



WELL FILE

BEREXCO

Scale 1:240 Imperial

Well Name: MORGAN Z1
 Surface Location: SW NW SE NW 22-16S-12W
 Bottom Location:
 API: 15-009-25543-00-00
 License Number:
 Spud Date: 5/23/2011 Time: 3:30 PM
 Region:
 Drilling Completed: 5/31/2011 Time: 10:56 AM
 Surface Coordinates: 1850 FNL & 1490 FWL
 Bottom Hole Coordinates:
 Ground Elevation: 1922.00ft
 K.B. Elevation: 1927.00ft
 Logged Interval: 400.00ft To: 3454.00ft
 Total Depth: 3455.00ft
 Formation:
 Drilling Fluid Type: Chemical/Fresh Water Gel

OPERATOR

Company: BEREXCO
 Address: 2020 N. BRAMBLEWOOD STREET
 WICHITA, KS 67206
 Contact Geologist: BRUCE MEYER
 Contact Phone Nbr: (316) 265-3311
 Well Name: MORGAN Z1
 Location: SW NW SE NW 22-16S-12W API: 15-009-25543-00-00
 Pool: Field: KRAFT-PRUSA
 State: Kansas Country: USA

SURFACE CO-ORDINATES

Well Type: Vertical
 Longitude: -98.6398854 Latitude: 38.6472032
 N/S Co-ord: 1850 FNL
 E/W Co-ord: 1490 FWL

ELEVATIONS

K.B. Elevation: 1927.00ft Ground Elevation: 1922.00ft
 K.B. to Ground: 5.00ft

CASING SUMMARY

	Surface	Intermediate	Main		
Bit Size					
Hole Size					
	Size	Set At	Type	# of Joints	Drilled Out At
Surf Casing	8.625 in	436 ft	23#	10	5/24/2011 3:00 PM
Int Casing					
Prod Casing	5.5 in	0.00 ft	14#		

CASING SEQUENCE

Type	Hole Size	Casing Size	At
SURFACE	12.25 in	8.63	436.00 ft
Production	7.88 in	5.50	0.00 ft

LOGGED BY



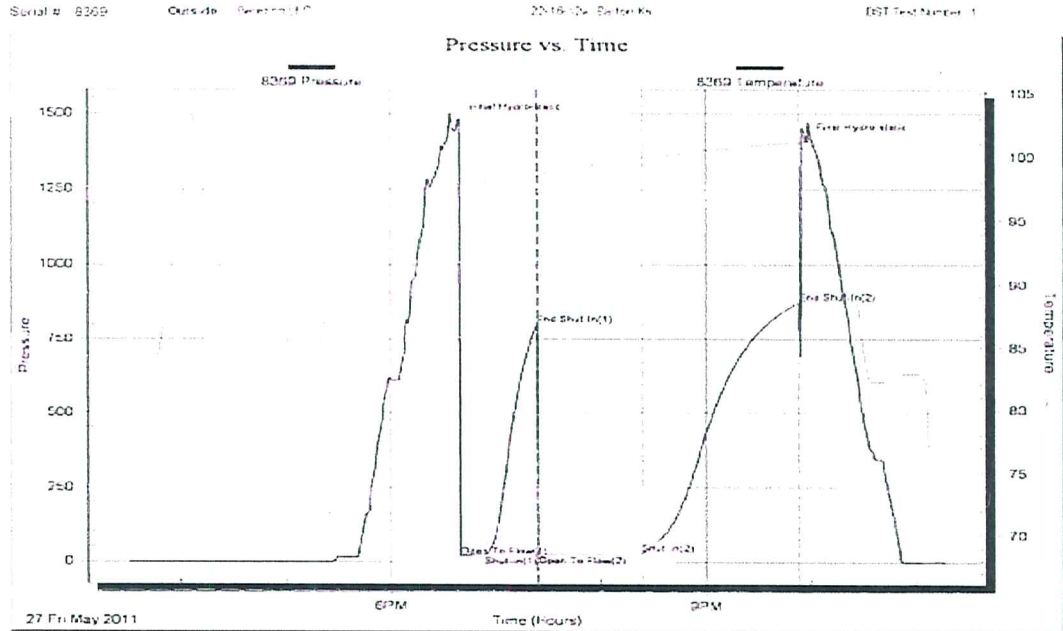
Company: SOLUTIONS CONSULTING
 Address: 108 W 35TH
 HAYS, KS
 67601
 Phone Nbr: (785) 259-3737
 Logged By: Geologist Name: JEFF LAWLER

CONTRACTOR

Contractor: ROYAL DRILLING INC.
 Rig #: 1
 Rig Type: MUD ROTARY
 Spud Date: 5/23/2011
 TD Date: 5/31/2011
 Rig Release: 6/1/2011

Time: 3:30 PM
 Time: 10:56 AM
 Time: 12:00 AM

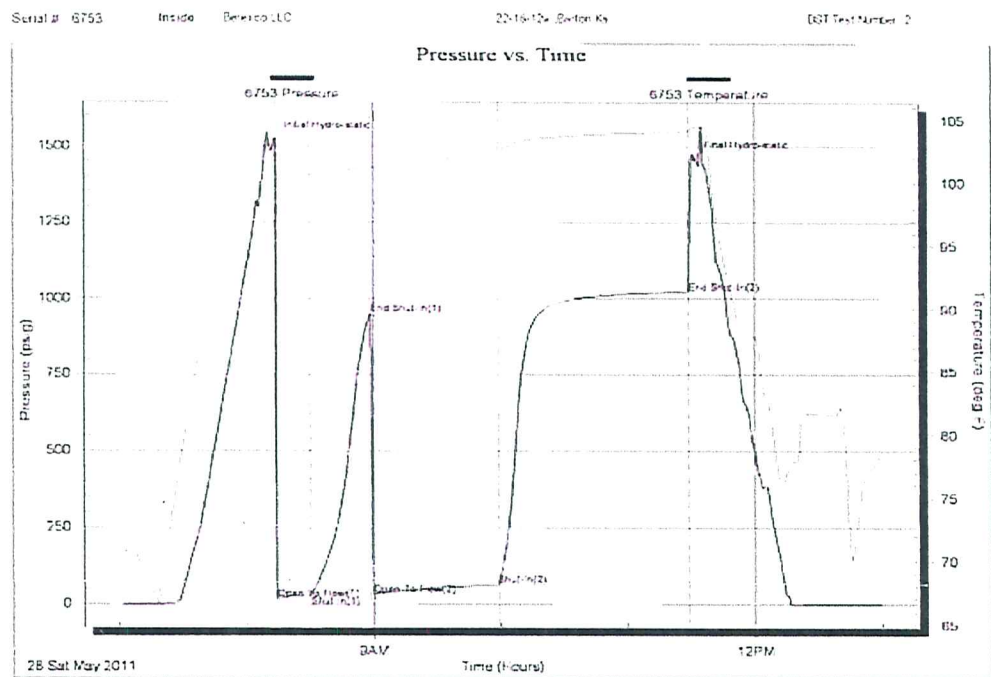
DST #1 DOUGLAS_LKC "A" (3023' - 3115') 15-30-60-90



IFP: 19-21#
 FFP: 24-29#
 SIP: 799-873#
 HP: 1474-1409#
 BHT 101°

REC: 20' VSOCM
 2% O, 98% M

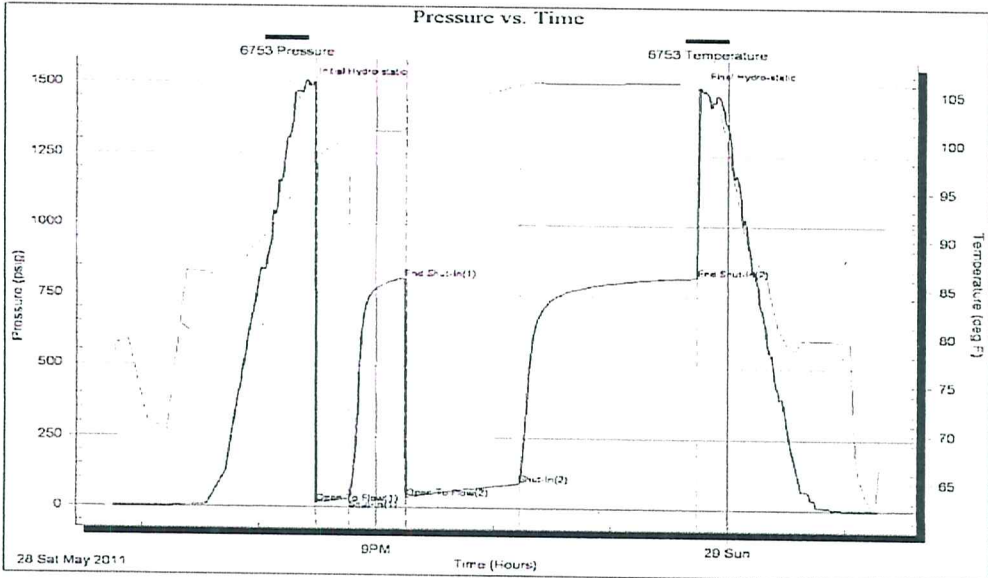
DST #2 LKC "B" "C" (3120' 3155') 15-30-60-90



IB: BOB 4 1/2 min.,
 NO BLW BK
 SB: BOB IMMEDIATELY
 NO BLW BK
 IFP: 17-30#
 FFP: 31-63#
 SIP: 953-1022#
 HP: 1523-1460'
 BHT: 104°

REC: 130' FLUID

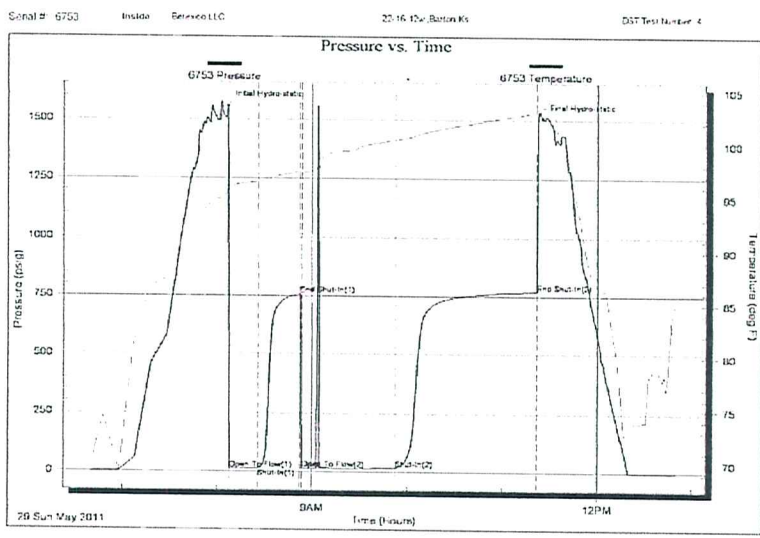
70' SGMCO (10%G, 60%O, 30%M)
 60' SGOCM (10%G, 40%O, 50%M)
 1565' GIP



IB: BOB 4 ½ min.
 NO BLW BK
 SB: BOB 4 min.
 3 ½" died to 2"
 IFP: 15-31#
 SFP: 37-87#
 HP: 1492-1486#
 BHT: 106°
 REC: 170' FLUID

10' GO (20% G, 80% O)
 60' SGO CM (10%G, 30%
 40' SGOWCM (10%G, 10%O, 30%W, 50%M)
 60' MCW (70%W, 30%M)
 690' GIP

DST #4 LKC "F" (3188' - 3192') 15-30-60-90

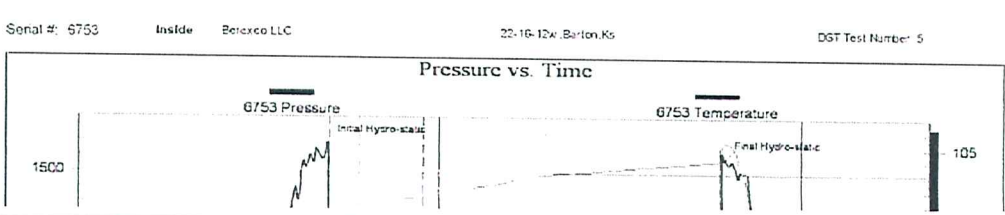


IB: WK SRFC, DIED IN 3 ½ min.
 NO BLW BK
 SB: NO BLW, FLUSHED TOOL, NO BLW
 NO BLW BK

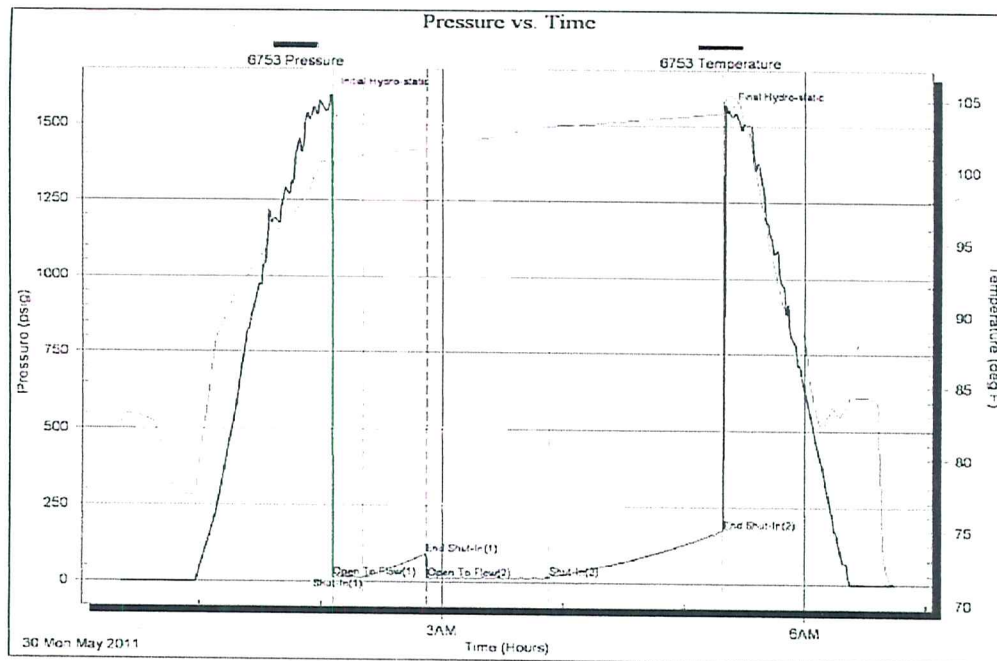
IFP: 10-14#
 FFP: 14-16#
 SIP: 758-1506#
 HP: 1557-1506#
 BHT: 103°

REC: 5' MCW (70% W, 30% M)

DST #5 LKC "I" "J" (3250' - 3286') 15-30-60-90



IB: 1"
 NO BLW BK
 FB: 3"
 NO BLW BK
 IFP: 14-14#
 FFP: 12-19#
 SIP: 91-173#
 HP: 1589 – 1546#
 BHT: 104°



REC: 20' SOCM (15%)

NOTES

DST #6 CONGLOMERATE/ATZ (3325' - 3390') 15-30-60-90

IB: 1", died in 12 min.
 NO BLW BK
 FB: DEAD
 NO BLW BK

IFP: 17-18#
 FFP: 18-28#
 SIP: 68-64#
 HP: 1665 - 1563#
 BHT: 106

REC: 5' OIL SPOTTED MUD

DRILL TIME, SAMPLES & GEOLOGIC SUPERVISION FROM 2700' - TD

RECOMMENDATIONS

5 1/2" Production casing was set for further evaluation. Perforation should be evaluated in all zones with an oil show and positive DST recovery.

Respectively Submitted,
Jeff Lawler

ROCK TYPES

Clystgy	Dolsec	shale, grn	shale, red	Siltst
Congl	Lmst fw<7	shale, gry	Shcol	
Chtcong	Lmst fw7>	Carbon Sh	Ss	

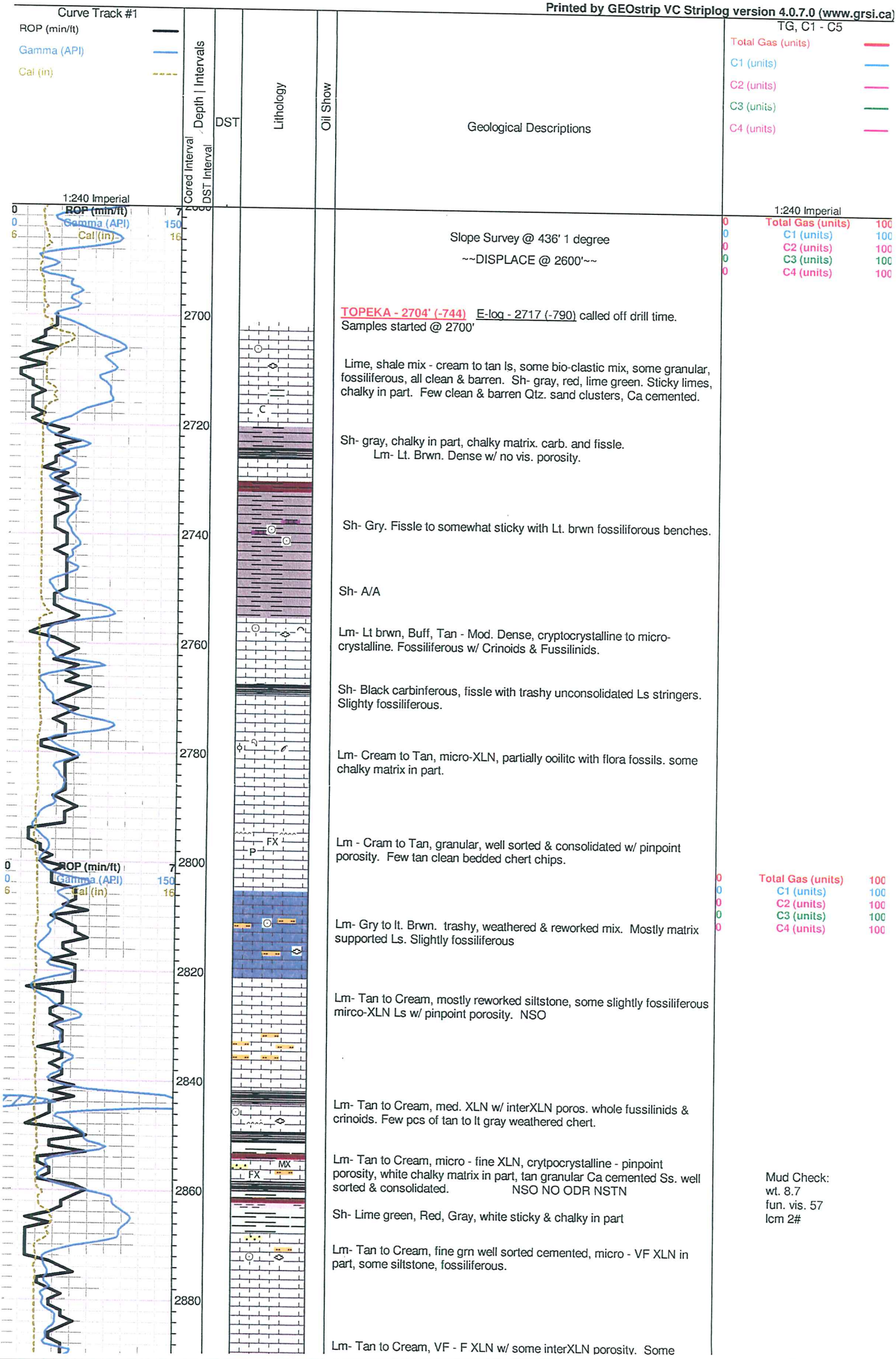
ACCESSORIES

MINERAL	FOSSIL	STRINGER	TEXTURE
<ul style="list-style-type: none"> × Mineral Crystals ≡ Nodules P Pyrite • Silty • Silty Mc Mica ∇ Euhed rhombs of dol or c 	<ul style="list-style-type: none"> ∩ Bioclastic or Fragmental ∩ Coral ∩ Crinoids ∩ Oolite ∩ Pellets ∩ Plant Remains ∩ Oomoldic ∩ Fossiliferous 	<ul style="list-style-type: none"> ~~~~ Chert ▬ Limestone ••• Sandstone ▬ Siltstone ▬ Bentonite ▬ Shale ▬ green shale ▬ red shale 	<ul style="list-style-type: none"> C Chalky CX Cryptocrystalline FX Finexln MX Microxln ∩ Vuggy Porosity

OTHER SYMBOLS

MISC	DST
Daily Report	DST Int
Digital Photo	DST alt
Document	
Folder	

- Document
- Folder
- Link
- Vertical Log File
- Horizontal Log File
- Core Log File
- Drill Cuttings Rpt



TOPEKA - 2704' (-744) E-log - 2717 (-790) called off drill time.
 Samples started @ 2700'

Lime, shale mix - cream to tan ls, some bio-clastic mix, some granular, fossiliferous, all clean & barren. Sh- gray, red, lime green. Sticky limes, chalky in part. Few clean & barren Qtz. sand clusters, Ca cemented.

Sh- gray, chalky in part, chalky matrix. carb. and fissle.
 Lm- Lt. Brwn. Dense w/ no vis. porosity.

Sh- Gry. Fissle to somewhat sticky with Lt. brwn fossiliferous benches.

Sh- A/A

Lm- Lt brwn, Buff, Tan - Mod. Dense, cryptocrystalline to micro-crystalline. Fossiliferous w/ Crinoids & Fussilinids.

Sh- Black carbinferous, fissle with trashy unconsolidated Ls stringers. Slightly fossiliferous.

Lm- Cream to Tan, micro-XLN, partially oilitic with flora fossils. some chalky matrix in part.

Lm - Cream to Tan, granular, well sorted & consolidated w/ pinpoint porosity. Few tan clean bedded chert chips.

Lm- Gry to Lt. Brwn. trashy, weathered & reworked mix. Mostly matrix supported Ls. Slightly fossiliferous

Lm- Tan to Cream, mostly reworked siltstone, some slightly fossiliferous mirco-XLN Ls w/ pinpoint porosity. NSO

Lm- Tan to Cream, med. XLN w/ interXLN poros. whole fussionids & crinoids. Few pcs of tan to lt gray weathered chert.

Lm- Tan to Cream, micro - fine XLN, cryptocrystalline - pinpoint porosity, white chalky matrix in part, tan granular Ca cemented Ss. well sorted & consolidated. NSO NO ODR NSTN

Sh- Lime green, Red, Gray, white sticky & chalky in part

Lm- Tan to Cream, fine grn well sorted cemented, micro - VF XLN in part, some siltstone, fossiliferous.

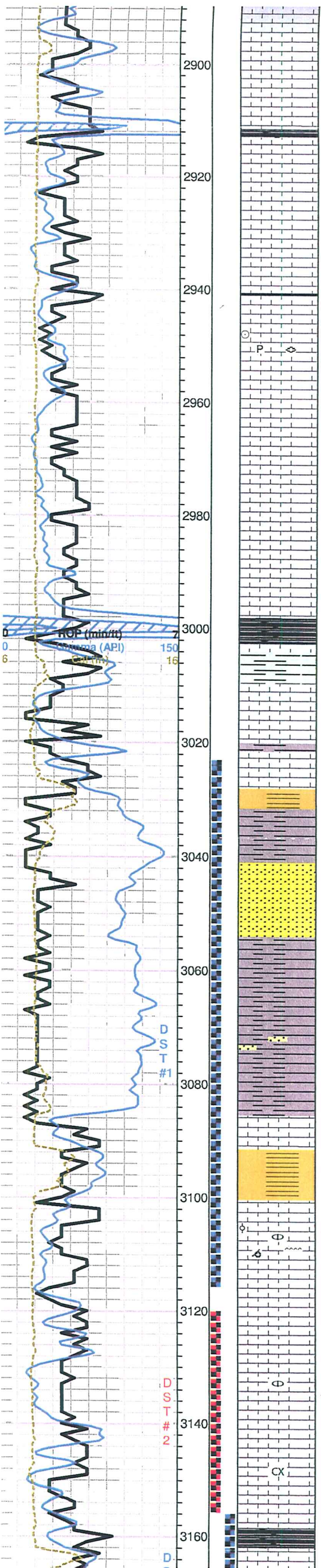
Lm- Tan to Cream, VF - F XLN w/ some interXLN porosity. Some

TG, C1 - C5
 Total Gas (units) —
 C1 (units) —
 C2 (units) —
 C3 (units) —
 C4 (units) —

1:240 Imperial
 Total Gas (units) 100
 C1 (units) 100
 C2 (units) 100
 C3 (units) 100
 C4 (units) 100

Total Gas (units) 100
 C1 (units) 100
 C2 (units) 100
 C3 (units) 100
 C4 (units) 100

Mud Check:
 wt. 8.7
 fun. vis. 57
 lcm 2#



reworked Ls. NO STN NO ODR

Sh- Black Gray Red, Carboniferous, Lime Green chalky lime

Lm- Tan, Cream, & Lt Brwn, mostly weathered & reworked & trashy, Coarse XLN w/ interstitial porosity. few chps of reworked tan & lt brwn chert. NO ODR NSO
1 chp had very faint stain, moderately dense unconsolidated drk.brwn cherty Ls.

Sh- Black fissle carboniferous

PLATSMOUTH- 2946 (-1019) E-log - 2941 (-1014) Tan to Cream, well sorted & consolidated, round med. grain matrix supported Ca cemented, pinpoint porosity, crinoid & fustilind fragments
VRY FNT ODR NSO NSTN

Lm- Tan to Cream, silty to granular, cryptocrystalline, no vis. porosity. Some rounded mature Qtz grains, Ca cemented & well sorted,

Lm- Cream to Off White, clean siltstone to mod. dense w/ fractured & interstitial solution porosity, secondary calcite mineralization by soluitoning. Clean & Barren

HEEBNER- 2998' (-1071) E-log - 2997' (-1070) Sh- Black, Red, Grey, Lime Green, Carboniferous fissle, slick gray's

Sh- Lime Green, Dove Gray Glauconitic Ss.

TORONTO- 3017' (-1090) E-log - 3011' (-1084) Tan to Cream, VF-F XLN, micro - pinpoint porosity. Moderately dense w/ crinoids & flora fossils

DOUGLAS SH- 3029' (-1102) E-log - 3025' (-1098) Lt. Brwn well sorted, round grained Ss.FNT ODR LTGSY ODR few chps w/ FO on crush, small saturated gassy stain

Sh- Gray, Red, Brown w/ Dove Gray Glauconitic Ss

Ss- Lt. Tan, VF grained well sorted & consolidated, poorly cemented w/ good porosity, Lt. Gassy ODR w/ few FO specks on crush, Spotted STN Abundant Gray sticky lime.

Sh- Gray, Abundant sticky lime & gray shale, Dove Gray Glauconitic Ss.

BROWN LIME - 3087' (-1160) E-log - 3085' (-1158) Brown Lime wash

Lm- Lt Brown to Gray to Tan, trashy bio-clastic mix, Coarse XLN w/ fossil fragments

LKC - 3101' (-1174) E-log - 3100' (-1173) Lm- Tan to Cream, Oolimidic, oolitic cherty in part, Some Coars XLN w/ InterXLN & interstitial solution porosity Vuggy Porosity w/ scattered sat. STN. Fnt ODR Lt. Gassy STN. NFO on crush

Lm- Tan to Cream, Coarse XLN, poorly developed & mod. dense

Lm- Gry to Black, weathered mix, some fossil fragments, few pcs. of gray speckled chert. Cryptocrystalline, no vis. porosity. NSO NODR

Lm- Cream, oolitic, vuggy porosity partially innerconnected. Moderate to decent development. STRNG VRY LT GSY ODR, chps FO on crush, 2 chps. bleeding O on crush, VRY LT GSY O

Lm- Cream to Tan, VFXLN, cryptocrystalline-microXLN, well sorted, mod. dense, chps of var. color chert. 2 Ls chips w/ interconnected vugs with secondary mineralization, Lt. STN NFO Lt ODR

Sh- Abundant Black, Red, Brown, Lime Green

CFS 20 min. VRY FNT
ODR 40 min. NO
ODR

0	Total Gas (units)	100
0	C1 (units)	100
0	C2 (units)	100
0	C3 (units)	100
0	C4 (units)	100

DST #1 3023' - 3115'

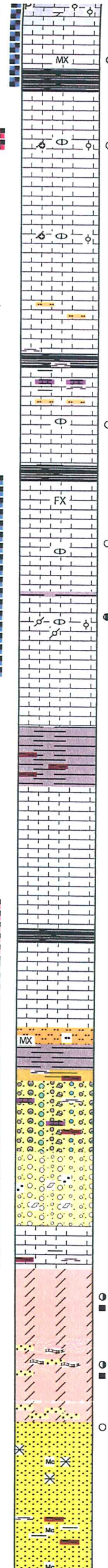
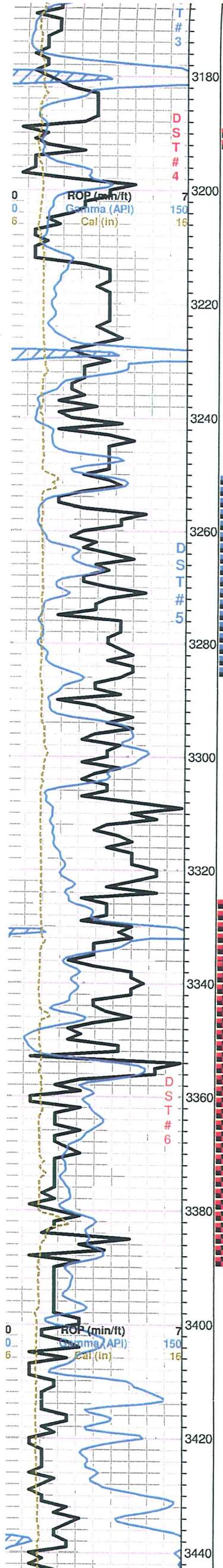
DST1.pdf

Mud Check: @ 3102'
Wt. 9 Fun. Vis. 53
Plast. Vis. 24 Yld. 11
WL 8.8 Chlor. 2000
LCM 1.5#
Daily Mud Cost: \$5144.85

STRAP @3115'
BOARD 3137.13
STRAP 3135.41
1.72 Shallow

DST #2 3120' - 3155'
LKC 'B' & 'C'
DST2.pdf

CFS
Mud Check: @ 3155'
Wt. 9.3
Fun. Vis. 46
Plast. Vis. 20
Yld. 9
WL 8.8
Chlor. 5000
Daily \$ N/A
Cum \$ 5144.85



Lm- Gray Black Tan, Trashy clastic unconsolidated mix, bio-clastic in some, oolitic and some partially dense oolitic NSO NODR NO STN

Lm- Tan to Off White, VF grained, well sorted & consolidated w/ PPT to small vuggy porosity. Lt GSY STN & ODR, gas dissolves upon crush. Chps of oolitic chert.

Lm- Cream to Off white, Oolitic to oolimoldic, PPT to vuggy porosity, FR ODR, scattered sat. STN to LT. GSY STN, Few oolimoldic chps. FO on crush, stringy live oil

Lm- Off White to Tan, Oolimoldic oolitic. Vuggy porosity with interstitial recrystallization & solution secondary mineralization. NSO NODR NO STN

Lm- Drk Tan to Lt. Gray, mostly dense cryptocrystalline, some w/ VFXLN. Some white siltstone to chalky. NODR NSO NO STN

Sh- Red Gray Lime Green, Fissile, Dull

Sh- Black Carboniferous & Fissile

Lm- Off White to Tan, Oolitic to oolimoldic, vuggy porosity, M-F XLN, Tan- mod. dense, no vis. porosity. LT GSY ODR, NFO, VRY FNT golden STN in 1 or 2 chps.

Lm- Tan to Off White, Oolitic - oolitic to Med. & Fine XLN, vuggy porosity to mod. dense, poorly developed w/ partial innerXLN porosity. NODR, NSO NO STN

Sh- Black Carboniferous

Lm- White to Tan, Coarse XLN, PPT - Vuggy porosity w/ some interstitial recrystallization, LT GSY STN ODR SCTRD FO

Lm- Off White to Tan, Oolitic pesolitic, vuggy porosity with interXLN secondary mineralization, GSY ODR Lt. scattered saturated STN FO on a few chps.

Lm- Tan to Lt. Gray, F-Crse XLN, mostly dense w/ some XLN porosity. NO ODR NO STN NFO

Sh- Gray Maroon, mostly dull, sticky, Chalky white matrix in part

Lm- Tan, Cream, Lt. Brwn, poor dev., some innerXLN poros., some granular reworked, FNT ODR, NSO,

Lm- Tan Lt Gry, microXLN w/ no vis. poros. clean & barren.

Sh- Black Lm. Green Gry White Chalky Matrix,

Lm- Off White - Tan, Crypto-Micro XLN, no vis. poros., Tight, Clean & Barren

Lm- Off White to Tan, mostly consolidated, silty grainy, some partially granular, Clean & Barren NO ODR

Sh- Brown Gray Lm. Green, Red Wash, Gray sticky lime matrix.

Conglomerate/QTZ- E-log 3357' (-1430) Conglomerate mix, Red, Salmon, Translucent oolitic cherty mix, Weathered granular nodules. Ls, Off White, VF XLN. Sh stringers,

QTZ- Red arkosic granular dolomitic, Sandy quartzose chert. Various color chert. Round-Subrounded cemented Qtz clusters. Individual rounded to subrounded cloudy (drusy) Qtz grains. NODR NSTN

Cong. Mix - A/A, oolitic chert, micaous fissile 3390' (60 min.)

Lm & Sh- Off White to Tan, FXLN
Sh- Black Red Lime Green Gray, NO STN NO ODR

Dol. - White, Fine grained, well-sorted & consolidated, fresh bedded, var. color Sh. stringers. Lt. Gsy ODR, Scrted. Sat. STN. STRM WT CUT

Dol. - A/A w/ coarse grained QTZ clusters. ODR, STN, FLOR.

QTZ -Ss- more abundant Ylw. CRS & FN grnd. Qtz., clusters ind. grains, rounded to ephedral. Muscovite & Mica, Friable, FNT ODR, Lt. STN.

QTZ- Ss. - A/A NODR NO STN NO CUT

Sh- Stringers of Black Red Brwn NO STN NO ODR NO CUT

DST #3 3156'-3181'
LKC 'D' & 'C'

DST3.pdf

MUD CHECK: Wt. 8.9 Vis. 48

DST #4 3188'-3192'

DST4.pdf

MUD CHECK: @ 3192'
Wt. 9.1 Fun. Vis. 48
Plast. Vis. 22 Yld. 10
WL 9.6 Chlor. 6000
LCM 1#
Daily \$174.25
Cum. \$5319.10

DST #5 3250'-3286'
LKC 'I' & 'J'

DST5.pdf

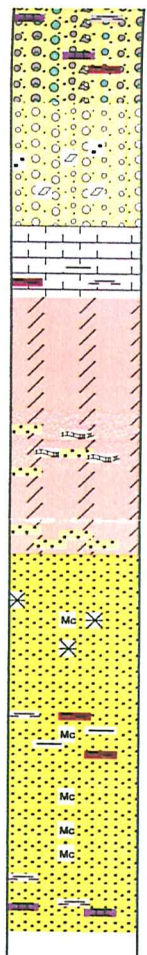
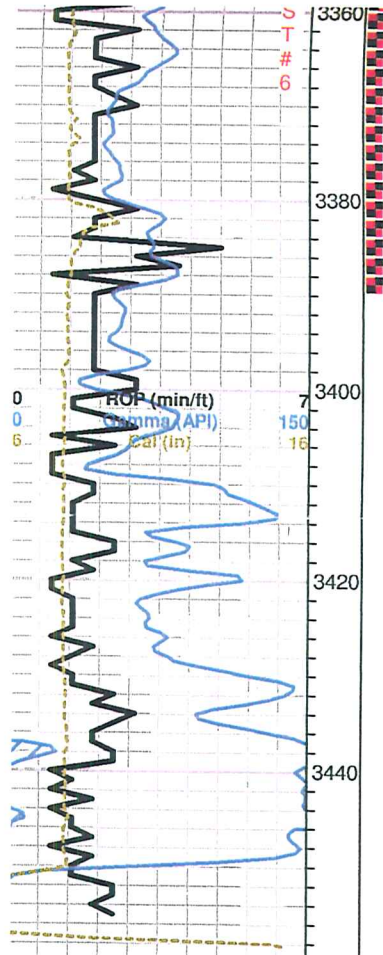
CFS
MUD CHECK @ 3286
WT 9.2 Fun. Vis. 56
Plast. Vis. 26 pH 9.5
WL 9.2 Chlor. 8000
LCM 2#
Daily \$ 1289.00
Cum. \$ 6608.10

DST #6 3325'-3390'
LKC "L" & CONG/ QTZ.

DST6.pdf

CFS
CFS
CFS
CFS
CFS
CFS

0	Total Gas (units)	100
0	C1 (units)	100
0	C2 (units)	100
0	C3 (units)	100
0	C4 (units)	100



Conglomerate/QTZ - E-log 3357' (-1430) Conglomerate mix, Red, Salmon, Translucent oolitic cherty mix, Weathered granular nodules. Ls, Off White, VF XLN. Sh stringers,

QTZ - Red arkosic granular dolomitic, Sandy quartzose chert. Various color chert. Round-Subrounded cemented Qtz clusters. Individual rounded to subrounded cloudy (drusy) Qtz grains. NODR NSTN

Cong. Mix - A/A, oolitic chert, micaous fissle 3390' (60 min.)

Lm & Sh- Off White to Tan, FXLN
Sh- Black Red Lime Green Gray, NO STN NO ODR

○ Dol. - White, Fine grained, well-sorted & consolidated, fresh bedded, var. color Sh. stringers. Lt. Gsy ODR, Scrd. Sat. STN. STRM WT CUT

○ Dol. - A/A w/ coarse grained QTZ clusters. ODR, STN, FLOR.

○ QTZ - Ss- more abundant Ylw. CRS & FN grnd. Qtz., clusters ind. grains, rounded to ephedral. Muscovite & Mica, Friable, FNT ODR, Lt. STN.

QTZ - Ss. - A/A NODR NO STN NO CUT

Sh- Stringers of Black Red Brwn NO STN NO ODR NO CUT

QTZ-Ss. - Yellow Salmon Drusy Clear, Ind. grains & clusters, muscovite sheets, very friable NO STN NO ODR NO CUT

TD @ 10:56 May 31, 2011 3455' (-1528)
SLOPE SURVEY = 1 degree

CFS		
CFS		
CFS		
CFS		
CFS		
0	Total Gas (units)	100
0	C1 (units)	100
0	C2 (units)	100
0	C3 (units)	100
0	C4 (units)	100

MUD CHECK @ 3450'
 WT. 9.3 Fun. Vis. 53
 Plast. Vis. 24 Yld. 25
 pH 9.6 WL 9.6
 Daily \$1265.80 Cum. \$7873.90