

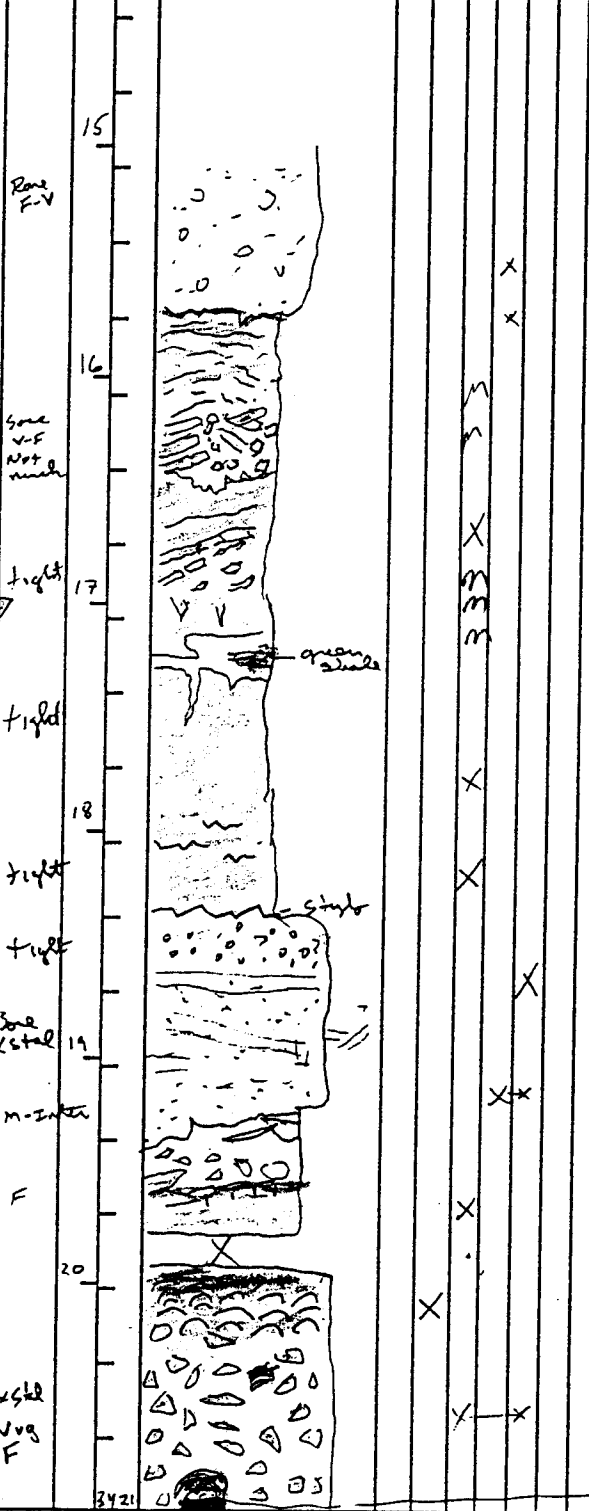
Sample Number	Described by:		Bed Number	Unit Name	Features			County/State _____ Section _____, T. _____, R. _____ Remarks:	
	ft.	10 cm			Measured section	M	S		Q
								No. Stratigraphic Description	
								<p>little cong layer? narrow mottled? ooid-breccia qtz ↑ ooids decrease up</p> <p>ooid gran stone</p> <p>Pel Rock Stone int. calcite / skeletal / ooid qtz some clasts riped up from below handground? - Truncated grains, some cemented breccia mud-qz conglomerate / breccia</p> <p>rip up clasts - coarse dol & chert</p> <p>disrupted laminated / brecciated some moldic / interstitial layers and some tighter layers - similar lith?</p> <p>shale filled veins / stylites Disrupted beds / breccia dol and tight and some coarse grain pack / qz w / x still porous</p> <p>laminated qs - pack qs? - lots of vugs after fen? conglomerate - up-up str? bed lam</p> <p>x-lam? qs some green shale blebs</p> <p>Coarse-grained packstone - g. matrix w / coarse clasts moldic, vuggy (after fen?)</p>	
F 33									
lighter chert xstnd F									
lots M.V.									
34									
mostly xstnd F									
TS									
35									
F M.V. xstnd									
26									
light xstnd									
37									
lots of vugs - fen early tight									
vuggy porous									
38									
little vug f-m									
39									

3434.5
 ↑ (9)

Sample Number	Described by:		Bed Number	Unit Name	Features	No.	Stratigraphic Description		
	Date: 11/8/19							County/State _____ Section _____ T. _____ R. _____	
	ft.	10 cm						Remarks:	
75 → 21 22 23 24 25 26 27							oncolid work zone muddy-stromatolite? chert w/ green mottled w very fine fossils chert tan fall mudstone chert cherts } late? green shale chert cherts white-creamy fall - (late?) ^{late sect.} _{Prism?} micropit brecciation of mud layers (auto clastic) _{early breccia} mud clasts in matrix - gray w/ x shal part mudst. or wackst matrix chert cherts green shale seam green shale cherts - rip up conglomerate. fractured filled w quartz and green clay mottled to whitish (greenish) texture mudstone - hints of lam. and green shale whorls coarse grained w/ clasts and some ooids chert slab some very lam. alternating coarse-fine layers w desiccation cracks white hills after evap? some burrowing? - laminated disrupted mudst., some brecciation ooid qs - decrease up chert layer gray w/ muddy/wacke clasts too more disrupted beds wavy, stromatolite laminae		
							3421.0 ↑ (12)		
							3424.4 ↑ (11)		

cut height

Sample Number	Described by:		Bed Number	Unit Name	Features			County/State _____ Section _____, T. _____, R. _____ Remarks:	
	ft.	10 cm			Measured section	No.	Stratigraphic Description		
	Date: 11 / 9 / 1994								
15									
16									
17									
18									
19									
20									



mottled ^{honeycombed} wackestone - packstone
 w/ some intraclasts

Brecciated - shows dissolution or
 diagenetic features (conspicuous ^{peepers})
 mostly mudstone

fen. mud stone or mudcl. wackest

Fractured - auto clastic breccia.
 filled w/ ~~pink~~ tan-cream fine
 dolo? some green shale

massive dolo mud

dolo mudstone
 some w/ green shale
 Cherty. ed gs - ss. ds?

packstone - multi- tabular

Brecciated - filled w/ white, cream ^{dolo} ~~fine~~ ^{fragments}
 (+ occasional? intraclasts?)

mudstone

granitic
 LH - diagenetic

mud clasts in grayish matrix

Stromatolitic clast w/ green shale base

3415.7

↗ (13)

3319.5

↑

TS

porous matrix

xshd Vug F

3421

Sample Number	Described by:		Bed Number	Unit Name	Features			County/State _____ Section _____, T. _____, R. _____ Remarks:
	Date: 11/9/1994				F	S	P	
	ft.	10 cm						
								No. Stratigraphic Description
	9							Leopard-thrombolite?
Tight					X	X		wavy laminated - looks like algal influenced current (climbing?) ripples
5/2						X		cherty, id "brecciated" layers
10					X	X		- some green shale defined x-beds inclined beds - x beds? - some brecciated
Tight						X		some brecciated - early wavy - pale w/ some green shale (much in spherulites)
11					X			stromatolite
Some v-f					X	X		wavy - crinkly lam - algal
Some F					X	X		leopard-thrombolite - disrupted - brecciated
Some F					X	X		algal? thrombolite? leopard
12								some lam, branching?
Some F						X		wavy - mottled texture possible brecciated branching
Tight					X	X		Breccia - late? some coarse fill open fractures
F					X	X		algal? wavy laminated - brecciated texture
x-stud	13				X	X		Stromatolitic
fine x-stud								very mottled fabric - between leopard and algal - looks like possibly thrombolite
Some v-f					X	X		
14								
intense wavy								
Some v-offer					X	X		
3415					X			

Sample Number	Described by:		Bed Number	Unit Name	Features			County/State _____ Section _____, T. _____, R. _____ Remarks:		
	Date: 11 / 9 / 1944				M	W	P/C			
	ft.	10 cm							Measured section	
								No. Stratigraphic Description		
								<p>03 Tight ↑ Lots</p> <p>04 Interbedded x shale Tight x shale</p> <p>05 Tight x shale</p> <p>06 V Vug Fen</p> <p>07 Some water lam fen</p> <p>08 Some x shale F V</p> <p>Some F V shale</p> <p>Some F V</p> <p>3408</p>	<p>— Breccia zone — early not much transport green shale w/ some chert</p> <p>brecciated — early — brecciated? w/ white-graying fill</p> <p>'greenish' color due to green shale impregnating? shale, intra g s - voids?</p> <p>brecciated. Fractured? wavy algal — leopard?</p> <p>Stromatolite (overhang) Algal laminae Wavy disrupted lam — algal Stromatolite Chert area — fragments also creamy of all and green shale in fract.</p> <p>mottled (knurled)? and mixed w/ greenish shale and algal? also white green shale lam.</p> <p>— leopard at top? Pockets Wavy — amaly algal? lam.</p> <p>Wavy — disrupted algal lam Some brecciated layers</p>	<p>3405.5</p> <p>3407.9</p> <p>14</p> <p>Out. <u>Strain</u></p>

Sample Number	Described by:		Bed Number	Unit Name	Features			County/State _____ Section _____ T. _____ R. _____ Remarks:
	Date: <u>11 / 9 / 1994</u>				No.	Stratigraphic Description		
	ft.	10 cm						
* 97	↑ ↓ Tight							<p>laminated - low angle to horizontal</p> <p>styl of the seam surface and in by clasts</p>
98	Tight							<p>muddy but w/ some grains - clasts</p> <p><u>oil spot</u></p> <p>Fractured/irregular brecciation - (see roof?) * Photo</p> <p>- late - not much transport or rotation "fitted" - some coarse grains silt, some shales - open fractures too</p> <p>Clasts nig - wacke - pack - some layers of congl</p> <p>- muddier - horiz lam w/ horiz fen?</p> <p>- minor breccia zone? early</p>
3397	↑ ↓ lots							
3400	Tight - some x-bed F							<p>laminated to mottled.</p> <p>distinct burrow traces in some layers</p>
01	Some x-bed mostly tight							<p>low x - wavy beds</p>
02	F.V V. fen x-bed Tight							<p>crinoid, disrupted lam - algal?</p> <p>some x-beds?</p> <p>good laminated plane striae</p> <p>mottled to faint wavy beds</p>
3403	x-bed							brecciated

3397.3
↑

Sample Number	Described by:		Bed Number	Features			Country/State _____ Section _____ T. _____ R. _____ Remarks:	
	Date: 11 / 9 / 19 74			Unit Name	Mud	W/P		R/L
	ft.	10 cm						
							No. Stratigraphic Description	
	91						grainy - intraclastic diagenetic? - tight chertoid? area - <u>curious</u> nodds	
Triples				X				
X's bed	92						<u>Brown</u> - early	
X's bed								
light				X			- wavy lam - * good ripple form	
				X			- horizontal lam	
no Keptone v wags of steep lam								
large Keptone wags	93			X			algal? - leopard rock large Keptone? wags	
				X				
	94			X			clotted - beccated - either intraclasts or diff cementation; - some mag wavy lam - algal?	
light				X			mag lam to "clotted" - mottled - leopard	
X's bed				X			massive or better cemented	
Triples	95			X				
X's bed				X			fant lam - mostly massive	
				X			↓	
X's bed	96			X				
fan				X			↑	
some X's bed				X			grainy to intraclastic pack-gs	
				X				

3392.8

↑ (15)

Sample Number	Described by:		Bed Number	Unit Name	Features	County/State _____ Section _____, T. _____, R. _____ Remarks:
	Date: <u>11/9/1994</u>					
	ft.	10 cm				
					No.	Stratigraphic Description
	85					<p>mudst. auto breccia 3385.0</p> <p>some burrow traces</p> <p>Some upward beds - top beds go across positive element (Constructive - eroded?) (14)</p> <p>disrupted, brecciated lam w/ few brecciated</p> <p>chert area w/ large clasts</p> <p>disrupted - brecciated Fen w/ block stone Fen mudstone</p>
	86					<p>3387.9</p> <p>locally brecciated wavy, conc, green shale-filled seam</p> <p>local brecciated area - late? gas trapped</p> <p>some ooid? molds gs - faint wavy beds</p>
	87					<p>3390.2</p> <p>disrupted - brecciated, intra, steel peck breccia - conc green shale Burrow mottled mud-wacke</p>
	88					
	89					
	90					
	91					
	92					
	93					
	94					
	95					
	96					
	97					
	98					
	99					
	100					

TS →

Mont T. 85

Some xstal F.V. 86

Vugs-lam Fen

Vug F

right xstal 87

TS →

Some xstal 88

Tight Some F 89

M xstal 90

diff xstal 91

Tight 92

xstal 3391

3385.0

↗ (14)

3387.9

↗ (14)

3390.2

↗ (16)

Sample Number	Described by:		Bed Number	Unit Name	Features			County/State _____ Section _____, T. _____, R. _____ Remarks:		
	Date: 11 / 10 / 19 94				ft.	10 cm	Measured section		No.	Stratigraphic Description
	73	Some ✓						fast lam, wavy		
		x shell ✓						↑		
	74	x shell ✓						mottled grainy texture burrow-throated. or drag?		
		Some ✓						wavy lam q.s. - clastic w vugs - fine small clasts - white matrix		
	75	Some ✓						- disrupted brecciated - rip-up layer?		
		Some ✓						fine capped q.s wavy - horis lam q.s - w voids → and intercalated peloids		
	76	Some x shell						Chert w/ oolites peloid pack mudiclast - peloid particulate		
		Some ✓						pack - q.s - fast lam		
	77	Some ✓						Geotopod ↑ mottled wavy lam coarse grainy		
		Some ✓						grainy - lam but fining up?		
	78	Some ✓						Low angle x-bed grainy w/ clasts		
	33 79									

large vugs in layer

orig lam
Fan - keratin
vugs

lam fan
intergran

Lots of
Keystone
Vugs
open

3375.8

↑ ? (19)

①

①

Sample Number	Described by:		Bed Number	Unit Name	Features	County/State _____ Section _____ T. _____ R. _____ Remarks:
	ft.	10 cm				
	Date: 11 / 10 / 1994					
						No. Stratigraphic Description
	67	fin x stb				whitish - green shale w/ dots
	60	diff x stb		X		Fu faint laminae mixed greenish shale and carb (dots above)
	69	diff x stb		X		hois - wavy lam - some low angle x-bed
	70	TS → tight		X		grainy - wavy lam - algal? chest nodules - after evapd - *photomicrographs in whitish green shale & carb stringers
		x stb fine small		X		↑ Fu ?
	71	lots of V-lam Fen karstine		X		fine grained? less lam - key vugs hard laminated skel - intralaminar qz
	72	massive		X		gray - wavy lam - stromatolite? cherted lam - soft sed
		green shale		X		massive - mud - wacke fill of Fruehite
		diff x-v		X		? poor sample unmarked sample

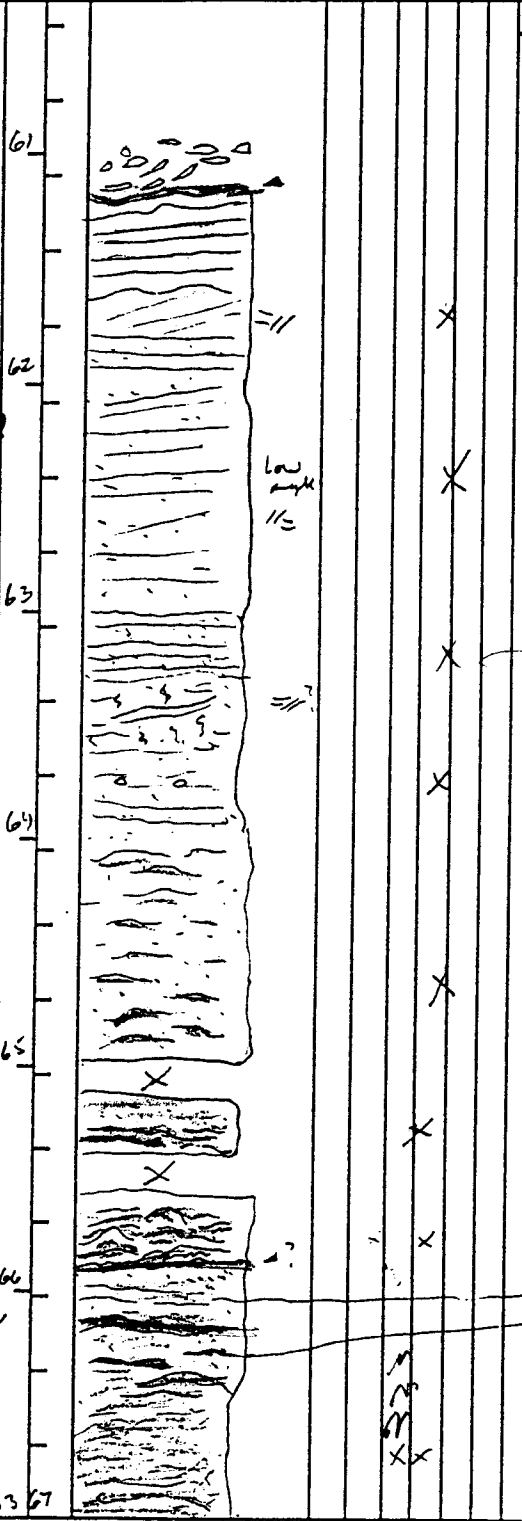
3371.6

↑ (20)

D

Sample Number	Described by:		Bed Number	Unit Name	Features		Country/State _____ Section _____, T. _____, R. _____ Remarks:	
	Date: 11 / 10 / 19 94				No.	Stratigraphic Description		
	ft.	10 cm						Measured section
	61							
	62							
	63							
	64							
	65							
	66							
	67							

higher →
 lots x-stal ✓
 TS → lots - good diff x-stal
 lots x-stal v. var.
 diff x-stal
 some x-stal ✓
 some x-stal
 low fan key var.
 some diff x-stal ✓
 TS → fine tight



low x-lam some ripples
 mostly horiz lam - some low x-lam green shale gone
 * good diff x-stal prints
 Pel. Wack/Part st
 local hummocky
 local structures
 horiz-lam
 sharp - wavy lam - nodded
 greenish carb w/ green shale whorly layers
 some greenish carb
 whorly green shale - carb
 wavy-lam - algal - ? show
 Sharp contact, eroded?
 cent. layers shale lenses
 mixed greenish shale & dol
 M. st or Wack st
 white green shale w/ dol

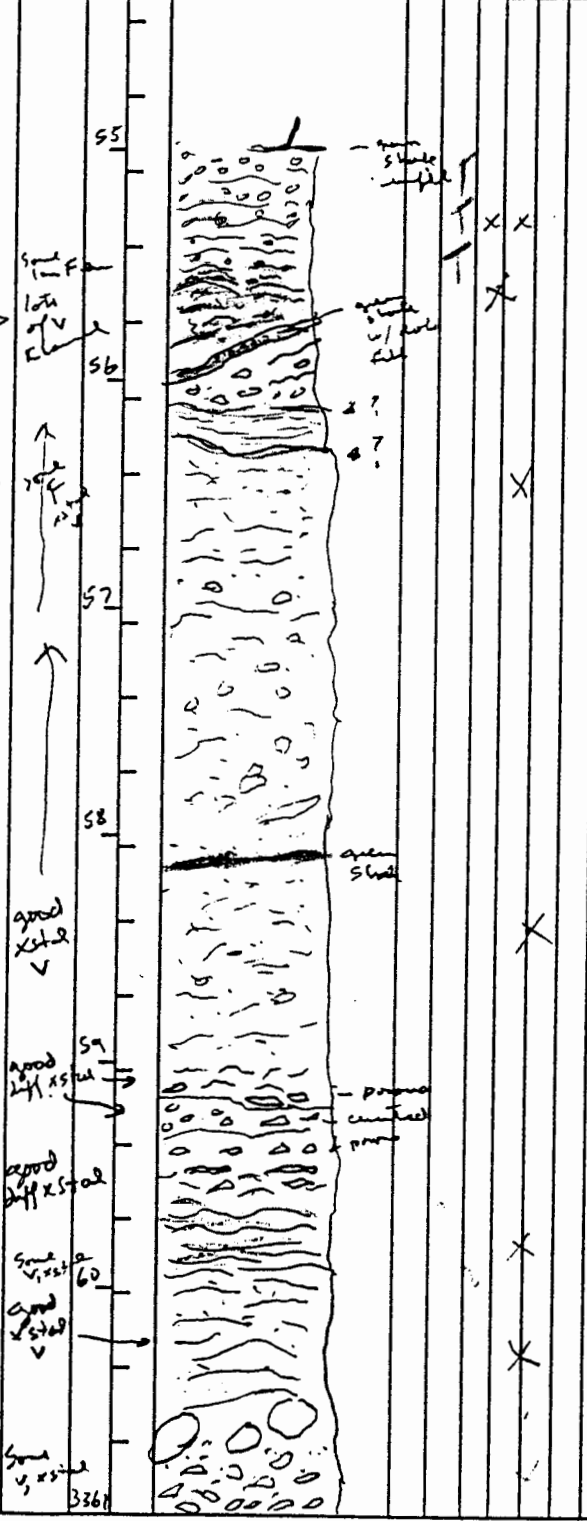
33612
 ↗ (21)

D
 D

Sample Number	Described by:		Bed Number	Unit Name	Features			County/State _____ Section _____, T. _____, R. _____ Remarks:			
	Date: 11/10/1994				ft.	10 cm	Measured section				
								No. Stratigraphic Description			
								<p>Thrustite interbedded - wavy lam texture</p> <p>wavy - algal lam.</p> <p>more homogeneous - mottled wavy lam</p> <p>more clastic - brecciated texture</p> <p>some green shale whips mottled to brecciated texture</p> <p>mottled, wavy lam - base</p> <p>↑ grades up to breccia texture wavy, irregular lam. - algal</p> <p>early breccia - rip-up texture</p>			

TS →

↑
more
deposited



→ D

N116 #1 Caldwell
 2-20S-8W
 CNE NE

22 of 22

Sample Number	Described by:		Bed Number	Unit Name	Features	No.	Stratigraphic Description
	ft.	10 cm					
	Date: 11 / 10 / 19 94						County/State <u>Rice Co KS</u> Section <u>2</u> , T. <u>20S</u> , R. <u>8W</u> Remarks: Described by Franseen
		Measured section					
	49						fissile green shale - SIMPS ON alt lam of green shale / calc - some white chert green shale druse chert - evap? fractured - impure - faulted breccia filled w/ coarse calcite and green shale original grainy-laminated fossils 3348.8
	50						pyrite 3350.3
	51				X X		mottled mud / wacke green shale w/ white chert tubules (evap?) mottled mud / wacke (mottled) 3350.7 all coarse fine w/ green shale druse (24)
	52				X		wavy, to ripple-? laminated gr w/ local clasts (imp-up) lenses greenish gs - faint lmi brecciated + early
	53				X X		late Fractures? Fractured wavy lam (some Fav) algal? facies - Fracts open or filled w/ coarse sand and green shale mottled - wavy lam, gs - voids? Red wackestone Fract - into breccia lenses - gs fills in - early exposure surface brecciated white-creamy - gray calcite some eroded contact greenish - wavy lam. 3352.5 from gs above? (22)
	54				X		dolomudstone faint ^{lens to} wavy lam. some disrupted beds - humours? Interbedded green chert
	33 55				X		

3350.2
 concn formation

7 mudstone lens
 mudst + lens

↑ north
 tight
 ↓
 diff xslr
 TS →
 ↑
 diff xslr
 tight
 tight
 tight
 some FF
 TS →
 tight
 some
 tight
 tight

3350.3
 all
 coarse
 fine
 w/ green
 shale
 druse
 (24)

3352.5
 early exposure
 surface
 from gs above?
 (22)