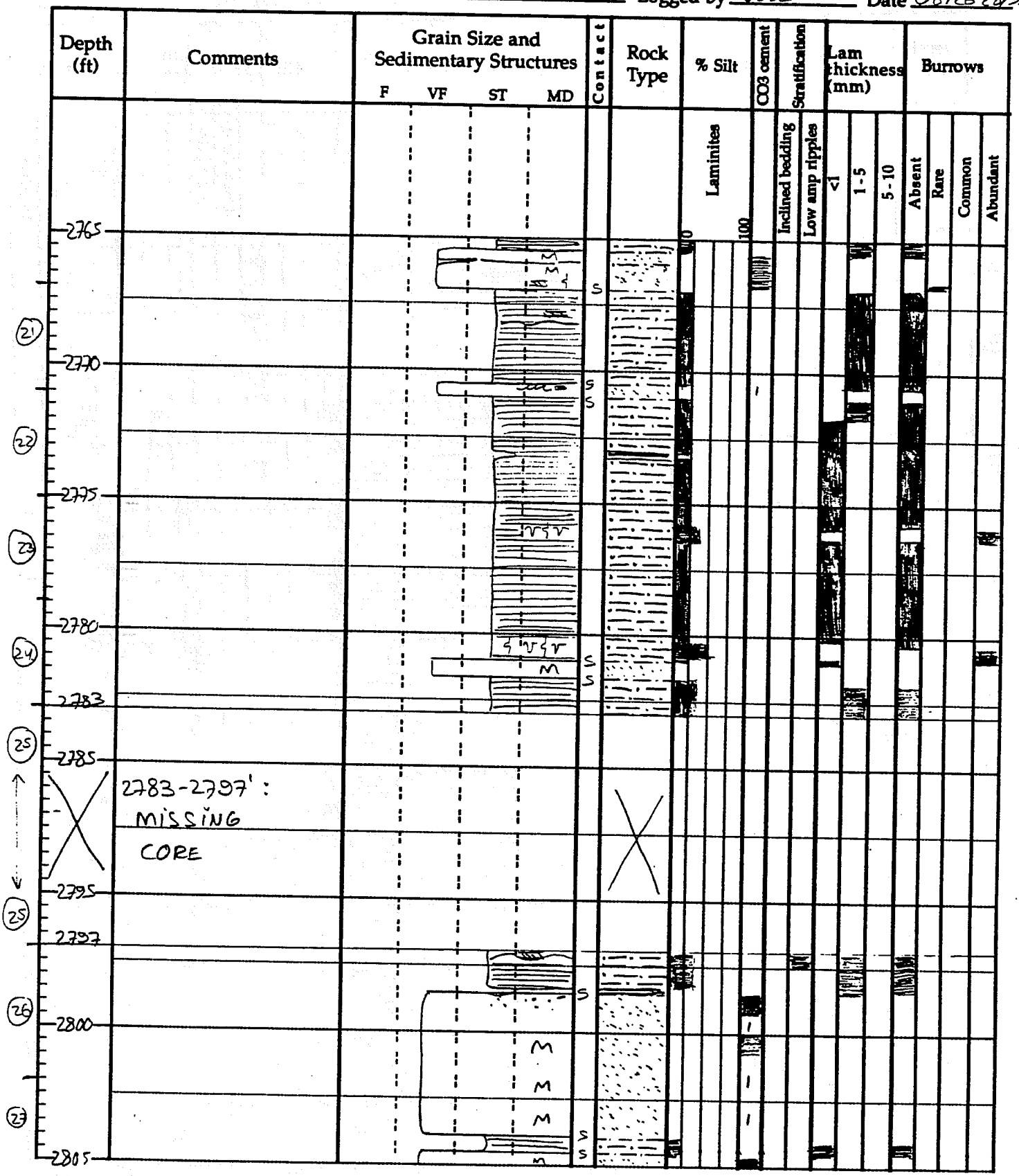
Well RAMSEY 24-1 (FGU-292) Core depth (+) 2697.5' (−) 2888 = _____ Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 08/26-28/96



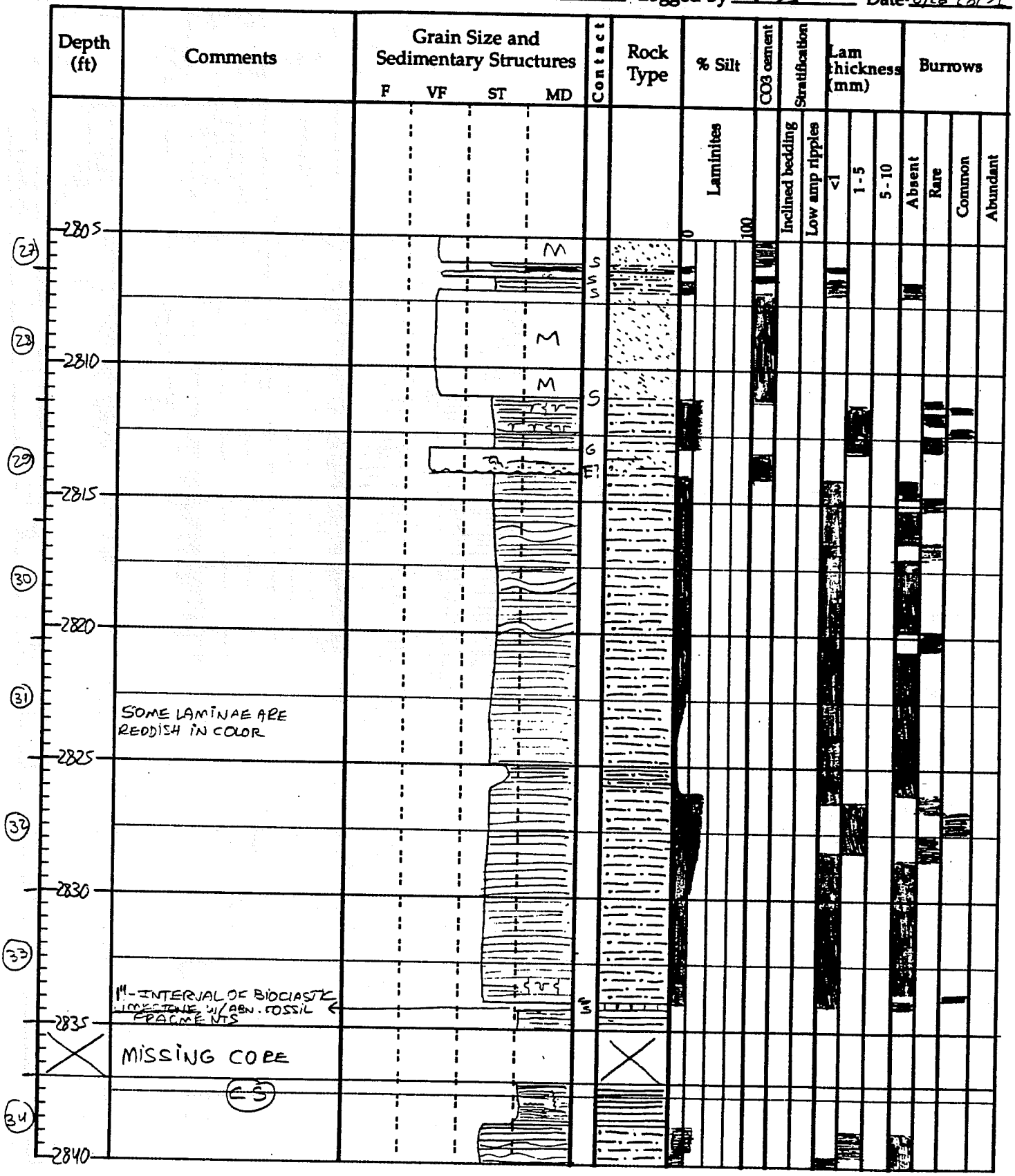
Well RAMSEY 24-1 (FGU-292) Core depth (+) 2697.5' = _____ Log depth @ _____

Formation _____ Location _____ (-) 2888 Logged by JOSE Date 08/26-28/96



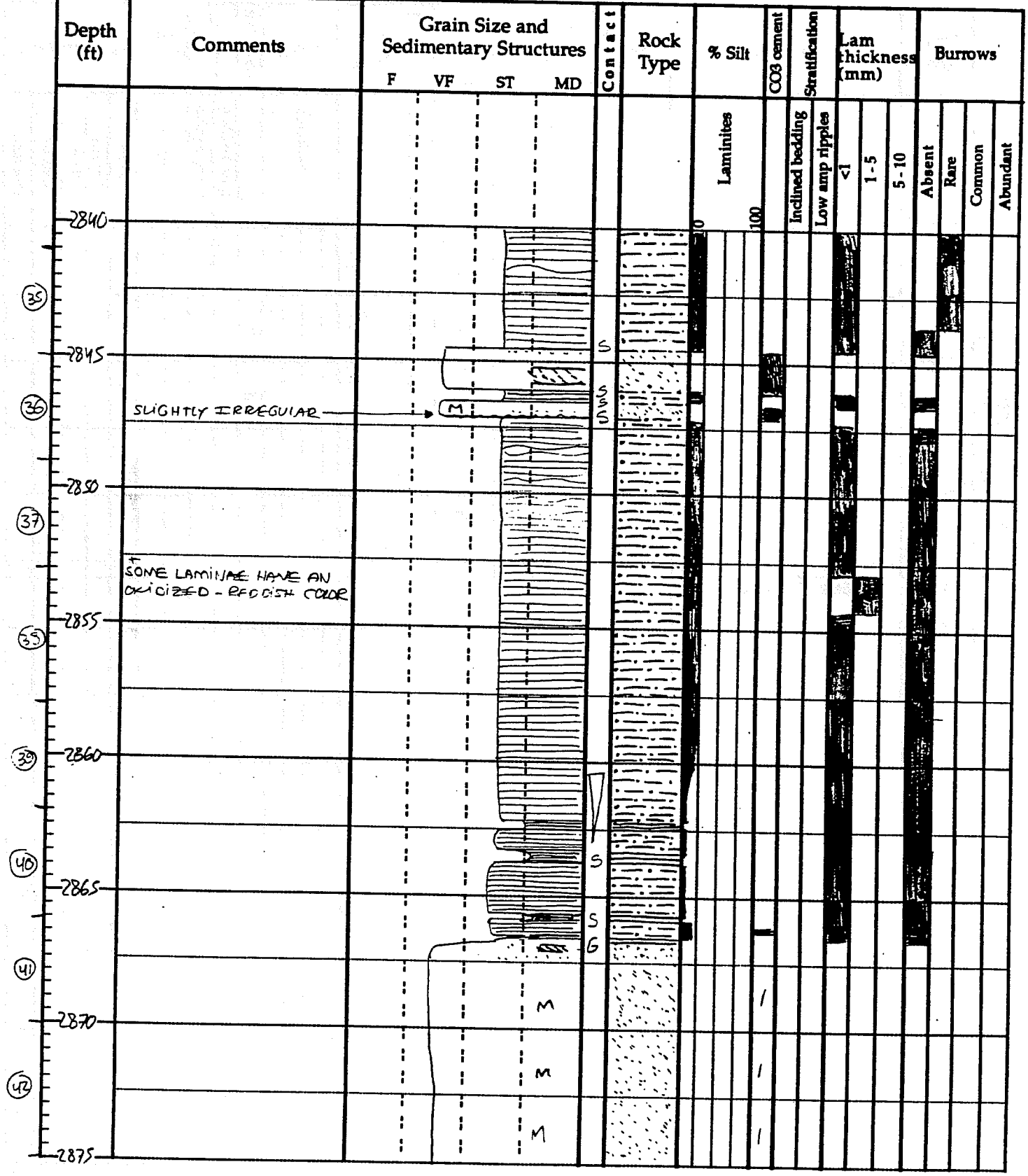
Well RAMSEY 24-1 (FGU-292) Core depth (+) 2697.5 (−) 2888 = _____ Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 08/26-28/96



Well RAMSEY 24-1 (FGU-292) Core depth (+) 26975 (−) 2888 = _____ Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 08/26-28/2X



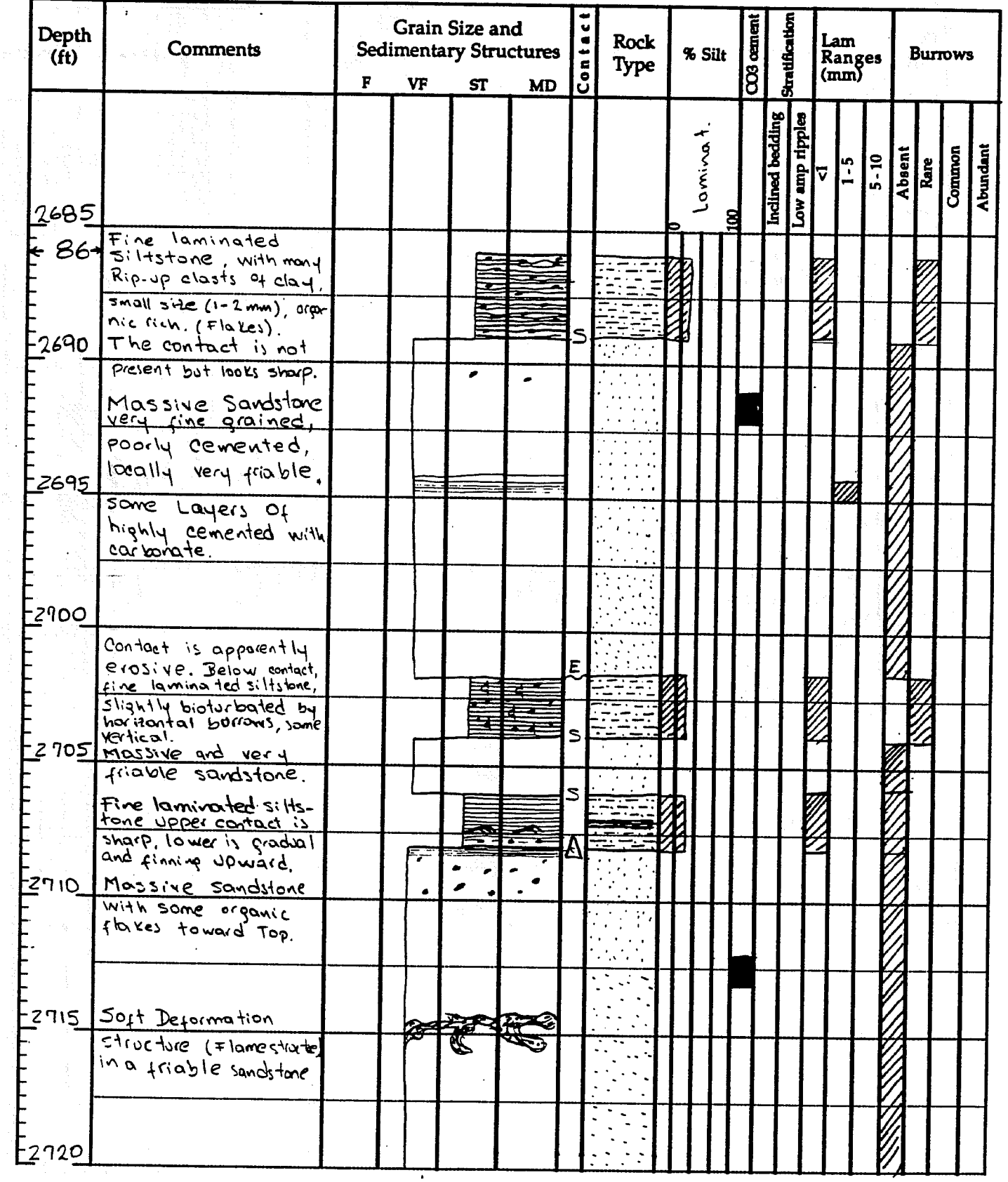
Well Ramsey 24-1 (FGU-292) Core depth (+) 2697.5 (−) 2888 = _____ Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 08/26-28/91

Depth (ft)	Comments	Grain Size and Sedimentary Structures (F / VF / ST / MD)	Contact	Rock Type	% Silt (Laminites 0–100)	CO3 cement	Stratification: Inclined bedding	Stratification: Low amp ripples	Lam thickness (mm): <1	Lam thickness (mm): 1-5	Lam thickness (mm): 5-10	Burrows: Absent	Burrows: Rare	Burrows: Common	Burrows: Abundant
2875															
(43)		M				1									
		M				1									
2880															
(44)															
						1									
2885															
(45)						1									
2888	BASE OF CORE														
2890															

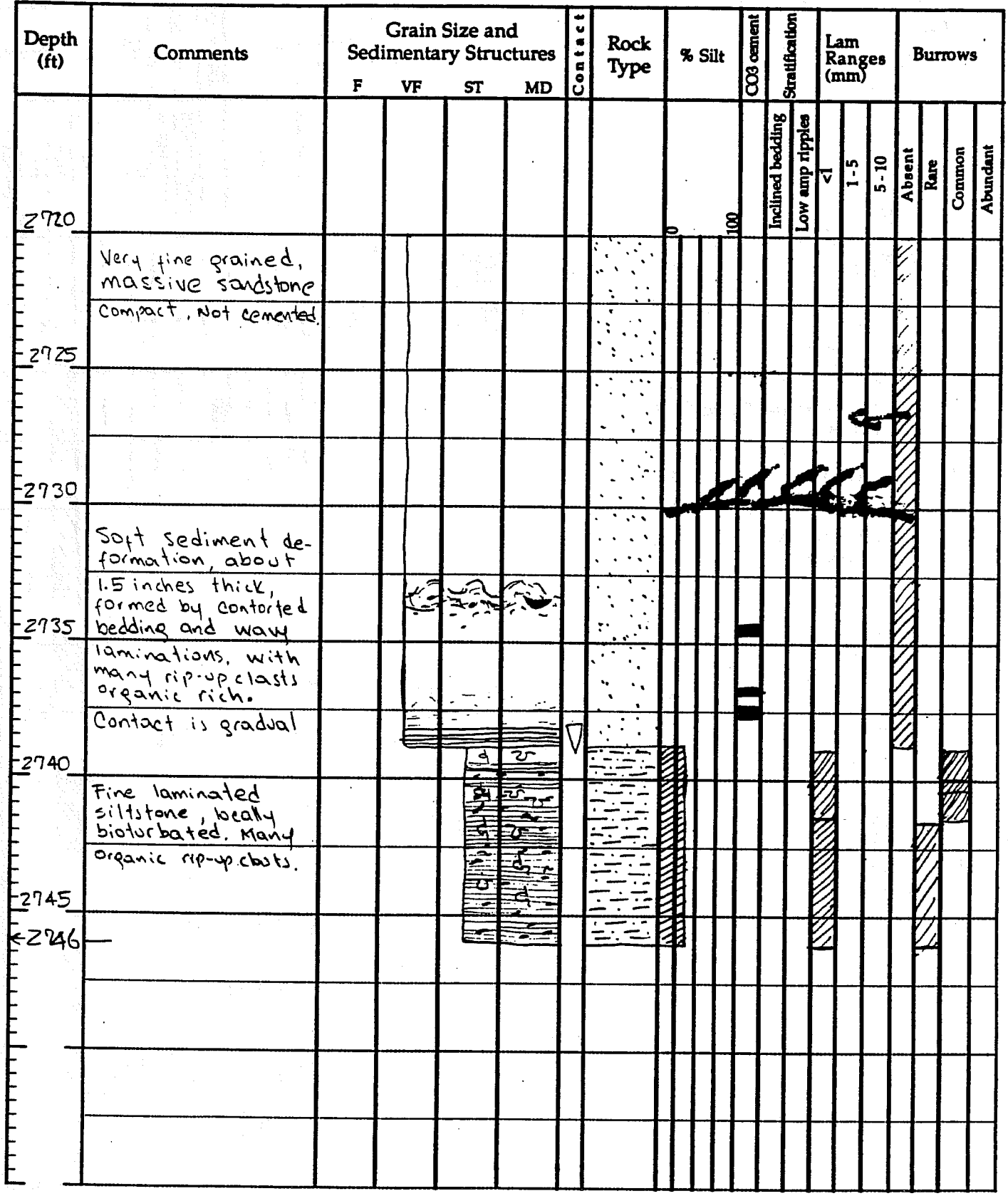
Well FGN-306 Core depth (+) 2686 = _____ Log depth @ _____

Formation _____ Location _____ (−) 2746 Logged by _____ Date _____



Well FGU-306 Core depth (+) 2686 (−) 2746 = _____ Log depth @ _____

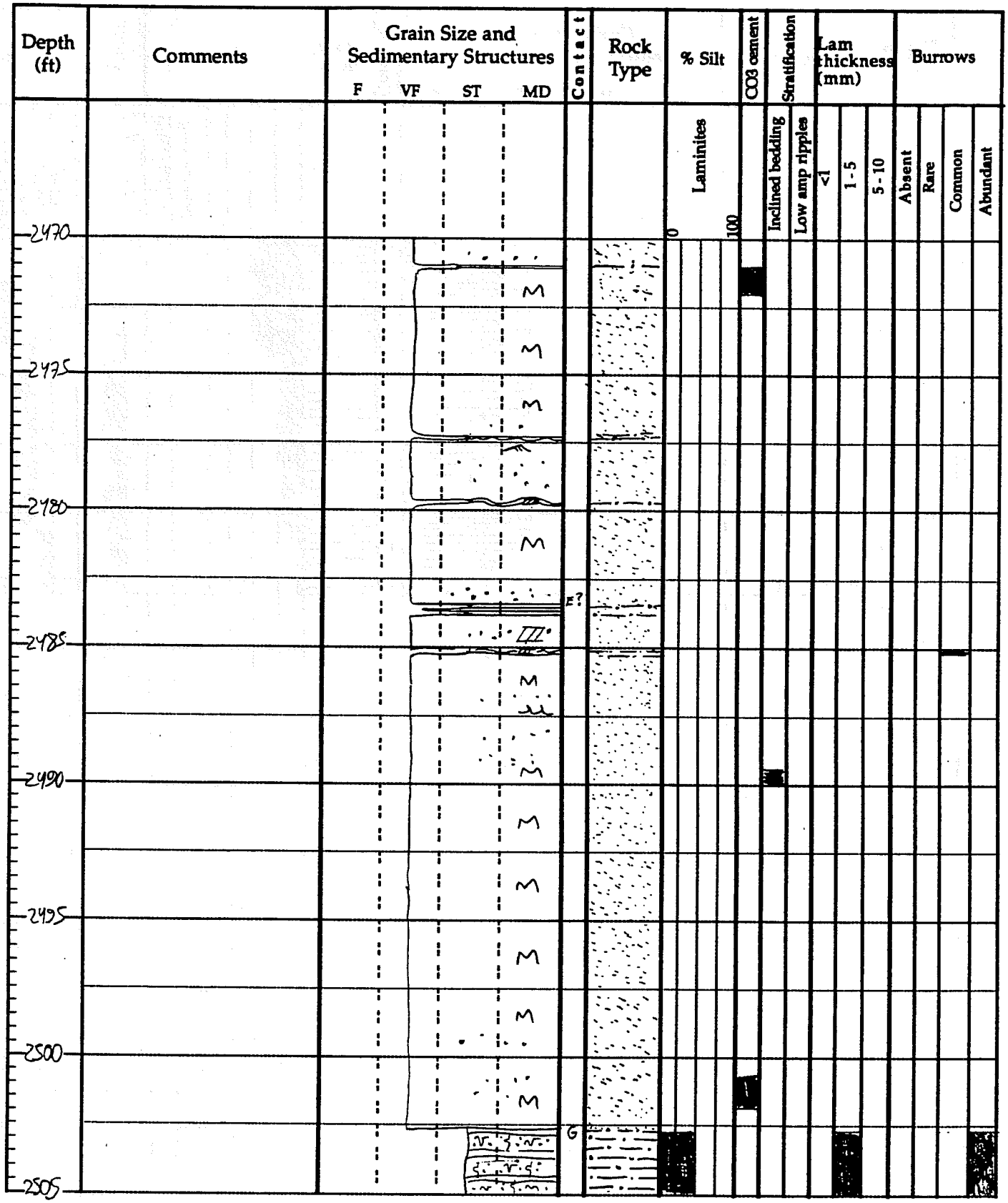
Formation _____ Location _____ Logged by _____ Date _____



2 of 2

Well EGU-318 Core depth (+) 2470 (−) 2518 = _____ Log depth @ _____

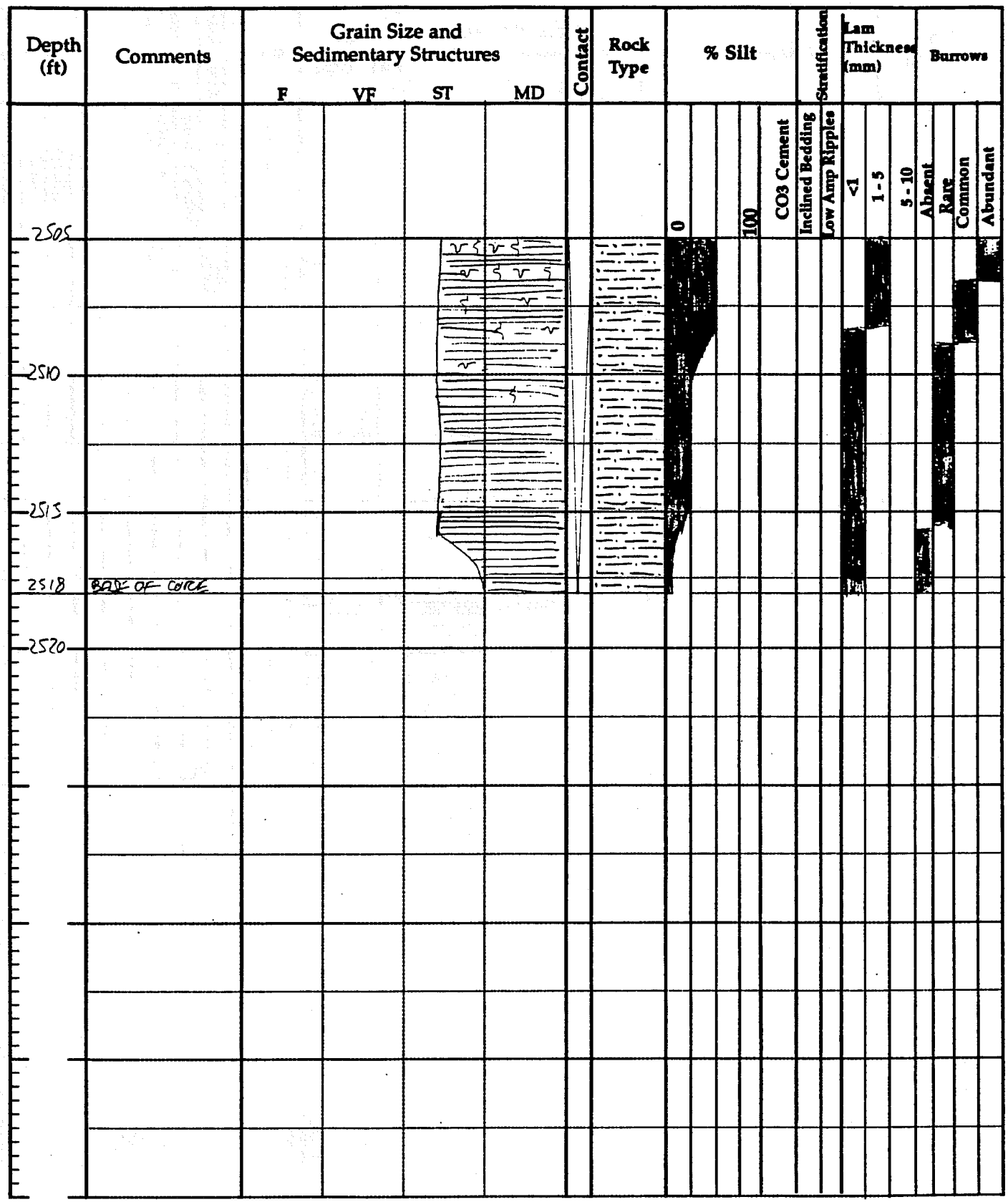
Formation _____ Location _____ Logged by JOSE Date 10/11/96



NEED TO FINISH
J.C. 10/11

Well FGU-318 Core depth (+) 2470 (-) 2518 = _____ Log depth @ _____

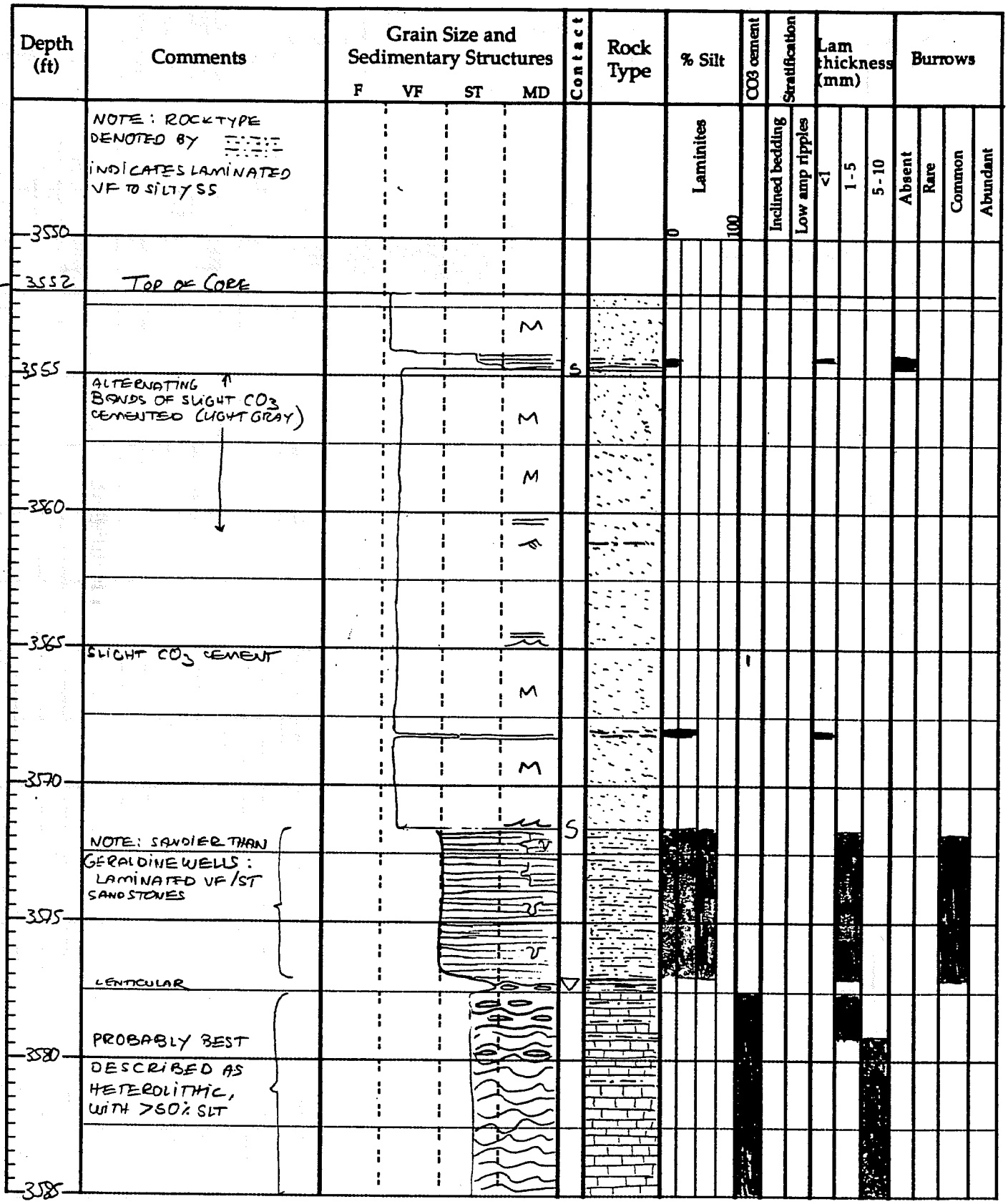
Formation _____ Location _____ Logged by JOE Date 10/16/91



Bureau of Economic Geology

Well FORD WEST/RAMSEY 14-3 Core depth (+) 3552 / (−) 3587 = 35' Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 08/08



Well RAMSEY 14-3 Core depth (+) 3552 (−) 3587 = _____ Log depth @ _____

Formation _____ Location _____ Logged by JOSE Date 08/08

Depth (ft)	Comments	Grain Size and Sedimentary Structures (F VF ST MD)	Contact	Rock Type	% Silt (Laminites 0–100)	CO3 cement	Stratification: Inclined bedding	Stratification: Low amp ripples	Lam thickness (mm): <1	Lam thickness (mm): 1-5	Lam thickness (mm): 5-10	Burrows: Absent	Burrows: Rare	Burrows: Common	Burrows: Abundant
3585	SAME AS ABOVE														
3587	BASE OF CORE														
3590															

B

Well Ramsey 22-1 Core depth (+) 2580 (-) 2630 = _____ Log depth @ _____

Formation _____ Location _____ Logged by Jose Date 09/19/96

Depth (ft)	Comments	Grain Size and Sedimentary Structures (F VF ST MD)	Contact	Rock Type	% Silt (Laminites 0–100)	CO3 cement	Stratification (Inclined bedding; Low amp ripples)	Lam thickness (mm) (<1; 1-5; 5-10)	Burrows (Absent; Rare; Common; Abundant)
2580	GENERAL: ALL CORE BOXES HAVE 4" OF CORE REPORTED		G						
2585									
2590									
2595									
2600									
2605	2603-2609'; MISSING CORE								
2610									
2615									

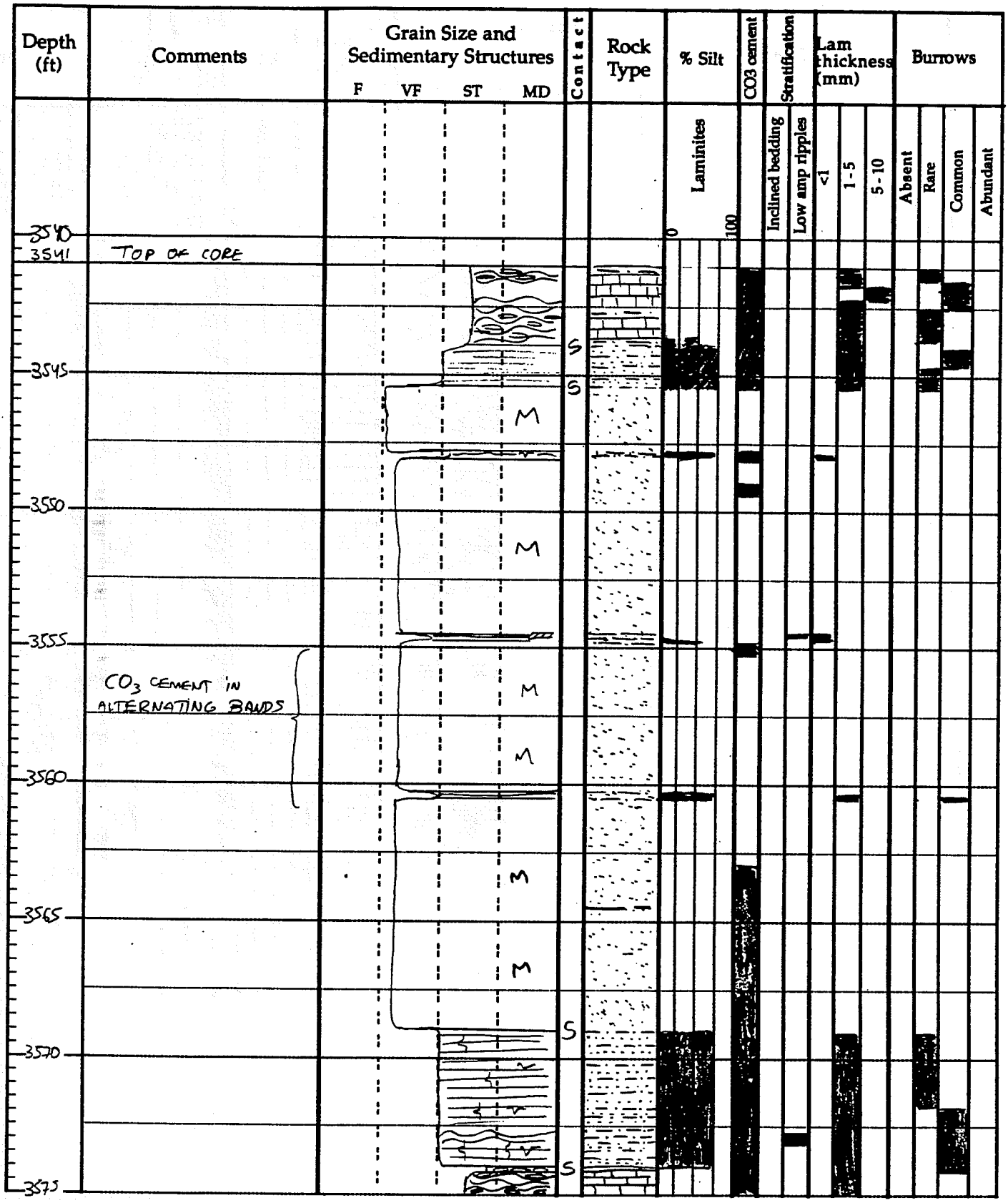
Well Ramsey 22-1 Core depth (+) 2580 (−) 2630 = _____ Log depth @ _____

Formation _____ Location _____ Logged by JDE Date 09/19/23

Depth (ft)	Comments	Grain Size and Sedimentary Structures (F VF ST MD)	Contact	Rock Type	% Silt (Laminites 0–100)	CO3 cement	Stratification: Inclined bedding	Stratification: Low amp ripples	Lam thickness (mm): <1	Lam thickness (mm): 1-5	Lam thickness (mm): 5-10	Burrows: Absent	Burrows: Rare	Burrows: Common	Burrows: Abundant
2615															
(8)															
(9) 2620															
(10)															
2625															
(11)															
2630															

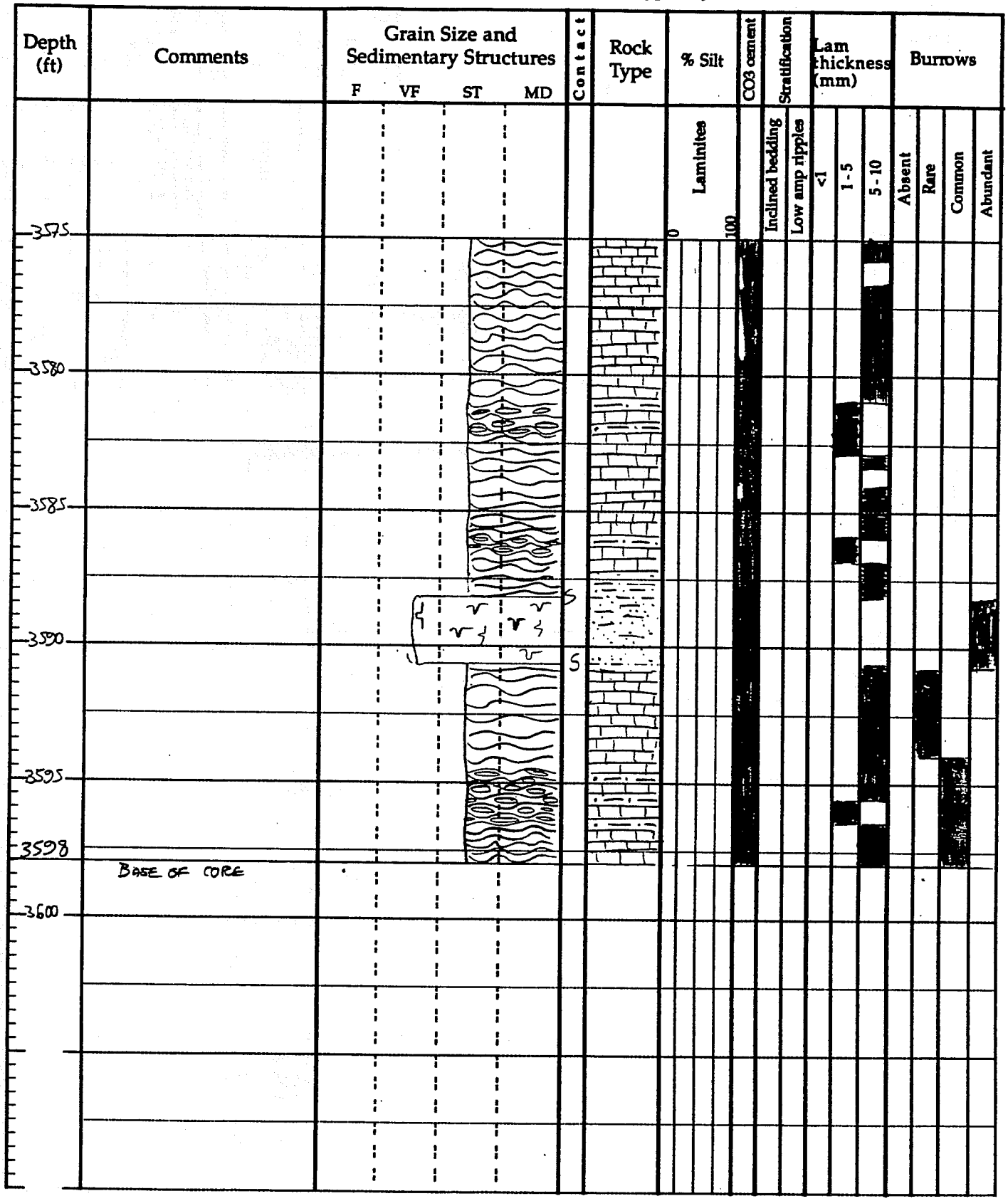
Well RAMSEY 22-3 Core depth (+) 3541 = 57' Log depth @ _____

Formation _____ Location FORD-GERALDINE (-) 3598 Logged by JOSE Date 08/15



Well Ramsey 22-3 Core depth (+) 3541 / (−) 3598 = _____ Log depth @ _____

Formation _____ Location _____ Logged by Jose Date 08/15



Well CONOCO RAMSEY 22-11 Core depth (+) 3552' = 3552' Log depth @ _____
(−)

Formation Pcc Location FORD WEST FIELD, CULBERSON CO., TX Logged by DICKERSON Date 6/28/96

Depth (ft)	Comments	Grain Size and Sedimentary Structures (F VF ST MD)	Contact	Rock Type	% Silt (0 – Laminites – 100)	CO3 cement	Stratification: Inclined bedding	Stratification: Low amp ripples	Lam thickness (mm): <1	Lam thickness (mm): 1-5	Lam thickness (mm): 5-10	Burrows: Absent	Burrows: Rare	Burrows: Common	Burrows: Abundant
3550															
3552 TOP	THINK (mm) LAMINAE: WISPY DISCONTIN.; HORIZONTALLY BURROWED; LAMINAE IN SETS THAT DECREASE UPWARD FROM 8-10 mm AT BASE TO 5 mm THICK AT TOP		G			3			✓	✓				✓	
3555	FRIABLE, BIMODAL		S			3								✓	
		G/A													
3560		G/A													
3565	2-cm LAYER – MORE ORGANIC MATTER, CALCAREOUS W. THIN DARK LAMINA W/ FLAME STRUCTURE		S			3	GI								
3570	2-4 mm ORGANIC INTVL., GENTLY INCLINED LAM.; SHALE BREAK ON LOG (SUBTLE)		S S			1	GI								
	CALCAREOUS ABOVE 3 TO 4 mm DARK LAMINAE ZONE W/ LOAD STRUCTURE					3			✓						
3575	3576.7 – BIMODAL LVF SD, SLT; A FEW FINE DARK CLASTS; RIPPLED; DARK MATERIAL W/ CO ABSENT (LVF) SAND		S			3		✓							
	INCR. GYP. OR ANHYDRITE BLEBS (4-5 mm DIAM); PACKETS OF LAMINAE THICKEN DOWN/D. FR. 5-7 TO 15-18 mm	G/A G/A	S							✓					
3580	V. FINE SHELL FRAGMENTS, WISPY DISCONT. LAMINAE, H. BURROWS; G/A FOLLOWS LAMINA; INDIV. LAM ~1 mm	G/A G/A G/A				3			✓	✓				✓	
BOTTOM									✓						
	NOTE: G/A = GYPSUM OR ANHYDRITE BLEBS/PATCHES														