KOLAR Document ID: 1593079

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 # 34916
Name: FourWinds Oil Corporation
Address 1: PO BOX 1063
Address 2:
City: HAYS State: KS Zip: 67601 + 1063
Contact Person: Dan Windholz
Phone: (785) 259-8403
CONTRACTOR: License # 31548
Name: Discovery Drilling
Wellsite Geologist: Cameron Brin
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 #:

6/25/2021 Spud Date or Recompletion Date
6/30/2021 Date Reached TD
7/16/2021 Completion Date or Recompletion Date

API No.: 15-147-20757-00-00
Spot Description:
NW - NE - NE - NE Sec. 29 Twp. 5 S. R. 20 ☐ East ☑ West
150 Feet from ☑ North / ☐ South Line of Section
340 Feet from ☑ East / ☐ West Line of Section
Footages Calculated from Nearest Outside Section Corner:
☑ NE ☐ NW ☐ SE ☐ SW
GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Phillips
Lease Name: H&S UNIT Well #: 1
Field Name:
Producing Formation: Arbuckle
Elevation: Ground: 2228 Kelly Bushing: 2236
Total Vertical Depth: 3674 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 222 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: 1000 ppm Fluid volume: 320 bbls
Dewatering method used: Evaporated
Location of fluid disposal if hauled offsite:
Operator Name:
Lease Name: License #:
Quarter Sec. Twp. S. R. ☐ East ☐ West
County: Permit #:

AFFIDAVIT

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

Submitted Electronically

KCC Office Use ONLY

☐ **Confidentiality Requested**
Date: 10/04/2021
☐ **Confidential Release Date:** 10/04/2023
☐ **Wireline Log Received** ☑ **Drill Stem Tests Received**
☑ **Geologist Report / Mud Logs Received**
☐ **UIC Distribution**
ALT ☐ I ☑ II ☐ III **Approved by:** Deanna Garrison **Date:** 10/04/2021

Operator Name: FourWinds Oil Corporation Lease Name: H&S UNIT Well #: 1

Sec. 29 Twp. 5 S. R. 20 ☐ East ☑ West County: Phillips

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 *(Attach Additional Sheets)*	☑ Yes	☐ No
Samples Sent to Geological Survey	☐ Yes	☑ No
Cores Taken	☐ Yes	☑ No
Electric Log Run	☑ Yes	☐ No
Geologist Report / Mud Logs	☑ Yes	☐ No

List All E. Logs Run:

Density/Neutron
Micro
Dual Induction

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

Name	Top	Datum
Topeka	3170	-934
LKC	3409	-1173
Arbuckle	3649	-1413

CASING RECORD ☑ New ☐ Used

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

Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface	12	8.625	23	222	80/20	150	3%C
Production	7.875	5.5	15.5	3679	QMDC	600	5% salt

ADDITIONAL CEMENTING / SQUEEZE RECORD

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

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: 10/1/2021	Producing Method: ☐ Flowing ☑ Pumping ☐ Gas Lift ☐ Other *(Explain)*					
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity	

DISPOSITION OF GAS:	METHOD OF COMPLETION:	PRODUCTION INTERVAL:	
		Top	Bottom
☐ Vented ☐ Sold ☐ Used on Lease *(If vented, Submit ACO-18.)*	☐ Open Hole ☑ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*	3656	3659

Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record *(Amount and Kind of Material Used)*
4	3656	3659			250gal 15%, 1000gal 20%

TUBING RECORD: Size: Set At: Packer At:

Mail to: KCC - Conservation Division, 266 N. Main, Suite 220, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	FourWinds Oil Corporation
Well Name	H&S UNIT 1
Doc ID	1593079

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	12	8.625	23	222	80/20	150	3%C
Production	7.875	5.5	15.5	3679	QMDC	600	5% salt

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. 2306

Date	Sec.	Twp.	Range	County	State	On Location	Finish
6-26-21	29	5	20	Phillips	KS		2 00PM

Location Logan 3S 1W

Lease H & S Unit | Well No. 1 | Owner

Contractor Discovery

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 12¼ | T.D. 222

Csg. 8⅝ | Depth 221

Charge To Four Winds Oil Co

Tbg. Size | Depth

Street

Tool | Depth

City State

The above was done to satisfaction and supervision of owner agent or contractor.

Cement Left in Csg. 15 | Shoe Joint

Cement Amount Ordered 150 sx 3% cc 2% gel

Meas Line | Displace 13

EQUIPMENT

	No.		
Pumptrk 12		Cementer	Bill
		Helper	Chris
Bulktrk 9	No.	Driver	Joe
		Driver	
Bulktrk	No.	Driver	Doug
		Driver	

JOB SERVICES & REMARKS

Remarks:

Rat Hole

Mouse Hole

Centralizers

Baskets

D/V or Port Collar

Ran 5 jts 8⅝ 24# csg @ 222

Cemented 150 sx

pump plug down @ 13 bbls

Cement did circ.

Common	
Poz. Mix	
Gel.	
Calcium	
Hulls	
Salt	
Flowseal	
Kol-Seal	
Mud CLR 48	
CFL-117 or CD110 CAF 38	
Sand	
Handling	
Mileage	
FLOAT EQUIPMENT	
Guide Shoe	
Centralizer	
Baskets	
AFU Inserts	
Float Shoe	
Latch Down	
Pumptrk Charge	
Mileage	
Tax	
Discount	
Total Charge	

X
Signature

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. 2310

Date	Sec.	Twp.	Range	County	State	On Location	Finish
7-1-21	24	5	20	Phillips	Ks		1130

Location 1 mi S & 1 W Sinto

Lease HOS Unit Well No. 1 Owner

Contractor Discovery

Type Job Prod Csg

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 7 7/8 T.D. 3680

Csg. 5 1/2 15.5# Depth 3679

Charge To Four Winds Oil Corp.

Tbg. Size Depth

Street

Tool Depth

City State

The above was done to satisfaction and supervision of owner agent or contractor.

Cement Left in Csg. 42.02 Shoe Joint 42.02

Cement Amount Ordered 450 sx 60/40 2% DC 1/4# FS to 500 sx 60/40 10% Salt + 5/4 Kol +

Meas Line Displace 86 1/2

EQUIPMENT

	No.		
Pumptrk 17		Cementer	Bill
		Helper	
Bulktrk 9	No.	Driver	Chris
		Driver	
Bulktrk 19	No.	Driver	Tony
		Driver	Doug

JOB SERVICES & REMARKS

Remarks:

Rat Hole 30 sx

Mouse Hole 15 sx

Centralizers

Baskets

D/V or Port Collar

Pipe on B 3679
Shoe Jt 42.02

Pump 500 gal Flush
Cmt w/

Pump plug w/ 86 1/2 bbls water
Land plug @ 1300 PSI
Float held
Cmt did circ 71 bbls
Rat hole 30 sx
M Hole 15 sx

X Signature

Common	
Poz. Mix	
Gel.	
Calcium	
Hulls	
Salt	
Flowseal	
Kol-Seal	
Mud CLR 48	
CFL-117 or CD110 CAF 38	
Sand	
Handling	
Mileage	

FLOAT EQUIPMENT

Guide Shoe	
Centralizer	7 TURBO
Baskets	4
AFU Inserts	
Float Shoe	
Latch Down	1
Pumptrk Charge	
Mileage	
Tax	
Discount	
Total Charge	

Scale 1:240 Imperial

Well Name:	H _S UNIT #1		
Surface Location:	NW, NE, NE, NE Sec. 29, T5S, R20W		
Bottom Location:			
API:	15-147-20757		
License Number:	34916		
Spud Date:	6/26/2021	Time:	8:15 AM
Region:	PHILLIPS COUNTY		
Drilling Completed:	6/30/2021	Time:	1:45 AM
Surface Coordinates:	150' FNL & 340' FEL		
Bottom Hole Coordinates:			
Ground Elevation:	2228.00ft		
K.B. Elevation:	2236.00ft		
Logged Interval:	3100.00ft	To:	3680.00ft
Total Depth:	3680.00ft		
Formation:	ARBUCKLE		
Drilling Fluid Type:	CHEMICAL		

OPERATOR

Company:	FOURWINDS OIL CORPORATION		
Address:	P.O. BOX 1063		
Contact Geologist:	DAN WINDHOLZ		
Contact Phone Nbr:	(785) 259-8403		
Well Name:	H _S UNIT #1		
Location:	NW, NE, NE, NE Sec. 29, T5S, R20W		
API:	15-147-20757		
Pool:		Field:	RAY
State:	KS	Country:	

SURFACE CO-ORDINATES

Well Type:	Vertical
Longitude:	-99.59152
Latitude:	39.59594
N/S Co-ord:	150' FNL
E/W Co-ord:	340' FEL

LOGGED BY

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

CONTRACTOR

Contractor:	DISCOVERY DRILLING		
Rig #:	2		
Rig Type:	MUD ROTARY		
Spud Date:	6/26/2021	Time:	8:15 AM
TD Date:	6/30/2021	Time:	1:45 AM
Rig Release:	7/1/2021	Time:	2:30 PM

ELEVATIONS

K.B. Elevation:	2236.00ft	Ground Elevation:	2228.00ft
K.B. to Ground:	8.00ft		

NOTES

DUE TO POSITIVE RESULTS IN DST #1, DESCISION WAS MADE TO RUN 5 1/2" PRODUCTION CASING TO FURTHER EVALUATE THE H & S UNIT #1 WELL.

STRUCTURAL TOPS COMPARISON

					P&A 1/30/1974						●						D&A 12/22/1947						P&A 10/6/16					
					STATES #2						MARY A UNIT #1						REECE D #4						HANSEN #1					
					DG HANSEN TRUST						FOURWINDS OIL						CITIES SERVICE OIL						JOHN O. FARMER					
	H & S UNIT #1				SW, SE, SE, Sec 20, T5S, R20W						NE, NE, NW, NW, Sec. 28, T5S, R20W						SW, NE, NE, Sec. 29, T5S, R20W						SW, SW, SW, Sec. 21, T5S, R20W					
	KB	2236	GL	2228	DF	2231					KB	2229					KB	2228					KB	2195				
	LOG TOPS		SAMPLE TOPS		COMP CARD		LOG		SMPL.		LOG		LOG		SMPL.		COMP CARD		LOG		SMPL.		COMP. CARD		LOG		SMPL.	
FORMATION	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	CORR.		CORR.		DEPTH	DATUM	CORR.		CORR.		DEPTH	DATUM	CORR.		CORR.		DEPTH	DATUM	CORR.		CORR.	
ANHYDRITE TOP	1761	475	1760	476	1768	463	+	12	+	13	1757	472	+	3	+	4	1748	480	-	5	-	4	1722	473	+	2	+	3
BASE	1792	444	1791	445	1798	433	+	11	+	12	1786	443	+	1	+	2							1752	443	+	1	+	2
TOPEKA	3170	-934	3165	-929	3169	-938	+	4	+	9	3157	-928	-	6	-	1							3129	-934	+	0	+	5
HEEBNER SHALE	3368	-1132	3364	-1128	3364	-1133	+	1	+	5	3351	-1122	-	10	-	6	3361	-1133	+	1	+	5	3324	-1129	-	3	+	1
TORONTO	3391	-1155	3387	-1151	3389	-1158	+	3	+	7	3375	-1146	-	9	-	5							3348	-1153	-	2	+	2
LKC	3409	-1173	3404	-1168	3406	-1175	+	2	+	7	3394	-1165	-	8	-	3	3400	-1172	-	1	+	4	3365	-1170	-	3	+	2
BKC	3601	-1365	3596	-1360	3603	-1372	+	7	+	12	3585	-1356	-	9	-	4	3598	-1370	+	5	+	10	3560	-1365	+	0	+	5
GORHAM SAND			3649	-1413							3636	-1407			-	6												
ARBUCKLE	3649	-1413	3652	-1416	3646	-1415	+	2	-	1	3639	-1410	-	3	-	6	3651	-1423	+	10	+	7	3611	-1416	+	3	+	0
REAGAN SAND	3660	-1424	3658	-1422													3661	-1433	+	9	+	11	3618	-1423	-	1	+	1
GRANITE																												
TOTAL DEPTH	3674	-1438	3680	-1444	3650	-1419	-	19	-	25	3641	-1412	-	26	-	32	3670	-1442	+	4	-	2	3688	-1493	+	55	+	49

DST #1 3567'-3663' (ARBUCKLE)

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Fourwinds Oil Corporation

P.O. Box 1063
Hays, Ks 67601

ATTN: Cameron Brin

29-5-20 Phillips Ks

H&S Unit #1

Job Ticket: 67459 **DST#: 1**

Test Start: 2021.06.30 @ 14:21:27

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 16:37:27
Time Test Ended: 21:21:27

Test Type: Conventional Bottom Hole (Initial)
Tester: Brandon Turley
Unit No: 79

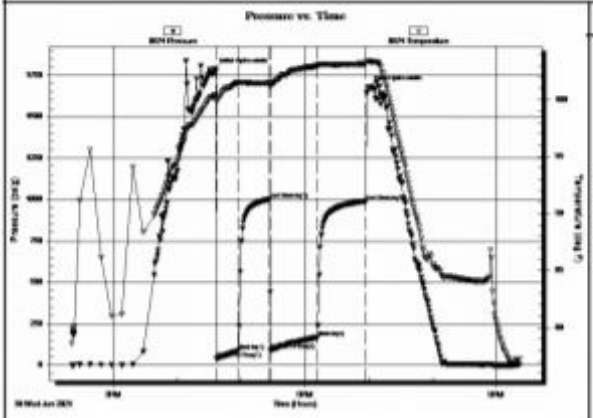
Interval: 3567.00 ft (KB) To 3663.00 ft (KB) (TVD)
Total Depth: 3680.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2226.00 ft (KB)
2216.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8674 **Outside**
Press@RunDepth: 169.55 psig @ 3568.00 ft (KB)
Start Date: 2021.06.30 End Date: 2021.06.30
Start Time: 14:21:32 End Time: 21:21:26

Capacity: 8000.00 psig
Last Calib.: 2021.06.30
Time On Btm: 2021.06.30 @ 16:34:57
Time Off Btm: 2021.06.30 @ 18:59:57

TEST COMMENT: IF: 1/4 blow built to 4 1/2.
IS: No return.
FF: 1/4 blow built to 4 1/2. Died to 3 1/2.
FS: No return. 20-30-45-45



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1784.23	100.31	Initial Hydro-static
3	38.81	99.82	Open To Flow (1)
23	88.52	101.52	Shut-In(1)
52	1000.53	101.48	End Shut-In(1)
53	90.83	101.33	Open To Flow (2)
97	169.55	103.00	Shut-In(2)
143	989.80	103.16	End Shut-In(2)
145	1678.42	103.38	Final Hydro-static

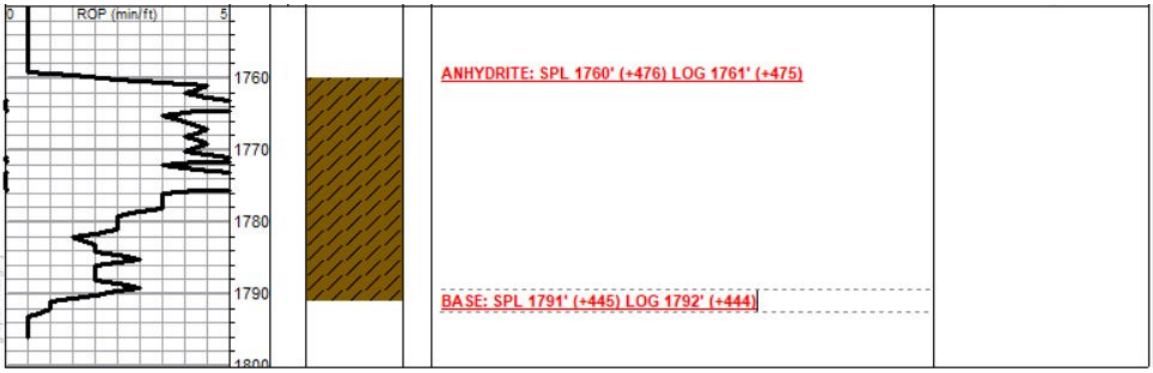
Recovery

Length (ft)	Description	Volume (bbl)
63.00	gocm 20%g 30%o 50%m	0.60
126.00	mcgo 20%g 40%o 40%m	1.77
157.00	gocm 5%g 35%o 60%m	2.20
0.00	157 GIP	0.00

Gas Rates

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

ANHYDRITE



ROCK TYPES

Congl
Dolprim
Lmst fw7>
shale, grn
shale, gry
Carbon Sh
shale, red
Ss

ACCESSORIES

MINERAL
- Chert, dark
- Sandy
- Chert White

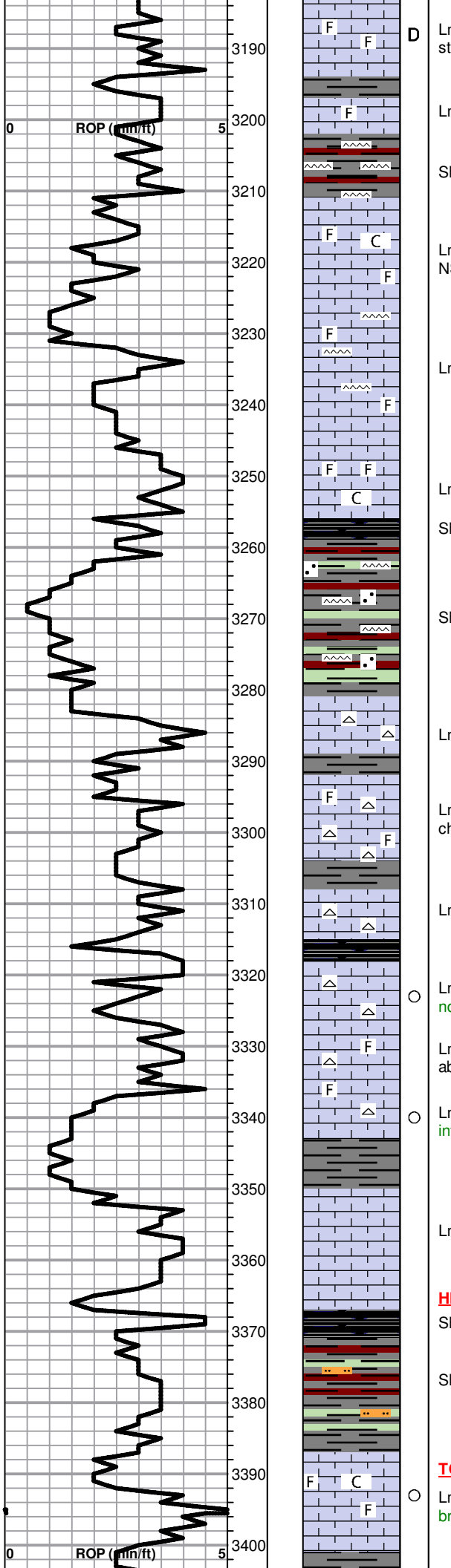
FOSSIL
- F Fossils < 20%
- Oolite

STRINGER
- Chert
- Sandstone
- Siltstone

TEXTURE
- C Chalky

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

Curve Track #1 ROP (min/ft) 1:240 Imperial	Depth | Intervals Cored Interval DST Interval	DST	Lithology	Oil Show	Geological Descriptions	Curve Track #3 1:240 Imperial
0 ROP (min/ft) 5	3110				**1' DRILL TIME FOR ANHYDRITE FROM 1750'-1800'** **1' DRILL TIME FROM 3100'- RTD** **10' WET/ DRY SAMPLES FROM 3150'- RTD**	GEO ON LOCATION @ 1:30 P.M. 6/28/21
	3120				Sh- gray, earthy	8 5/8 SURFACE CASING SET @ 222.83' KB
	3130		F F		Lm- gray-crm, fnxln, few scat foss	SURVEY @ 222' (3/4°)
	3140		F C		Lm- A/A, scat chalky Sh- red-gray-blk, sli red wash, scat sandy	DISPLACED @ 3030' SURVEY @ 3013' (1°)
	3150				Sh- gray, waxy, earthy	
	3160				**TOPEKA: SPL 3165' (-929) LOG 3170' (-934)**	
	3170		F F		Lm- crm, v. fnxln, foss	
	3180				Lm- crm-gray, v. fnxln, cherty in prt, scat sandy	VIS 47 WT 8.7 LCM 2#



D

Lm- crm-gray, v.fnxln, scat foss, few scat pcs v. pr inxln por, dead oil stn, no odor

Lm- crm-gray, v. fnxln, foss, few scat pcs v. pr inxln por, NSO

Sh- gray-red, scat foss, scat chert, sandy in prt

Lm- crm-wt, fnxln, foss, chalky, few scat pcs v. pr inxln-infoss por, NSO

Lm- crm, fnxln, foss, wt-tan chert throughout

Lm- A/A, chalky in prt

Sh- blk, carb

Sh- red-gray-green, sli sandy, scat chert

Lm- crm- gray, microxln, dnse, cherty in prt

Lm- v.fn-fnxln, foss, v. few pcs v. pr inxln por, NSO, scat orange-wt chert

Lm- tan, v. fnxln, cherty in prt, v. few pcs v. pr inxln por, NSO

○ Lm- crm-wt, vfn-fnxln, cherty 5-6 pcs pr inxln por, pr brn stn, NSFO pr- no odor

Lm- crm, vfnxln, cherty, foss, 1 pc w/ same show, most likely from above

○ Lm- crm-tan, fnxln, foss, oolitic in prt, scat wt chert, 3-4 pcs pr inxln-infoss por, pr brn stn, NSFO, no odor

Lm- wt-gray, vfn-fnxln, mostly dense, scat pr inxln por, NSO

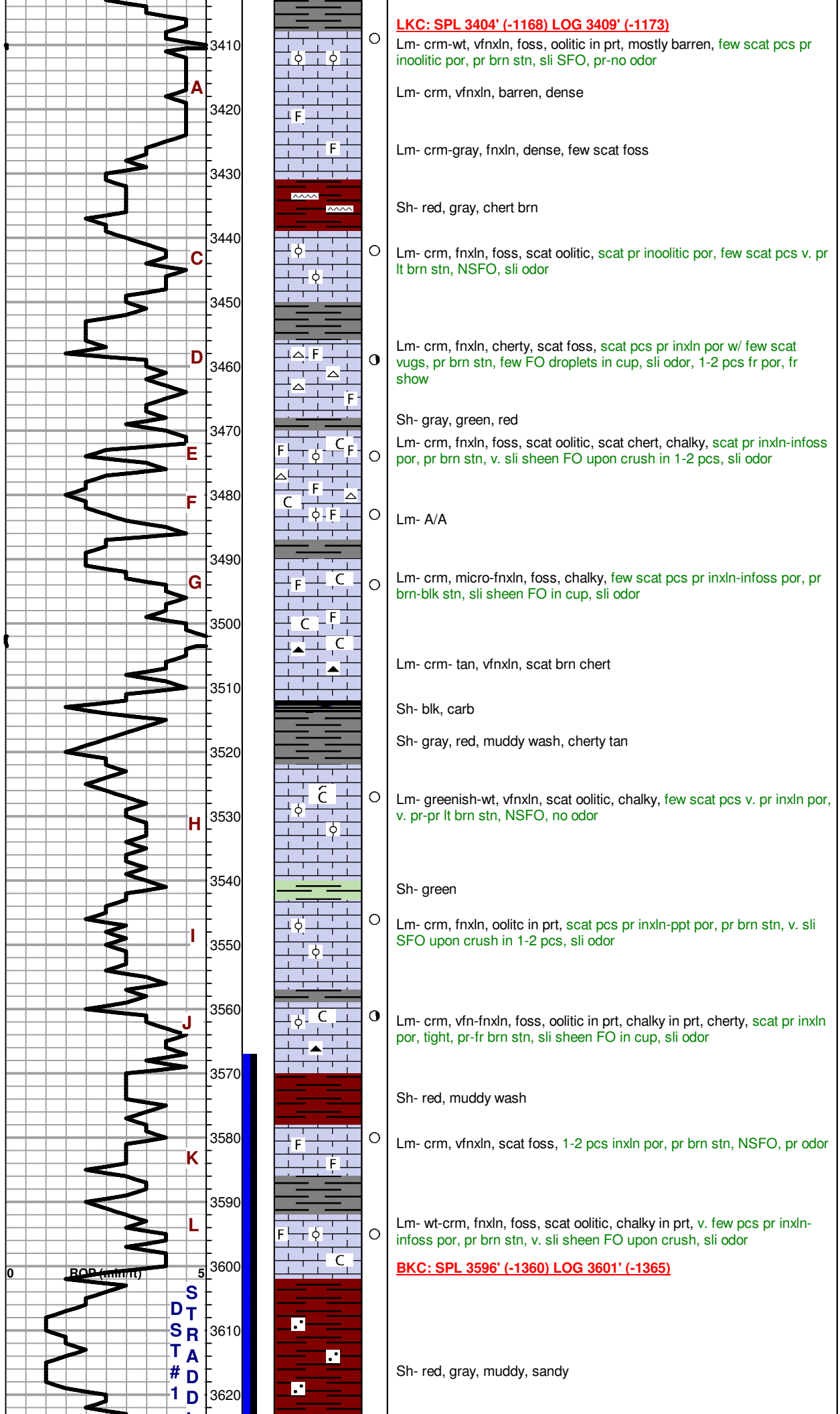
HEEBNER: SPL 3364' (-1128) LOG 3368' (-1132)

Sh- blk, carb

Sh- gray, red, green, silty in prt

TORONTO: SPL 3387' (-1151) LOG 3391' (-1155)

○ Lm- crm, vfnxln, foss in prt, chalky in prt, few scat pcs pr inxln por, pr lt brn stn, sli SFO in cup, sli odor



LKC: SPL 3404' (-1168) LOG 3409' (-1173)

Lm- crm-wt, vfnxln, foss, oolitic in prt, mostly barren, few scat pcs pr inoolitic por, pr brn stn, sli SFO, pr-no odor

Lm- crm, vfnxln, barren, dense

Lm- crm-gray, fnxln, dense, few scat foss

Sh- red, gray, chert brn

Lm- crm, fnxln, foss, scat oolitic, scat pr inoolitic por, few scat pcs v. pr lt brn stn, NSFO, sli odor

Lm- crm, fnxln, cherty, scat foss, scat pcs pr inxln por w/ few scat vugs, pr brn stn, few FO droplets in cup, sli odor, 1-2 pcs fr por, fr show

Sh- gray, green, red

Lm- crm, fnxln, foss, scat oolitic, scat chert, chalky, scat pr inxln-infoss por, pr brn stn, v. sli sheen FO upon crush in 1-2 pcs, sli odor

Lm- A/A

Lm- crm, micro-fnxln, foss, chalky, few scat pcs pr inxln-infoss por, pr brn-blk stn, sli sheen FO in cup, sli odor

Lm- crm- tan, vfnxln, scat brn chert

Sh- blk, carb

Sh- gray, red, muddy wash, cherty tan

Lm- greenish-wt, vfnxln, scat oolitic, chalky, few scat pcs v. pr inxln por, v. pr-pr lt brn stn, NSFO, no odor

Sh- green

Lm- crm, fnxln, oolitc in prt, scat pcs pr inxln-ppt por, pr brn stn, v. sli SFO upon crush in 1-2 pcs, sli odor

Lm- crm, vfn-fnxln, foss, oolitic in prt, chalky in prt, cherty, scat pr inxln por, tight, pr-fr brn stn, sli sheen FO in cup, sli odor

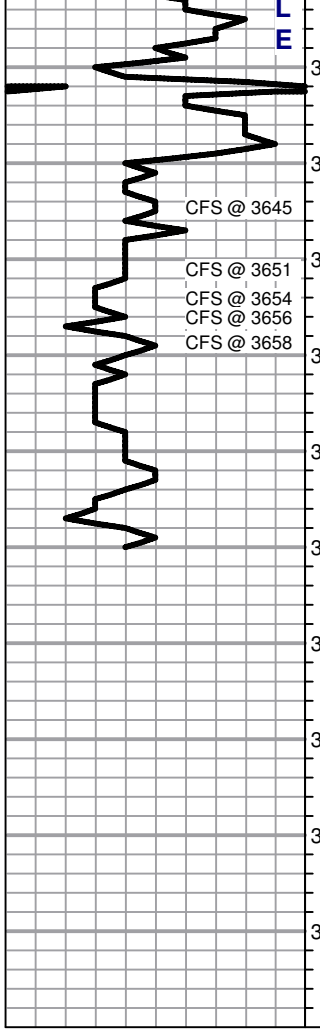
Sh- red, muddy wash

Lm- crm, vfnxln, scat foss, 1-2 pcs inxln por, pr brn stn, NSFO, pr odor

Lm- wt-crm, fnxln, foss, scat oolitic, chalky in prt, v. few pcs pr inxln-infoss por, pr brn stn, v. sli sheen FO upon crush, sli odor

BKC: SPL 3596' (-1360) LOG 3601' (-1365)

Sh- red, gray, muddy, sandy



Lm- crm, fnxln, scat foss, dnse

Lm-cong- crm- brn, fnxln-mdgrn, scat foss, few scat SS clusters, possibly gorham

ARBUCKLE: SPL 3652' (-1416) LOG 3649' (-1413)

Dolo- crm, fnxln, sucrosic, mostly tight, pr inxln por, pr brn-blk stn & sat, fr sheen FO in cup, pr-fr odor, Sh- red

REAGAN SAND: SPL 3658' LOG 3660' (-1424)

Ss- clear-wt, quartz, fn-mdgrn, mod rounding, pr-fr sorting, well cemented, dolo matrix, tight, most w/ pr in grn por, scat pr blk stn, fr SFO in cup, pr-fr odor

Ss- A/A only a few scat shows

RTD: SPL 3680' (-1444) LOG 3674' (-1438)

3656'- dolo A/A, few scat pcs fr inxln por, fr sheen FO in cup, fr odor, few scat pcs dolomitic sand?

3658'- dolo- wt, sucrosic, tight, scat pcs pr inxln por, pr brn-blk stn, sli sheen FO in cup, pr-fr odor, few scat pcs dolomitic sand? well sorted, well rounded, well cemented, scat brn- green, red shale

SLUFF ON THE BOTTOM OF THE HOLE CAUSED THE LOGGING TOOL TO LAND 6' SHORT OF RTD

SURVEY @ 3680' (1 3/4°)

PIPE STRAP +1.36' TO BOARD

GEO OFF LOCATION @ 10:00 P.M. 6/30/21

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Fourwinds Oil Corporation**

PO Box 1063
Hays, KS 67601

ATTN: Cameron Brin

H&S Unit #1

29-5s-20w Phillips,KS

Start Date: 2021.06.30 @ 14:21:27
End Date: 2021.06.30 @ 21:21:27
Job Ticket #: 67459 DST #: 1

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2021.07.01 @ 16:36:29

DRILL STEM TEST REPORT

Fourw inds Oil Corporation

PO Box 1063
Hays, KS 67601

ATTN: Cameron Brin

29-5s-20w Phillips,KS

H&S Unit #1

Job Ticket: 67459 **DST#: 1**

Test Start: 2021.06.30 @ 14:21:27

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 16:37:27
Time Test Ended: 21:21:27

Test Type: Conventional Bottom Hole (Initial)
Tester: Brandon Turley
Unit No: 79

Interval: 3567.00 ft (KB) To 3663.00 ft (KB) (TVD)
Total Depth: 3680.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

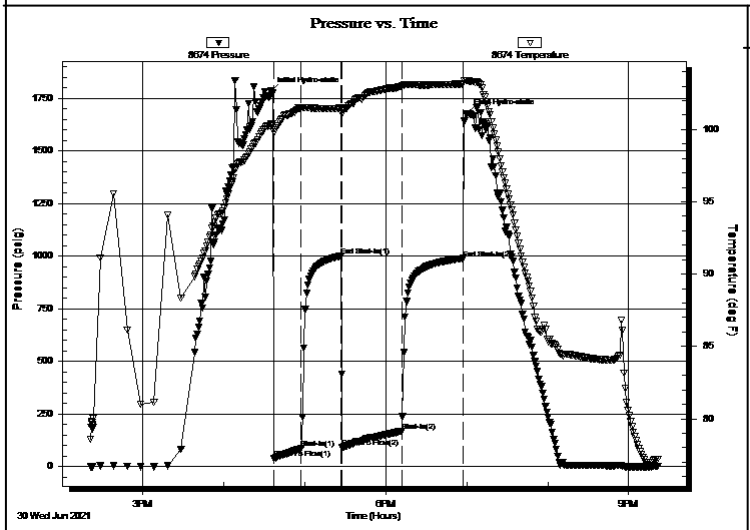
Reference Elevations: 2226.00 ft (KB)
2216.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8674 **Outside**

Press@RunDepth: 169.55 psig @ 3568.00 ft (KB)
Start Date: 2021.06.30 End Date: 2021.06.30
Start Time: 14:21:32 End Time: 21:21:26

Capacity: 8000.00 psig
Last Calib.: 2021.06.30
Time On Btm: 2021.06.30 @ 16:34:57
Time Off Btm: 2021.06.30 @ 18:59:57

TEST COMMENT: IF: 1/4" blow built to 4 1/2"
IS: No return.
FF: 1/4" blow built to 4 1/2" Died to 3 1/2"
FS: No return. 20-30-45-45



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1784.23	100.31	Initial Hydro-static
3	38.81	99.82	Open To Flow (1)
23	88.52	101.52	Shut-In(1)
52	1000.53	101.48	End Shut-In(1)
53	90.83	101.33	Open To Flow (2)
97	169.55	103.00	Shut-In(2)
143	989.80	103.16	End Shut-In(2)
145	1678.42	103.38	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
63.00	gocm 20%g 30%o 50%m	0.60
126.00	mcgo 20%g 40%o 40%m	1.77
157.00	gocm 5%g 35%o 60%m	2.20
0.00	157 GIP	0.00

Gas Rates

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

DRILL STEM TEST REPORT

Fourw inds Oil Corporation

PO Box 1063
Hays, KS 67601

ATTN: Cameron Brin

29-5s-20w Phillips,KS

H&S Unit #1

Job Ticket: 67459 **DST#: 1**

Test Start: 2021.06.30 @ 14:21:27

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 16:37:27
Time Test Ended: 21:21:27

Test Type: Conventional Bottom Hole (Initial)
Tester: Brandon Turley
Unit No: 79

Interval: 3567.00 ft (KB) To 3663.00 ft (KB) (TVD)
Total Depth: 3680.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

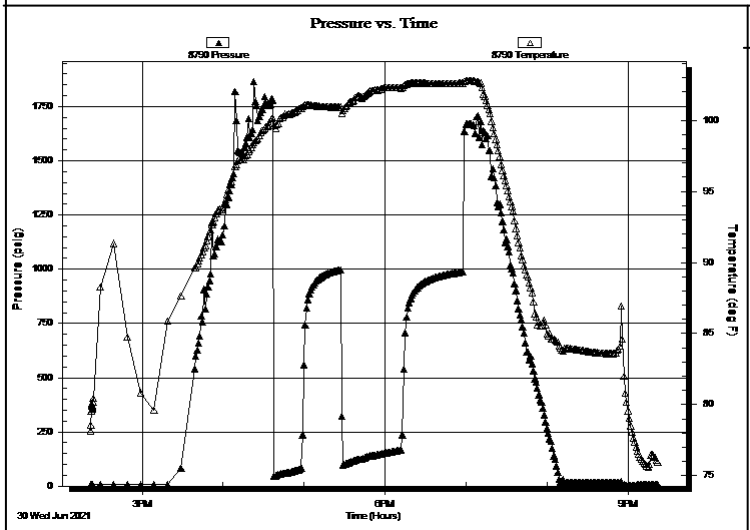
Reference Elevations: 2226.00 ft (KB)
2216.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8790 **Inside**

Press@RunDepth: psig @ 3568.00 ft (KB)
Start Date: 2021.06.30 End Date: 2021.06.30
Start Time: 14:21:58 End Time: 21:21:52

Capacity: 8000.00 psig
Last Calib.: 2021.06.30
Time On Btm:
Time Off Btm:

TEST COMMENT: IF: 1/4" blow built to 4 1/2"
IS: No return.
FF: 1/4" blow built to 4 1/2" Died to 3 1/2"
FS: No return. 20-30-45-45



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
63.00	gocm 20%g 30%o 50%m	0.60
126.00	mcgo 20%g 40%o 40%m	1.77
157.00	gocm 5%g 35%o 60%m	2.20
0.00	157 GIP	0.00

Gas Rates

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

DRILL STEM TEST REPORT

Fourw inds Oil Corporation

PO Box 1063
Hays, KS 67601

ATTN: Cameron Brin

29-5s-20w Phillips,KS

H&S Unit #1

Job Ticket: 67459 **DST#: 1**

Test Start: 2021.06.30 @ 14:21:27

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 16:37:27
Time Test Ended: 21:21:27

Test Type: Conventional Bottom Hole (Initial)
Tester: Brandon Turley
Unit No: 79

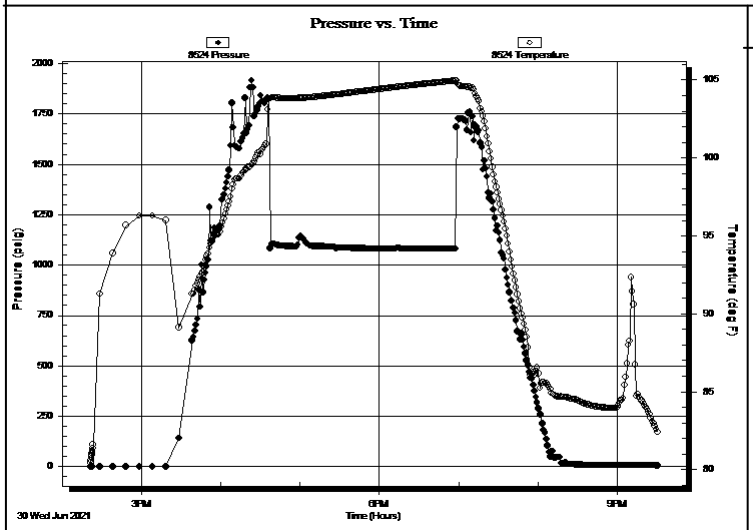
Interval: 3567.00 ft (KB) To 3663.00 ft (KB) (TVD)
Total Depth: 3680.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2226.00 ft (KB)
2216.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8524 **Below (Straddle)**
Press@RunDepth: psig @ 3659.00 ft (KB)
Start Date: 2021.06.30 End Date: 2021.06.30
Start Time: 14:21:40 End Time: 21:31:04

Capacity: 8000.00 psig
Last Calib.: 2021.06.30
Time On Btm:
Time Off Btm:

TEST COMMENT: IF: 1/4" blow built to 4 1/2"
IS: No return.
FF: 1/4" blow built to 4 1/2" Died to 3 1/2"
FS: No return. 20-30-45-45



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
63.00	gocm 20%g 30%o 50%m	0.60
126.00	mcgo 20%g 40%o 40%m	1.77
157.00	gocm 5%g 35%o 60%m	2.20
0.00	157 GIP	0.00

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Fourw inds Oil Corporation

PO Box 1063
Hays, KS 67601

ATTN: Cameron Brin

29-5s-20w Phillips,KS

H&S Unit #1

Job Ticket: 67459 **DST#: 1**

Test Start: 2021.06.30 @ 14:21:27

Tool Information

Drill Pipe:	Length:	3537.00 ft	Diameter:	3.80 inches	Volume:	49.61 bbl	Tool Weight:		2500.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:		25000.00 lb
Drill Collar:	Length:	31.00 ft	Diameter:	2.25 inches	Volume:	0.15 bbl	Weight to Pull Loose:		55000.00 lb
					Total Volume:	49.76 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		21.00 ft					String Weight:	Initial	45000.00 lb
Depth to Top Packer:		3567.00 ft						Final	46000.00 lb
Depth to Bottom Packer:		ft							
Interval betw een Packers:		108.00 ft							
Tool Length:		128.00 ft							
Number of Packers:		2	Diameter:	6.75 inches					

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Stubb	1.00			3548.00		
Shut In Tool	5.00			3553.00		
Hydraulic tool	5.00			3558.00		
Packer	5.00			3563.00	20.00	Bottom Of Top Packer
Packer	4.00			3567.00		
Stubb	1.00			3568.00		
Recorder	0.00	8790	Inside	3568.00		
Recorder	0.00	8674	Outside	3568.00		
Perforations	15.00			3583.00		
Change Over Sub	1.00			3584.00		
Drill Pipe	63.00			3647.00		
Change Over Sub	1.00			3648.00		
Perforations	5.00			3653.00		
Blank Off Sub	1.00			3654.00		
Packer - Shale	4.00			3658.00		
Stubb	1.00			3659.00		
Recorder	0.00	8524	Below	3659.00		
Perforations	13.00			3672.00		
Bullnose	3.00			3675.00	108.00	Bottom Packers & Anchor
Total Tool Length:	**128.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Fourw inds Oil Corporation

PO Box 1063
Hays, KS 67601

ATTN: Cameron Brin

29-5s-20w Phillips,KS

H&S Unit #1

Job Ticket: 67459 **DST#: 1**

Test Start: 2021.06.30 @ 14:21:27

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	0 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	0 ppm
Viscosity:	58.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.99 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	800.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

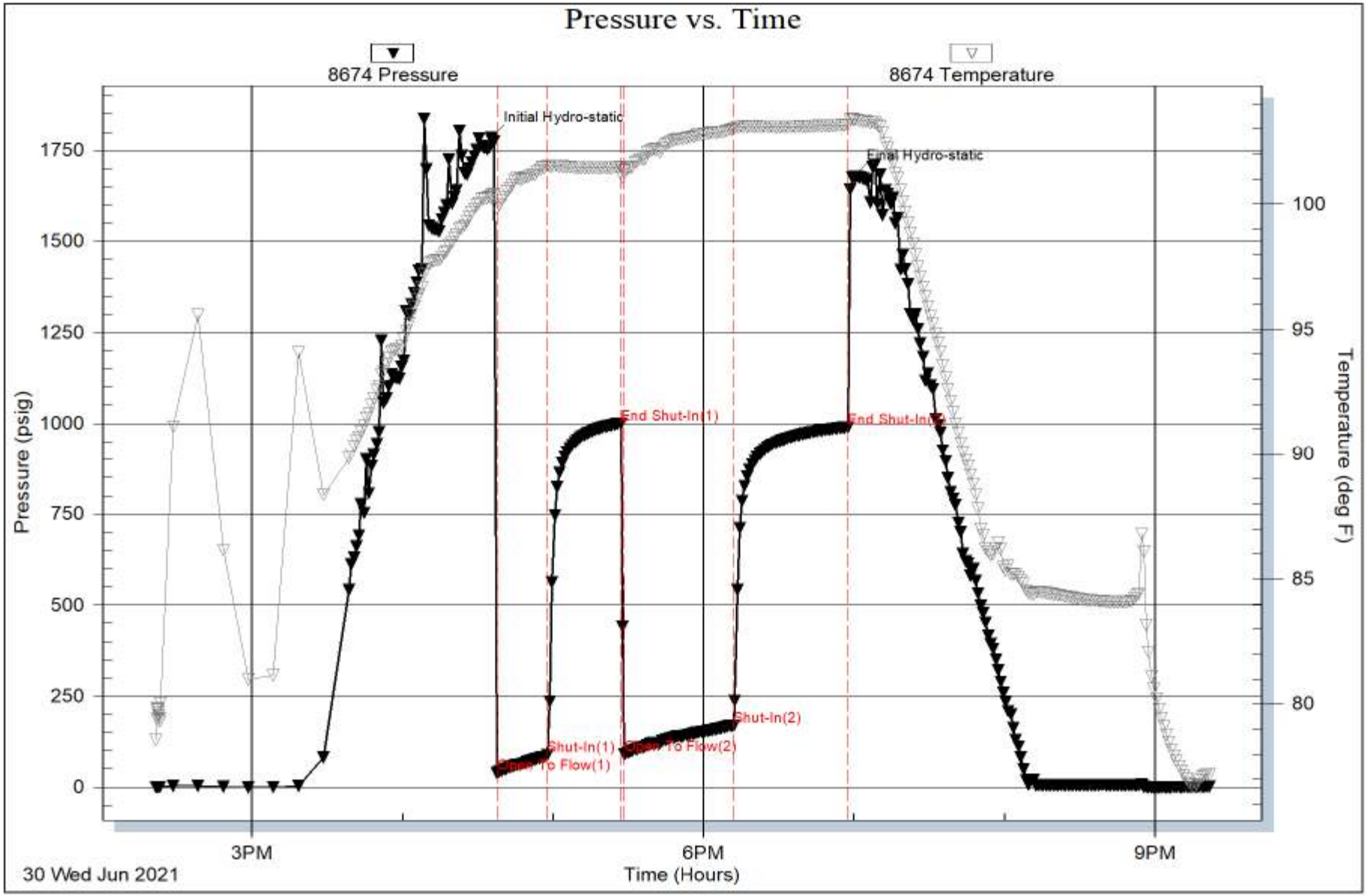
Recovery Table

Length ft	Description	Volume bbl
63.00	gocm 20%g 30%o 50%m	0.601
126.00	mcgo 20%g 40%o 40%m	1.767
157.00	gocm 5%g 35%o 60%m	2.202
0.00	157 GIP	0.000

Total Length: 346.00 ft Total Volume: 4.570 bbl

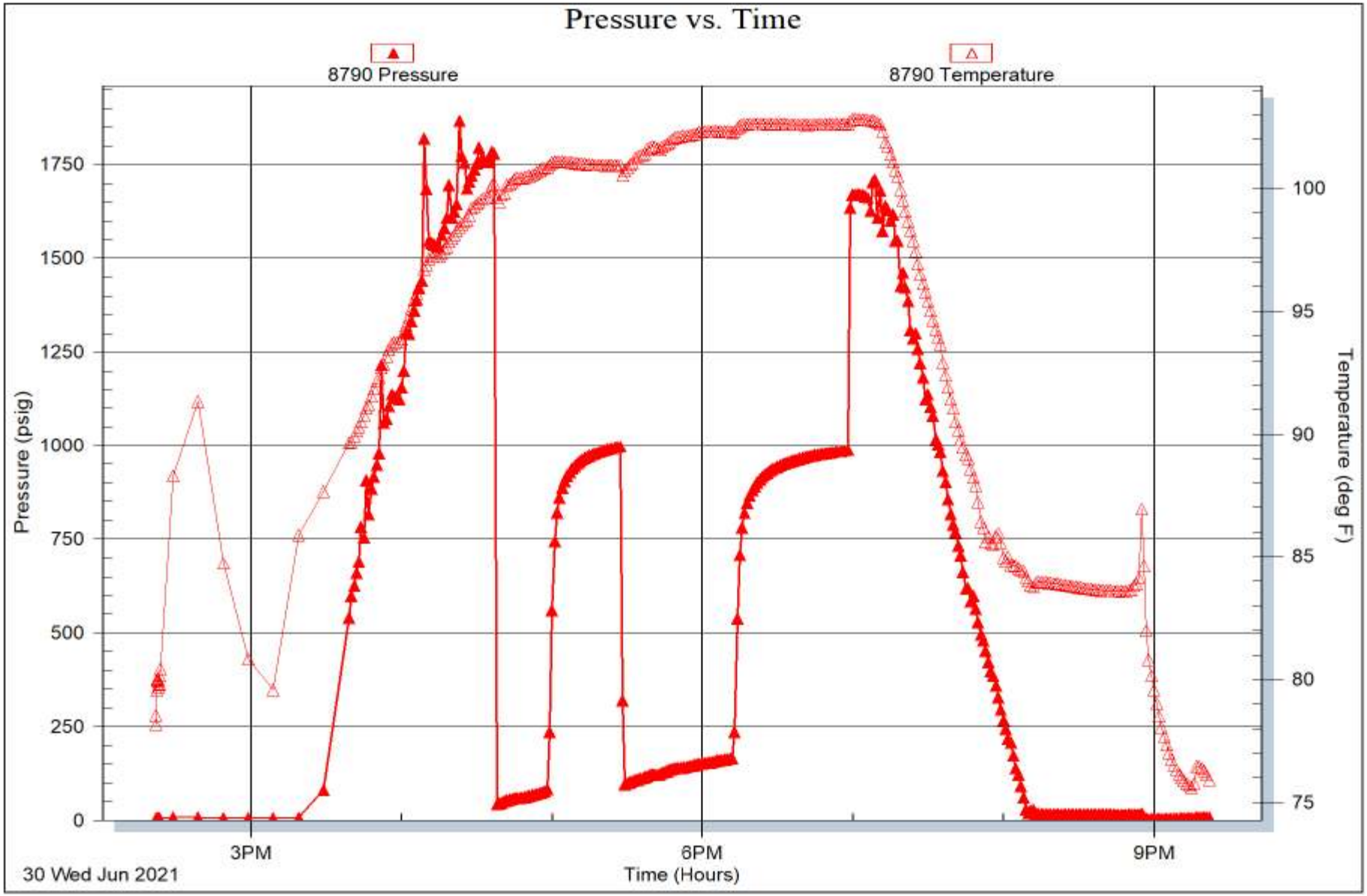
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8674 **Outside** Fourw inds Oil Corporation H&S Unit #1 DST Test Number: 1



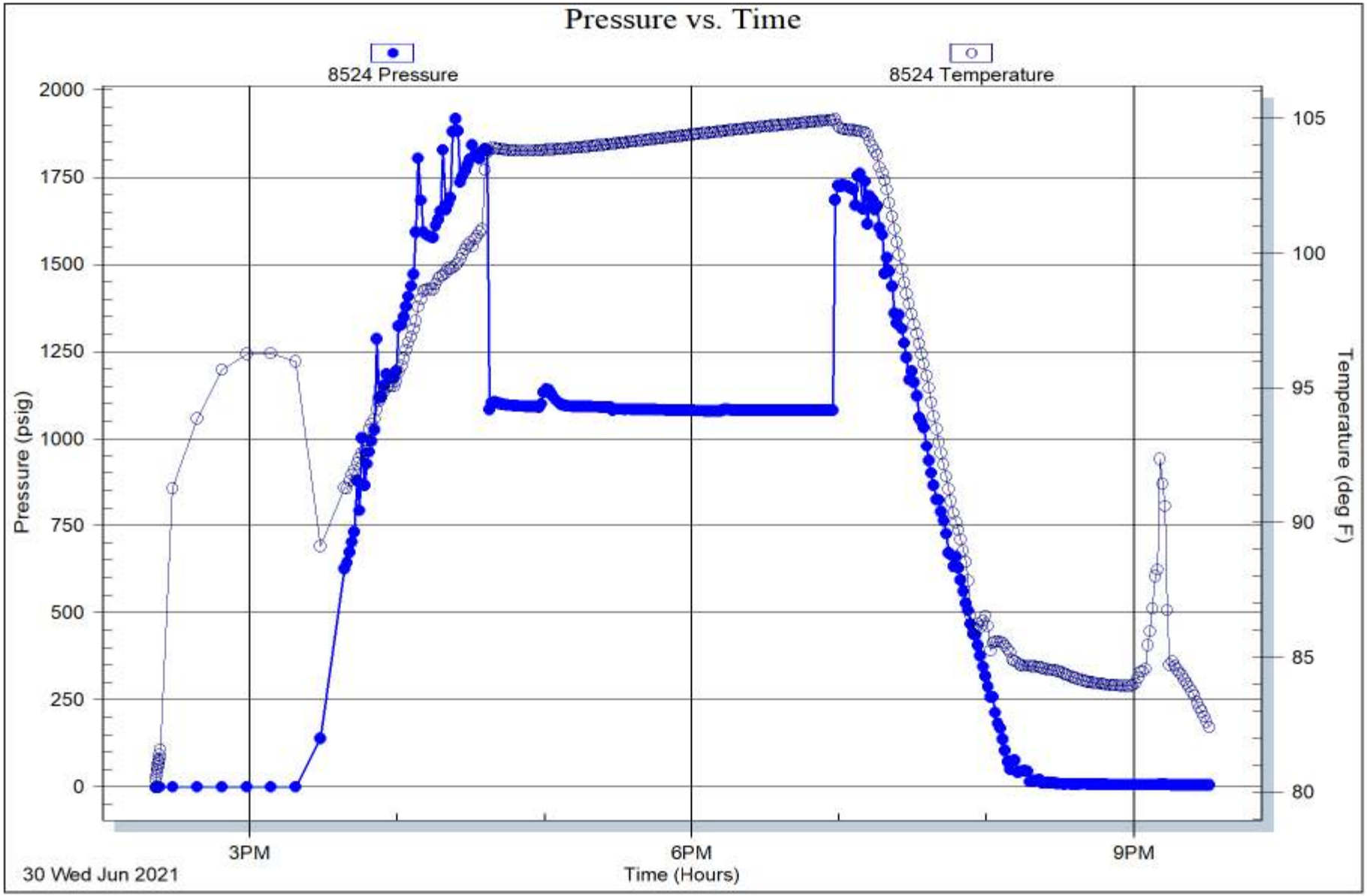
Trilobite Testing, Inc Ref. No: 67459 Printed: 2021.07.01 @ 16:36:57

Serial #: 8790 **Inside** Fourw inds Oil Corporation H&S Unit #1 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 67459 Printed: 2021.07.01 @ 16:36:58

Serial #: 8524 Below (Straddle) Fidelity Oil Corporation H&S Unit #1 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 67459 Printed: 2021.07.01 @ 16:36:58

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 67459

Well Name & No. H & S unit #1 Test No. 1 Date 6-30-21

Company Fourwinds oil corporation Elevation 2216 KB 2226 GL

Address P.O. Box 1063 Hays, KS 67601

Co. Rep / Geo. Cameron Brin Rig Discovery #2

Location: Sec. 29 Twp 5 Rge. 20 Co. Phillips State KS

Interval Tested 3567 3663 Zone Tested Arbuckle

Anchor Length 96 Drill Pipe Run 3537 Mud Wt. 9.1

Top Packer Depth 3567 Drill Collars Run 31 Vis 58

Bottom Packer Depth 3663 Wt. Pipe Run — WL 8

Total Depth 3680 Chlorides 800 ppm System LCM 1 3/4

Blow Description IF: 1/4 blow built to 4½.

IS: No return.

FF: ¼ blow built to 4½, died to 3½.

FS: No return.

Rec	157	Feet of	90cm	5	%gas	35	%oil	%water 60	%mud
Rec	126	Feet of	MCW90	20	%gas	40	%oil	%water 40	%mud
Rec	63	Feet of	90cm	20	%gas	30	%oil	%water 50	%mud
Rec		Feet of	157 GIP		%gas		%oil	%water	%mud
Rec		Feet of			%gas		%oil	%water	%mud

Rec Total 346 BHT 103 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic	1784	☑ Test	1200	T-On Location	13:30
(B) First Initial Flow	38	☐ Jars		T-Started	14:21
(C) First Final Flow	88	☐ Safety Joint		T-Open	16:37
(D) Initial Shut-In	1000	☑ Circ Sub	N/C	T-Pulled	18:57
(E) Second Initial Flow	90	☐ Hourly Standby		T-Out	21:30
(F) Second Final Flow	169	☑ Mileage	314-392.50	Comments	
(G) Final Shut-In	989	☐ Sampler	66rt 82.50		
(H) Final Hydrostatic	1678	☑ Straddle	600		
		☑ Shale Packer	250	☐ EM Tool	
Initial Open	20	☐ Extra Packer		☐ Ruined Shale Packer	
Initial Shut-In	30	☐ Extra Recorder		☐ Ruined Packer	
Final Flow	~~30~~ 45	☐ Day Standby		☐ Extra Copies	
Final Shut-In	45	☐ Accessibility		Sub Total	0
		Sub Total	2132.50	Total	2132.50
				MP/DST Disc't	

Approved By C. Brin Our Representative