

Covey

The Well Watchers

Scale 1:240 (5"=100') Imperial

Well Name: SHEETZ #1
Location: Section 16 - Township 12 South - Range 32 West
Licence Number: 15-109-20,974. 0000 Region: Logan County, KS.
Spud Date: 4 February 2011 Drilling Completed:
Surface Coordinates: 1,382' FSL & 1,773' FWL
(Approximately SE SW NE SW)

Bottom Hole
Coordinates:
Ground Elevation (ft): 2,995' K.B. Elevation (ft): 3,003'
Logged Interval (ft): 3,350' To: Total Depth (ft):
Formation: Stotler -----> Miss
Type of Drilling Fluid: Chemical; Low Solids (non-dispersed)

Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: NEW GULF OPERATING, LLC.
Address: 6310 East 102nd Street
Tulsa, Oklahoma 74137
(918) 728-3020
POC Geologist:
Joe Baker

GEOLOGIST

Name: Curtis Covey
Company: COVEY - The Well Watchers
Address: 6548 Bedford Circle
Derby, Kansas 67037
Office: (316) 776 - 0367 Cell: (316) 258-9976

2011

DAILY DRILLING STATUS -- FEBRUARY

2011

	12-1/4" Hole	7-7/8" Hole	7-7/8" Hole	
4 Feb	--- Spud @ 6:30pm. Drill to 272'.	5 Feb	--- WOC. 6:30am @ 272'.	
5	--- Run 8-5/8" casing (23#) Set casing @ 269'. Cemented w/ 200 sx Class A (2% Gel + 3% CC). [Consolidated] Cement did circulate. Plug down @ 2:45am. WOC.		Under surface casing @ 11:30am.	
		6	--- 6:30am @ 1,935'.	
		7	--- 6:30am @ 2,760'.	
		8	--- Displace Mud @ 3,339'. 6:30am @ 3,445'.	
		9	--- 6:30am @ 4,030'. Start &	
		10	--- 6:30am @ 4,115'. Finish DST #1: Lansing (4,087' - 4,115'). Resumed Drilling @ 3:30pm.	
		11	--- 6:30am @ 4,225'. DST #2: Lansing (4,143' - 4,256').	
			12 Feb	--- Resumed Drilling @ 12:55am. 6:30am @ 4,360'.
			13	---

KB: 3,003'

FORMATION TOPS

GL: 2,995'

Formation	Rotary Sample Depth (Datum)	E-log Depth (Datum)
AnHydrite	2,517' (+486') *	
B / AnHdrite	2,540' (+463') *	
Stotler	3,620' (-617')	
Topeka	3,851' (-748')	
Heebner Shale	3,963' (-960')	
Toronto	3,996' (-993')	
Lansing	4,003' (-1,000')	
Muncie Creek SH	4,153' (-1,150')	
Stark SH	4,234' (-1,231')	
B / KC	4,301' (-1,298')	
Pawnee LS	4,442' (-1,439')	
Ft. Scott		
Cherokee Sh		
'Johnson' Zone		
Morrow Shale		
Miss (Erosional)		

* Contractor

RTD: LTD: ATD: E-log is to rotary sample depth, uphole.
 E-log is to rotary sample depth, mid- & down hole.

Loggers: Schlumberger
Elk City, Oklahoma

DST # 1 - LANSING

Rotary Depth: 4,087' - 4,115'
Logger's Depth:

Recovery: 715' Gassy Muddy Wtr (2%G,18%M,80%W)

Total Fluid: 715'

Recovery Water: (40,000 ppm)
System Water: (2,200 ppm)

Reported Rw =
0.12 ohms @ 80 deg F

IFP: 12# - 135#/30"
 ISIP: 1,175# / 45"
 FFP: 141# - 335# / 60"
 FSIP: 1,166# / 90"
 129 deg F
 MH: 1,939# - 1,928#

IF: BOB in 11 minutes.
 ISI: No Blow Back.
 FF: BOB in 18 minutes.
 FSI: No Blow Back.

Diamond Testing
Hoisington, KS.

Recovery Water - Mud Engineer:
(42,000 ppm)

Sampler: Wtr w/ OIL spots

DST # 2 - LANSING

Rotary Depth: 4,143' - 4,256'
Logger's Depth:

Recovery: 140' GAS in Pipe
 171' Clean OIL (41.2 API @ 60 deg F)
 378' Gassy Oily Muddy Wtr (10%G,11%O,19%W,60%M)
 315' Muddy Water (17%M,83%W - Oil spots)

Total Fluid: 864'

Recovery Water: (48,000 ppm)
System Water: (2,900 ppm)

Reported Rw =
0.10 ohms @ 79 deg F

IFP: 15# - 155#/30"
 ISIP: 1,276# / 45"
 FFP: 165# - 379# / 60"
 FSIP: 1,260# / 90"
 117 deg F
 MH: 1,967# - 1,958#

IF: BOB in 7 minutes.
 ISI: 1-1/4 inch Blow Back.
 FF: BOB in 8 minutes.
 FSI: 1-1/2 inch Blow Back.

Diamond Testing
Hoisington, KS

Recovery Water - Mud Engineer: (
ppm)

Sampler: 4% OIL + 96% Water

HOLE DEVIATION (272' - ') & STRAP

DEPTH / TVD	--- INCLINATION	AZIMUTH	NORTH	SOUTH	EAST	WEST	DOGLEG deg/100'
272' /	--- 0.75 (Surface)						
1,291' /	--- 1.00						
2,234' /	--- 1.00						
3,110' /	--- 1.00						
4,115' /	--- 1.50 (DST #1)						

STRAP ON DST # 1

Board: 4,141.98'

Strap: 4,141.92'

Diff: 0.06'

CONTRACTOR

VAL Energy --- Rig #4

10,500 E. Berkeley Square Parkway, Suite 1000
Wichita, Kansas 67230
Office: (316) 636-2090

Rig #4 - (620) 617-2793

Larry Hinderliter - (620) 804-0097

Pump: National K-500A
6" x 15" @ 58 SPM.
1,000 PSI @ Standpipe.

Uphole Hole:
WOB 35M @ 80 RPM.

After Mudup / Main Hole:
WOB 40M @ 70 RPM.

Drill Collars: 6-1/8" x 2.50" --- 469'. (83.5#/ft)
Dry Collar Weight: 39,162#
(@ 9.5 ppg / Buoyancy Factor 0.8545)
Bouyancy Collar Weight: 33,464#
Design Factor: 15%, therefore:
available WOB is 28,444#
Drill Pipe: 4-1/2"XH. (16#/ft - used)

BIT RECORD

DATE	SIZE	TYPE	JET SIZE	DEPTH IN / OUT	CUM. FT.	HOURS	ROP
4 Feb 2011	12-1/4"	REED RR	3 / 15's	0' / 272'	272'	2.50	108.8
5 Feb 2001	7-7/8"	JZ QX-21	13 - 14 - 13	272' /			

ROCK TYPES

POROSITY

- Earthy
- Fenest
- Fracture
- Inter
- Moldic
- Organic
- Pinpoint
- Vuggy

LITHOLOGY

- Anhy
- Bent
- Brec
- Cht
- Clyst
- Coal
- Granite wash
- Congl
- Dol Imst
- Silty dol

- Calc dol
- Dol 2
- Dol
- Gyp
- Igne
- Lmst 2
- Lmst
- Meta
- Mrst
- Salt
- Shale 3
- Shale 3
- Shale
- Shcol
- Shgy
- Sltst
- Ss
- Till
- Ss 2

MINERAL

- Mica
- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Brecfrag
- Calc
- Carb
- Chtdk
- Chtlt
- Dol
- Feldspar
- Ferrpel
- Ferr
- Glau
- Gyp
- Hvymin
- Kaol
- Marl

STRINGER

- Minxl
- Nodule
- Phos
- Pyr
- Salt
- Sandy
- Silt
- Sil
- Sulphur
- Tuff
- Copper
- Ooliticastic
- Ooloid
- Oolite
- Sucrosic
- Dark specks
- Calc dol
- Silty dol
- Anhy

- Arg
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst
- Calc dol
- Sltstrg
- Ssstrg
- Chalk
- New symbol
- Oil
- Spotted
- Ques
- Dead
- Gas
- Oil/gas
- Bed contact

SHOW

ACCESSORIES

FOSSIL

- Algae
- Amph
- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal
- Coral
- Spore
- Crin
- Echin
- Fish
- Foram
- Fossil
- Gastro

- Oolite
- Ostra
- Pelec
- Pellet
- Pisolite
- Plant
- Strom

MINERAL

- Mica
- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Breclrag

- Calc
- Carb
- Chtdk
- Chtlt
- Dol
- Feldspar
- Ferrpel
- Ferr
- Glau
- Gyp
- Hvymin
- Kaol
- Marl
- Minxl
- Nodule
- Phos

- Pyr
- Salt
- Sandy
- Silt
- Sil
- Sulphur
- Tuff
- Copper
- Ooliticastic
- Ooloid
- Oolite
- Sucrosic
- Dark specks

- Silty dol
- Anhy
- Arg
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst
- Calc dol
- Sltstrg
- Ssstrg
- Chalk
- New symbol

- #### STRINGER
- Calc dol

OTHER SYMBOLS

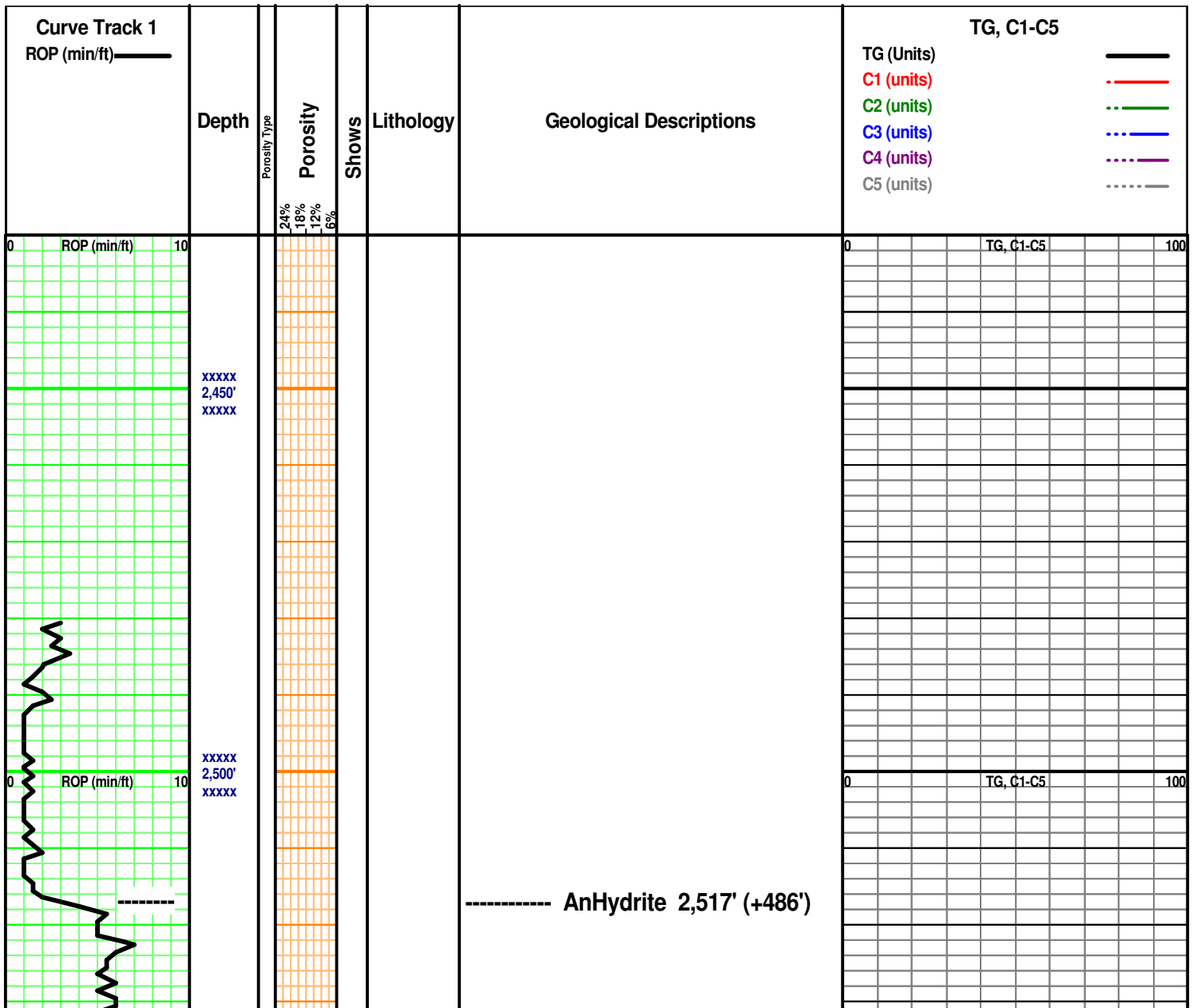
ACTIVITY

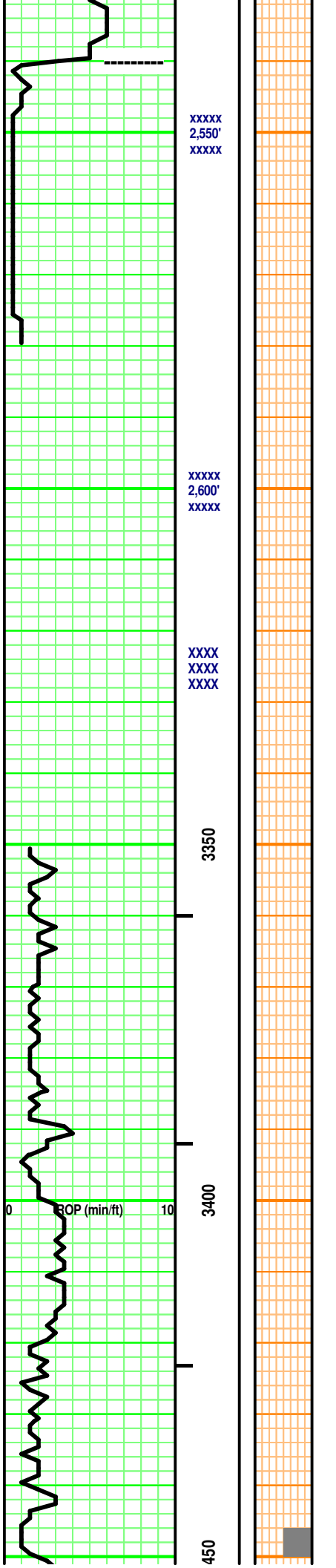
- Lost circluation
- Circulate for same

- Circulate for same
- Rtd
- Trip

- Connection
- Rft

- Sidewall





----- B / AnHydrite 2,540' (+463')

DISPLACE MUD @ 3,339'

Vis: 54
Wt: 8.6
LCM: 2#

Vis: 54
Wt: 8.7
LCM: 2#

100 units = 1% Gas

0 TG, C1-C5 100

Vis: 54
Wt: 89.7
LCM: 2#

Dry Wt of Collars: 39,162#

[469' x 83.5#/ft = 39,162#]

Drill Collars: 6-1/8" x 2.5"

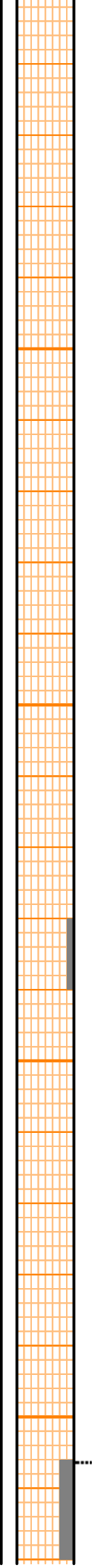
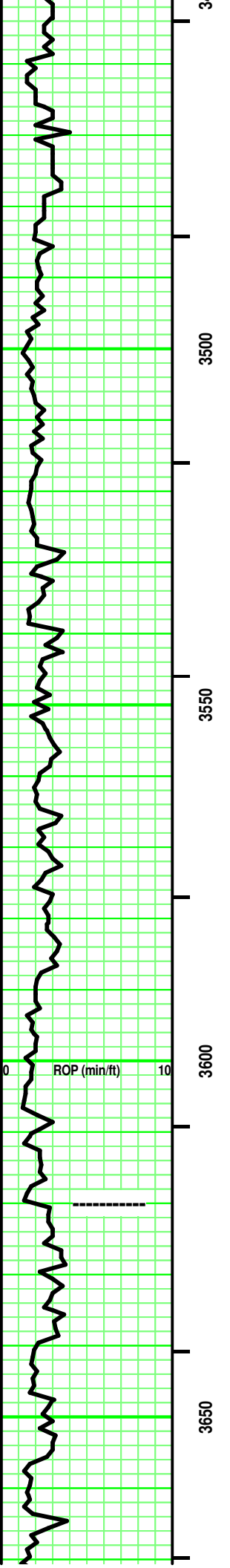
Buoyancy Wt of Collars: 33,973#

[39,162# x .8675 (8.7ppg) = 33,973#]

Available WOB: 28,877#

[33,973# x .85 = 28,877#]

Vis: 54
Wt: 8.7
LCM: 2#



Interbedded SH & LS
 SH - Lt/ Med Gray. tr Tannish Gray to Brownish Gray. some limy streaks. some calc in part. rare fossil frag. soft.
 LS - Tan/ tr to some Pale to Lt Gray. Sing. XF-/ Micro-xln. xln por. tr argil in part. rare fossil frag. partly Firm. No/ tr vis por.

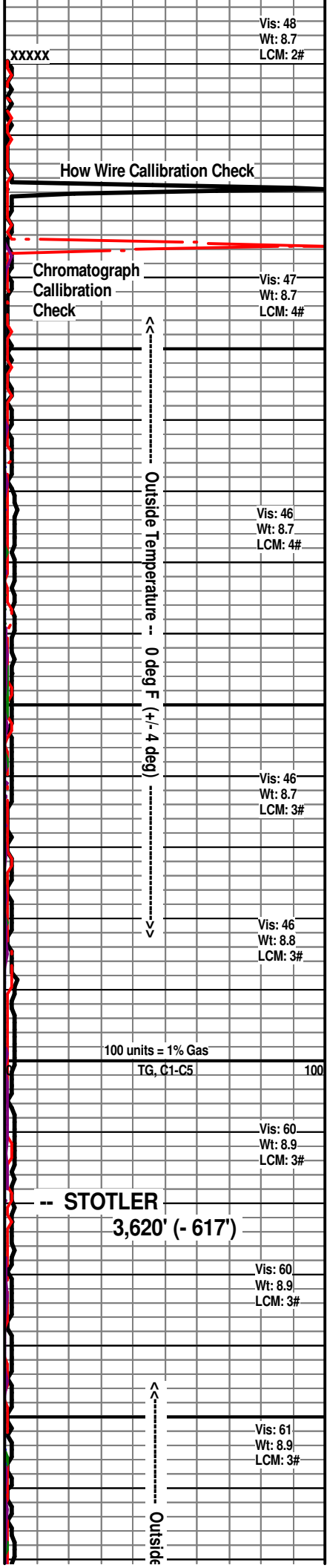
Interbedded SH & LS
 SH - Lt/ Med Gray. tr Tannish Gray to Brownish Gray. some limy streaks. some calc in part. rare fossil frag. soft.
 LS - Tan/ tr to some Pale to Lt Gray. Sing. XF-/ Micro-xln. xln por. tr subchalky in part. tr argil in part. rare fossil frag. partly Firm. No/ tr vis por.

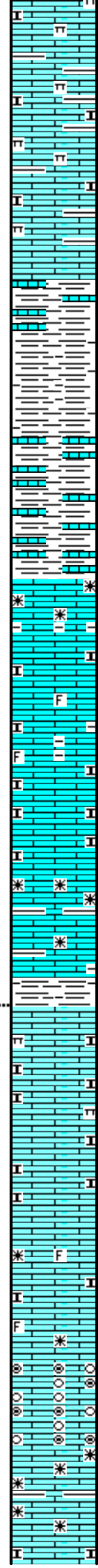
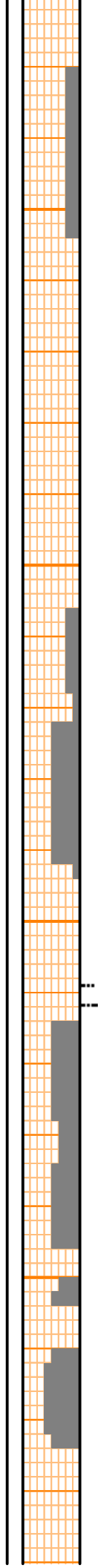
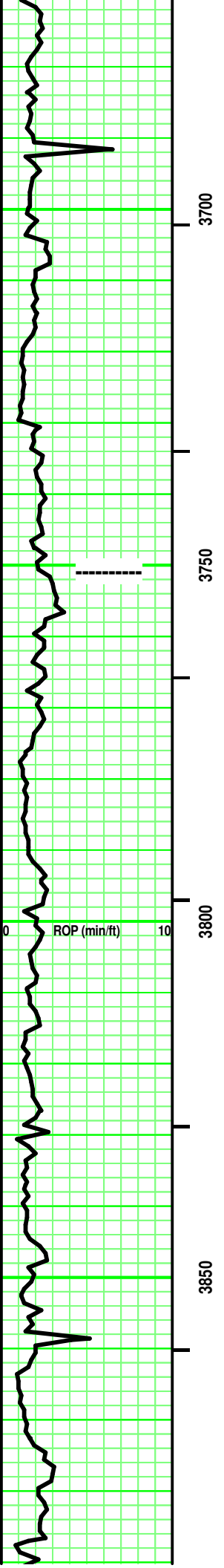
LS (1) - Tans/ tr Off White. some Lt Gray in part. Sing/ tr Mot. tr VF/ mostly XF-xln & Micro-xln. xln por. tr Re-xln. some interbedded argil/shale (Grays). mostly Firm. No/ tr vis por.

SH - Med Gray. Sing. soft. tr blocky.

LS - similiar to (1) above.

Interbedded SH & LS
 SH - Lt/ Med Gray. tr Tannish Gray. some limy streaks. some calc in part. soft.
 LS - Tans / tr Pale to Lt Gray. Sing. XF-/ Micro-xln.





xln por. rare Re-xln. tr argil in part. subchalky in part. tr marly in part. No/ tr vis por.

SH - Lt/ Med Gray. Sing. highly limy (Tannish Gray) to LS stringers (Tan, Micro-xln).

LS - Grays/ Tans. Sing/ somt to mostly Mot. XF-/ mostly Micro-xln. xln por. some subchalky. tr fossil frags. some intermixed/ interbedded argil or shale (Med/Dark Gray). Firm. No/ tr vis por.

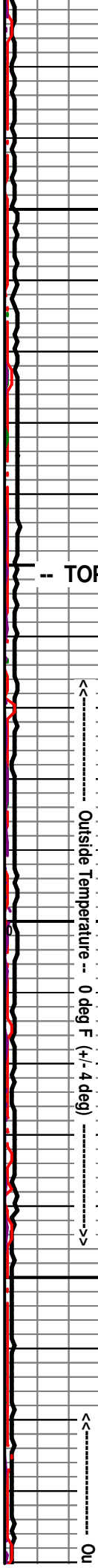
SH - Med Gray. Sing. Firm.

Intermixed & Interbedded:
 LS - Lt/ rare to some Med Gray, Tans. tr Tannish Pale Gray. some Sing/ mostly Mot. VF-/ XF-/ Micro-xln. xln por. some subchalky/ marly. argil/shaly. rare fossil frags. partly Firm. No/ tr/ rare Fair vis por.

LS - Lt/ Med Tan. Sing. XF-/ Micro-xln. xln por. some Re-xln. some argil/shaly in part. Firm. No/ tr vis por.

SH - Grays. Sing. tr calc to limy in part. some Firm. Blocky.

Add: VF Oolites/ Oolcasts. Clear/ Lt Tan, semitransparent Matrix.



Temperature -- 0 deg F (+/- 4 deg)

Hydromatic Froze

Vis: 63
Wt: 8.9
LCM: 3#

Vis: 56
Wt: 9.0
LCM: 1#

Vis: 56
Wt: 9.0
LCM: 1#

--- TOPEKA ---
3,751' (- 748')

Vis: 56
Wt: 9.0
LCM: 1#

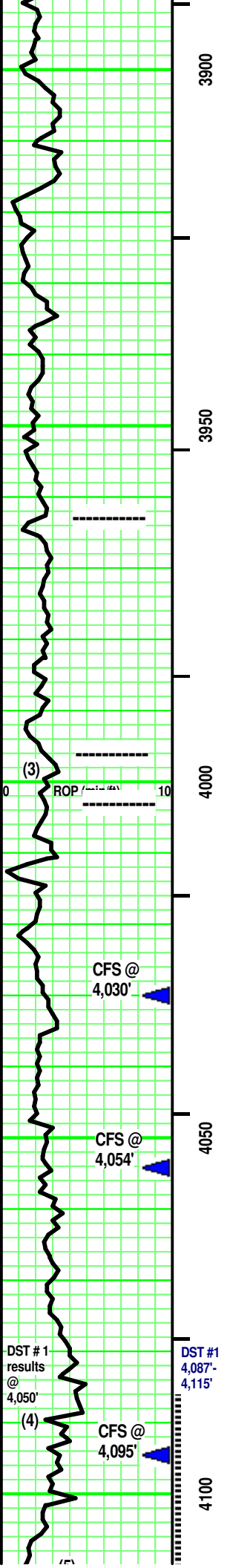
100 units = 1% Gas
TG, C1-C5 100

Vis: 59
Wt: 9.0
LCM: 1#

Vis: 60
Wt: 9.1
LCM: 1#

Vis: 50
Wt: 9.1
LCM: 1#

Vis: 50
Wt: 9.1
LCM: 1#



3900

LS (2) - Tan. Sing. Micro-xln. xln por. tr Re-xln. Firm. No/ tr vis por.

SH - Black. Sing. Carb. Soft.
LS - similar to (2) above.

LS - Lt/ Med Gray, Tans. Sing/ Mot. XF-/ Micro-xln. xln por. some Re-xln. subchalky in part. argil/shaly. some interbedded Re-xln. partly Firm. No/ tr/ rare Fair vis por. Dense at top/depth

LS - Tans/ some Pale Lt Gray, tr Off White. Sing/Mot. Micro-xln. xln & some part por. Subchalky. some fossil frags. some argil. Friable. Tr/ Fair vis por.

3950

SH - Black. Sing. Carb. Soft.
LS - Lt Gray. Sing. Micro-xln. xln por. No/ tr vis por.

SH - Med Gray. Sing. Calc/ LS stringers. Firm. Massive.

4000

(3) ROP (3960 ft)

LS (3) - SH - Lt Gray. Sing. calc.

LS - Off White/ Tan. Sing/ tr Mot. Micro-xln. xln & tr Vuggy por. [some VF Oolites in part, Off White. Clear/ Pale Tan, semitransparent Matrix. Friable. Tr vis por.] some Re-xln. rare subchalky in part. mostly Firm. No/ tr vis por.

SH - Med Gray. Sing. Massive. soft.

4050

LS - Lt & Med Tan. Sing/ Mot. XF-/ Micro-xln. xln & tr part por. rare Fossil frags. subchalky in part. partly Friable. No/ tr vis por.

SH - Med Gray. Sing. Massive. soft.

LS - Tans/ tr Off White. Sing/ tr Mot. XF-/ Micro-xln. xln por. tr Re-xln at depth. subchalky in part. partly Friable. No/ tr vis por.

SH - Med/ Dark Gray. Sing. Massive. soft.

LS (4) - Lt & Med Tan. Sing/ Mot. XF-/ Micro-xln. xln & particle por. tr Re-xln. rare subchalky in part. Firm. No/ tr vis por. No odor. Spotted high yellow

SH - Lt Gray. Sing. calc. firm.

LS (5) - Tan/ Tannish Off White. Sing. Micro-xln. Chalky. fossil frags in part. Friable. No/ tr vis por. ? odor. Spotted, dull yellow fluorescence. No free oil or gas. Spotted, irregular Med Brown stain. No/ V Weak pos cut. No/ V Weak pos acid/ residual.

4100

Side Temperature -- 0 deg F (+/- 4 deg)

Vis: 50	Wt: 9.1	LCM: 1#
Vis: 59	Wt: 9.1	LCM: 1#
Vis: 60	Wt: 9.1	LCM: 1#
Vis: 50	Wt: 9.1	LCM: 1#

-- HEEBNER SH
3,963' (-960')

Vis: 50	Wt: 9.1	LCM: 1#
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LS (3) - Off White/ Tan. Sing/ tr Mot. Micro-xln. xln & tr Vuggy por. mostly Firm. No/ tr vis por.

Vis: 50	Wt: 9.1	LCM: 1#
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-- TORONTO
3,996' (-993')

TG, C1-C5 100

100 units = 1% Gas

LANSING
4,003' (-1,000')

Vis: 52	Wt: 9.1	LCM: 1#
Vis: 52	LCM: 9.1	LCM: 1#

← CFS @ 4,030': 50"

4,047' - Vis: 52 Wt: 9.2

DST #1 LANSING (4,087"-4,115')

Wtr Loss: 8.8	PV: 13 YP: 17	Gels: 9/20	pH: 10.0 LCM: 2#	Cl (2,200) Ca (80)	Solids: 6.1%
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Rec: 715' Gassy Muddy Wtr (2%G,18%M,80%W)

← CFS @ 4,054': 50"

IFP: 12# - 135#/30"
ISIP: 1,175# / 45"
FFP: 141# - 335# / 60"
FSIP: 1,166# / 90"
129 deg F
MH: 1,939# - 1,928#

Vis: 50	Wt: 9.1	LCM: 2#
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LS (4) - fluorescence. On own, tr minute gas bubbles. No free oil. spotted Lt/Med Brown, irregular stain. V Weak cut/ residual. Weak acid/residual

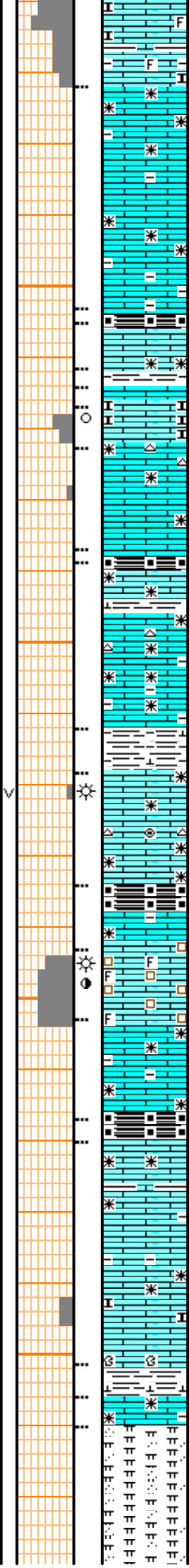
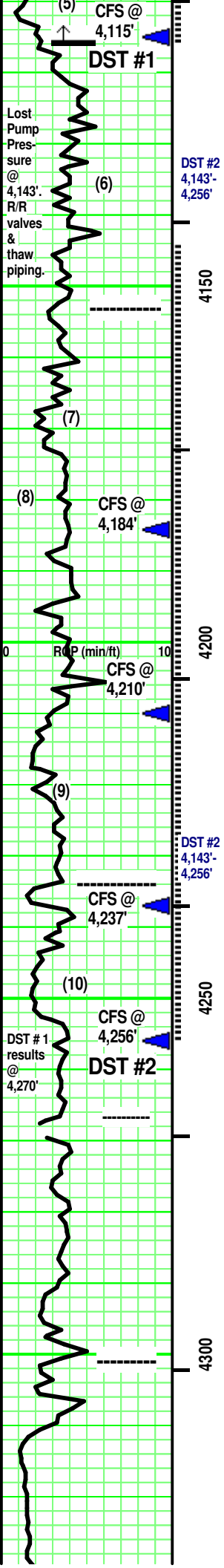
HW: 6u/ 3u (Bk)

← CFS @ 4,095': 50"

DST #1 @ 4,115' - Vis: 54 Wt: 9.1

After DST #1, HW: 5u from

Wtr Loss: 7.2	PV: 14 YP: 18	Gels: 11/19	pH: 10.5 LCM: 2#	Cl (2,500)	Cl (tr) Solids: 6.3%
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LS (6) - Lt & Med Tan. some Off White Sing/ tr Mot. tr XF-/ Micro-xln. some Crypto-xln. xln and rare, intermixed pinpoint por. Re-xln. some argil with depth. Firm. mostly No/ tr vis por.

----- MUNCIE CREEK 4,153' (-1,150')
 SH - Black. Sing. Carb. Soft.
 LS - Similar to (6) above. adding: Lt & Med Gray. Sing.

SH - Lt/ Med. Gray. Sing. tr calc. Firm.
 LS - similar to (6) above. minute, spotted Med ----->
 LS (7) - Tan/ White. Sing. Micro-xln. xln por. Subchalky to Chalk. Friable. No/ tr vis por. ----->

LS (8) - Tan/ Off White/ Grayish Tan, tr Pale Lt Gray with depth. Sing/ tr Mot. XF-/ Micro-xln. xln por. some Re-xln. [few pcs: CHERT - Off White/ Tan. Sing/ Mot. Opaque. some, minute white inclusions. No tripolitic.] Firm. No/ tr vis por.

SH - Black. Sing. Carb. Soft.
 LS - Similar to (8) above. adding: Lt & Med Gray. Sing.

SH - Med Gray. Sing. tr calc.
 LS - Tan - Grayish Tan/ Lt Gray with depth. Sing/ tr Mot. Micro-xln. xln por. some Re-xln. [few pcs: CHERT - Off White/ Tan. Sing/ Mot. Opaque. some, minute white inclusions. No tripolitic.] Firm. No/ tr vis por.

SH - Med Gray, tr Tannish Gray. Sing. some calc. tr soft. tr ductile.
 1 pc LS (9) - Lt Gray. Sing. Crypto-xln. tr vuggy por. Firm. tr/some vis por. No odor. Spotted yellow fluorescence. No free oil. some minute gas bubbles in vuggy por. tr oil 'wet' facies. spotted Lt Brown stain. Weak Pos cut/ residual. Weak acid/ residual.

LS - Tan/ some Off White/ Lt Gray. Sing/ rare Mot. -->
 ----- STARK SH 4,234' (-1,231')
 SH - Black. Sing. Carb. Soft.
 LS - Tan/ Lt Gray. Sing/ tr Mot. tr XF-/ Micro-xln. xln por. tr Re-xln. tr argil. Firm. No/ tr vis por.

LS (10) - Tan. Sing. VF-xln. xln & sucrosic por. fossil frags & hash. Friable. tr/ Fair vis por. ?/Fair odor. spotted dull yellow fluorescence, A/C, minute, ----->

LS - Tan/ Lt Gray. Sing/ tr Mot. tr XF-/ Micro-xln. xln por. some Re-xln. tr argil. Firm. No/ tr vis por.

----- HUSHPUCKNEY SH 4,267' (-1,264')
 SH - Black. Sing. Carb. Soft.
 LS - Tans/ Grays. Sing/ some Mot. XF-/ Micro-xln. xln por. some Re-xln. [subchalky at depth/ Friable.] tr fossil frags. some argil in part/ interbedded. Firm. No/ tr vis por.

----- B / KC 4,301' (-1,298')
 Interbedded SH, Marl & LS
 SH - Grays / Greenish Gray. Sing. some calc. some marly in part.
 Marl - Off White/ Reddish hue Off White. silt sized, SA qtz grains floating in marl matrix.
 LS - Tans/ Grays. Sing/ some Mot. XF-/ Micro-xln. xln por. some Re-xln. tr fossil frags. some argil in part/ interbedded. Firm. No/ tr vis por.

