



WESLEY D. HANSEN Consulting Petroleum Geologist

212 N. Market, Suite 257, Wichita, KS 67202
Office: 316-267-7313 Cellular ; 316-772-6188

**KGS
AAPG
Kansas License #418**

LITHOLOGY STRIP LOG

WellSight Systems

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

Well Name: L.D. Drilling, Inc. Barrow Properties, L. C. #2
Location: 600' FSL, 2210' FEL of Section 5-19S-12W
License Number: 15-009-25988
Spud Date: 7-16-2014
Surface Coordinates: 600' FSL, 2210' FEL of Section 5-19S-12W
Region: Barton County, Kansas
Drilling Completed: 7-25-2014

Bottom Hole Vertical hole
Coordinates:
Ground Elevation (ft): 1808' K.B. Elevation (ft): 1813'
Logged Interval (ft): 2600' To: RTD Total Depth (ft): 3494'
Formation: Arbuckle at RTD
Type of Drilling Fluid: Chemical - Displaced at 2713'

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

OPERATOR

Company: L.D. Drilling, Inc.
Address: 7 SW 26th Avenue
Great Bend, KS 67530-6525

GEOLOGIST

Name: Wesley D. Hansen
Company: Wesley D. Hansen - Consulting Petroleum Geologist
Address: 212 N. Market, Suite 257
Wichita, KS 67202
Office: 316-263-7313 Cellular: 316-772-6188

COMMENTS

Contractor: Petromark Rig #2
Pusher: none

Surface Casing: 8 5/8" set at 289'
Production Casing: 5 1/2" set at +/- 3494'

Mud by: MudCo - Rick Hughes was the engineer

DST's by: Diamond Testing - Ricky Ray was the tester

Logs by: Nabors - DIL, CN-CD, ML

Deviation Surveys: 1/2 deg. @ 3142'; 3/4 deg. @ 3494'

BIT RECORD

Bit #	Size	MFG	Type	Depth Out	Footage Cut	Hours on bit
1	12 1/4"	JZ		289'	289'	3 1/2
2	7 7/8"	HTC	GX-20C	3180'	2891'	55 3/4
3	7 7/8"	HTC	GX20-C rr	3494'	314'	14 1/4

FORMATION TOPS AND STRUCTURAL COMPARISON

FORMATION	SAMPLE TOPS		LOG TOPS		COMPARISON WELLS (5-19-12W) ROCI Hullman #4 (1) NWSWSE ROCI Davis #1 (2) E/2SESW
	Depth	Datum	Depth	Datum	
Anhydrite	640'	+1173	643'	+1170	
B/Anhydrite	666'	+1147	669'	+1144	
Elmont	2637'	-824	2640'	-827	
Topeka	2675'	-862	2676'	-863	
Heebner	2979'	-1166	2981'	-1168	
Brown Lime	3086'	-1273	3088'	-1275	
Lansing	3100'	-1287	3100'	-1287	
Muncie Creek Shale	3229'	-1416	3234'	-1421	
BKC	3346'	-1533	3346'	-1533	
Arbuckle	3365'	-1552	3366'	-1553	
RTD	3494'	-1681			
LTD			3492'	-1679	

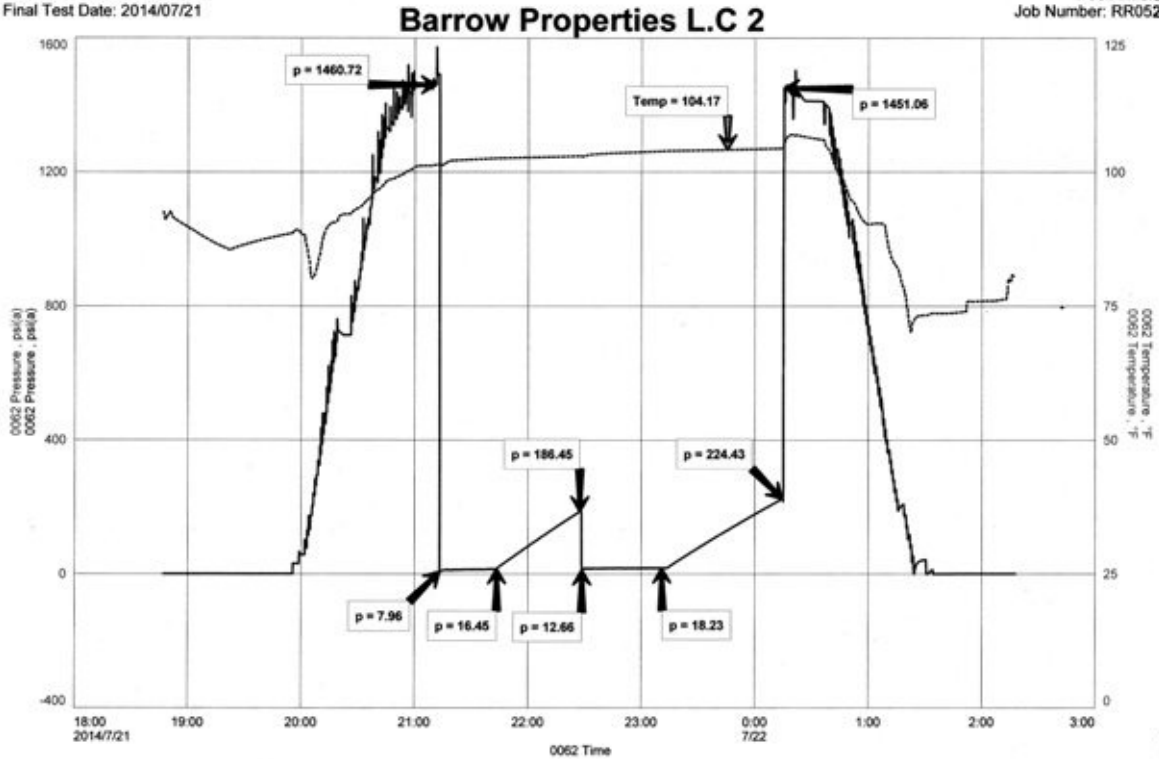
DRILL STEM TESTS

DST No. 1 Lansing "A" and "B"
Interval: 3103'-3142'
Times: 30-45-45-60
Recovery: 112' GIP, 10' SLOCM (4o, 96m)
FP: 8-16/13-18 SIP: 186-224
HP: 1461-1451 BHT: 104 deg. F

IFP: no blow, started weak, built to 5 1/2 inches
ISIP: no return blow
FFP: 5 inch blow, built to B.O.B. in 21 1/2 minutes
FSIP: no return blow

L.D Drilling INC
Dst 1 Lan "A-B" (3103-3142)
Start Test Date: 2014/07/20
Final Test Date: 2014/07/21

Barrow Properties L.C 2
Formation: Sec: 5-19s-12w (Barton County)
Pool: Infield
Job Number: RR052



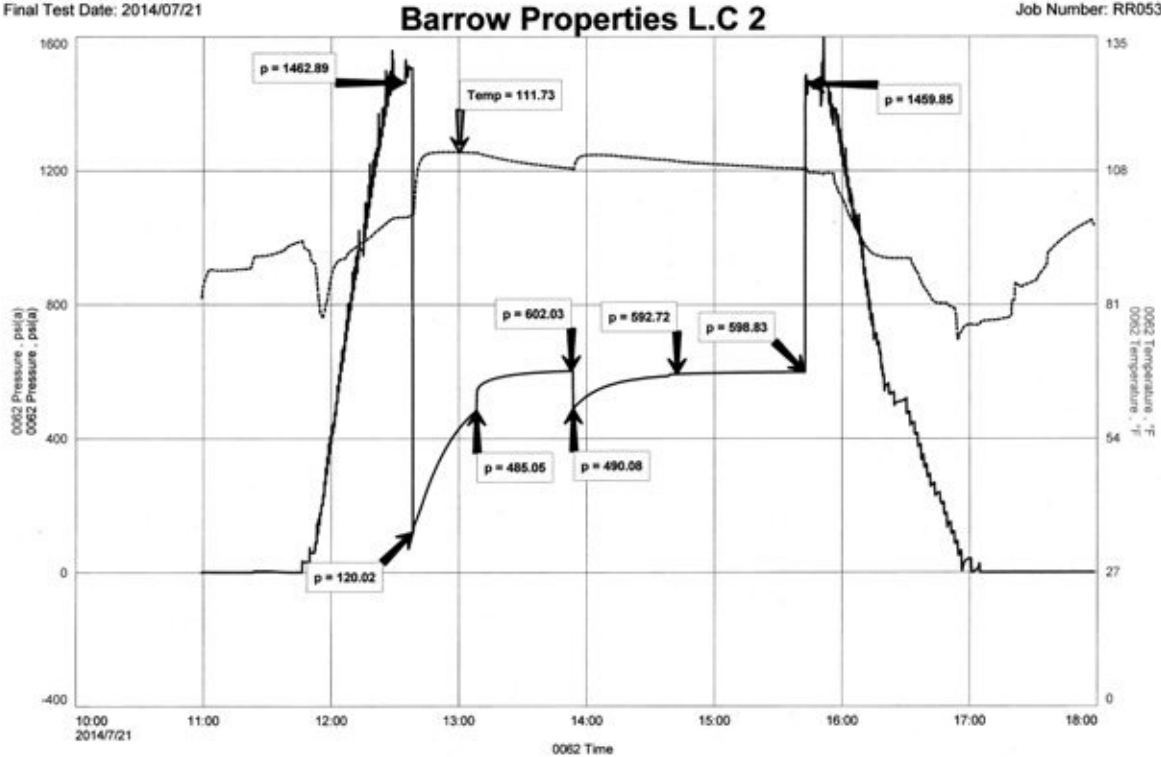
DRILL STEM TESTS

DST No. 2 Lansing "C"- "F"
 Interval: 3138'-3180'
 Times: 30-45-45-60
 Recovery: 10' GIP; 50' SLGO&WCM (2g, 1o, 8w, 89m); 1178' SLGO&HMCW (4g, 1o, 25m, 70w); 122' SLO&MCW (1o, 13m, 86w); total fluid 1350' - chl. 55,000
 FP: 120-485/490-593 SIP: 602-599
 HP: 1463-1460 BHT: 112 deg. F

IFP: 2 inches, built to B.O.B. in 1 1/4 minutes
 ISIP: no return blow
 FFP: 3/4 inch, built to B.O.B. in 4 3/4 minutes
 FSIP: no return blow

L.D Drilling Inc.
 Dst 2 Lan "C-F" (3138-3180)
 Start Test Date: 2014/07/21
 Final Test Date: 2014/07/21

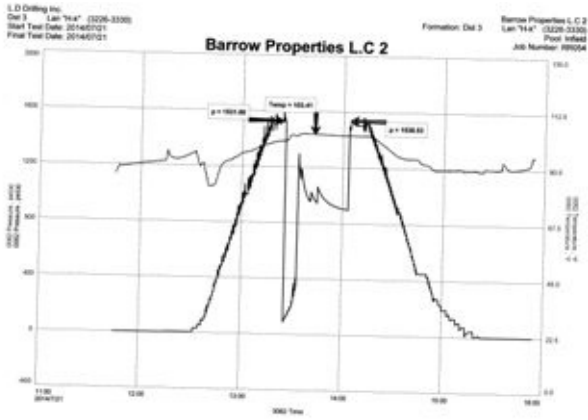
Barrow Properties L.C 2
 Formation: Dst 2 Lan "C-F" (3138-3180)
 Pool: Infield
 Job Number: RR053



DRILL STEM TESTS

DST No. 3 Lansing "H-K"
Interval: 3226-3330'
Packer seat failure

DST No. 4 Lansing "H" thru "K"
Interval: 3220'-3330'
Hydraulic tool failed - picked up mud before setting packers



Barrow Properties L.C. 2 - Inland - Barrow Properties L.C. 2 - Inland - Barrow Properties L.C. 2 - Inland



Barrow Properties L.C. 2 - Inland - Barrow Properties L.C. 2 - Inland - Barrow Properties L.C. 2 - Inland

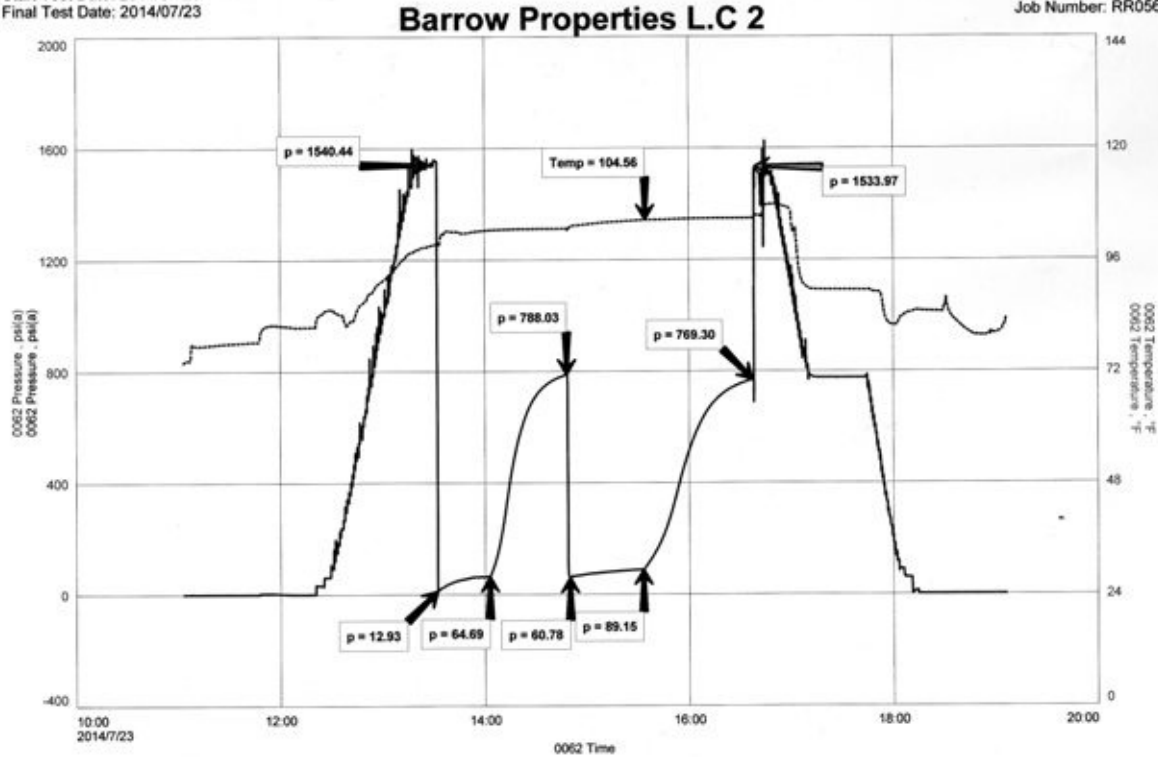
DRILL STEM TESTS

DST No. 5 Lansing "H" thru "K"
Interval: 3220-3330'
Times: 30-45-45-60
Recovery: 620' GIP; 62' G&OCM (10g, 20o, 70m); 122' HGO&WCM; (40g, 20o, 15w, 25m)
- total fluid 184'
FP: 13-65/61-89 SIP: 785-769
HP: 1540-1534 BHT: 105 deg. F

IFP: weak blow, built to B.O.B. in 23 1/4 minutes
ISIP: no return blow
FFP: fair blow, built to B.O.B. in 4 1/2 minutes
FSIP: return blow built to 1 inch

L.D Drilling Inc
Dst 5 Lan "H-K" (3220-3330)
Start Test Date: 2014/07/23
Final Test Date: 2014/07/23

Barrow Properties L.C 2
Formation: Dst 5 Lan "H-K" (3220-3330)
Pool: Infield
Job Number: RR056



DRILL STEM TESTS

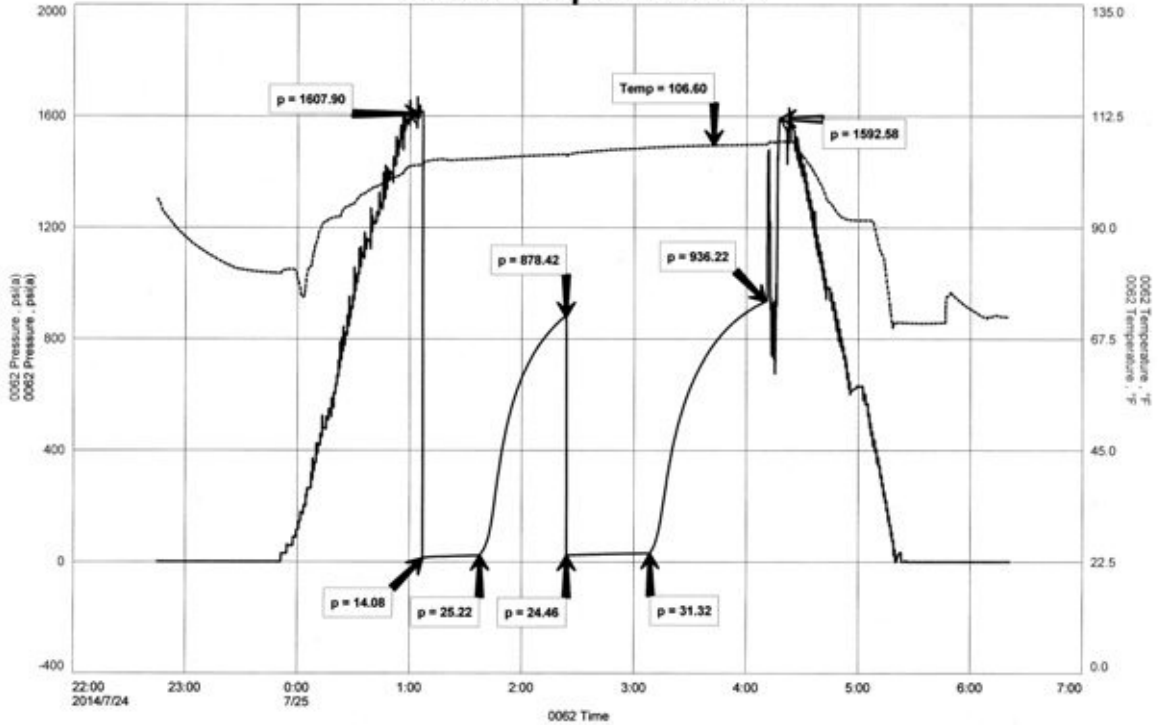
DST No. 6 Arbuckle
Interval: 3346-3378'
Times: 30-45-45-60
Recovery: 8' SL&OCM (2g, 4o, 94m)
FP: 14-25/24-31 SIP: 878-936
HP: 1608-1573 BHT: 107 deg. F

IFP: weak blow built to 1 inch
ISIP: no return blow
FFP: no blow
FSIP: no return blow

LD Drilling Inc
Dst 6 Arbuckle (3346-3378)
Start Test Date: 2014/07/23
Final Test Date: 2014/07/24

Barrow Properties L.C 2
Formation: Dst 6 Arbuckle (3346-3378)
Job Number: RR057

Barrow Properties L.C 2



DRILL STEM TESTS

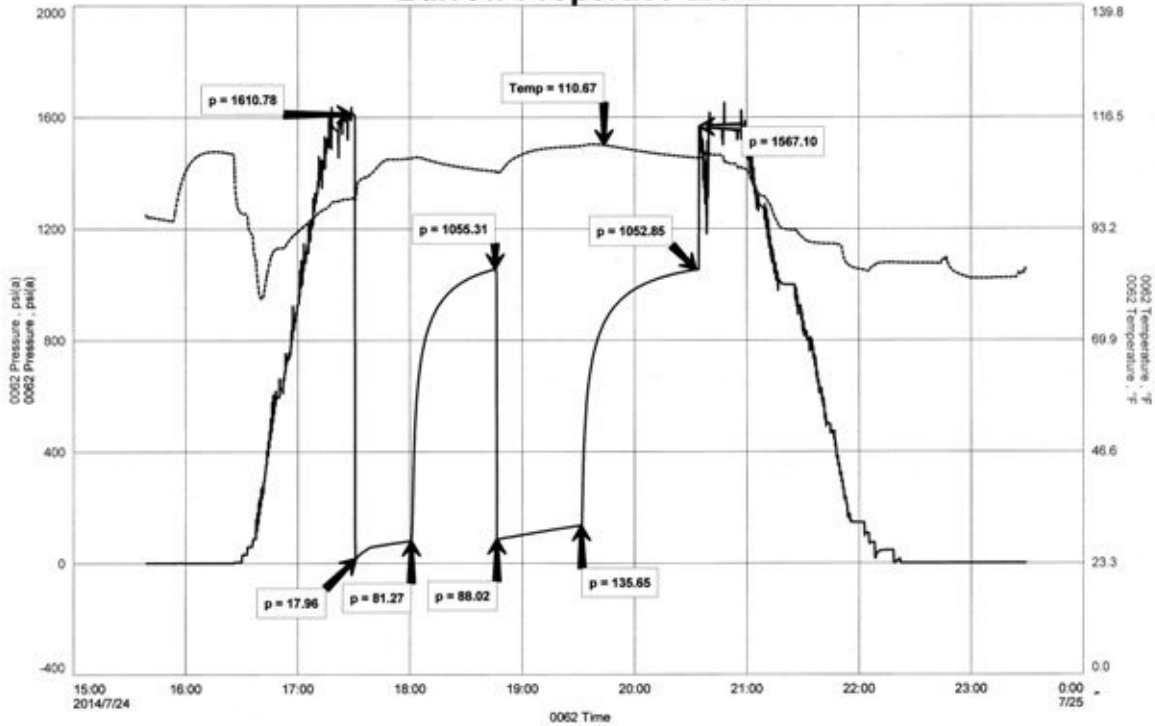
DST No. 7 Arbuckle
 Interval: 3376'-3388'
 Times: 30-45-45-60
 Recovery: 93' GIP; 279' clean oil (39 gravity);
 122' SLWG&HOcm (6w, 20g, 40o, 34m) - total
 fluid 401'
 FP: 18-81/88-136 SIP: 1055-1053
 HP: 1611-1567 BHT: 111 deg. F

IFP: 1/2 inch blow, slowly built to B.O.B. in
 18 1/2 minutes
 ISIP: 1/2 inch return blow
 FFP: 1/2 inch blow, slowly built to B.O.B.
 in 20 3/4 minutes
 FSIP: no return blow

L.D Drilling Inc
 Dst 7 Arbuckle (3376-3388)
 Start Test Date: 2014/07/24
 Final Test Date: 2014/07/24

Formation: Dst 7 Barrow Properties L.C 2
 Arbuckle (3376-3388)
 Pool: Infield
 Job Number: RR058


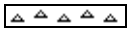





Barrow Properties L.C 2



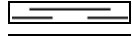










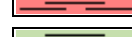


Item: Testing11\Desktop\Dst7 24-Jul-14 Ver

FasT

ROCK TYPES

-  Anhy
-  Cht
-  Coal
-  Congl
-  Dol
-  Gyp
-  Lmst

-  Salt
-  green shale
-  Shale
-  Shcol
-  Sltst
-  Ss
-  Carb sh

-  Dol
-  Dtd
-  Gry sh
-  Sandylms
-  redshale
-  Shale
-  Sltstn

-  Shlyslts
-  Sltysb
-  Sdy dolo
-  Shy dolo
-  Shaly ls
-  light dolomite

ACCESSORIES

FOSSIL

- Algae
- Amph
- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal
- Coral
- Crin
- Echin
- Fish
- Foram
- Fossil
- Gastro
- Oolite
- Ostra
- Pelec
- Pellet
- Pisolite

- Plant
- Strom
- Fuss
- Oomold

MINERAL

- 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
- Chlorite
- Dol
- Sand
- Sltly

STRINGER

- Anhy
- Arg
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst
- Sltstrg
- Ssstrg
- Carbsh
- Clystn
- Dol
- Grysh
- Gryslt
- Lms
- Sandylms
- Sh
- Sltstn

OTHER SYMBOLS

INTERVALS

- Core
- Dst
- Dst

EVENTS

- Rft
- Dst top/base

OIL SHOWS

- Even
- Spotted
- Quest.

- Trace
- Dead
- Gas show

Curve Track 1 ROP (min/ft)	Depth	Lithology	Geological Descriptions	Remarks
	650			<p style="text-align: center;">Anhydrite 640' (+1173)</p> <p style="text-align: center;">Base/Anhydrite 666' (+1147)</p>

Report Depth and Activity

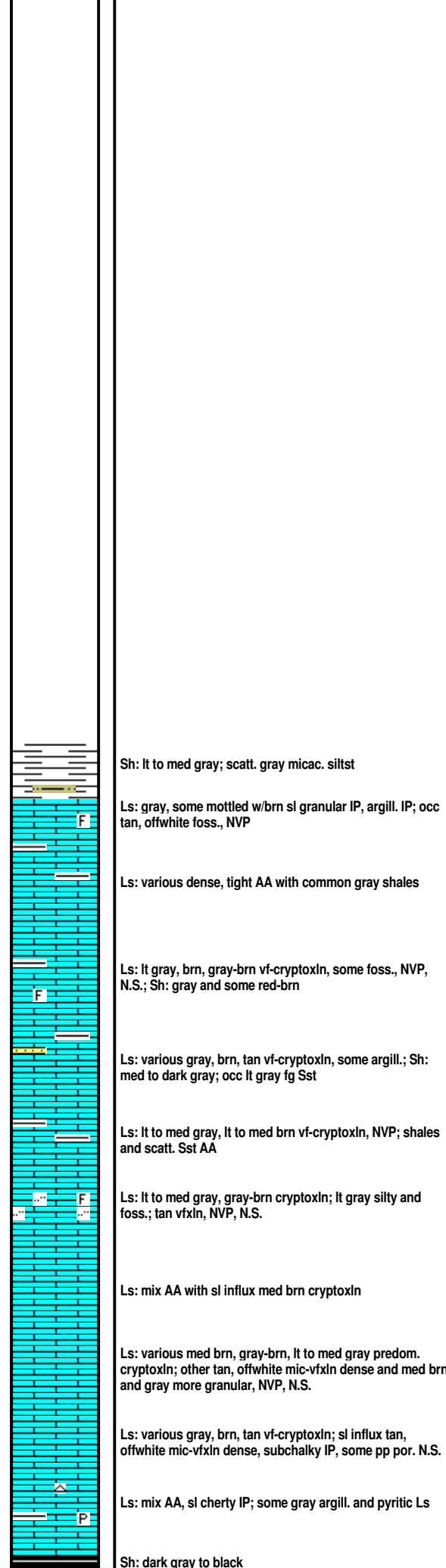
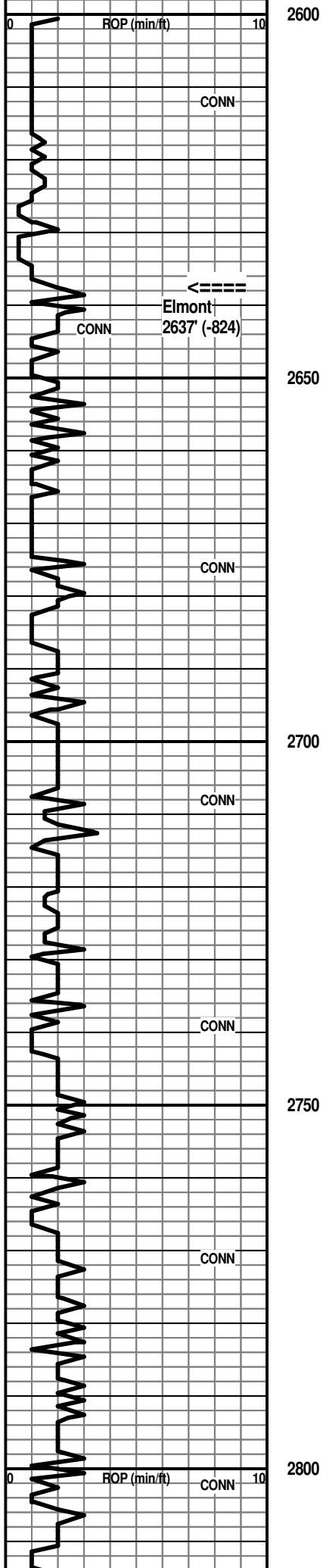
7-16-2014 MIRT, Spud at 7:45 PM
 7-17 WOC @ 289'
 7-18 Drlg. @ 1285'
 7-19 Drlg. @ 2266'
 7-20 Drlg. @ 2985'
 7-21 CFS @ 3162' post DST No. 1
 7-22 Drlg. @ 3303' post DST No. 2
 7-23 DST No. 5 @ 3330'
 7-24 TIH post DST No. 6 @ 3378'
 7-25 RTD @ 3494' post DST No. 7
 7-26 casing set

Elmont 2637' (-824)

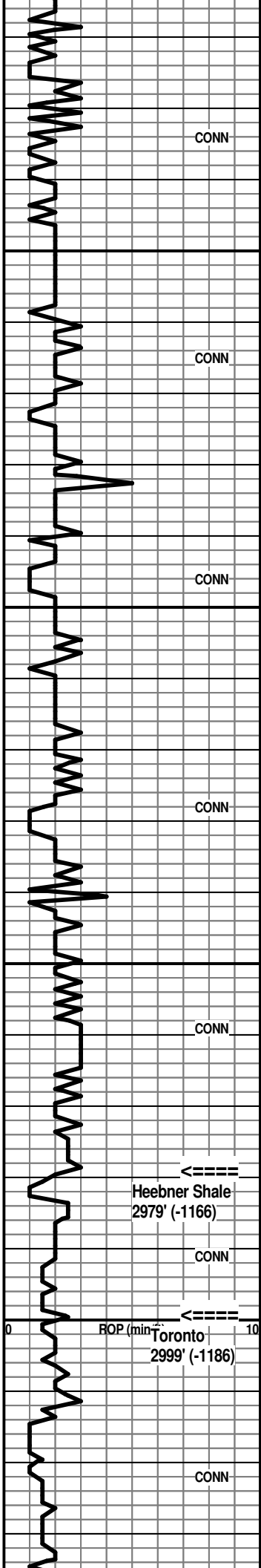
Jet #1 pit

Finish displacement at 2713'

Start 10' samples



Sh: dark gray to black



2850

2900

2950

3000

Heebner Shale
2979' (-1166)

Toronto
2999' (-1186)

ROP (min) 10

Sh: med to dark gray, laminated and silty IP;

Ls: lt to med gray, brn, tan vf-cryptoxln; lesser tan, offwhite mic-vfxln dense, subchalky; some lt to med brn mottled granular

Sh: med to dark gray

Ls: lt to med brn, gray dense, granular IP, poor-NVP; other offwhite, tan mic-vfxln dense; rare mottled gray/brn opq chert

Ls: various lt brn, tan, lt gray vf-cryptoxln, mottled IP; Sh: med to dark gray, silty IP

Ls: mix AA

Ls: various lt gray, lt brn, tan vf-cryptoxln; some mottled brn fn granular, poor-NVP, N.S.

Sh: dark gray to black carbon.

Ls: lt to med brn, gray cryptoxln to mottled granular, poor inter-particle por. to NVP, N.S.

Ls: lt to med brn, gray, tan predom. cryptoxln; other offwhite, tan mic-vfxln dense, subchalky

Ls: mix AA, more subchalky; very scatt. offwhite, lt gray opq chert

Ls: various tan, lt gray, lt brn vf-cryptoxln, NVP, N.S.; Sh: med gray, gray-green

Ls: more tan, lt gray micxln to fn granular, poor-NVP, dense, subchalky IP

Ls: some tan with fair-good pp to tiny oomoldic por.; abund. tan, offwhite, some lt gray mic-vfxln dense, subchalky

Ls: influx lt to med brn, some gray predom. cryptoxln, mottled IP

Ls: mix various cryptoxln and mic-vfxln dense AA; Sh: incr. med to dark gray

Ls: mix lt to med brn cryptoxln and offwhite, tan mic-vfxln dense, subchalky; occ med gray opq chert

Sh: influx black carbon.; Ls: more med brn cryptoxln

Sh: med to dark gray, black, gray-green

Ls: predom. various brn, gray, tan cryptoxln, NVP, N.S.; scatt. tan, lt brn granular to sl oolitic with thick black oily stain, faint to no odor, nfo

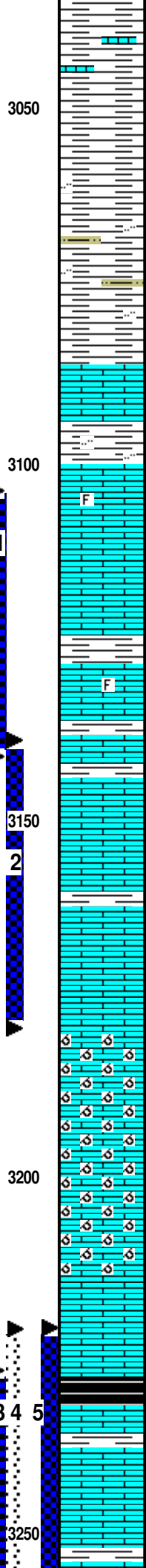
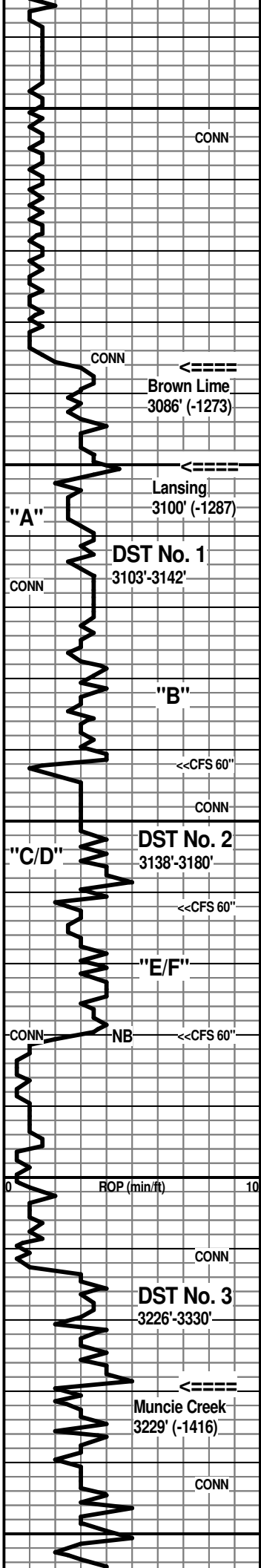
Sh: med to dark gray, black, gray-green with stringers of various cryptoxln and granular Ls

Sh: mix AA, some red-brn, some soft, gummy pale gray; Ls: thin beds tan, brn vf-cryptoxln

MudCo Mud Check at 2977'
6:40 AM on 7-20-2014
wt vis wl pH chl
8.9 59 8.0 11.5 5,000
PV YP GelS lcm solids
17 21 19/58 0# 4.0%

Heebner Shale 2979' (-1166)
7:00 AM at 2985' on 7-20-2014

Toronto 2999' (-1186)



Shale mix AA with thin Ls beds

Sh: flood med to dark gray, some dark red-brn

Sh: mix AA, commonly silty, some veru soft pale gray; Siltst: some lt gray finely micac.

Sh: flood lt to med gray silty and soft

Ls: med to dark brn, gray-brn cryptoxln

Sh: med to dark gray, some silty; Ls: occ dark brn cryptoxln and mottled brn granular

Ls: influx tan, lt brn, some gray vf-cryptoxln, NVP, N.S.; scatt. tan, lt brn cryptoxln with scatt. vug. por., occ foss. with fossil molic por. with fair-good odor, vsl sfo, trace sg, some sat. stain dry; other tan, offwhite micxln with spotty lt brn stain

Ls: mix tan, lt brn cryptoxln, NVP and tan, offwhite mic-vfxln dense, N.S.; scatt. chips with shows AA, some lt edge stain

Sh: med gray; Ls: lt to med brn, some dark brn and gray cryptoxln, NVP, N.S.; tan fn granular with inter-particle por. with sl odor, sl sfo; other dark brn granular/foss. with poor inter-particle por. with sat. stain, sg, vsl sfo, very hard

CFS 3142' spls - Ls: various cryptoxln, NVP, N.S.; some mottled gray/brn granular with spotty stain in vug. por.; predom. mottled darkgray/dark brn granular in 60" spl with N.S.; scatt. granular with poor por. with dark brn to black stain

Ls: predom. lt to med brn and dark gray granular, poor-NVP, N.S.; scatt. med brn gran/foss with vsl sg, nfo, NVP; trace tan cryptoxln with edge stain, nfo, no odor

CFS 3162' spls - Ls: various mottled granular and cryptoxln AA, poor-NVP, N.S.; sl influx mottled gray/dark brn granular, with black stain, nfo and tan vf-cryptoxln with spotty dead black stain, no odor; Sh: vc gray, dark red-brn

CFS 3180' spls - very shaly and poor; Ls: several chips lt brn to dark gray cryptoxln to gran/foss with some vug. por., dark brn stain, trace-vsl sfo, some subsat stain, ?odor; other tan, lt brn, lt gray vf-cryptoxln, NVP, N.S.

Ls: flood tan, lt to med brn oolitic with good oomoldic por., sucrosic IP, N.S.

Ls: AA

Ls: mix some oolitic with poor to no oomoldic por.; influx tan, lt brn vfxln and tan, offwhite mic-vfxln dense, subchalky

Ls: tan, lt gray, lt brn vf-cryptoxln

Sh: influx black carbon., dark gray

Ls: dark gray cryptoxln

very poor spl - Ls: one chip offwhite vfxln with patchy pp dark stain, nfo, no odor

CFS 3256' spls - Ls: tan, lt to med brn, gray cryptoxln and offwhite mic-vfxln dense; 1-2 chips tan vfxln with poor interxln por. with spotty pp dark stain, nfo, no odor; very shaly

Brown Lime 3086' (-1273)

Lansing 3100' (-1287)

DST No. 1 Lansing "A" and "B"
 Interval: 3103'-3142'
 Times: 30-45-45-60
 IFP: no blow, started weak, built to 5 1/2 inches
 ISIP: no return blow
 FFP: 5 inch blow, built to B.O.B. in 21 1/2 minutes
 FSIP: no return blow
 Recovery: 112' GIP, 10' SLOCM (4o, 96m)
 FP: 8-16/13-18 SIP: 186-224
 HP: 1461-1451 BHT: 104 deg. F

DST No. 2 Lansing "C"- "F"
 Interval: 3138'-3180'
 Times: 30-45-45-60
 IFP: 2 inches, built to B.O.B. in 1 1/4 minutes
 ISIP: no return blow
 FFP: 3/4 inch, built to B.O.B. in 4 3/4 minutes
 FSIP: no return blow
 Recovery: 10' GIP; 50' SLGO&WCM (2g, 1o, 8w, 89m); 1178' SLGO&HMCW (4g, 1o, 25m, 70w); 122' SLO&MCW (1o, 13m, 86w); total fluid 1350' - chl. 55,000
 FP: 120-485/490-593 SIP: 602-599
 HP: 1463-1460 BHT: 112 deg. F

7:00 AM at 3162' on 7-21-2014
 MudCo Mud Check at 3162'
 6:55 AM on 7-21-2014
 wt vis wl pH chl
 8.9 49 9.6 11.0 9,500
 PV YP GeIS lcm solids
 12 13 13/52 0# 3.7%

#1 pit was jetted and fresh pre-mix was added prior to drilling ahead after DST No. 2

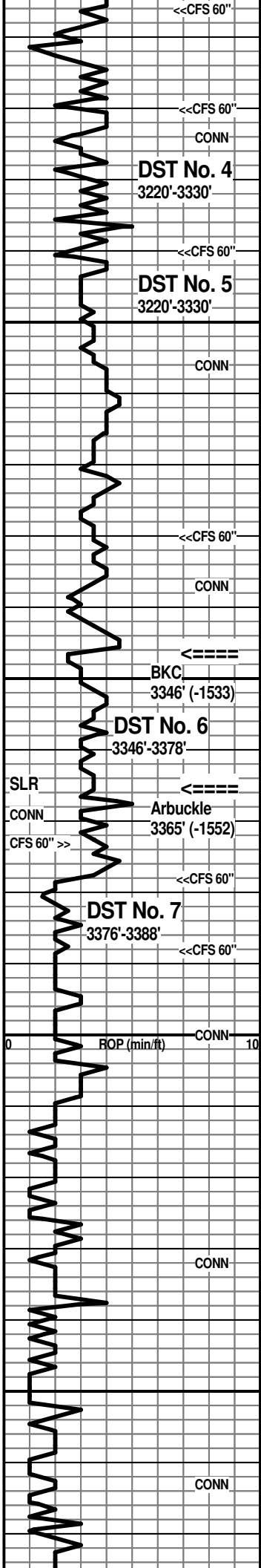
NOTE: water loss and chlorides continued to rise from here to RTD inspite of new premixes being added - probable water entering well bore from above - samples were generally very shaly from cavings

Muncie Creek 3229' (-1416)

DST No. 3 Lansing "H-K"
 Interval: 3226'-3330'
 Packer seat failure

DST No. 4 Lansing "H" thru "K"
 Interval: 3220'-3330'
 Hydraulic tool failed -picked up mud before setting packers

DST No. 5 Lansing "H" thru "K"



Ls: mix various dense AA, trace shows

CFS 3270' sps - Ls: scatt. tan oolitic with fair inter-oolitic por. with lt stain; trace tan vfxln with edge stain; trace med brn granular with poor inter-particle por. with vsf show dark brn oil; other tan, offwhite oolitic with poor-NVP, spar matrix

3290' and CFS 3290' sps - Ls: various tan, lt to med brn cryptoxln and offwhite vf-cryptoxln; some oolitic with spar matrix; trace offwhite oolitic with scatt. inter-oolitic por. with sl sg, trace minute oil droplets, no odor; sps very shaly and poor

Sh: flood med to dark gray, more gray-green, some mottled

Ls: tan, lt brn, offwhite predom. cryptoxln, NVP; occ lt brn foss. with spar matrix

Ls: tan, lt brn vf-cryptoxln and offwhite, tan mic-vfxln dense; sps remain very shaly

CFS 3330' sps - Ls: mix AA with some lt gray cryptoxln

Ls: more tan, lt brn predom. cryptoxln, sl granular IP, N.S.

Sh: lt to med gray, some pale green-gray, red-brn and maroon-brn

Ls: mottled lt to med brn granular, some wht offwhite micxln matrix

Sh: mix vc gray, red-brn, maroon-brn; Ls: lt to med brn cryptoxln; Chert influx dark yellow, yellow-brn opq

CFS 3373' sps - Chert: mix AA with multi-colored shales; Dolo: tan, lt brn, lt gray fn-vfxln with gen. poor interxln por., no well developed rhombs, with sl-fair odor, vsf shows lt fo, pp stain

CFS 3378' sps - Dolo: tan, lt brn fn-medxln, some sucrosic, gen. poor interxln por. with fair odor, pp to subsat stain, sfo; Chert: mix brn, offwhite oolitic and sandy IP, other yellow and yellow-brn

CFS 3388' 30" spl - Dolo: tan, some offwhite fn-medxln, no well developed rhombs, generally friable, some sl sandy, sl-fair odor, vsf slo, lt stain, decr. chert %;

Dolo: good influx tan, lt brn fn-medxln, occ oolitic with interxln, vug. and some oomoldic por., some rhombic development, with sl odor, sfo, spotty to sat stain

Dolo: lt to med brn fn-vfxln with poor-NVP; interbedded with tan, lt brn oolitic IP with interxln, vug. and oomoldic por., some nice rhombic development, with presistant shows AA

Dolo: mix AA with rith gen. good por. with decr. shows

Dolo: becoming predom. tan, lt to med brn vf-cryptoxln with poor to NVP, faint to no odor, rare shows

Dolo: various tan and brn with some good por. and other tight streaks, N.S.

Dolo: interbedded por. and tight streaks AA, rare shows (probable cavings)

Interval: 3220-3330'
Times: 30-45-45-60
IFP: weak blow, built to B.O.B. in 23 1/4 minutes
ISIP: no return blow
FFP: fair blow, built to B.O.B. in 4 1/2 minutes
FSIP: return blow built to 1 inch
Recovery: 620' GIP; 62' G&OCM (10g, 20o, 70m); 122' HGO&WCM; (40g, 20o, 15w, 25m) - total fluid 184'
FP: 13-65/61-89 SIP: 785-769
HP: 1540-1534 BHT: 105 deg. F

MudCo Mud Check at 3301'
6:55 AM on 7-22-2014
wt vis wl pH chl
9.2 45 12.8 10.5 14,500
PV YP GeIS lcm solids
11 11 19/52 0# 5.6%

7:00 AM at 3303' on 7-22-2014
Ran fresh premix at 3330' prior to DST No. 3

Did a wiper trip after DST No. 4 - replaced hydraulic tool ahead of DST No. 5

Ran fresh premix before drilling after DST No. 5

7:00 AM at 3330' on 7-23-2014
MudCo Mud Check at 3330'
7:35 AM on 7-23-2014
wt vis wl pH chl
9.2 45 12.8 10.5 14,500
PV YP GeIS lcm solids
9 11 15/36 0# 5.6%

BKC 3346' (-1533)

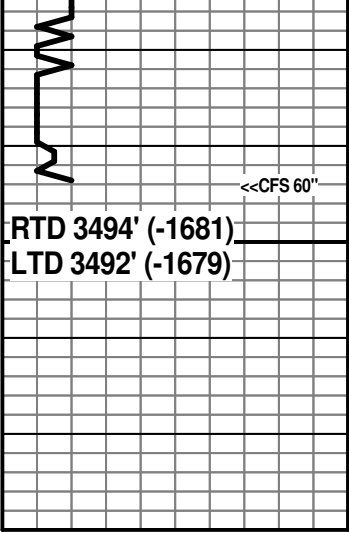
Arbuckle 3365' (-1552)

7:00 AM at 3378' on 7-24-2014
CFS 3388' 60" spl - Dolo: tan AA with some better developed rhombs, sl-fair odor, sfo, sg, lt stain; also some white clay (?) filling some of the interxln por.; Chert: offwhite, tan, dark yellow opq

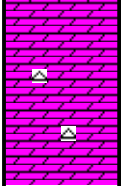
MudCo Mud Check at 3378'
8:50 AM on 7-24-2014
wt vis wl pH chl
8.8 45 14.6 10.0 16,500
PV YP GeIS lcm solids
7 23 23/37 0# 5.5%

DST No. 6 Arbuckle
Interval: 3346-3378'
Times: 30-45-45-60
IFP: weak blow built to 1 inch
ISIP: no return blow
FFP: no blow
FSIP: no return blow
Recovery: 8' SL&OCM (2g, 4o, 94m)
FP: 14-25/24-31 SIP: 878-936
HP: 1608-1573 BHT: 107 deg. F

DST No. 7 Arbuckle
Interval: 3376'-3388'
Times: 30-45-45-60
IFP: 1/2 inch blow, slowly built to B.O.B. in 18 1/2 minutes
ISIP: 1/2 inch return blow
FFP: 1/2 inch blow, slowly built to B.O.B. in 20 3/4 minutes
FSIP: no return blow
Recovery: 93' GIP; 279' clean oil (39 gravity); 122' SLWG&HOCM (6w, 20g, 40o, 34m) - total fluid 401'
FP: 18-81/88-136 SIP: 1055-1053
HP: 1611-1567 BHT: 111 deg. F



3500



CFS 3494' spls - Dolo: mix AA with more med brn cryptoxln, NVP and lt gray, offwhite fn-vfxln with poor-NVP, N.S.; sl influx offwhite opq chert

After review of samples, DST results and open hole log evaluation, the decision was made to run 5 1/2 " casing for production.

Respectfully submitted,

Wesley D. Hansen
 Petroleum Geologist
 Kansas License No. 418

7:00 AM at 3494' on 7-25-2014

RTD reached at 5:40 AM
 CFS/CTCH 1 hour - Survey - TOFL

MudCo Mud Check at 3494'
 9:00 AM on 7-25-2014
 wt vis wl pH chl
 9.1 44 13.4 11.0 15,300
 PV YP GelS lcm solids
 8 14 16/32 0# 4.8%