

OPERATOR

Company: American Warrior, Inc.
 Address: 3118 Cummings Rd
 PO BOX 399
 Garden City, Ks 67846
 Contact Geologist: Kevin Wiles
 Contact Phone Nbr: 620-271-4407
 Well Name: Flying V #3-5 Twin
 Location: Sec. 5 - T15S - R41W
 API: 15-199-20425-00-00
 Pool:
 State: Kansas
 Field: Okeson Northwest
 Country: USA

Scale 1:240 Imperial

Well Name: Flying V #3-5 Twin
 Surface Location: Sec. 5 - T15S - R41W
 Bottom Location:
 API: 15-199-20425-00-00
 License Number: 5929
 Spud Date: 10/8/2014 Time: 2:00 PM
 Region: Wallace
 Drilling Completed: 10/16/2014 Time: 8:04 PM
 Surface Coordinates: 337' FSL & 2550' FEL
 Bottom Hole Coordinates:
 Ground Elevation: 3756.00ft
 K.B. Elevation: 3769.00ft
 Logged Interval: 4000.00ft To: 5300.00ft
 Total Depth: 5300.00ft
 Formation: Morrow
 Drilling Fluid Type: Chemical/Fresh Water Gel

SURFACE CO-ORDINATES

Well Type: Vertical
 Longitude:
 Latitude:
 N/S Co-ord: 337' FSL
 E/W Co-ord: 2550' 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: Logan Walker Name: Logan Walker

CONTRACTOR

Contractor: Druke Drilling CO., Inc.
 Rig #: 9
 Rig Type: mud rotary
 Spud Date: 10/8/2014 Time: 2:00 PM
 TD Date: 10/16/2014 Time: 8:04 PM
 Rig Release: Time:

ELEVATIONS

K.B. Elevation: 3769.00ft Ground Elevation: 3756.00ft
 K.B. to Ground: 13.00ft

NOTES

@4700' changed from a PDC bit to a Button Bit

A Bloodhound gas detector operated by Bluestem Environmental was employed on the well. ROP & Gas curves were imported into the log as well as GAMMA-Caliper from E-log suite.

DRILLING WELL					COMPARISON WELL				COMPARISON WELL			
Flying V #3-5					Blaesi #5-6				Gebhards #1-6			
337' FSL & 2550' FEL					1179' FSL & 1523' FEL				2100' FNL & 1360' FEL			
Sec 5-T15S-R41W					Sec 6-T15S-R41W				Sec 6-T15S-R41W			
3769 KB					3792 KB		Structural Relationship		3788 KB		Structural Relationship	
Formation	Sample	Sub-Sea	Log	Sub-Sea	Log	Sub-Sea	Sample	Log	Log	Sub-Sea	Sample	Log
Lansing	4208	-439	4209	-440	4224	-432	-7	-8	4220	-432	-7	-8
Marmaton	4556	-787	4559	-790	4570	-778	-9	-12	4569	-781	-6	-9
Pawnee	4652	-883	4644	-875	4662	-870	-13	-5	4658	-870	-13	-5
Cherokee	4707	-938	4708	-939	4730	-938	0	-1	4720	-932	-6	-7
Morrow Shale	4944	-1175	4920	-1151	4955	-1163	-12	12	4944	-1156	-19	5
Morrow Sand	4965	-1196	4960	-1191	4968	-1176	-20	-15	4958	-1170	-26	-21
Morrow Lime	5052	-1283	5037	-1268	5066	-1274	-9	6	5054	-1266	-17	-2
Mississippian	5099	-1330	5079	-1310	5130	-1338	8	28	5119	-1331	1	21
Total Depth	5300	-1531	5224	-1455	5200	-1408	-123	-47	5250	-1462	-69	7

ROCK TYPES

	Lmst fw<7		shale, grn		Carbon Sh		Ss
	Lmst fw>7		shale, gry		shale, red		Stst

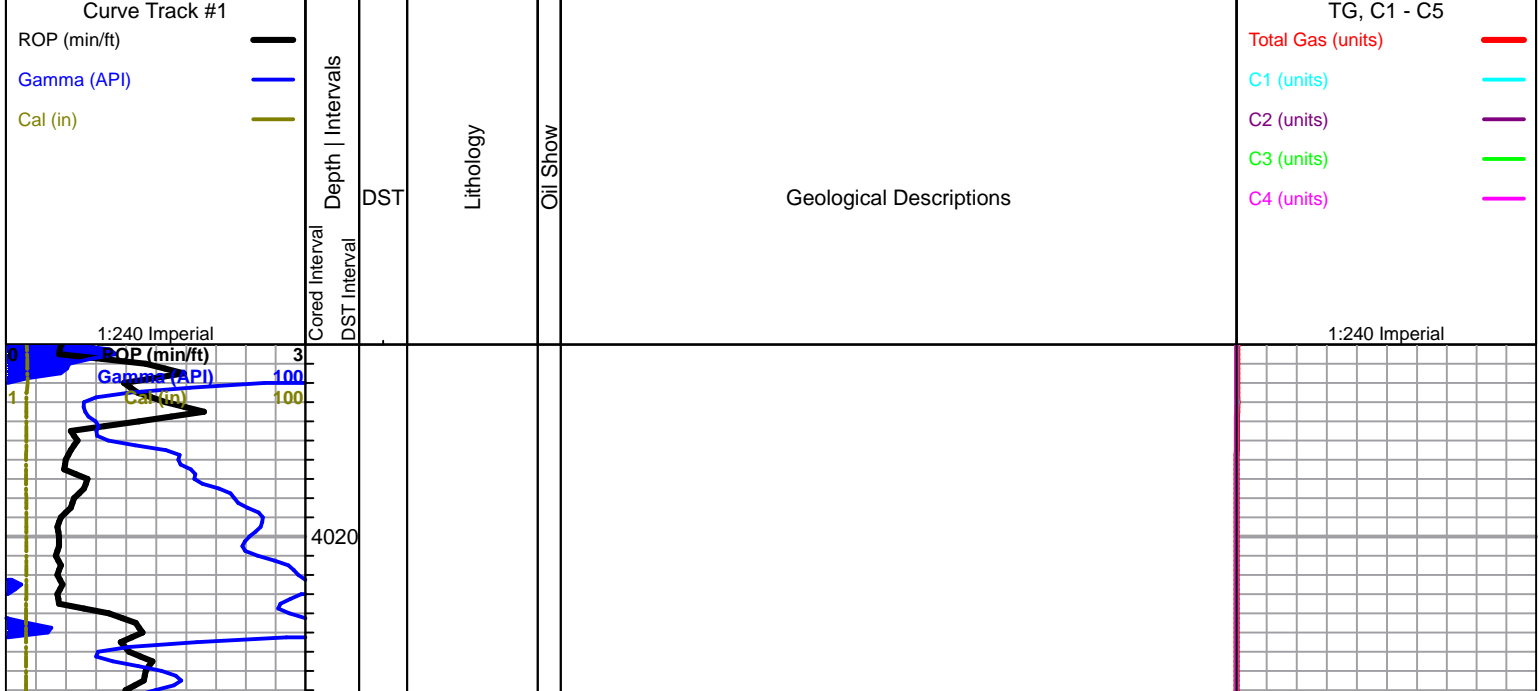
ACCESSORIES

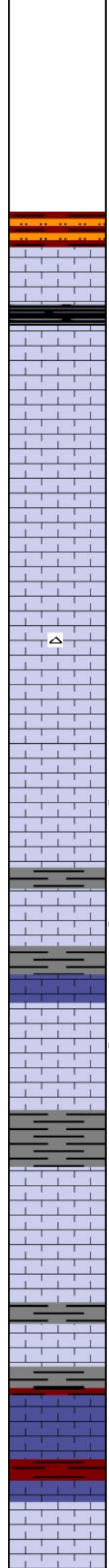
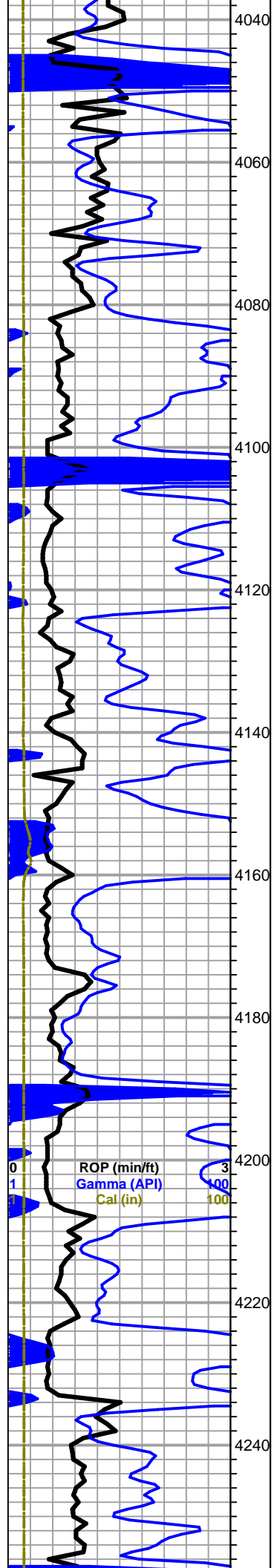
MINERAL	FOSSIL	STRINGER
△ Chert White	○ Oolite	■ Sandstone

OTHER SYMBOLS

Oil Show	DST
● Good Show	■ DST Int
● Fair Show	■ DST alt
● Poor Show	■ Core
○ Spotted or Trace	■ tail pipe
○ Questionable Stn	
D Dead Oil Stn	
■ Fluorescence	
× Gas	

Printed by GEOstrip VC Striplog version 4.0.8.15 (www.grsi.ca)





shale red wash, siltstone

Shale, Black carbonaceous

Limestone, white, microcrystalline, bioclastic, fossiliferous, pyritic, weatherd, soft, no shows

Limestone, white to light gray, same as above

Limestone, white to cream to light gray, microcrystalline, bioclastic, fossiliferous, pyritic, white chert weatherd, soft, no shows

Limestone, white to cream, microcrystalline, bioclastic, fossiliferous, sub oolitic, pyritic, surface etching, pin hole vugs, slight staining, spotted free oil on break, weatherd, soft, chalky, fleeting odor

Limestone, same as above

Limestone, white to cream, microcrystalline, bioclastic, fossiliferous, sub oolitic, pyritic, surface etching, pin hole vugs, slight staining, spotted free oil on break, weatherd, soft to dense, sub chalky, fleeting odor

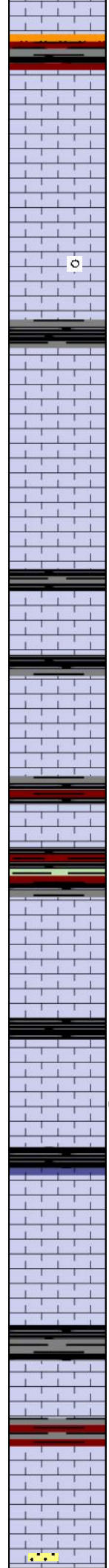
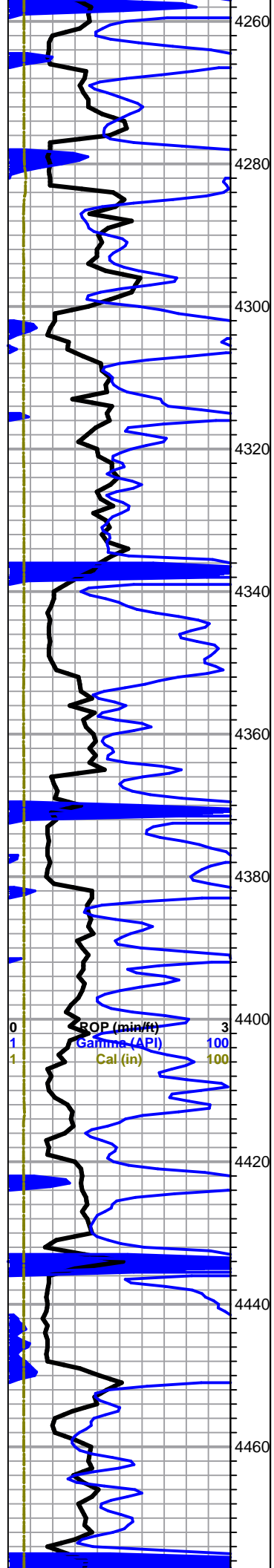
Lansing 4208 -439

Limestone, white to cream, microcrystalline, bioclastic, fossiliferous, sub oolitic, pyritic, surface etching, weathered, soft, no shows

Limestone, same as above

Limestone, cream, microcrystalline, fossiliferous, sub weathered, dense, no shows

Limestone, cream to light gray, microcrystalline, sub bioclastic, fossiliferous, sub weathered, dense, no shows



Limestone, same as above

Limestone, white to cream, microcrystalline, bioclastic, fossiliferous, oolitic, pyritic, weathered, soft to dense, chalky, no shows

Limestone, cream to light gray, microcrystalline, bioclastic, fossiliferous, opaque chert, pyritic, weathered, soft to dense, no shows

Limestoe, same as above

Limestoe, same as above

Shale, red to gray to black carbonaceous, silty

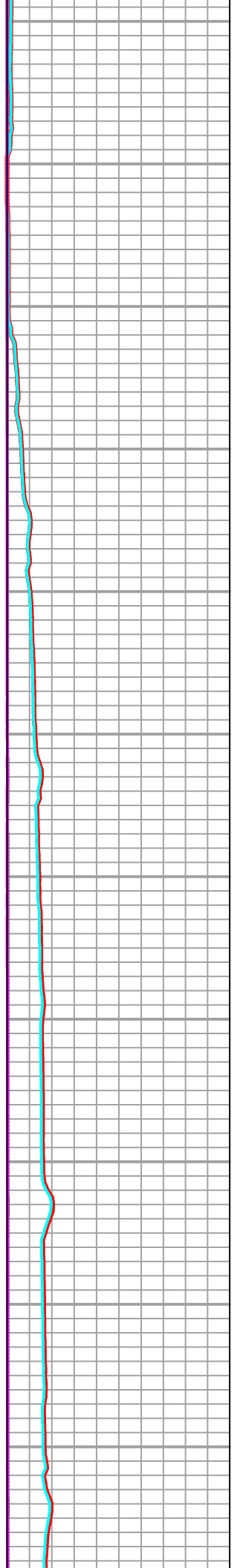
Limestone, white to cream, microcrystalline, bioclastic, fossiliferous, weathered, soft to dense, sub chalky, no shows

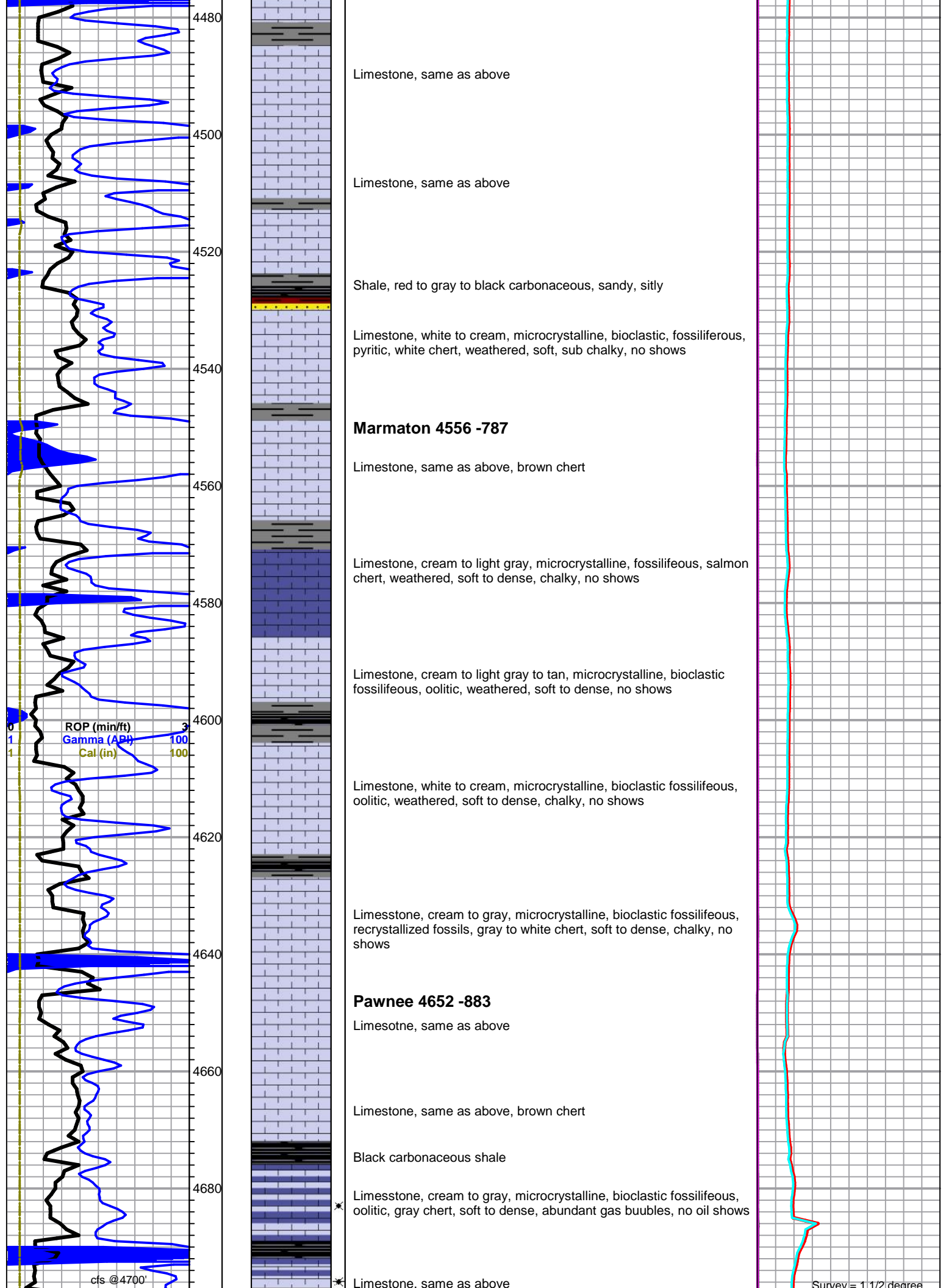
Limestone, white to cream, microcrystalline, bioclastic, fossiliferous, oolitic, pyritic, pin hole vugs, weathered, soft to dense, chalky, slight staining, questionable show

Limestone, white to cream, microcrystalline, bioclastic, fossiliferous, pyritic, weathered, soft, abundant chalky, no shows

Limesotne, same as above

Limestone, cream, microcrystalline, bioclastic, fossiliferous, oolitic pyritic, white chert, weathered, soft, sub chalky, no shows





Limestone, same as above

Limestone, same as above

Shale, red to gray to black carbonaceous, sandy, sitly

Limestone, white to cream, microcrystalline, bioclastic, fossiliferous, pyritic, white chert, weathered, soft, sub chalky, no shows

Marmaton 4556 -787

Limestone, same as above, brown chert

Limestone, cream to light gray, microcrystalline, fossilifeous, salmon chert, weathered, soft to dense, chalky, no shows

Limestone, cream to light gray to tan, microcrystalline, bioclastic fossilifeous, oolitic, weathered, soft to dense, no shows

Limestone, white to cream, microcrystalline, bioclastic fossilifeous, oolitic, weathered, soft to dense, chalky, no shows

Limestone, cream to gray, microcrystalline, bioclastic fossilifeous, recrystallized fossils, gray to white chert, soft to dense, chalky, no shows

Pawnee 4652 -883

Limestone, same as above

Limestone, same as above, brown chert

Black carbonaceous shale

Limestone, cream to gray, microcrystalline, bioclastic fossilifeous, oolitic, gray chert, soft to dense, abundant gas buubles, no oil shows

Limestone, same as above

ROP (min/ft) 3
Gamma (API) 100
Cal (in) 100

cfs @4700'

Survey = 1 1/2 degree

Short trip, Bit change

Cherokee 4707 -938

Limestone, white to cream to light gray, microcrystalline to cryptocrystalline, bioclastic fossiliferous, pyritic, opaque chert weathered, soft to dense, gassy

Limestone, same as above, no shows

Limestone, white to cream, microcrystalline, bioclastic fossiliferous, oolitic, white to brown chert, pin hole vugs, soft to dense, chalky, no shows

Limestone, white to gray, cryptocrystalline, bioclastic fossiliferous, oolitic, pyritic, brown to opaque chert, surface etching, soft to dense, abundant chalky, no shows

Limestone, same as above

Limestone, cream to tan, microcrystalline, fossiliferous, pyritic, opaque chert, dense, no shows

Limestone, cream, microcrystalline, bioclastic, fossiliferous, pyritic, brown chert, weathered, soft to dense, chalky, no shows

Limestone, cream to light gray, sub bioclastic, fossiliferous, crown chert, weathered, sub chalky, dense no shows

Limestone, same as above

Limestone, same as above

Limestone, light gray to gray, microcrystalline, sub bioclastic, fossiliferous, pyritic, salmon chert, chalky, dense, no shows

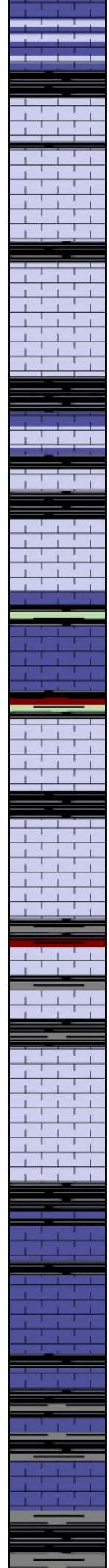
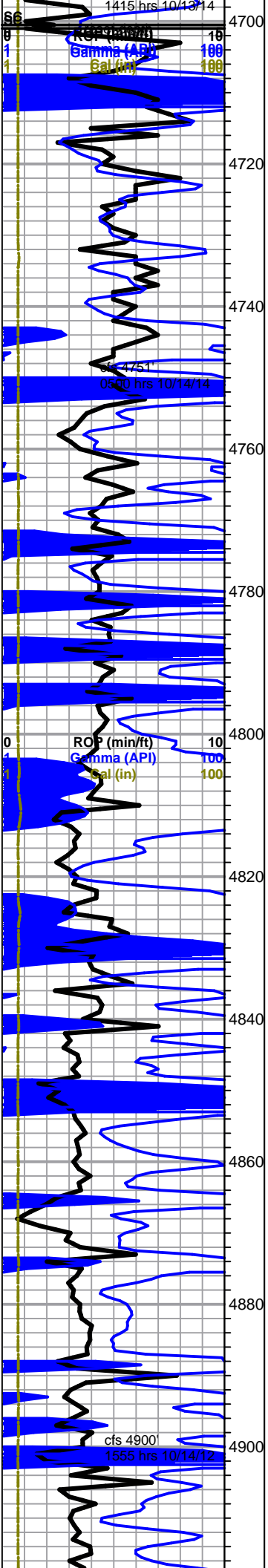
Limestone, cream to tan to light gray, microcrystalline, sub bioclastic, fossiliferous, pyritic, calcite crystals, sub chalky, soft to dense, no shows

Limestone, same as above, brown chert

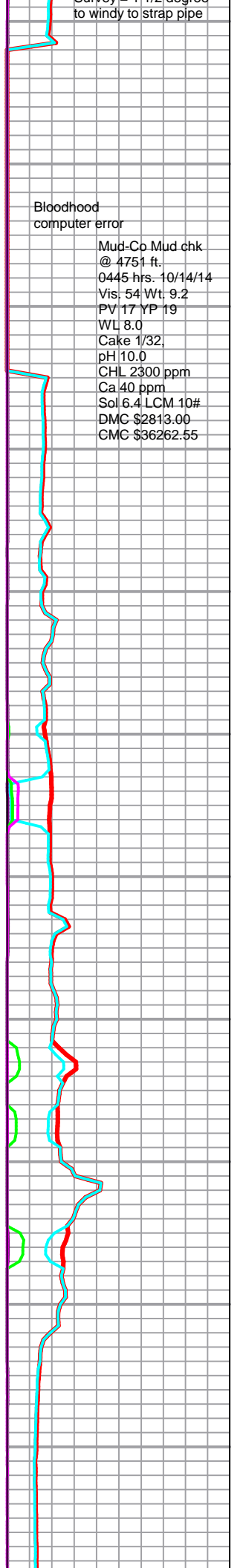
to windy to strap pipe

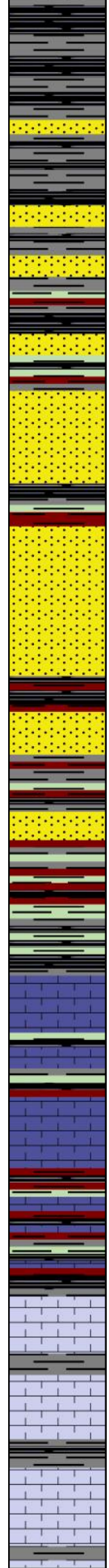
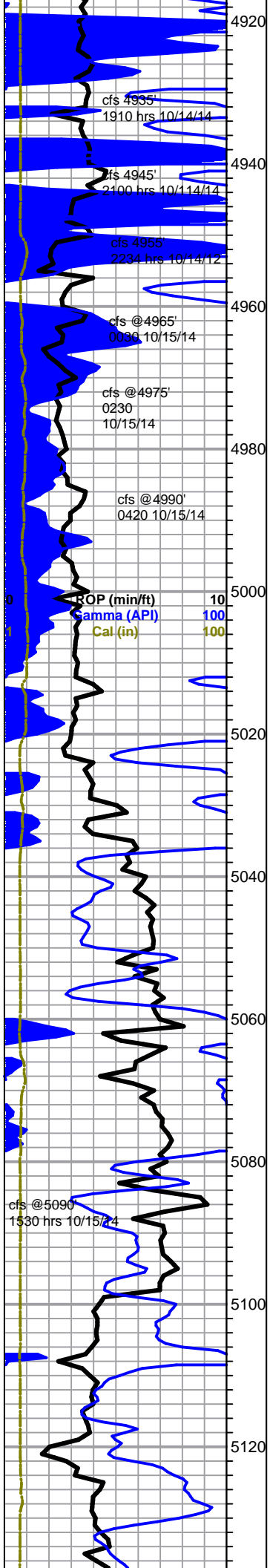
Bloodhood
computer error

Mud-Co Mud chk
@ 4751 ft.
0445 hrs. 10/14/14
Vis: 54 Wt: 9.2
PV 17 YP 19
WL 8.0
Cake 1/32,
pH 10.0
CHL 2300 ppm
Ca 40 ppm
Sol 6.4 LCM 10#
DMC \$2813.00
CMC \$36262.55



Textual descriptions of rock layers corresponding to the depth markers on the left.





Sandstone, clear to cloudy, sub rounded sub angular, well cemented, fair sorting, no shows

Morrow Shale 4944 -1175

Sandstone, cloudy, sub rounded sub angular, well cemented, fair sorting, pyritic glauconite, dirty with fragments, no shows

Morrow sand 4965 -1196

Sandstone, clear to cloudy, sub rounded sub angular, well cemented, fair sorting, pyritic glauconite, dirty with fragments, no shows

Sandstone, clear to cloudy to gray, sub rounded sub angular, well cemented, fair sorting, pyritic glauconite, dirty with fragments, no shows

Sandstone, clear to cloudy to gray, sub rounded, sub angular, well cemented, fair sorting, pyritic glauconite, dirty with fragments, no shows

Morrow Lime 5052 -1283

Limestone, white to cream, cryptocrystalline to microcrystalline, sub bioclastic, fossiliferous, sub oolitic, glauconite, pyritic, surface etching, soft to dense, chalky, no shows

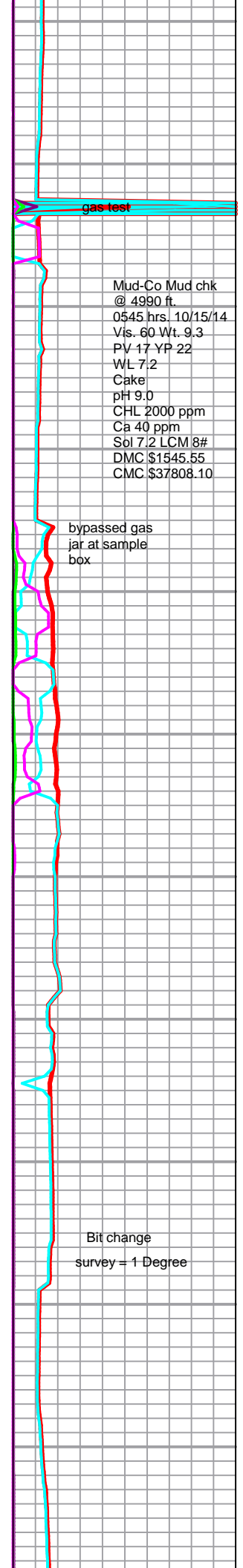
Limestone, white, cryptocrystalline, fossiliferous, pyritic, weathered, soft to dense, chalky, no shows

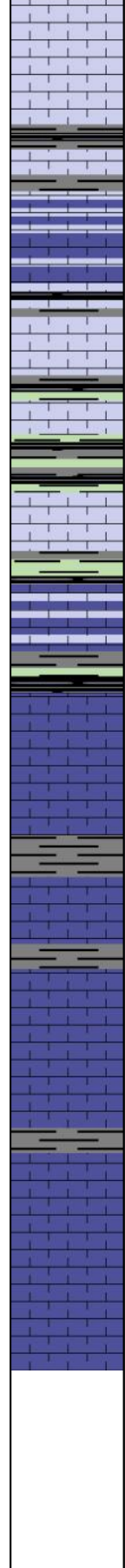
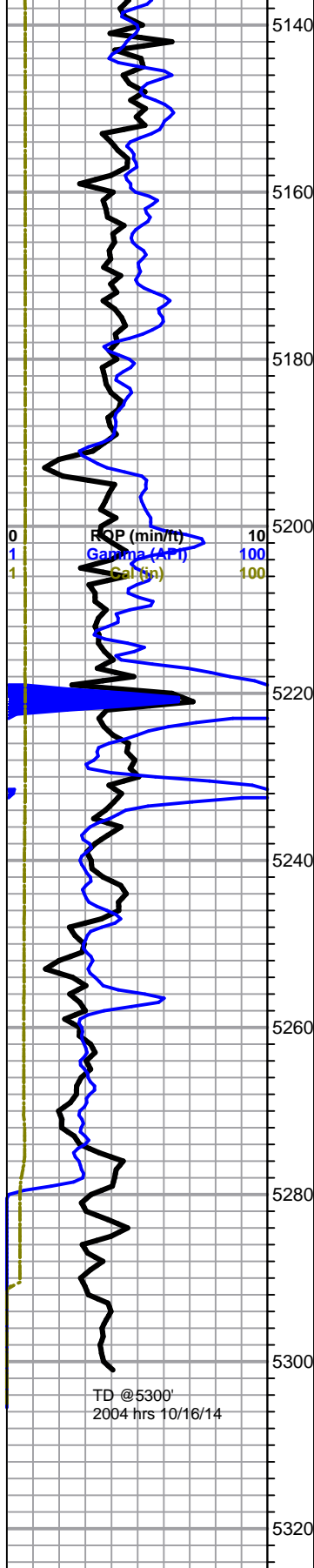
Mississippian Lime 5099 -1330

Limestone, cream, cryptocrystalline to microcrystalline, bioclastic, fossiliferous, pyritic, glauconite, brown chert, weathered, soft to dense, sub chalky, no shows

Limestone, same as above, oolitic

Limestone, cream, microcrystalline, bioclastic, fossiliferous, oolitic, pyritic, glauconite, brown to white chert, weathered, soft to dense, sub chalky, no shows





Limestone, cream, microcrystalline, sub bioclastic, fossiliferous, pyritic, glauconite, white to orange chert, soft to dense, sub chalky, no shows

Limestone, same as above, sub oolitic

Limestone, white to cream, cryptocrystalline to microcrystalline, sub bioclastic, fossiliferous, sub oolitic, pyritic, glauconite, white to opaque chert, weathered, soft to dense, sub chalky, sharp, no shows

Limestone, cream to tan, cryptocrystalline, sub bioclastic, fossiliferous, pyritic, white chert, soft to dense, sub chalky, sharp, no shows

Limestone, cream to tan, microcrystalline, sub bioclastic, fossiliferous, sub oolitic pyritic, opaque to white chert, weathered, soft to dense, sub chalky, sharp, no shows

Limestone, light gray to tan, microcrystalline, fossiliferous, oolitic, gray to opaque to white chert, pyritic, surface etching, dense, no shows

St.Louis 5222 -1453

Limestone, cream to light gray to tan, microcrystalline, fossiliferous, oolitic, oolitic chert, opaque to white chert, pyritic, glauconite, calcite crystals, surface etching, soft to dense, no shows

Limestone, cream to light gray to tan, microcrystalline, fossiliferous, oolitic, white chert, pyritic, calcite crystals, surface etching, dense, no shows

Limestone, same as above

Limestone, tan, microcrystalline, fossiliferous, oolitic, white chert, pyritic, calcite crystals, surface etching, dense, no shows

Limestone, same as above

Limestone, tan to gray, microcrystalline, fossiliferous, oolitic, white chert, cubic pyritic, calcite crystals, surface etching, dense, no shows

TD @5300 2004 hrs
Logged TD @5300

loggers offsite 0630 hrs 10/17/14
 Geologist offsite 0630 hrs 10/17/14

