

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) (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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Form	ACO1 - Well Completion
Operator	Staab Oil Co., a General Partnership
Well Name	HOFFMAN 1
Doc ID	1420779

Tops

Name	Top	Datum
anhydrite	1307	818
base	1351	774
topeka	3092	-967
heebner	3336	-1211
toronto	3355	-1230
lansing	3381	-1256
bkc	3617	-1492
arbuckle	3646	-1521
t.d.	3675	-1550

Janel Staab
Consulting Petroleum Geologist

2428 Toulon Ave
Hays, KS 67601
Phone: 785-625-4311
Cell Phone: 785-635-1660
janel1969@gmail.com

GEOLOGIST'S WELL REPORT

COMPANY Staab Oil Company # 6037
WELL Hoffman #1
FIELD Schmeidler Southeast
LOCATION (legal) N.W., SE, SW, SW 550' FSL 750' FWL
Section 20 TWP 12S RGE 17W
(Map) 1/2 mile E & 3 mile N of Catherine, Kansas
COUNTY Ellis STATE Kansas
ELEVATION: 2125' K.B., 2120' G.L.

Depths measured from Kelly Bushing

A. P. I. NUMBER 15-051-26901-00
GEOLOGY BY Janel Staab

PERTINENT WELL DATA

CONTRACTOR Shields Drilling Co. #5184

RIG #1 HYDRAULICS Bethlehem 225 6x14

DRILL PIPE 4 1/2" X-H COLLARS 6 1/4" X223

CASING: SURFACE 8 5/8" @ 208 w/150 SX common

PRODUCTION 5 1/2" @ 3675' w/150 SX common

DRILLING FLUID: COMPANY Mud-Co/Service Mud Inc

TYPE: Full Service Gary Schmidtberger

REMARKS: Chemical

DRILLSTEM TESTS: COMPANY Tribolite Testing

NUMBER OF TESTS 4 Brannon Lonsdale

ELECTIC LOGS: COMPANY ELI

DETAIL (5") 2900' - RTD

TYPE D.I, Comp. N-D, Micro

DRILLING TIME FROM 3040' TO RTD

SAMPLE TIME FROM 3040' TO RTD

SUPERVISION FROM 3040' TO RTD

VERTICAL DEVIATION _____

PLUGGING REPORT _____

RESERVE PIT _____

DAILY REPORT

DATE:	7 a.m. Depth	RIG ACTIVITY
12/08/17	noon	SPUD
12/09/17	209'	W.O.C.
12/10/17	986'	Drilling shale + Limestone
12/11/17	1571'	Drilling sh. Ls + sand
12/12/17	2291'	Drilling shale + Limestone
12/13/17	2907'	Drilling shale + Limestone
12/14/17	3308'	Drilling lower Topok
12/15/17	3345'	Rig broke down
1/03/18	3345'	Rig starting back up
1/04/18	3400'	drilling LKc
1/05/18	3600'	drilling BKc
1/06/18	3655'	finishing DST #4

T.O. 3675'

DRILL STEM TESTS

NO	INTERVAL	IFP/TIME	ISIP/TIME	FFP/TIME	FSIP/TIME	IHP/FHP	RECOVERY
1	Case of 70psi 3274- 3315	15# 15# 15'	1039# 60"	94# 93# 75"	---	1610# 1587#	139' mud 100% 0 Oil spots in tool
2	UC.D.E 3104- 3173	36# 48# 5'	703# 60"	56# 159# 60"	662# 90"	1781# 1663#	279' GOCM 100% 31' GIP
3	Arbuckle 3627- 3655						Packer Failure
4	Arbuckle 3598- 3655	29# 31# 5'	1074# 60"	36# 41# 60"	Trapped hydro pulling 90' slip	1929# 1861#	30' Mud 3' CC
5							
6							
7							

MUD RECORD

CHK	DEPTH	WT	VIS	FIL	CHL	YP	LCM
1	986'	8.9	28	NC	1200	-	Nil
2	2291'	9.3	29	NC	3000	-	Nil
3	2907'	8.6	60+	6.8	5600	35	2
4	3308'	9.0	48	7.2	9400	27	2
5	3345'	9.1	42	18.2	10600	17	TF
6	3417'	9.0	60+	6.8	10400	32	2
7	3636'	9.3	48	11.6	18000	21	2
8	3675'	9.4	42	13.2	20000	19	1
9							
10							
11							

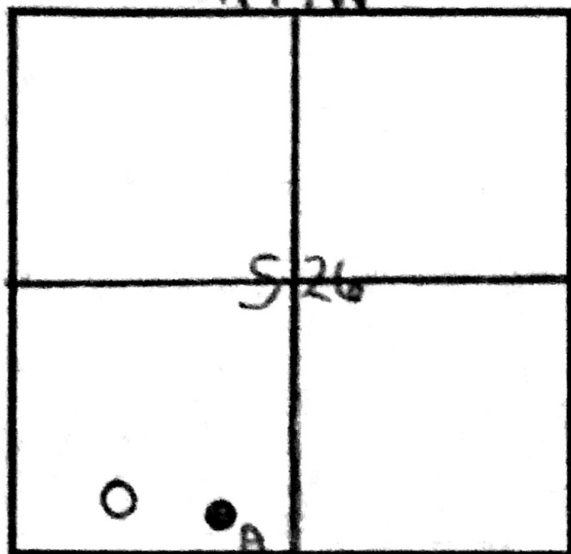
BIT RECORD

NO	SIZE	MAKE	TYPE	DEPTH	FEET	HOURS
1	12 3/4"	Reed	Mill tooth	209'	209'	
2	7 7/8"	Reed	S-52	3675'	3466'	
3						
4						
5						
6						
7						

FORMATION TOPS & STRUCTURAL GEOLOGY

R 17W

REFERRED TO:



- A: Hoffman Leikam #1
- B: KB 2130
- C: _____
- D: _____
- E: _____

T
12
S

STRATIGRAPHIC MARKERS	SUBJECT WELL			STRUCTURAL POSITION				
	SAMPLE	E. LOG	DATUM	A	B	C	D	E
Anhydrite	1310'	1307'	+ 818	+ 816				
Base	1351'	1351'	+ 774	+ 776				
Topeka	3093	3092	- 967	- 967				
Heeb. SH	3337	3336	- 1211	- 1209				
Toronto	3357	3355	- 1230	- 1233				
Lansing	3380	3381	- 1256	- 1259				
BKc	3618	3617	- 1492	- 1492				
Arbuckle	3646	3646	- 1521	- 1528				
T.O.	3675	3675	- 1550	- 1671				

SUMMARY

The Hoffman #1 was drilled using Shields Rig.
Location was S28, T12S, R17W in Ellis County, Kansas

Drilling started on 12/08/07 and had mechanical breakdown
on 12/15/07. Drilling stopped for repair and resumed drilling
on 1/03/18. Pipe was set on 1/07/18.

3.0 Seismic indicated that this location was
stratigraphically high compared to surrounding locations.

4. DSTs were performed as well as logs run. As a
result production pipe were run and focus area will
be the Arbuckle.

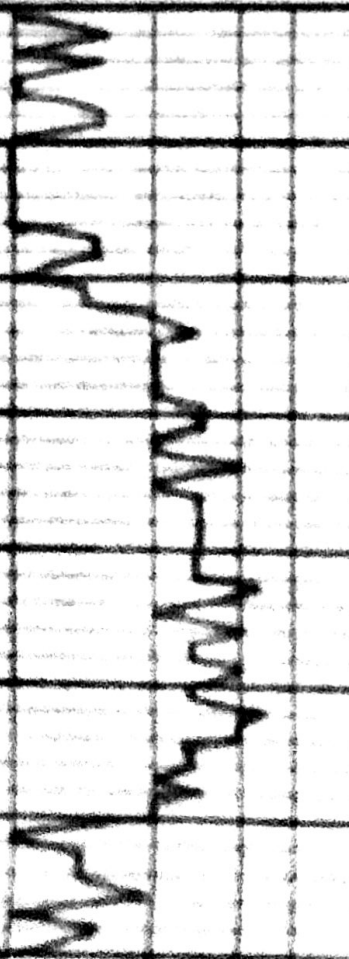
Paul Seal

DEPTH	DRILLING TIME (min/ft)										LITHOLOGY	POROSITY				GEOLOGICAL DESCRIPTION	REMARKS							
	1/2	1	2	3	4	5	6	7	8	9		10	GR	FAH	FOUR			OIL SHOW						
1290																								
1300																								
10																								
20																								
30																								
40																								
50																								
60																								
70																								
80																								

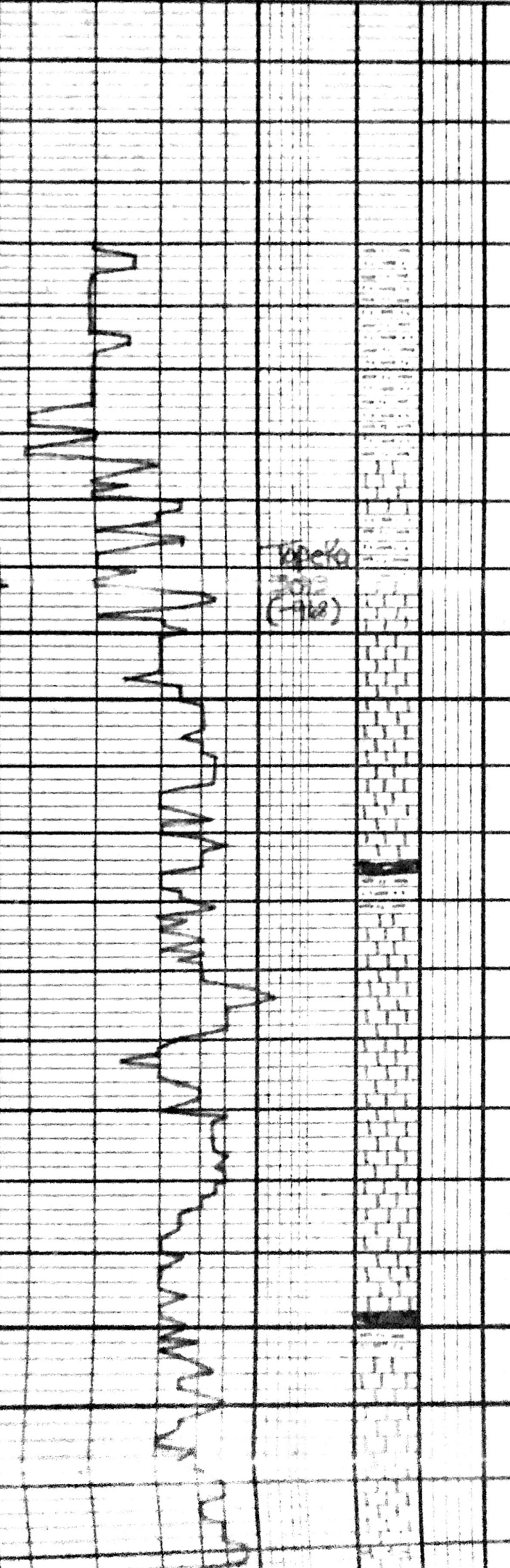
K62125

Anhydrite
1310
(#115)

Base
1357
(#112)



3000
10
20
30
40
50
60
70
80
90
3100
10
20
30
40
50
60
70
80
90
3200
10
20
30



Top of
zone
(F12)

sh. st. st. grey-brn. green

ls tan-brn-gry fossils

sh. st. st. grey-brn green

ls off wh. grey-brn fossils

ls A/A

ls off wh. grey-brn fossils sticky

sh. Dk. grey

sh. st. st. grey-brn

ls off wh. grey-brn fossils

ls off wh. grey-brn fossils
fossiliferous

ls A/A

sh. Bk

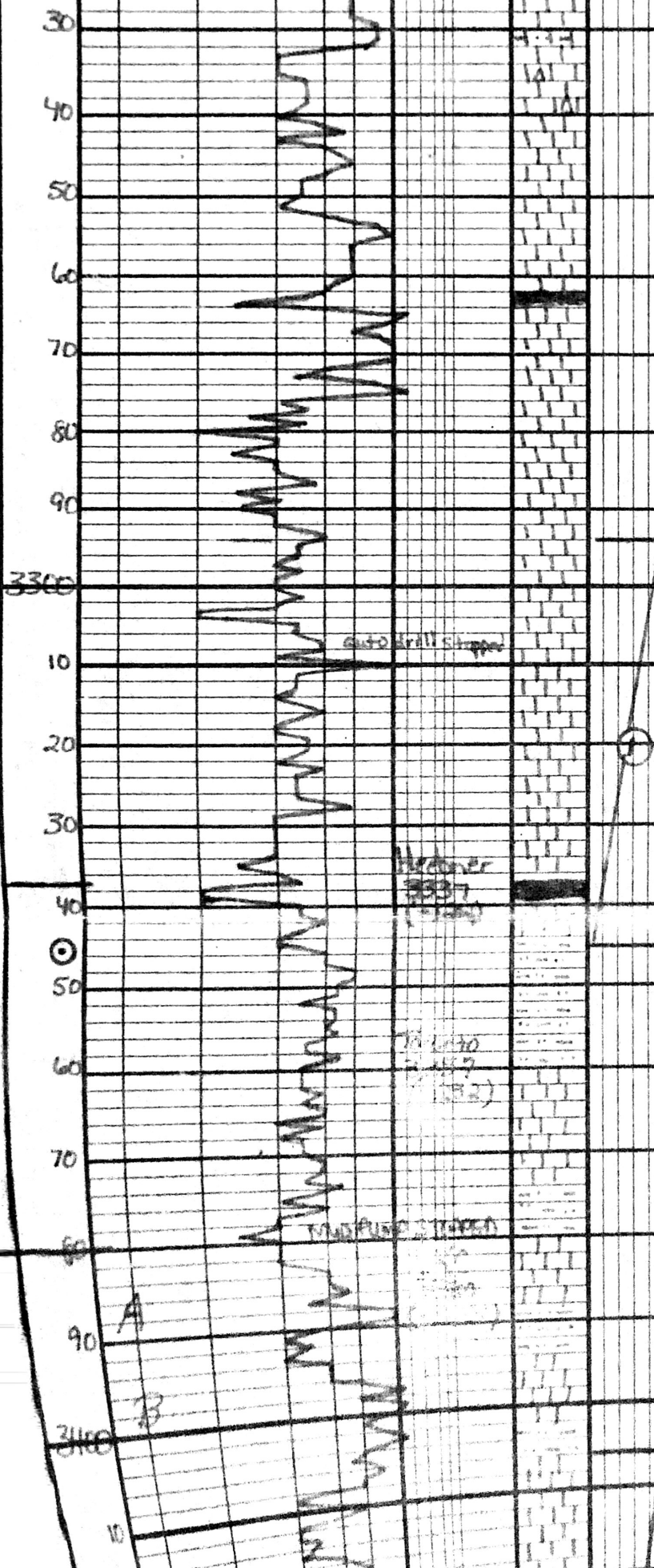
sh. st. st. grey-brn

ls tan-gry-brn fossils

ls A/A

sh. st. st. grey-brn green

500 on
location
30 P.M.
12-17-77



Sh + silstn - gry - brn - green
 Ls tan - gry - frxn fossil
 sl cherty pyrite sl cherty

Ls off wh - gry frxn

Ls off wh - gry - frxn sl pyrite
 sl cherty

Blk sh

Ls tan - gry - frxn

Ls tan - gry frxn sl cherty

Ls A/A

● Ls tan - frxn - fr - good Interpart Ø
 good s.f.o. good odor good oil sat

● Ls tan - frxn - fr - good Interpart Ø
 good s.f.o. strong odor good oil sat

● Ls tan - frxn - fr - good Interpart Ø
 good s.f.o. good odor good oil sat

DST #1
 bottom 1000
 3294 - 3375
 15.60 - 15.75
 Rec 10/11/40
 FP 15.77/40.0
 SIP 1031 -
 pulled test
 bad pressure
 reading Rig
 breakdown

Sh Blk Carb fissile

Ls tan - gry frxn

Sh + silstn - brn - gry - green
 very pyrite

○ Ls tan - gry frxn - fr - Interpart Ø sl stain
 fossil - very pyrite sl cherty no odor

○ Ls tan - gry frxn - poor - fr Interpart Ø
 sl stain no odor very pyrite sl cherty

Ls off wh - gry - frxn - sl cherty
 sl pyrite

Sh + silstn - gry brn

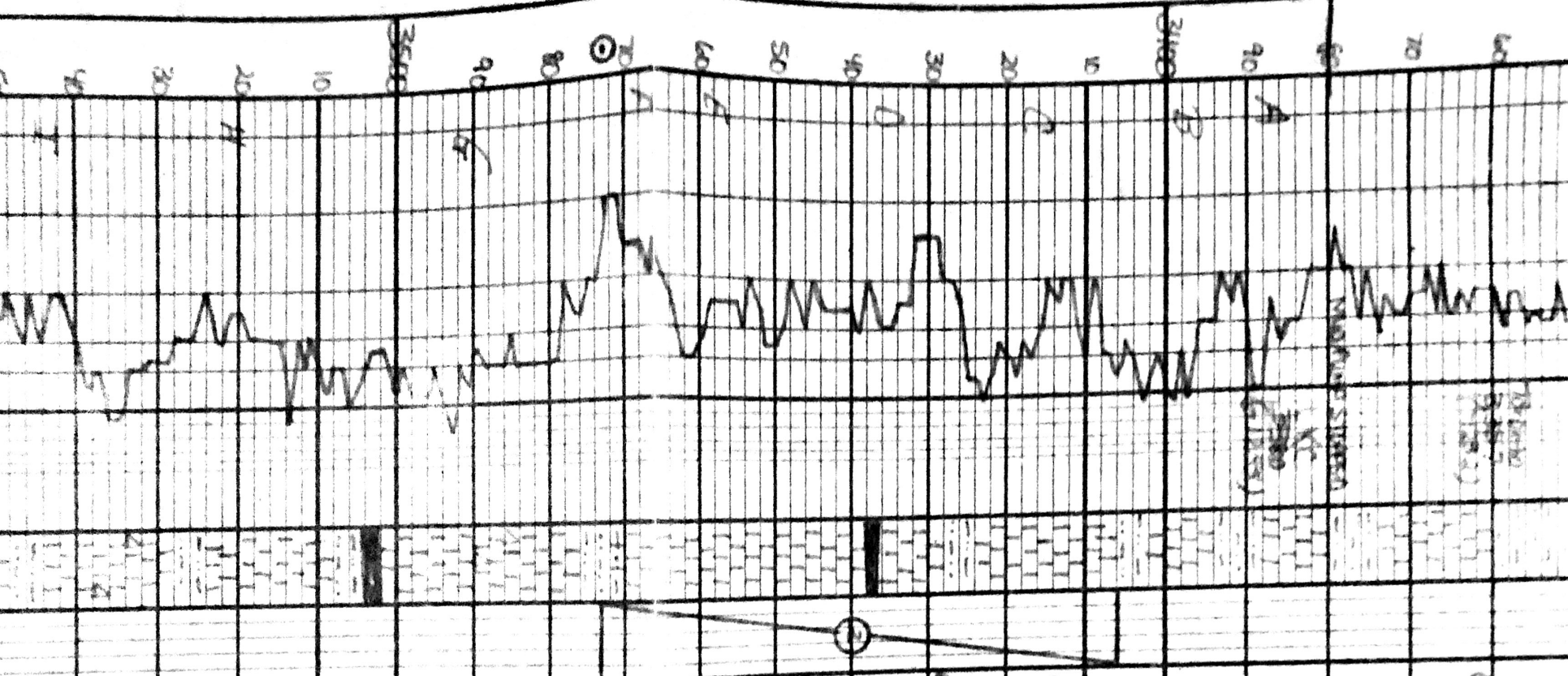
off - ls frxn sl cherty

Sh + silstn - gry brn - green

Ls off wh frxn sl cherty sl pyrite

○ Ls off wh frxn - poor - fr Interpart Ø
 sl stain no odor very cherty pyrite

DST #2
 REC C-F
 3406 - 3473
 5.60 - 6.90
 Rec 10/11/40



very purple

LS. No. grey fossil. F. interbed. P. SI. Shale fossil. Very purple silty clay. no color

LS. brown. grey fossil. No. P. interbed. P. SI. Shale. no color. very purple silty clay

LS. off white. grey. brown. - silty clay
S. shale

SH. & silty sh. grey brn.
off ls. brown silty clay

SH. & silty sh. grey brown green
LS. off white brown silty clay SI. shale

LS. off white fossil. poor. F. interbed. P. SI. shale. no color. very silty clay purple
SH. & silty sh. grey brown green

LS. off white. fossil. F. good. calcareous.
interbed. P. SI. shale. no color.
S. silty clay shale

LS. off white. F. yellow. off the good interbed. calcareous. P. shale. silty shale. good silty shale. good silty shale.

S. off white. Fossil. calcareous. Good interbed. calcareous. P. shale. silty shale. good silty shale. good silty shale. good silty shale.

LS. off white. Fossil. calcareous. Good interbed. calcareous. P. shale. silty shale. good silty shale. good silty shale.

SH. silty sh. grey brown green
LS. off white. brown fossil. calcareous. shale

LS. off white. Fossil. calcareous. shale. silty shale. good silty shale. good silty shale.

SH. dirty grey
SH. dirty grey. brown. green

LS. off white. Fossil. calcareous. shale. silty shale. good silty shale. good silty shale.

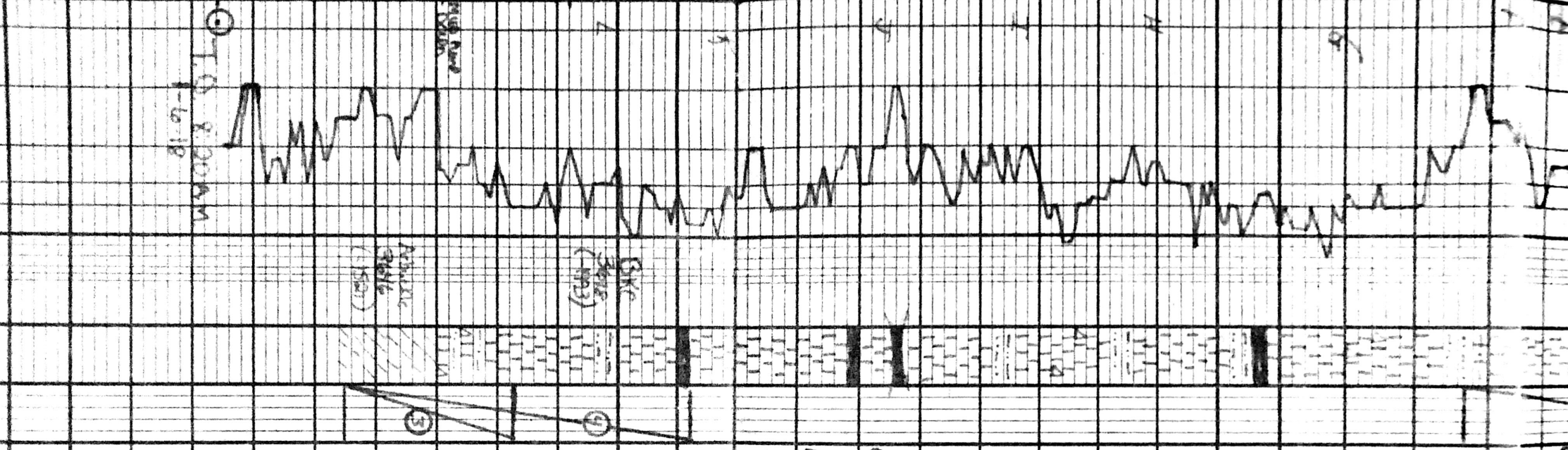
SH. grey brown green
LS. off white. fossil. calcareous. shale. silty shale. good silty shale. good silty shale.

SH. silty shale. grey brown green
LS. off white. fossil. calcareous. shale. silty shale. good silty shale. good silty shale.

DST #2

LOC. 1
3406. 3413
5. 60. 10. 90
Roc
37' 50 CM
100 100 100 00
21' 6 IP
10. 21. 10. 10. 10. 10
SIP 100. 10. 10. 10. 10. 10

10 20 30 40 50 60 70 80 90 100



LS off white fossiliferous fossiliferous clayey paper

sh. silty sh. grey ben green

LS off white fossiliferous fossiliferous clayey paper

LS off white fossiliferous fossiliferous clayey paper

sh. drk grey

LS off white fossiliferous fossiliferous clayey paper

sh. grey ben green

LS off white fossiliferous fossiliferous clayey paper - silty

sh. silty sh. grey ben green

LS off white fossiliferous fossiliferous clayey paper - fair set of oil

LS off white fossiliferous fossiliferous clayey paper - fair set of oil

LS off white fossiliferous fossiliferous clayey paper - fair set of oil

LS off white fossiliferous fossiliferous clayey paper - fair set of oil

LS off white fossiliferous fossiliferous clayey paper - fair set of oil

LS off white fossiliferous fossiliferous clayey paper

sh. drk grey

LS off white fossiliferous fossiliferous clayey paper - fair set of oil

LS off white fossiliferous fossiliferous clayey paper - fair set of oil

LS off white fossiliferous fossiliferous clayey paper - fair set of oil

LS off white fossiliferous fossiliferous clayey paper - fair set of oil

LS off white fossiliferous fossiliferous clayey paper - fair set of oil

LS off white fossiliferous fossiliferous clayey paper - fair set of oil

DST #3
3.27.3.55
Abundant
Folker
Folker
Folker
DST #4
3.27.3.55
Abundant
3.00.00.00
Rec
30' m 3' CO
10' m 1/2 m
51' m 2'



DRILL STEM TEST REPORT

Prepared For: **Staab Oil Co.**

1607 Hopewell Rd.
Hays, KS 67601

ATTN: Janel Staab

Hoffman #1

26-12S-17W Ellis,KS

Start Date: 2017.12.14 @ 15:11:00

End Date: 2017.12.14 @ 21:13:30

Job Ticket #: 63409 DST #: 1

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2018.01.08 @ 13:32:22



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Staab Oil Co.
1607 Hopewell Rd.
Hays, KS 67601
ATTN: Janel Staab

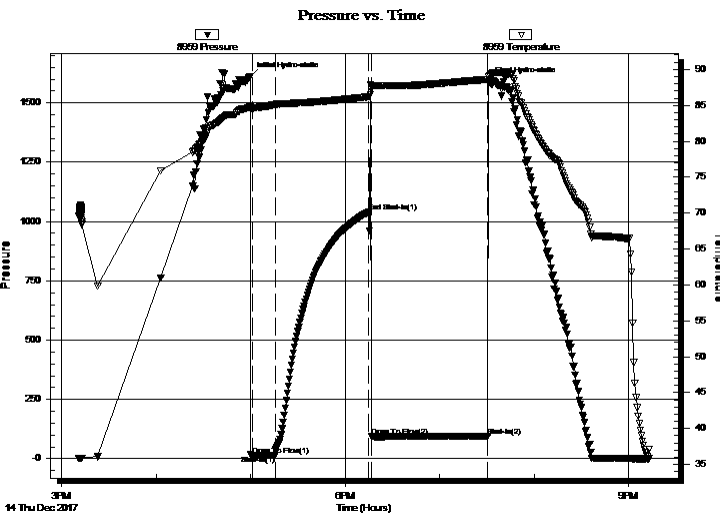
26-12S-17W Ellis, KS
Hoffman #1
Job Ticket: 63409 **DST#: 1**
Test Start: 2017.12.14 @ 15:11:00

GENERAL INFORMATION:

Formation: **Bottom of Topeka**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 17:01:20
Time Test Ended: 21:13:30
Interval: **3294.00 ft (KB) To 3345.00 ft (KB) (TVD)**
Total Depth: 3345.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Initial)
Tester: Martine Salinas
Unit No: 82
Reference Elevations: 2125.00 ft (KB)
2120.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8959 Inside
Press@RunDepth: 14.96 psig @ 3295.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2017.12.14 End Date: 2017.12.14 Last Calib.: 2017.12.14
Start Time: 15:11:01 End Time: 21:13:30 Time On Btm: 2017.12.14 @ 16:59:40
Time Off Btm: 2017.12.14 @ 19:31:09

TEST COMMENT: 15-IF-Surface .blow built to 1/8"
60-ISI-No blow
75-FF-No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1610.27	84.74	Initial Hydro-static
2	15.00	84.59	Open To Flow (1)
17	14.96	85.11	Shut-In(1)
76	1039.83	86.18	End Shut-In(1)
77	94.65	87.17	Open To Flow (2)
151	93.72	88.62	Shut-In(2)
152	1587.90	89.02	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
139.00	Mud 100%	1.02
0.00	Oil spots in tool	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Staab Oil Co.
1607 Hopewell Rd.
Hays, KS 67601
ATTN: Janel Staab

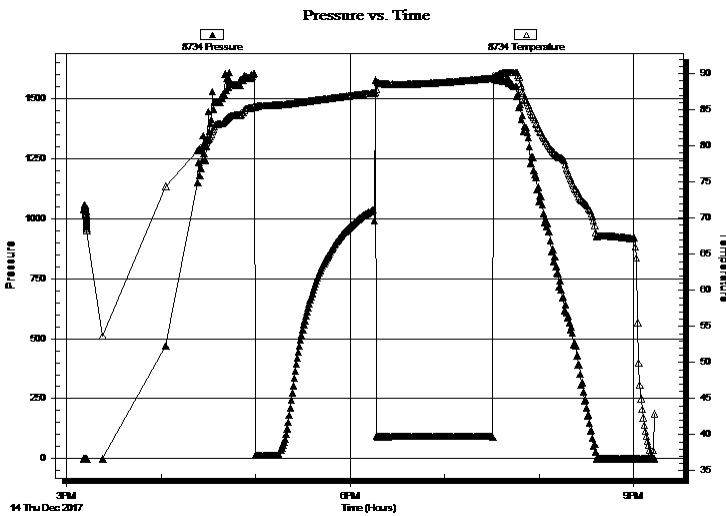
26-12S-17W Ellis, KS
Hoffman #1
Job Ticket: 63409 **DST#: 1**
Test Start: 2017.12.14 @ 15:11:00

GENERAL INFORMATION:

Formation: **Bottom of Topeka**
 Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 17:01:20 Tester: Martine Salinas
 Time Test Ended: 21:13:30 Unit No: 82
 Interval: **3294.00 ft (KB) To 3345.00 ft (KB) (TVD)** Reference Elevations: 2125.00 ft (KB)
 Total Depth: 3345.00 ft (KB) (TVD) 2120.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 5.00 ft

Serial #: 8734 Outside
 Press@RunDepth: psig @ 3295.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.12.14 End Date: 2017.12.14 Last Calib.: 2017.12.14
 Start Time: 15:11:01 End Time: 21:13:30 Time On Btm:
 Time Off Btm:

TEST COMMENT: 15-IF-Surface .blow built to 1/8"
 60-ISI-No blow
 75-FF-No blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
139.00	Mud 100%	1.02
0.00	Oil spots in tool	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Staab Oil Co.
1607 Hopewell Rd.
Hays, KS 67601
ATTN: Janel Staab

26-12S-17W Ellis, KS
Hoffman #1
Job Ticket: 63409 **DST#: 1**
Test Start: 2017.12.14 @ 15:11:00

Tool Information

Drill Pipe:	Length: 2830.00 ft	Diameter: 3.80 inches	Volume: 39.70 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 466.00 ft	Diameter: 2.75 inches	Volume: 3.42 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 43.12 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial 66000.00 lb
Depth to Top Packer:	3294.00 ft			Final 66000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	51.00 ft			
Tool Length:	71.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments: Unseated packer on FF, re-seated and bled off floor manifold, No blow

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
shut In Tool	5.00			3279.00	
hydraulic tool	5.00			3284.00	
Packer	5.00			3289.00	20.00 Bottom Of Top Packer
Packer	5.00			3294.00	
stubb	1.00			3295.00	
Recorder	0.00	8959	Inside	3295.00	
Recorder	0.00	8734	Outside	3295.00	
Perforations	11.00			3306.00	
change Over Sub	1.00			3307.00	
blank spacing	32.00			3339.00	
change Over Sub	1.00			3340.00	
Bullnose	5.00			3345.00	51.00 Bottom Packers & Anchor

Total Tool Length: 71.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Staab Oil Co.

26-12S-17W Ellis,KS

1607 Hopewell Rd.
Hays, KS 67601

Hoffman #1

Job Ticket: 63409

DST#: 1

ATTN: Janel Staab

Test Start: 2017.12.14 @ 15:11:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 48.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 9400.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
139.00	Mud 100%	1.021
0.00	Oil spots in tool	0.000

Total Length: 139.00 ft

Total Volume: 1.021 bbl

Num Fluid Samples: 0

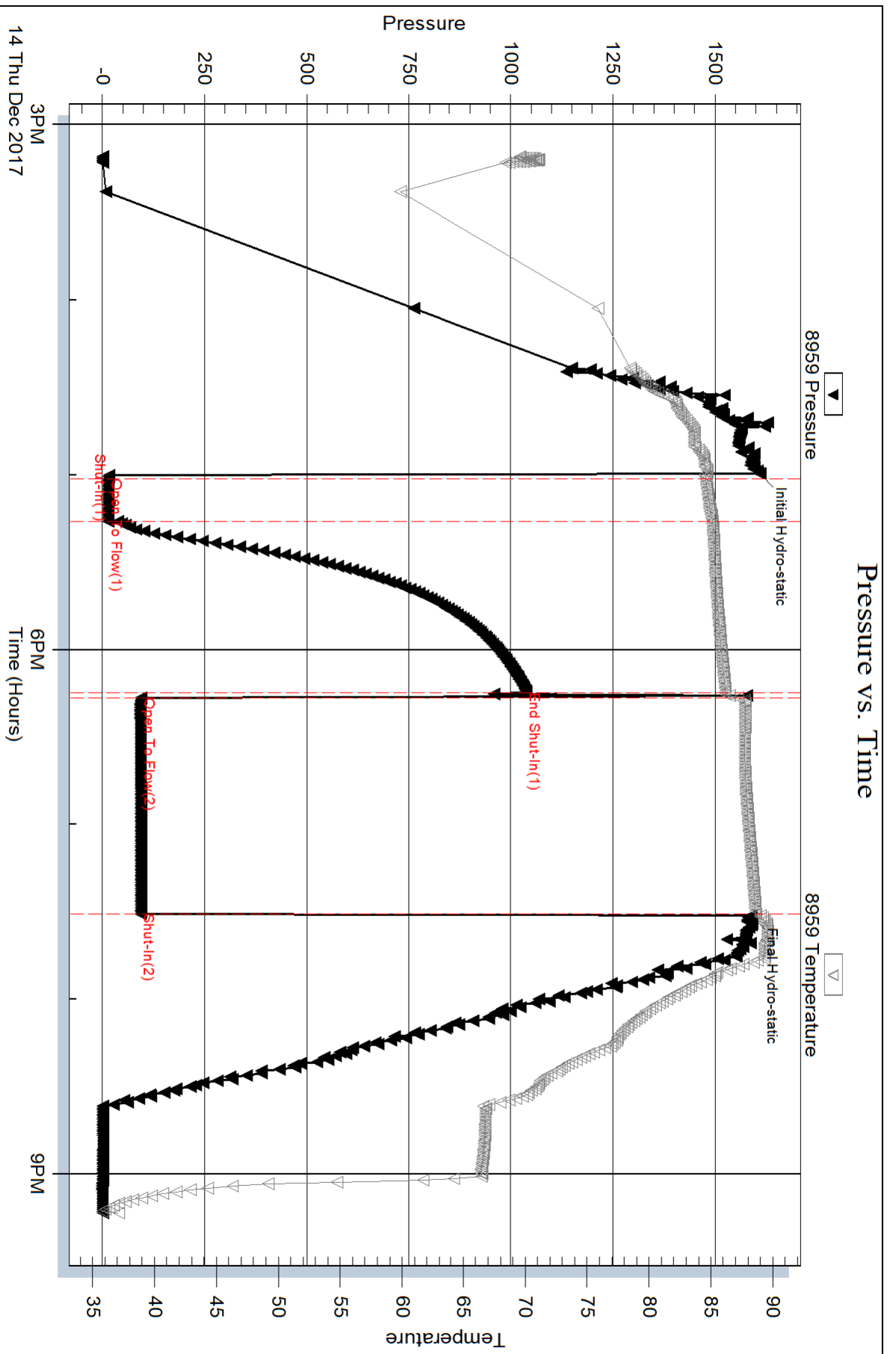
Num Gas Bombs: 0

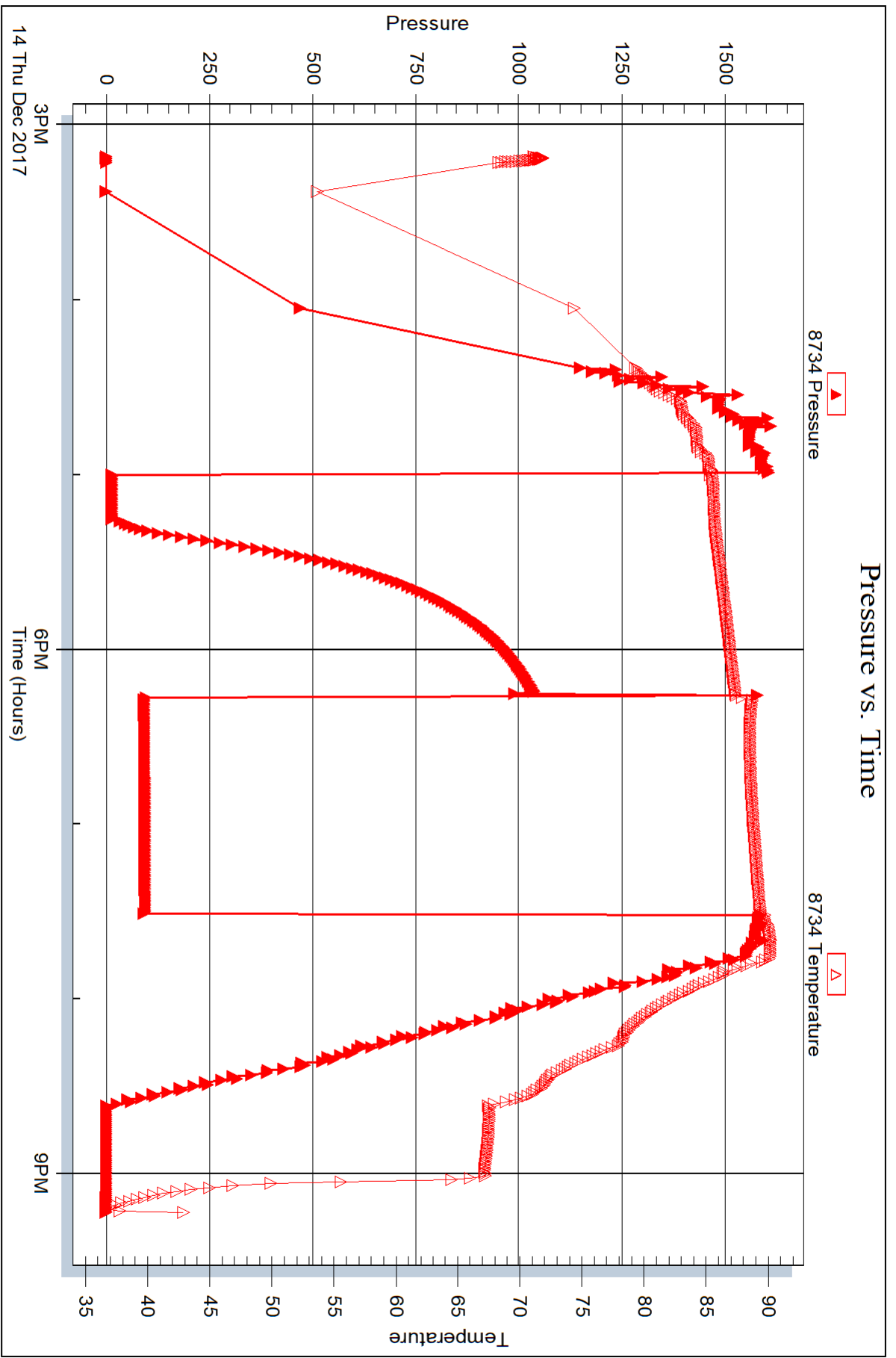
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **Staab Oil Co.**

1607 Hopewell Rd.
Hays, KS 67601

ATTN: Janel Staab

Hoffman #1

26-12S-17W Ellis,KS

Start Date: 2018.01.04 @ 13:46:20

End Date: 2018.01.04 @ 21:05:26

Job Ticket #: 63339 DST #: 2

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2018.01.08 @ 13:31:54

Staab Oil Co. 26-12S-17W Ellis,KS Hoffman #1 DST #2 LKC "D-F" 2018.01.04



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Staab Oil Co.
1607 Hopewell Rd.
Hays, KS 67601
ATTN: Janel Staab

26-12S-17W Ellis, KS
Hoffman #1
Job Ticket: 63339 **DST#: 2**
Test Start: 2018.01.04 @ 13:46:20

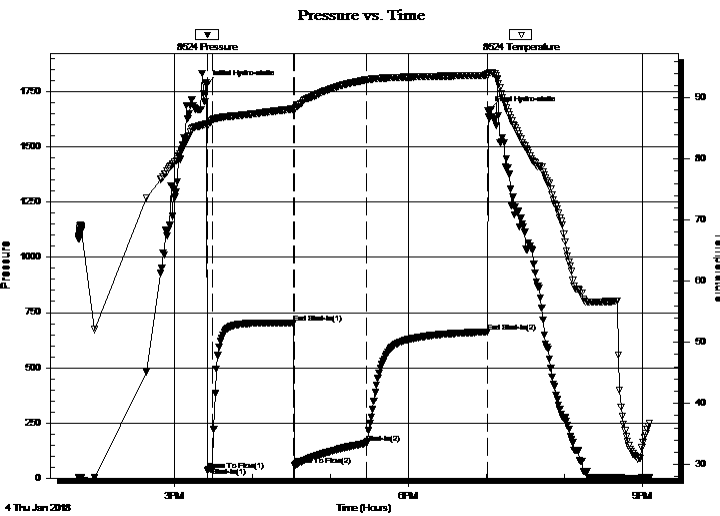
GENERAL INFORMATION:

Formation: **LKC "D-F"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 15:25:11
Time Test Ended: 21:05:26
Interval: **3406.00 ft (KB) To 3473.00 ft (KB) (TVD)**
Total Depth: 3473.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Reference Elevations: 2125.00 ft (KB)
2120.00 ft (CF)
KB to GR/CF: 5.00 ft
Test Type: Conventional Bottom Hole (Reset)
Tester: Brannan Lonsdale
Unit No: 73

Serial #: 8524 Outside

Press@RunDepth: 159.36 psig @ 3407.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2018.01.04 End Date: 2018.01.04 Last Calib.: 2018.01.04
Start Time: 13:46:21 End Time: 21:05:26 Time On Btm: 2018.01.04 @ 15:24:41
Time Off Btm: 2018.01.04 @ 19:00:56

TEST COMMENT: 05- IF- Built to 4"
60- IS- No blow
60- FF- BOB 26 mins
90- FSI- No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1781.42	85.70	Initial Hydro-static
1	35.97	85.38	Open To Flow (1)
5	47.99	86.42	Shut-In(1)
67	702.93	88.18	End Shut-In(1)
68	56.24	88.21	Open To Flow (2)
123	159.36	92.96	Shut-In(2)
216	662.27	93.70	End Shut-In(2)
217	1662.70	93.99	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
279.00	GOCM, 10%G 10%O 80%M	2.05
0.00	31' GIP	0.00

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Staab Oil Co.
 1607 Hopewell Rd.
 Hays, KS 67601
 ATTN: Janel Staab

26-12S-17W Ellis, KS

Hoffman #1

Job Ticket: 63339

DST#: 2

Test Start: 2018.01.04 @ 13:46:20

GENERAL INFORMATION:

Formation: **LKC "D-F"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:25:11

Time Test Ended: 21:05:26

Interval: 3406.00 ft (KB) To 3473.00 ft (KB) (TVD)

Total Depth: 3473.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole (Reset)

Tester: Brannan Lonsdale

Unit No: 73

Reference Elevations: 2125.00 ft (KB)

2120.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 6771

Inside

Press@RunDepth: psig @ 3407.00 ft (KB)

Start Date: 2018.01.04

End Date:

2018.01.04

Start Time: 13:46:39

End Time:

21:05:44

Capacity: 8000.00 psig

Last Calib.:

2018.01.04

Time On Btm:

Time Off Btm:

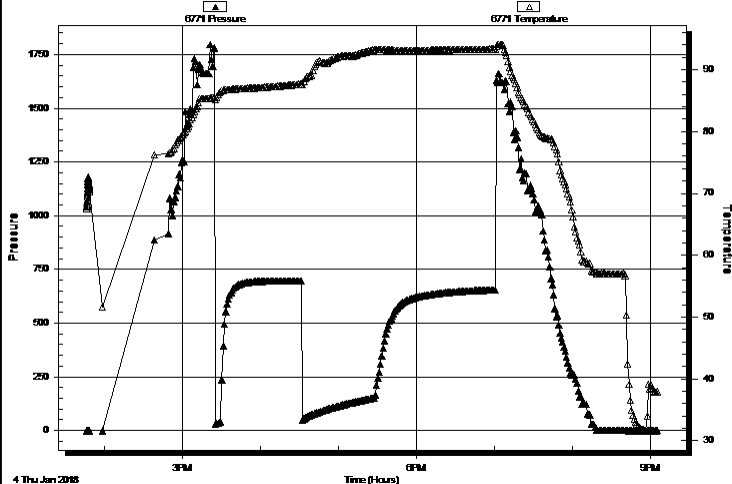
TEST COMMENT: 05- IF- Built to 4"

60- IS- No blow

60- FF- BOB 26 mins

90- FSI- No blow

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
279.00	GOCM, 10%G 10%O 80%M	2.05
0.00	31' GIP	0.00

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Staab Oil Co.
1607 Hopewell Rd.
Hays, KS 67601
ATTN: Janel Staab

26-12S-17W Ellis,KS
Hoffman #1
Job Ticket: 63339 **DST#: 2**
Test Start: 2018.01.04 @ 13:46:20

Tool Information

Drill Pipe:	Length: 2925.00 ft	Diameter: 3.82 inches	Volume: 41.46 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 466.00 ft	Diameter: 2.75 inches	Volume: 3.42 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 66000.00 lb
			<u>Total Volume: 44.88 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	3406.00 ft			Final 64000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	67.00 ft			
Tool Length:	87.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			3387.00	
Shut In Tool	5.00			3392.00	
Hydraulic tool	5.00			3397.00	
Packer	5.00			3402.00	20.00 Bottom Of Top Packer
Packer	4.00			3406.00	
Stubb	1.00			3407.00	
Recorder	0.00	6771	Inside	3407.00	
Recorder	0.00	8524	Outside	3407.00	
Perforations	30.00			3437.00	
Change Over Sub	1.00			3438.00	
Drill Pipe	31.00			3469.00	
Change Over Sub	1.00			3470.00	
Bullnose	3.00			3473.00	67.00 Bottom Packers & Anchor

Total Tool Length: 87.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Staab Oil Co.
1607 Hopewell Rd.
Hays, KS 67601
ATTN: Janel Staab

26-12S-17W Ellis,KS
Hoffman #1
Job Ticket: 63339 **DST#: 2**
Test Start: 2018.01.04 @ 13:46:20

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 60.00 sec/qt	Cushion Volume: bbl		
Water Loss: 10.78 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 10400.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
279.00	GOCM, 10%G 10%O 80%M	2.050
0.00	31' GIP	0.000

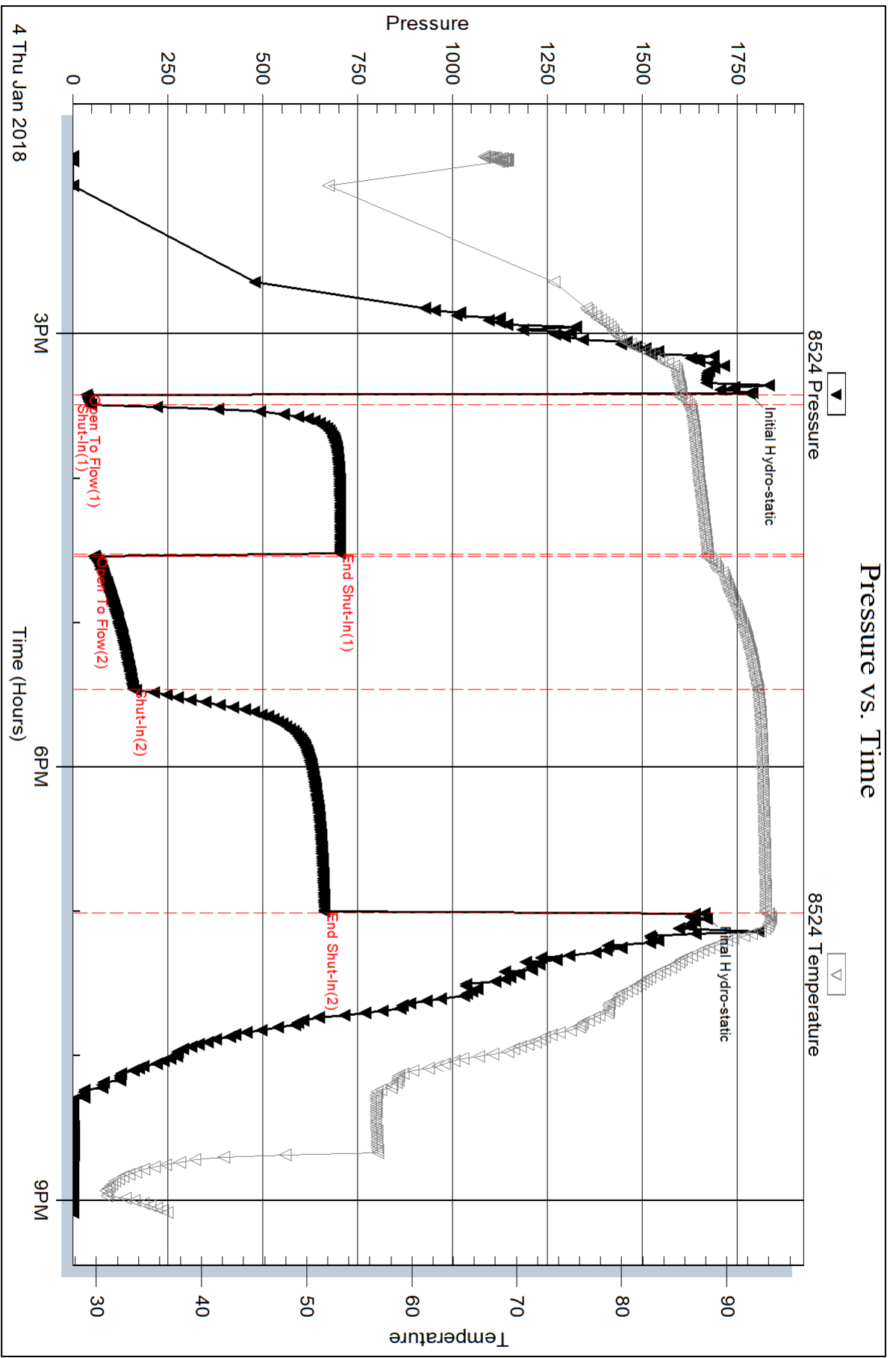
Total Length: 279.00 ft Total Volume: 2.050 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Serial #: 8524

Outside Staab Oil Co.

Hoffman #1

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 63339

Printed: 2018.01.08 @ 13:31:55

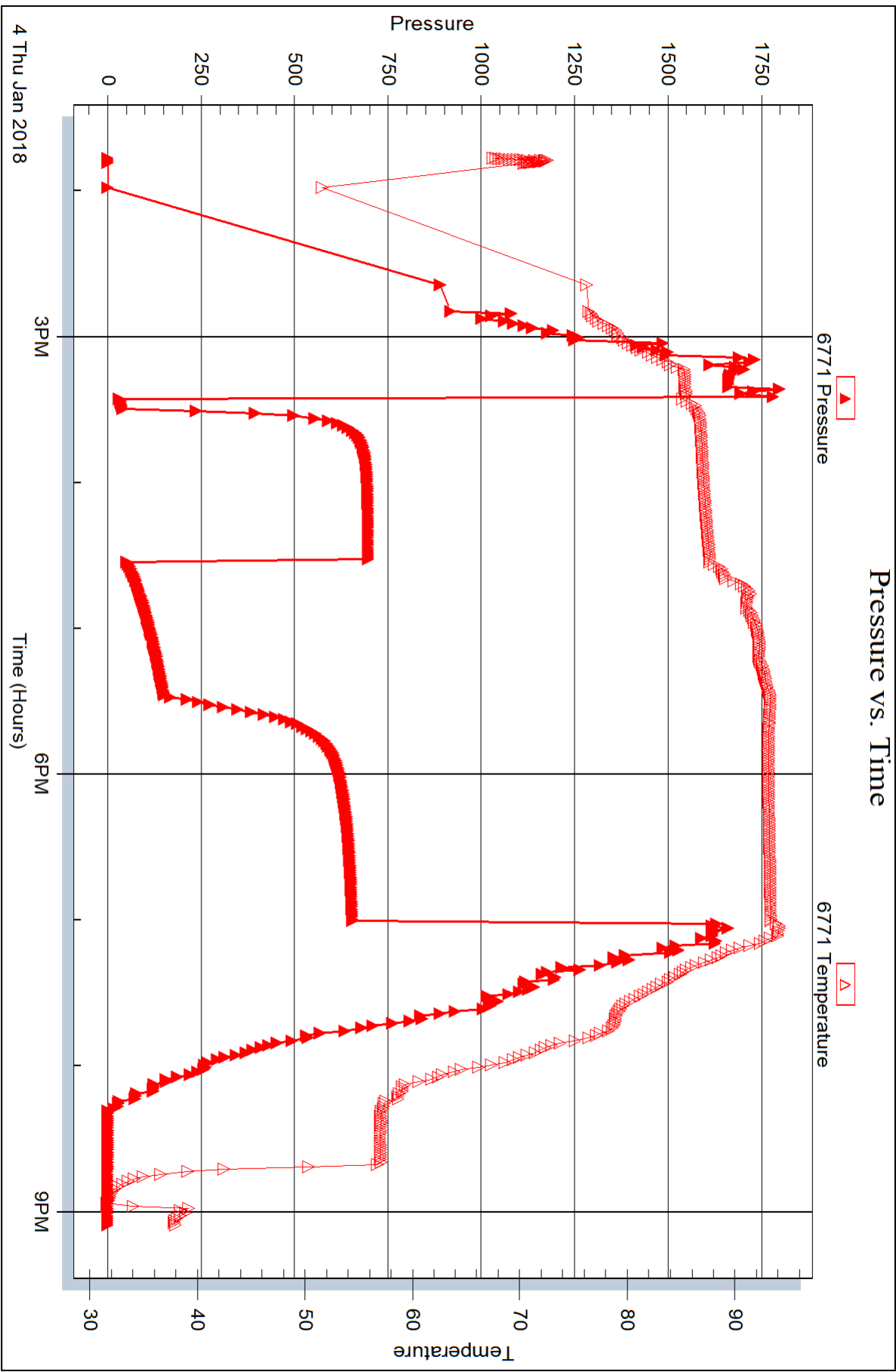
Serial #: 6771

Inside

Staab Oil Co.

Hoffman #1

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **Staab Oil Co.**

1607 Hopewell Rd.
Hays, KS 67601

ATTN: Janel Staab

Hoffman #1

26-12S-17W Ellis,KS

Start Date: 2017.12.14 @ 15:11:00

End Date:

Job Ticket #: 63340

DST #: 3

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2018.01.08 @ 13:31:27



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Staab Oil Co.
1607 Hopewell Rd.
Hays, KS 67601
ATTN: Janel Staab

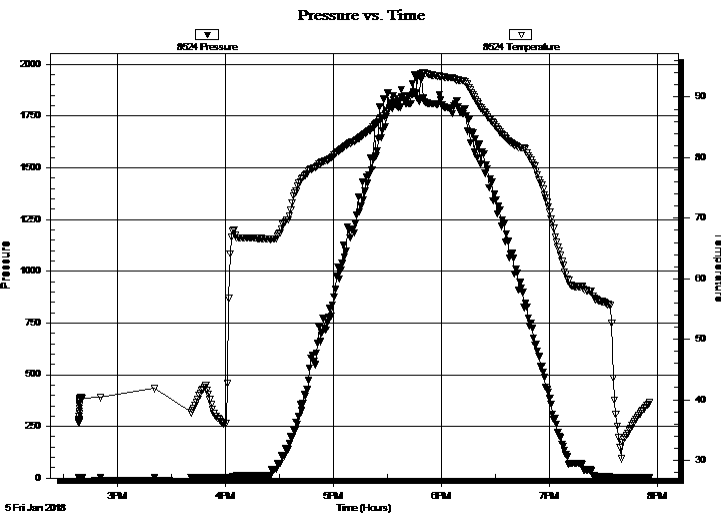
26-12S-17W Ellis, KS
Hoffman #1
Job Ticket: 63340 **DST#: 3**
Test Start: 2017.12.14 @ 15:11:00

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened:
 Time Test Ended:
 Interval: **3627.00 ft (KB) To 3655.00 ft (KB) (TVD)**
 Total Depth: 3655.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Brannan Lonsdale
 Unit No: 73
 Reference Elevations: 2125.00 ft (KB)
 2120.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8524 Outside
 Press@RunDepth: psig @ 3628.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2018.01.05 End Date: 2018.01.05 Last Calib.: 2018.01.05
 Start Time: 14:38:35 End Time: 19:56:25 Time On Btm:
 Time Off Btm:

TEST COMMENT: PACKER FAILURE



PRESSURE SUMMARY

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

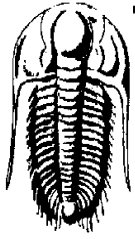
Recovery

Length (ft)	Description	Volume (bbl)
150.00	M	1.10

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Staab Oil Co.
1607 Hopewell Rd.
Hays, KS 67601
ATTN: Janel Staab

26-12S-17W Ellis, KS
Hoffman #1
Job Ticket: 63340 **DST#: 3**
Test Start: 2017.12.14 @ 15:11:00

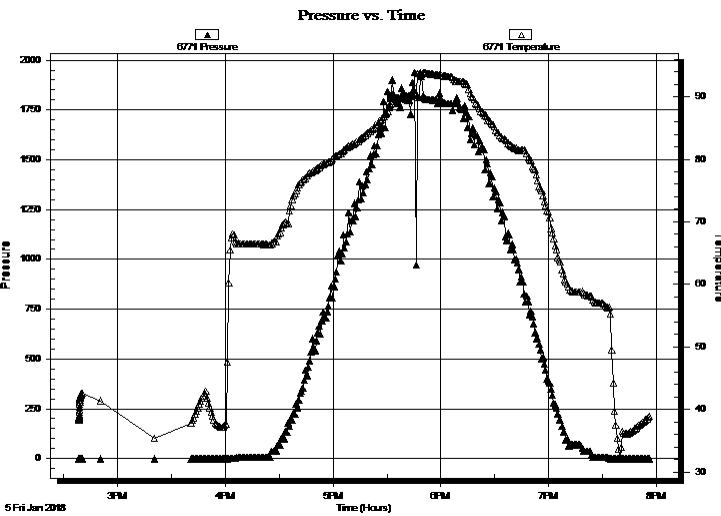
GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened:
Time Test Ended:
Interval: 3627.00 ft (KB) To 3655.00 ft (KB) (TVD)
Total Depth: 3655.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole (Reset)
Tester: Brannan Lonsdale
Unit No: 73
Reference Elevations: 2125.00 ft (KB)
2120.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6771 **Inside**
Press@RunDepth: psig @ 3628.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2018.01.05 End Date: 2018.01.05 Last Calib.: 2018.01.05
Start Time: 14:38:43 End Time: 19:56:18 Time On Btm:
Time Off Btm:

TEST COMMENT: PACKER FAILURE



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
150.00	M	1.10

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Staab Oil Co.
1607 Hopewell Rd.
Hays, KS 67601
ATTN: Janel Staab

26-12S-17W Ellis,KS
Hoffman #1
Job Ticket: 63340 **DST#: 3**
Test Start: 2017.12.14 @ 15:11:00

Tool Information

Drill Pipe:	Length: 3147.00 ft	Diameter: 3.82 inches	Volume: 44.61 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 466.00 ft	Diameter: 2.75 inches	Volume: 3.42 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	lb
			<u>Total Volume: 48.03 bbl</u>	Tool Chased	ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial	lb
Depth to Top Packer:	3627.00 ft			Final	lb
Depth to Bottom Packer:	ft				
Interval between Packers:	28.00 ft				
Tool Length:	48.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Change Over Sub	1.00			3608.00	
Shut In Tool	5.00			3613.00	
Hydraulic tool	5.00			3618.00	
Packer	5.00			3623.00	20.00 Bottom Of Top Packer
Packer	4.00			3627.00	
Stubb	1.00			3628.00	
Recorder	0.00	6771	Inside	3628.00	
Recorder	0.00	8524	Outside	3628.00	
Perforations	24.00			3652.00	
Bullnose	3.00			3655.00	28.00 Bottom Packers & Anchor
Total Tool Length:	48.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Staab Oil Co.
1607 Hopewell Rd.
Hays, KS 67601
ATTN: Janel Staab

26-12S-17W Ellis,KS
Hoffman #1
Job Ticket: 63340 **DST#: 3**
Test Start: 2017.12.14 @ 15:11:00

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 48.00 sec/qt	Cushion Volume: bbl		
Water Loss: 11.59 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 18000.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
150.00	M	1.102

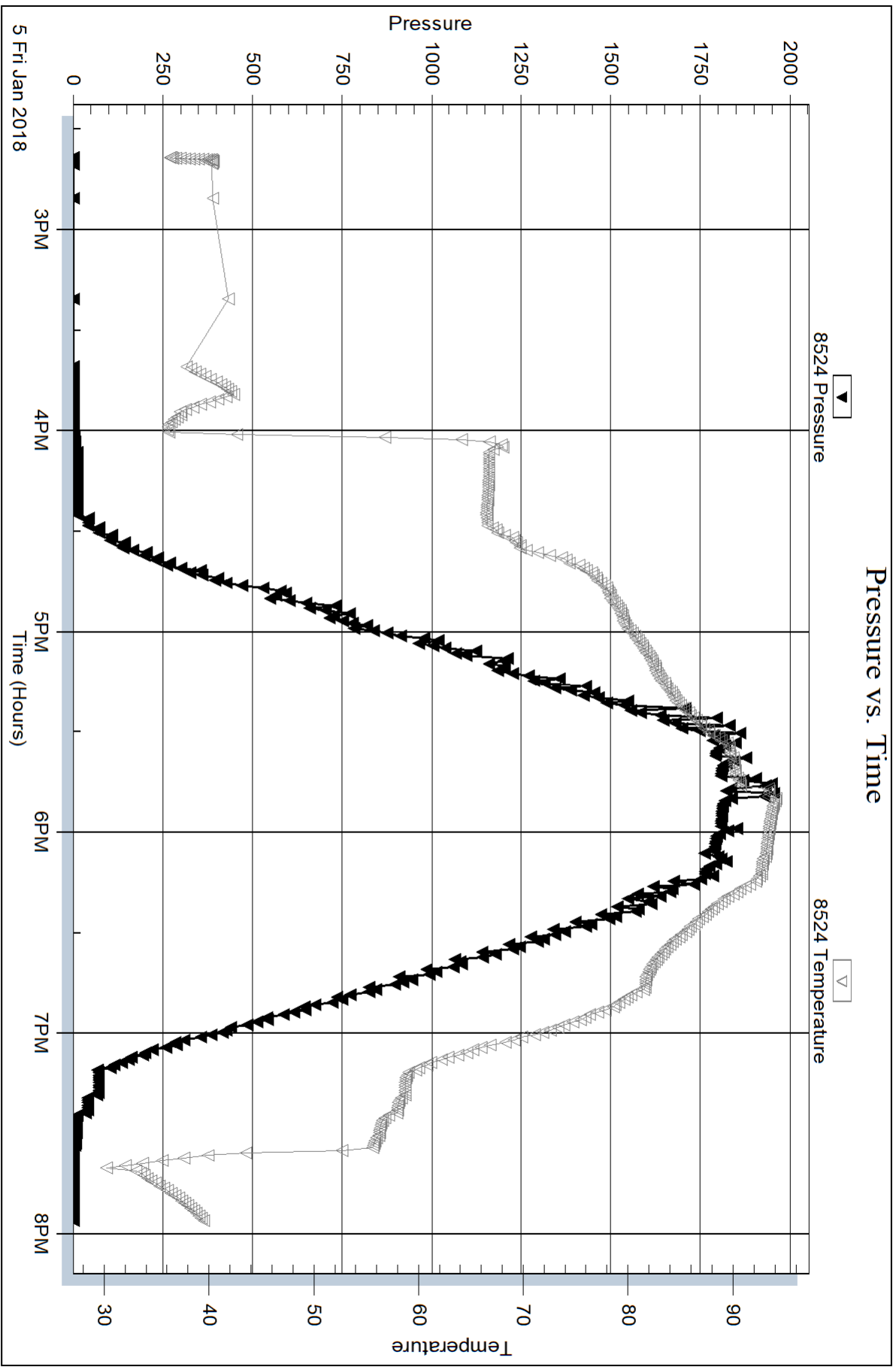
Total Length: 150.00 ft Total Volume: 1.102 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Serial #: 8524

Outside Staab Oil Co.

Hoffman #1

DST Test Number: 3



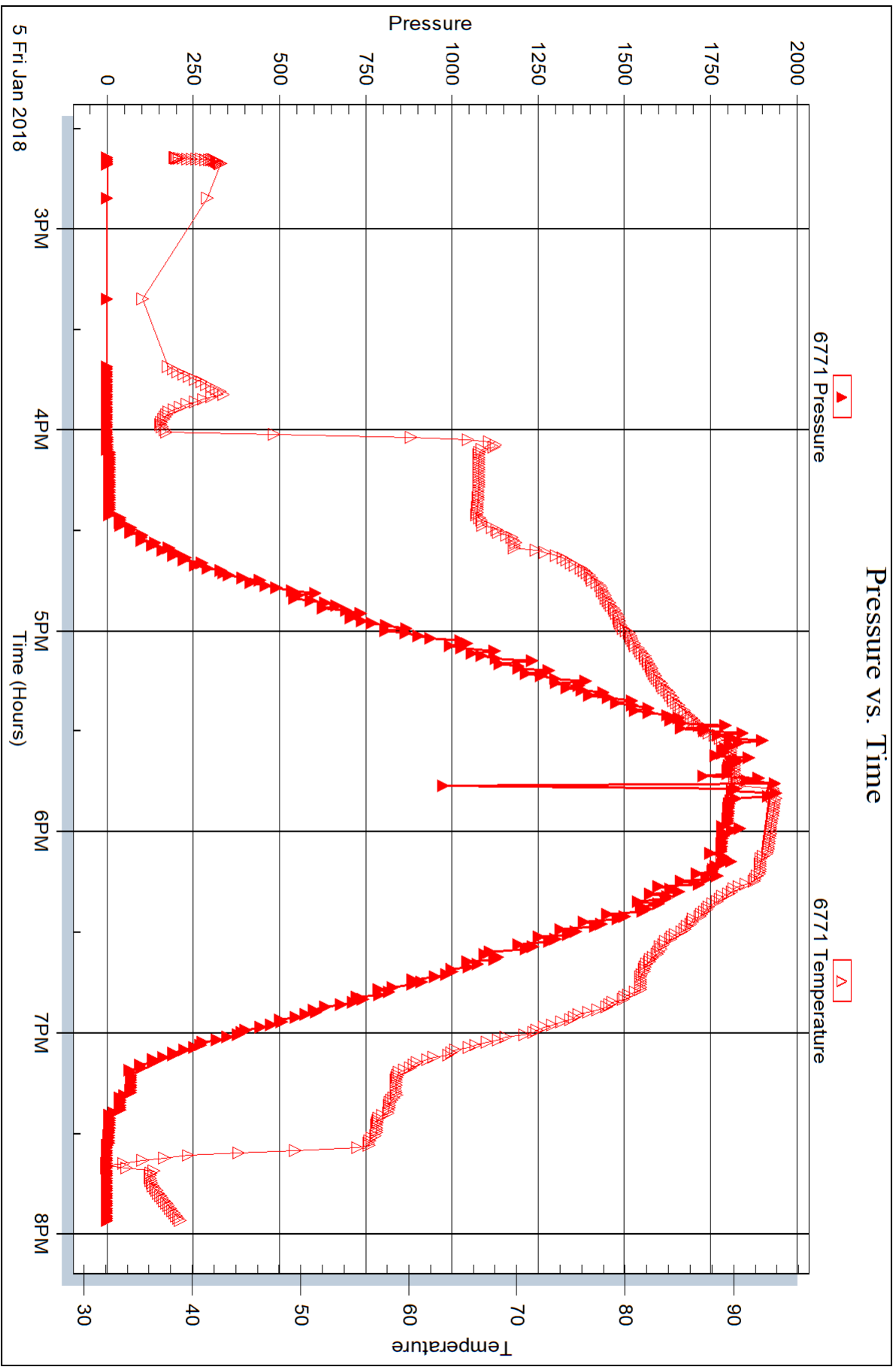
Serial #: 6771

Inside

Staab Oil Co.

Hoffman #1

DST Test Number: 3





DRILL STEM TEST REPORT

Prepared For: **Staab Oil Co.**

1607 Hopewell Rd.
Hays, KS 67601

ATTN: Janel Staab

Hoffman #1

26-12S-17W Ellis,KS

Start Date: 2018.01.05 @ 20:07:58

End Date: 2018.01.06 @ 04:16:04

Job Ticket #: 63341 DST #: 4

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2018.01.08 @ 13:30:02

Staab Oil Co. 26-12S-17W Ellis,KS Hoffman #1 DST # 4 Arbuckle 2018.01.05



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Staab Oil Co.
1607 Hopewell Rd.
Hays, KS 67601
ATTN: Janel Staab

26-12S-17W Ellis, KS
Hoffman #1
Job Ticket: 63341 **DST#: 4**
Test Start: 2018.01.05 @ 20:07:58

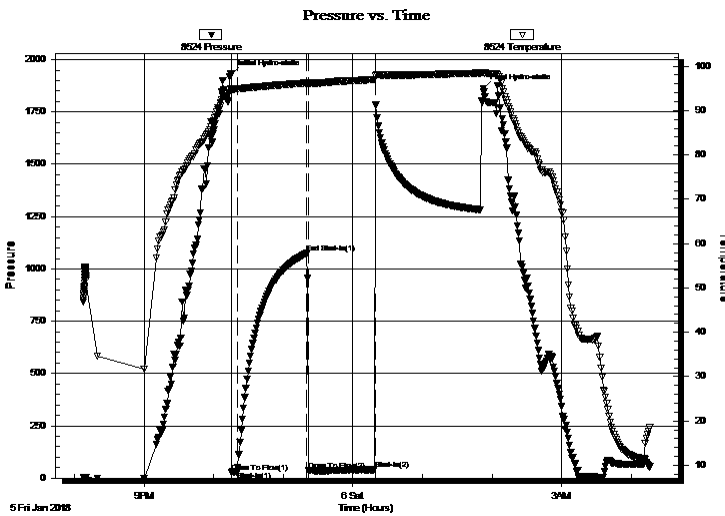
GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 22:15:34
Time Test Ended: 04:16:04
Interval: **3598.00 ft (KB) To 3655.00 ft (KB) (TVD)**
Total Depth: 3655.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Reset)
Tester: Brannan Lonsdale
Unit No: 73
Reference Elevations: 2125.00 ft (KB)
2120.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8524 Outside
Press@RunDepth: 30.58 psig @ 3599.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2018.01.05 End Date: 2018.01.06 Last Calib.: 2018.01.06
Start Time: 20:07:59 End Time: 04:16:04 Time On Btm: 2018.01.05 @ 22:15:04
Time Off Btm: 2018.01.06 @ 01:52:34

TEST COMMENT: 05- IF- Slowly built to 1"
60- IS- No blow
60- FF- 1/2" blow throughout
90- FSI- No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1928.68	94.89	Initial Hydro-static
1	28.90	94.72	Open To Flow (1)
6	30.58	94.93	Shut-In(1)
66	1074.21	96.19	End Shut-In(1)
67	35.57	95.94	Open To Flow (2)
124	41.14	97.02	Shut-In(2)
218	1860.93	98.53	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	M	0.22
3.00	CO	0.02

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Staab Oil Co.
1607 Hopewell Rd.
Hays, KS 67601
ATTN: Janel Staab

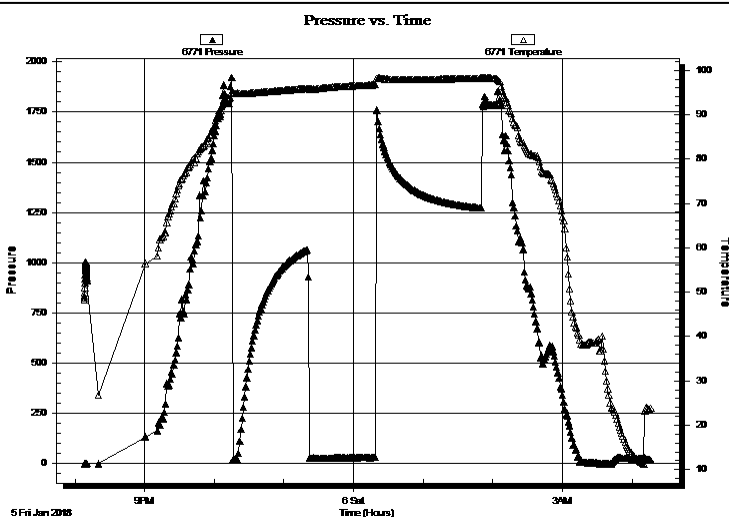
26-12S-17W Ellis, KS
Hoffman #1
Job Ticket: 63341 **DST#: 4**
Test Start: 2018.01.05 @ 20:07:58

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 22:15:34
Time Test Ended: 04:16:04
Interval: **3598.00 ft (KB) To 3655.00 ft (KB) (TVD)**
Total Depth: 3655.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Reset)
Tester: Brannan Lonsdale
Unit No: 73
Reference Elevations: 2125.00 ft (KB)
2120.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6771 Inside
Press@RunDepth: psig @ 3599.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2018.01.05 End Date: 2018.01.06 Last Calib.: 2018.01.06
Start Time: 20:08:19 End Time: 04:16:24 Time On Btm:
Time Off Btm:

TEST COMMENT: 05- IF- Slowly built to 1"
60- IS- No blow
60- FF- 1/2" blow throughout
90- FS- No blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
30.00	M	0.22
3.00	CO	0.02

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Staab Oil Co.
1607 Hopewell Rd.
Hays, KS 67601
ATTN: Janel Staab

26-12S-17W Ellis, KS
Hoffman #1
Job Ticket: 63341 **DST#: 4**
Test Start: 2018.01.05 @ 20:07:58

Tool Information

Drill Pipe:	Length: 3115.00 ft	Diameter: 3.82 inches	Volume: 44.16 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 466.00 ft	Diameter: 2.75 inches	Volume: 3.42 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 47.58 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	3.00 ft			String Weight: Initial 65000.00 lb
Depth to Top Packer:	3598.00 ft			Final 65000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	57.00 ft			
Tool Length:	77.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			3579.00	
Shut In Tool	5.00			3584.00	
Hydraulic tool	5.00			3589.00	
Packer	5.00			3594.00	20.00 Bottom Of Top Packer
Packer	4.00			3598.00	
Stubb	1.00			3599.00	
Recorder	0.00	6771	Inside	3599.00	
Recorder	0.00	8524	Outside	3599.00	
Perforations	20.00			3619.00	
Change Over Sub	1.00			3620.00	
Drill Pipe	31.00			3651.00	
Change Over Sub	1.00			3652.00	
Bullnose	3.00			3655.00	57.00 Bottom Packers & Anchor

Total Tool Length: 77.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Staab Oil Co.
1607 Hopewell Rd.
Hays, KS 67601
ATTN: Janel Staab

26-12S-17W Ellis, KS
Hoffman #1
Job Ticket: 63341 **DST#: 4**
Test Start: 2018.01.05 @ 20:07:58

Mud and Cushion Information

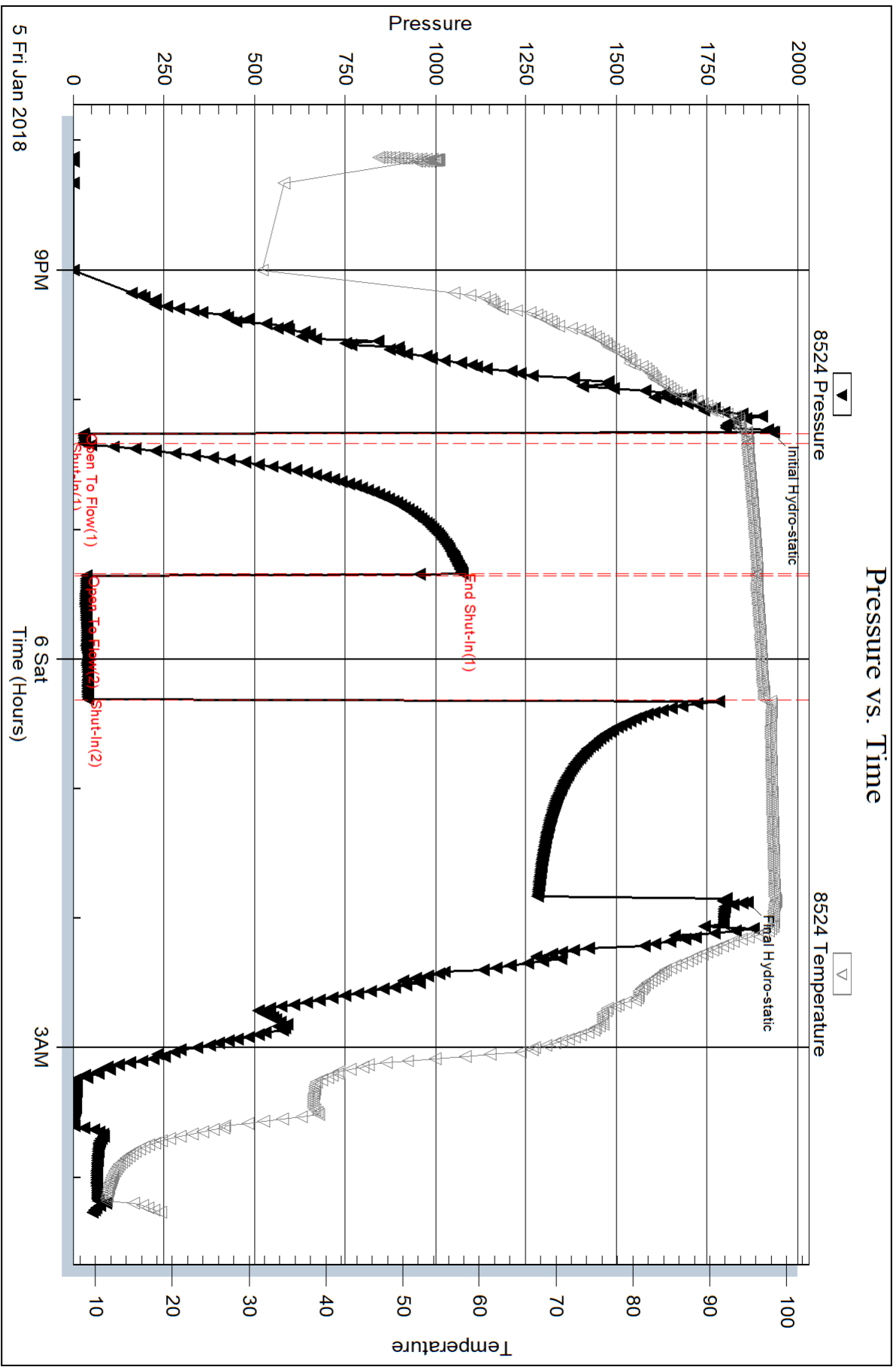
Mud Type: Gel Chem	Cushion Type:	Oil API: 30 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: ppm
Viscosity: 48.00 sec/qt	Cushion Volume: bbl	
Water Loss: 11.59 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 18000.00 ppm		
Filter Cake: inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	M	0.220
3.00	CO	0.022

Total Length: 33.00 ft Total Volume: 0.242 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:



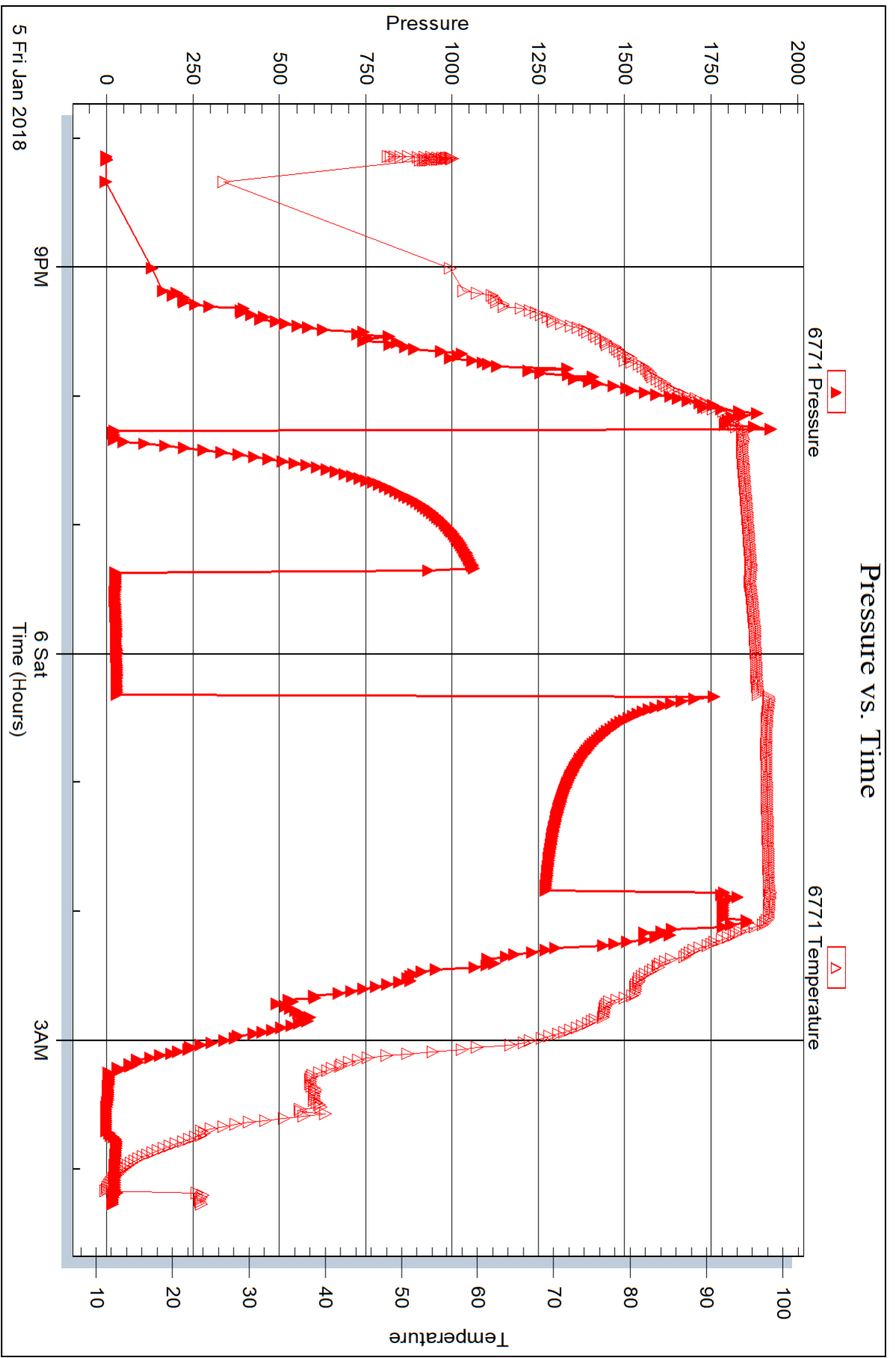
Serial #: 6771

Inside

Staab Oil Co.

Hoffman #1

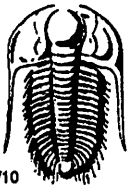
DST Test Number: 4



Triobite Testing, Inc

Ref. No: 63341

Printed: 2018.01.08 @ 13:30:03



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 63409

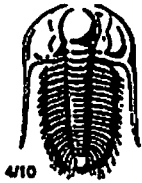
Well Name & No. Hoffman #1 Test No. 1 Date 12-14-13
 Company Staab Oil Company Elevation 2125 KB 2120 GL
 Address 1607 Hopewell Rd. Hays, KS 67601
 Co. Rep / Geo. Janel Staab Rig Shield
 Location: Sec. 26 Twp. 12S. Rge. 17W. Co. Ellis State KS

Interval Tested 3294-3345 Zone Tested Bottom of Topoka
 Anchor Length 51' Drill Pipe Run 2830 Mud Wt. 9.0
 Top Packer Depth 3289 Drill Collars Run — Vis 48
 Bottom Packer Depth 3294 Wt. Pipe Run 466 WL 7.2
 Total Depth 3345 Chlorides 9400 ppm System LCM 2H
 Blow Description IF. S. blow built to 1/8"
ISI. No blow
FF. No blow
FSE. N

Rec	Feet of	%gas	%oil	%water	%mud
<u>139</u>	<u>Mud</u>			<u>100</u>	
<u>0</u>	<u>Oil spots in tool</u>				
Rec Total	<u>139</u>	BHT	<u>89</u>	Gravity	API RW @ <u>—</u> °F Chlorides <u>—</u> ppm

(A) Initial Hydrostatic 1610 Test 1050 T-On Location 13:30
 (B) First Initial Flow 15 Jars — T-Started —
 (C) First Final Flow 15 Safety Joint — T-Open 17:00
 (D) Initial Shut-In 1040 Circ Sub — T-Pulled 19:30
 (E) Second Initial Flow 95 Hourly Standby — T-Out 21:13
 (F) Second Final Flow 94 Mileage 18 RT From Hays Comments Unseated packer on PF
 (G) Final Shut-In — Sampler — re seated + bled off floor
 (H) Final Hydrostatic 1588 Straddle — manifold - No blow
 Ruined Shale Packer —
 Ruined Packer —
 Extra Copies —
 Initial Open 15 Shale Packer —
 Initial Shut-In 60 Extra Packer —
 Final Flow 75 Extra Recorder — Sub Total 0
 Final Shut-In — Day Standby — Total 1068
 Accessibility — MP/DST Disc't —
 Sub Total 1068

Approved By _____ Our Representative [Signature]
 Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 63339

Well Name & No. Hoffman #1 Test No. 2 Date 1/4/18
 Company Staab Oil Co. Elevation 2125 KB 2120 GL
 Address 1607 Hopewell Rd Hays, KS 67601
 Co. Rep / Geo. Janel Staab Rig Shields
 Location: Sec. 26 Twp 12 S Rge. 17 W Co. Ellis State KS

Interval Tested 3406-3473 Zone Tested LKC "D-F"
 Anchor Length 67' Drill Pipe Run 2925 Mud Wt. 9.0
 Top Packer Depth 3401 Drill Collars Run — Vis 60+
 Bottom Packer Depth 3406 Wt. Pipe Run 466 WL 10.8
 Total Depth 3473 Chlorides 19400 ppm System LCM 2#

Blow Description IF - Built to 4"
ISI - No Blow
EF - BOB 26mtrs
ISI - No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>279</u>	<u>60CM</u>	<u>10</u>	<u>10</u>	<u>80</u>	<u>—</u>
Rec	Feet of <u>31' GIP</u>	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 279' BHT 940 Gravity — API RW — @ — °F Chlorides — ppm

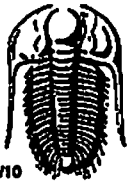
(A) Initial Hydrostatic 1781 Test 1050 T-On Location 1242
 (B) First Initial Flow 36 Jars — T-Started 1346
 (C) First Final Flow 48 Safety Joint — T-Open 1525
 (D) Initial Shut-In 703 Circ Sub — T-Pulled 1900
 (E) Second Initial Flow 56 Hourly Standby — T-Out 2106
 (F) Second Final Flow 159 Mileage 24 RT 18 Comments —
 (G) Final Shut-In 662 Sampler —
 (H) Final Hydrostatic 1663 Straddle — Ruined Shale Packer —
 Shale Packer — Ruined Packer —
 Extra Packer — Extra Copies —
 Extra Recorder —
 Day Standby —
 Accessibility —

Initial Open 05
 Initial Shut-In 60
 Final Flow 60
 Final Shut-In 90

Sub Total 1068
 Total 1068
 MP/DST Disc't —

Approved By — Our Representative Brennan Lawsdale

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 63340

Well Name & No. Hoffman #1 Test No. 3 Date 1/5/18
 Company Staab Oil Co. Elevation 2125 KB 2120 GL
 Address 1607 Hopewell RD Hays, KS 67601
 Co. Rep / Geo. Janell Staab Rig Shields
 Location: Sec. 26 Twp R S Rge. 17 W Co. Ellis State KS

Interval Tested 3627-3655 Zone Tested Arbuckle
 Anchor Length 28' Drill Pipe Run 3147 Mud Wt. 9.3
 Top Packer Depth 3622 Drill Collars Run 4665 Vis 48
 Bottom Packer Depth 3627 Wt. Pipe Run ↓ WL 11.6
 Total Depth 3655 Chlorides 18,000 ppm System LCM 2#

Blow Description PACKER FAILURE

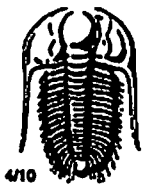
Rec	Feet of	%gas	%oil	%water	%mud
<u>150</u>	<u>M</u>				

Rec Total 150 BHT _____ Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic _____ Test 850 T-On Location 1436
 (B) First Initial Flow _____ Jars _____ T-Started 1438
 (C) First Final Flow _____ Safety Joint _____ T-Open _____
 (D) Initial Shut-In _____ Circ Sub _____ T-Pulled _____
 (E) Second Initial Flow _____ Hourly Standby _____ T-Out 1956
 (F) Second Final Flow _____ Mileage 24 RT 18 Comments _____
 (G) Final Shut-In _____ Sampler _____
 (H) Final Hydrostatic _____ Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Initial Open _____ Extra Recorder _____ Sub Total 0
 Initial Shut-In _____ Day Standby _____ Total 868
 Final Flow _____ Accessibility _____ MP/DST Disc't _____
 Final Shut-In _____ Sub Total 868

Approved By _____ Our Representative Brannan Lonsdak

Triobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRIOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 63341

Well Name & No. Hoffman #1 Test No. 4 Date 1/5/18
 Company Tarab Oil Co. Elevation 2125 KB 2120 GL
 Address 1607 Hopewell Rd. Hays, KS 67601
 Co. Rep / Geo. Janel Strub Rig Shields
 Location: Sec. 26 Twp 13 S Rge. 17 W Co. Ellis State KS

Interval Tested 3598-3655 Zone Tested Arbuckle
 Anchor Length 57' Drill Pipe Run 3115 Mud Wt. 9.3
 Top Packer Depth 3593 Drill Collars Run — Vis 48
 Bottom Packer Depth 3598 Wt. Pipe Run 466 WL 11.6
 Total Depth 3655 Chlorides 18,000 ppm System LCM 2#

Blow Description IF - Slowly built to 1"
ISI - No Blow
FF - 1/2" blow through out
F SI - No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>30</u>	<u>M</u>				
<u>3</u>	<u>10</u>				

Rec Total 33' BHT 98° Gravity 30 API RW —@ —° F Chlorides — ppm

(A) Initial Hydrostatic 1929 Test 1050 T-On Location 1956
 (B) First Initial Flow 29 Jars — T-Started 2008
 (C) First Final Flow 31 Safety Joint — T-Open 2215
 (D) Initial Shut-In 1074 Circ Sub — T-Pulled 0150
 (E) Second Initial Flow 36 Hourly Standby — T-Out 0416
 (F) Second Final Flow 41 Mileage — Comments —
 (G) Final Shut-In Trapped hydro pulling slips Sampler —
 (H) Final Hydrostatic 1861 Straddle — Ruined Shale Packer —
 Shale Packer 250 Ruined Packer —
 Extra Packer — Extra Copies —
 Extra Recorder — Sub Total 0
 Day Standby — Total 1300
 Accessibility — MP/DST Disc't —
 Sub Total 1300

Approved By _____ Our Representative Brannan Lonsdale

Triobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for all cost by the party for whom the test is made.

GLOBAL OIL FIELD SERVICES, LLC

3203

REMIT TO 24 S. Lincoln
Russell, KS 67665

SERVICE POINT Ranch KS

DATE <u>12-9-17</u>	SEC <u>26</u>	TWP. <u>12S</u>	RANGE <u>14 W</u>	CALLED OUT	ON LOCATION	JOB START	JOB FINISH
LEASE <u>Hoffman</u>	WELL # <u>1</u>	LOCATION <u>Cedell Rd</u>			COUNTY <u>Ellis</u>	STATE <u>KS</u>	
OLD OR NEW (CIRCLE ONE)				OWNER <u>Stagah Oil</u>			

CONTRACTOR Shields Drilling Rig #1

TYPE OF JOB Surface

HOLE SIZE 12 1/4 T.D. 211' with 16 1/2'

CASING SIZE 8.58 DEPTH

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX MINIMUM

MEAS. LINE SHOE JOINT

CEMENT LEFT IN CSG.

PERFS

DISPLACEMENT

EQUIPMENT

PUMP TRUCK CEMENTER Cody

417 HELPER Jason

BULK TRUCK DRIVER Tom

378

BULK TRUCK DRIVER

#

CEMENT AMOUNT ORDERED 150 sks 60/40 3%cc

2% gel

COMMON @

POZMIX @

GEL @

CHLORIDE @

ASC @

HANDLING @

MILEAGE @

TOTAL

REMARKS:

Ran 5 hrs of 5 1/2" casing to 16' bit track to rig
to get circulation. Had to pump truck pump
150 sks of cement and displaced 11 1/2 bbls of
fluo and then a cement + did circulation to surface.

DEPTH OF JOB

PUMP TRUCK CHARGE @

EXTRA FOOTAGE @

MILEAGE @

MANIFOLD @

TOTAL

CHARGE TO: Stagah Oil

STREET _____

CITY _____ STATE _____ ZIP _____

PLUG & FLOAT EQUIPMENT

TOTAL

TOTAL

Global Oil Field Services, LLC

You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME George Beaks

SIGNATURE George Beaks

SALES TAX (if Any) _____

TOTAL CHARGES _____

DISCOUNT _____

IF PAID IN 30 DAYS _____

GLOBAL OIL FIELD SERVICES, LLC

3236

REMIT TO 24 S. Lincoln
Russell, KS 67665

SERVICE POINT: Russell KS

DATE <u>1-7-18</u>	SEC. <u>26</u>	TWP. <u>12</u>	RANGE <u>1-1</u>	CALLED OUT	ON LOCATION	JOB START	JOB FINISH
LEASE <u>Hollans</u>	WELL #. <u>1</u>	LOCATION <u>North on Coatsville Rd</u>		COUNTY <u>Falls</u>	STATE <u>KS</u>		
OLD OR NEW (CIRCLE ONE)		1/4 East Marsh, etc					

CONTRACTOR Shields Drilling Rig #1 OWNER Staab Oil

TYPE OF JOB Pipe Set

HOLE SIZE 5 1/2

CASING SIZE 5 1/2

TUBING SIZE

DRILL PIPE

TOOL

PRES. MAX 1500psi

MEAS. LINE

CEMENT LEFT IN CSG. B.T.J

PERFS

DISPLACEMENT 89 bbl EQUIPMENT

PUMP TRUCK CEMENTER Cedy

417 HELPER Jason

BULK TRUCK

411 DRIVER Tom

BULK TRUCK

401 DRIVER Tim

AMOUNT ORDERED 150sr ASC 450sr 60/40
6 bags of Halcalium

COMMON	@	
POZMIX	@	
GEL	@	
CHLORIDE	@	
ASC	@	
	@	
	@	
	@	
	@	
	@	
	@	
	@	
	@	
HANDLING MILEAGE	@	TOTAL

REMARKS:
Run 89 bbls of 5 1/2 casing and landing
It - hook up and est circulation and
open backdoor shoe - Circulate the gel
plus 2 1/2 MH - hook up and mix 450sr and
land with 150sr ASC - release plug
and dis 89 bbl H2O - 2.00g pressure
released - plug landed - 150sr pressure
released - O.K. get 150sr
Cement Did Circulate!

CHARGE TO: Staab Oil

STREET _____

CITY _____ STATE _____ ZIP _____

Global Oil Field Services, LLC

You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side. Thank You!

DEPTH OF JOB	
PUMP TRUCK CHARGE	@
EXTRA FOOTAGE	@
MILEAGE	@
MANIFOLD	@
TOTAL	

PLUG & FLOAT EQUIPMENT

<u>Factor</u>	@
<u>9 Cement</u>	@
<u>2 Barrels</u>	@
TOTAL	

PRINTED NAME _____

SIGNATURE _____

SALES TAX (if any) _____

TOTAL CHARGES _____

DISCOUNT _____ IF PAID IN 30 DAYS _____