

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

Form ACO-1

January 2018

Form must be Typed

Form must be Signed

All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

New Well Re-Entry Workover

Oil WSW SWD

Gas DH EOR

OG GSW

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 EOR Conv. to SWD

Plug Back Liner Conv. to GSW Conv. to Producer

Commingled Permit #: _____

Dual Completion Permit #: _____

SWD Permit #: _____

EOR Permit #: _____

GSW Permit #: _____

Spud Date or Date Reached TD Completion Date or Recompletion Date

API No.: _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE NW SE SW

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ 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: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

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: _____

Confidential Release Date: _____

Wireline Log Received Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT I II III Approved by: _____ Date: _____

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

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 <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Geologist Report / Mud Logs <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run:	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> 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

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

1. Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*
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)*

Date of first Production/Injection or Resumed Production/Injection:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____			
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-1071
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. **3599**

Date	Sec.	Twp.	Range	County	State	On Location	Finish
9/26/23	21	5	21	Norton	Kansas		8:30pm

Location Hwy 24 & 18 1/4 E 13 N 1/2 W 3N WINTO

Lease	Well No.	Owner
Glennemeier A	4	To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.
Contractor	Type Job	Charge To
Discovery Drilling Rig 4	Surface	Four Winds
Hole Size	T.D.	Csg.
12 1/4	222	8 3/8
Tbg. Size	Depth	Street
	221.8	
Tool	Depth	City
		State
Cement Left in Csg.	Shoe Joint	Cement Amount Ordered
20'	20'	190 2% 3% cc 2% gel
Meas Line	Displace	
	12.75	

EQUIPMENT

Pumptrk	No.	Cementer	Common
16		Tim	152
Bulktrk	No.	Driver	Poz. Mix
20		Nick	38
Bulktrk	No.	Driver	Gel.
PH		David	3
			Calcium
			7

JOB SERVICES & REMARKS

Remarks:	Hulls
Rat Hole	Salt
Mouse Hole	Flowseal
Centralizers	Kol-Seal
Baskets	Mud CLR 48
D/V or Port Collar	CFL-117 or CD110 CAF 38
	Sand
Ran 8 3/8 and est circulation cemented with 190sks and displace	Handling 200
	Mileage

FLOAT EQUIPMENT

	Guide Shoe
	Centralizer
	Baskets
	AFU Inserts
	Float Shoe
	Latch Down
Cement Did Circulate	

Pumptrk Charge	Surface
Mileage	62

X Signature Ryan Droschl

Thanks

Tax
Discount
Total Charge

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-288610

Phone 785-483-1071
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 3787

Date	Sec.	Twp.	Range	County	State	On Location	Finish
10/23	21	S	21	Norton	Ks		6:45 PM

Location *Boque 13N 12W 2N*

Lease	Well No.	Owner
<i>Glennemeir "A"</i>	<i>4</i>	To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Contractor	Type Job	Hole Size	Csg.	T.D.	Charge To
<i>Discovery</i>	<i>Long String</i>	<i>7 7/8</i>	<i>5 1/2</i>	<i>157 1/2</i>	<i>Fourwinds</i>

Tbg. Size	Depth	Street	City	State

Cement Left in Csg.	Shoe Joint	Cement Amount Ordered
<i>30.61</i>	<i>30.61</i>	<i>450# QMDC 4F/ 500# 17.4#</i>
Meas Line	Displace	<i>150# Com 10% Salt 5# 611</i>
	<i>86 3/4</i>	Common <i>150</i>

EQUIPMENT

Pumptrk	No.	Cement	Helper
<i>17</i>			<i>Bill David</i>
Bulktrk	No.	Driver	
<i>14</i>			<i>Tim</i>
Bulktrk	No.	Driver	
<i>21</i>			<i>Doug</i>

JOB SERVICES & REMARKS

Remarks:	Hulls
Rat Hole <i>30</i>	Salt <i>13</i>
Mouse Hole <i>15</i>	Flowseal <i>100#</i>
Centralizers	Kol-Seal <i>750#</i>
Baskets	Mud CLR 48 <i>500 gal</i>
D/V or Port Collar	CFL-117 or CD110 CAF 38
<i>Pipe set e 36.75</i>	Sand
<i>Shoe Jt 30.61</i>	Handling <i>624</i>
<i>Insert 36.44.39</i>	Mileage

FLOAT EQUIPMENT

<i>500 gal Flush</i>	Guide Shoe
<i>Cement 405# QMDC 4F/ 150#</i>	Centralizer <i>7</i>
<i>Pump plug 86 3/4</i>	Baskets <i>-3</i>
<i>Land plug 1500"</i>	AFU Inserts
<i>Cement Did CIRG</i>	Float Shoe <i>-1</i>
	Latch Down <i>-1</i>

Pumptrk Charge	<i>prod string</i>
Mileage	<i>62</i>

Signature	Thanks	Tax
<i>[Signature]</i>		Discount
		Total Charge



Scale 1:240 Imperial

Well Name: GLENNEMEIER A #4
Surface Location: N2, S2, SE,SE, Sec. 21, T5S, R21W
Bottom Location:
API: 15-137-20768
License Number: 34916
Spud Date: 9/26/2023 Time: 4:00 PM
Region: NORTON COUNTY
Drilling Completed: 9/30/2023 Time: 4:30 AM
Surface Coordinates: 350' FSL & 660' FEL
Bottom Hole Coordinates:
Ground Elevation: 2232.00ft
K.B. Elevation: 2240.00ft
Logged Interval: 3100.00ft To: 3675.00ft
Total Depth: 3675.00ft
Formation: REAGAN SAND
Drilling Fluid Type: CHEMICAL MUD

OPERATOR

Company: FOURWINDS OIL CORPORATION
Address: P.O. BOX 1063
HAYS, KS 67601
Contact Geologist: DAN WINDHOLZ
Contact Phone Nbr: 785-259-8403
Well Name: GLENNEMEIER A #4
Location: N2, S2, SE,SE, Sec. 21, T5S, R21W
API: 15-137-20768
Pool: State: KS Field: WEST UNION
Country:

SURFACE CO-ORDINATES

Well Type: Vertical
Longitude: -99.686109
Latitude: 39.597106
N/S Co-ord: 350' FSL
E/W Co-ord: 660' FEL

LOGGED BY

Company: KEYSTONE CONSULTING, LLC
Address: 2511 E 19TH
HAYS, KS 67601
Phone Nbr: (785) 639-0721
Logged By: Geologist Name: CAMERON BRIN

CONTRACTOR

Contractor: DISCOVERY DRILLING
Rig #: 4
Rig Type: MUD ROTARY
Spud Date: 9/26/2023 Time: 4:00 PM
TD Date: 9/30/2023 Time: 4:30 AM
Rig Release: 10/1/2023 Time: 7:45 PM

ELEVATIONS

NOTES

DUE TO POSTIVE RESULTS ON DST #1, DECISION WAS MADE TO RUN 5 1/2" PRODUCTION CASING TO FURTHER EVALUATE THE GLENEMEIER A #4

TOPS COMPARISON

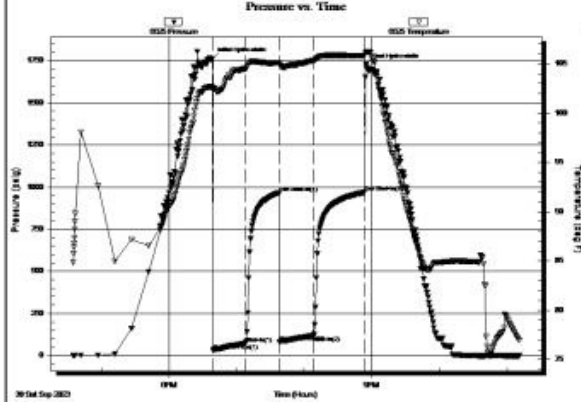
FORMATION	GLENEMEIER A #4				GLENEMEIER A #3 BLACK DIAMOND OIL				GLENEMEIER A #1 BLACK DIAMOND OIL				GLENEMEIER B #1 FOURWINDS OIL									
	NE, NW, SE, SE, Sec. 21, T55, R21W				W2, SE, SW, SE, Sec 21, T55, R21W				W2, E2, NW, NE, Sec 28, T55, R21W													
	KB	2240	GL	2232	KB	2216	KB	2266	KB	2284	KB	2284	KB	2284	KB	2284						
	LOG TOPS	SAMPLE TOPS	LOG	SMPL.	LOG	SMPL.	LOG	SMPL.	LOGS	LOGS	LOGS	LOGS	LOGS	LOGS	LOGS	LOGS						
DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM							
ANHYDRITE TOP	1839	401	1836	404	1814	402	-	1	+	2	1863	403	-	2	+	1	1886	398	+	3	+	6
BASE	1868	372	1866	374	1843	373	-	1	+	1	1892	374	-	2	+	0	1912	372	+	0	+	2
TOPEKA	3186	-946	3187	-947	3165	-949	+	3	+	2	3213	-947	+	1	+	0	3230	-946	+	0	-	1
HEEBNER SHALE	3389	-1149	3387	-1147	3368	-1152	+	3	+	5	3415	-1149	+	0	+	2	3432	-1148	-	1	+	1
TORONTO	3415	-1175	3415	-1175	3394	-1178	+	3	+	3	3441	-1175	+	0	+	0	3462	-1178	+	3	+	3
LKC	3434	-1194	3431	-1191	3413	-1197	+	3	+	6	3461	-1195	+	1	+	4	3478	-1194	+	0	+	3
BKC	3621	-1381	3619	-1379	3601	-1385	+	4	+	6	3646	-1380	-	1	+	1	3665	-1381	+	0	+	2
GORHAM																						
REAGAN			3673	-1433	3653	-1437			+	4	3699	-1433			+	0	3714	-1430			-	3
TOTAL DEPTH	3676	-1436	3675	-1435	3655	-1439	+	3	+	4	3700	-1434	-	2	-	1	3716	-1432	-	4	-	3

ANHYDRITE



DST #1 3614'-3675' (REAGAN)

	DRILL STEM TEST REPORT	
	Fourwinds Oil Corp PO Box 1063 Hays, KS 67601 ATTN: Cameron Brin	21-5S-21W Norton, KS Glennemeier A #4 Job Ticket: 71196 DST#: 1 Test Start: 2023.09.30 @ 16:35:00
GENERAL INFORMATION:		
Formation: Reagon Sand Deviated: No Whipstock ft (KB) Time Tool Opened: 18:39:15 Time Test Ended: 23:11:15	Test Type: Conventional Bottom Hole (Initial) Tester: Dustin Day Unit No: 70	
Interval: 3616.00 ft (KB) To 3675.00 ft (KB) (TVD) Total Depth: 3675.00 ft (KB) (TVD) Hole Diameter: 7.88 inches Hole Condition:	Reference Elevations: 2240.00 ft (KB) 2232.00 ft (CF) KB to GR/CF: 8.00 ft	
Serial #: 6625 Inside Press@RunDepth: 118.68 psig @ 3617.00 ft (KB) Start Date: 2023.09.30 End Date: 2023.09.30 Start Time: 16:35:00 End Time: 23:11:15	Capacity: 8000.00 psig Last Calib.: 2023.09.30 Time On Btm: 2023.09.30 @ 18:38:45 Time Off Btm: 2023.09.30 @ 20:55:00	
TEST COMMENT: IF-30- BOB in 28 min, built to 13" SI1-30- WSB FF-30- BOB in 26.5 min, built to 13.25" SI2-45- 1/4" return blow		



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1761.04	102.57	Initial Hydro-static
1	29.64	102.41	Open To Flow (1)
30	73.31	104.49	Shut-in(1)
60	967.42	105.09	End Shut-in(1)
60	81.22	104.94	Open To Flow (2)
90	118.68	105.30	Shut-in(2)
136	968.90	105.81	End Shut-in(2)
137	1726.30	106.12	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (tbi)
66.00	GOCM 5% gas 39% oil 65% mud	0.65
94.00	GOCO 10% gas 75% oil 15% mud	1.32
60.00	GO 10% gas 90% oil	0.84
0.00	92' GIP	0.00

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

Trilobite Testing, Inc

Ref. No: 71196

Printed: 2023.09.30 @ 23:29:37

ROCK TYPES

	Lmst fw7> shale, gry		Carbon Sh shale, red		Ss
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ACCESSORIES

MINERAL

- Sandy
- △ Chert White

FOSSIL

- F Fossils < 20%
- ◊ Oolite

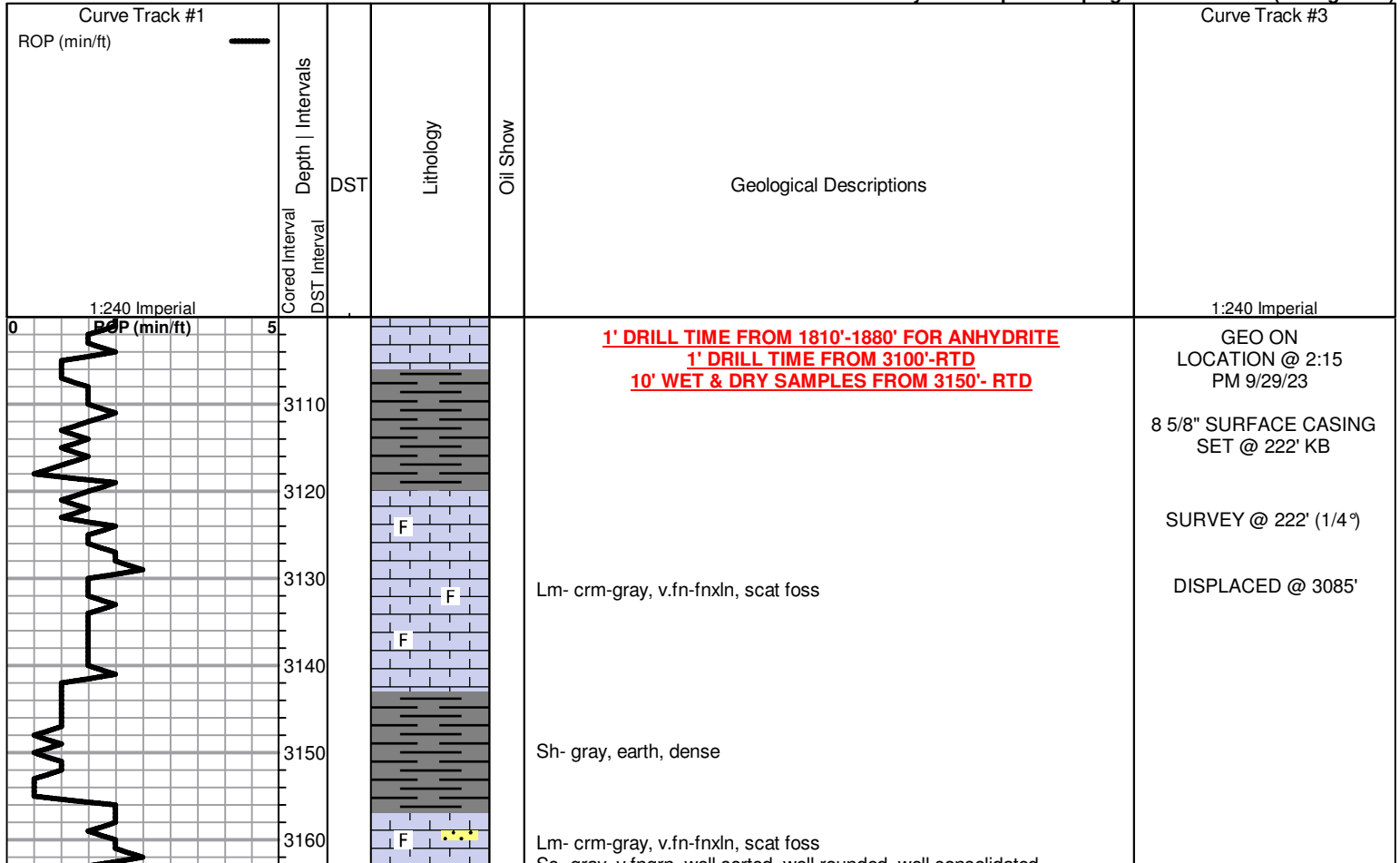
STRINGER

- ~ Chert
- Sandstone

TEXTURE

- C Chalky

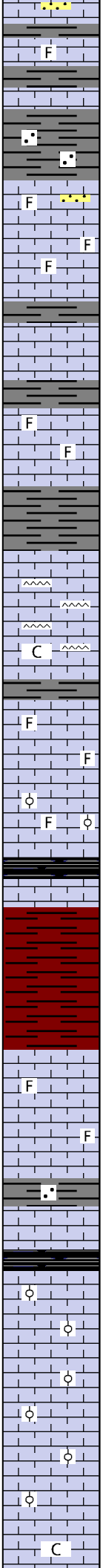
Printed by GEOstrip VC Striplog version 4.0.8.15 (www.grsi.ca)



Ss- gray, v.fngn, well sorted, well rounded, well consolidated

3170
3180
3190
3200
3210
3220
3230
3240
3250
3260
3270
3280
3290
3300
3310
3320
3330
3340
3350
3360
3370
3380

0 ROP (min/ft) 5



Lm- crm-gray, fnxln, foss
Sh- gray, dense

Sh- gray, sandy

TOPEKA: SPL 3187' (-947) LOG 3186' (-946)

Lm- crm-gray, v.fn-fnxln, scat foss, few scat Ss clusters

Lm- A/A

Sh- gray, dense

Lm- crn-gray, v.fn-fnxln, cherty in prt

Sh- gray-green, earthy

Lm- crm, fnxln, foss, tr pr-fr infoss por, NSO

Lm- crm, fnxln-fngn, foss, sli chalky

Sh- gray-blk

Lm- gray-crm, fnxln-fngn, foss, tr pr-ingn-infoss por, NSO
Chert- wt-tan, angular, fresh

Lm- A/A, chalky
Chert- A/A

Lm- A/A

Lm- A/A, oolitic in prt

Lm- blk, carb

Sh- brn-gray, sli muddy red wash

Lm- crm, v.fn-fnxln, scat foss, cherty in prt, trashy

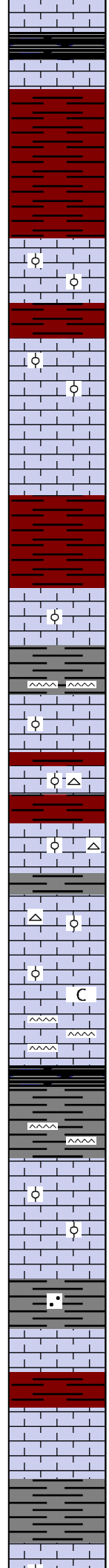
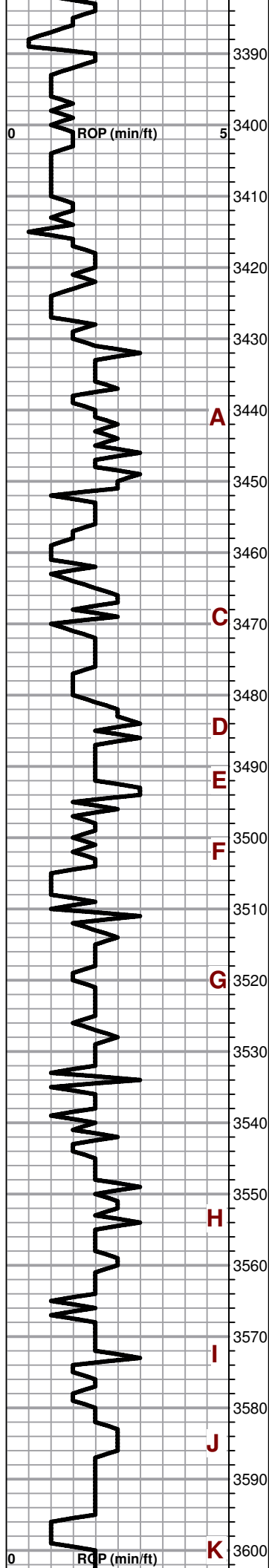
Lm- A/A
Sh- maroon-gray, sli sandy

Sh- blk, carb

Lm- crm, fnxln, oolitic in prt, scat pr ppt & tr pr-fr oolitic por, brn-blk tarry-spotty stn, few pcs w/ mod sat, SFO upon crush, no odor

Lm- crm, v.fn-fnxln, oolitic in prt, cherty in prt

Lm- A/A, sli chalky



HEEBNER: SPL 3387' (-1147) LOG 3389' (-1149)

Sh- blk, carb

Sh- brn-green-gray

TORONTO: SPL 3415' (-1175) LOG 3415' (-1175)

Lm- crm, fnxln, oolitic, scat pr ppt-inoolitic & 4-5 pcs w/ fr oolitic por, mod brn stn in por, sli sheen FO in cup, v. faint odor

Sh- brn, muddy red wash

LANSING: SPL 3431' (-1191) LOG 3434' (-1194)

Lm- crm, v.fn-fnxln, oolitic in prt, scat pr ppt-inoolitic & tr vuggy por, few pcs w/ lt brn stn in por, FO drops upon crush, faint odor

Lm- crm, v.fnxln, cherty, barren, sli chalky in prt

Sh- brn, muddy red wash

Lm- crm, v.fn-fnxln, oolitic in prt, scat pr ppt-inoolitic por, brn spotty-face stn, v. sli SFO upon crush, no odor

Chert- tan-wt, angular, fresh

Lm- crm, fnxln, oolitic in prt, scat pr ppt-inoolitic & tr vuggy por, brn spotty stn in por, v. sli SFO, pr-no odor

Lm- crm, v.fn-fnxln, oolitic in prt, sli chalky, scat wt chert

Sh- brn

Lm- crm, v.fn-fnxln, oolitic in prt, sli chalky, scat wt chert, tr pr inoolitic por, 1 pc w/ spotty brn stn in por, NSFO, no odor

Lm- A/A

Lm- crm, v.fnxln, chalky in prt, barren
Chert- wt-tan, blocky- angular

Sh- blk, carb

Sh- various color
Chert- wt-tan, sub angular

Lm- crm, v.fn-fnxln, oolitic in prt, scat pr ppt-inoolitic-xln por, v. lt brn fairly spotty stn, tr FO in cup, mod odor

Sh- gray, sandy in prt

Lm- crm, v.fn-fnxln, mottled, trashy, v. few scat pcs w/ pr ppt por, 2 pcs w/ brn spotty stn, SFO when heated, pr-no odor

Sh- brn

Lm- crm, v.fn-fnxln, cherty in prt, scat pr ppt por, lt. brn spotty stn, NSFO, faint odor

Lm- crm, v.fn-fnxln, sli chalky, oolitic, scat pr ppt-inoolitic por, brn spotty- sub sat stn in por, sli SFO in cup, faint odor

A

C

D

E

F

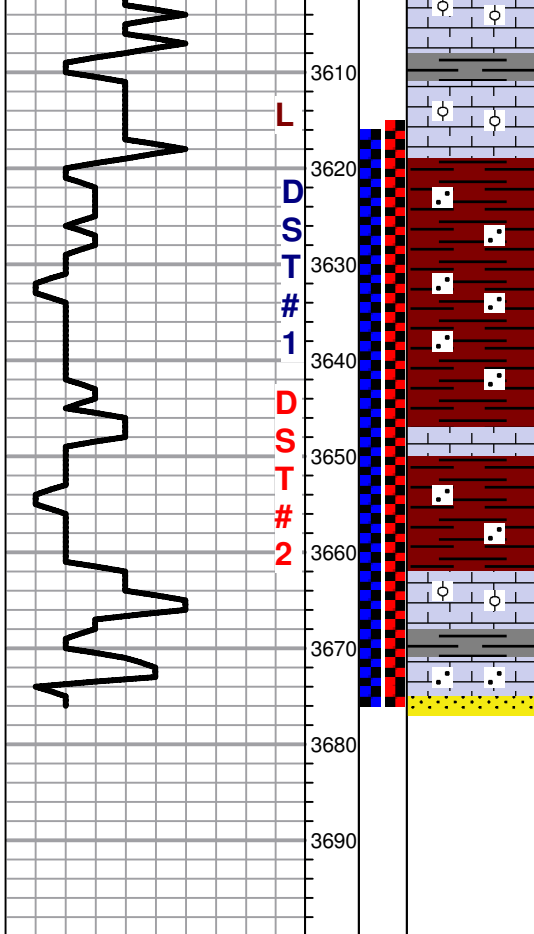
G

H

I

J

K



Lm- crm, fnxln, oolitic, scat pr ppt-inoolitic & tr fr vuggy por, brn spotty-sub sat stn, SFO upon crush, faint odor

BKC: SPL 3619' (-1379) LOG 3621' (-1381)

Sh- red, sandy

Sh- A/A

Lm- crm, v.fn-fnxln, oolitic in prt, few scat pcs w/ pr ppt-inoolitic & tr fr vuggy por, 3-4 pcs w/ brn spotty-sub sat stn, v. sli SFO upon crush, no odor

Sh- gray-brn
Lm- crm, fnxln-corgn, sandy

REAGAN SAND: SPL 3673' (-1433)

Ss- qtz, clear, md-corgn, mix of consolidated & unconsolidated, mod sorting, fairly pr rounding, fr-gd ingrn por, gd brn sat stn, gd SFO, gd odor

RTD: SPL 3675' (-1435) LOG 3676' (-1436)

DST #1
3616'-3675' (REAGAN)
MISRUN
TOOL FAILED TO OPEN

DST #1A
3614'-3675' (REAGAN)
30-30-30-45
60' GO (90% O)
94' GMCO (75% O)
66' GOCM (30% O)
SIP: 967-969#

CFS @ 3670'
CFS @ 3673'
CFS @ 3675'

SURVEY @ 3675' (1/2°)

GEO OFF LOCATION
@ 7:45 AM 10/1/21