

LITHOLOGY STRIP LOG

WellSight Systems

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

Well Name: Abercrombie Energy, LLC. Vogel #3-24
Location: NW NW NW Section 24-T19S-R26W
License Number: API: 15-135-25373
Spud Date: April 12, 2012
Surface Coordinates: 330 FNL & 330 FWL Section 24-T19S-R26W
Region: Ness Co, KS
Drilling Completed: April 20, 2012

Bottom Hole
Coordinates:
Ground Elevation (ft): 2618 K.B. Elevation (ft): 2627
Logged Interval (ft): 3800 To: 4595 Total Depth (ft): 4595
Formation: Mississippian, RTD 4595 (-1968), LTD
Type of Drilling Fluid: Chemical. Displaced at 3626'.

Printed by WellSight Log Viewer from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: Abercrombie Energy, LLC
Address: 10209 W. Central, Ste 2
Wichita, KS 67212

GEOLOGIST

Name: Mikeal K. Maune
Company: Consulting Petroleum Geologist - Kansas Licensed No. 210
Address: Wichita, Kansas
Office: 316-722-8173

COMMENTS

Surface Casing: 8 5/8" set @ 261' w/ 170 sks. Common 3% cc, 2% gel, cement did circulate. Plug down @ 3 am 4/13/12.

Production Casing: New 15.5# 5 1/2" casing set @ 4582'. Cemented bottom stage w/150 sks. Class A ASC, 10% Salt, 5% Coal Seal, 2% Gel. Cemented top stage w/400 sks. 60/40, 8% Gel, 3% CC, 1/4# Flow seal. Rat Hole 30 sks. Mousehole 20sks. DV tool set @ 1897'. Plug down @ 12:30 am 4/22/2012. Job by Allied Cement.

Deviation Surveys: 3/4 @ 265', 3/4 @4585'.

Pipe Strap @ 4585. Board 4594.23'. Strap 4593.59'. Strap short to Board .64'.

Val Energy Rig #4 Bit Record:

#1 12 1/4" JZ Rock in @ GL, out @ 265'.

#2 7 7/8" JZ QX21 in @ 265', out @ 4595'.

Mud System: Mud-CO/Service Mud

DSTs: Trilobite Testing Inc. (3 Dsts)

OH Logs: Log Tech RAG

Correlation of the OH Log with the Drilling Time, indicates OH Log depths and the Drilling Time depths are approximately equal from 3800 to TD. The Gamma ray curve was imported directly into this log without any depth adjustment.

OH Log Formation Tops: Anhydrite 1885 (+742), Base Anhydrite 1924 (+703), Heebner 3931 (-1304), Lansing 3974 (-1347), Stark 4231 (-1604), BKC 4305 (-1678), Pawnee 4430 (-1803), Fort Scott 4485 (-1858), Cherokee 4507 (-1880), Miss Ls, 4576 (-1949), Miss Dolomite 4580 9-1953), LTD 4596 (-1969).


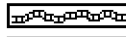
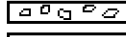
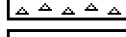









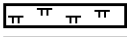
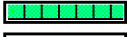








DSTs

DST #1 4528-4585/30-60-90-90. 1st Op: Surface blow build to 1 1/2". 2nd Op: Surface blow build to 3 1/2". Recover: 31' GIP, 62' GOCM (5% Gas, 35%Oil, 60%M). IH 2271#, IFP 19-26#, ISIP 1014# building, FFP 27-40#, FSIP 1046# building, FH 2273#, BHT 125 F.















































































DST #2 4584-4590/30-60-90-90. 1st Op: BOB/24". 2nd Op: BOB/25". Recover: 310' GIP, 144' GO, Gty 39, (10% Gas, 90% Oil), 62' MCGO (10% Gas, 50%Oil, 40%M). IH 2282#, IFP 15-33#, ISIP 1100# building, FFP 37-97#, FSIP 1089# building, FH 2202#, BHT 129 F.



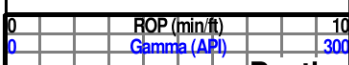
DST #3 4589-4595/30-60-90-90. 1st Op: BOB/7 1/2". RB build to 4" in 60 min. 2nd Op: BOB/10". No RB. Recover: 248' GIP, 692' GO, Gty 39, (15% Gas, 85% Oil), 62' GOCM (20% Gas, 20%Oil, 60%M). IH 2242#, IFP 19-91#, ISIP 1073# building, FFP 94-284#, FSIP 1043# building, FH 2217#, BHT 130 F.

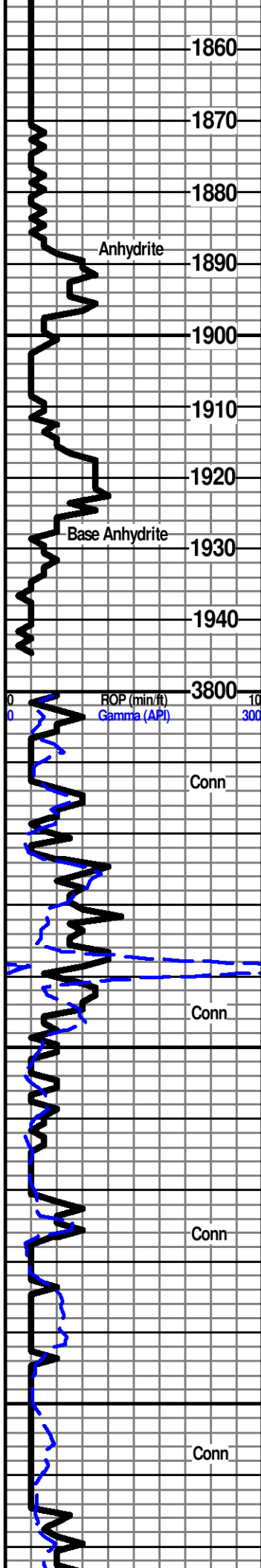
ROCK TYPES

 Anhy  Bent  Brec  Cht  Clyst  Coal	 Congl  Sdy dolo  Shy dolo  Dol  Gyp  Sdy lmst	 Lmst  Mrlst  Salt  Shale  Sltst  Ss	 Black sh  Gry sh  Shale  Shyslstst  Siltysh
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ACCESSORIES

MINERAL  Anhy  Arg  Bent  Bit  Brecfrag  Calc  Carb  Chtdk  Chtlt  Dol  Ferrpel  Ferr  Glau  Gyp  Marl  Nodule  Phos  Pyr  Salt  Sandy  Silt	 Chlorite  Dol  Sand  Silty FOSSIL  Algae  Amph  Belm  Bioclst  Brach  Bryozoa  Cephal  Coral  Crin  Echin  Fish  Foram  Fossil  Gastro  Oolite  Ostra	 Pelec  Pelloidal  Pisolite  Plant  Strom  Fuss  Oomoldic STRINGER  Anhy  Arg  Bent  Coal  Dol  Gyp  Ls  Mrst  Sltstrg  Ssstrg  Carbsh  Clystn  Dol	 Grysh  Gryslt  Lms  Sandylms  Sh  Sltstn TEXTURE  Boundst  Chalky  Cryxln  Earthy  Finexln  Grainst  Lithogr  Microxln  Mudst  Packst  Wackest
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Curve Track 1 ROP (min/ft)  Gamma (API) 	Depth	Lithology	Geological Descriptions	Remarks
 ROP (min/ft) 0 to 10 Gamma (API) 0 to 300 Depth 1850	3700			



3750
3800
3850
3900

Anhydrite

Base Anhydrite

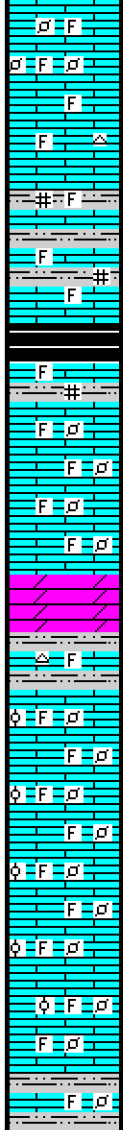
ROP (min/ft)
Gamma (API)

Conn

Conn

Conn

Conn



Ls, wh, tan, mott, mdstn, wkestrn, foss, pell, spt chky text, pp por & tr foss moldic por. Tr Cht, milky, tan, sub op, ang.

Ls, tan, wkestrn, foss, spt chky text, tr pp & foss moldic por. Shy Sitstn, gry, foss, calc, micro pyr. Tr Cht, milky, tan, gry, semi transl, ang.

Shy Ls, tan, gry, mott wkestrn, foss, arg, tr micro pyr. Ls, tan, brn, mdstn, wkestrn, foss, dns.

Sh, blk, carb, pyr. Shy Ls, gry, tan, mott, wkestrn, foss, arg, pyr.

Ls, tan, gry, mott, wkestrn, tr pkstn, foss, pell, pp & foss moldic por, fair spt inter gran por. Shy Ls, lt gry, wkestrn, foss, arg, pp por.

Dolo Ls, tan, vfn xln, poor to fair spt suc por w/Dolo Ls, tan, vfn xln, poor inter xln por.

Shy Ls, gry, wkestrn, foss, arg. Cht, tan, gry, milky, transl, ang.

Ls, lt gry, wkestrn, pkstn, foss, pell, fn ool in part, pp & foss moldic por (fuss), poor to fair oom por, few frag tr vug por, spt intergran por.

Ls, tan, lt gry, blk to brn flaky spks, wkestrn, pkstn, foss, pell, fn ool in part, pp & foss moldic por (fuss), poor to fair oom por, few frag w/tr vug por, spt intergran por. blk to brn flaky spks.

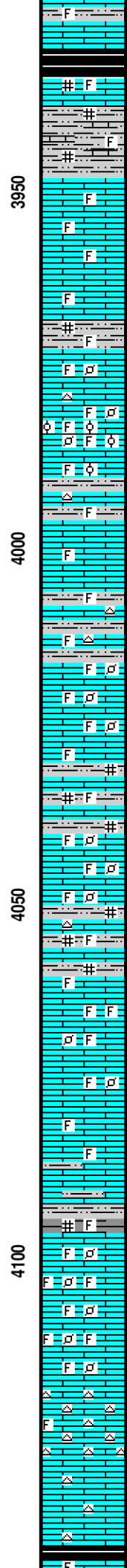
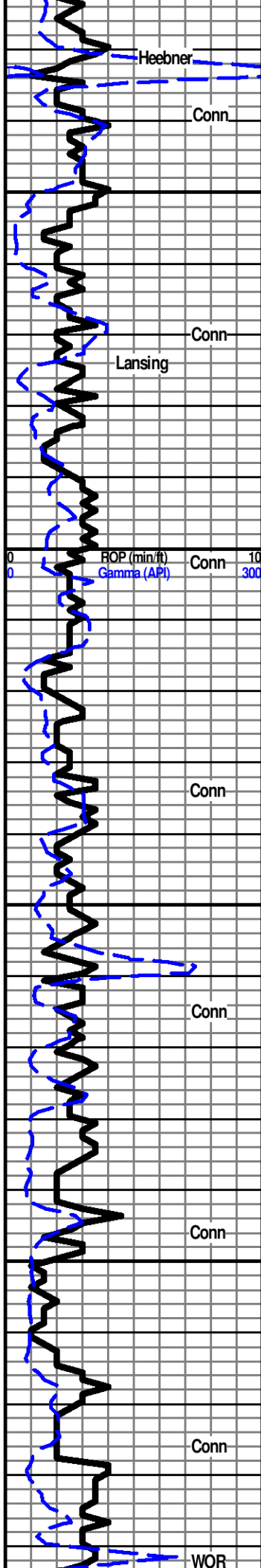
Ls, tan, gry, mott, blk to brn spks, wkestrn, foss, pell, pp & tr foss moldic por. Shy Ls, tan, brn, mott gry, w/ blk, brn, spks, wkestrn, foss, arg, tr micro pyr.

Anhydrite 1888 (+739)
OH Log 1885 (+742)

Base Anhydrite 1928 (+699)
OH Log 1924 (+703)

Geologist on Location @ 3800'.

Correlation of the OH Log with the Drilling Time, indicates OH Log depths and the Drilling Time depths are approximately equal from 3800 to TD. The Gamma ray curve was imported directly into this log without any depth adjustment.



Sh, blk, carb, pyr. Shy Ls, dk gry, brn, wkestrn, foss, arg, pyr, dns. Ls, tan, gry, wkestrn, dk gry foss, pyr, arg.

Shy Sltstn, gry-brn, calc, tr foss, soft. Shy Ls, gry, brn, moss foss, arg, tr pyr.

Flood Ls, lt gry, brn, mdstn, dns. Ls, tan, gry, mott, mdstn, tr wkestrn, foss, arg in part micro pyr, soft to hard.

Ls, tan, mdstn, soft to hard. Ls, gry, mdstn, dns, tr micro pyr. Ls, tan, gry, mott, wkestrn, foss, tr pyr.

Shy Ls, dk gry, brn, mott, wkestrn, foss, pyr. Shy Sltstn, gry-grn, soft.

Ls, tan, brn, mott gry, wkestrn, tr pkstn, foss, pell, pp & tr foss moldic por, clear 2nd calcite. Tr Ls, lt gry, wkestrn, foss, tr pyr foss. Tr Cht, milky, wh, lt gry, sub op ang.

Ls, wh, tan, wkestrn, foss, tr fn ool, pp & tr foss moldic por, spt chky text, tr fn oom por (uphole?).

Ls, tan, brn, gry, mdstn, dns, tr wCht, milky, gry, transl, ang. Ls, tan, brn, mdstn, foss.

Ls, tan, brn, gry, wkestrn, foss, clear 2nd calcite. Ls, brn, gry, mdstn, sl foss, dns.

Flood Shy Ls, gry, dk gry, wkestrn, foss, arg, tr pyr. Ls, gry, mdstn, dsn. Cht, dk gry-blk, w/milky foss, semi transl, ang.

Ls, wh, tan, wkestrn, tr pkstn, foss, pell, clear 2nd calcite, pp por, tr foss moldic por, poor spt inter gran por, spt chky text.

Flood Ls, gry, dk gry, wkestrn, foss, arg, tr pyr. Shy sltstn, gry, dk gry, pyr.

Ls, wh, tan, mott, wkestrn, foss, pell, clear 2nd calcite filled por, tr pp & scatt foss moldic por, spt chky text in part. Ls, tan, mdstn, sl foss, dns. Tr Cht, milky, wh, transl, ang.

Flood Shy Ls, gry, dk gry, wkestrn, foss, arg, dns. Tr Cht, milky, wh, transl, ang.

Ls, wh, tan, mott, wkestrn, tr pkstn, foss, abdn 2nd calcite, pp por. Ls, tan, lt gry, mdstn, dns.

Ls, tan, lt gry, mdstn, sl foss, hard. Ls, wh, tan, wkestrn, foss, pell, clear 2nd calcite. Ls, tan, gry, mdstn, dns. Tr Cht, tan, milky, transl, ang.

Ls, tan, brn, gry, mdstn, sl arg, tr micro pyr, dns. Ls, dirty gry, wkestrn, foss, sl arg, soft chky text.

Sh & Shy Sltstn, dk gry, blk, calc, foss, pyr. Shy Ls, dk gry, gry, tan foss frag, arg, pyr.

Ls, wh, tan, wkestrn, pkstn, foss, pell, clear 2nd calcite, pp & scatt foss moldic por, spt intergran por.

Ls, wh, tan, mott, wkestrn, pkstn, foss, pell, clear 2nd calcite, pp & foss moldic por, spt chky text.

Ls, tan, brn, mdstn, sl foss, dns. Flood Cht, tan, milky, lt gry, tr foss, spic, semi transl, ang, sharp.

Ls, tan, brn, mdstn, sl foss, dns. Ls, tan, wkestrn, pkstn, foss, 2nd calcite, soft-hard. Cht, tan, gry, milky, semi transl, tr foss, ang.

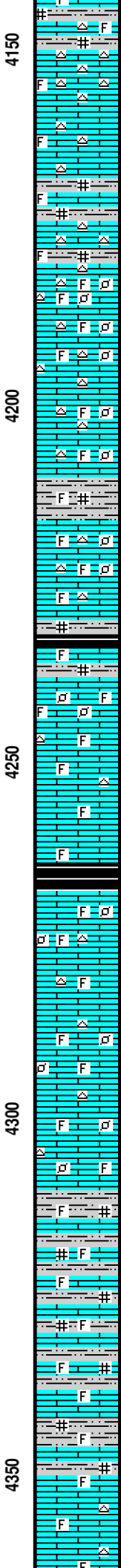
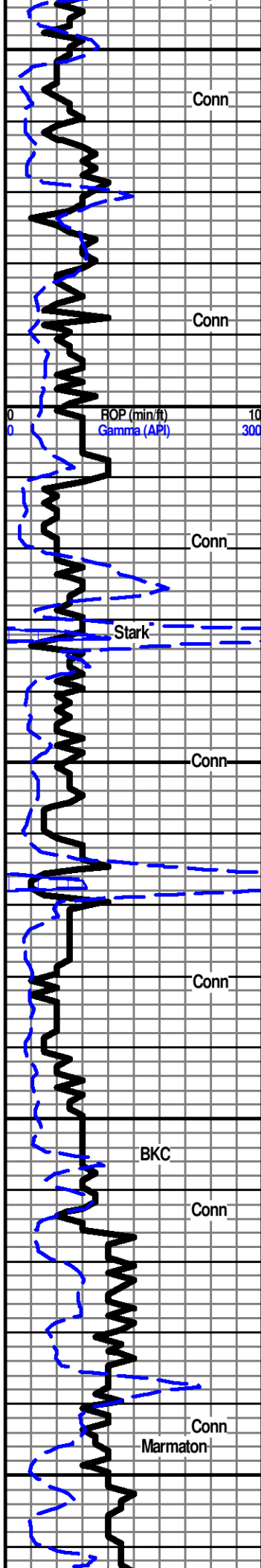
Sh, blk, carb, pyr. Shy Sltstn, gry, calc, pyr. Ls, dirty gry, gry, mdstn,

Heebner 3931 (-1304)

Lansing 3974 (-1347)

Mud-Co/Service Mud, Inc.
 10:30 am 4/17/2012
 Drilling @ 4030
 Wt 9.0, Vis 47, WL 6.8
 pH 10.0, LCM 4#, Chl 3,000
 PV 15, YP 15, GelS 9/23

WOR @ 4142, Rotary chain broke.



wkestrn, foss, arg, tr pyr. Cht, tan, gry, milky, transl, ang.

Ls, dirty gry, lt gry, mdstrn, wkestrn, foss, micro pyr. Abdt Cht, tan, lt gry, milky, transl, ang, blk.

Ls, wh, tan, wkestrn, foss, clear 2nd calcite, tr pp por, soft-hard. Cht, tan, lt gry, milky, transl, ang.

Shy Sltstrn, gry, dk gry, calc, tr foss, pyr. Ls, wh, tan, gry, mdstrn, sl foss, hard.

Shy Sltstrn, AA. Ls, wh, tan, brn, mdstrn, sl foss, tr pp por, soft-hard. Abdt Cht, tan, lt gry, milky, transl, ang.

Flood Ls, wh, tan, wkestrn, pkstrn, foss, pell, abdt clear 2nd calcite, pp por, tr scatt foss moldic por, soft to hard. Cht, tan, milky, lt gry, transl, tr foss, ang.

Ls, tan, brn, wkestrn, foss, pell, clear 2nd calcite, tr pp por, spt chky text. Ls, tan, brn, mdstrn, dns. Cht, tan, milky, lt gry, transl, ang.

Shy Sltstrn, dk gry, calc, tr foss, pyr.

Ls, wh, tan, brn, mott, mdstrn, sl foss, spt soft chky text, mostly dns. Ls, tan, brn, wkestrn, foss, pell, 2nd calcite, soft to hard. Tr Cht, milky, tan, transl, ang.

Sh & Shy Sltstrn, dk gry, blk, pyr. Sh, blk, carb, pyr. Shy Ls, tan, brn, mdstrn, tr foss, arg, dns. Ls, wh, tan, mott, mdstrn, 2nd calcite.

Ls, wh, tan, wkestrn, pkstrn, foss, pell, fn ool in part, pp & tr foss moldic por.

Ls, wh, tan, brn, mdstrn, wkestrn, foss, dns. Tr Cht, milky, tan, transl, ang.

Ls, wh, tan, mdstrn, wkestrn, foss, 2nd calcite, spt soft chky text. Ls, tan, brn, mdstrn, wkestrn, dns.

Sh, blk, carb, pyr.

Ls, wh, tan, mott, mdstrn, wkestrn, foss, pell, soft to hard. Ls, tan, brn, mdstrn, wkestrn, foss, dns.

Ls, wh, tan, mdstrn, wkestrn, foss, 2nd calcite, soft to hard. Ls, tan, mdstrn, wkestrn, foss, dns. Cht, tan, milky, transl, ang.

Ls, wh, tan, mdstrn, dns. Ls, wh, tan, mdstrn, wkestrn, foss, 2nd calcite, soft-hard. Ls, wh, wkestrn, pkstrn, foss, pell, 2nd calcite, soft.

Ls, wh, tan, mdstrn, wkestrn, foss, spt chky text. Ls, wh, tan, wkestrn, pkstrn, foss, pell, 2nd calcite. Cht, milky, tan, transl, ang.

Shy Sltstrn, gry, dk gry, pyr. Shy Ls, gry, brn, mdstrn, wkestrn, foss, arg.

Shy Sltstrn, gry, dk gry, pyr. Shy Ls, gry, brn, mott, foss, atg, pyr.

Shy Sltstrn, gry, dk gry, rd-brn, pyr. Shy Ls, gry, brn, foss, arg, pyr. Shy Ls, tan, foss, w/d-brn silt, arg.

Shy Sltstrn, gry, dk gry, blk, pyr. Shy Sltstrn, lt gry, gry, soft. Shy Ls, wh, tan, foss, w/d-brn silt.

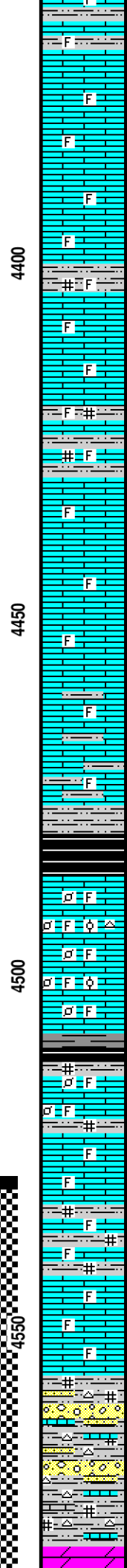
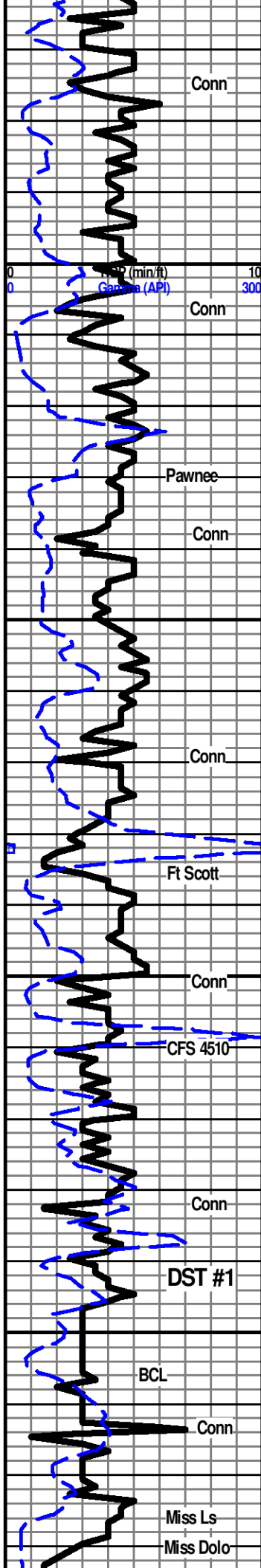
Flood Ls, wh, off wh, mdstrn, tr foss, w/d-brn silt, soft. Ls, wh, lt gry, mdstrn, wkestrn, foss, dns. Cht, milky, tan, transl, ang.

Stark Sh 4232 (-1605)

Hushpuckney Sh 4265 (-1638)

BKC 4305 (-1678)

Marmaton 4346 (-1719)



Shy Siltstn, gry, dk gry, rd-brn, pyr. Shy Ls, gry, foss, arg, pyr.

Flood Ls, wh, tan, mdstn, sl foss, 2nd calcite, spt chky text in part. Ls, tan, mdstn, wkestn, foss, 2nd calcite, dns.

Ls, wh, tan, mdstn, spt chky text. Ls, wh, tan, lt gry, mdstn, tr foss, 2nd calcite filled por, dns.

Ls, wh, tan, mdstn, soft-hard. Ls, wh, off wh, lt gry, mdstn, tr foss, dns. Ls, wh, lt gry, mdstn, wkestn, foss, dns.

Shy Ls, gry, mdstn, dns. Shy Siltstn, gry, dk gry, calc, tr foss.

Ls, wh, tan, mott, mdstn, wkestn, foss, spt chky text. Ls, tan, mdstn, tr foss, dns.

Ls, wh, tan, lt gry, mdstn, dns. Ls, tan, mdstn, wkestn, foss, 2nd calcite. Shy Ls, gry, wkestn, foss, arg, tr pyr, dns.

Shy Siltstn, gry, dk gry, calc, tr foss. Shy Ls, gry, mdstn, wkestn, foss, arg, tr pyr.

Ls, tan, brn, mdstn, tr foss, soft to hard. Ls, tan, brn, mdstn, dns. Tr Ls, brn, lithographic, dns.

Ls, wh, tan, mdstn, sl foss, soft-hard. Ls, tan, mdstn, wkestn, foss, 2nd calcite, dns. Tr Ls, tan, brn, lithographic, dns.

Ls, wh, tan, mdstn, sl foss, soft-hard. Ls, tan, brn, mdstn, dns. Ls, brn, gry, mott, mdstn, arg.

Ls, tan, brn, gry, mdstn, tr foss, dns. Shy Ls, gry, mdstn, arg, dns.

Ls, tan, brn, gry, mdstn, tr foss, dns. Tr cht, tan, brn, transl, ang. Shy Ls, gry, mdstn, arg, dns, tr pyr.

Flood sh, blk, carb, pyr. Shy Siltstn, dk gry, blk, calc, tr foss, pyr.

Ls, gry, dk gry, mdstn, wkestn, foss, pell, tr ool, 2nd calcite, tr Cht, milky, transl, dns. Ls, brn, gry, mott, wkestn, tr pkstn, foss, pell, fn ool, clear 2nd calcite filled por, dns. Few Frag w/ tr pp por, trace of brn FO on break.

Ls, off wh, dirty gry, tan, mdstn, micro pyr, few blk spks, soft. Ls, dirty gry, brn, wkestn, tr pkstn, foss frag, pell, pyr, soft to hard, VSS lt brn FO on break.

Shy Siltstn, gry, dk gry, pyr. Sh, blk, pyr.

Ls, tan, gry, mdstn, wkestn, foss, pell. Ls, brn, tan, wkestn, tr pkstn, foss, pell.

Shy Siltstn, gry, dk gry, blk, pyr.

Flood Ls, off wh, tan, mdstn, tr foss, soft to dns. Ls, tan, brn, gry, wkestn, tr pkstn, foss, pell, 2nd calcite. Ls, tan, brn, gry, mdstn, silty.

Sh & Shy Siltstn, gry, grn, dk gry, blk, pyr. Ls, wh, tan, gry, mdstn, sl foss, dns. Ls, tan, gry, wkestn, foss, pell, 2nd calcite, tr pyr.

Flood Ls, wh, tan, mott, mdstn, tr foss, tr pyr, soft to dns. Ls, tan, mdstn, wkestn, foss, dns.

Flood Shy Siltstn, gry, dk gry, grn, calc, tr foss, pyr. Shy Ls, gry, foss, arg. Tr Sst clear, tan, vfn gr qtz, spks blk flaky dead oil stn. Tr Cht, wh, yell, clear transl, ang.

Flood Shy Siltstn, AA. Shy Ls, gry, foss, tr pyr. Sst, clear, tan, vfn qtz gr, blk spks dead flaky oil. Cht, wh, yell, clear, transl, tr w/blk tarry oil stn. Tr Ls, wh, tan, foss, soft, w/blk dead oil stn.

Pawnee 4430 (-1803)

Mud-Co/Service Mud, Inc.
10:10 am 4/18/2012
Drilling @ 4447
Wt 9.3, Vis 45, WL 7.6
pH 9.0, LCM 3#, Chl 3,200
PV 14, YP 14, GelS 9/24

DST #1 4528-4585/30-60-90-90
1st Op: Surface blow > 1 1/2'.
2nd Op: Surface blow > 3 1/2'.
Recover: 31' GIP, 62' GOCM
(5% Gas, 35% Oil, 60% M).
IH 2271#, IFP 19-26#, ISIP 1014#
FFP 27-40#, FSIP 1046#, FH 2273#,
BHT 125 F.

FT Scott 4486 (-1859)

Cherokee 4507 (-1880)

DST #2 4584-4590/30-60-90-90
1st Op: BOB/24".
2nd Op: BOB/25".
Recover: 310' GIP, 144' GO, Gty 39,
(10% Gas, 90% Oil), 62' MCGO
(10% Gas, 50% Oil, 40% M).
IH 2282#, IFP 15-33#, ISIP 1100#
FFP 37-97#, FSIP 1089#, FH 2202#,
BHT 129 F.

BCL 4556 (-1929)

Mud-Co/Service Mud, Inc.
9:15 am 4/19/2012
Depth 4585. DST #1
Wt 9.3, Vis 47, WL 6.8
pH 10.5, LCM 2#, Chl 2,800
PV 14, YP 16, GelS 6/22

Miss Ls 4576 (-1949)

Miss Dolo 4580 (-1953)

4585 CFS 25' Shy Siltstn, Sst, Cht, Ls, AA.
4585 CFS 50' Slight odor, Flood Dolo. FSFO, PPBYF. See

CFS
DST #2
 CFS
 Conn
DST #3
 CFS 4595 (-1968)

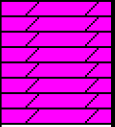
ROP (min/ft) 10
 Gamma (API) 300

RTD 4595 (-1968)

4600

4650

00



description at right.
 4590 CFS Good Odor. Flood Dolo, & Dolo Ls. SSG, GSFO, PPBYF.
 See description at right.
 4595 CFS 50' Good Odor. Flood Dolo & Dolo Ls, tan, brn, mott
 gry, pr to fr spt suc por, foss moldic por, tr vug por, dk brn-blk stn
 in vugs, PP & BYF, GS tan, brn FO, SSG & bleeding oil. Streaming
 wh cut. Dry Sample: Tan, brn, blk, spt stn & sat.

4595 CFS 75' Good Odor. Dolo & Dolo Ls, AA. Increase Dolo,
 vfn-fn xln, far spt suc por, Foss moldic & vug por, dk brn blk oil stn
 & sat, SSG, bleeding dk brn-blk oil, PP & BYF. Dry Sample, tan,
 brn, blk, spt stn & sat.

DST #3 4589-4595/30-60-90-90.
 1st Op: BOB/7 1/2". RB 4".
 2nd Op: BOB/10". No RB.
 Recover: 248' GIP, 692' GO, Gty 39,
 (15% Gas, 85% Oil), 62' GOCM
 (20% Gas, 20%Oil, 60%M).
 IH 2242#, IFP 19-91#, ISIP 1073# >,
 FFP 94-284#, FSIP 1043# >, FH 2217#,
 BHT 130 F.

4585 CFS 50' Slight Odor. Flood Dolo, tan, brn, very small
 frags, vfn-fn xln, fair suc por, tr vug por, PP BYF, FS clear-tan
 FO on break. Fast streaming wh cut. Dry Sample: Tan-brn spt
 stn & sat.
 4590 CFS 50' Good Odor. Dolo, tan, small frags, vfn-fn xln, fr to
 gd suc por, tr vug por, tr foss moldic, PP BYF, FS clear, tan, brn FO
 on break, Tr gas bubbles. Fast streaming wh cut. Few large frag
 Dolo Ls, vfn xln, poor suc por, vug por, bleeding brn FO. Dry
 Sample: Tan, brn, spt stn & sat.

4590 CFS 75' Good Odor. Flood Dolo & Dolo Ls, tan, vfn-fn xln,
 pr to fr suc por, vug por, tr foss moldic por, PP & BYF, FS tan, brn
 FO on break. SSG & bleeding oil. Streaming wh cut. Dry Sample:
 Tan-brn spt stn & sat.

Mud-Co/Service Mud, Inc.
 10:30 am 4/20/2012
 CTCH @ 4590 after DST #2
 Wt 9.1, Vis 44, WL 8.0
 pH 10.5, LCM 2#, Chl 2,500
 PV 14, YP 14, GelS 6/18