

OPERATOR

Company: Darrah Oil Company, LLC
 Address: 125 N Market Ste1425
 Wichita, KS 67202-1700

Contact Geologist: Seth Evenson
 Contact Phone Nbr: 316-219-3390
 Well Name: Fanshier #1-4
 Location: 4-21s-13w NW-NE-SE-SW
 API: 15-185-24120-00-00
 Pool:
 State: Kansas

Field: Shaeffer-Rothgam
 Country: USA

Scale 1:240 Imperial

Well Name: Fanshier #1-4
 Surface Location: 4-21s-13w NW-NE-SE-SW
 Bottom Location:
 API: 15-185-24120-00-00
 License Number: 35615
 Spud Date: 10/3/2022 Time: 12:00 AM
 Region: Stafford Time: 12:00 AM
 Drilling Completed: 10/10/2022
 Surface Coordinates: 1019' FSL & 2241' FWL
 Bottom Hole Coordinates:
 Ground Elevation: 1888.00ft
 K.B. Elevation: 1901.00ft
 Logged Interval: 2700.00ft To: 0.00ft
 Total Depth: 3700.00ft
 Formation: Arbuckle
 Drilling Fluid Type: Chemical/Fresh Water Gel

CASING SUMMARY

	Surface	Intermediate	Main		
Bit Size					
Hole Size					
	Size	Set At	Type	# of Joints	Drilled Out At
Surf Casing	8 5/8" in	225 ft			
Int Casing					
Prod Casing	None in	None ft			

CASING SEQUENCE

Type	Hole Size	Casing Size	At
	0.00 in	0.00	0.00 ft

OPEN HOLE LOGS

Logging Company: Midwest Wireline
 Logging Engineer: D Schmidt
 Truck #:
 Logging Date: 10/10/2022 Time Spent:
 # Logs Run: 0 # Logs Run Successful: 0

LOGS RUN

Tool	Logged Interval	Logged Interval	Hours	Remarks	Run #
	0.00ft	0.00ft	0.00		0

LOGGING OPERATION SUMMARY

Date	From	To	Description Of Operation
10/10/2022	0.00ft	0.00ft	

SURFACE CO-ORDINATES

Well Type: Vertical
 Longitude:
 Latitude:
 N/S Co-ord: 1019' FSL

LOGGED BY



Company: James C Musgrove Petroleum LLC
 Address: 212 Main Street/PO Box 215
 Claflin, KS 67525

Phone Nbr: 620-588-4250 620-786-0839
 Logged By: KLG #307

Name: James C Musgrove

CONTRACTOR

Contractor: Duke Drilling
 Rig #: 7
 Rig Type: mud rotary
 Spud Date: 10/3/2022
 TD Date: 10/10/2022
 Rig Release:

Time: 12:00 AM
 Time: 12:00 AM
 Time:

ELEVATIONS

K.B. Elevation: 1901.00ft
 K.B. to Ground: 13.00ft

Ground Elevation: 1888.00ft

NOTES

Remarks:

The Darrah Oil Company, LLC.; was plugged and abandoned at the Rotary Depth 3700.

Respectfully Submitted,

James C Musgrove
 Petroleum Geologist

well comparison sheet

Formation	FANSHIER #1-4 DARRAH OIL COMPANY LLC NW-NE-SE-SW 4-21s-13w				CD KOOPMAN #1 TEXAS COMPANY NE-NE-SW 4-21s-13w				KOOPMAN #1 TEXACO NW-SE-SW 4-21s-13w			
	1901 KB				1891 KB		Relationship		1902 KB		Structural Relationship	
	Log	Sub-Sea	Sample	Sub-Sea	Log	Sub-Sea	Sample	Log	Log	Sub-Sea	Sample	Log
Anhydrite			769	1132								
Base Anhydrite			791	1110								
Heebner			3184	-1283								
Toronto			3203	-1302								
Douglas			3223	-1322								
Brown Lime			3304	-1403	3291	-1400		-3				
Lansing			3316	-1415	3304	-1413		-2	3329	-1427		12
Base Kansas City			3527	-1626								
Conglomerate Sand			3546	-1645	3534	-1643		-2	3556			
Arbuckle			3617	-1716	3586	-1695		-21	3598	-1696		-20
Rotary Total Depth			3700	-1799								
Total Depth			3701	-1800	3604	-1713		-87	3601	-1699		-101



TRIOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Darrah Oil Company

4-218-13W/ Stafford

125N Market STE 1426

Fanshier 1-4



Wichita KS 67202

ATTN: Jim Musgrove

Job Ticket: 66066

DST#: 1

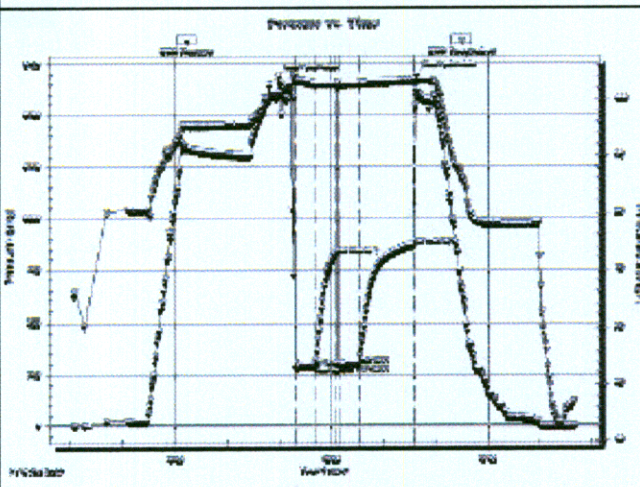
Test Start: 2022.10.07 @ 13:04:00

GENERAL INFORMATION:

Formation: No Whipstock: # (KB)
 Time Tool Opened: 17:16:30
 Time Test Ended: 22:40:30
 Interval: 3307.00 ft (KB) To 3396.00 ft (KB) (TVD)
 Total Depth: 3396.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Richard Samora
 Unit No: 66
 Reference Elevations: 1901.00 ft (KB)
 1886.00 ft (CP)
 KB to GR/CP: 13.00 ft

Serial #: 8366 Outside
 Press@RunDepth: 307.92 psig @ 3383.02 ft (KB) Capacity: 8000.00 psig
 Start Date: 2022.10.07 End Date: 2022.10.07 Last Calib.: 2022.10.07
 Start Time: 13:04:05 End Time: 22:40:30 Time On Btm: 2022.10.07 @ 16:56:46
 Time Off Btm: 2022.10.07 @ 19:36:00

TEST COMMENT: F: Tool slid 13' poked up mud Weak blow built to half inch
 S: No blow back
 FF: Flushed tool Strong blow BOB Built to 16"
 FS: Blow back built to 4"



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1688.31	100.86	Initial Hydro-static
20	286.69	103.91	Open To Flow (1)
43	294.34	103.01	Shut-In (1)
66	628.46	103.02	End Shut-In (1)
69	303.35	102.91	Open To Flow (2)
93	307.92	103.02	Shut-In (2)
166	671.91	103.62	End Shut-In (2)
180	1700.63	103.80	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
63.00	OSM 10%O 90%M	0.88
262.00	GOSM 30%G 5%O 65%M	3.63
262.00	Mud 100%M	3.63

Gas Rates

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Derrah Oil Company
 1224 N Market STE 1426
 Wichita KS 67202
 ATTN: Jim Musgrove

4-21S-13W/ Stafford
 Fanchler 1-4
 Job Ticket: 66067
 DST#: 2
 Test Start: 2022.10.06 @ 14:00:00

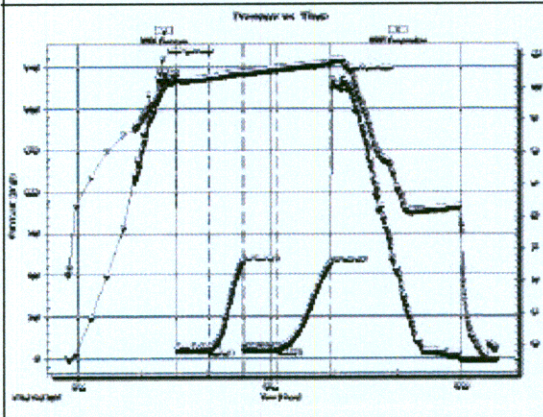
GENERAL INFORMATION:

Formation: H-L
 Deviated: No Whipstock: # (KB)
 Time Tool Opened: 16:32:16
 Time Test Ended: 21:31:00
 Interval: 3428.00 ft (KB) To 3832.00 ft (KB) (TVD)
 Total Depth: 3396.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Richard Samora
 Unit No: 66
 Reference Elevations: 1901.00 ft (KB)
 1886.00 ft (CP)
 KB to GR/CP: 13.00 ft

Serial #: 8366
 Press@RunDepth: 67.95 psig @ # (KB) Capacity: 8000.00 psig
 Start Date: 2022.10.06 End Date: 2022.10.06 Last Calib.: 1999.12.30

Start Time: 14:30:05 End Time: 21:30:59 Time On Blm: 2022.10.09 @ 16:19:16
 Time Off Blm: 2022.10.09 @ 19:05:16

TEST COMMENT: F 30 blow built to 1.8"
 IS 30 no blow
 FF 30 weak surface blow built to 1"
 FSI 49 no blow

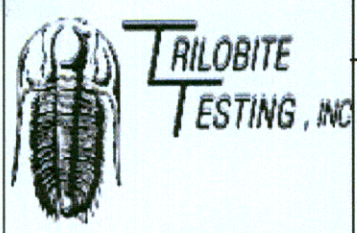


Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1797.37	99.28	Initial Hydro-static
13	81.88	101.41	Open To Flow (1)
53	84.43	101.67	Shut-In (1)
78	879.63	102.51	End Shut-In (1)
78	86.19	102.37	Open To Flow (2)
108	87.98	103.08	Shut-In (2)
168	872.98	104.01	End Shut-In (2)
169	1692.66	104.26	Final Hydro-static

Length (ft)	Description	Volume (bbl)
18.00	ODM 2%O 98%M	0.21

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

Recovery from multiple tests
 Trilobite Testing, Inc Ref. No: 86067 Printed: 2022.10.09 @ 22:45:23



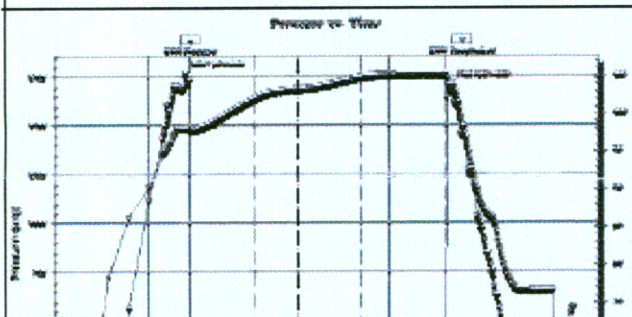
DRILL STEM TEST REPORT

Derrick Oil Company 4-219-13W/ Stafford
 Fanshler 1-4
 125N Market STE 1425 Job Ticket: 86068 DST#: 3
 Wichita KS 67202 Test Start: 2022.10.09 @ 09:09:00
 ATTN: Jim Musgrove

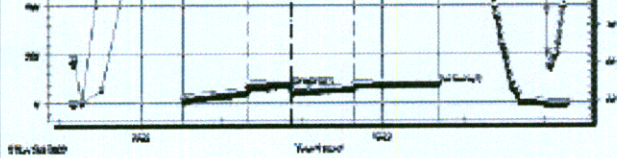
GENERAL INFORMATION:
 Formation: Conglomerate
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 08:31:45
 Time Test Ended: 11:17:45
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Richard Samora
 Unit No: 66
 Interval: 3524.00 ft (KB) To 3562.00 ft (KB) (TVD)
 Total Depth: 3562.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches-Hole Condition: Good
 Reference Elevations: 1801.00 ft (KB)
 1898.00 ft (CF)
 KB to GR/CF: 13.00 ft

Serial #: 8355
 Press@RunDepth: 53.27 psig @ ft (KB)
 Start Date: 2022.10.09 End Date: 2022.10.09
 Start Time: 09:09:05 End Time: 11:17:44
 Capacity: 8000.00 psig
 Last Calib.: 1699.12.30
 Time On Blm: 2022.10.09 @ 06:28:16
 Time Off Blm: 2022.10.09 @ 09:46:30

TEST COMMENT: 46-F: Fair blow built to 9.24"
 30-IS: No blow back
 46-FF: Fair Blow built to 4"
 60-FSI: No blow back



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1768.71	98.14	Initial Hydro-static
4	20.70	97.89	Open To Flow (1)
51	62.90	101.84	Shut-In (1)
54	104.66	103.26	End Shut-In (1)
64	63.11	103.26	Open To Flow (2)
131	63.27	104.80	Shut-In (2)
164	106.41	106.36	End Shut-In (2)
169	1712.35	103.80	Final Hydro-static



Recovery		
Length (ft)	Description	Volume (bbl)
66.00	WM 70%W 30%M	0.01
66.00	MW 60%W 40%M	1.19

Gas Rates		
Choke (inches)	Pressure (psig)	Gas Rate (Mcf/D)

* Recovery from multiple tests



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Demah Oil Company
 125N Market STE 1426
 Wichita KS 67202
 ATTN: Jim Musgrove

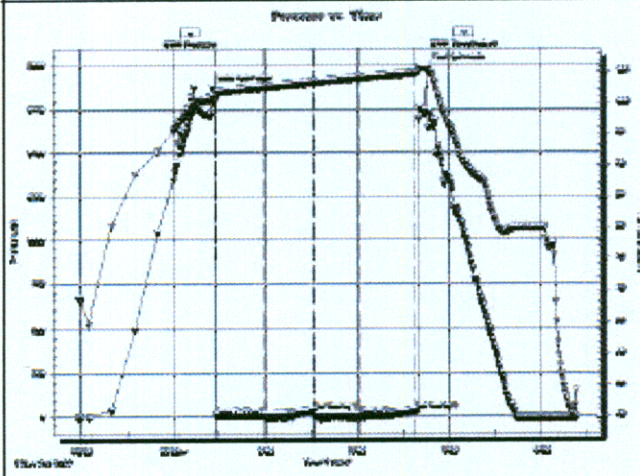
4-219-13W / Stafford
 Fanshier 1-4
 Job Ticket: 65069 DST#: 4
 Test Start: 2022.10.09 @ 22:58:00

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 00:28:00
 Time Test Ended: 04:23:15
 Interval: 3617.00 ft (KB) To 3629.00 ft (KB) (TVD)
 Total Depth: 3396.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Richard Samora
 Unit No: 66
 Reference Elevations: 1901.00 ft (KB)
 1899.00 ft (CF)
 KB to GRCP: 13.00 ft

Serial #: 8355
 Press@RunDepth: 16.18 psig @ ft (KB)
 Start Date: 2022.10.09 End Date: 2022.10.10
 Start Time: 22:58:05 End Time: 04:23:14
 Capacity: 8000.00 psig
 Last Calib.: 1899.12.30
 Time On Blm: 2022.10.10 @ 00:26:45
 Time Off Blm: 2022.10.10 @ 02:46:15

TEST COMMENT: 30-F: Weak surface blow built to 5"
 30-ES: No blow back
 30-FF: No blow
 30-IS: No blow back



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1873.04	100.97	Initial Hydro-static
3	14.68	101.01	Open To Flow (1)
34	16.11	102.62	Shut-In(1)
66	42.11	103.41	End Shut-In(1)
67	15.22	103.42	Open To Flow (2)
96	16.18	104.13	Shut-In(2)
132	41.53	104.90	End Shut-In(2)
140	1992.41	105.65	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
3.00	mud	0.04

Gas Rates		
Choke (inches)	Pressure (psig)	Gas Rate (Mcf/D)

* Recovery from multiple tests



**TRIOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Demrah Oil Company

4-218-13W/ Stafford

125N Market STE 1425
Wichita KS 67202

Fanshler 1-4

Job Ticket: 65070

DST#: 5

ATTN: Jim Musgrove

Test Start: 2022.10.10 @ 18:30:00

GENERAL INFORMATION:

Formation:

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 19:59:15

Time Test Ended: 23:00:45

Test Type: Conventional Straddle (Reset)

Tester: Richard Samora

Unit No: 66

Interval: 3396.00 ft (KB) To 3424.00 ft (KB) (TVD)

Total Depth: 3396.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 1901.00 ft (KB)

1686.00 ft (CF)

KB to GR/CF: 15.00 ft

Serial #: 6639

Inside

Press@RunDepth: 36.28 psig @ 3396.01 ft (KB)

Start Date: 2022.10.10

End Date:

2022.10.10

Start Time: 18:30:05

End Time:

23:00:44

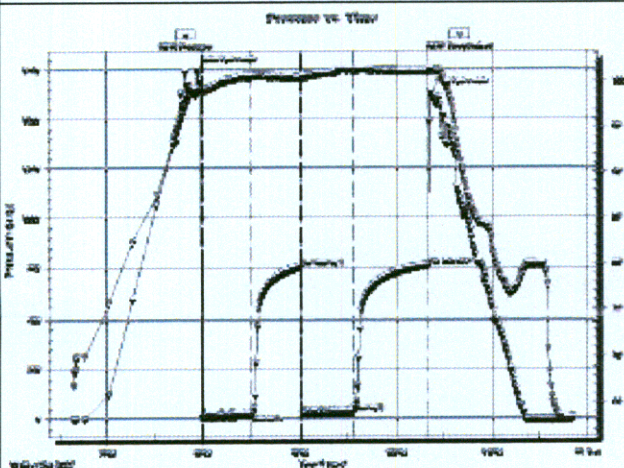
Capacity: 8000.00 psig

Last Call: 1690.12.30

Time On Btm: 2022.10.10 @ 19:56:15

Time Off Btm: 2022.10.10 @ 22:21:45

TEST COMMENT: 30-F: Fair blow built to 5"
30-F1: No blow back
30-F2: Fair blow built to 2.3"
45-F1: No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1753.46	99.06	Initial Hydro-static
3	15.07	98.95	Open To Flow (1)
34	25.15	100.67	Shut-In (1)
65	798.40	100.52	End Shut-In (1)
66	28.42	100.26	Open To Flow (2)
98	36.28	101.34	Shut-In (2)
145	766.46	101.19	End Shut-In (2)
146	1637.66	101.30	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
6.00	mud	0.07

* Recovery from multiple tests

Gas Rates

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

ROCK TYPES

	Cht vari		Lmst fw7>		Carbon Sh		Slst
	Dolprim		shale, grn		shale, red		
	Dolsec		shale, gry		Ss		

OTHER SYMBOLS

INTERVALS

Oil Show

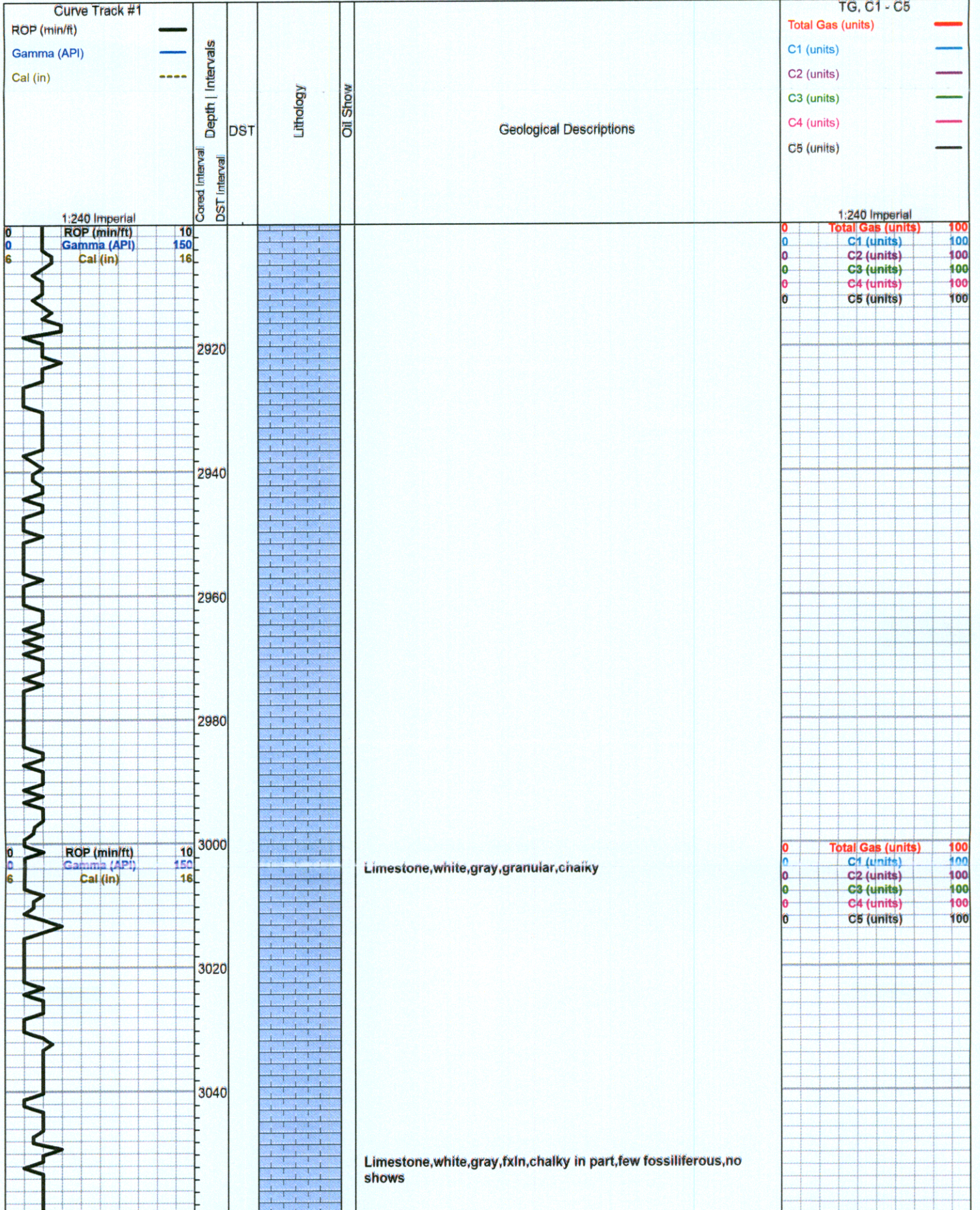
DST

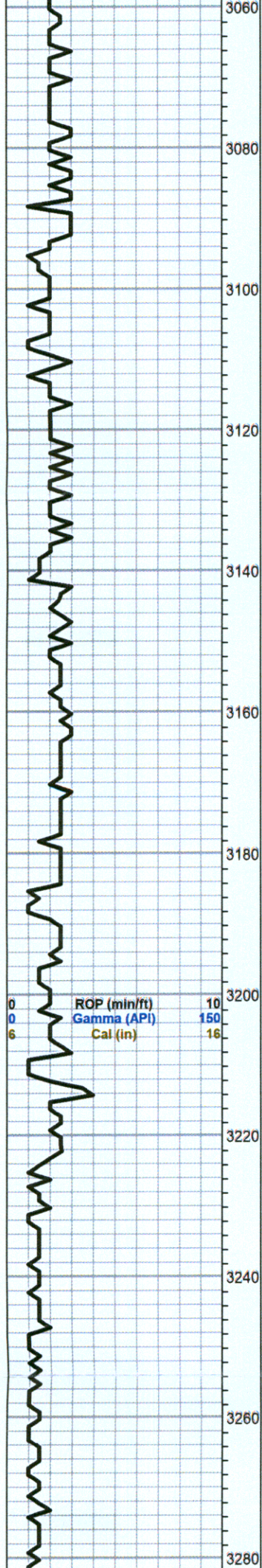
INTERVALS

- Core
- Good Show
- Fair Show
- Poor Show
- Spotted or Trace
- Questionable Str
- D Dead Oil Str
- Fluorescence
- * Gas

Oil Show

- DST Int
- DST alt
- Core
- || tail pipe





as above

3080

Shale,black,carbonaceous

3100

Limestone,gray,tan,micro-crystalline,chalky,poorly developed porosity,no shows

3120

Limestone,tan,fxln,foss,chalky,poor porosity

3140

Limestone,tan,fxln,chalky with Chert,gray,smokey gray,boney

3160

Limestone,tan,brown,fxln,slightly cherty,poor visible porosity,no shows

3180

Limestone,as above,with white,chalky Limestone and gray,boney Chert

HEEBNER 3184(-1283)

Shale,black,carbonaceous

3200

Shale,gray,green,soft

TORONTO 3207(-1306)

Limestone,tan,fxln,slightly foss.,dolomitic,no shows

3220

Limestone,white,dolomitic,medium crystalline,poorly developed porosity,no shows

DOUGLAS 3223(-1322)

Shale,gray,grayish green,maroon,silty

3240

Sand,gray,very fine grained,micaeous,silty,poor visible porosity,no shows

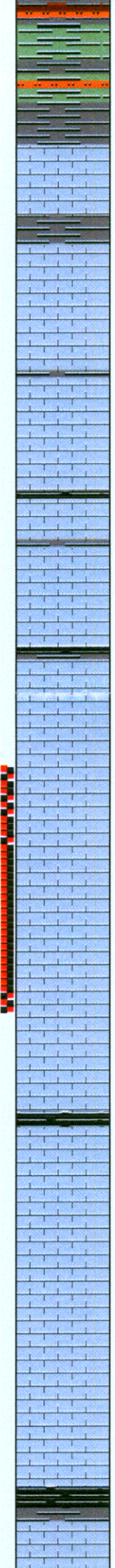
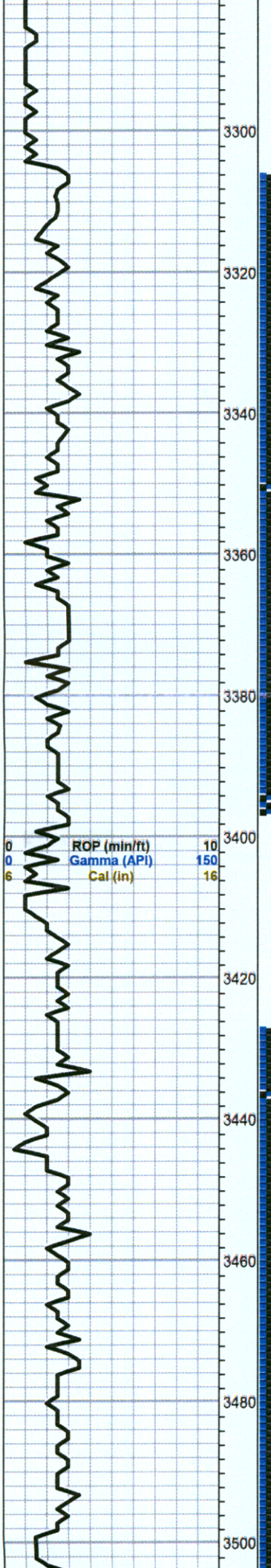
3260

Shale,gray,grayish green,rusty brown,maroon, soft

3280

shale as above ,micaeous, soft

increase gray,dark gray,silty shale



as above

BROWN LIME 3304

Limestone,tan,brown,fxln,slightly cherty, dense

LANSING 3316

Limestone,tan,gray,fxln,slightly foss.,poor visible porosity

as above

Limestone,white,gray,fxln,chalky,scattered pinpoint type porosity,brown spotted stain,trace of free oil and no odor

Limestone,white,gray,dense

Limestone,tan,oolitic,chalky,fair porosity,golden brown stain,trace of free oil and no odor

Shale,black,gray

Limestone,gray,white,oolitic,chalky,dark brown to brown spotted stain,show of free oil and questionable odor in fresh samples.

Limestone,tan,gray,cream,oomoldic, fair oomoldic porosity,trace poor spotty stain,no free oil and no odor

Limestone,tan,fxln,cherty in part, few chalky,dense,trace gray, boney, Chert

Limestone,white,gray,oomoldic,fair oomoldic porosity, dark brown stain, fair show of free oil and faint odor

Limestone,white,gray,oolitic,chalky in part,light brown stain no free oil and no odor

Limestone,gray,white,oolitic,sub oomoldic,fair porosity,gray,black and brown staining, trace of free oil and no odor

Shale,black,carbonaceous,with gray soft shale

Limestone,white,gray,finely oolitic,fair pinpoint to fine vuggy type porosity,slightly chalky,brown and black stain and

DST #1 3307-3396
20-20-30-60

Blow Weak ,tool,slid 13' picked up mud. 2nd Open;Flushed tool,good blow 15 inches

Recovery, 252'Mud,252'Slightly oil cut gassy mud(5% oil,30%gas,65% mud)

65'Oil cut mud(10% oil,90% mud)

BHP 828-872 psi
FP 286-294,303-308 psi(flow pressures questionable..

HSH 1683-1700 psi

DST#5 3390-3424 (Straddle Test)

30-30-30-45

Blow,Weak
Recovery 5' Mud

BHP 758-766 psi
FP 15-25,28-36 psi
HSH 1753-1638 psi

0	Total Gas (units)	100
0	C1 (units)	100
0	C2 (units)	100
0	C3 (units)	100
0	C4 (units)	100
0	C5 (units)	100

DST#2 3428-3532

30-30-30-45

Blow,weak
Recovery, 15' very slightly oil cut mud(2% oil,98% mud)

BHP 580-573 psi
FP 52-54,56-58 psi
HSH 1797-1693 psi

saturation, show of free oil and faint odor

Limestone, white, gray, fossiliferous, chalky, poorly developed porosity, no shows

BASE KANSAS CITY 3527

Shale, gray, green, soft
Limestone, white, gray, tan, fxln, dense

shale, red, green, black

CONGLOMERATE SAND 3547

Sand, white, clear, quartzitic, very fine grained, sub-rounded, rounded, good sorting, friable, fair intergranular porosity, calcareous in part, golden brown and light brown stain and saturation, show of free oil and questionable odor with Sand, white, calcareous (barren)

Shale, maroon, green, black, purple/gray, soft silty

Trace Sand, gray, sub-rounded, poor porosity, black dead stain, no free oil and no odor

Chert, orange, red, gray and white, boney, trace black staining, no free oil and no odor

Chert, varied colored, boney, black edge staining, no free oil and no odor

Shale, red, green, soft

ARBUCKLE 3612(-1711)

Dolomite, white, gray, fxln, sucrosic, fair porosity, gray and black stain, show of free oil (50% dead appearing) and fair odor in fresh samples

Dolomite, gray, tan, as above, increase in porosity, black and gray and brown stain, show of free oil (50% dead) and faint odor in fresh samples

Dolomite, white, gray, sucrosic, fair pinpoint type porosity black, gray and brown staining, trace of free oil and faint odor in fresh samples

Dolomite, as above, with Dolomite, white, gray, medium crystalline, fair intercrystalline porosity, black stain, no free oil and faint odor

Dolomite, gray, tan, medium crystalline, fair intercrystalline porosity, black and gray to brown stain, no free oil and questionable odor

Dolomite, tan, fine and medium crystalline, few sucrosic, fair porosity, no show of free oil with questionable odor with Chert, white and gray, boney

ROTARY TOTAL DEPTH 3700(-1799)

DST#3 3524-3562
45-30-45-60

Blow Fair (9.25 " decrease to 4" end of 2nd flow period)

Recovery, 150' muddy water

BHP 105-106 psi
Fp 21-63, 63-83 psi
HSH 1769-1712 psi

0	Total Gas (units)	100
0	C1 (units)	100
0	C2 (units)	100
0	C3 (units)	100
0	C4 (units)	100
0	C5 (units)	100

DST#4 3617-3629

30-30-30-45

Blow, weak

Recovery 5' mud

BHP 42-42 psi

FP 15-16, 15-16 psi

HSH 1873-1992 psi

