

OPERATOR

Company: Murfin Drilling Company
 Address: 250 N. Water
 Suite 300
 Wichita, KS 67202
 Contact Geologist: Shauna Gunzelman
 Contact Phone Nbr: 316-267-3241
 Well Name: Verna Poore # 1-7
 Location: Sec. 7 - T1S - R35W
 API: 15-153-21046-0000
 Pool: _____
 State: Kansas
 Field: Wildcat
 Country: USA



Scale 1:240 Imperial

Well Name: Verna Poore # 1-7
 Surface Location: Sec. 7 - T1S - R35W
 Bottom Location: _____
 API: 15-153-21046-0000
 License Number: 30606
 Spud Date: 8/9/2014
 Region: Rawlins County
 Drilling Completed: 8/16/2014
 Surface Coordinates: 660' FNL & 1980' FEL
 Bottom Hole Coordinates: _____
 Ground Elevation: 3210.00ft
 K.B. Elevation: 3215.00ft
 Logged Interval: 3800.00ft
 Total Depth: 4467.00ft
 Formation: Lansing/Kansas City
 Drilling Fluid Type: Chemical/Fresh Water Gel
 Time: 2:30 PM
 Time: 4:35 PM
 To: 4467.00ft

SURFACE CO-ORDINATES

Well Type: Vertical
 Longitude: _____
 Latitude: _____
 N/S Co-ord: 660' FNL
 E/W Co-ord: 1980' FEL

LOGGED BY

Keith Reavis
Consulting Geologist

Company: Keith Reavis, Inc.
 Address: 3420 22nd Street
 Great Bend, KS 67530
 Phone Nbr: 620-617-4091
 Logged By: KLG #136
 Name: Keith Reavis

CONTRACTOR

Contractor: Murfin Drilling Company
 Rig #: 7
 Rig Type: mud rotary
 Spud Date: 8/9/2014
 TD Date: 8/16/2014
 Rig Release: _____
 Time: 2:30 PM
 Time: 4:35 PM
 Time: _____

ELEVATIONS

K.B. Elevation: 3215.00ft
 K.B. to Ground: 5.00ft
 Ground Elevation: 3210.00ft

NOTES

Due to results of Drill Stem Tests #3 and #4, it was determined that 5 1/2" production casing be set and cemented and the Verna Poore #1-7 be further evaluated through perforations and stimulation.

The samples from this well were saved and will be available for review at the Kansas Geological Survey well sample Library located in Wichita, KS.

Respectfully submitted,
 Keith Reavis

Murfin Drilling Company
daily drilling report

DATE	7:00 AM DEPTH	REMARKS
08/11/2014		Geologist Keith Reavis on location @ 2230 hrs, 3800 ft, bit trip
08/12/2014	3900	drilling ahead, Foraker, Stotler, show in Stotler warrants test, TOH w/bit, conduct and complete DST #1, successful test, TIH w/bit, resume drilling
08/13/2014	4035	drilling ahead, Topeka, Oread, Lansing, show in A & B warrant test, short otch, TOH for DST #2
08/14/2014	4210	TIH w/tools, conduct DST #2, complete DST #2, successful test, TIH w/bit, resume drilling, show in D and G warrant test, TOH for DST #3, conduct DST #3
08/15/2014	4290	complete DST #3, successful test, drill ahead, H, I, J, Stark, shows warrant test, TOH w/bit, in w/tools
08/16/2014	4390	conduct and complete DST #4, successful test, back in hole with PDC bit, rathole ahead to TD, low jack shaft broke at bearing on drawworks at 4467, hook up to high jack, limped out laying down (25 jts.) until weight down, stood balance of string back, lay down collars
08/17/2014	4467	conduct open hole logging operations, geologist off location @ 0530 hrs

Murfin Drilling Company
well comparison sheet

DRILLING WELL					COMPARISON WELL				
MDC - Verna Poore #1-7 660' FNL & 1980' FEL Sec 7-T1S-R35W					MDC - Sutton #3-8 1780' FNL & 420' FWL Sec 8-T1S-R35W				
3215 KB					3219 KB			Structural Relationship	
Formation	Sample	Sub-Sea	Log	Sub-Sea	Log	Sub-Sea	Sample	Log	
Stotler	3886	-671	3884	-669	3886	-667	-4	-2	
Topeka	3954	-739	3947	-732	3950	-731	-8	-1	
Oread	4060	-845	4060	-845	4058	-839	-6	-6	
Lansing	4170	-955	4171	-956	4170	-951	-4	-5	
Lansing D	4223	-1008	4222	-1007	4223	-1004	-4	-3	
Lansing H	4324	-1109	4324	-1109	4324	-1105	-4	-4	
Stark	4384	-1169	4380	-1165	4380	-1161	-8	-4	
Base KC	4444	-1229	no log top		4437	-1218	-11	-	
Total Depth	4467	-1252	4466	-1251	4513	-1294	42	43	

Drill Stem Test #1

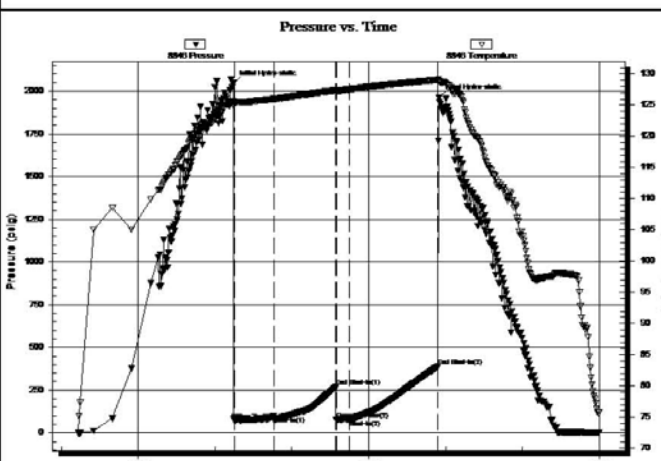
	DRILL STEM TEST REPORT	
	Murfin Drilling Co. Inc. 250 N Water STE300 Wichita Ks 67202 ATTN: Keith Reavis	7-1-35 Rawlins Co KS Verna 1-7 Job Ticket: 59114 DST#: 1 Test Start: 2014.08.12 @ 14:13:15

GENERAL INFORMATION:

Formation: **Stutler**
 Deviated: No Whipstock ft (KB)
 Time Tool Opened: 16:15:00
 Time Test Ended: 21:00:00
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Mike Roberts
 Unit Nb: 65
 Interval: **3818.00 ft (KB) To 3940.00 ft (KB) (TVD)**
 Total Depth: 3940.00 ft (KB) (TVD)
 Reference Elevations: 3215.00 ft (KB)
 3210.00 ft (CF)
 Hole Diameter: 7.88 inches-Hole Condition: Fair
 KB to GR/CF: 5.00 ft

Serial #: **8846** Inside
 Press@RunDepth: 78.96 psig @ 3822.00 ft (KB)
 Capacity: 8000.00 psig
 Start Date: 2014.08.12 End Date: 2014.08.12
 Last Calib.: 2014.08.12
 Start Time: 14:13:15 End Time: 21:00:00
 Time On Btm: 2014.08.12 @ 16:14:30
 Time Off Btm: 2014.08.12 @ 18:55:00

TEST COMMENT:
 IS:No return blow
 IF:No return blow
 FF:No blow
 FS:No return blow



PRESSURE SUMMARY

Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	2042.20	125.55	Initial Hydro-static
1	73.72	125.37	Open To Flow (1)
32	97.99	126.01	Shut-In(1)
80	269.41	127.39	End Shut-In(1)
80	77.52	127.33	Open To Flow (2)
91	78.96	127.54	Shut-In(2)
160	387.10	129.06	End Shut-In(2)
161	1962.65	128.90	Final Hydro-static


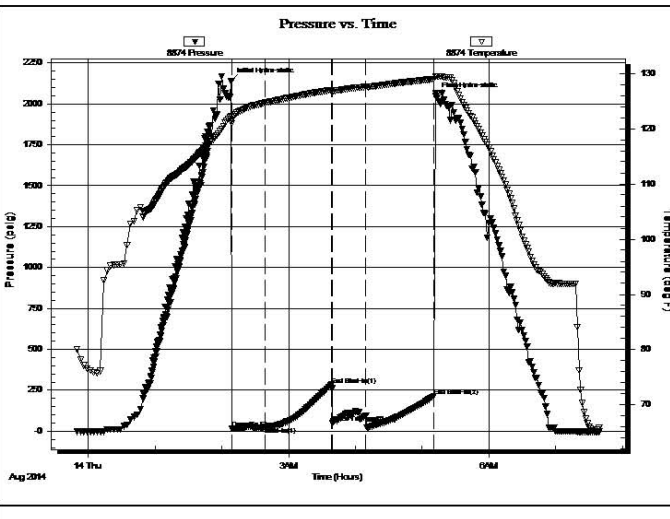
Recovery

Length (ft)	Description	Volume (bbl)
2.00	mud 100% m	0.01


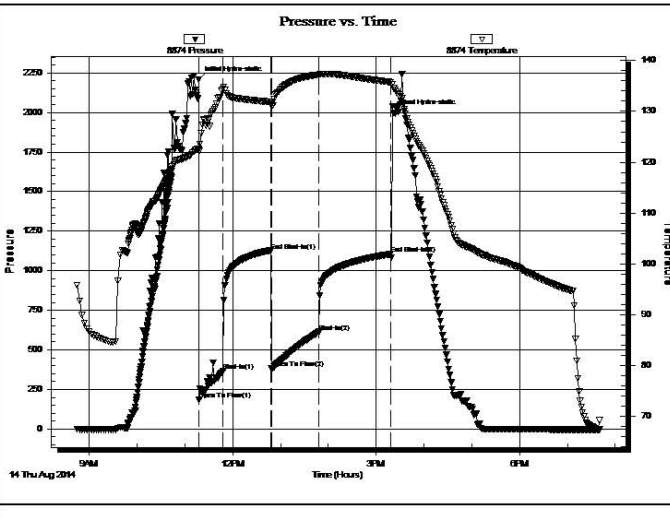
Gas Rates

Choke (inches)	Pressure (psig)	Gas Rate (MMcfd)


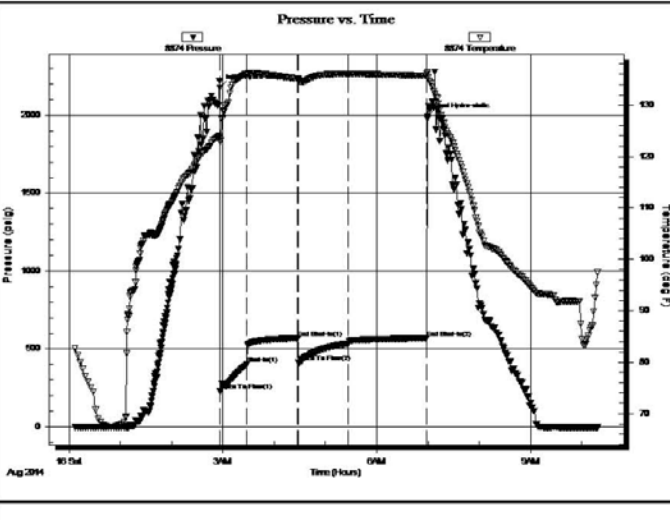
Drill Stem Test #2

	DRILL STEM TEST REPORT																																					
	Murfin Drilling Co., Inc 250 N. Water STE300 Wichita, KS, 67202 ATTN: Keith Reavis	7-1S-35W Verna #1-7 Job Ticket: 60130 DST#: 2 Test Start: 2014.08.13 @ 23:49:00																																				
GENERAL INFORMATION: Formation: LKC "A&B" Deviated: No Whipstock: ft (KB) Time Tool Opened: 02:09:00 Time Test Ended: 07:40:00 Interval: 4130.00 ft (KB) To 4210.00 ft (KB) (TVD) Total Depth: 4210.00 ft (KB) (TVD) Hole Diameter: 7.88 inches Hole Condition: Good Test Type: Conventional Bottom Hole (Initial) Tester: Donovan Baumann Unit No: 66 Reference Elevations: 3215.00 ft (KB) 3210.00 ft (CF) KB to GR/CF: 5.00 ft																																						
Serial #: 8874 Inside Press@RunDepth: 95.65 psig @ 4131.00 ft (KB) Start Date: 2014.08.13 End Date: 2014.08.14 Start Time: 23:50:00 End Time: 07:40:00 Capacity: 8000.00 psig Last Calib.: 2014.08.14 Time On Btm: 2014.08.14 @ 02:08:30 Time Off Btm: 2014.08.14 @ 05:12:30																																						
TEST COMMENT: 30 - IF - Surface blow built to 1/4" 60 - ISI - No return 30 - FF - Weak surface blow 60 - FSI - No return																																						
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Drill Stem Test #3

	DRILL STEM TEST REPORT																																									
	Murfin Drilling Co. Inc. 250 N Water STE300 Wichita Ks 67202 ATTN: Keith Reavis	7-1-35 Rawlins Co KS Verna Poore #1-7 Job Ticket: 60131 DST#: 3 Test Start: 2014.08.14 @ 08:44:00																																								
GENERAL INFORMATION: Formation: LKC "D&G" Deviated: No Whipstock: ft (KB) Time Tool Opened: 11:18:00 Time Test Ended: 19:40:00 Interval: 4188.00 ft (KB) To 4290.00 ft (KB) (TVD) Total Depth: 4290.00 ft (KB) (TVD) Hole Diameter: 7.88 inches Hole Condition: Good Test Type: Conventional Bottom Hole (Initial) Tester: Donovan Baumann Unit No: 66 Reference Elevations: 3215.00 ft (KB) 3210.00 ft (CF) KB to GR/CF: 5.00 ft																																										
Serial #: 8874 Inside Press@RunDepth: 613.49 psig @ 4189.00 ft (KB) Start Date: 2014.08.14 End Date: 2014.08.14 Start Time: 08:45:00 End Time: 19:40:00 Capacity: 8000.00 psig Last Calib.: 2014.08.15 Time On Btm: 2014.08.14 @ 11:17:30 Time Off Btm: 2014.08.14 @ 15:22:00																																										
TEST COMMENT: 30 - IF - Surface blow built to BOB in 3 1/2 min 60 - ISI - Return built to 6 1/4 60 - FF - Surface blow built to BOB in 4 min. 90 - FSI - Return built to BOB in 14 min.																																										
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Drill Stem Test #4

	DRILL STEM TEST REPORT																																												
	Murfin Drilling Co. Inc. 250 N Water STE300 Wichita Ks 67202 ATTN: Keith Reavis	7-1-35 Rawlins Co KS Verna Poore #1-7 Job Ticket: 60132 DST#: 4 Test Start: 2014.08.16 @ 00:06:00																																											
GENERAL INFORMATION: Formation: LSG "G-J" Deviated: No Whipstock: ft (KB) Time Tool Opened: 02:57:00 Time Test Ended: 10:19:00 Interval: 4288.00 ft (KB) To 4390.00 ft (KB) (TVD) Total Depth: 4390.00 ft (KB) (TVD) Hole Diameter: 7.88 inches Hole Condition: Good Test Type: Conventional Bottom Hole (Initial) Tester: Donovan Baumann Unit No: 66 Reference Elevations: 3215.00 ft (KB) 3210.00 ft (CF) KB to GR/CF: 5.00 ft																																													
Serial #: 8874 Inside Press@RunDepth: 534.07 psig @ 4289.00 ft (KB) Start Date: 2014.08.16 End Date: 2014.08.16 Start Time: 00:07:00 End Time: 10:19:00 Capacity: 8000.00 psig Last Calib.: 2014.08.16 Time On Btm: 2014.08.16 @ 02:56:30 Time Off Btm: 2014.08.16 @ 05:59:30																																													
TEST COMMENT: 30 - IF - valve shut 60 - ISI - Return built to BOB in 10 mi. 60 - FF - Surface blow built to BOB right after turning the tool 90 - FSI - Return built to BOB in 30 min																																													
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ROCK TYPES

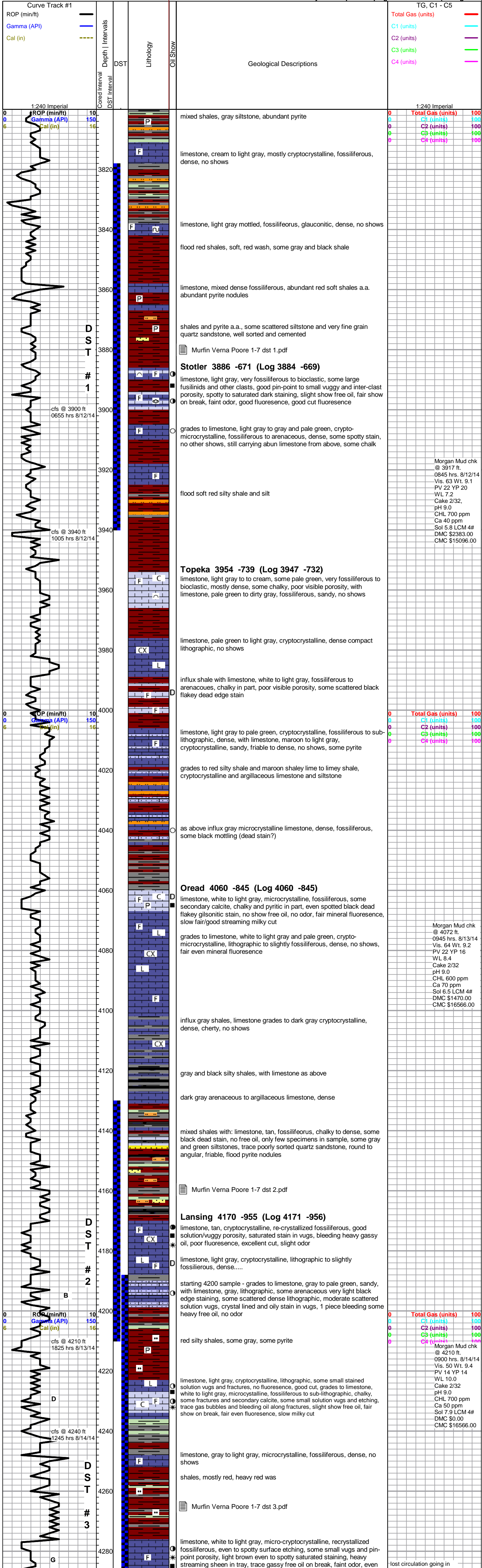
	sdylmst		Lmst fw7>		shale, gry		shale, red		Slst
	Lmst fw<7		shale, grn		Carbon Sh		Ss		

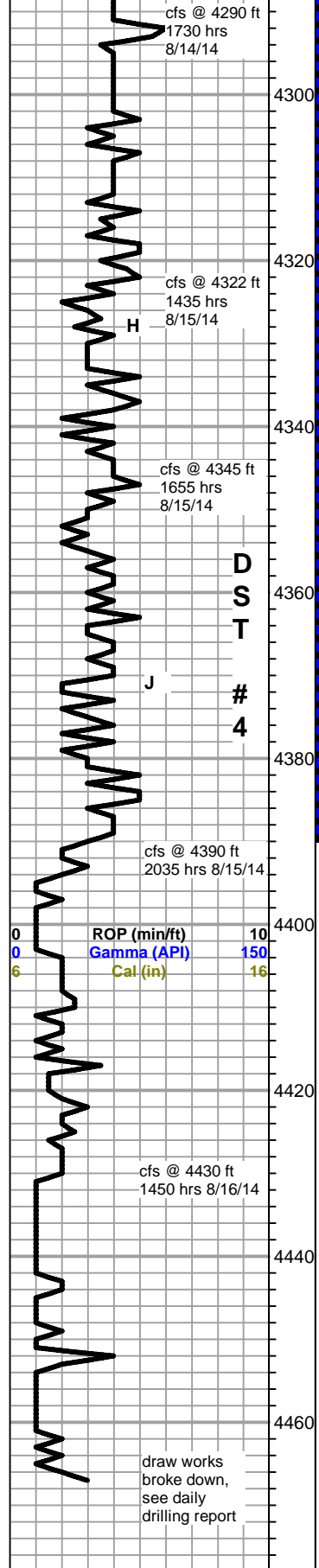
ACCESSORIES

MINERAL G Glauconite P Pyrite S Silty	FOSSIL B Bioclastic or Fragmental F Fossils < 20% O Oolite P Pellets Fussulinid	STRINGER S Sandstone Siltstone	TEXTURE C Chalky CX Cryptocrystalline L Lithogr
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MISC DR Daily Report DP Digital Photo D Document F Folder L Link V Vertical Log File H Horizontal Log File C Core Log File DC Drill Cuttings Rpt	Oil Show G Good Show F Fair Show P Poor Show S Spotted or Trace Q Questionable Strn D Dead Oil Strn Fluorescence * Gas	OTHER SYMBOLS DST DST Int DST alt Core tail pipe
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Murfin Verna Poore 1-7 dst 4.pdf

limestone, white to light gray, microcrystalline, fossiliferous, some secondary calcite, chalky in part, spotty small vugs, overall poor visible porosity, spotty to fair black staining, live to gilsonitic, no show free oil, no odor, some spotty fluorescence, weak cut

limestone, cream to light gray to pale green, microcrystalline, fossiliferous, some arenaceous to sandy, pyritic in part, few specimens with small stained vugs, trace clingy heavy oil, no free oil or odor, light even mineral fluorescence, excellent cut on 1 specimen, some quartz and gray siltstone in samples

limestone, gray to tan, microcrystalline, fossiliferous to oolitic and pelletal, poor overall visible porosity, few pieces spotty dead stain, no free oil, no odor

increased limestone as above in 4370 sample

limestone, white to light gray, microcrystalline, fossiliferous, chalky in part, poor visible porosity, very light brown scattered stain, trace black dead stain, no free oil, few oil droplets on break, no odor, fair even fluorescence, weak cut, abundant chalk in samples

Stark Shale 4384 -1169 (Log 4380 -1165)

back in hole with PDC bit after DST #4

limestone, white, grainy bioclastic, some oolitic, chalky, poor overall visible porosity, barren

red shales with limestone, white to light gray and pale green, mixed fossiliferous, bioclastic and lithographic, no shows

Base KC 4444 -1229 (not covered by log)

no samples below 4460 sample

Rotary TD 4467 ft @ 1635 hrs 8/16/14
 Pioneer Log TD 4466 ft
 Complete Logging Operations 0500 hrs 8/17/14

Morgan Mud chk @ 4290 ft. 0900 hrs. 8/15/14 Vis. 72 Wt. 8.8 PV 22 YP 18 WL 8.0 Cake 2/32 pH 9.0 CHL 2000 ppm Ca 40 ppm DMC \$4750.00 CMC \$21316.00	
deviation survey 1/2 deg.	
Morgan Mud chk @ 4390 ft. 0930 hrs. 8/16/14 Vis. 48 Wt. 9.3	
0	Total GaPV 16 YP 16
0	C1 (u) WL 8.6
0	C2 (u) Cake 2/32
0	C3 (u) pH 10.0
0	C4 (u) CHL 1100 ppm
0	Ca 40 ppm
0	Sol 7.1 LCM 8#
0	DMC \$2793.00
0	CMC \$24109.00