Confidentiality Requested:
☑ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1244932

Form ACO-1
August 2013
Form must be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 30604
Name: Raydon Exploration, Inc.
Address 1: 1601 NW EXPRESSWAY, STE 1300
Address 2:
City: OKLAHOMA CITY State: OK Zip: 73118 + 1462
Contact Person: Fred Cress
Phone: (620) 624-1056
CONTRACTOR: License # 34127
Name: Tomcat Drilling LLC
Wellsite Geologist: Edwin Grieves
Purchaser:

Designate Type of Completion:

☑ New Well ☐ Re-Entry ☐ Workover

☑ Oil ☐ WSW ☐ SWD ☐ SIOW
☐ Gas ☐ D&A ☐ ENHR ☐ SIGW
☐ OG ☐ GSW ☐ Temp. Abd.
☐ CM *(Coal Bed Methane)*
☐ Cathodic ☐ Other *(Core, Expl., etc.)*:

If Workover/Re-entry: Old Well Info as follows:

Operator:
Well Name:
Original Comp. Date: Original Total Depth:

☐ Deepening ☐ Re-perf. ☐ Conv. to ENHR ☐ Conv. to SWD
☐ Plug Back ☐ Conv. to GSW ☐ Conv. to Producer

☐ Commingled Permit #:
☐ Dual Completion Permit #:
☐ SWD Permit #:
☐ ENHR Permit #:
☐ GSW Permit #:

11/13/2014	11/30/2014	02/23/2015
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-081-22091-00-00
Spot Description:
W2 - NE - SW - SW Sec. 25 Twp. 28 S. R. 34 ☐ East ☑ West
990 Feet from ☐ North / ☑ South Line of Section
700 Feet from ☐ East / ☑ West Line of Section

Footages Calculated from Nearest Outside Section Corner:
☐ NE ☐ NW ☐ SE ☑ SW

GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Haskell
Lease Name: Toro Well #: 1-25
Field Name:
Producing Formation: Morrow
Elevation: Ground: 2974 Kelly Bushing: 2983
Total Vertical Depth: 5785 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 1600 Feet
Multiple Stage Cementing Collar Used? ☐ Yes ☑ No
If yes, show depth set: Feet
If Alternate II completion, cement circulated from:
feet depth to: w/ sx cmt.

Drilling Fluid Management Plan
(Data must be collected from the Reserve Pit)

Chloride content: 2800 ppm Fluid volume: 9739 bbls
Dewatering method used: Evaporated

Location of fluid disposal if hauled offsite:

Operator Name:
Lease Name: License #:
Quarter Sec. Twp. S. R. ☐ East ☐ West
County: Permit #:

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

☑ **Confidentiality Requested**
Date: 03/12/2015
☑ **Confidential Release Date:** 03/11/2017
☑ **Wireline Log Received**
☑ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☑ **I** ☐ **II** ☐ **III** **Approved by:** NAOMI JAMES **Date:** 03/12/2015

[redacted]

1244932

Operator Name: Raydon Exploration, Inc. Lease Name: Toro Well #: 1-25

Sec. 25 Twp. 28 S. R. 34 ☐ East ☑ West County: Haskell

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken ☑ Yes ☐ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☑ Yes ☐ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☑ Yes ☐ No

List All E. Logs Run:

Attached

☑ Log Formation (Top), Depth and Datum ☐ Sample

Name	Top	Datum
Heebner	4036	-1137
Lansing	4120	-1137
Kansas City "A"	4529	-1546
Kansas City "B"	4597	-1614
Marmaton	4722	-1739
Pawnee	4799	-1816

CASING RECORD ☑ New ☐ Used

Report all strings set-conductor, surface, intermediate, production, etc.

Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface	12.25	8.625	24	1600	A-Con/Prem Plus	700	3% CC,1/4# Poly
Production	7.875	5.5	15.5	5775	A-Con/AA2	270	3% CC

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
___ Perforate ___ Protect Casing ___ Plug Back TD ___ Plug Off Zone	-			
	-			

Did you perform a hydraulic fracturing treatment on this well? ☐ Yes ☑ No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? ☐ Yes ☐ No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? ☐ Yes ☐ No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record *(Amount and Kind of Material Used)*	Depth
3	5312-5320	800 gals 7-1/2% NEFE Acid	5312-5320
		31,500 gals Profrac LG 2500	5312-5320

TUBING RECORD: Size: 2.875 Set At: 5377 Packer At: Liner Run: ☐ Yes ☑ No

Date of First, Resumed Production, SWD or ENHR. 2/23/2015

Producing Method: ☐ Flowing ☑ Pumping ☐ Gas Lift ☐ Other *(Explain)* _____

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	60	0	30		

DISPOSITION OF GAS:
☐ Vented ☐ Sold ☐ Used on Lease
(If vented, Submit ACO-18.)

METHOD OF COMPLETION:
☐ Open Hole ☑ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*
☐ Other *(Specify)* _____

PRODUCTION INTERVAL:
_____
_____

Form	ACO1 - Well Completion
Operator	Raydon Exploration, Inc.
Well Name	Toro 1-25
Doc ID	1244932

All Electric Logs Run

Array Compensated True Resistivity Log
Borehole Compensated Sonic Array Log
Microlog
Spectral Density Dual Spaced Neutron Log

Form	ACO1 - Well Completion
Operator	Raydon Exploration, Inc.
Well Name	Toro 1-25
Doc ID	1244932

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	12.25	8.625	24	1600	A-Con/Prem Plus	700	3% CC,1/4# Poly
Production	7.875	5.5	15.5	5775	A-Con/AA2	270	3% CC

BASIC ENERGY SERVICES
Liberal, Kansas

Cement Report

Customer Raydon Exploration	Lease No. Toro 1-25	Date 11-15-14	
Lease Toro	Well # 1-25	Service Receipt 1717-05211A	
Casing 8 5/8"	Depth 1604'	County Haskell	State KS
Job Type 8 5/8" Surface	Formation	Legal Description 25-28-34	

Pipe Data		Perforating Data		Cement Data
Casing size 8 5/8"	Tubing Size	Shots/Ft		Lead 400 sks CC 1/4# Poly flake
Depth 1604'	Depth	From	To	
Volume 99 BBLS	Volume	From	To	
Max Press 1500 psi	Max Press	From	To	Tail in 150 sks Premium Plus Cement 2% Cacl2 1/4# Poly flake
Well Connection 8 5/8" 8rd	Annulus Vol.	From	To	
Plug Depth 1558'	Packer Depth	From	To	

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
0300					Called Out
0700					On Location
0716					Safety Meeting
0920					Run Csg & Float Equipment
1040					On Bottom Circ
1110					Make up Hoses & Manifold
1120					Test Line to Rig Floor 1500 psi
1123	100		210	7-8	Mix & Pump Lead Cement - 400 sks
					11.4 ppg
1210	100		36	4-5	Mix & Pump Tail Cement - 150 sks
					14.8 ppg
					Finished mixing Cement
1230					Drop Plug Start Displacement
			99	4-7	Displace
1245					Land Plug
					Released
1250					Float Held
					Circ Back up No Cement to
					Job Completed Surface
1300					Thanks Orsden Cement

Service Units	89315	70857-19570	14355-37547	33021-14284		
Driver Names	Roger	SAM	Angel	Cade		

Clint Andrews
Customer Representative

Jerry Bennett
Station Manager

Roger Brown
Cementer

Taylor Printing, Inc.

BASIC ENERGY SERVICES
Liberal, Kansas

Cement Report

Customer: Raydon Exploration	Lease No.	Date: 12-7-14	
Lease: Todd	Well #: 1-25	Service Receipt: 5128A	
Casing: 5 1/2	Depth	County: Haskell	State: Ks
Job Type: 2-42	Formation	Legal Description: Sec 25-T28-R34	

Pipe Data

Casing size: 5 1/2	Tubing Size	
Depth: 5732.59	Depth	
Volume: 136.43	Volume	
Max Press	Max Press	
Well Connection: 5 1/2	Annulus Vol.	
Plug Depth	Packer Depth	

Perforating Data

Shots/Ft

From	To
From	To
From	To
From	To
From	To

Cement Data

Lead Yield 2.49
100sks gal/sk 14.93
Dens 11.4

Tail in Yield 1.51
170sks gal/sk 6.64
Dens 14.8

Time	Casing Pressure	Tubing Pressure	Bbls. Pumbed	Rate	Service Log
3:00					On location
4:00					Safty Meeting & Rig up
9:50					Prime up Psi Test
9:51	50		13	2.0	Plug Mouse Hole
9:54	50		8	2.0	Plug Rat Hole
9:57			12	2.0	Pump Sapr Flush
9:55	160		44	5.0	Start lead Cement
10:05	150		46	5.0	Start Tail Cement
10:25	0				Shut Down
10:30					Wash up
					Drop Plug
10:34	150		1	6.0	Start Displacement
10:48	900		125	2.5	Slowdown Rate
11:00	1300		136		Plug landed
11:05	0				Released Back Held
11:10					Rig down

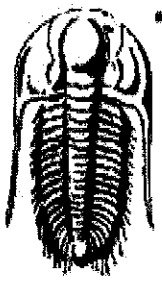
Service Units	39878	27962	14354	19578		
Driver Names	Juan	Hector	Norma			

Jake Slatten
Customer Representative

Jerry Bennett
Station Manager

Juan Ortiz
Cementer

Taylor Printing, Inc.



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Raydon Exploration Inc.**

1601 nw Expressway
Ste 1300
Oklahoma City, OK 73118

ATTN: Edwin H Grieves

Toro #1-25

25-28s-34w Haskell,KS

Start Date: 2014.11.21 @ 07:29:29
End Date: 2014.11.21 @ 17:56:58
Job Ticket #: 58604 DST #: 1

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.12.02 @ 09:48:25

DRILL STEM TEST REPORT

Raydon Exploration Inc.

1601 nw Expressway
Ste 1300
Oklahoma City, OK 73118
ATTN: Edwin H Grieves

25-28s-34w Haskell,KS

Toro #1-25

Job Ticket: 58604 **DST#: 1**

Test Start: 2014.11.21 @ 07:29:29

GENERAL INFORMATION:

Formation: **LKC B**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 10:35:58
Time Test Ended: 17:56:58

Test Type: Conventional Bottom Hole (Initial)
Tester: James Geier
Unit No: 58

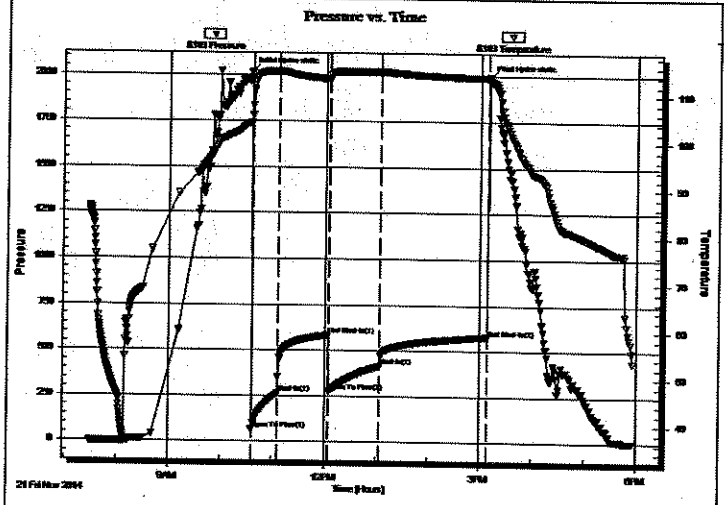
Interval: 4172.00 ft (KB) To 4185.00 ft (KB) (TVD)
Total Depth: 4185.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Poor

Reference Elevations: 2982.00 ft (KB)
2974.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8319 **Outside**
Press@RunDepth: 414.81 psig @ 4173.00 ft (KB)
Start Date: 2014.11.21 End Date: 2014.11.21
Start Time: 07:29:29 End Time: 17:56:58

Capacity: 8000.00 psig
Last Calib.: 2014.11.21
Time On Btm: 2014.11.21 @ 10:34:28
Time Off Btm: 2014.11.21 @ 15:09:58

TEST COMMENT: IF: 30 BOB in 5 min.
ISI:60 No return / Bled off 5 min.
FF;60 BOB in 11 min.
FSI:120 No return / Bled off 5 min.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2017.23	104.12	Initial Hydro-static
2	65.74	105.83	Open To Flow (1)
32	264.82	115.22	Shut-In(1)
90	583.33	113.51	End Shut-In(1)
90	273.78	113.40	Open To Flow (2)
150	414.81	115.09	Shut-In(2)
274	576.27	113.88	End Shut-In(2)
276	1988.13	113.72	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
28.00	o 100% o	0.14
797.00	g c o w 5% g 3% o 92% w	9.26

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

Raydon Exploration Inc.

1601 nw Expressway
Ste 1300
Oklahoma City, OK 73118
ATTN: Edwin H Grieves

25-28s-34w Haskell,KS

Toro #1-25

Job Ticket: 58604 **DST#: 1**

Test Start: 2014.11.21 @ 07:29:29

GENERAL INFORMATION:

Formation: **LKC B**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 10:35:58
Time Test Ended: 17:56:58

Test Type: Conventional Bottom Hole (Initial)
Tester: James Geier
Unit No: 58

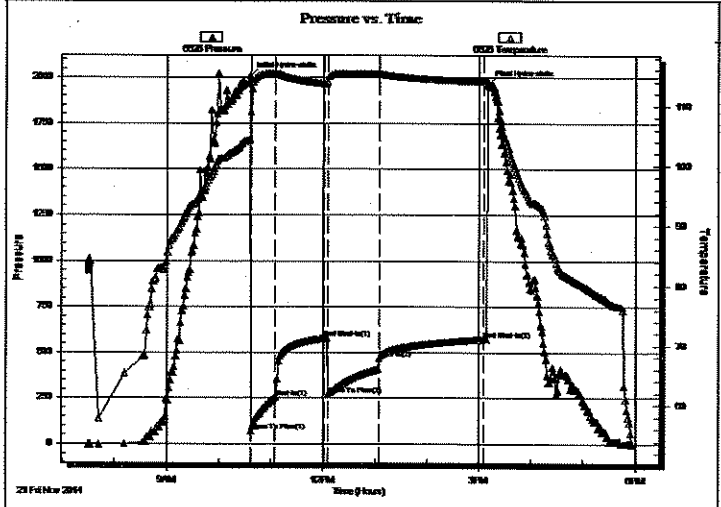
Interval: 4172.00 ft (KB) To 4185.00 ft (KB) (TVD)
Total Depth: 4185.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Poor

Reference Elevations: 2982.00 ft (KB)
2974.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6625 **Outside**
Press@RunDepth: 572.33 psig @ 4173.00 ft (KB)
Start Date: 2014.11.21 End Date: 2014.11.21
Start Time: 07:29:50 End Time: 17:57:19

Capacity: 8000.00 psig
Last Calib.: 2014.11.21
Time On Btm: 2014.11.21 @ 10:35:19
Time Off Btm: 2014.11.21 @ 15:11:19

TEST COMMENT: IF: 30 BOB in 5 min.
ISI:60 No return / Bled off 5 min.
FF;60 BOB in 11 min.
FSI:120 No return / Bled off 5 min.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2008.46	104.40	Initial Hydro-static
2	67.33	109.00	Open To Flow (1)
29	251.73	115.38	Shut-In(1)
86	577.48	113.70	End Shut-In(1)
90	270.30	113.93	Open To Flow (2)
150	468.43	115.35	Shut-In(2)
270	572.33	114.06	End Shut-In(2)
276	1964.61	113.37	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
28.00	o 100% o	0.14
797.00	g c o w 5% g 3% o 92% w	9.26

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

TOOL DIAGRAM

Raydon Exploration Inc.

1601 nw Expressway
Ste 1300
Oklahoma City, OK 73118
ATTN: Edwin H Grieves

25-28s-34w Haskell,KS

Toro #1-25

Job Ticket: 58604 **DST#: 1**

Test Start: 2014.11.21 @ 07:29:29

Tool Information

Drill Pipe:	Length:	3924.00 ft	Diameter:	3.80	inches	Volume:	55.04	bbl	
Heavy Wt. Pipe:	Length:	ft	Diameter:		inches	Volume:	-	bbl	
Drill Collar:	Length:	239.00 ft	Diameter:	2.25	inches	Volume:	1.18	bbl	
						Total Volume:	-	bbl	

Drill Pipe Above KB:	19.00 ft
Depth to Top Packer:	4172.00 ft
Depth to Bottom Packer:	ft
Interval between Packers:	13.00 ft
Tool Length:	41.00 ft
Number of Packers:	1 Diameter: 6.75 inches

Tool Weight:	1500.00 lb
Weight set on Packer:	25000.00 lb
Weight to Pull Loose:	90000.00 lb
Tool Chased	0.00 ft
String Weight: Initial	65000.00 lb
Final	70000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			4145.00		
Shut In Tool	5.00		Fluid	4150.00		
Hydraulic tool	5.00			4155.00		
Jars	5.00			4160.00		
Safety Joint	3.00			4163.00		
Packer	5.00			4168.00	28.00	Bottom Of Top Packer
Packer	4.00			4172.00		
Stubb	1.00			4173.00		
Recorder	0.00	8319	Outside	4173.00		
Recorder	0.00	6625	Outside	4173.00		
Perforations	9.00			4182.00		
Bullnose	3.00			4185.00	13.00	Bottom Packers & Anchor
Total Tool Length:	**41.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Raydon Exploration Inc.

1601 nw Expressway
Ste 1300
Oklahoma City, OK 73118
ATTN: Edwin H Grieves

25-28s-34w Haskell,KS

Toro #1-25

Job Ticket: 58604 **DST#: 1**

Test Start: 2014.11.21 @ 07:29:29

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	0 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	6500 ppm
Viscosity:	42.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	6.38 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	2800.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

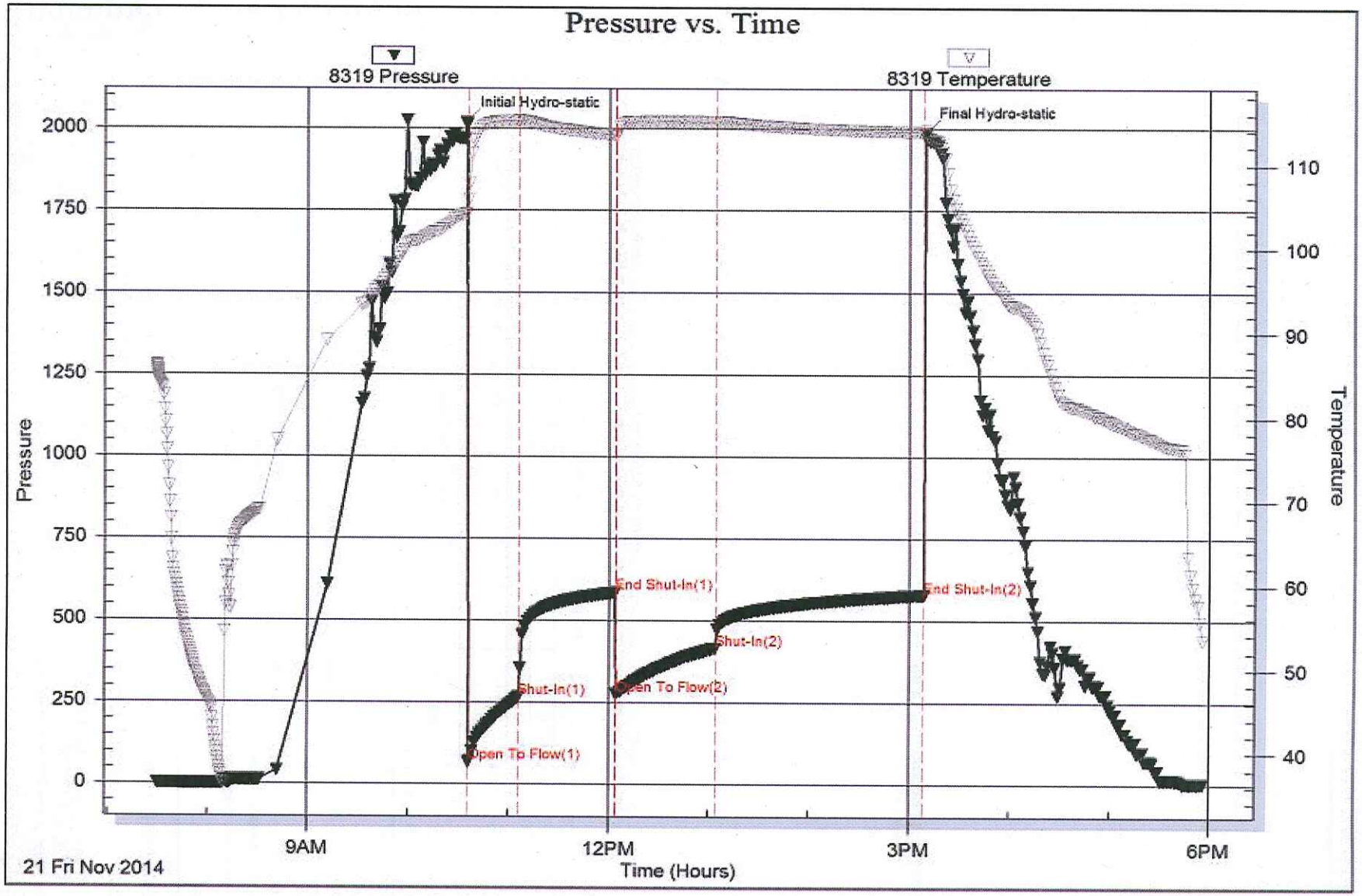
Recovery Table

Length ft	Description	Volume bbl
28.00	o 100% o	0.138
797.00	g c o w 5% g 3% o 92% w	9.258

Total Length: 825.00 ft Total Volume: 9.396 bbl

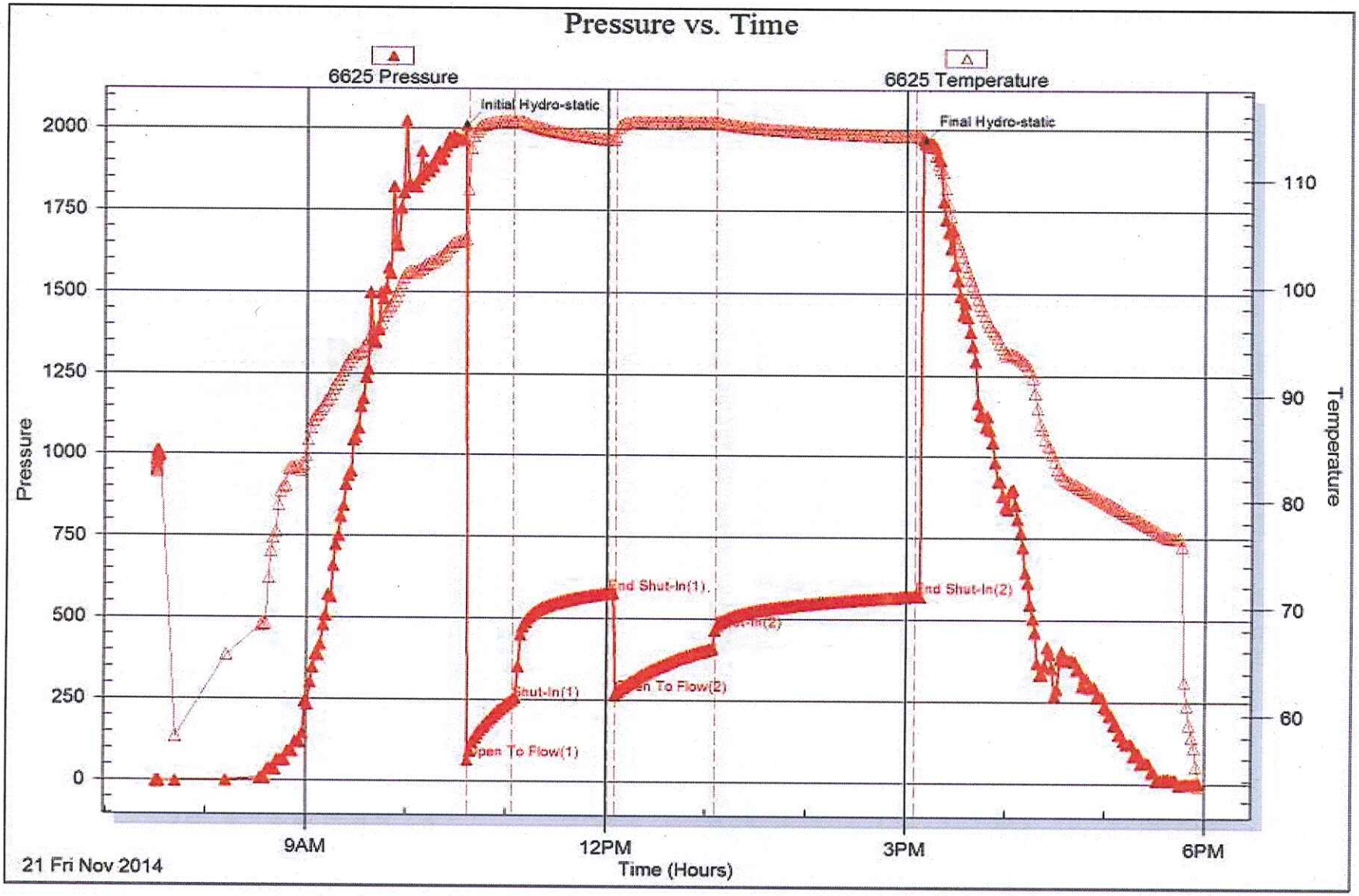
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8319 **Outside** Raydon Exploration Inc. Toro #1-25 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 58604 Printed: 2014.12.02 @ 09:48:26

Serial #: 6625 **Outside** Raydon Exploration Inc. Toro #1-25 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 58604 Printed: 2014.12.02 @ 09:48:27

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Raydon Exploration Inc.**

1601 nw Expressway
Ste 1300
Oklahoma City, OK 73118

ATTN: Edwin H Grieves

Toro #1-25

25-28s-34w Haskell,KS

Start Date: 2014.11.24 @ 02:00:00
End Date: 2014.11.24 @ 12:30:30
Job Ticket #: 58633 DST #: 2

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.12.02 @ 09:48:03

Raydon Exploration Inc. 25-28s-34w Haskell,KS Toro #1-25 DST #2 Marmaton B 2014.11.24

DRILL STEM TEST REPORT

Raydon Exploration Inc.

1601 nw Expressway
Ste 1300
Oklahoma City, OK 73118
ATTN: Edwin H Grieves

25-28s-34w Haskell,KS

Toro #1-25

Job Ticket: 58633 **DST#: 2**

Test Start: 2014.11.24 @ 02:00:00

GENERAL INFORMATION:

Formation: **Marmaton B**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 05:26:30
Time Test Ended: 12:30:30

Test Type: Conventional Bottom Hole (Reset)
Tester: Justin Harris
Unit No: 58

Interval: 4670.00 ft (KB) To 4730.00 ft (KB) (TVD)
Total Depth: 4730.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Poor

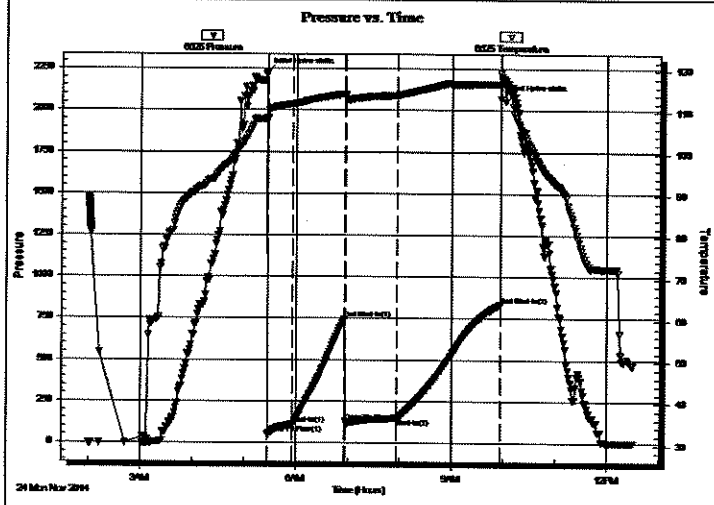
Reference Elevations: 2982.00 ft (KB)
2974.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6625 **Outside**

Press@RunDepth: 146.40 psig @ 4706.00 ft (KB)
Start Date: 2014.11.24 End Date: 2014.11.24
Start Time: 02:00:01 End Time: 12:30:30

Capacity: 8000.00 psig
Last Calib.: 2014.11.24
Time On Btm: 2014.11.24 @ 05:26:00
Time Off Btm: 2014.11.24 @ 09:57:00

TEST COMMENT: 30: B.O.B in 2 1/2 mins
60: No Return.
60: B.O.B in 1 min.
120: No Return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2228.82	108.70	Initial Hydro-static
1	53.29	108.35	Open To Flow (1)
30	109.18	111.95	Shut-In(1)
90	747.35	114.31	End Shut-In(1)
91	126.23	113.92	Open To Flow (2)
151	146.40	114.04	Shut-In(2)
271	834.00	116.87	End Shut-In(2)
271	2069.64	119.63	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
252.00	gmco 60g 20m 20o	1.36
63.00	gocm 5g 10o 85m	0.88
30.00	gocm 10g 20o 70m	0.42

* Recovery from multiple tests

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

Raydon Exploration Inc.

1601 nw Expressway
Ste 1300
Oklahoma City, OK 73118
ATTN: Edwin H Grieves

25-28s-34w Haskell,KS

Toro #1-25

Job Ticket: 58633 **DST#: 2**

Test Start: 2014.11.24 @ 02:00:00

GENERAL INFORMATION:

Formation: **Marmaton B**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 05:26:30
Time Test Ended: 12:30:30

Test Type: Conventional Bottom Hole (Reset)
Tester: Justin Harris
Unit No: 58

Interval: 4670.00 ft (KB) To 4730.00 ft (KB) (TVD)
Total Depth: 4730.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Poor

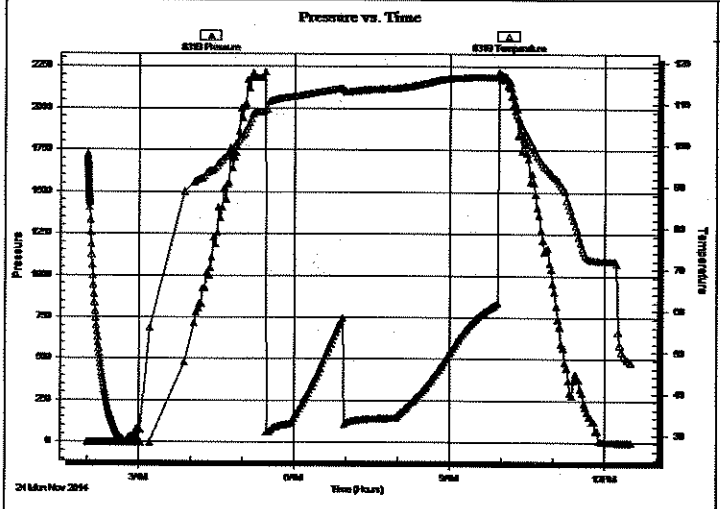
Reference Elevations: 2982.00 ft (KB)
2974.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8319 **Inside**

Press@RunDepth: psig @ 4706.00 ft (KB)
Start Date: 2014.11.24 End Date: 2014.11.24
Start Time: 02:00:01 End Time: 12:31:00

Capacity: 8000.00 psig
Last Calib.: 2014.11.24
Time On Btm:
Time Off Btm:

TEST COMMENT: 30: B.O.B in 2 1/2 mins
60: No Return.
60: B.O.B in 1 min.
120: No Return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
252.00	gmco 60g 20m 20o	1.36
63.00	gocm 5g 10o 85m	0.88
30.00	gocm 10g 20o 70m	0.42

* Recovery from multiple tests

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

TOOL DIAGRAM

Raydon Exploration Inc.

1601 nw Expressway
Ste 1300
Oklahoma City, OK 73118
ATTN: Edwin H Grieves

25-28s-34w Haskell,KS

Toro #1-25

Job Ticket: 58633 **DST#: 2**

Test Start: 2014.11.24 @ 02:00:00

Tool Information

Drill Pipe:	Length:	4417.00 ft	Diameter:	3.80	inches	Volume:	61.96 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:		inches	Volume:	0.00 bbl	Weight set on Packer:	30000.00 lb
Drill Collar:	Length:	239.00 ft	Diameter:	2.25	inches	Volume:	1.18 bbl	Weight to Pull Loose:	85000.00 lb
						Total Volume:	63.14 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		13.00 ft						String Weight: Initial	72000.00 lb
Depth to Top Packer:		4670.00 ft						Final	74000.00 lb
Depth to Bottom Packer:		ft							
Interval between Packers:		60.00 ft							
Tool Length:		87.00 ft							
Number of Packers:		2	Diameter:	6.75	inches				

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			4644.00		
Shut In Tool	5.00			4649.00		
Hydraulic tool	5.00			4654.00		
Jars	5.00			4659.00		
Safety Joint	2.00			4661.00		
Packer	5.00			4666.00	27.00	Bottom Of Top Packer
Packer	4.00			4670.00		
Stubb	1.00			4671.00		
Perforations	2.00			4673.00		
Change Over Sub	1.00			4674.00		
Drill Pipe	31.00			4705.00		
Change Over Sub	1.00			4706.00		
Recorder	0.00	6625	Outside	4706.00		
Recorder	0.00	8319	Inside	4706.00		
Perforations	20.00			4726.00		
Bullnose	4.00			4730.00	60.00	Bottom Packers & Anchor
Total Tool Length:	**87.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Raydon Exploration Inc.

1601 nw Expressway
Ste 1300
Oklahoma City, OK 73118
ATTN: Edwin H Grieves

25-28s-34w Haskell,KS

Toro #1-25

Job Ticket: 58633 **DST#: 2**

Test Start: 2014.11.24 @ 02:00:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	0 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	0 ppm
Viscosity:	56.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	5.59 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	1500.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

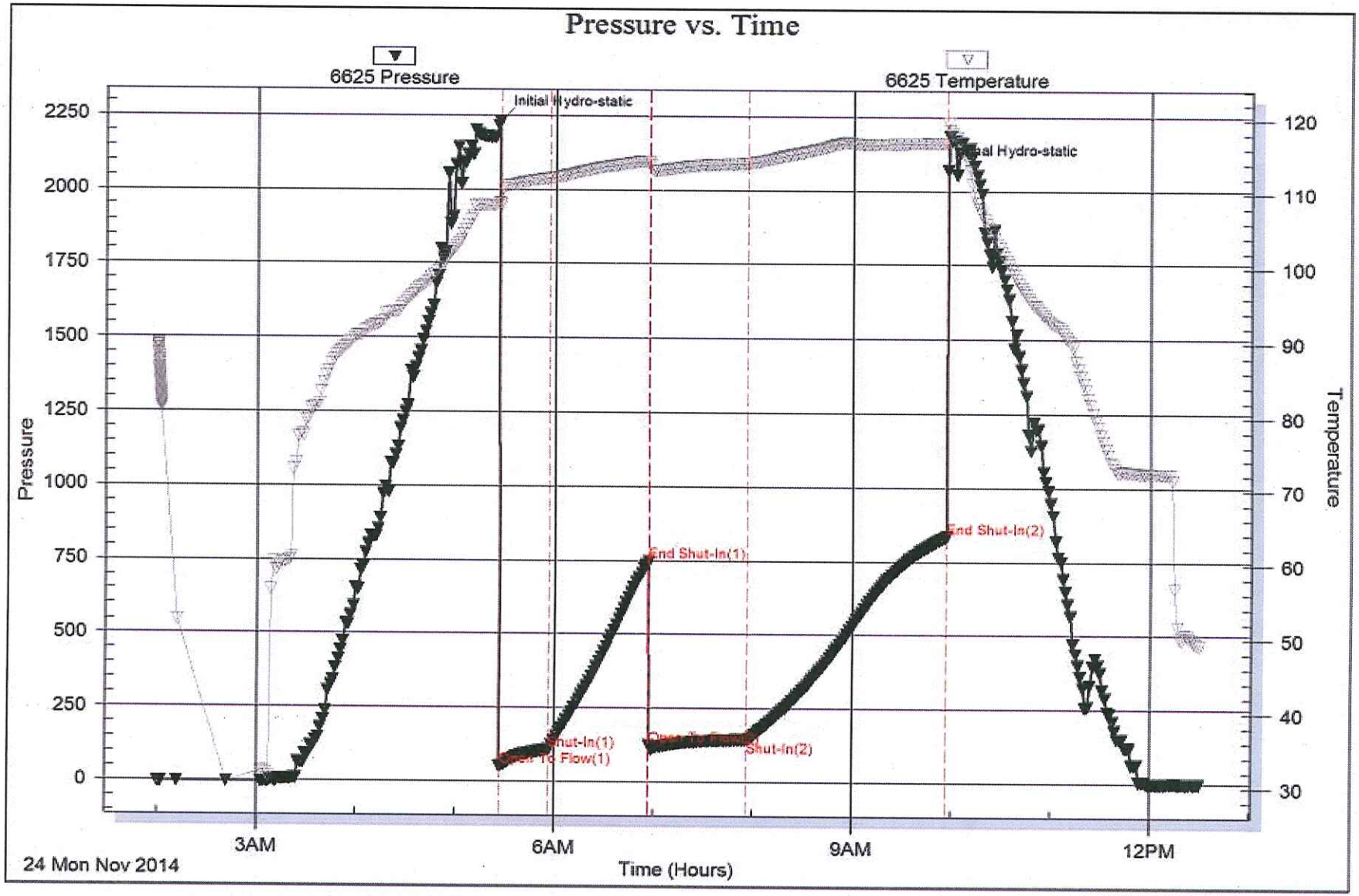
Recovery Table

Length ft	Description	Volume bbl
252.00	gmco 60g 20m 20o	1.358
63.00	gocm 5g 10o 85m	0.884
30.00	gocm 10g 20o 70m	0.421

Total Length: 345.00 ft Total Volume: 2.663 bbl

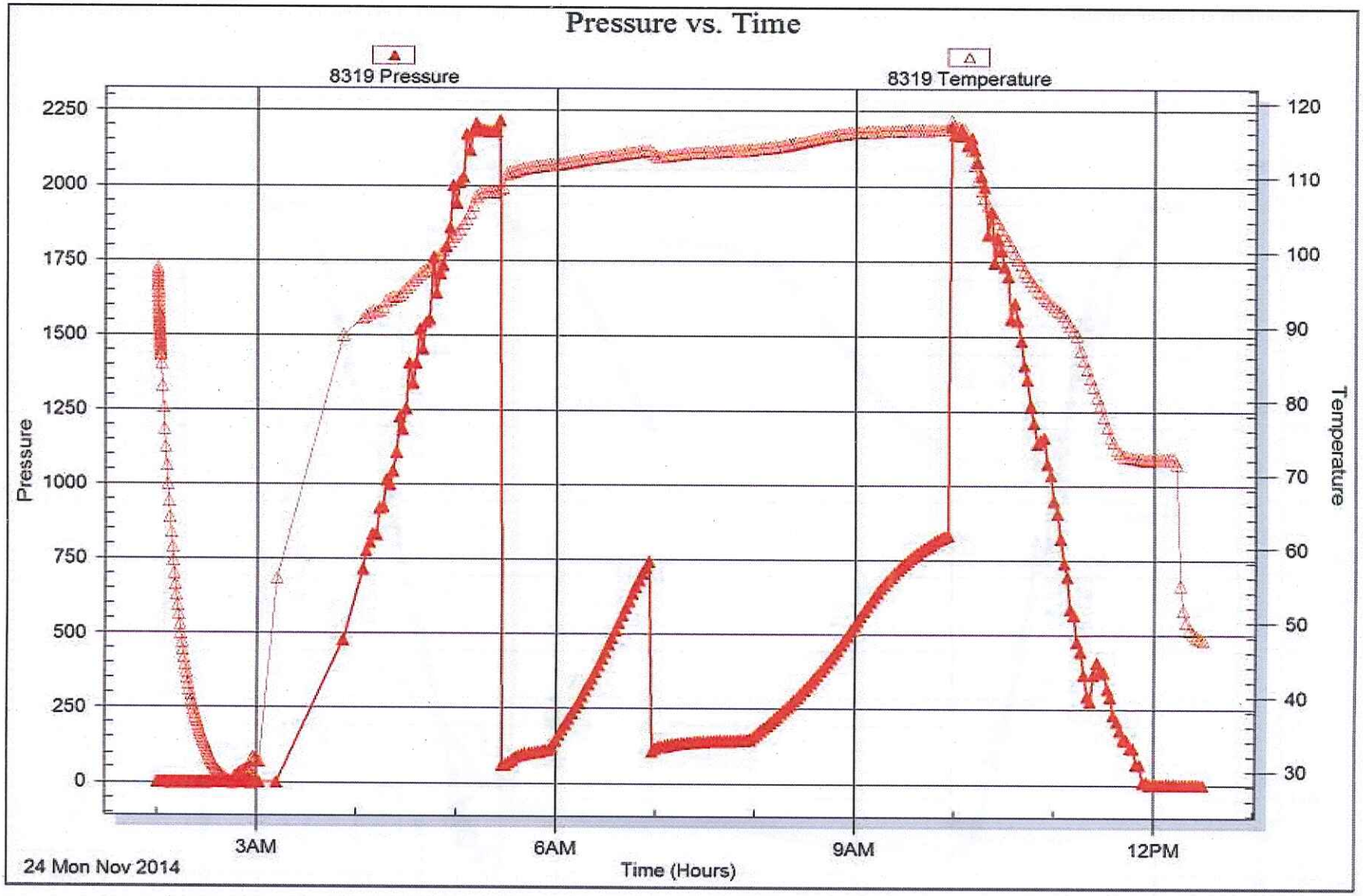
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 6625 **Outside** Raydon Exploration Inc. Toro #1-25 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 58633 Printed: 2014.12.02 @ 09:48:04

Serial #: 8319 Inside Raydon Exploration Inc. Toro #1-25 DST Test Number: 2



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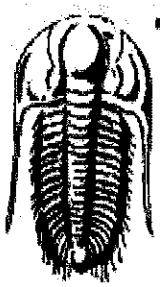


TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Raydon Exploration Inc.**

1601 nw Expressway
Ste 1300
Oklahoma City, OK 73118

ATTN: Edwin H Grieves

Toro #1-25

25-28s-34w Haskell,KS

Start Date: 2014.11.27 @ 08:53:00

End Date: 2014.11.27 @ 21:10:30

Job Ticket #: 56580 DST #: 3

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.12.02 @ 09:47:27

DRILL STEM TEST REPORT

Raydon Exploration Inc.

1601 nw Expressway
Ste 1300
Oklahoma City, OK 73118
ATTN: Edwin H Grieves

25-28s-34w Haskell,KS

Toro #1-25

Job Ticket: 56580 **DST#: 3**

Test Start: 2014.11.27 @ 08:53:00

GENERAL INFORMATION:

Formation: **Morrow Sand**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 13:34:45
Time Test Ended: 21:10:30

Test Type: Conventional Bottom Hole (Initial)
Tester: Cornelio Landa III
Unit No: 44

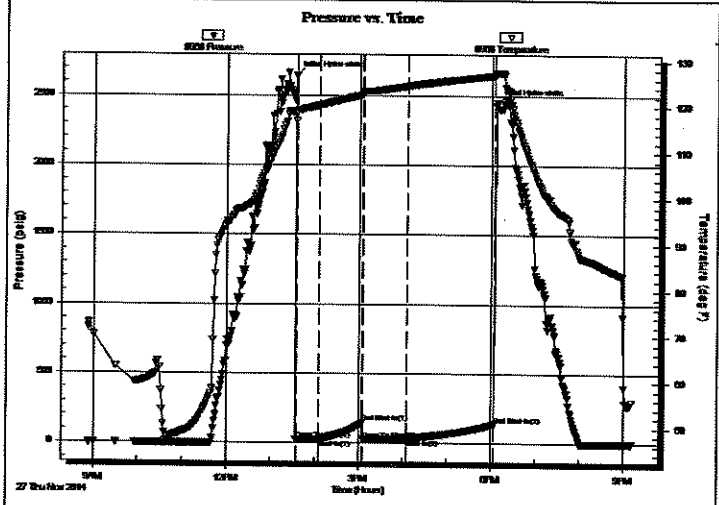
Interval: 5317.00 ft (KB) To 5347.00 ft (KB) (TVD)
Total Depth: 5347.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2982.00 ft (KB)
2974.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8968 **Outside**
Press@RunDepth: 30.87 psig @ 5319.00 ft (KB)
Start Date: 2014.11.27 End Date: 2014.11.27
Start Time: 08:53:05 End Time: 21:10:30

Capacity: 8000.00 psig
Last Calib.: 2014.11.27
Time On Btm: 2014.11.27 @ 13:34:30
Time Off Btm: 2014.11.27 @ 18:07:00

TEST COMMENT: IF: Weak surface blow -Built to 1/4"
ISI: No return
FF: No blow
FSI: No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2640.42	118.61	Initial Hydro-static
1	20.88	117.00	Open To Flow (1)
31	23.19	120.28	Shut-In(1)
90	143.63	122.61	End Shut-In(1)
91	24.89	123.03	Open To Flow (2)
151	30.87	124.48	Shut-In(2)
270	135.41	126.84	End Shut-In(2)
273	2447.31	127.46	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud w/traces of oil 100m	0.02

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

Raydon Exploration Inc.

1601 nw Expressway
Ste 1300
Oklahoma City, OK 73118
ATTN: Edwin H Grieves

25-28s-34w Haskell,KS

Toro #1-25

Job Ticket: 56580 **DST#: 3**

Test Start: 2014.11.27 @ 08:53:00

GENERAL INFORMATION:

Formation: **Morrow Sand**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 13:34:45
Time Test Ended: 21:10:30

Test Type: Conventional Bottom Hole (Initial)
Tester: Cornelio Landa III
Unit No: 44

Interval: 5317.00 ft (KB) To 5347.00 ft (KB) (TVD)
Total Depth: 5347.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

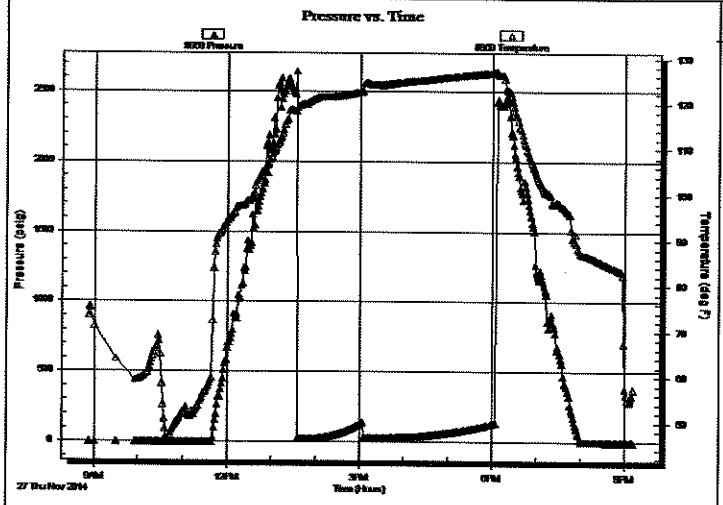
Reference Elevations: 2982.00 ft (KB)
2974.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8969 **Inside**

Press@RunDepth: psig @ 5319.00 ft (KB)
Start Date: 2014.11.27 End Date: 2014.11.27
Start Time: 08:53:05 End Time: 21:10:30

Capacity: 8000.00 psig
Last Calib.: 2014.11.27
Time On Btm:
Time Off Btm:

TEST COMMENT: IF: Weak surface blow - Built to 1/4"
ISI: No return
FF: No blow
FSI: No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud w/traces of oil 100m	0.02

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

TOOL DIAGRAM

Raydon Exploration Inc.

1601 nw Expressway
Ste 1300
Oklahoma City, OK 73118
ATTN: Edwin H Grieves

25-28s-34w Haskell,KS

Toro #1-25

Job Ticket: 56580 **DST#: 3**

Test Start: 2014.11.27 @ 08:53:00

Tool Information

Drill Pipe:	Length:	5075.00 ft	Diameter:	3.80 inches	Volume:	71.19 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:	28000.00 lb
Drill Collar:	Length:	240.00 ft	Diameter:	2.25 inches	Volume:	1.18 bbl	Weight to Pull Loose:	10000.00 lb
					Total Volume:	72.37 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		25.00 ft					String Weight: Initial	78000.00 lb
Depth to Top Packer:		5317.00 ft					Final	78000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		30.00 ft						
Tool Length:		57.00 ft						
Number of Packers:		2	Diameter:	6.75 inches				

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			5291.00		
Shut In Tool	5.00			5296.00		
Hydraulic tool	5.00			5301.00		
Jars	5.00			5306.00		
Safety Joint	2.00			5308.00		
Packer	5.00			5313.00	27.00	Bottom Of Top Packer
Packer	4.00			5317.00		
Stubb	1.00			5318.00		
Perforations	1.00			5319.00		
Recorder	0.00	8969	Inside	5319.00		
Recorder	0.00	8968	Outside	5319.00		
Perforations	25.00			5344.00		
Bullnose	3.00			5347.00	30.00	Bottom Packers & Anchor
Total Tool Length:	**57.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Raydon Exploration Inc.

1601 nw Expressway
Ste 1300
Oklahoma City, OK 73118
ATTN: Edwin H Grieves

25-28s-34w Haskell,KS

Toro #1-25

Job Ticket: 56580 **DST#: 3**

Test Start: 2014.11.27 @ 08:53:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	60.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	5.98 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	800.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

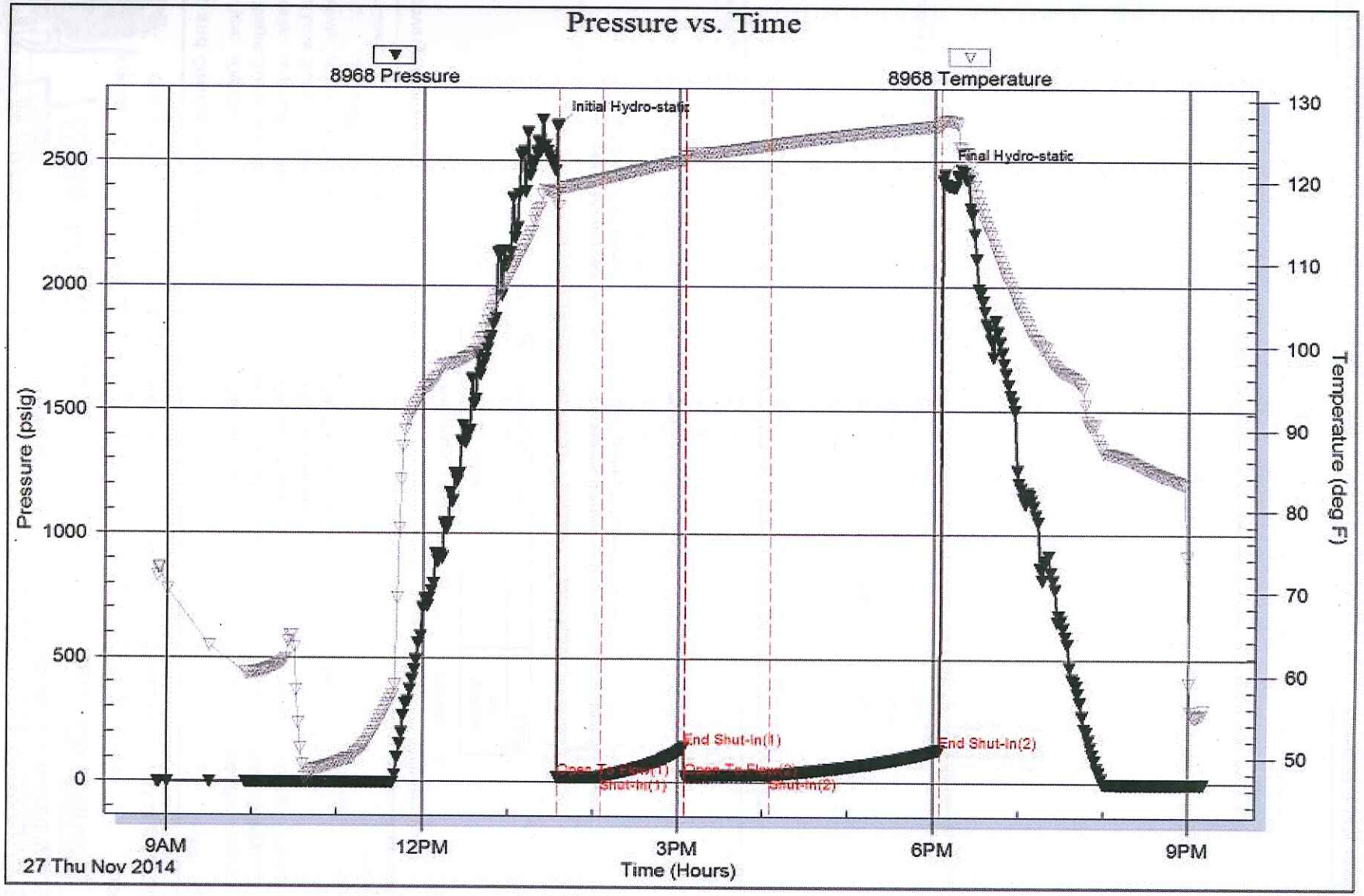
Recovery Table

Length ft	Description	Volume bbl
5.00	Mud w/traces of oil 100m	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

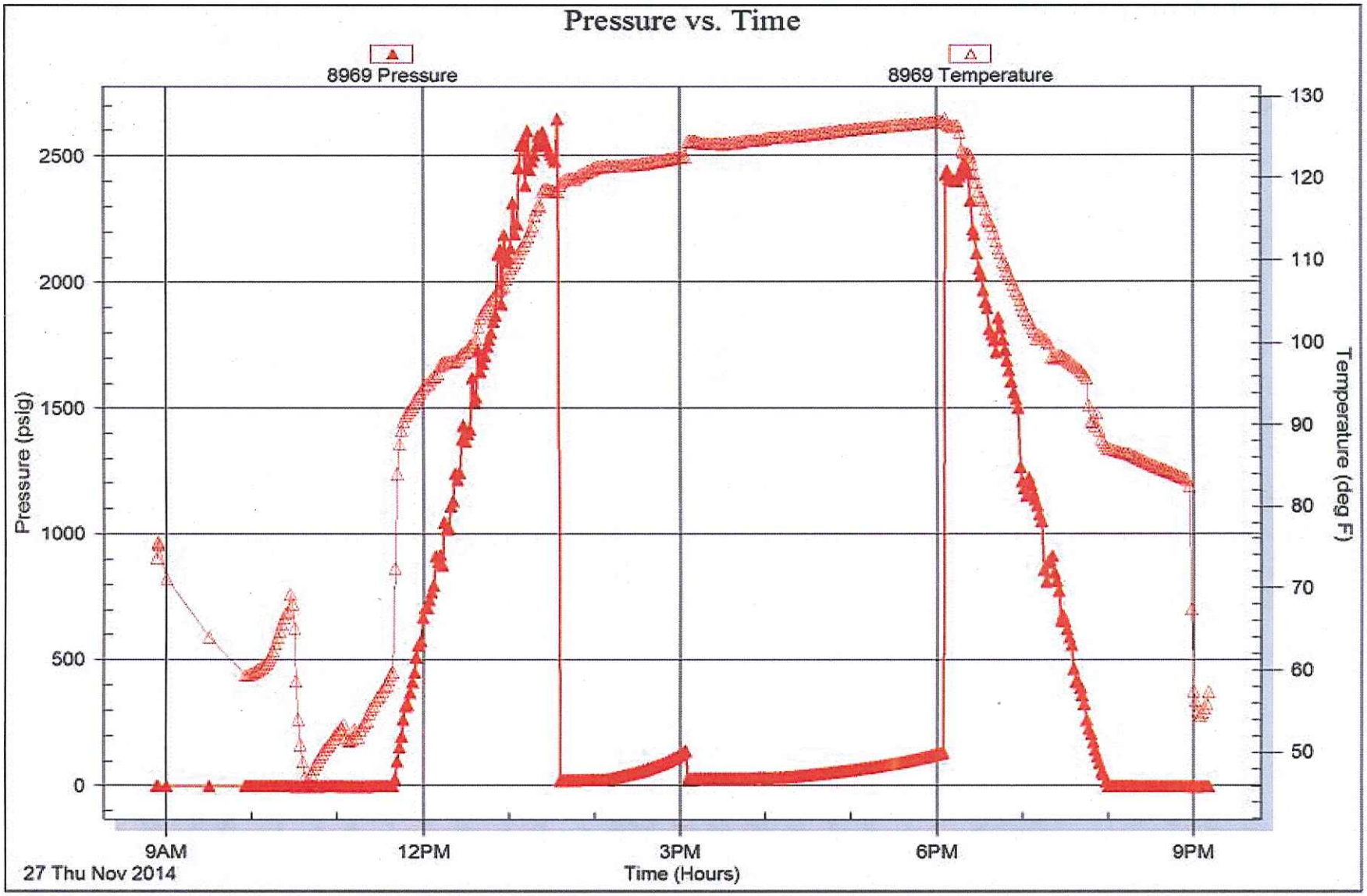
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8968 **Outside** Raydon Exploration Inc. Toro #1-25 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 56580 Printed: 2014.12.02 @ 09:47:28

Serial #: 8969 Inside Raydon Exploration Inc. Toro #1-25 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 56580 Printed: 2014.12.02 @ 09:47:29

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 58604

Well Name & No. Toro #1-25 Test No. 1 Date 11/21/14

Company Raydon Exploration Inc Elevation KB 2974 GL

Address 1601 NW Expressway Ste 1300 OKC City, OK 73118

Co. Rep / Geo. Edwin & Brieves Rig Tom Cat Rig 4

Location: Sec. 25 Twp. 28 Rge. 34 Co. Haskell State KS

Interval Tested 4172 — 4185 Zone Tested Lansing "B"

Anchor Length 13' Drill Pipe Run 3984 Mud Wt. 42 / 9.2

Top Packer Depth 4168 Drill Collars Run 239 Vis 42

Bottom Packer Depth 4172 Wt. Pipe Run 0 WL 6.4

Total Depth 4185 Chlorides 2800 ppm System LCM 4

Blow Description IF: BoB in 5min
ISI: No Return / Bled off 5min
FF: BoB in 11min
FSI: No Return / Bled off 5min

Rec 794	Feet of 90' OCM	5 %gas	3 %oil	92 %water	%mud	
Rec 28	Feet of Oil	%gas	100 %oil	%water	%mud	
Rec	Feet of GIP 204'	%gas	%oil	%water	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	

Rec Total 822 BHT 114 Gravity ____ API RW 1.1 @ 43 °F Chlorides 6500 ppm

(A) Initial Hydrostatic 2008	☒ Test 1250	T-On Location 0500	
(B) First Initial Flow 67	☒ Jars 250	T-Started 0601	
(C) First Final Flow 251	☒ Safety Joint 75	T-Open 0907	
(D) Initial Shut-In 577	☒ Circ Sub N/C	T-Pulled 1337	
(E) Second Initial Flow 270	☐ Hourly Standby .5h 50	T-Out 1629	
(F) Second Final Flow 468	☒ Mileage 150% 120.90	Comments	
(G) Final Shut-In 572	☐ Sampler		
(H) Final Hydrostatic 1964	☐ Straddle	☐ Ruined Shale Packer	
	☐ Shale Packer	☐ Ruined Packer	
Initial Open 30	☐ Extra Packer	☐ Extra Copies	
Initial Shut-In 60	☐ Extra Recorder	Sub Total 0	
Final Flow 60	☐ Day Standby	Total 1895.90	
Final Shut-In 120	☒ Accessibility 150	MP/DST Disc't	
	Sub Total 1895.90		

Approved By ____ Our Representative [signature]

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 58605

Well Name & No. Tenso #1-25 Test No. 4A Date 11/23/14

Company Raydon Exp. INC Elevation 2983 KB 2974 GL

Address 100 NW Expressway Ste 1300 OK City, OK 73118

Co. Rep / Geo Edwin H Grieves Rig Pam Cat Rig 1

Location: Sec. 25 Twp 28 Rge 34 Co. Haskell State KS

Interval Tested _____ Zone Tested _____

Anchor Length _____ Drill Pipe Run _____ Mud Wt. _____

Top Packer Depth _____ Drill Collars Run _____ Vis _____

Bottom Packer Depth _____ Wt. Pipe Run _____ WL _____

Total Depth _____ Chlorides _____ ppm System LCM _____

Blow Description _____

Rec _____ Feet of _____ %gas %oil %water %mud

Rec _____ Feet of _____ %gas %oil %water %mud

Rec _____ Feet of _____ %gas %oil %water %mud

Rec _____ Feet of _____ %gas %oil %water %mud

Rec _____ Feet of _____ %gas %oil %water %mud

Rec Total _____ BHT _____ Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic _____

(B) First Initial Flow _____

(C) First Final Flow _____

(D) Initial Shut-In _____

(E) Second Initial Flow _____

(F) Second Final Flow _____

(G) Final Shut-In _____

(H) Final Hydrostatic _____

Initial Open _____

Initial Shut-In _____

Final Flow _____

Final Shut-In _____

☒ Test Stand by

☒ Jars _____

☒ Safety Joint _____

☒ Circ Sub N/C

☐ Hourly Standby _____

☐ Mileage _____

☐ Sampler _____

☐ Straddle _____

☐ Shale Packer _____

☐ Extra Packer _____

☐ Extra Recorder _____

☒ Day Standby _____

☐ Accessibility _____

Sub Total _____

T-On Location _____

T-Started _____

T-Open _____

T-Pulled _____

T-Out _____

Comments _____

☐ Ruined Shale Packer _____

☐ Ruined Packer _____

☐ Extra Copies _____

Sub Total _____

Total _____

MP/DST Disc't _____

Approved By _____ Our Representative _____

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 58633

Well Name & No. Toro 1-25 Test No. 2 Date 11-24-14

Company Raydon Exploration Inc. Elevation 2952 KB 2977 GL

Address 1601 nw expressway stuet #500 Oklahoma City, Ok 73118

Co. Rep / Geo. Edwin H Grieves Rig Tom Cat #4

Location: Sec. 25 Twp. 28s Rge. 34w Co. Haskell State KS

Interval Tested 4470 4730 Zone Tested Marmaton "B"

Anchor Length 60 Drill Pipe Run 4417 Mud Wt. 8.9

Top Packer Depth 4466 Drill Collars Run 239 Vis 56

Bottom Packer Depth 4470 Wt. Pipe Run 0 WL 5.6

Total Depth 4730 Chlorides 1500 ppm System LCM 6

Blow Description 30 B.O.B in 2½ mins.
60 No Return
60 B.O.B in 1 min
120 No Return

Rec 252	Feet of gmco	60 %gas	20 %oil	%water	20 %mud
Rec 63	Feet of gocm	5 %gas	10 %oil	%water	85 %mud
Rec 30	Feet of gocm	10 %gas	20 %oil	%water	70 %mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 345 BHT 111 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic	2229	Test 1250	T-On Location 1:50
(B) First Initial Flow	53	Jars 250	T-Started 2:00
(C) First Final Flow	109	Safety Joint 75	T-Open 5:26
(D) Initial Shut-In	747	Circ Sub N/C	T-Pulled 9:56
(E) Second Initial Flow	124	Hourly Standby .5h 50	T-Out 12:30
(F) Second Final Flow	146	Mileage 154 RT 78rt 120.90	Comments
(G) Final Shut-In	834	☐ Sampler	
(H) Final Hydrostatic	2070	☐ Straddle	☐ Ruined Shale Packer
		Shale Packer 250	☐ Ruined Packer
Initial Open 30		☐ Extra Packer	☐ Extra Copies
Initial Shut-In 60		☐ Extra Recorder	Sub Total 1108.33
Final Flow 60		Day Standby 2d 9.25h	Total 3254.23
Final Shut-In 120		Accessibility 150	MP/DST Disc't
		Sub Total 2145.90	

Approved By [signature] Our Representative [signature]

Trilobite Testing Inc. shall not be liable for damages of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 56580

Well Name & No. Toro #1-25 Test No. 3 Date 11-27-14

Company Raydon Exploration, Inc. Elevation 2984 KB 2974 GL

Address 1601 NW Expressway, Ste. #1300 - Oklahoma City, OK 73118

Co. Rep / Geo. Ed Grieves Rig Tomcat #4

Location: Sec. 25 Twp. 28-S Rge. 34-W Co. Haskell State KS

Interval Tested 5317-5347 Zone Tested Morrow Sands

Anchor Length 30' Drill Pipe Run 5075 Mud Wt. 9.0

Top Packer Depth 5313 Drill Collars Run 240 Vis 60

Bottom Packer Depth 5317 Wt. Pipe Run 0 WL 6.0

Total Depth 5347 Chlorides 800 ppm System LCM #8 Ran Plug

Blow Description IF: Weak surface blow - Built to ¼ in. blow

ISI: No Return

FF: No Blow

FSI: No Return

Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec 5	Feet of Mud w/ Traces of Oil	%gas	%oil	%water 100	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 5 BHT 128 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 2640	☒ Test 1350	T-On Location 8:50
(B) First Initial Flow 21	☒ Jars 250	T-Started 8:53
(C) First Final Flow 23	☒ Safety Joint 75	T-Open 13:35
(D) Initial Shut-In 144	☒ Circ Sub N/C	T-Pulled 18:05
(E) Second Initial Flow 25	☐ Hourly Standby	T-Out 21:10
(F) Second Final Flow 31	☒ Mileage 104 RT 241.80	Comments on location 11-30-14 @ 14:40 - 29½ hrs standby
(G) Final Shut-In 135	☐ Sampler	
(H) Final Hydrostatic 2447	☐ Straddle	☐ Ruined Shale Packer
	2 - ☒ Shale Packer x 2 Top & Bottom 500	☐ Ruined Packer
Initial Open 30	☐ Extra Packer	☐ Extra Copies
Initial Shut-In 60	☐ Extra Recorder	Sub Total 1600
Final Flow 60	☐ Day Standby 1.5d 29.5h	Total 4166.80
Final Shut-In 120	☒ Accessibility No steps to Rig floor	150MP/DST Disc't
	Sub Total 2566.80	

Approved By [signature] Our Representative [signature]

Trilobite Testing Inc. shall not be liable for damages of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.

LITHOLOGY STRIP LOG

WellSight Systems

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

Well Name:	**RAYDON-TORO 1-25**
Well Id:	
Location:	**990' FSL & 700'FWL, SEC. 25-T28S-R34W**
License Number:	**30604**
Region:	**HASKELL**
Spud Date:	**11/13/2014**
Drilling Completed:	**11/30/2014**
Surface Coordinates:	
Bottom Hole Coordinates:	
Ground Elevation (ft):	**2974**
K.B. Elevation (ft):	**2983**
Logged Interval (ft):	**3800** **To:** **5785**
Total Depth (ft):	**5785**
Formation:	
Type of Drilling Fluid:	**CHEMICAL**

OPERATOR

Company: **RAYDON EXPLORATION, INC**
Address: **1601 NW EXPRESSWAY, STE 1300**
OKLAHOMA CITY, OK, 73118-1462

GEOLOGIST

Name: **EDWIN H. GRIEVES**
Company:
Address:

Cores

Comments

ROCK TYPES

- Anhy
- Bent
- Brec
- Cht
- Clyst
- Coal
- Congl
- Dol
- Gyp
- Igne
- Lmst
- Meta
- Mrlst
- Salt
- Shale
- Shcol
- Shgy
- Sltst
- Ss
- Till

ACCESSORIES

MINERAL

- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Brecfrag
- Calc
- Carb
- Chtdk
- Chtlt
- Dol
- Feldspar
- Ferrpel
- Ferr
- Glau
- Gyp
- Hvymin
- Kaol
- Marl
- Minxl
- Nodule
- Phos
- Pyr
- Salt
- Sandy
- Silt
- Sil
- Sulphur
- Tuff

FOSSIL

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

STRINGER

- Anhy
- Arg
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst
- Sltstrg
- Ssstrg

TEXTURE

- Boundst
- Chalky
- Cryxln
- Earthy
- Finexln
- Grainst
- Lithogr
- Microxln
- Mudst
- Packst
- Wackest

OTHER SYMBOLS

POROSITY
- E Earthy
- B Fenest
- F Fracture
- X Inter
- M Moldic
- O Organic
- P Pinpoint
- V Vuggy

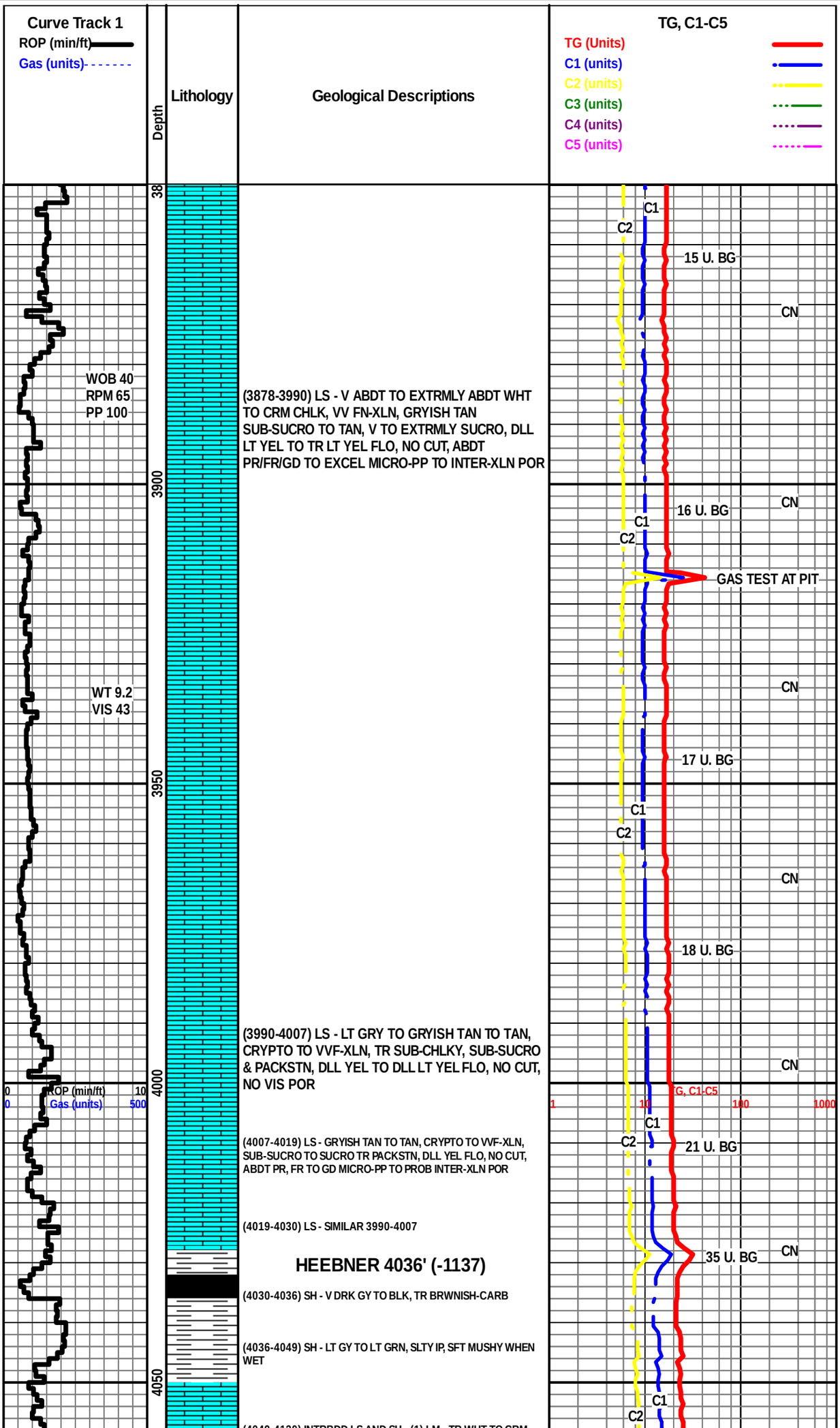
SORTING
- W Well
- M Moderate
- P Poor

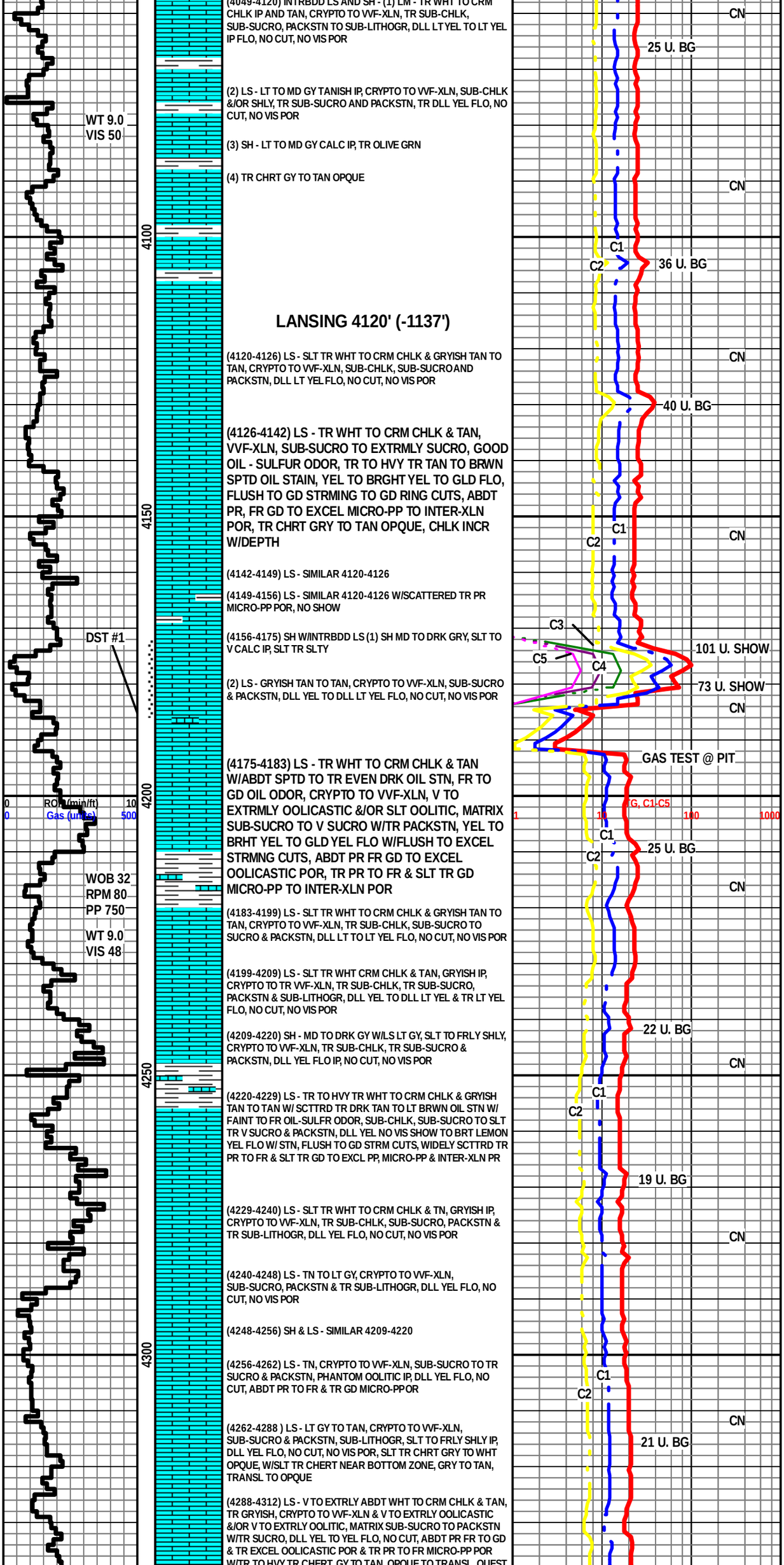
ROUNDING
- R Rounded
- r Subrnd
- a Subang
- A Angular

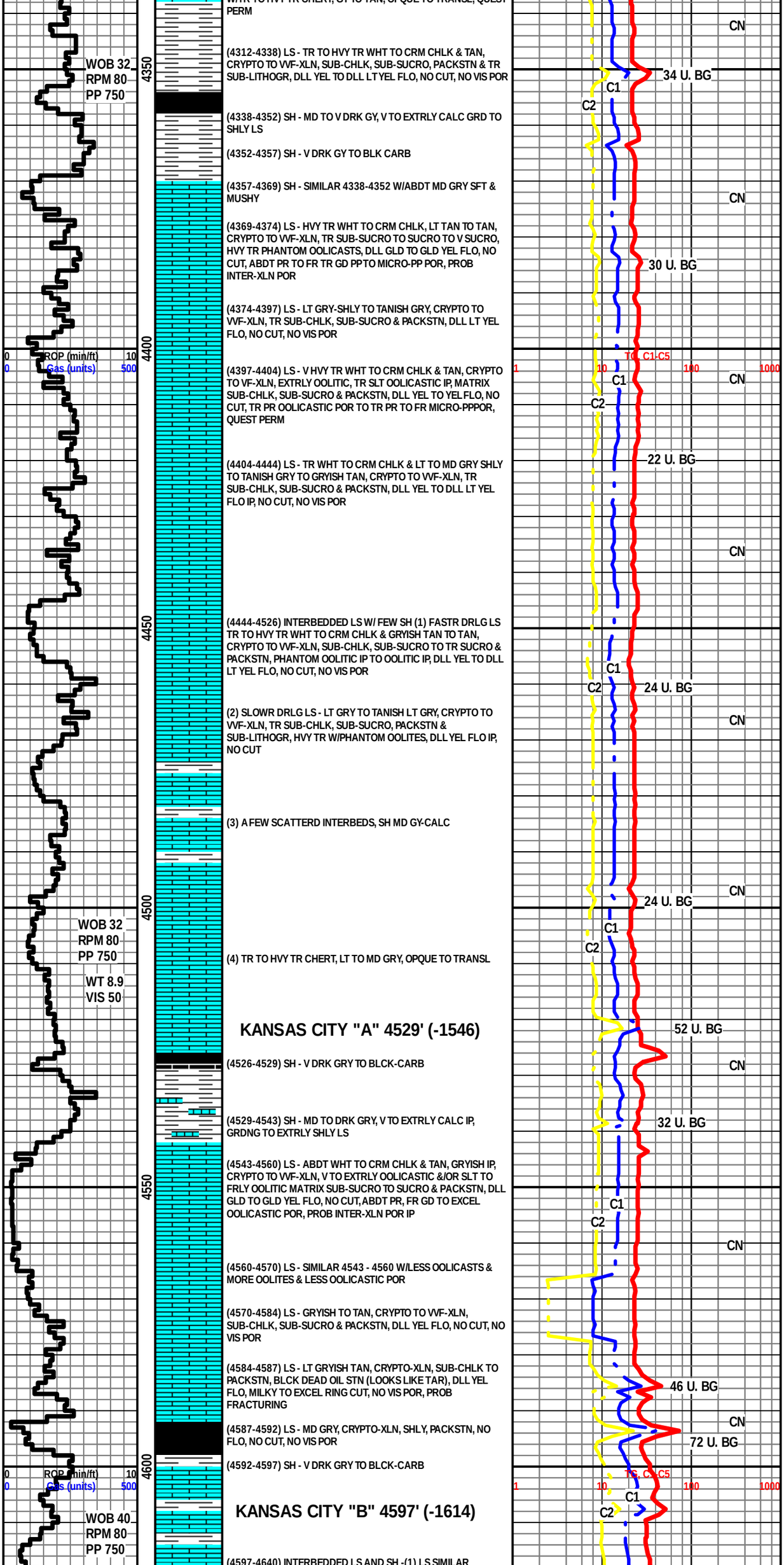
OIL SHOW
- Even
- Spotted
- Ques
- D Dead

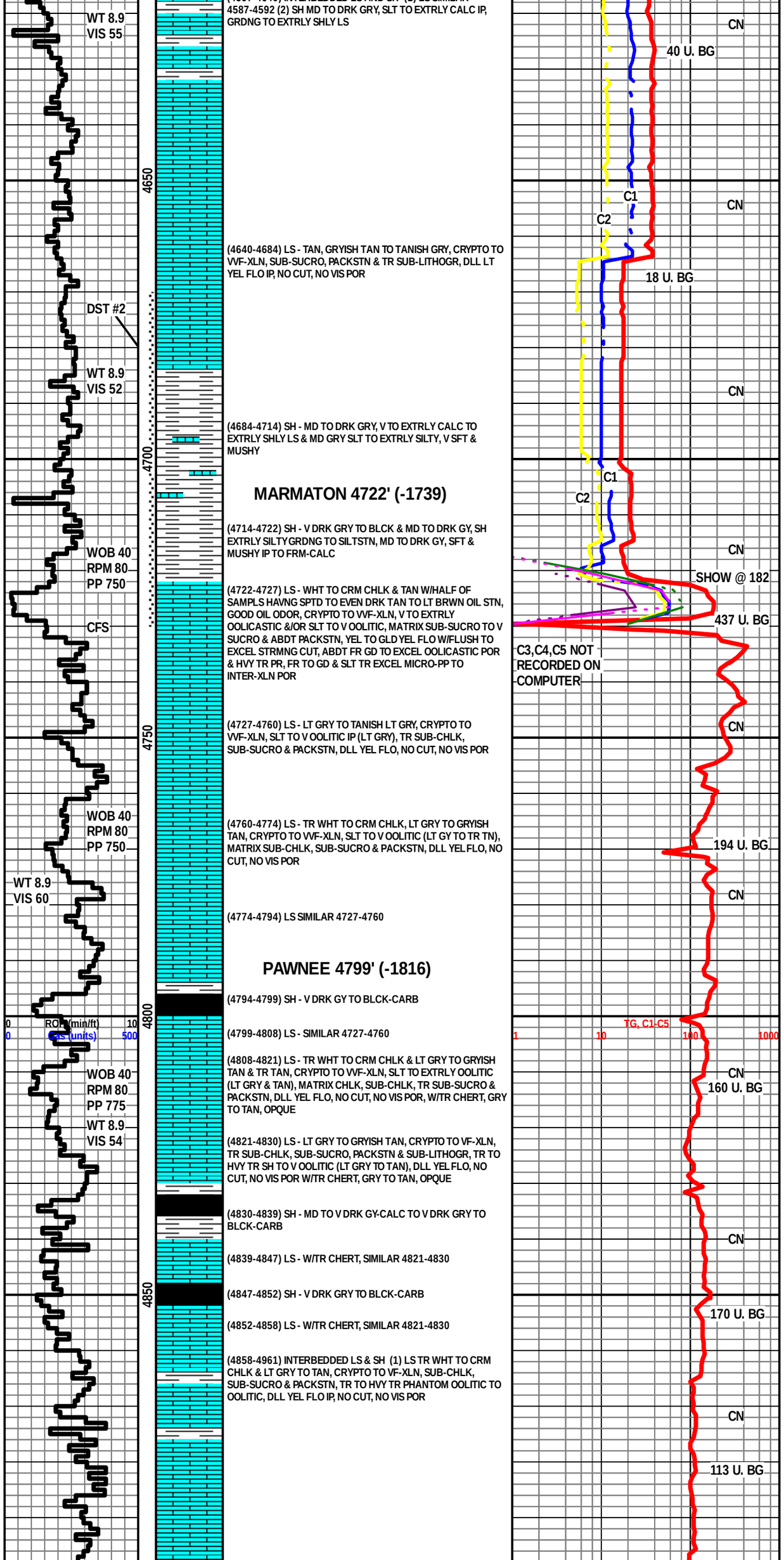
INTERVAL
- Core
- Dst

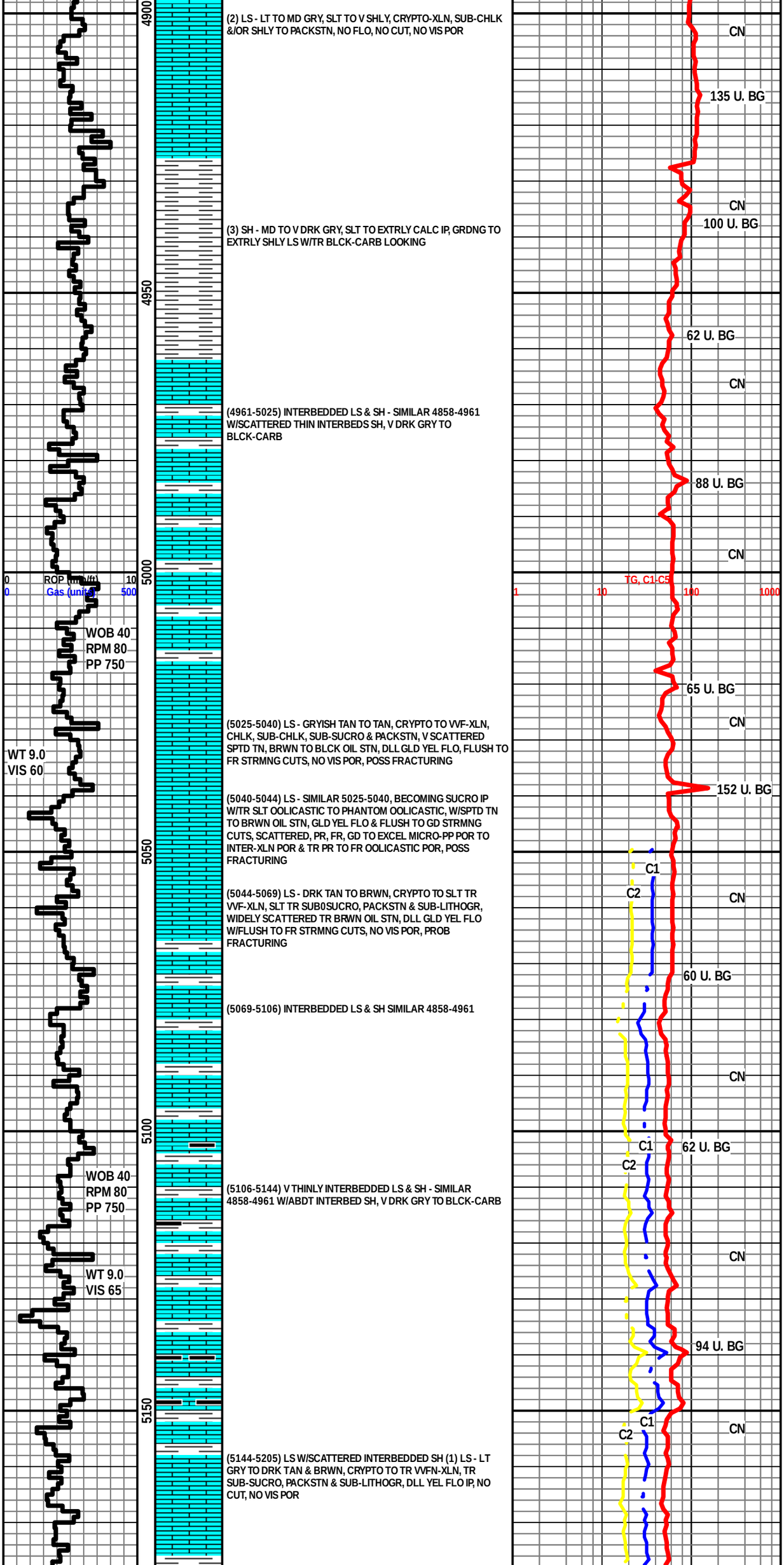
EVENT
- Rft
- Sidewall

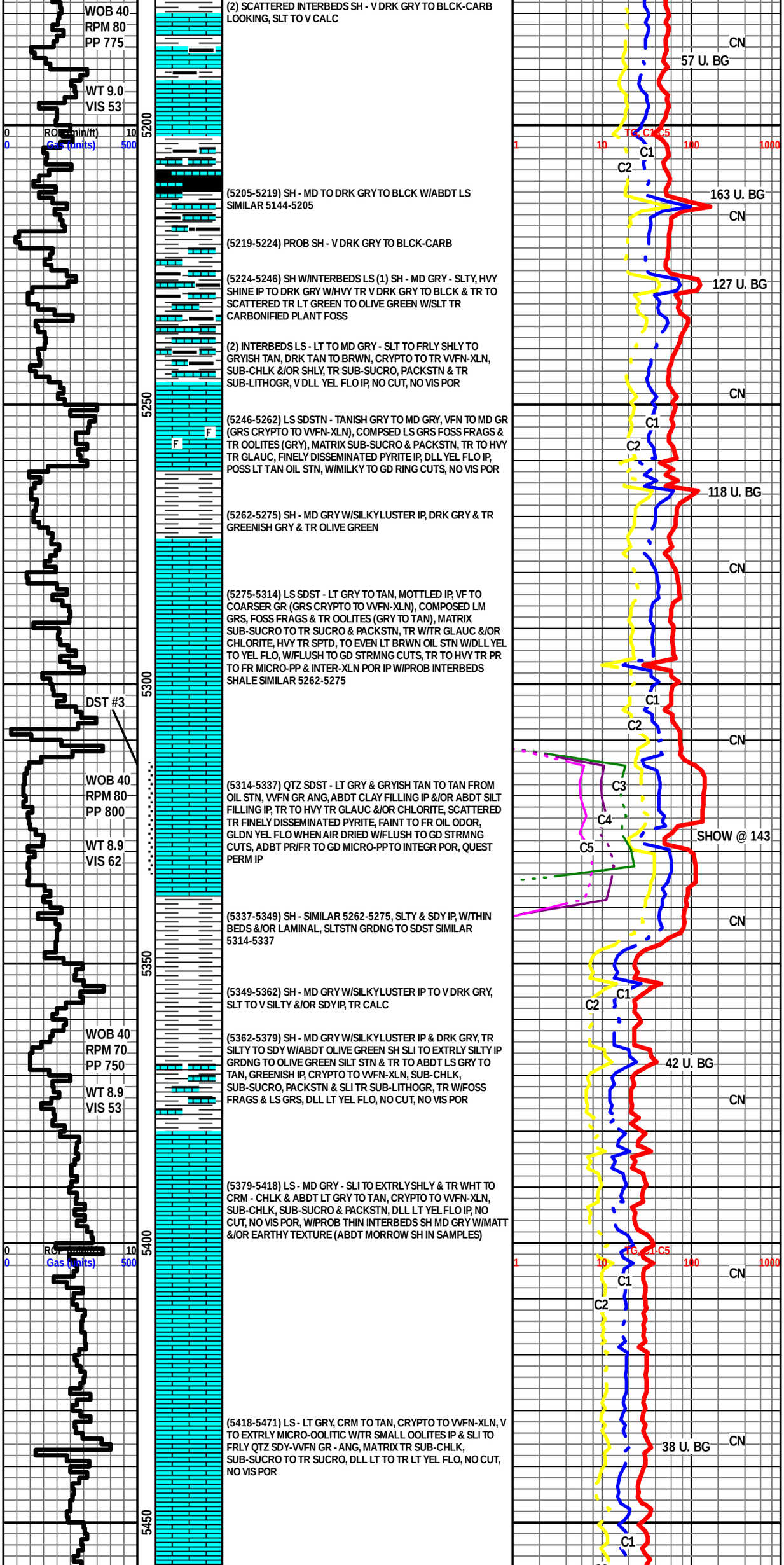


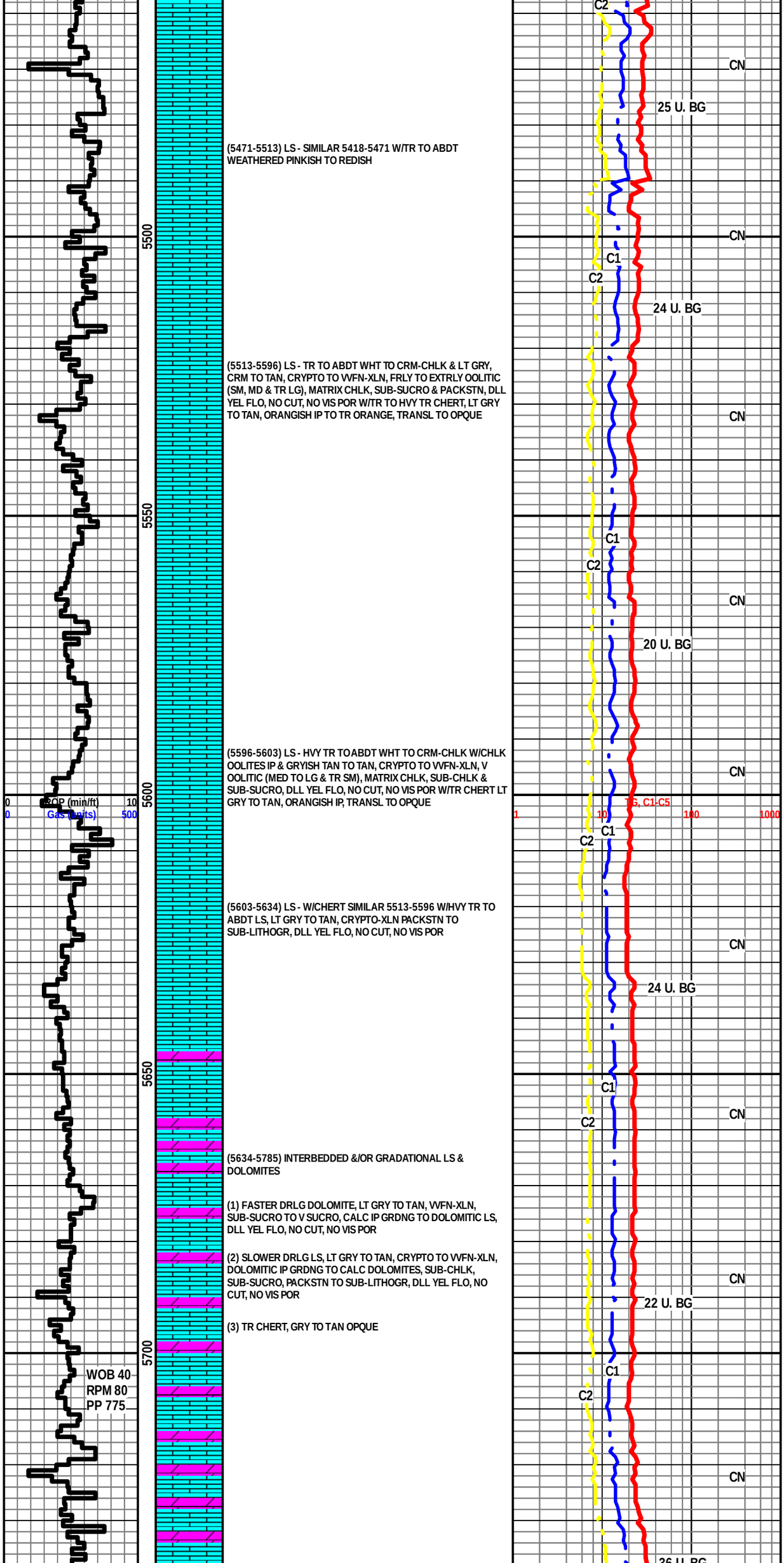

(4049-4120) INTRBDD LS AND SH - (1) LM - TR WHT TO CRM CHLK IP AND TAN, CRYPTO TO VVF-XLN, TR SUB-CHLK, SUB-SUCRO, PACKSTN TO SUB-LITHOGR, DLL LT YEL TO LT YEL IP FLO, NO CUT, NO VIS POR
(2) LS - LT TO MD GY TANISH IP, CRYPTO TO VVF-XLN, SUB-CHLK &/OR SHLY, TR SUB-SUCRO AND PACKSTN, TR DLL YEL FLO, NO CUT, NO VIS POR
(3) SH - LT TO MD GY CALC IP, TR OLIVE GRN
(4) TR CHRT GY TO TAN OPQUE
WT 9.0
VIS 50
4100
LANSING 4120' (-1137')
(4120-4126) LS - SLT TR WHT TO CRM CHLK & GRYISH TAN TO TAN, CRYPTO TO VVF-XLN, SUB-CHLK, SUB-SUCRO AND PACKSTN, DLL LT YEL FLO, NO CUT, NO VIS POR
(4126-4142) LS - TR WHT TO CRM CHLK & TAN, VVF-XLN, SUB-SUCRO TO EXTRMLY SUCRO, GOOD OIL - SULFUR ODOR, TR TO HVY TR TAN TO BRWN SPTD OIL STAIN, YEL TO BRGHT YEL TO GLD FLO, FLUSH TO GD STRMING TO GD RING CUTS, ABDT PR, FR GD TO EXCEL MICRO-PP TO INTER-XLN POR, TR CHRT GRY TO TAN OPQUE, CHLK INCR W/DEPTH
4150
(4142-4149) LS - SIMILAR 4120-4126
(4149-4156) LS - SIMILAR 4120-4126 W/SCATTERED TR PR MICRO-PP POR, NO SHOW
DST #1
(4156-4175) SH W/INTRBDD LS (1) SH MD TO DRK GRY, SLT TO V CALC IP, SLT TR SLTY
(2) LS - GRYISH TAN TO TAN, CRYPTO TO VVF-XLN, SUB-SUCRO & PACKSTN, DLL YEL TO DLL LT YEL FLO, NO CUT, NO VIS POR
(4175-4183) LS - TR WHT TO CRM CHLK & TAN W/ABDT SPTD TO TR EVEN DRK OIL STN, FR TO GD OIL ODOR, CRYPTO TO VVF-XLN, V TO EXTRMLY OOLICASTIC &/OR SLT OOLITIC, MATRIX SUB-SUCRO TO V SUCRO W/TR PACKSTN, YEL TO BRHT YEL TO GLD YEL FLO W/FLUSH TO EXCEL STRMNG CUTS, ABDT PR FR GD TO EXCEL OOLICASTIC POR, TR PR TO FR & SLT TR GD MICRO-PP TO INTER-XLN POR
4200
0 ROP (min/ft) 10
0 Gas (units) 500
WOB 32
RPM 80
PP 750
WT 9.0
VIS 48
(4183-4199) LS - SLT TR WHT TO CRM CHLK & GRYISH TAN TO TAN, CRYPTO TO VVF-XLN, TR SUB-CHLK, SUB-SUCRO TO SUCRO & PACKSTN, DLL LT TO LT YEL FLO, NO CUT, NO VIS POR
(4199-4209) LS - SLT TR WHT CRM CHLK & TAN, GRYISH IP, CRYPTO TO TR VVF-XLN, TR SUB-CHLK, TR SUB-SUCRO, PACKSTN & SUB-LITHOGR, DLL YEL TO DLL LT YEL & TR LT YEL FLO, NO CUT, NO VIS POR
(4209-4220) SH - MD TO DRK GY W/LS LT GY, SLT TO FRLY SHLY, CRYPTO TO VVF-XLN, TR SUB-CHLK, TR SUB-SUCRO & PACKSTN, DLL YEL FLO IP, NO CUT, NO VIS POR
4250
(4220-4229) LS - TR TO HVY TR WHT TO CRM CHLK & GRYISH TAN TO TAN W/ SCTTRD TR DRK TAN TO LT BRWN OIL STN W/ FAINT TO FR OIL-SULFR ODOR, SUB-CHLK, SUB-SUCRO TO SLT TR V SUCRO & PACKSTN, DLL YEL NO VIS SHOW TO BRT LEMON YEL FLO W/ STN, FLUSH TO GD STRM CUTS, WIDELY SCTTRD TR PR TO FR & SLT TR GD TO EXCL PP, MICRO-PP & INTER-XLN PR
(4229-4240) LS - SLT TR WHT TO CRM CHLK & TN, GRYISH IP, CRYPTO TO VVF-XLN, TR SUB-CHLK, SUB-SUCRO, PACKSTN & TR SUB-LITHOGR, DLL YEL FLO, NO CUT, NO VIS POR
(4240-4248) LS - TN TO LT GY, CRYPTO TO VVF-XLN, SUB-SUCRO, PACKSTN & TR SUB-LITHOGR, DLL YEL FLO, NO CUT, NO VIS POR
(4248-4256) SH & LS - SIMILAR 4209-4220
4300
(4256-4262) LS - TN, CRYPTO TO VVF-XLN, SUB-SUCRO TO TR SUCRO & PACKSTN, PHANTOM OOLITIC IP, DLL YEL FLO, NO CUT, ABDT PR TO FR & TR GD MICRO-PP OR
(4262-4288) LS - LT GY TO TAN, CRYPTO TO VVF-XLN, SUB-SUCRO & PACKSTN, SUB-LITHOGR, SLT TO FRLY SHLY IP, DLL YEL FLO, NO CUT, NO VIS POR, SLT TR CHRT GRY TO WHT OPQUE, W/SLT TR CHERT NEAR BOTTOM ZONE, GRY TO TAN, TRANSL TO OPQUE
(4288-4312) LS - V TO EXTRLY ABDT WHT TO CRM CHLK & TAN, TR GRYISH, CRYPTO TO VVF-XLN & V TO EXTRLY OOLICASTIC &/OR V TO EXTRLY OOLITIC, MATRIX SUB-SUCRO TO PACKSTN W/TR SUCRO, DLL YEL TO YEL FLO, NO CUT, ABDT PR FR TO GD & TR EXCEL OOLICASTIC POR & TR PR TO FR MICRO-PP POR W/TR TO HVY TR CHERT, GY TO TAN, OPQUE TO TRANSL, QUEST
CN
25 U. BG
C1
C2
36 U. BG
40 U. BG
C3
C5
C4
101 U. SHOW
73 U. SHOW
GAS TEST @ PIT
TG, C1-C5
1 10 100 1000
22 U. BG
19 U. BG
21 U. BG

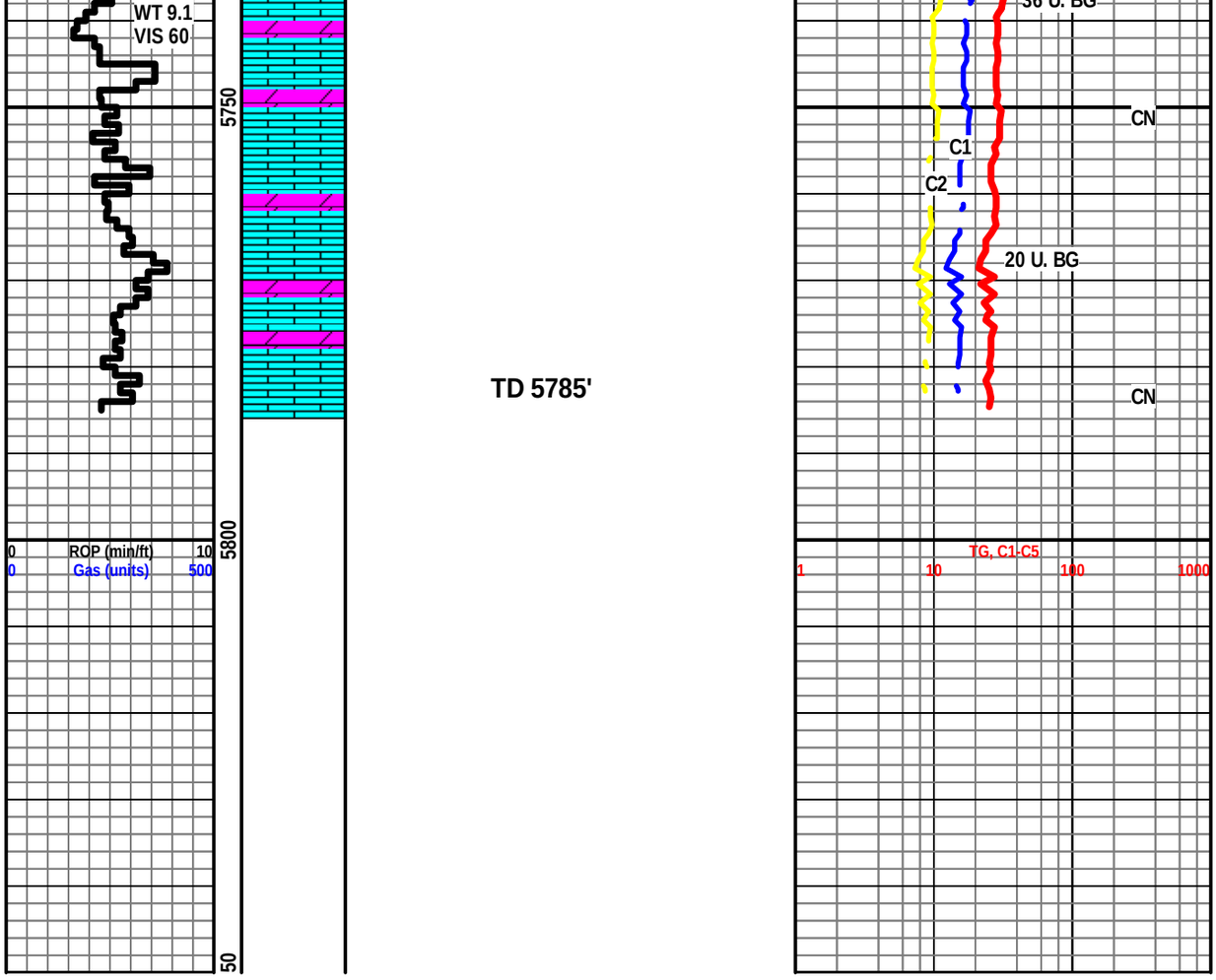

WOB 32
RPM 80
PP 750
4350
(4312-4338) LS - TR TO HVY TR WHT TO CRM CHLK & TAN, CRYPTO TO VVF-XLN, SUB-CHLK, SUB-SUCRO, PACKSTN & TR SUB-LITHOGR, DLL YEL TO DLL LT YEL FLO, NO CUT, NO VIS POR
(4338-4352) SH - MD TO V DRK GY, V TO EXTRLY CALC GRD TO SHLY LS
(4352-4357) SH - V DRK GY TO BLK CARB
(4357-4369) SH - SIMILAR 4338-4352 W/ABDT MD GRY SFT & MUSHY
(4369-4374) LS - HVY TR WHT TO CRM CHLK, LT TAN TO TAN, CRYPTO TO VVF-XLN, TR SUB-SUCRO TO SUCRO TO V SUCRO, HVY TR PHANTOM OOLICASTS, DLL GLD TO GLD YEL FLO, NO CUT, ABDT PR TO FR TR GD PPTO MICRO-PP POR, PROB INTER-XLN POR
(4374-4397) LS - LT GRY-SHLY TO TANISH GRY, CRYPTO TO VVF-XLN, TR SUB-CHLK, SUB-SUCRO & PACKSTN, DLL LT YEL FLO, NO CUT, NO VIS POR
0 ROP (min/ft) 10
0 Gas (units) 500
4400
(4397-4404) LS - V HVY TR WHT TO CRM CHLK & TAN, CRYPTO TO VF-XLN, EXTRLY OOLITIC, TR SLT OOLICASTIC IP, MATRIX SUB-CHLK, SUB-SUCRO & PACKSTN, DLL YEL TO YEL FLO, NO CUT, TR PR OOLICASTIC POR TO TR PR TO FR MICRO-PPPOR, QUEST PERM
(4404-4444) LS - TR WHT TO CRM CHLK & LT TO MD GRY SHLY TO TANISH GRY TO GRYISH TAN, CRYPTO TO VVF-XLN, TR SUB-CHLK, SUB-SUCRO & PACKSTN, DLL YEL TO DLL LT YEL FLO IP, NO CUT, NO VIS POR
4450
(4444-4526) INTERBEDDED LS W/ FEW SH (1) FASTR DRLG LS TR TO HVY TR WHT TO CRM CHLK & GRYISH TAN TO TAN, CRYPTO TO VVF-XLN, SUB-CHLK, SUB-SUCRO TO TR SUCRO & PACKSTN, PHANTOM OOLITIC IP TO OOLITIC IP, DLL YEL TO DLL LT YEL FLO, NO CUT, NO VIS POR
(2) SLOWR DRLG LS - LT GRY TO TANISH LT GRY, CRYPTO TO VVF-XLN, TR SUB-CHLK, SUB-SUCRO, PACKSTN & SUB-LITHOGR, HVY TR W/PHANTOM OOLITES, DLL YEL FLO IP, NO CUT
(3) A FEW SCATTERD INTERBEDS, SH MD GY-CALC
4500
WOB 32
RPM 80
PP 750
WT 8.9
VIS 50
(4) TR TO HVY TR CHERT, LT TO MD GRY, OPQUE TO TRANSL
KANSAS CITY "A" 4529' (-1546)
(4526-4529) SH - V DRK GRY TO BLCK-CARB
(4529-4543) SH - MD TO DRK GRY, V TO EXTRLY CALC IP, GRDNG TO EXTRLY SHLY LS
(4543-4560) LS - ABDT WHT TO CRM CHLK & TAN, GRYISH IP, CRYPTO TO VVF-XLN, V TO EXTRLY OOLICASTIC &/OR SLT TO FRLY OOLITIC MATRIX SUB-SUCRO TO SUCRO & PACKSTN, DLL GLD TO GLD YEL FLO, NO CUT, ABDT PR, FR GD TO EXCEL OOLICASTIC POR, PROB INTER-XLN POR IP
4550
(4560-4570) LS - SIMILAR 4543 - 4560 W/LESS OOLICASTS & MORE OOLITES & LESS OOLICASTIC POR
(4570-4584) LS - GRYISH TO TAN, CRYPTO TO VVF-XLN, SUB-CHLK, SUB-SUCRO & PACKSTN, DLL YEL FLO, NO CUT, NO VIS POR
(4584-4587) LS - LT GRYISH TAN, CRYPTO-XLN, SUB-CHLK TO PACKSTN, BLCK DEAD OIL STN (LOOKS LIKE TAR), DLL YEL FLO, MILKY TO EXCEL RING CUT, NO VIS POR, PROB FRACTURING
(4587-4592) LS - MD GRY, CRYPTO-XLN, SHLY, PACKSTN, NO FLO, NO CUT, NO VIS POR
4600
(4592-4597) SH - V DRK GRY TO BLCK-CARB
0 ROP (min/ft) 10
0 Gas (units) 500
KANSAS CITY "B" 4597' (-1614)
WOB 40
RPM 80
PP 750
(4597-4640) INTERBEDDED LS AND SH -(1) LS SIMILAR
CN
34 U. BG
C1
C2
CN
30 U. BG
TG, C1-C5
1
10
100
1000
C1
C2
CN
22 U. BG
CN
C1
C2
24 U. BG
CN
24 U. BG
C1
C2
52 U. BG
CN
32 U. BG
C1
C2
CN
46 U. BG
CN
72 U. BG
TG, C1-C5
1
10
100
1000
C1
C2


WT 8.9
VIS 55
4587-4592 (2) SH MD TO DRK GRY, SLT TO EXTRLY CALC IP, GRDNG TO EXTRLY SHLY LS
CN
40 U. BG
4650
C1
C2
CN
(4640-4684) LS - TAN, GRYISH TAN TO TANISH GRY, CRYPTO TO VVF-XLN, SUB-SUCRO, PACKSTN & TR SUB-LITHOGR, DLL LT YEL FLO IP, NO CUT, NO VIS POR
18 U. BG
DST #2
WT 8.9
VIS 52
CN
(4684-4714) SH - MD TO DRK GRY, V TO EXTRLY CALC TO EXTRLY SHLY LS & MD GRY SLT TO EXTRLY SILTY, V SFT & MUSHY
4700
MARMATON 4722' (-1739)
C1
C2
(4714-4722) SH - V DRK GRY TO BLCK & MD TO DRK GY, SH EXTRLY SILTY GRDNG TO SILTSTN, MD TO DRK GY, SFT & MUSHY IP TO FRM-CALC
CN
WOB 40
RPM 80
PP 750
SHOW @ 182
(4722-4727) LS - WHT TO CRM CHLK & TAN W/HALF OF SAMPLS HAVNG SPTD TO EVEN DRK TAN TO LT BRWN OIL STN, GOOD OIL ODOR, CRYPTO TO VVF-XLN, V TO EXTRLY OOLICASTIC &/OR SLT TO V OOLITIC, MATRIX SUB-SUCRO TO V SUCRO & ABDT PACKSTN, YEL TO GLD YEL FLO W/FLUSH TO EXCEL STRMNG CUT, ABDT FR GD TO EXCEL OOLICASTIC POR & HVY TR PR, FR TO GD & SLT TR EXCEL MICRO-PP TO INTER-XLN POR
437 U. BG
CFS
C3,C4,C5 NOT RECORDED ON COMPUTER
4750
(4727-4760) LS - LT GRY TO TANISH LT GRY, CRYPTO TO VVF-XLN, SLT TO V OOLITIC IP (LT GRY), TR SUB-CHLK, SUB-SUCRO & PACKSTN, DLL YEL FLO, NO CUT, NO VIS POR
CN
WOB 40
RPM 80
PP 750
(4760-4774) LS - TR WHT TO CRM CHLK, LT GRY TO GRYISH TAN, CRYPTO TO VVF-XLN, SLT TO V OOLITIC (LT GY TO TR TN), MATRIX SUB-CHLK, SUB-SUCRO & PACKSTN, DLL YEL FLO, NO CUT, NO VIS POR
194 U. BG
WT 8.9
VIS 60
CN
(4774-4794) LS SIMILAR 4727-4760
PAWNEE 4799' (-1816)
(4794-4799) SH - V DRK GY TO BLCK-CARB
4800
0 ROP (min/ft) 10
0 Gas (units) 500
TG, C1-C5
1 10 100 1000
(4799-4808) LS - SIMILAR 4727-4760
(4808-4821) LS - TR WHT TO CRM CHLK & LT GRY TO GRYISH TAN & TR TAN, CRYPTO TO VVF-XLN, SLT TO EXTRLY OOLITIC (LT GRY & TAN), MATRIX CHLK, SUB-CHLK, TR SUB-SUCRO & PACKSTN, DLL YEL FLO, NO CUT, NO VIS POR, W/TR CHERT, GRY TO TAN, OPQUE
CN
160 U. BG
WOB 40
RPM 80
PP 775
WT 8.9
VIS 54
(4821-4830) LS - LT GRY TO GRYISH TAN, CRYPTO TO VF-XLN, TR SUB-CHLK, SUB-SUCRO, PACKSTN & SUB-LITHOGR, TR TO HVY TR SH TO V OOLITIC (LT GRY TO TAN), DLL YEL FLO, NO CUT, NO VIS POR W/TR CHERT, GRY TO TAN, OPQUE
CN
(4830-4839) SH - MD TO V DRK GY-CALC TO V DRK GRY TO BLCK-CARB
(4839-4847) LS - W/TR CHERT, SIMILAR 4821-4830
4850
(4847-4852) SH - V DRK GRY TO BLCK-CARB
170 U. BG
(4852-4858) LS - W/TR CHERT, SIMILAR 4821-4830
(4858-4961) INTERBEDDED LS & SH (1) LS TR WHT TO CRM CHLK & LT GRY TO TAN, CRYPTO TO VF-XLN, SUB-CHLK, SUB-SUCRO & PACKSTN, TR TO HVY TR PHANTOM OOLITIC TO OOLITIC, DLL YEL FLO IP, NO CUT, NO VIS POR
CN
113 U. BG


4900
4950
5000
5050
5100
5150
0
ROP (min/ft)
10
0
Gas (units)
500
WOB 40
RPM 80
PP 750
WT 9.0
VIS 60
WOB 40
RPM 80
PP 750
WT 9.0
VIS 65
(2) LS - LT TO MD GRY, SLT TO V SHLY, CRYPTO-XLN, SUB-CHLK &/OR SHLY TO PACKSTN, NO FLO, NO CUT, NO VIS POR
(3) SH - MD TO V DRK GRY, SLT TO EXTRLY CALC IP, GRDNG TO EXTRLY SHLY LS W/TR BLCK-CARB LOOKING
(4961-5025) INTERBEDDED LS & SH - SIMILAR 4858-4961 W/SCATTERED THIN INTERBEDS SH, V DRK GRY TO BLCK-CARB
(5025-5040) LS - GRYISH TAN TO TAN, CRYPTO TO VVF-XLN, CHLK, SUB-CHLK, SUB-SUCRO & PACKSTN, V SCATTERED SPTD TN, BRWN TO BLCK OIL STN, DLL GLD YEL FLO, FLUSH TO FR STRMNG CUTS, NO VIS POR, POSS FRACTURING
(5040-5044) LS - SIMILAR 5025-5040, BECOMING SUCRO IP W/TR SLT OOLICASTIC TO PHANTOM OOLICASTIC, W/SPTD TN TO BRWN OIL STN, GLD YEL FLO & FLUSH TO GD STRMNG CUTS, SCATTERED, PR, FR, GD TO EXCEL MICRO-PP POR TO INTER-XLN POR & TR PR TO FR OOLICASTIC POR, POSS FRACTURING
(5044-5069) LS - DRK TAN TO BRWN, CRYPTO TO SLT TR VVF-XLN, SLT TR SUBOSUCRO, PACKSTN & SUB-LITHOGR, WIDELY SCATTERED TR BRWN OIL STN, DLL GLD YEL FLO W/FLUSH TO FR STRMNG CUTS, NO VIS POR, PROB FRACTURING
(5069-5106) INTERBEDDED LS & SH SIMILAR 4858-4961
(5106-5144) V THINLY INTERBEDDED LS & SH - SIMILAR 4858-4961 W/ABDT INTERBED SH, V DRK GRY TO BLCK-CARB
(5144-5205) LS W/SCATTERED INTERBEDDED SH (1) LS - LT GRY TO DRK TAN & BRWN, CRYPTO TO TR VVFN-XLN, TR SUB-SUCRO, PACKSTN & SUB-LITHOGR, DLL YEL FLO IP, NO CUT, NO VIS POR
CN
135 U. BG
CN
100 U. BG
62 U. BG
CN
88 U. BG
CN
TG, C1-C5
1
10
100
1000
65 U. BG
CN
152 U. BG
C1
C2
CN
60 U. BG
CN
C1
C2
62 U. BG
CN
94 U. BG
C1
C2
CN


WOB 40
RPM 80
PP 775
WT 9.0
VIS 53
0
ROP (min/ft)
10
0
Gas (units)
500
5200
(2) SCATTERED INTERBEDS SH - V DRK GRY TO BLCK-CARB LOOKING, SLT TO V CALC
(5205-5219) SH - MD TO DRK GRY TO BLCK W/ABDT LS SIMILAR 5144-5205
(5219-5224) PROB SH - V DRK GRY TO BLCK-CARB
(5224-5246) SH W/INTERBEDS LS (1) SH - MD GRY - SLTY, HVY SHINE IP TO DRK GRY W/HVY TR V DRK GRY TO BLCK & TR TO SCATTERED TR LT GREEN TO OLIVE GREEN W/SLT TR CARBONIFIED PLANT FOSS
(2) INTERBEDS LS - LT TO MD GRY - SLT TO FRLY SHLY TO GRYISH TAN, DRK TAN TO BRWN, CRYPTO TO TR VVFN-XLN, SUB-CHLK &/OR SHLY, TR SUB-SUCRO, PACKSTN & TR SUB-LITHOGR, V DLL YEL FLO IP, NO CUT, NO VIS POR
5250
F
F
(5246-5262) LS SDSTN - TANISH GRY TO MD GRY, VFN TO MD GR (GRS CRYPTO TO VVFN-XLN), COMPSED LS GRS FOSS FRAGS & TR OOLITES (GRY), MATRIX SUB-SUCRO & PACKSTN, TR TO HVY TR GLAUC, FINELY DISSEMINATED PYRITE IP, DLL YEL FLO IP, POSS LT TAN OIL STN, W/MILKY TO GD RING CUTS, NO VIS POR
(5262-5275) SH - MD GRY W/SILKY LUSTER IP, DRK GRY & TR GREENISH GRY & TR OLIVE GREEN
(5275-5314) LS SDST - LT GRY TO TAN, MOTTLED IP, VF TO COARSER GR (GRS CRYPTO TO VVFN-XLN), COMPOSED LM GRS, FOSS FRAGS & TR OOLITES (GRY TO TAN), MATRIX SUB-SUCRO TO TR SUCRO & PACKSTN, TR W/TR GLAUC &/OR CHLORITE, HVY TR SPTD, TO EVEN LT BRWN OIL STN W/DLL YEL TO YEL FLO, W/FLUSH TO GD STRMNG CUTS, TR TO HVY TR PR TO FR MICRO-PP & INTER-XLN POR IP W/PROB INTERBEDS SHALE SIMILAR 5262-5275
5300
DST #3
WOB 40
RPM 80
PP 800
WT 8.9
VIS 62
(5314-5337) QTZ SDST - LT GRY & GRYISH TAN TO TAN FROM OIL STN, VVFN GR ANG, ABDT CLAY FILLING IP &/OR ABDT SILT FILLING IP, TR TO HVY TR GLAUC &/OR CHLORITE, SCATTERED TR FINELY DISSEMINATED PYRITE, FAINT TO FR OIL ODOR, GLDN YEL FLO WHEN AIR DRIED W/FLUSH TO GD STRMNG CUTS, ADBT PR/FR TO GD MICRO-PPTO INTEGR POR, QUEST PERM IP
(5337-5349) SH - SIMILAR 5262-5275, SLTY & SDY IP, W/THIN BEDS &/OR LAMINAL, SLTSTN GRDNG TO SDST SIMILAR 5314-5337
5350
(5349-5362) SH - MD GRY W/SILKY LUSTER IP TO V DRK GRY, SLT TO V SILTY &/OR SDY IP, TR CALC
WOB 40
RPM 70
PP 750
WT 8.9
VIS 53
(5362-5379) SH - MD GRY W/SILKY LUSTER IP & DRK GRY, TR SILTY TO SDY W/ABDT OLIVE GREEN SH SLI TO EXTRLY SILTY IP GRDNG TO OLIVE GREEN SILT STN & TR TO ABDT LS GRY TO TAN, GREENISH IP, CRYPTO TO VVFN-XLN, SUB-CHLK, SUB-SUCRO, PACKSTN & SLI TR SUB-LITHOGR, TR W/FOSS FRAGS & LS GRS, DLL LT YEL FLO, NO CUT, NO VIS POR
(5379-5418) LS - MD GRY - SLI TO EXTRLY SHLY & TR WHT TO CRM - CHLK & ABDT LT GRY TO TAN, CRYPTO TO VVFN-XLN, SUB-CHLK, SUB-SUCRO & PACKSTN, DLL LT YEL FLO IP, NO CUT, NO VIS POR, W/PROB THIN INTERBEDS SH MD GRY W/MATT &/OR EARTHY TEXTURE (ABDT MORROW SH IN SAMPLES)
5400
0
ROP (min/ft)
10
0
Gas (units)
500
(5418-5471) LS - LT GRY, CRM TO TAN, CRYPTO TO VVFN-XLN, V TO EXTRLY MICRO-OOLITIC W/TR SMALL OOLITES IP & SLI TO FRLY QTZ SDY-VVFN GR - ANG, MATRIX TR SUB-CHLK, SUB-SUCRO TO TR SUCRO, DLL LT TO TR LT YEL FLO, NO CUT, NO VIS POR
5450
CN
57 U. BG
TG, C1-C5
1
10
100
1000
C1
C2
163 U. BG
CN
127 U. BG
CN
C1
C2
118 U. BG
CN
C1
C2
CN
C3
C4
C5
SHOW @ 143
CN
C1
C2
42 U. BG
CN
TG, C1-C5
1
10
100
1000
CN
C1
C2
38 U. BG
CN
C1


5500
5550
5600
5650
5700
0
ROP (min/ft)
10
0
Gas (units)
500
(5471-5513) LS - SIMILAR 5418-5471 W/TR TO ABDT WEATHERED PINKISH TO REDISH
(5513-5596) LS - TR TO ABDT WHT TO CRM-CHLK & LT GRY, CRM TO TAN, CRYPTO TO VVFN-XLN, FRLY TO EXTRLY OOLITIC (SM, MD & TR LG), MATRIX CHLK, SUB-SUCRO & PACKSTN, DLL YEL FLO, NO CUT, NO VIS POR W/TR TO HVY TR CHERT, LT GRY TO TAN, ORANGISH IP TO TR ORANGE, TRANSL TO OPQUE
(5596-5603) LS - HVY TR TO ABDT WHT TO CRM-CHLK W/CHLK OOLITES IP & GRYISH TAN TO TAN, CRYPTO TO VVFN-XLN, V OOLITIC (MED TO LG & TR SM), MATRIX CHLK, SUB-CHLK & SUB-SUCRO, DLL YEL FLO, NO CUT, NO VIS POR W/TR CHERT LT GRY TO TAN, ORANGISH IP, TRANSL TO OPQUE
(5603-5634) LS - W/CHERT SIMILAR 5513-5596 W/HVY TR TO ABDT LS, LT GRY TO TAN, CRYPTO-XLN PACKSTN TO SUB-LITHOGR, DLL YEL FLO, NO CUT, NO VIS POR
(5634-5785) INTERBEDDED &/OR GRADATIONAL LS & DOLOMITES
(1) FASTER DRLG DOLOMITE, LT GRY TO TAN, VVFN-XLN, SUB-SUCRO TO V SUCRO, CALC IP GRDNG TO DOLOMITIC LS, DLL YEL FLO, NO CUT, NO VIS POR
(2) SLOWER DRLG LS, LT GRY TO TAN, CRYPTO TO VVFN-XLN, DOLOMITIC IP GRDNG TO CALC DOLOMITES, SUB-CHLK, SUB-SUCRO, PACKSTN TO SUB-LITHOGR, DLL YEL FLO, NO CUT, NO VIS POR
(3) TR CHERT, GRY TO TAN OPQUE
WOB 40
RPM 80
PP 775
C1-C5
1
10
100
1000
C1
C2
CN
25 U. BG
24 U. BG
20 U. BG
22 U. BG


WT 9.1
VIS 60
5750
5800
50
0
ROP (min/ft)
10
0
Gas (units)
500
TD 5785'
30 U. BG
CN
C1
C2
20 U. BG
CN
TG, C1-C5
1
10
100
1000