

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](mailto: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)*

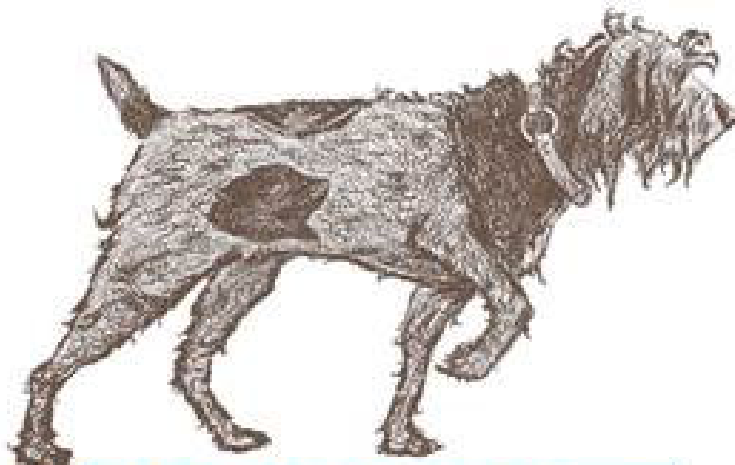
Date of first Production/Injection or Resumed Production/Injection:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____				
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water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

Scale 1:240 Imperial

Well Name: KELLER - GATES #3-17  
 Surface Location: NE SW SE NE Sec. 17 - 22S - 13W  
 Bottom Location:  
 API: 15-185-24133  
 License Number: 34655  
 Spud Date: 2/13/2023 Time: 6:15 PM  
 Region: STAFFORD COUNTY KANSAS  
 Drilling Completed: 2/21/2023 Time: 9:00 PM  
 Surface Coordinates: 2305' FNL & 935' FEL  
 Bottom Hole Coordinates:  
 Ground Elevation: 1907.00ft  
 K.B. Elevation: 1915.00ft  
 Logged Interval: 2800.00ft To: 3920.00ft  
 Total Depth: 3920.00ft  
 Formation: LANSING - KANSAS CITY; VIOLA; ARBUCKLE  
 Drilling Fluid Type: Chemical/Fresh Water Gel

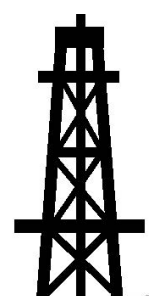
## OPERATOR

Company: BIRD DOG OIL, LLC  
 Address: 1801 BROADWAY  
 STE 200  
 DENVER, CO 80202-3840  
 Contact Geologist: MATTHEW STEWART  
 Contact Phone Nbr: (303) 534-1686  
 Well Name: KELLER - GATES #3-17  
 Location: NE SW SE NE Sec. 17 - 22S - 13W  
 API: 15-185-24133  
 Pool:  
 State: Kansas Field: KENILWORTH WEST  
 Country: USA

## SURFACE CO-ORDINATES

Well Type: Vertical  
 Longitude: -98.769228  
 Latitude: 38.138575  
 N/S Co-ord: 2305' FNL  
 E/W Co-ord: 935' FEL

## LOGGED BY





Company: BIG CREEK CONSULTING, INC  
 Address: 3504 DUNCAN ST  
 ST. JOE, MO 64507

Phone Nbr: (785) 259-3737  
 Logged By: Geologist

Name: JEFF LAWLER

**CONTRACTOR**

Contractor: FOSSIL DRILLING  
 Rig #: 3  
 Rig Type: MUD ROTARY  
 Spud Date: 2/13/2023  
 TD Date: 2/21/2023  
 Rig Release:  
 Time: 6:15 PM  
 Time: 9:00 PM  
 Time:

**ELEVATIONS**

K.B. Elevation: 1915.00ft  
 K.B. to Ground: 8.00ft  
 Ground Elevation: 1907.00ft

**NOTES**

THERE WAS A +2' TO +4' UPHOLE CORRECTION TO CORRELATE DRILL TIME TO POROSITY LOG.

**WELL COMPARISON SHEET**

FORMATION	KELLER-GATES #3-17				LD DRILLING GOLDEN BELT FEEDERS OWWO #1-17 C E/2 W/2 SE				BIRD DOG OIL, LLC KELLER-GATES #2-17 NE SE NE 17-22-13				BIRD DOG OIL, LLC KELLER-GATES #1-17 NE SE NE NE 17-22-13				BIRD DOG OIL, LLC M&N GATES #1-16 C NW NW NW 16-22-13			
	1915		1907		1909		1907		1910		1906		1906		1906		1906			
	LOG TOPS		SAMPLE TOPS		LOGS		LOGS		LOGS		LOGS		LOGS		LOGS		LOGS			
	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	LOG CORR.	SMPL. CORR.	DEPTH	DATUM	LOG CORR.	SMPL. CORR.	DEPTH	DATUM	LOG CORR.	SMPL. CORR.	DEPTH	DATUM	LOG CORR.	SMPL. CORR.
ANHYDRITE TOP	778	1137	779	1136	774	1135	+ 2	+ 1	769	1138	- 1	- 2	772	1138	- 1	- 2	767	1139	- 2	- 3
BASE	796	1119	804	1111	797	1112	+ 7	- 1	792	1115	+ 4	- 4	794	1116	+ 3	- 5	789	1117	+ 2	- 6
TOPEKA	2981	-1066	2985	-1070	2978	-1069	+ 3	- 1	2972	-1065	- 1	- 5	2963	-1053	- 13	- 17				
HEEBERSHALE	3281	-1366	3286	-1371	3278	-1369	+ 3	- 2	3270	-1363	- 3	- 8	3267	-1357	- 9	- 14	3271	-1365	- 1	- 6
TORONTO	3303	-1388	3308	-1393	3300	-1391	+ 3	- 2	3291	-1384	- 4	- 9	3288	-1378	- 10	- 15	3291	-1385	- 3	- 8
DOUGLASSHALE	3318	-1403	3322	-1407	3317	-1408	+ 5	+ 1	3308	-1401	- 2	- 6	3306	-1396	- 7	- 11	3306	-1400	- 3	- 7
BROWN LIME	3411	-1496	3414	-1499	3409	-1500	+ 4	+ 1	3400	-1493	- 3	- 6	3398	-1488	- 8	- 11	3399	-1493	- 3	- 6
LKC	3429	-1514	3431	-1516	3427	-1518	+ 4	+ 2	3418	-1511	- 3	- 5	3416	-1506	- 8	- 10	3416	-1510	- 4	- 6
STARK	3609	-1694	3610	-1695					3601	-1694	+ 0	- 1	3593	-1683	- 11	- 12	3594	-1688	- 6	- 7
BKC	3649	-1734	3653	-1738	3657	-1748	+ 14	+ 10	3642	-1735	+ 1	- 3	3637	-1727	- 7	- 11	3638	-1732	- 2	- 6
VIOLA	3729	-1814	3731	-1816	3732	-1823	+ 9	+ 7	3717	-1810	- 4	- 6	3709	-1799	- 15	- 17	3716	-1810	- 4	- 6
SIMPSON SHALE	3768	-1853	3769	-1854	3767	-1858	+ 5	+ 4	3756	-1849	- 4	- 5	3754	-1844	- 9	- 10	3763	-1857	+ 4	+ 3
SIMPSON SAND	3787	-1872	3777	-1862	3775	-1866	- 6	+ 4	3765	-1858	- 14	- 4	3772	-1862	- 10	+ 0	3792	-1886	+ 14	+ 24
ARBuckle	3824	-1909	3827	-1912	3824	-1915	+ 6	+ 3	3813	-1906	- 3	- 6	3811	-1901	- 8	- 11	3814	-1908	- 1	- 4
TOTAL DEPTH	3919	-2004	3920	-2005	3970	-2061	+ 57	+ 56	3913	-2006	+ 2	+ 1	3890	-1980	- 24	- 25	3900	-1994	- 10	- 11

**DST #1 LKC I - K 3562' - 3640'**



Company: Bird Dog Oil, LLC  
 Lease: Keller-Gates #3-17

SEC: 17 TWN: 22S RNG: 13W  
 County: STAFFORD  
 State: Kansas  
 Drilling Contractor: Fossil Drilling, Inc.  
 - Rig 5  
 Elevation: 1909 EGL  
 Field Name: Kenilworth West  
 Pool: Infield  
 Job Number: 648  
 API #: 15-185-24133

**Operation:**  
 Uploading recovery &  
 pressures

**DATE**  
 February  
 18  
 2023

**DST #1** Formation: LKC I - K Test Interval: 3565 - 3643' Total Depth: 3643'

Time On: 04:44 02/18 Time Off: 12:40 02/18  
 Time On Bottom: 07:13 02/18 Time Off Bottom: 09:58 02/18

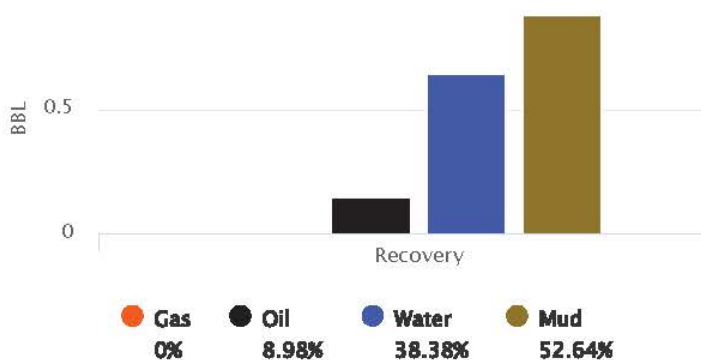
Foot	BBLs	Description of Fluid	Gas %	Oil %	Water %	Mud %
15	0.21345	SLOCM	0	2	0	98
63	0.8877386	SLOCHWCM	0	10	40	50
118	0.58056	SLOCHMCW	0	10	50	40

Total Recovered: 196 ft  
 Total Barrels Recovered: 1.6817486

Reversed Out  
 NO

Initial Hydrostatic Pressure	1739	PSI
Initial Flow	16 to 51	PSI
Initial Closed in Pressure	665	PSI
Final Flow Pressure	59 to 74	PSI
Final Closed in Pressure	710	PSI
Final Hydrostatic Pressure	1712	PSI
Temperature	104	°F
Pressure Change Initial Close / Final Close	0.0	%

### Recovery at a glance



GIP cubic foot volume: 0

### DST #1 LKC I - K 3562' - 3640'



Company: Bird Dog Oil, LLC  
 Lease: Keller-Gates #3-17

SEC: 17 TWN: 22S RNG: 13W  
 County: STAFFORD  
 State: Kansas  
 Drilling Contractor: Fossil Drilling, Inc.  
 - Rig 5  
 Elevation: 1909 EGL  
 Field Name: Kenilworth West  
 Pool: Infield  
 Job Number: 648  
 API #: 15-185-24133

#### Operation:

Uploading recovery & pressures

#### DATE

February  
 18  
 2023

DST #1 Formation: LKC I - K Test Interval: 3565 - 3643' Total Depth: 3643'

Time On: 04:44 02/18 Time Off: 12:40 02/18  
 Time On Bottom: 07:13 02/18 Time Off Bottom: 09:58 02/18

Electronic Volume Estimate:  
 206'

1st Open Minutes: 15  
 Current Reading:

1st Close Minutes: 30  
 Current Reading:

2nd Open Minutes: 30  
 Current Reading:

2nd Close Minutes: 90  
 Current Reading:

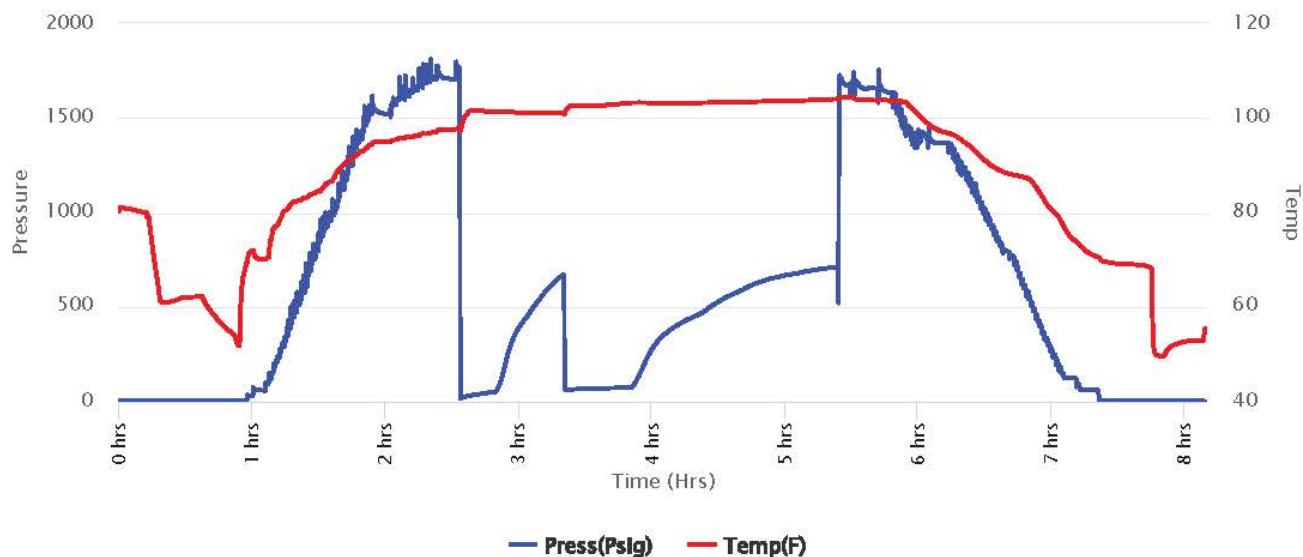
4.8" at 15 min  
Max Reading: 4.8"

0" at 30 min  
Max Reading: 0"

9.3" at 30 min  
Max Reading: 9.3"

0" at 90 min  
Max Reading: 0"

Inside Recorder



**DST #2 VIOLA 3696' - 3770'**



**Company: Bird Dog Oil, LLC**  
**Lease: Keller-Gates #3-17**

SEC: 17 TWN: 22S RNG: 13W  
County: STAFFORD  
State: Kansas  
Drilling Contractor: Fossil Drilling, Inc.  
- Rig 5  
Elevation: 1909 EGL  
Field Name: Kenilworth West  
Pool: Infield  
Job Number: 648  
API #: 15-185-24133

**Operation:**

Uploading recovery & pressures

**DATE**

February  
**19**  
2023

**DST #2      Formation: Viola      Test Interval: 3696 - 3771'      Total Depth: 3771'**

Time On: 02:49 02/19      Time Off: 10:21 02/19  
Time On Bottom: 05:18 02/19      Time Off Bottom: 07:33 02/19

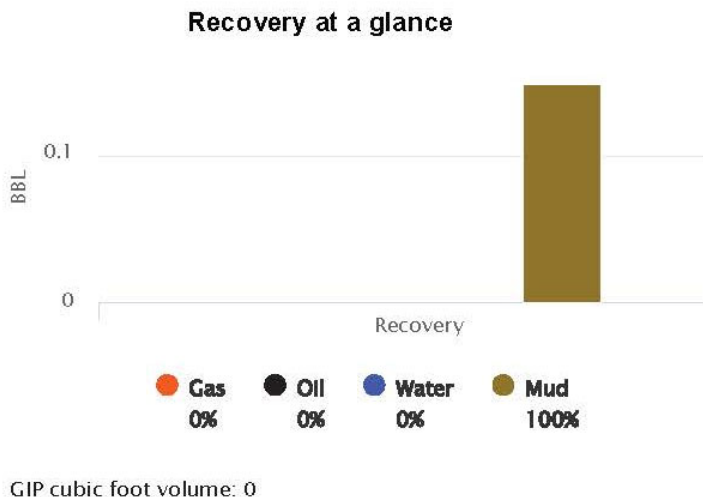
**Recovered**

Foot	BBLs	Description of Fluid	Gas %	Oil %	Water %	Mud %
30	0.1476	M	0	0	0	100

Total Recovered: 30 ft  
 Total Barrels Recovered: 0.1476

Reversed Out  
 NO

Initial Hydrostatic Pressure	1870	PSI
Initial Flow	66 to 68	PSI
<b>Initial Closed in Pressure</b>	<b>847</b>	<b>PSI</b>
Final Flow Pressure	207 to 244	PSI
<b>Final Closed in Pressure</b>	<b>898</b>	<b>PSI</b>
Final Hydrostatic Pressure	1811	PSI
Temperature	103	°F
Pressure Change Initial Close / Final Close	0.0	%



### DST #2 VIOLA 3696' - 3770'



**Company: Bird Dog Oil, LLC**  
**Lease: Keller-Gates #3-17**

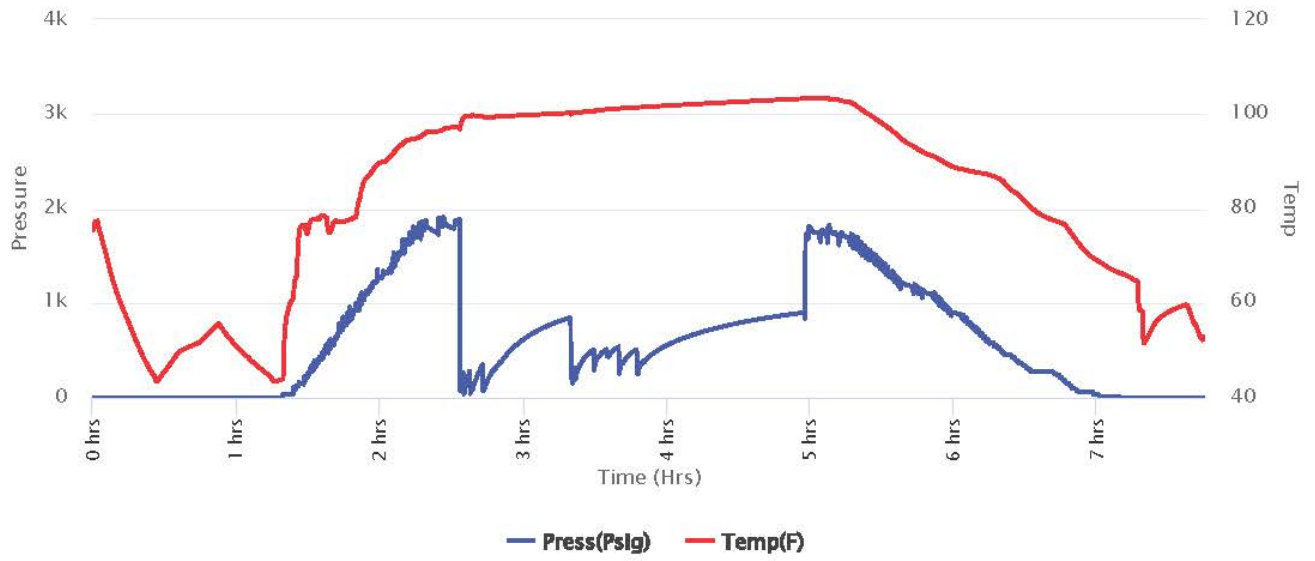
SEC: 17 TWN: 22S RNG: 13W  
 County: STAFFORD  
 State: Kansas  
 Drilling Contractor: Fossil Drilling, Inc.  
 - Rig 5  
 Elevation: 1909 EGL  
 Field Name: Kenilworth West  
 Pool: Infield  
 Job Number: 648  
 API #: 15-185-24133

**Operation:**  
 Uploading recovery &  
 pressures

**DATE**  
 February  
**19**  
 2023

**DST #2**      **Formation: Viola**      **Test Interval: 3696 - 3771'**      **Total Depth: 3771'**  
 Time On: 02:49 02/19      Time Off: 10:21 02/19  
 Time On Bottom: 05:18 02/19      Time Off Bottom: 07:33 02/19

Electronic Volume Estimate: 41'	<u>1st Open</u> Minutes: 15	1st Close Minutes: 30	<u>2nd Open</u> Minutes: 30	2nd Close Minutes: 60
	Current Reading: 1.3" at 15 min	Current Reading: 0" at 30 min	Current Reading: 0" at 30 min	Current Reading: 0" at 60 min
	Max Reading: 1.4"	Max Reading: 0"	Max Reading: .1"	Max Reading: 0"



**ROCK TYPES**

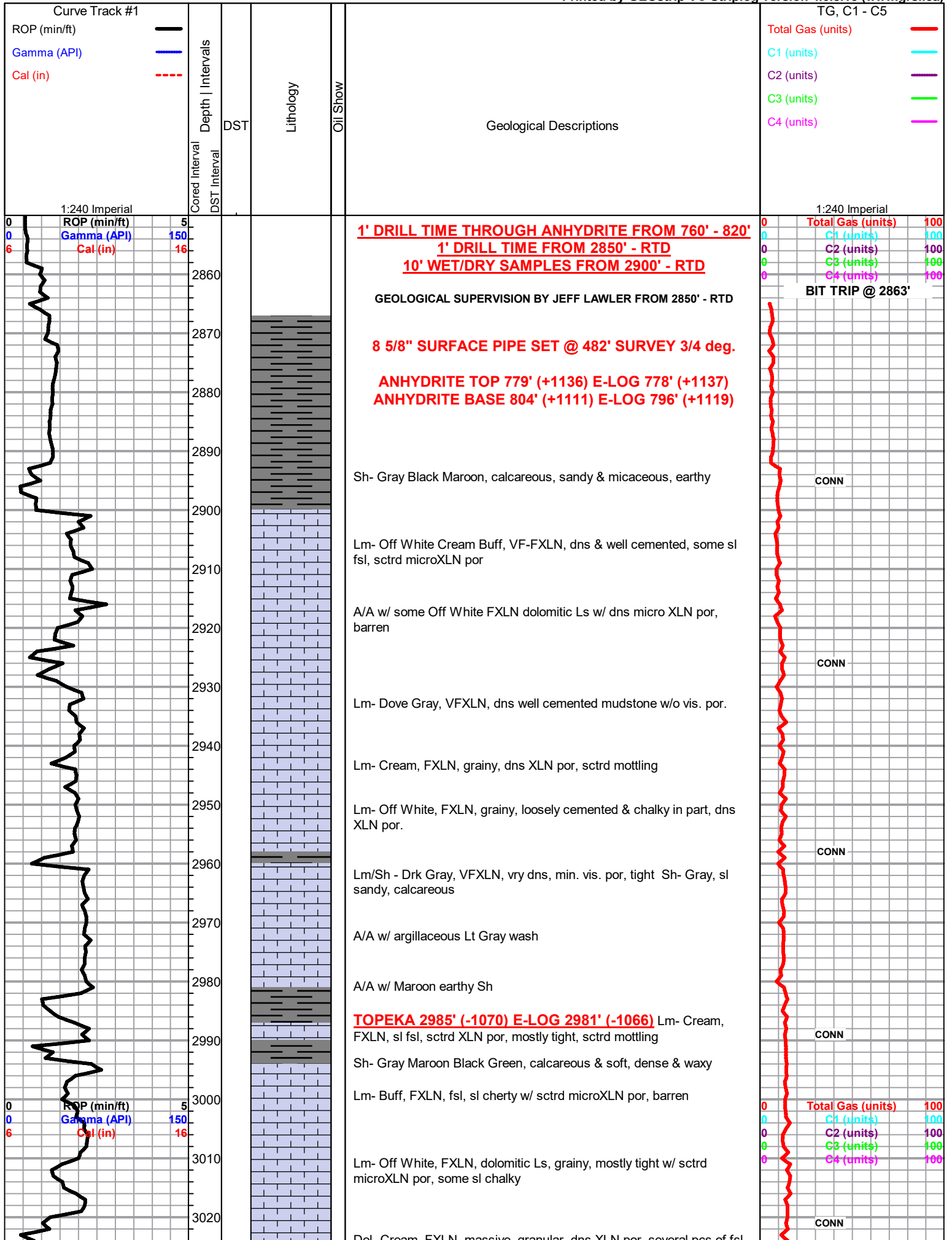
	Cht		Dolsec		shale, gry		Shcol
	Chtcongl		Lmst fw7>		Carbon Sh		Ss
	Dolprim		shale, grn		shale, red		

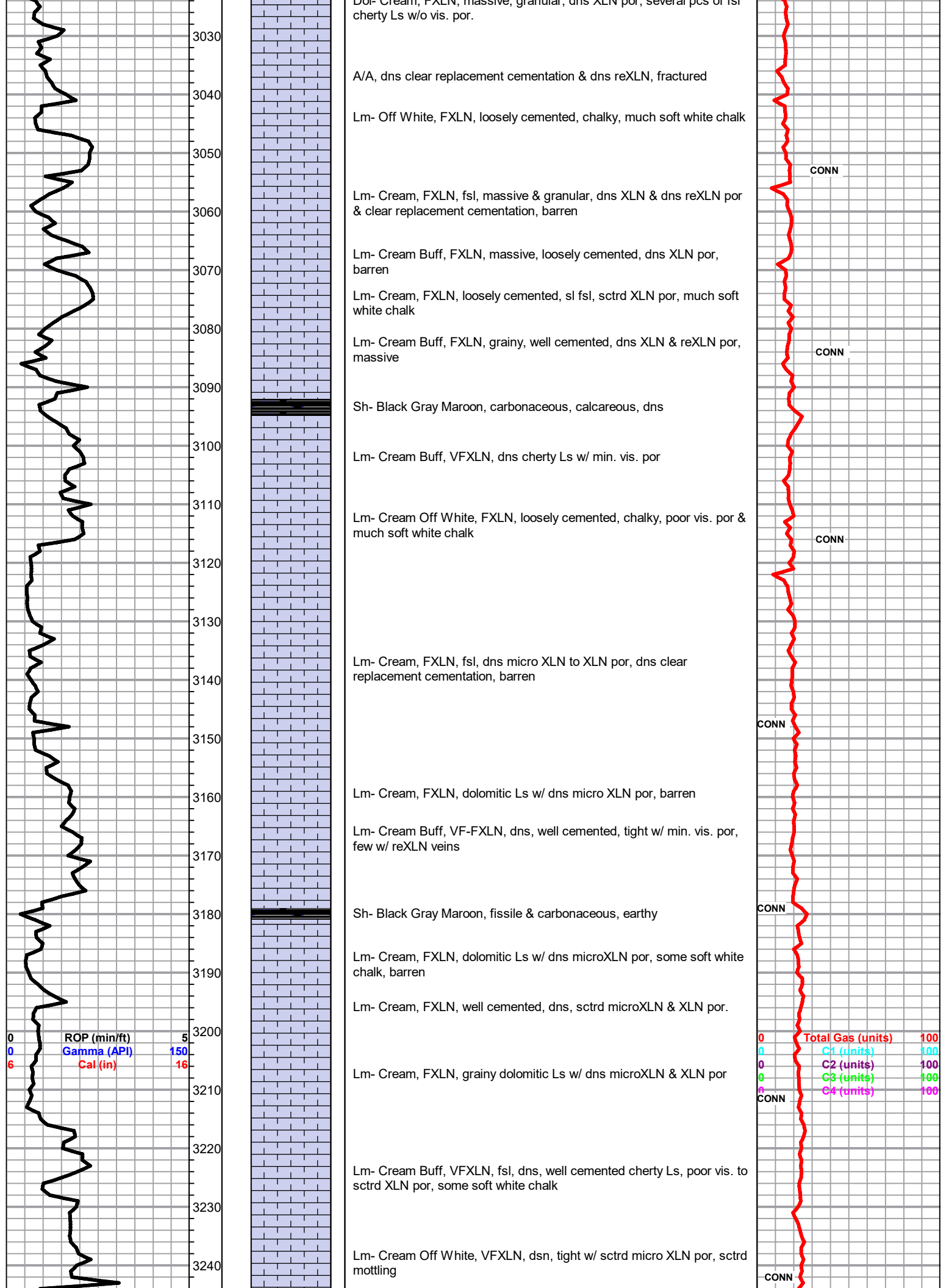
**ACCESSORIES**

<b>MINERAL</b>	<b>FOSSIL</b>	<b>STRINGER</b>	<b>TEXTURE</b>
△ Chert White	🪨 Oomoldic	~~~~ Chert	C Chalky
▨ Euhed rhombs of dolomite		▨ Dolomite	CX Cryptocrystalline
		●●● Sandstone	

**OTHER SYMBOLS**

<b>MISC</b>	<b>DST</b>
Daily Report	DST Int
Digital Photo	DST alt
Document	Core
Folder	
Link	
Vertical Log File	
Horizontal Log File	
Core Log File	





3250  
3260  
3270  
3280  
3290  
3300  
3310  
3320  
3330  
3340  
3350  
3360  
3370  
3380  
3390  
3400  
3410  
3420  
3430  
3440  
3450  
3460

Lm- Cream Tan, VF-FXLN, dns, well cemented, poor vis. por, several pcs of tight cherty Ls w/o vis. por

Lm- Cream Tan, CryptoXLN, dns cherty Ls w/o vis. por

**HEEBNER 3286' (-1371) E-LOG 3281' (-1366)** Sh- Black Gray Maroon, fissile & carbonaceous, calcareous, earthy

**TORONTO 3308' (-1393) E-LOG 3303' (-1388)** Lm- Off White Cream, FXLN, fsl, loosely cemented & chalky in part, some soft white chalk, barren

**DOUGLAS SHALE 3322' (-1407) E-LOG 3318' (-1403)** Sh- Gray Maroon Brown, calcareous & soft, argillaceous, earthy, waxy

A/A w/ sandy & micaceous

Sh- Gray Maroon, calcareous & soft, semi-waxy

A/A

**BROWN LIME 3414' (-1499) E-LOG 3411' (-1496)** Lm- Brown, VFXLN, dns & well cemented, sl cherty, sctrd-dns microXLN to XLN por

Sh- Gray, calcareous, some sl sandy

**LKC 3431' (-1516) E-LOG 3429' (-1514)** Lm- Cream Off White, FXLN, fsl & oolitic, sctrd-dns XLN por, mostly tight, barren

Lm- Off White, FXLN, fsl & sl oolitic, dns XLN por., TR LT STN, NSFO, WK GSY ODR

Lm- Off White, FXLN, well cemented, sl fsl, sctrd XLN por, barren

Lm- Cream, FXLN, dolomitic Ls w/ dns XLN por, barren

CONN

CONN

CONN

CONN

CONN

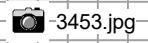
CONN

CONN

ROP (min/ft) 5  
Gamma (API) 150  
Cal (in) 16

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

MUD-CK @ 3439'  
WT: 9.2  
VIS: 51  
WL: 8.8  
CHLOR: 6K  
LCM: 2.5#



CFS @ 3463'

A

C

Lm- Cream, F-XLN, dolomitic Ls w/ dns XLN por, barren

Sh- Gray Maroon, semi-waxy & sl fsl, calcareous, earthy

Lm- Cream Buff, VF-FXLN, dns, mostly well cemented, sctrd-dns XLN por, poorly dev. & barren

Lm- Cream Off White, mix of fsl & oolitic, dns & well cemented, sctrd XLN por, & dns dolomitic Ls w/ dns microXLN por. throughout, barren

Lm- Cream Off White, FXLN, densely packed fsl & oolites, dns XLN & sctrd vry fn ppt por., barren, few pcs of dolomitic Ls, some soft white chalk

Lm- Cream Off White, FXLN, fsl & sl oolitic, well cemented, dns XLN & rare vry fn ppt, abundant chalk

Lm- Cream Tan, FXLN, mix of dolomitic Ls w/ microXLN por throughout, VFXLN well cemented Ls w/ sctrd XLN por, & several pcs of milky gray fsl cryptoXLN chert

Sh- Gray, semi-waxy & calcareous

Lm/Chert- Cream Buff, VF-FXLN, mix of sl fsl Ls w/ dns XLN & sctrd vry fn ppt por, tight cherty Ls w/ min. vis. por, & white cryptoXLN bedded chert, much soft white chalk

Lm- White Off White, FXLN, oolitic, few clusters w/ XLN por, some w/ clear replacement interoolite cementation, SCTRD DRK STN, 3-4 W/ BLK DO STN, NSFO, WK ODR

Lm- Cream Off White, VF-FXLN, mix of sl fsl w/ sctrd XLN por & tight VFXLN, sctrd microXLN por, all clean & barren

Lm/Dol- Off White Cream, mix of fsl & oolitic, sl oomoldic, well cemented w/ dns XLN & sctrd vuggy por, SCTRD DRK STN, TR GSY FO, WK ODR, & cream FXLN, consistent XLN por. throughout, FWE PCS W/ TR DRK STN, NSFO, WK ODR

Lm- Cream Off White, VFXLN, dns well cemented cherty Ls w/ sctrd XLN por, barren & tight

Lm- Off White Cream, FXLN, fsl, dns XLN & vry fn ppt to ppt por, SCTRD DRK STN, TR FO, WK ODR

Lm- Cream Tan, VFXLN, dns, well cemented, tight w/ sctrd micro XLN por, barren

Sh- Gray Maroon, waxy, calcareous, earthy

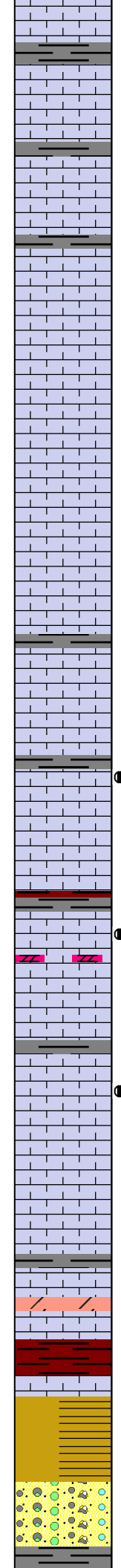
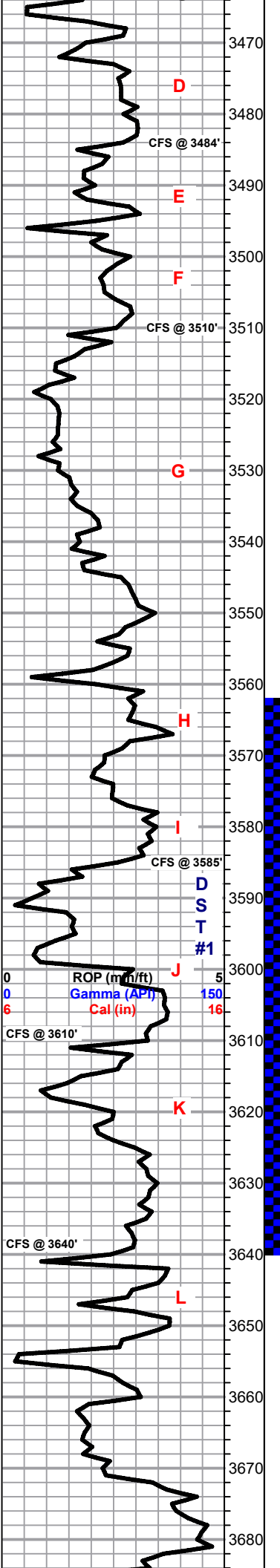
Lm/Dol- Off White, FXLN, fsl & sl oolitic, sl chalky in part, glauconite tinted, dns XLN por, barren, & Tan FXLN, consistent microXLN por, barren

**BKC 3653' (-1738) E-LOG 3649' (-1734)** Sh- Maroon Gray, waxy & earthy, calcareous

Sh- Gray Maroon Green, waxy, argillaecous, earthy

Conglomerate Chert- opaque mix of dolomitic chert/cherty dolomite, fresh bedded oolitic chert, nodular chert, & tight cherty Ls w/ poor, vis. por.

Sh- Green Gray, waxy, semi-limy & pebbly



Sh- Gray Maroon, semi-waxy & sl fsl, calcareous, earthy

Lm- Cream Buff, VF-FXLN, dns, mostly well cemented, sctrd-dns XLN por, poorly dev. & barren

Lm- Cream Off White, mix of fsl & oolitic, dns & well cemented, sctrd XLN por, & dns dolomitic Ls w/ dns microXLN por. throughout, barren

Lm- Cream Off White, FXLN, densely packed fsl & oolites, dns XLN & sctrd vry fn ppt por., barren, few pcs of dolomitic Ls, some soft white chalk

Lm- Cream Off White, FXLN, fsl & sl oolitic, well cemented, dns XLN & rare vry fn ppt, abundant chalk

Lm- Cream Tan, FXLN, mix of dolomitic Ls w/ microXLN por throughout, VFXLN well cemented Ls w/ sctrd XLN por, & several pcs of milky gray fsl cryptoXLN chert

Sh- Gray, semi-waxy & calcareous

Lm/Chert- Cream Buff, VF-FXLN, mix of sl fsl Ls w/ dns XLN & sctrd vry fn ppt por, tight cherty Ls w/ min. vis. por, & white cryptoXLN bedded chert, much soft white chalk

Lm- White Off White, FXLN, oolitic, few clusters w/ XLN por, some w/ clear replacement interoolite cementation, SCTRD DRK STN, 3-4 W/ BLK DO STN, NSFO, WK ODR

Lm- Cream Off White, VF-FXLN, mix of sl fsl w/ sctrd XLN por & tight VFXLN, sctrd microXLN por, all clean & barren

Lm/Dol- Off White Cream, mix of fsl & oolitic, sl oomoldic, well cemented w/ dns XLN & sctrd vuggy por, SCTRD DRK STN, TR GSY FO, WK ODR, & cream FXLN, consistent XLN por. throughout, FWE PCS W/ TR DRK STN, NSFO, WK ODR

Lm- Cream Off White, VFXLN, dns well cemented cherty Ls w/ sctrd XLN por, barren & tight

Lm- Off White Cream, FXLN, fsl, dns XLN & vry fn ppt to ppt por, SCTRD DRK STN, TR FO, WK ODR

Lm- Cream Tan, VFXLN, dns, well cemented, tight w/ sctrd micro XLN por, barren

Sh- Gray Maroon, waxy, calcareous, earthy

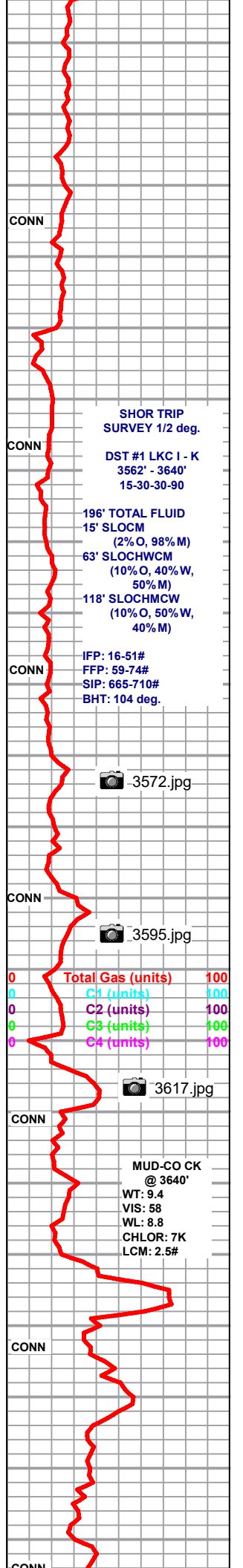
Lm/Dol- Off White, FXLN, fsl & sl oolitic, sl chalky in part, glauconite tinted, dns XLN por, barren, & Tan FXLN, consistent microXLN por, barren

**BKC 3653' (-1738) E-LOG 3649' (-1734)** Sh- Maroon Gray, waxy & earthy, calcareous

Sh- Gray Maroon Green, waxy, argillaecous, earthy

Conglomerate Chert- opaque mix of dolomitic chert/cherty dolomite, fresh bedded oolitic chert, nodular chert, & tight cherty Ls w/ poor, vis. por.

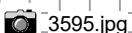
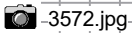
Sh- Green Gray, waxy, semi-limy & pebbly



SHOR TRIP SURVEY 1/2 deg.  
DST #1 LKC I - K  
3562' - 3640'  
15-30-30-90

196' TOTAL FLUID  
15' SLOCM  
(2% O, 98% M)  
63' SLOCHWCM  
(10% O, 40% W, 50% M)  
118' SLOCHMCW  
(10% O, 50% W, 40% M)

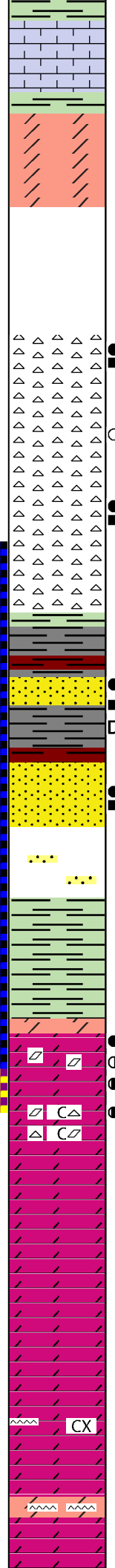
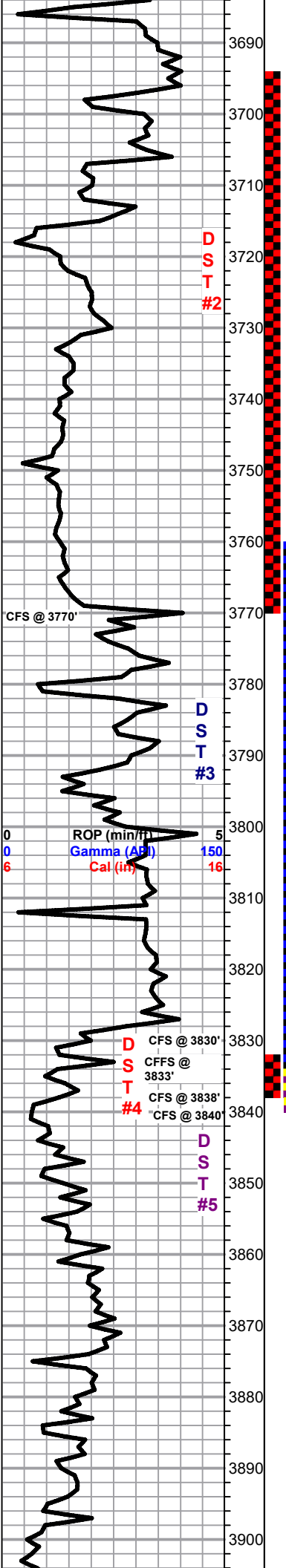
IFP: 16-51#  
FFP: 59-74#  
SIP: 665-710#  
BHT: 104 deg.



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



MUD-CO CK @ 3640'  
WT: 9.4  
VIS: 58  
WL: 8.8  
CHLOR: 7K  
LCM: 2.5#



Lm- Cream Off White, FXLN, sl fsl, dns XLN por veins

Dol- Lt Green, VFXLN, dns, gritty, limey dolomite/dolomitic Lm, well cemented, consistent microXLN por throughout, tight

A/A w/ cream limey dolomite/dolomitic Lm

Sh- Green Gray, waxy, pebbly

**VIOLA 3731' (-1816) E-LOG 3729' (-1814)** Chert- Bone White, Crypto-VFXLN, fresh bedded, cryptoXLN to dns vry fn ppt por, SCTRDR TO SAT BLK STN, NSFO, TR ODR, INSTANT YLW FLOR.

A/A w/ mostly barren to SCTRDR BLK STN, A/A

Chert- Bone White, VFXLN, fresh bedded, vitreous to dns consistent microXLN por, SCTRDR SAT DRK BRWN STN, NSFO, TR ODR, INSTAN YLW FLOR.

A/A

**SIMPSON SHALE 3769' (-1854) E-LOG 3768' (-1853)** Sh- Gray Maroon Green, waxy & blocky, earthy

**SIMPSON SAND 3777' (-1862) E-LOG 3787' (-1872)** Ss- Clear Frosted, Fn Grn, consolidated, poorly sorted, immature, angular to sub-rounded, some shaley, friable, SAT BLK DO STN, NSFO, NODR, TR FLOR.

Ss- A/A, consolidated & mod. sorted, sub-rounded, friable, SAT DRK STN, OILY SHEEN, NODR, INSTANT YLW FLOR.

Ss- A/A, shaley, better cemented, SCTRDR BLK STN TO BARREN, NSFO, NODR, several pcs of mint green shale w/ qtz. inclusions

Sh- Mint Green Mustard Green Gray, waxy & blocky

**ARBUCKLE 3827' (-1912) E-LOG 3824' (-1909)** Dol- Cream Off White, mix of VFXLN, dns, well cemented & tight, barren, & FXLN, well cemented, scdr dev. w/ dns consistent XLN & scdrd to dns fn ppt por, SCTRDR TO SUB-SAT DRK STN, SHW FO, NODR

**3833'-** Dol- Cream Off White, MedXLN, sucrosic, vis. rhombs, consistent ppt por, SCTRDR DRK STN, SHW FO, WK ODR

**3838'-** Dol- Cream Off White, F-MEDXLN, mix of loosely cemented FXLN, consistent microXLN por throughout, mostly barren, & MEDXLN, sucrosic, visible rhombs, ppt por. throughout, SCTRDR DRK STN, HVY OIL SHEEN, SHW FO, WK ODR & few pcs of bedded oolitic chert w/ scdrd fn ppt por, barren, some white chalk

**3840'-** Dol- Tan Buff, MEDXLN, sucrosic, rhombic, dns XLN to scdrd fn ppt por, SCTRDR DRK STN, GD SHW FO, TR ODDR, few pcs cherty dol w/ dns XLN & scdrd ppt por, STN A/A

**3844'-** Dol- Off White, MEDXLN, sucrosic, vis. rhombs, dns XLN & scdrd ppt por, SCTRDR DRK STN, GD SHW FO, WK ODR, FXLN, semi-friable, dns XLN por throughout, barren, some soft white chalk

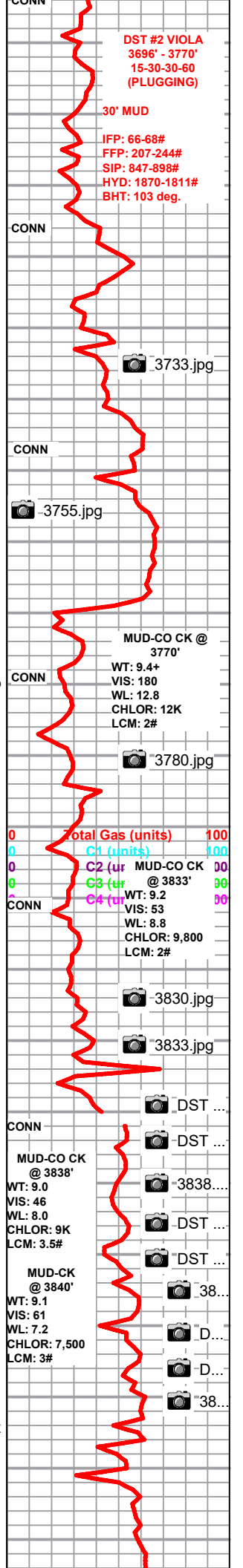
**3855'-** Dol- Cream Lt Pink tint, F-MEDXLN, sucrosic, most well cemented, mostly consistent fn ppt-ppt por. throughout, barren

**3865'-** Dol- Off White Cream, VF-MEDXLN, mix of well cemented tight cherty dol w/ microXLN por, limey loosely cemented & friable w/ microXLN por, & MEDXLN, sucrosic, well cemented w/ dns XLN & scdrd ppt por, all barren

**3870'-** A/A w/ Med-Crs XLN, sucrosic w/ consistent ppt por, barren, few sl shaley w/ green tint

**3884'-** A/A w/ vitreous bedded chert/chert dol w/o vis. por.

**3920' 20"-** Dol- Cream Off White. F-MEDXLN. massive. well



DST #2 VIOLA 3696' - 3770' 15-30-30-60 (PLUGGING)

30' MUD

IFP: 66-68#  
FFP: 207-244#  
SIP: 847-898#  
HYD: 1870-1811#  
BHT: 103 deg.

3733.jpg

CONN

3755.jpg

MUD-CO CK @ 3770'

WT: 9.4+  
VIS: 180  
WL: 12.8  
CHLOR: 12K  
LCM: 2#

3780.jpg

Total Gas (units) 100  
C1 (units) 100  
C2 (ur) MUD-CO CK 00  
C3 (ur) @ 3833' 99  
C4 (ur) WT: 9.2  
VIS: 53  
WL: 8.8  
CHLOR: 9,800  
LCM: 2#

3830.jpg

3833.jpg

DST ...

DST ...

MUD-CO CK @ 3838'

WT: 9.0  
VIS: 46  
WL: 8.0  
CHLOR: 9K  
LCM: 3.5#

3838...

DST ...

DST ...

MUD-CK @ 3840'

WT: 9.1  
VIS: 61  
WL: 7.2  
CHLOR: 7,500  
LCM: 3#

38...

D...

D...

38...

cemented, consistent XLN por throughout, several pcs of white cherty dolomite w/o vis. por.  
**3920' 40"-** Dol- Cream, VF-FXLN, well cemented oomoldic w/ dns microXLN to XLN & sctrd vuggy por, barren  
**3920' 60"-** Dol- Buff, FXLN, massive, well cemented, consistent XLN por throughout, barren

**RTD 3920' (-2005) LTD 3919' (-2004) @ 21:00 2/21/2023 SURVEY**

**DST #3 ARBUCKLE 3760' - 3833' 15-30-45-90 (CHARTS BELOW)**

**25' GIP  
175' TOTAL FLUID**

**50' SLGCO (5% G, 95% O)  
65' HMCO (65% O, 35% M)  
60' SLOCM (10% O, 90% M)**

**Gr: 16.2 @ 60 F**

**IFP: 45-61#  
FFP: 66-85#  
SIP: 1235-1228#  
HYD: 1888-1856#  
BHT: 104 deg.**

**DST #4 ARBUCKLE 3831' - 3838' 15-30-20-0 (5' OF 7' PERF PLUGGED VALID TEST)**

**10' SLOCM (1% O, 99% M)**

**IFP: 15-18#  
FFP: 18-18#  
SIP: 1296-N/A  
HYD: 1942-1789#  
BHT: 100 deg.**

**DST #5 ARBUCKLE 3833' - 3840' 15-30-45-90**

**94' GIP  
370' TOTAL FLUID**

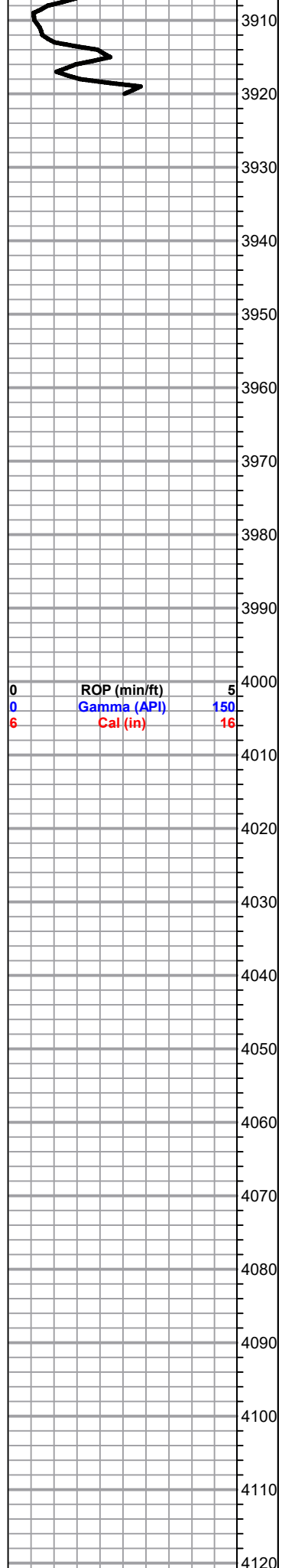
**360' SLGCO (5% G, 95% O)  
10' SLWCHOCM (30% O, 5% W, 65% M)  
Gr: 17.5 @ 60F**

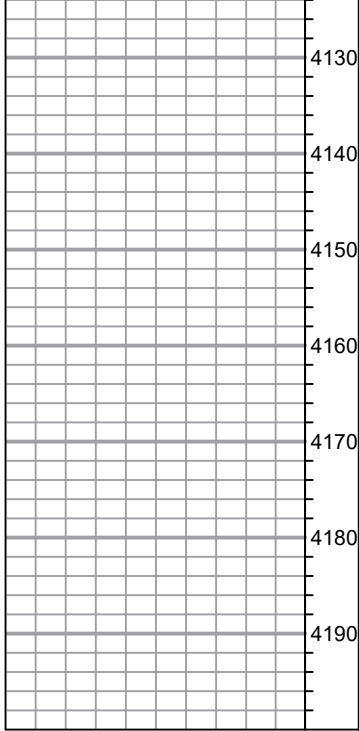
**IFP: 33-75#  
FFP: 81-147#  
SIP: 1269-1272#  
BHT: 112 deg.**



0	ROP (min/ft)	5
0	Gamma (API)	150
6	Cal (in)	16

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





4130

4140

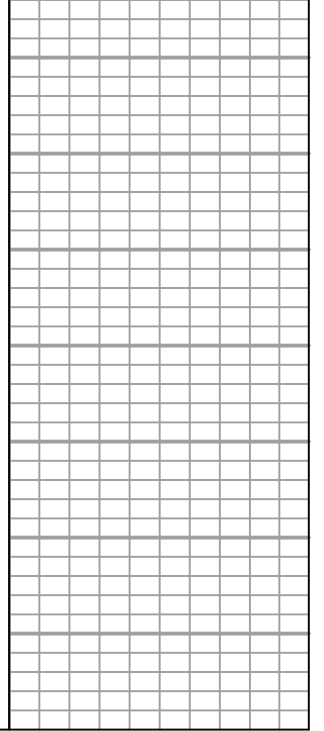
4150

4160

4170

4180

4190





















# DST 3.jpg



**Company: Bird Dog Oil, LLC**  
**Lease: Keller-Gates #3-17**

SEC: 17 TWN: 22S RNG: 13W  
 County: STAFFORD  
 State: Kansas  
 Drilling Contractor: Fossil Drilling, Inc.  
 - Rig 5  
 Elevation: 1909 EGL  
 Field Name: Kenilworth West  
 Pool: Infield  
 Job Number: 648  
 API #: 15-185-24133

**Operation:**  
 Uploading recovery &  
 pressures

**DATE**  
 February  
**19**  
 2023

**DST #3**    **Formation: Simpson Sand-Arbuckle**    **Test Interval: 3760 - 3833'**    **Total Depth: 3833'**  
 Time On: 22:23 02/19    Time Off: 06:13 02/20  
 Time On Bottom: 00:31 02/09    Time Off Bottom: 03:31 02/09

**Recovered**

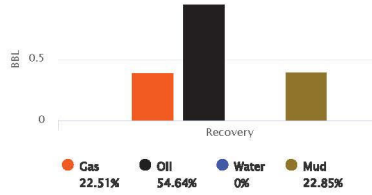
Foot	BBL/S	Description of Fluid	Gas %	Oil %	Water %	Mud %
25	0.35575	G	100	0	0	0
50	0.7115	SLGCO	5	95	0	0
65	0.3762186	HMCO	0	65	0	35
60	0.2952	SLOCM	0	10	0	90

Total Recovered: 200 ft  
 Total Barrels Recovered: 1.7386686

**Reversed Out**  
 NO

Initial Hydrostatic Pressure	1888	PSI
Initial Flow	45 to 61	PSI
Initial Closed in Pressure	1235	PSI
Final Flow Pressure	66 to 85	PSI
Final Closed in Pressure	1228	PSI
Final Hydrostatic Pressure	1856	PSI
Temperature	104	°F
Pressure Change Initial Close / Final Close	0.6	%

**Recovery at a glance**



GIP cubic foot volume: 2.19709

# DST 3\_CHRT.jpg



**Company: Bird Dog Oil, LLC**  
**Lease: Keller-Gates #3-17**

SEC: 17 TWN: 22S RNG: 13W  
 County: STAFFORD  
 State: Kansas  
 Drilling Contractor: Fossil Drilling, Inc.  
 - Rig 5  
 Elevation: 1909 EGL  
 Field Name: Kenilworth West  
 Pool: Infield  
 Job Number: 648  
 API #: 15-185-24133

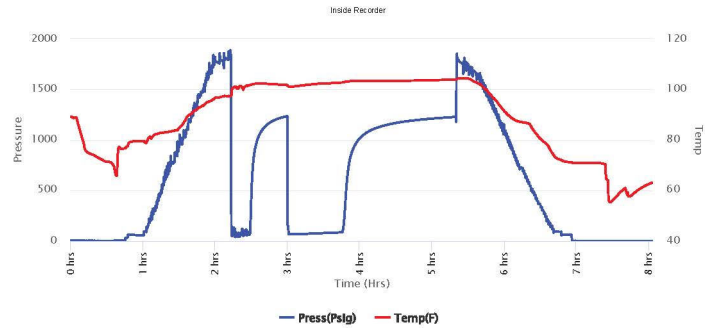
**Operation:**  
 Uploading recovery &  
 pressures

**DATE**  
 February  
**19**  
 2023

**DST #3**    **Formation: Simpson Sand-Arbuckle**    **Test Interval: 3760 - 3833'**    **Total Depth: 3833'**

Time On: 22:23 02/19    Time Off: 06:13 02/20  
 Time On Bottom: 00:31 02/09    Time Off Bottom: 03:31 02/09

Electronic Volume Estimate:	1st Open	1st Close	2nd Open	2nd Close
203'	Minutes: 15	Minutes: 30	Minutes: 45	Minutes: 90
	Current Reading: 3.8" at 15 min	Current Reading: 0" at 30 min	Current Reading: 9.2" at 45 min	Current Reading: 0" at 90 min
	Max Reading: 3.8"	Max Reading: 0"	Max Reading: 9.2"	Max Reading: 0"





# DST 4.jpg



**Company: Bird Dog Oil, LLC**  
**Lease: Keller-Gates #3-17**

SEC: 17 TWN: 22S RNG: 13W  
 County: STAFFORD  
 State: Kansas  
 Drilling Contractor: Fossil Drilling, Inc.  
 - Rig 5  
 Elevation: 1909 EGL  
 Field Name: Kenilworth West  
 Pool: Infield  
 Job Number: 648  
 API #: 15-185-24133

**Operation:**  
 Uploading recovery &  
 pressures

**DATE**  
 February  
**20**  
 2023

**DST #4**    **Formation: Arbuckle**    **Test Interval: 3831 - 3838'**    **Total Depth: 3838'**

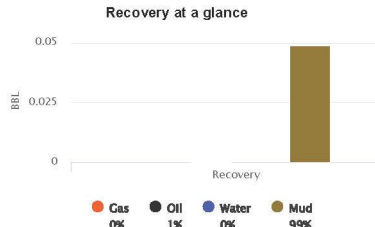
Time On: 12:47 02/20    Time Off: 18:19 02/20  
 Time On Bottom: 15:05 02/20    Time Off Bottom: 16:10 02/20

Recovered		Description of Fluid	Gas %	Oil %	Water %	Mud %
Foot	BBL/S					
10	0.0492	SLOCM	0	1	0	99

Total Recovered: 10 ft  
 Total Barrels Recovered: 0.0492

**Reversed Out**  
 NO

Initial Hydrostatic Pressure	1942	PSI
Initial Flow	15 to 18	PSI
<b>Initial Closed in Pressure</b>	<b>1296</b>	<b>PSI</b>
Final Flow Pressure	18 to 18	PSI
<b>Final Closed in Pressure</b>	<b>0</b>	<b>PSI</b>
Final Hydrostatic Pressure	1789	PSI
Temperature	100	°F
Pressure Change Initial Close / Final Close	0.0	%



GIP cubic foot volume: 0

# DST 4\_CHRT.jpg



**Company: Bird Dog Oil, LLC**  
**Lease: Keller-Gates #3-17**

SEC: 17 TWN: 22S RNG: 13W  
 County: STAFFORD  
 State: Kansas  
 Drilling Contractor: Fossil Drilling, Inc.  
 - Rig 5  
 Elevation: 1909 EGL  
 Field Name: Kenilworth West  
 Pool: Infield  
 Job Number: 648  
 API #: 15-185-24133

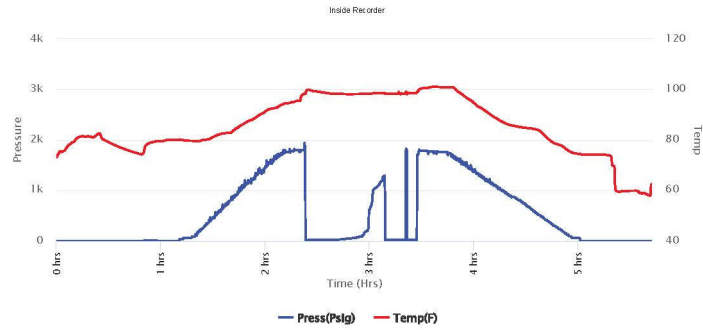
**Operation:**  
 Uploading recovery &  
 pressures

**DATE**  
 February  
**20**  
 2023

**DST #4 Formation: Arbuckle Test Interval: 3831 - 3838 Total Depth: 3838'**

Time On: 12:47 02/20 Time Off: 18:19 02/20  
 Time On Bottom: 15:05 02/20 Time Off Bottom: 16:10 02/20

Electronic Volume Estimate:	1st Open Minutes: 15	1st Close Minutes: 30	2nd Open Minutes: 20	2nd Close
14'	Current Reading: .5" at 15 min	Current Reading: 0" at 30 min	Current Reading: 0" at 20 min	N/A
	Max Reading: .5"	Max Reading: 0"	Max Reading: 0"	





# DST 5.jpg



**Company: Bird Dog Oil, LLC**  
**Lease: Keller-Gates #3-17**

SEC: 17 TWN: 22S RNG: 13W  
 County: STAFFORD  
 State: Kansas  
 Drilling Contractor: Fossil Drilling, Inc.  
 - Rig 5  
 Elevation: 1909 EGL  
 Field Name: Kenilworth West  
 Pool: Infield  
 Job Number: 648  
 API #: 15-185-24133

**Operation:**  
 Uploading recovery &  
 pressures

**DATE**  
 February  
**21**  
 2023

**DST #5**    **Formation: Arbuckle**    **Test Interval: 3833 - 3840'**    **Total Depth: 3840'**

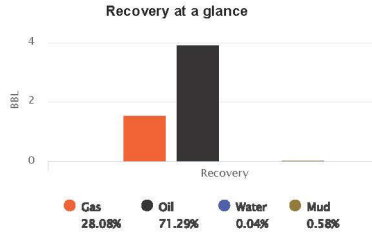
Time On: 05:09 02/21    Time Off: 13:37 02/21  
 Time On Bottom: 07:59 02/21    Time Off Bottom: 10:59 02/21

Recovered		Description of Fluid	Gas %	Oil %	Water %	Mud %
Foot	BBL/S					
94	1.33762	G	100	0	0	0
360	4.1085686	SLGCO	5	95	0	0
10	0.0492	SLWCHOCM	0	30	5	65

Total Recovered: 464 ft  
 Total Barrels Recovered: 5.4953886

Reversed Out  
 NO

Initial Hydrostatic Pressure	1878	PSI
Initial Flow	33 to 75	PSI
Initial Closed in Pressure	1269	PSI
Final Flow Pressure	81 to 147	PSI
Final Closed in Pressure	1272	PSI
Final Hydrostatic Pressure	1821	PSI
Temperature	112	°F
Pressure Change Initial Close / Final Close	0.0	%



GIP cubic foot volume: 8.66345

# DST 5\_CHRT.jpg



**Company: Bird Dog Oil, LLC**  
**Lease: Keller-Gates #3-17**

SEC: 17 TWN: 22S RNG: 13W  
 County: STAFFORD  
 State: Kansas  
 Drilling Contractor: Fossil Drilling, Inc.  
 - Rig 5  
 Elevation: 1909 EGL  
 Field Name: Kenilworth West  
 Pool: Infield  
 Job Number: 648  
 API #: 15-185-24133

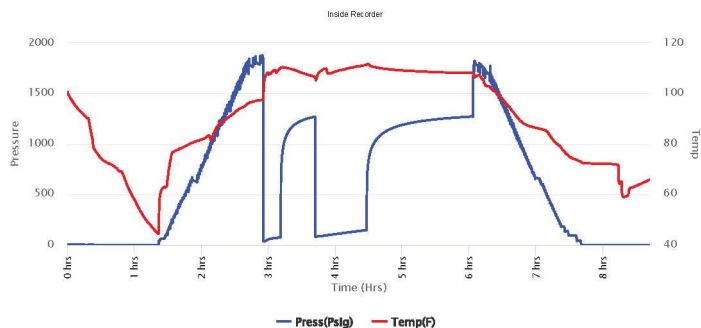
**Operation:**  
 Uploading recovery &  
 pressures

**DATE**  
 February  
**21**  
 2023

**DST #5 Formation: Arbuckle Test Interval: 3833 - 3840' Total Depth: 3840'**

Time On: 05:09 02/21 Time Off: 13:37 02/21  
 Time On Bottom: 07:59 02/21 Time Off Bottom: 10:59 02/21

Electronic Volume Estimate:	1st Open Minutes: 15	1st Close Minutes: 30	2nd Open Minutes: 45	2nd Close Minutes: 90
465'	Current Reading: 11.4" at 15 min	Current Reading: 1.1" at 30 min	Current Reading: 25.5" at 45 min	Current Reading: 2.4" at 90 min
	Max Reading: 11.4"	Max Reading: 1.1"	Max Reading: 25.5"	Max Reading: 2.4"







**Company: Bird Dog Oil, LLC**  
**Lease: Keller-Gates #3-17**

SEC: 17 TWN: 22S RNG: 13W  
 County: STAFFORD  
 State: Kansas  
 Drilling Contractor: Fossil Drilling, Inc.  
 - Rig 5  
 Elevation: 1909 EGL  
 Field Name: Kenilworth West  
 Pool: Infield  
 Job Number: 648  
 API #: 15-185-24133

**Operation:**  
 Test Complete

**DATE**  
 February  
**18**  
 2023

**DST #1 Formation: L/KC "I- K" Test Interval: 3565 - 3643' Total Depth: 3643'**

Time On: 04:44 02/18 Time Off: 12:40 02/18  
 Time On Bottom: 07:13 02/18 Time Off Bottom: 09:58 02/18

Electronic Volume Estimate:  
 206'

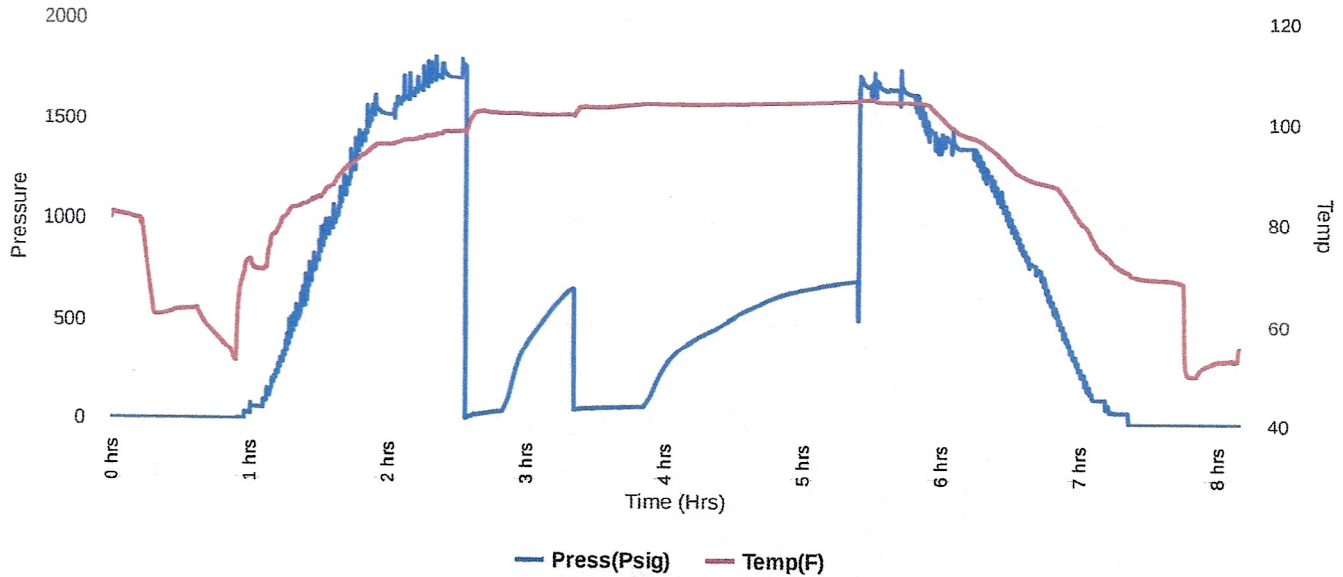
1st Open  
 Minutes: 15  
 Current Reading:  
 4.8" at 15 min  
 Max Reading: 4.8"

1st Close  
 Minutes: 30  
 Current Reading:  
 0" at 30 min  
 Max Reading: 0"

2nd Open  
 Minutes: 30  
 Current Reading:  
 9.3" at 30 min  
 Max Reading: 9.3"

2nd Close  
 Minutes: 30  
 Current Reading:  
 0" at 30 min  
 Max Reading: 0"

Inside Recorder





**Company: Bird Dog Oil, LLC**  
**Lease: Keller-Gates #3-17**

SEC: 17 TWN: 22S RNG: 13W  
 County: STAFFORD  
 State: Kansas  
 Drilling Contractor: Fossil Drilling, Inc.  
 - Rig 5  
 Elevation: 1909 EGL  
 Field Name: Kenilworth West  
 Pool: Infield  
 Job Number: 648  
 API #: 15-185-24133

**Operation:**  
 Test Complete

**DATE**  
 February  
**19**  
 2023

**DST #2**      **Formation: Viola**      **Test Interval: 3696 - 3771'**      **Total Depth: 3771'**

Time On: 02:49 02/19      Time Off: 10:21 02/19  
 Time On Bottom: 05:18 02/19      Time Off Bottom: 07:33 02/19

Electronic Volume Estimate:  
 41'

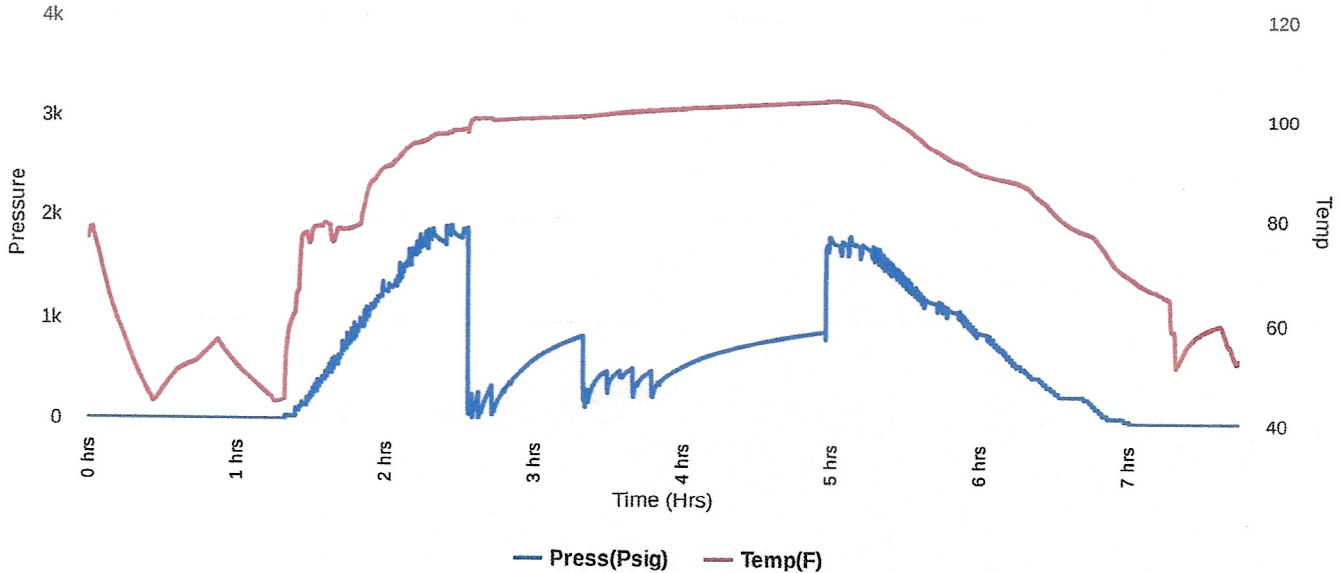
1st Open  
 Minutes: 15  
 Current Reading:  
 1.3" at 15 min  
 Max Reading: 1.4"

1st Close  
 Minutes: 30  
 Current Reading:  
 0" at 30 min  
 Max Reading: 0"

2nd Open  
 Minutes: 30  
 Current Reading:  
 0" at 30 min  
 Max Reading: .1"

2nd Close  
 Minutes: 30  
 Current Reading:  
 0" at 30 min  
 Max Reading: 0"

Inside Recorder





**Company: Bird Dog Oil, LLC**  
**Lease: Keller-Gates #3-17**

SEC: 17 TWN: 22S RNG: 13W  
 County: STAFFORD  
 State: Kansas  
 Drilling Contractor: Fossil Drilling, Inc.  
 - Rig 5  
 Elevation: 1909 EGL  
 Field Name: Kenilworth West  
 Pool: Infield  
 Job Number: 648  
 API #: 15-185-24133

**Operation:**  
 Test Complete

**DATE**  
 February  
**19**  
 2023

**DST #3**      **Formation: Simpson Sand/Arbuckle**      **Test Interval: 3760 - 3833'**      **Total Depth: 3833'**  
 Time On: 22:23 02/19      Time Off: 06:13 02/20  
 Time On Bottom: 00:31 02/20      Time Off Bottom: 03:31 02/20

Electronic Volume Estimate:  
 203'

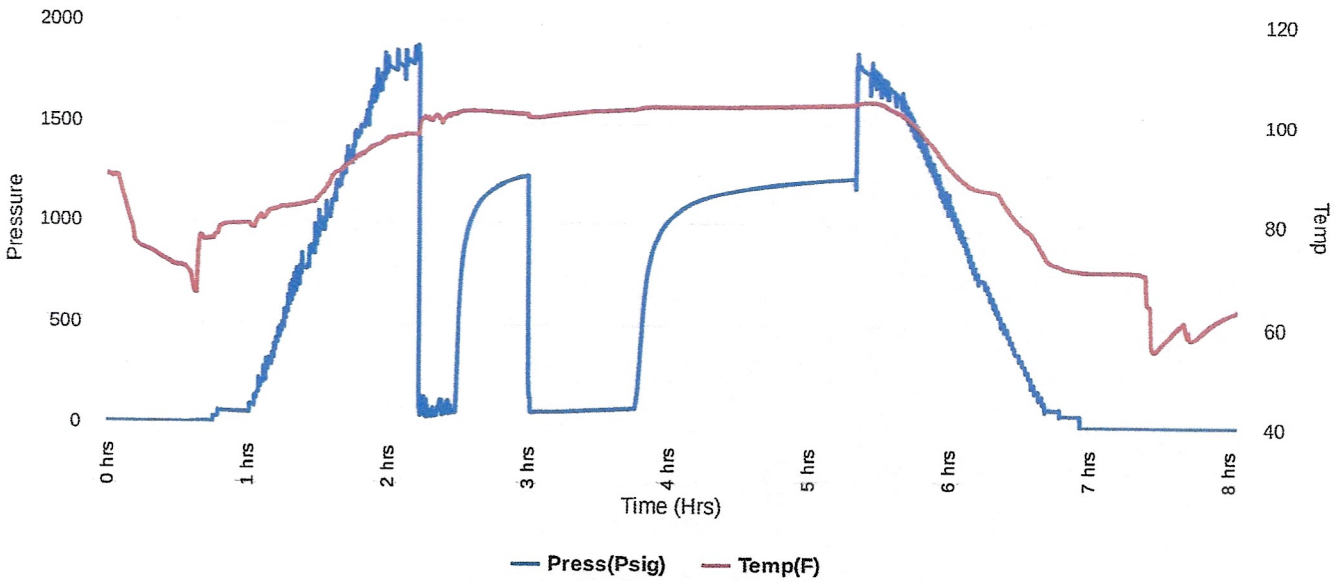
1st Open  
 Minutes: 15  
 Current Reading:  
 3.8" at 15 min  
 Max Reading: 3.8"

1st Close  
 Minutes: 30  
 Current Reading:  
 0" at 30 min  
 Max Reading: 0"

2nd Open  
 Minutes: 45  
 Current Reading:  
 9.2" at 45 min  
 Max Reading: 9.2"

2nd Close  
 Minutes: 90  
 Current Reading:  
 0" at 90 min  
 Max Reading: 0"

Inside Recorder





# Company: Bird Dog Oil, LLC Lease: Keller-Gates #3-17

SEC: 17 TWN: 22S RNG: 13W  
County: STAFFORD  
State: Kansas  
Drilling Contractor: Fossil Drilling, Inc.  
- Rig 5  
Elevation: 1909 EGL  
Field Name: Kenilworth West  
Pool: Infield  
Job Number: 648  
API #: 15-185-24133

**Operation:**

**DATE**  
February  
**20**  
2023

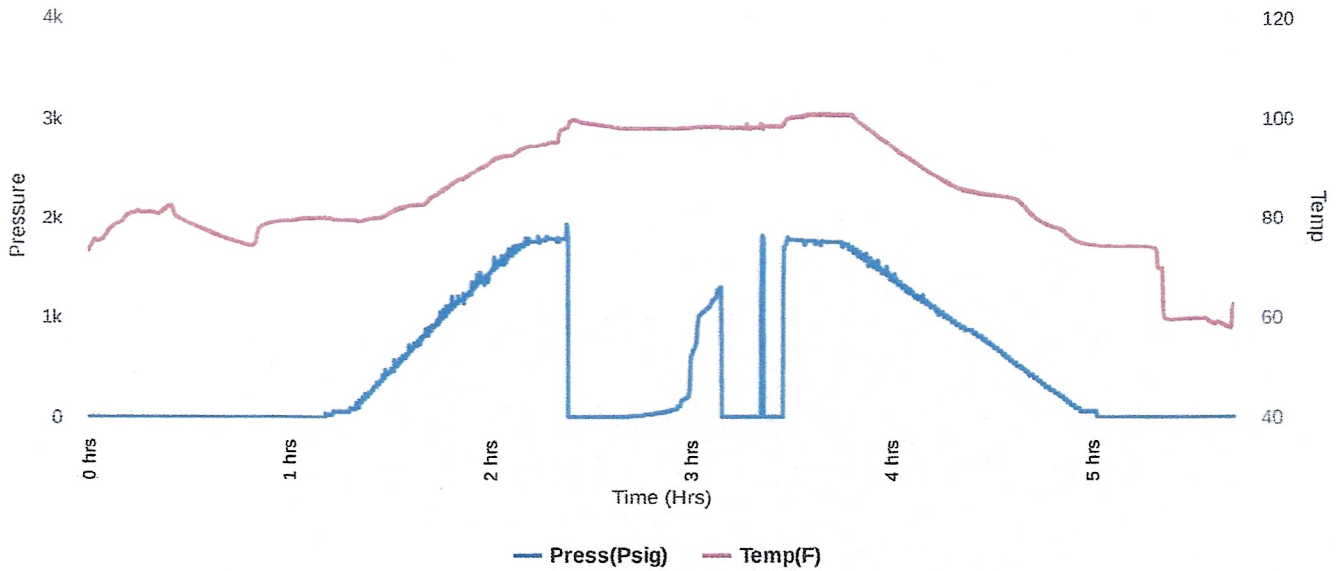
**DST #4**      **Formation: Arbuckle**      **Test Interval: 3831 - 3838'**      **Total Depth: 3838'**  
Time On: 12:47 02/20      Time Off: 18:19 02/20  
Time On Bottom: 15:05 02/20      Time Off Bottom: 16:10 02/20

Electronic Volume Estimate:  
14'

1st Open  
Minutes: 15  
Current Reading: .5" at 15 min  
Max Reading: .5"

2nd Open  
Minutes: 20  
Current Reading: 0" at 20 min  
Max Reading: 0"

Inside Recorder





**Company: Bird Dog Oil, LLC**  
**Lease: Keller-Gates #3-17**

SEC: 17 TWN: 22S RNG: 13W  
 County: STAFFORD  
 State: Kansas  
 Drilling Contractor: Fossil Drilling, Inc.  
 - Rig 5  
 Elevation: 1909 EGL  
 Field Name: Kenilworth West  
 Pool: Infield  
 Job Number: 648  
 API #: 15-185-24133

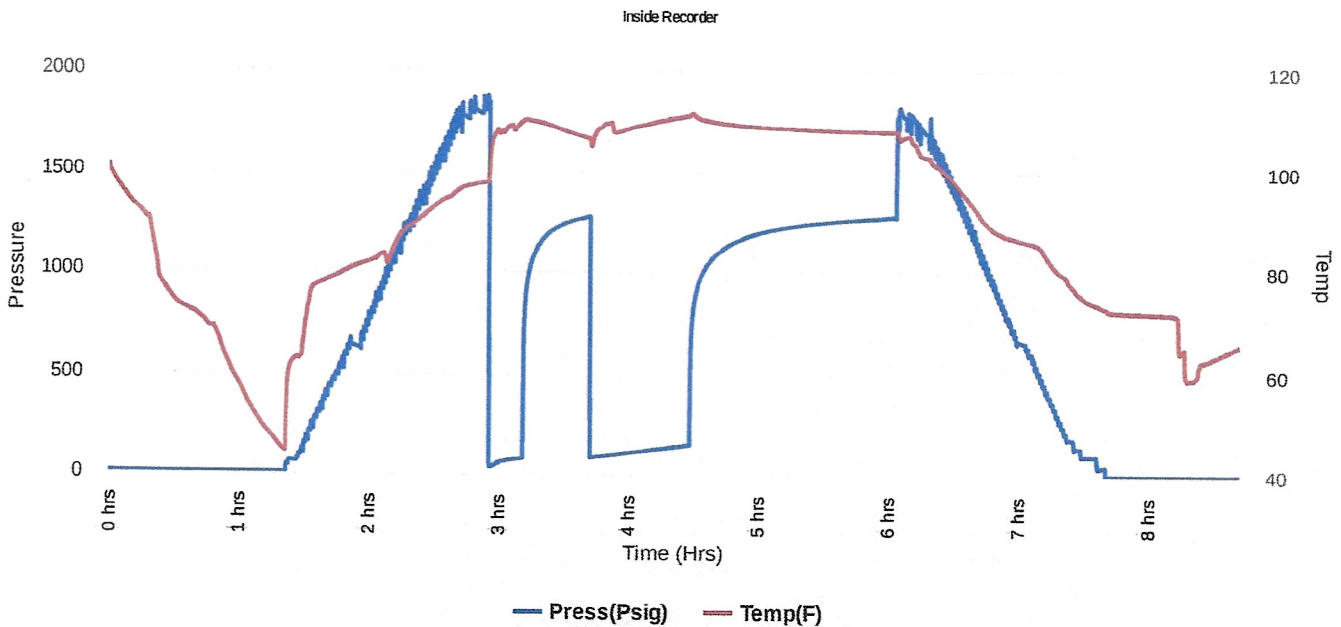
**Operation:**  
 Test Complete

**DATE**  
 February  
**21**  
 2023

**DST #5**      **Formation: Arbuckle**      **Test Interval: 3833 - 3840'**      **Total Depth: 3840'**  
 Time On: 05:09 02/21      Time Off: 13:37 02/21  
 Time On Bottom: 07:59 02/21      Time Off Bottom: 10:59 02/21

Electronic Volume Estimate:  
 465'

<u>1st Open</u>	<u>1st Close</u>	<u>2nd Open</u>	<u>2nd Close</u>
Minutes: 15	Minutes: 30	Minutes: 45	Minutes: 90
Current Reading: 11.4" at 15 min	Current Reading: 1.1" at 30 min	Current Reading: 25.5" at 45 min	Current Reading: 2.4" at 90 min
Max Reading: 11.4"	Max Reading: 1.1"	Max Reading: 25.5"	Max Reading: 2.4"



# 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. **3465**

Date	2-14-23	Sec.	17	Twp.	22	Range	13	County	Stafford	State	KS	On Location		Finish	1:00 AM
------	---------	------	----	------	----	-------	----	--------	----------	-------	----	-------------	--	--------	---------

Lease **Keller - Gates** Location **281 + K-19, 1W, 13/4 S, w/Info**  
Well No. **3-17** Owner

Contractor **Fossil #5**  
Type Job **Surface**  
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.

Hole Size **12 1/4"** T.D. **485'** Charge To **Bird Doeg**  
Csg. **8 5/8"** Depth **482'** Street

Tbg. Size Depth City State  
Tool Depth  
The above was done to satisfaction and supervision of owner agent or contractor.

Cement Left in Csg. **20'** Shoe Joint **20'** Cement Amount Ordered **480 80/20 3%CC 2%Gel**  
Meas Line Displace **29 1/2 BLS** **1/2# Flow seal**

**EQUIPMENT**  
Common **385**  
Pumptrk **16** No. Cementer **Tim** Poz. Mix **95**  
Bulktrk **21** No. Driver **Bryant** Gel. **9**  
Bulktrk **P.H.** No. Driver **Rick** Calcium **17**

**JOB SERVICES & REMARKS**  
Remarks: **Cement did Circulate**  
Rat Hole  
Mouse Hole  
Centralizers  
Baskets  
D/V or Port Collar  
Hulls  
Salt  
Flowseal **250 #**  
Kol-Seal  
Mud CLR 48  
CFL-117 or CD110 CAF 38  
Sand  
Handling **506**  
Mileage

**FLOAT EQUIPMENT**  
Guide Shoe  
Centralizer  
Baskets  
AFU Inserts  
Float Shoe  
Latch Down

Pumptrk Charge **Surface**  
Mileage **17**

Signature **[Signature]** Thanks  
Tax  
Discount  
Total Charge

# 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. **3469**

Date	2-22-23	Sec.	17	Twp.	22	Range	13	County	Stafford	State	KS	On Location		Finish	9:00 PM
------	---------	------	----	------	----	-------	----	--------	----------	-------	----	-------------	--	--------	---------

Lease: Keller - Gates  
Well No. 3-17  
Location: 281 + K19 - 1W, 1 3/4 S, w/Intro

Contractor	Fossil #5	Owner	To Quality Oilwell Cementing, Inc.
Type Job	Longstring	You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.	

Hole Size	7 7/8" <sup>11</sup>	T.D.	3920'	Charge To	Bird Dog
Csg.	5 1/2" <sup>11</sup>	Depth	3903.18'	Street	

Tbg. Size		Depth		City		State	
Tool		Depth		The above was done to satisfaction and supervision of owner agent or contractor.			

Cement Left in Csg.	42.67'	Shoe Joint	42.67'	Cement Amount Ordered	200 G.Pro-C 10% Salt
Meas Line		Displace	92 1/4 BLS	5% Gilsonite - 750 gal mud	Clear 40 BLS KCL

**EQUIPMENT**

Pumptrk	16	No.	Cementor	Jordan	Common	200 Q pro-C
			Helper		Poz. Mix	
Bulktrk	3	No.	Driver	Bryant	Gel.	
			Driver		Calcium	
<del>Bulktrk</del>	P.H.	No.	Driver	Rick	Hulls	KCL 2 gal
			Driver		Salt	14

**JOB SERVICES & REMARKS**

Remarks:		Flowseal	
Rat Hole	30	Kol-Seal	750 #
Mouse Hole	20	Mud CLR 48	500 gal
Centralizers	1-8	CFL-117 or CD110 CAF	38
Baskets	1	Sand	
D/V or Port Collar	Pipe on bottom break	Handling	22.1
Circulation	pump 750 gal mud	Mileage	
Clear	20 BLS KCL Spaced plug		
Rehook	+ mousehole. Cement		
	5 1/2" w/ 150 SX Shut down		
	wash pump + lines Displaced		
	plug w/ 92 1/4 BLS H2O.		
	Released + held.		
	Lift pressure 700 #		
	Land plug to 1400 #		
	First 20 BLS of Displacement		
	w/ KCL		

**FLOAT EQUIPMENT**

Guide Shoe	
Centralizer	8
Baskets	1
AFU Inserts	
Float Shoe	1
Latch Down	1

Pumptrk Charge	Prod String
Mileage	17

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

*Thanks*