

OPERATOR

Company: CARRIE EXPLORATION DEVELOPMENT
 Address: 210 W 22ND
 HAYS, KANSAS 67601

Contact Geologist: RON HEROLD
 Contact Phone Nbr: 913-961-2760
 Well Name: THOMAS FARMS C-3
 Location: E2 SE SW SW Sec.34-19s-11w
 Pool: IN FIELD
 State: KANSAS

API: 15-009-25,771-00-00
 Field: CHASE-SILICA
 Country: USA

Scale 1:240 Imperial

Well Name: THOMAS FARMS C-3
 Surface Location: E2 SE SW SW Sec.34-19s-11w
 Bottom Location:
 API: 15-009-25,771-00-00
 License Number: 6768
 Spud Date: 10/25/2012
 Region: BARTON COUNTY
 Drilling Completed: 10/31/2012
 Surface Coordinates: 330' FSL & 1030' FWL
 Bottom Hole Coordinates:
 Ground Elevation: 1773.00ft
 K.B. Elevation: 1781.00ft
 Logged Interval: 2500.00ft
 Total Depth: 3400.00ft
 Formation: LANSING-KANSAS CITY
 Drilling Fluid Type: CHEMICAL/FRESH WATER GEL

Time: 6:00 PM
 Time: 1:03 PM
 To: 3400.00ft

SURFACE CO-ORDINATES

Well Type: Vertical
 Longitude: Latitude:
 N/S Co-ord: 330' FSL
 E/W Co-ord: 1030' FWL

LOGGED BY

Company: SOLUTIONS CONSULTING
 Address: 108 W 35TH
 HAYS, KS 67601

Phone Nbr: (785) 639-1337
 Logged By: Geologist
 Name: HERB DEINES

CONTRACTOR

Contractor: SOUTHWIND DRILLING INC.
 Rig #: 6
 Rig Type: MUD ROTARY
 Spud Date: 10/25/2012
 TD Date: 10/31/2012
 Rig Release: 11/1/2012

Time: 6:00 PM
 Time: 1:03 PM
 Time: 2:00 PM

ELEVATIONS

K.B. Elevation: 1781.00ft
 K.B. to Ground: 8.00ft
 Ground Elevation: 1773.00ft

NOTES

DECISION TO RUN PRODUCTION CASING BASED ON FAVORABLE STRUCTURE, LOG ANALYSIS AND POSITIVE

RESULTS OF DSTS.

OPEN HOLE LOGGING BY PIONEER ENERGY SERVICES: DUAL INDUCTION LOG, DUAL COMPENSATED POROSITY LOG, MICRORESISTIVITY LOG.

DRILL STEM TESTING BY SUPERIOR TESTERS ENTERPRISES LLC: TWO (2) CONVENTIONAL TESTS.


FORMATION TOPS SUMMARY AND CHRONOLOGY OF DAILY ACTIVITY

**THOMAS FARMS #C-3
330' FSL & 1030' FWL, SW/4
Sec.34-19s-11w
1773' GL 1781' KB**

<u>FORMATION</u>	<u>SAMPLE TOPS</u>	<u>LOG TOPS</u>
Topeka	2644- 863	2638- 857
Heebner Shale	2906-1125	2900-1119
Toronto	2923-1142	2918-1137
Douglas Shale	2937-1156	2933-1152
Brown Lime	3031-1250	3026-1245
LKC	3050-1269	3045-1264
BKC	3300-1519	3297-1516
Arbuckle	3320-1539	3315-1534
RTD	3400-1619	
LTD		3398-1617

- 10-25-12 RU, spud, set surface casing to 251' w/175 sxs. Common, 2%gel, 3%CC, Slope survey 1/2 degree, WOC 8 hrs.
- 10-26-12 251', WOC, drill plug at 10:15 AM
- 10-27-12 1500', drilling
- 10-28-12 2084', drilling
- 10-29-12 2800', drilling, DST # 1 3039'-3081' A-B
- 10-30-12 3081', drilling, DST # 2 3080'-3125' C-F
- 10-31-12 3254', drilling, RTD 3400', short trip, logs
- 11-01-12 3400', finish logging, lay down drill pipe, run 5 ½" production casing, plug down @ 2:00PM

DST # 1 TEST SUMMARY

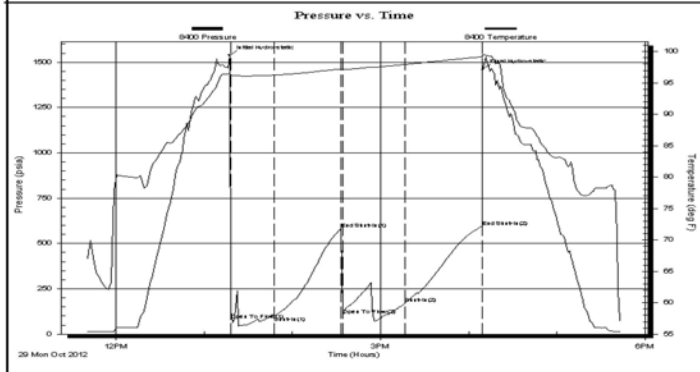
	DRILL STEM TEST REPORT	
	Carrie Exploration & Development 210 West 22nd Hays Kansas 67601 ATTN: Herb	34-19s-11w-Barton Thomas Farms C-3 Job Ticket: 17862 DST#: 1 Test Start: 2012.10.29 @ 11:40:00

GENERAL INFORMATION:

Formation: Lansing A-B	Test Type: Conventional Bottom Hole (Initial)
Deviated: No Whipstock: ft (KB)	Tester: Dustin Ellis
Time Tool Opened: 13:18:00	Unit No: 3315-Great Bend -25
Time Test Ended: 17:43:30	Reference Elevations: 1781.00 ft (KB)
Interval: 3039.00 ft (KB) To 3081.00 ft (KB) (TVD)	1773.00 ft (CF)
Total Depth: 3081.00 ft (KB) (TVD)	KB to GR/CF: 8.00 ft
Hole Diameter: 7.88 inches Hole Condition: Fair	

Serial #: 8400 Outside	Capacity: 5000.00 psia
Press@RunDepth: 170.32 psia @ 3078.00 ft (KB)	Last Calib.: 2012.10.30
Start Date: 2012.10.29 End Date: 2012.10.29	Time On Btm: 2012.10.29 @ 13:17:30
Start Time: 11:40:00 End Time: 17:43:30	Time Off Btm: 2012.10.29 @ 16:09:30

TEST COMMENT: 1st Open 30 minutes Fair building blow blew 1 inch.
 1st Shut in 45 minutes No blow back
 2nd Open 45 minutes Very weak surfac blow
 2nd Shut in 45 minutes No blow back

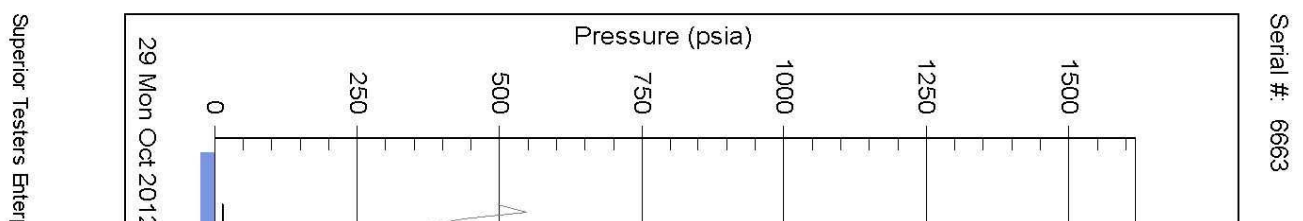


PRESSURE SUMMARY			
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1538.33	96.51	Initial Hydro-static
1	78.43	95.97	Open To Flow (1)
30	96.35	96.25	Shut-In(1)
76	580.78	97.24	End Shut-In(1)
77	106.28	97.07	Open To Flow (2)
119	170.32	97.95	Shut-In(2)
172	594.26	99.15	End Shut-In(2)
172	1459.99	99.44	Final Hydro-static

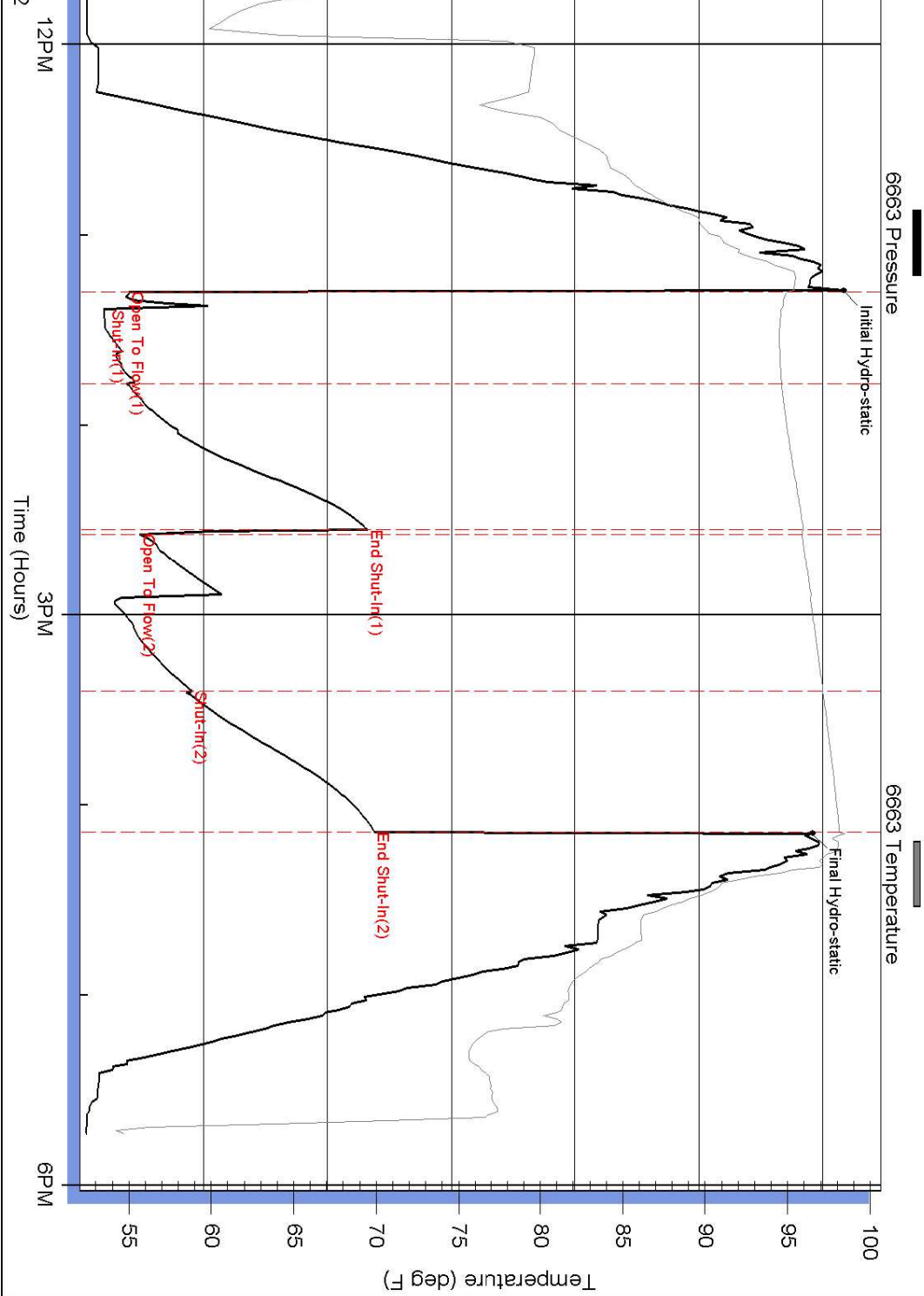
Recovery		
Length (ft)	Description	Volume (bbl)
26.00	Very Slightly oil cut mud 99% Mud 1% Oil	0.36

Gas Rates			
	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)

DST # 1 EXPANDED CHART



Pressure vs. Time



DST # 2 TEST SUMMARY



DRILL STEM TEST REPORT

Carrie Exploration & Development
 210 West 22nd Hays Kansas
 67601
 ATTN: Herb

34-19s-11w-Barton
Thomas Farms C-3
 Job Ticket: 17851 **DST#: 2**
 Test Start: 2012.10.30 @ 01:35:00

GENERAL INFORMATION:

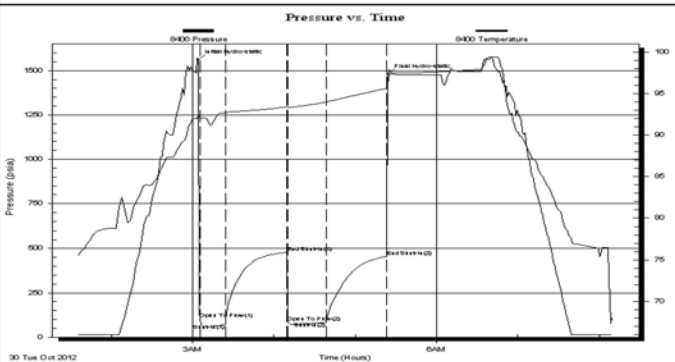
Formation:	Lancing C-F		Test Type:	Conventional Bottom Hole (Initial)
Deviated:	No Whipstock:	ft (KB)	Tester:	Dustin Ellis
Time Tool Opened:	03:05:30		Unit No:	3315-Great Bend-25
Time Test Ended:	08:09:30			

Interval: 3080.00 ft (KB) To 3125.00 ft (KB) (TVD)
 Total Depth: 3125.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1781.00 ft (KB)
 1773.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8400 Outside
 Press@RunDepth: 83.70 psia @ 3122.00 ft (KB) Capacity: 5000.00 psia
 Start Date: 2012.10.30 End Date: 2012.10.30 Last Calib.: 2012.10.30
 Start Time: 01:35:00 End Time: 08:09:30 Time On Btm: 2012.10.30 @ 03:04:00
 Time Off Btm: 2012.10.30 @ 05:24:00

TEST COMMENT: 1st Open 24 minutes Strong blow bottom bucket less than 1 minutes
 1st Shut in 45 minutes Yes blow back
 2nd Open 30 minutes Strong blow blew bottom bucket instantly.
 2nd Shut in 45 minutes Yes blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1560.89	92.42	Initial Hydro-static
2	105.13	92.08	Open To Flow (1)
20	72.20	92.70	Shut-In(1)
66	478.70	93.41	End Shut-In(1)
67	86.47	93.30	Open To Flow (2)
95	83.70	93.97	Shut-In(2)
140	456.40	95.63	End Shut-In(2)
140	1479.81	96.12	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	Mud cut gassy oil	0.84
0.00	Gas 5% Oil 3% Mud 92%	0.00
60.00	Gas cut oily mud	0.84
0.00	Gas 77% Oil 3% Mud 20%	0.00
0.00	Gas to surface in 22 minutes into the pi	0.00

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
First Gas Rate	0.50	3.90	26.31
Last Gas Rate	0.38	3.00	10.99
Max. Gas Rate	0.50	3.90	26.31

Superior Testers Enterprises LLC

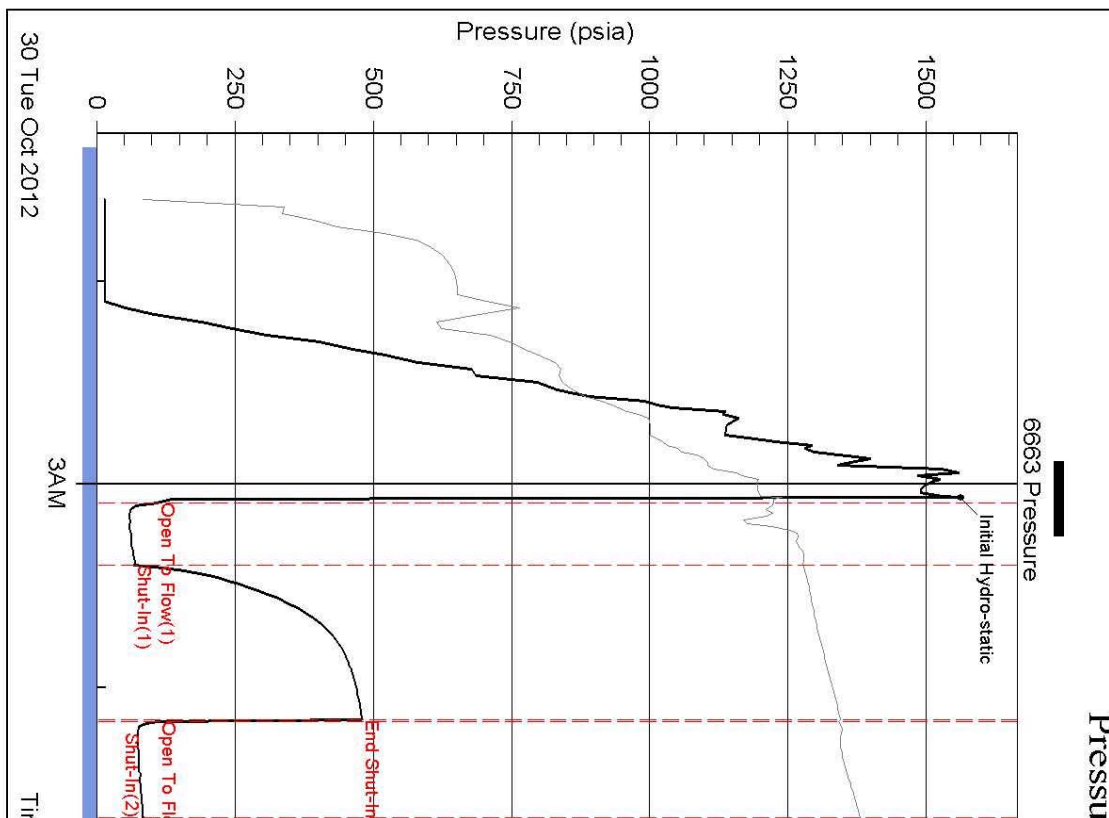
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DST # 2 EXPANDED CHART

Superior Testers Enterprises LLC

Ref. No: 17851

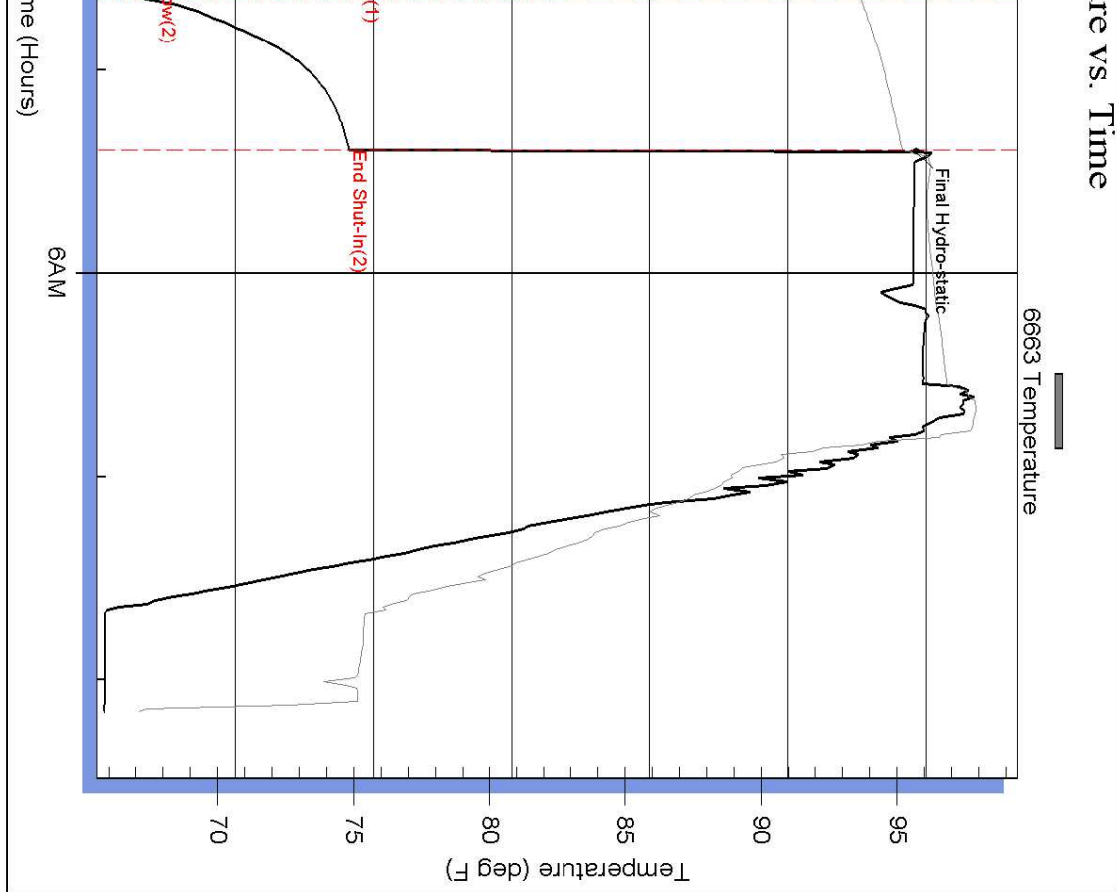


Serial #: 6663

Inside

Carrie Exploration & Development

Pressu



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ROCK TYPES

- | | | | | |
|----------|-----------|------------|------------|----------|
| Cht vari | Chtcongl | Lmst fw>7 | Carbon Sh | Calc Dol |
| Clystgy | Dolprim | shale, grn | shale, red | Lscongl |
| Clystcol | Lmst fw<7 | shale, gry | Ss | |

ACCESSORIES

MINERAL

- ▲ Chert, dark
- P Pyrite
- △ Chert White

FOSSIL

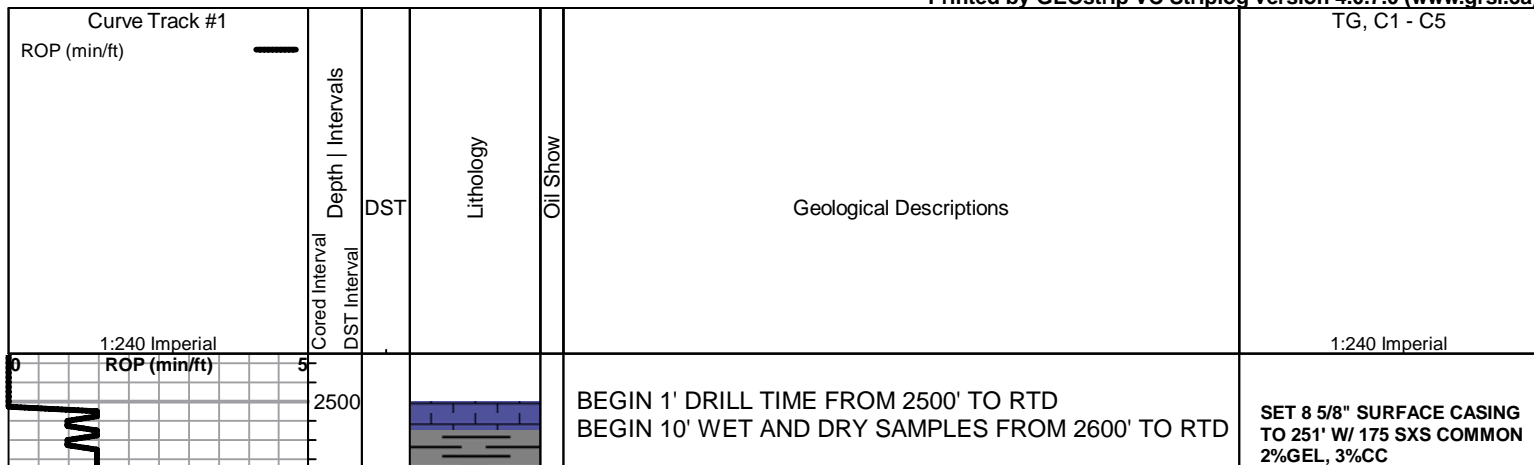
- Oolite
- ⊕ Oomoldic

OTHER SYMBOLS

DST

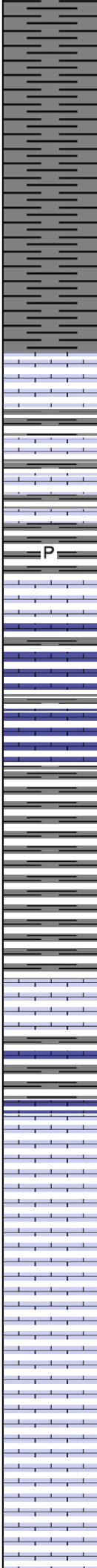
- DST Int
- DST alt
- Core

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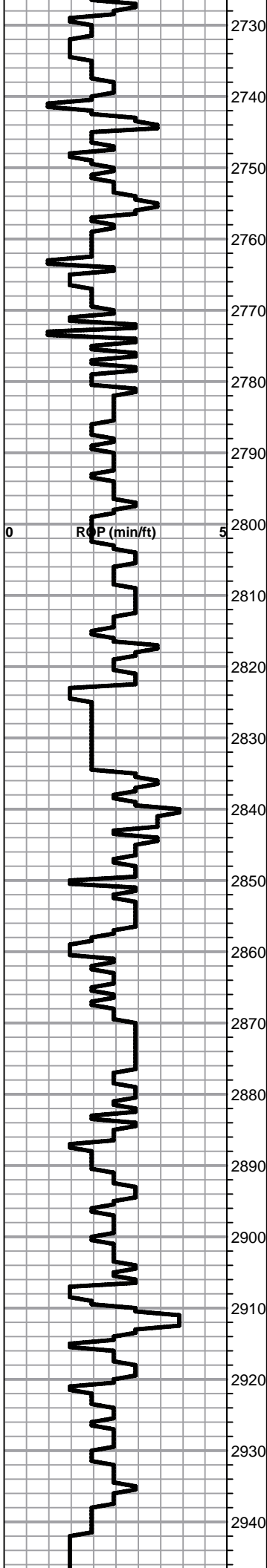


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2700
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2720

0 ROY (ft) 5



- Shale, med gray, soft, pyrite clusters
- Lime, lt-med brn, fnxln, fossiliferous in part
- Lime, lt brn-lt grayish brn, fnxln, slightly fossiliferous
- Lime, med brn-gray, shaley, fnxln, slightly fossiliferous
- Shale, med gray, soft, calcareous in transition zone, slightly fossiliferous
- Shale, lt gray, soft, scattered lt gray sandstone clusters, poorly sorted, glauconitic, no staining, NSFO or odor
- Lime, lt-med brn, fnxln-slightly granular in part
- Lime, lt grayish brn, fnxln, hard on crush in part
- Lime, lt brn-lt grayish brn, fnxln, slightly fossiliferous
- Lime, lt brn-lt grayish brn, fnxln, slightly fossiliferous
- Lime,lt-med brn, fnxln-granular in part, slightly fossiliferous
- Lime, lt brn, fnxln-granular, slightly fossiliferous
- Lime, lt brn-lt grayish brn, fn-vfxln
- Lime, lt brn, fnxln, bedded chalk in part, slightly fossiliferous
- Lime, lt brn, fnxln, slightly fossiliferous



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Lime, lt-med brn, fnxln-granular in part, slightly fossiliferous

Lime, lt-med brn-grayish brn, fnxln

Shale, lt-dark gray, soft blocky, pyrite clusters in part

Lime, lt-med brn, fnxln
Shale, lt-med gray-grayish green, soft, blocky

Lime, lt-med brn, fnxln, fossiliferous in part

Shale, dove gray-med gray, soft blocky-sticky clumps

Lime, lt brn-lt grayish brn,fn-vfxln, hard on crush, slightly fossiliferous

Lime, lt-med brn, fnxln, slightly fossiliferous in part

Lime, lt brn-grayish brn, fnxln-granular in part, slightly fossiliferous

Shale, lt-med gray, soft slivers

Lime, lt brn, fnxln-granular in part, chalky

Shale, black carbonaceous, fissile, blocky

Lime,crm-lt brn, fnxln-granular, bedded chalk, slightly fossiliferous in part

Lime, med brn, fnxln-granular

Lime, med brn, fnxln

Lime, crm-lt brn, fnxln-granular in part, bedded chalk in part

Lime, crm-lt brn, fnxln-granular, scattered bedded chalk

Lime, crm-lt brn, fnxln, scattered bedded chalk, NS

Lime, crm-lt brn, fnxln, scattered bedded chalk, NS

Lime, crm-lt brn, fnxln, scattered bedded chalk, NS

Lime, crm-lt brn, fnxln, scattered bedded chalk, NS

HEEBNER SHALE SPL 2906-1125

Shale, black carbonaceous, fissile, blocky
Lime, med brn, vfxln, slightly fossiliferous

Shale, lime green forming soft mud

TORONTO SPL 2923-1142

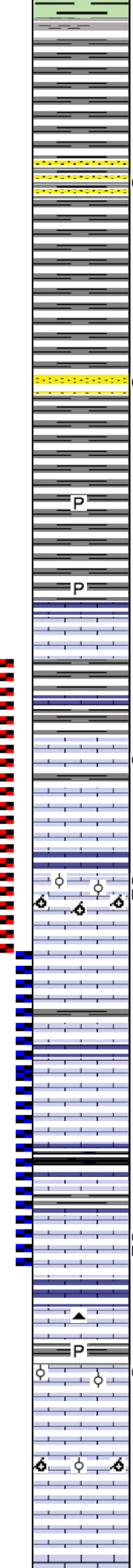
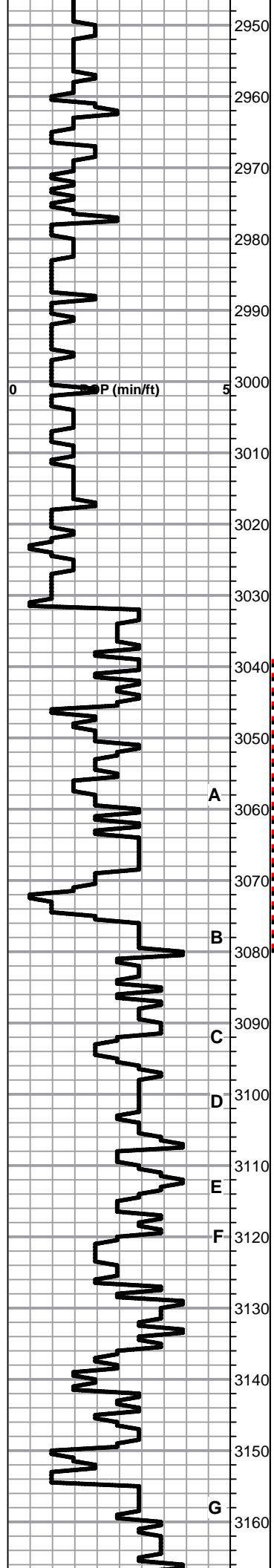
Lime, crm, fnxln-granular in part, chalky, NS

Lime, crm-tan, fnxln-granular, chalk in part, NS

DOUGLAS SHALE SPL 2937-1156

Shale, red, soft mud with mix of green and gray shales

ROP (min/ft)



2950 Shale, dove gray-lime green, forming soft sticky clusters

2960 Shale, lt gray, soft blocky-soft mud clusters

2970 Shale, lt-med gray, soft blocky
 Sandstone, gritty, poorly sorted, lt gray, with scattered to saturated stain in part

2980 Shale, lt gray, soft blocky

2990 Shale, lt gray, soft blocky

3000 Sandstone called off log, not seen in circulating samples. Slough in lower samples showed sandstone clusters with fine grain, poorly sorted, micaceous, sandstone with bleeding show of oil

3010 Shale, lt gray, soft blocky with clusters of pyrite

3020 Shale, lt gray, soft blocky

3030 **BROWN LIME SPL 3031-1250**
 Lime, med brn, fn-vfxln, slightly fossiliferous

3040 Shale, lt gray, soft forming stickly clumps in part

3050 **LKC SPL 3050-1269**
 Lime, lt-med brn, fnxln with fine vuggy and interxln porosity, vlt scattered staining, NFO, no detectable odor

3060 Lime, lt-med brn, fnxln

3070 Lime,lt-med brn, fnxln grading into oolitic and oolmoldic lime, lt scattered staining, lt halo wet cut, NFO, very lt to no detectable odor.

3080 Lime, med brn , fn-vfxln

3090 Lime, tan-lt brn, fnxln

3100 Lime, lt-med brn, fnxln fossiliferous

3110 Shale, gray-black carbonaceous
 Lime, lt-md brn, fnxln

3120 Lime, brn-shaley gray, fnxln, NFO, No detectable odor, good wet cut with immediate, expanding ring of fluorescence.

3130 Lime, med brn, fn-vfxln, slightly fossiliferous in part

3140 Lime, brn-grayish brn, fnxln

3140 Lime, med brn-shaley gray, fnxln-granular, scattered lt staining with mostly barren material, NFO or odor

3150 Lime, lt-med brn, fnxln grading into oolitic/oomoldic zone with bedded chalk, NS, No Odor

3160 Lime, lt-med brn,fn-vfxln, hard on crush, scattered bed chalk

DST # 1 3039' TO 3081' SEE HEADER FOR TEST SUMMARY

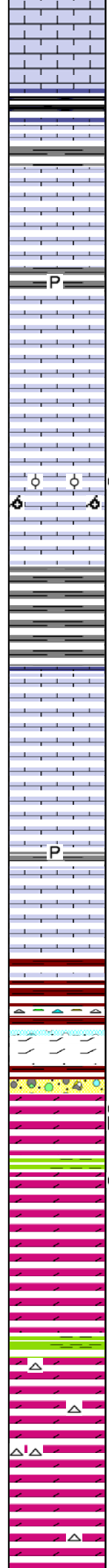
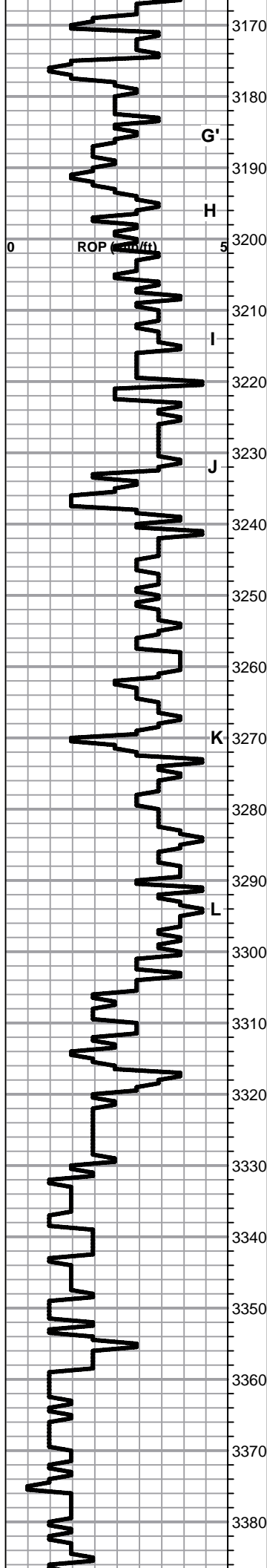
LOG INTERVAL 3051-55 SHOWS SOME PERMEABILITY ISSUES BUT SHOULD BE PERFORATED AND TESTED.

LOG INTERVAL 3066-70 SHOULD BE PERFORATED AND TESTED

DST # 2 3080' TO 3125' SEE HEADER FOR TEST SUMMARY

LOG INTERVAL 3088-90 IS THINLY DEVELOPED BUT PRODUCTIVE IN AREA. ZONE SHOULD BE PERFORATED AND TESTED.

LOG INTERVAL 3131-33 THINLY DEVELOPED WITH POSSIBLE PERMEABILITY ISSUES BUT SHOULD BE TESTED PRIOR TO ABANDONMENT OF WELL



Lime, lt-med brn, fnxln, slightly fossiliferous

Shale, gray-black, blocky
Lime, med brn, vfxln, hard on crush

Lime, med brn, fnxln, hard on crush , few chips oolitic/oolimoldic, NS, No Odor noted.

Lime, med brn-grayish brn, fnxln, hard on crush

Shale, gray-black, hard

Lime, lt-med brn, fnxln with thin cemented oolitic beds

Lime, lt brn, fnxln, scattered chalk beds

Lime, lt-med brn, fn-vfxln, slight bed chalk

Lime, med brn, oolmoldic with trace of scattered stain in mostly barren zone, NFO or Odor

Lime, lt-med brn-grayish brn, fn-vfxln, slight bed chalk in pt

Shale, med gray, soft, blocky

Lime, med brn, fn-vfxln

Lime, lt-med brn, fn-vfxln

Lime, med-dark brn, fn-vfxln

Lime, lt-med brn, fnxln, pyritic

Lime, lt-med brn, fn-vfxln, slight chalk, hard on crush

BKC SPL 3300-1519

Shale, reddish brn, soft, blocky with clastic lime mix

Lime, lt gray, fn-vfxln

ARBUCKLE SPL 3320-1539

Dolomite, med brn, fnxln with gilsonitic deposits. Appears to be reworked interval, V lt odor in few chips with med-cxln interxln porosity.

Dolomite, lt brn, fnxln-fine granular, lt sulfur odor with lt scattered staining. Concerns about fine grained dolomite and sulfur odor vs regular petroleum odor

Dolomite, lt brn, fnxln-fine granular with increasing grain size of dolomite. lt sulfur odor

Dolomite, lt brn, fnxln-granular, NS

Dolomite, brn, fnxln with whtie chert, fresh, sharp

Dolomite, tan-lt brn, mostly fnxln with scattered sucrosic in part

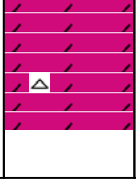
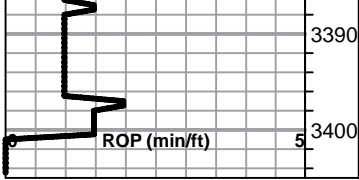
Dolomite, crm-lt brn, fnxln-granular in part

LOG INTERVAL 3184-88 SHOWS SOME PERMEABILITY DEVELOPMENT AND SHOULD BE PERFORATED AND TESTED PRIOR TO ABANDONMENT OF WELL

LOG SHOWS THIS INTERVAL TO BE IMPERMEABLE

ALTHOUGH STRUCTURE HIGH, ARBUCKLE POORLY DEVELOPED WITH FINE GRAINED DOLOMITE TO 3335' LOG INTERVAL 3320-24 AND 3325-27 SHOULD BE TESTED PRIOR TO ABANDONMENT

HISTORIC OIL/WATER CONTACT AT 3336-1555



Dolomite, crm-lt brn, fnxln-granular in part

RTD 3400-1619 LTD 3398-1617