OPERATOR

Company:	Younger Energy Company		
Address:	9415 E. Harry Suite 403, Bldg 400 Wichita, KS 67207		
Contact Geologist:			
Contact Phone Nbr:	316-681-2542		
Well Name:	Disque L "21" #2		
Location:	Sec. 23 - T17S - R11W		
API:	15-009-26369-0000		
Pool:		Field:	Kraft - Prusa
State:	Kansas	Country:	USA

Scale 1:240 Imperial

Well Name:	Disque L "21" #2		
Surface Location:	Sec. 23 - T17S - R11W		
Bottom Location:			
API:	15-009-26369-0000		
License Number:	30705		
Spud Date:	10/11/2022	Time:	5:15 AM
Region:	Barton County		
Drilling Completed:	10/17/2022	Time:	4:00 AM
Surface Coordinates:	4620' FSL & 4290' FEL		
Bottom Hole Coordinates:			
Ground Elevation:	1857.00ft		
K.B. Elevation:	1865.00ft		
Logged Interval:	2700.00ft	To:	3369.00ft
Total Depth:	3369.00ft		
Formation:	Arbuckle		
Drilling Fluid Type:	Chemical/Fresh Water Gel		

SURFACE CO-ORDINATES

Well Type:	Vertical
Longitude:	-98.513208
Latitude:	38.563571
N/S Co-ord:	4620' FSL
E/W Co-ord:	4290' FEL

LOGGED BY

Keith Reavis
Consulting Geologist

Company:	Keith Reavis, Inc.		
Address:	3420 22nd Street Great Bend, KS 67530		
Phone Nbr:	620-617-4091		
Logged By:	KLG #136	Name:	Keith Reavis

CONTRACTOR

Contractor:	Duke Drilling Company		
Rig #:	2		
Rig Type:	mud rotary		
Spud Date:	10/11/2022	Time:	5:15 AM
TD Date:	10/17/2022	Time:	4:00 AM
Rig Release:		Time:	

ELEVATIONS

K.B. Elevation: 1865.00ft Ground Elevation: 1857.00ft
K.B. to Ground: 8.00ft

NOTES

Based on results of DST #2 and electrical log analysis, 5 1/2' production casing was run and cemented at depth to further test the Arbuckle through perforations and stimulation.

A Bloodhound gas detection system operated by Bluestem Labs was employed during the drilling of this well. ROP and gas data, as well as gamma ray and caliper curves from the electrical log suite were imported into this log.

The samples were saved and will be available for review at the Kansas Geological Survey Well Sample Library located in Wichita KS.

Respectfully submitted
Keith Reavis

Younger Energy Company

daily drilling report

DATE	7:00 AM DEPTH	REMARKS
10/14/2022	2545	Geologist Keith Reavis on location @1000 hrs, 2599 ft, tripping plugged bit during displacement, back on bottom, finish displacement, resume drilling King Hill, Queen Hill, Heebner
10/15/2022	3100	drilling ahead, Douglas, Lansing, show and kick in H zone warrants test, short trip, ctch, TOH w/bit, in w/tools, conduct DST #1, successful test,
10/16/2022	3275	TIH w/bit, resume drilling, lower KC and Arbuckle, show in Arbuckle warrants test, TOH w/bit and in w/tools, conduct and complete DST #2, successful test, TIH w/bit
10/17/2022	3369	back on bottom w/bit, rathole ahead and RTD 3369' @ 400am, ctch, trip out for logs, conduct logging operations, geologist off location 1100 am

Younger Energy Company

well comparison sheet

	DRILLING WELL Disque - 21 4620' FSL & 4290' FEL Sec 23-T17S-R11W				COMPARISON WELL Younger - Disque #1 NW NW NW Sec 23-T17S-R11W				COMPARISON WELL Petroleum Ener. - Disque A-2 E2 SW NW Sec 23-T17S-R11W			
	1865 KB				1858 KB		Structural Relationship		1859 KB		Structural Relationship	
Formation	Sample	Sub-Sea	Log	Sub-Sea	Log	Sub-Sea	Sample	Log	Log	Sub-Sea	Sample	Log
King Hill	2756	-891	2758	-893	2744	-886	-5	-7				
Queen Hill	2830	-965	2833	-968	2818	-960	-5	-8				
Heebner	2909	-1044	2914	-1049	2900	-1042	-2	-7	2914	-1055	11	6
Douglas	2940	-1075	2945	-1080	2932	-1074	-1	-6	2945	-1086	11	6
Brown Lime	3016	-1151	3020	-1155	3005	-1147	-4	-8	3021	-1162	11	7
Lansing	3031	-1166	3032	-1167	3019	-1161	-5	-6	3034	-1175	9	8
BKC	3290	-1425	3294	-1429	3282	-1424	-1	-5				
Arbuckle	3306	-1441	3299	-1434	3299	-1441	0	7	3296	-1437	-4	3
Total Depth	3369	-1504	3368	-1503	3313	-1455	-49	-48	3302	-1443	-61	-60

Drill Stem Test #1

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Younger Energy Co.
9415 E Harry St. Suite403
Wichita KS. 67207

ATTN: Keath Reavis

23-17S-11W/ Barton

Disque 21-2

Job Ticket: 65071 DST#: 1

Test Start: 2022.10.15 @ 16:04:00

GENERAL INFORMATION:

Formation: **Lansing H**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 18:08:30
Time Test Ended: 22:58:45

Test Type: Conventional Bottom Hole (Initial)
Tester: Richie Samora
Unit No: 66

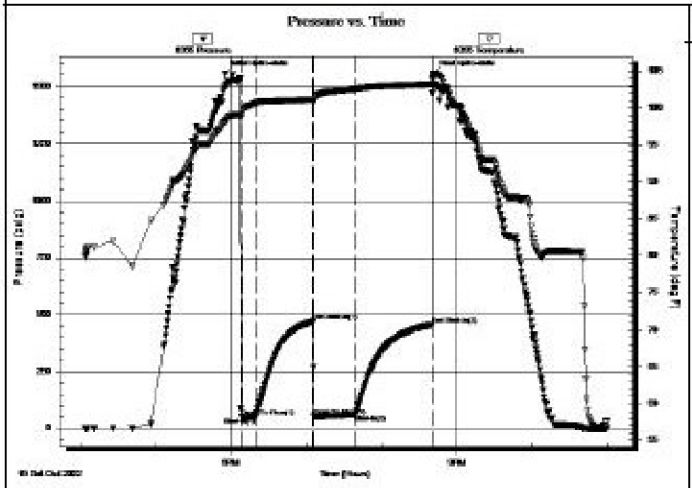
Interval: 3156.00 ft (KB) To 3194.00 ft (KB) (TVD)
Total Depth: 3194.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 1865.00 ft (KB)
1857.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8355
Press@Run Depth: 62.12 psig @ ft (KB)
Start Date: 2022.10.15 End Date: 2022.10.15
Start Time: 16:04:05 End Time: 22:58:44

Capacity: 8000.00 psig
Last Calib.: 1899.12.30
Time On Btm: 2022.10.15 @ 17:55:15
Time Off Btm: 2022.10.15 @ 20:41:00

TEST COMMENT: 10-IF: Strong blow BOB in 3:30, built to 29.85"
45-ISI: No blow back
30-FF: Strong blow BOB in 30 seconds, built to 58"
60-FSI: No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1556.17	98.22	Initial Hydro-static
14	52.65	99.15	Open To Flow (1)
25	49.83	100.67	Shut-In(1)
70	472.26	101.19	End Shut-In(1)
71	58.10	101.07	Open To Flow (2)
104	62.12	102.60	Shut-In(2)
165	457.00	103.27	End Shut-In(2)
166	1556.07	104.41	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
63.00	0SM 20% O 80%M	0.88
35.00	OSM 5%O 95%M	0.49
0.00	973 GIP	0.00

Gas Rates

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

Drill Stem Test #2

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Younger Energy Co.
9415 E Harry St. Suite403
Wichita KS. 67207

ATTN: Keath Reavis

23-17S-11W/ Barton

Disque 21-2

Job Ticket: 65072 **DST#: 2**

Test Start: 2022.10.16 @ 15:05:00

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 16:52:15
Time Test Ended: 21:56:15

Test Type: Conventional Bottom Hole (Reset)
Tester: Richie Samora
Unit No: 66

Interval: 3285.00 ft (KB) To 3319.00 ft (KB) (TVD)
Total Depth: 3194.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

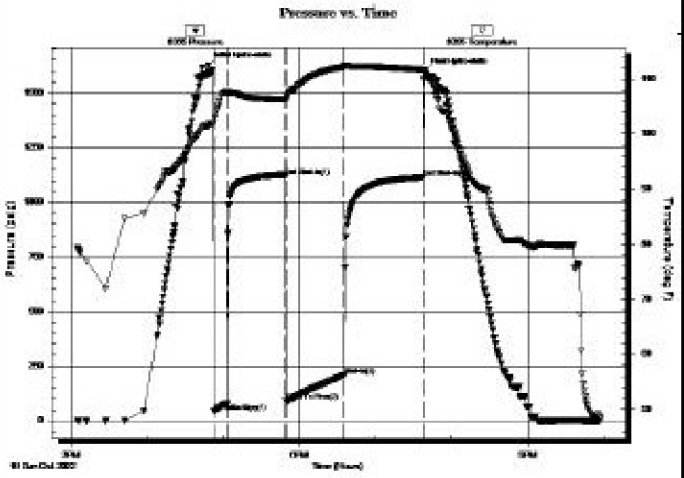
Reference Elevations: 1865.00 ft (KB)
1857.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8355
Press@Run Depth: 209.57 psig @ ft (KB)
Start Date: 2022.10.16 End Date: 2022.10.16

Capacity: 8000.00 psig
Last Calib.: 1899.12.30

Start Time:	15:05:05	End Time:	21:56:14	Time On Btm:	2022.10.16 @ 16:48:00
				Time Off Btm:	2022.10.16 @ 19:38:30

TEST COMMENT: 10-IF: Strong blow BOB in 8 minutes, built to 14.13"
45-ISI: No blow back
45-FF: Strong blow BOB in 11 minutes, built to 28.07"
60-FSI: No Blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1626.80	101.53	Inital Hydro-static
5	42.75	101.90	Open To Flow (1)
15	78.39	107.43	Shut-In(1)
61	1119.84	106.25	End Shut-In(1)
62	88.72	106.10	Open To Flow (2)
107	209.57	112.23	Shut-In(2)
170	1115.43	111.64	End Shut-In(2)
171	1598.76	111.04	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
63.00	WM 85%W 15%M	0.88
63.00	GOCM 10%G 45%O 30%W 15%M	0.88
252.00	HOCM 30%O 70%M	3.53
171.00	GO 10%G 90%O	2.40
120.00	GP 100%G	1.68

*Recovery from multiple tests

Gas Rates

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

ROCK TYPES

Congl, Dolprim, Lmst fw<7, Lmst fw7>, shale, grn, shale, gry, Carbon Sh, shale, red, Shcol

ACCESSORIES

MINERAL
- Glauconite
- Sandy
- Silty
- Chert White
- Mc Mica

FOSSIL
- F Fossils < 20%
- Oolite
- Pellets
- Oomoldic

TEXTURE
- C Chalky
- CX Cryptocrystalline
- L Lithogr

OTHER SYMBOLS

Oil Show
- Good Show
- Fair Show
- Poor Show
- Spotted or Trace
- Questionable Stn
- D Dead Oil Stn
- Fluorescence
- Gas

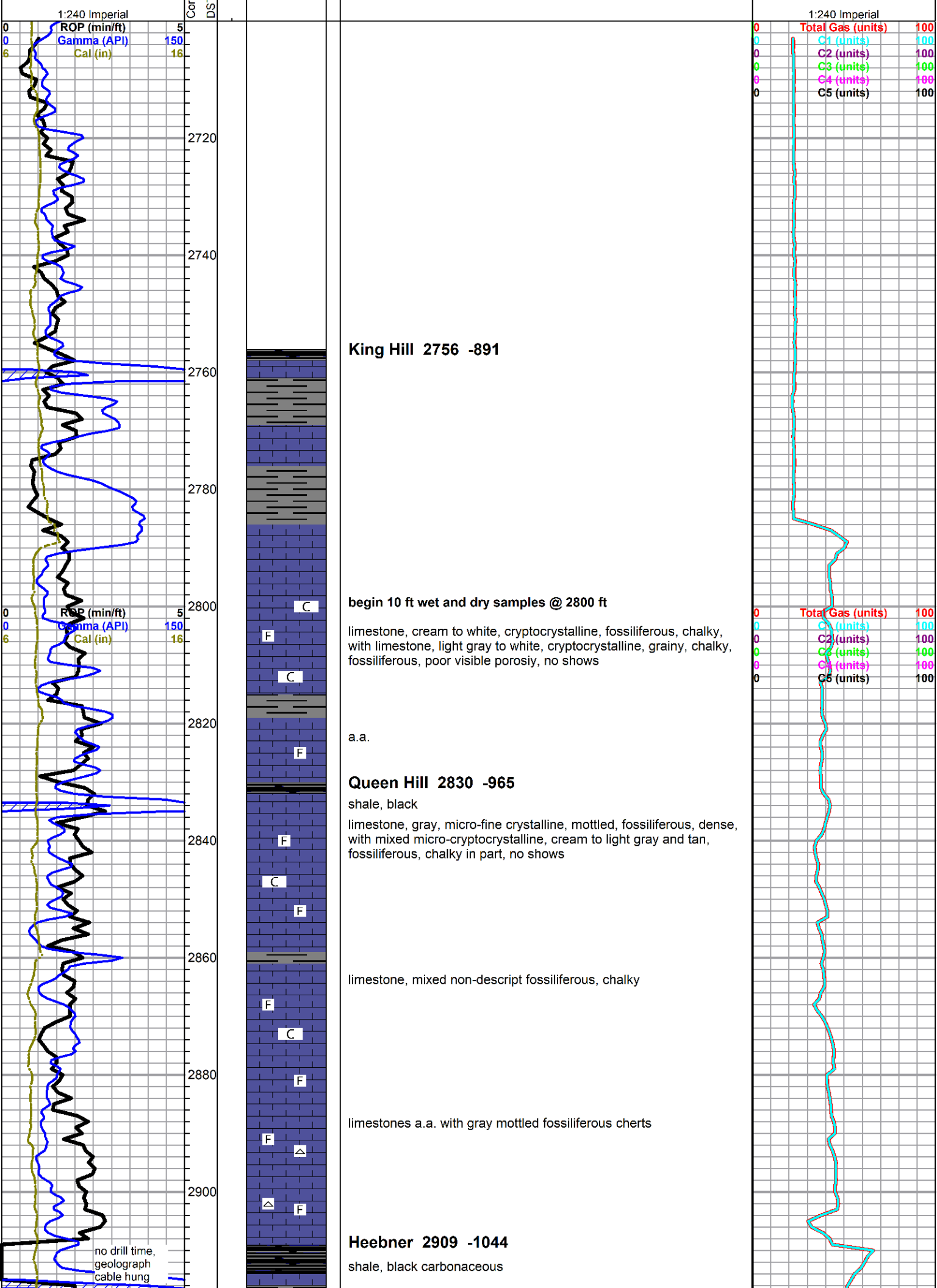
DST
- DST Int
- DST alt
- Core
- tail pipe

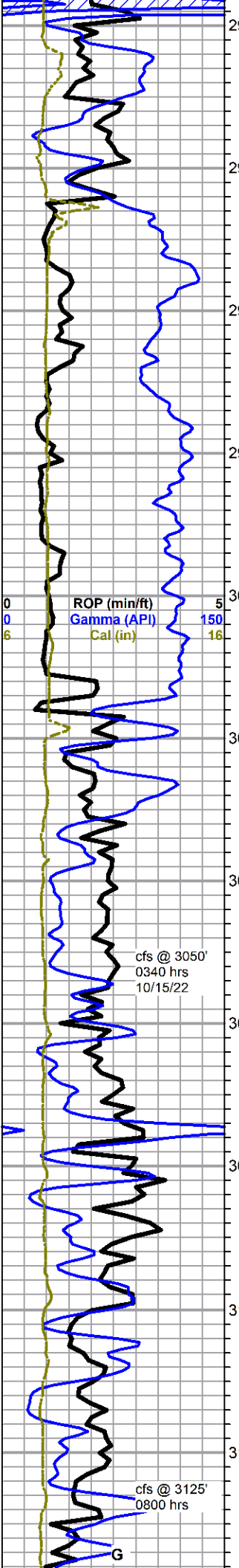
Printed by GEOstrip VC Striplog version 4.0.8.15 (www.grsi.ca)

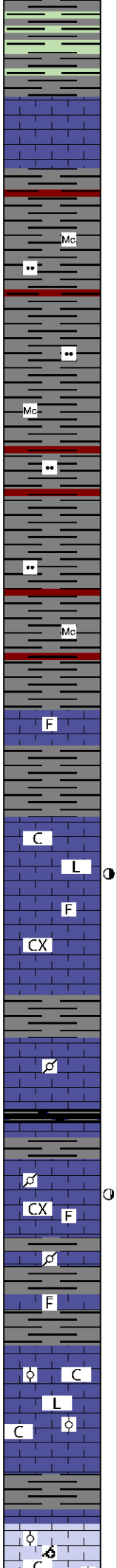
Curve Track #1
ROP (min/ft)
Gamma (API)
Cal (in)

Depth | Intervals
Planned Interval
Actual Interval
DST
Lithology
Oil Show
Geological Descriptions

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


1:240 Imperial
Cor
DST
0 ROP (min/ft) 5
0 Gamma (API) 150
6 Cal (in) 16
2720
2740
2760
2780
2800
2820
2840
2860
2880
2900
C
F
no drill time, geolograph cable hung
1:240 Imperial
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
King Hill 2756 -891
begin 10 ft wet and dry samples @ 2800 ft
limestone, cream to white, cryptocrystalline, fossiliferous, chalky, with limestone, light gray to white, cryptocrystalline, grainy, chalky, fossiliferous, poor visible porosiy, no shows
a.a.
Queen Hill 2830 -965
shale, black
limestone, gray, micro-fine crystalline, mottled, fossiliferous, dense, with mixed micro-cryptocrystalline, cream to light gray and tan, fossiliferous, chalky in part, no shows
limestone, mixed non-descript fossiliferous, chalky
limestones a.a. with gray mottled fossiliferous cherts
Heebner 2909 -1044
shale, black carbonaceous





shale, green and gray

Toronto 2930 -1065

limestone, white to cream, cryptocrystalline, slightly fossiliferous, dense, some chalk, no shows

Douglas 2940 -1075

shale, variable gray, silty in part, micaceous, some red shales, mostly soft

shales a.a.

Brown Lime 3016 -1151

limestone, gray and tan, crypto-microcrystalline, dense, fossiliferous

Lansing 3031 -1166

limestone, white to cream, cryptocrystalline, lithographic to slightly fossilifeorus, few fossiliferous specimens with some solution vugs and light edge staining, strong sour odor, trace bleeding gassy free oil, good fluoresence, slow milky white cut

a.a. some staining with tarry clingy oil

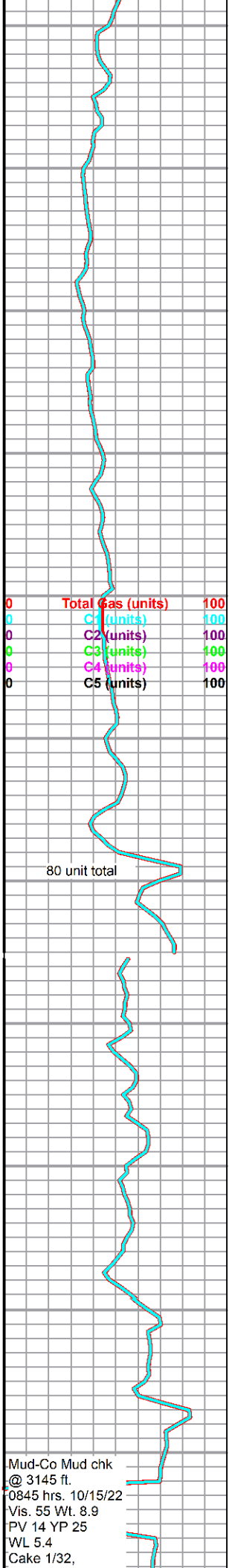
limestone, gray, mottled, pelletal, chalky in part, poor visible porosity no shows

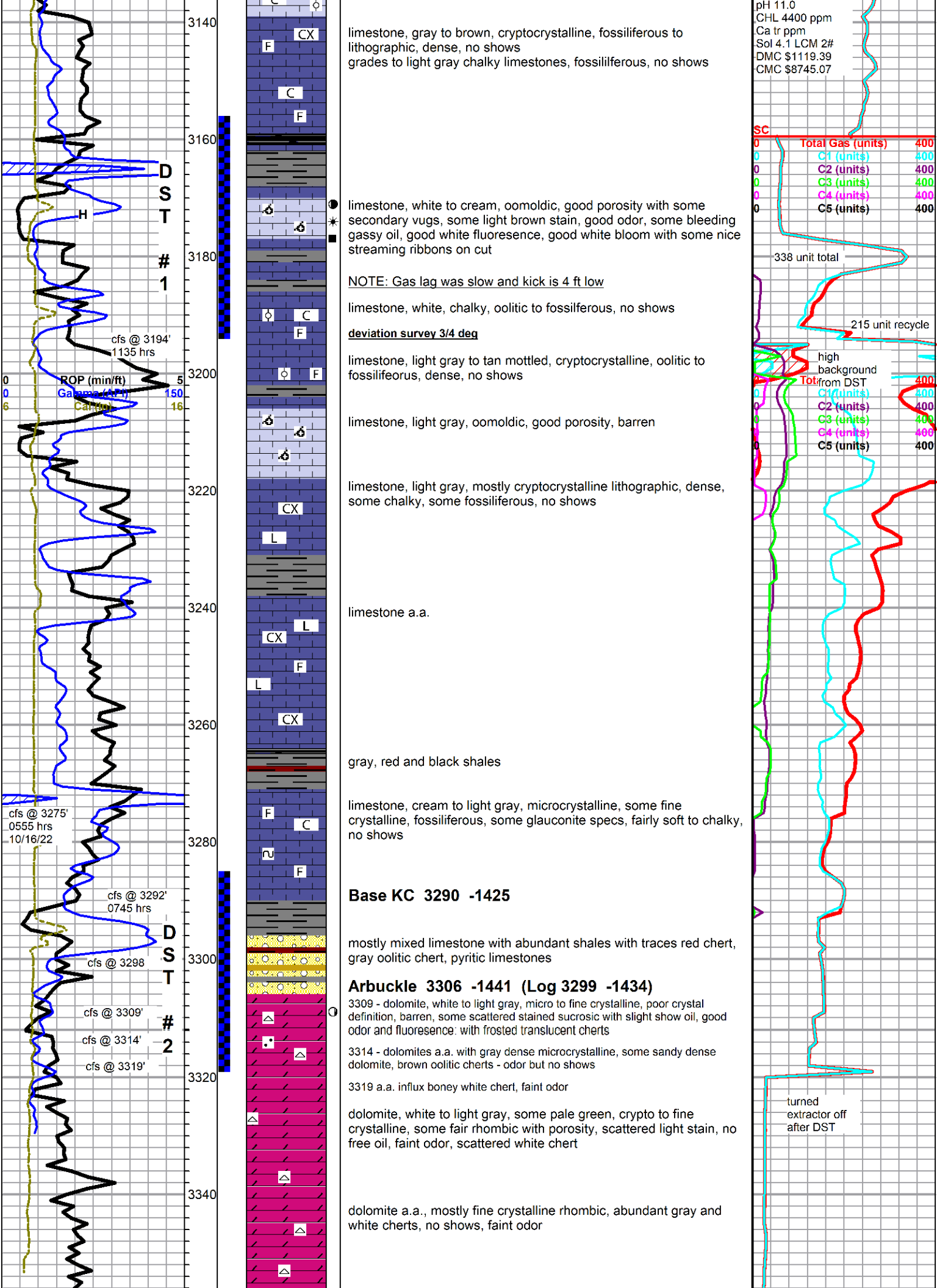
a.a. with influx white to cream limestone, cryptocrystalline, slightly fossiliferous, poor overall porosity but some slightly stained solution vugs, still carrying slight sour odor, no show free oil

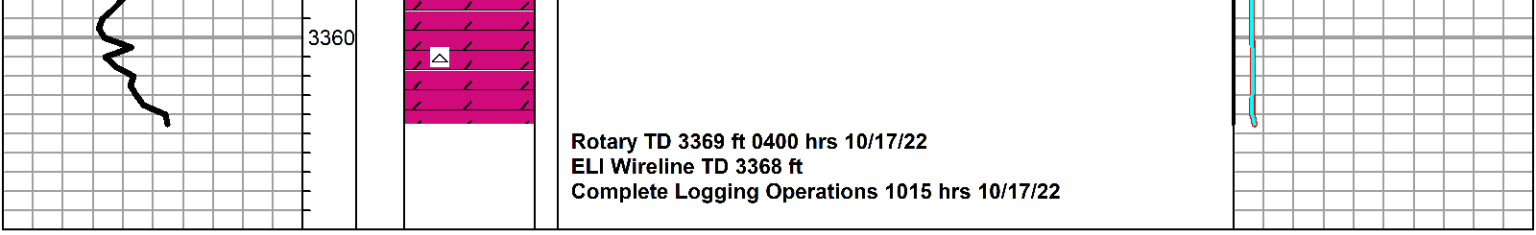
mixed limestones, gray to tan, grainy fossiliferous, pelletal, chalky lithographic, abundant shales, no shows

limestone, cream to light gray, oolitic, some weathered, some flattened, poor visible porosity, abundant chalk, abundant dark brown cherty limestone, mostly lithographic, no shows

limestone, cream to light gray, oomoldic to oolitic, some good porosity, barren, abundant chalk




3140
3160
3180
3200
3220
3240
3260
3280
3300
3320
3340
DST #1
DST #2
H
ROP (min/ft)
Gamma (API)
Caliper
cfs @ 3194'
1135 hrs
cfs @ 3275'
0555 hrs
10/16/22
cfs @ 3292'
0745 hrs
cfs @ 3298
cfs @ 3309'
cfs @ 3314'
cfs @ 3319'
limestone, gray to brown, cryptocrystalline, fossiliferous to lithographic, dense, no shows
grades to light gray chalky limestones, fossililferous, no shows
limestone, white to cream, oomoldic, good porosity with some secondary vugs, some light brown stain, good odor, some bleeding gassy oil, good white fluoresence, good white bloom with some nice streaming ribbons on cut
NOTE: Gas lag was slow and kick is 4 ft low
limestone, white, chalky, oolitic to fossilferous, no shows
deviation survey 3/4 deg
limestone, light gray to tan mottled, cryptocrystalline, oolitic to fossilifeorus, dense, no shows
limestone, light gray, oomoldic, good porosity, barren
limestone, light gray, mostly cryptocrystalline lithographic, dense, some chalky, some fossiliferous, no shows
limestone a.a.
gray, red and black shales
limestone, cream to light gray, microcrystalline, some fine crystalline, fossiliferous, some glauconite specs, fairly soft to chalky, no shows
Base KC 3290 -1425
mostly mixed limestone with abundant shales with traces red chert, gray oolitic chert, pyritic limestones
Arbuckle 3306 -1441 (Log 3299 -1434)
3309 - dolomite, white to light gray, micro to fine crystalline, poor crystal definition, barren, some scattered stained sucrosic with slight show oil, good odor and fluoresence: with frosted translucent cherts
3314 - dolomites a.a. with gray dense microcrystalline, some sandy dense dolomite, brown oolitic cherts - odor but no shows
3319 a.a. influx boney white chert, faint odor
dolomite, white to light gray, some pale green, crypto to fine crystalline, some fair rhombic with porosity, scattered light stain, no free oil, faint odor, scattered white chert
dolomite a.a., mostly fine crystalline rhombic, abundant gray and white cherts, no shows, faint odor
pH 11.0
CHL 4400 ppm
Ca tr ppm
Sol 4.1 LCM 2#
DMC $1119.39
CMC $8745.07
SC
Total Gas (units)
C1 (units)
C2 (units)
C3 (units)
C4 (units)
C5 (units)
338 unit total
215 unit recycle
high background from DST
turned extractor off after DST


3360
Rotary TD 3369 ft 0400 hrs 10/17/22
ELI Wireline TD 3368 ft
Complete Logging Operations 1015 hrs 10/17/22