

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
--	---

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
---	---	------------------------------------

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:	
----------------	-------	---------	------------	--

Form	ACO1 - Well Completion
Operator	Mai Oil Operations, Inc.
Well Name	S&S UNIT 1
Doc ID	1660881

All Electric Logs Run

CDN
MICRO
DIL
Sonic

Form	ACO1 - Well Completion
Operator	Mai Oil Operations, Inc.
Well Name	S&S UNIT 1
Doc ID	1660881

Tops

Name	Top	Datum
Anhydrite	699	1147
Grand Haven	2308	-462
Topeka	2621	-775
Heebner	2903	-1057
Toronto	2918	-1072
Douglas	2932	-1086
Brown Lime	2993	-1147
Lansing	3008	-1162
BKC	3265	-1419
Arbuckle	3296	-1450





**QUALITY OILWELL CEMENTING, INC.**

PO Box 32 - 740 West Wichita Ave, Russell KS 67665  
 Phone: 785-324-1041 fax: 785-483-1087  
 Email: cementing@ruralintel.net

Date: 6/14/2022  
 Invoice # 2842

P.O.#:

Due Date: 7/14/2022

Division: *Russell*

# Invoice

**Contact:**

Mai Oil Operations

**Address/Job Location:**

8411 Preston Rd. Ste 800  
 Dallas TX 75225-5520

**Reference:**

S & S UNIT 1 SEC 36-15-12

**Description of Work:**

LONG SURFACE JOB

**Services / Items Included:**

	Quantity	Price	Taxable	Item	Quantity	Price	Taxable
Labor		\$ 855.03	No				
Common-Class A	210	\$ 4,145.75	Yes				
POZ Mix-Standard	140	\$ 939.17	Yes				
Calcium Chloride	15	\$ 805.00	Yes				
Bulk Truck Matl-Material Service Charge	371	\$ 355.54	No				
Premium Gel (Bentonite)	6	\$ 166.75	Yes				
8 5/8" Top Rubber Plug	1	\$ 116.92	Yes				
Pump Truck Mileage-Job to Nearest Camp	27	\$ 116.44	No				
Bulk Truck Mileage-Job to Nearest Bulk Plant	27	\$ 90.56	No				

**Invoice Terms:**

Net 30

	SubTotal:	\$	7,591.15
	Discount Available <u>ONLY</u> if Invoice is Paid & Received within listed terms of invoice:	\$	(189.78)
<hr/>			
	SubTotal for Taxable Items:	\$	6,019.24
	SubTotal for Non-Taxable Items:	\$	1,382.13
<hr/>			
	Total:	\$	7,401.37
	Tax:	\$	511.64
<hr/>			
	<b>Amount Due:</b>	\$	<b>7,913.01</b>
	<b>Applied Payments:</b>		
	<b>Balance Due:</b>	\$	<b>7,913.01</b>

8.50% Russell County Sales Tax

**Thank You For Your Business!**

Past Due Invoices are subject to a service charge (annual rate of 24%)  
 This does not include any applicable taxes unless it is listed.  
 ©2008-2013 Straker Investments, LLC. All rights reserved.

# 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. **2842**

Date	6-14-22	Sec.	36	Twp.	15	Range	12	County	Russell	State	Ks	On Location		Finish	6:00 AM	
Lease	S+S unit							Well No.	1	Location Dubuque - 1/2 W IN 1/2 E S Into						
Contractor	Southwind #1							Owner	Double Red Gate							
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.	721'		Charge To	Mai oil operations									
Csg.	8 3/8"		Depth	720'		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.	30'		Shoe Joint	30'		Cement Amount Ordered	350 60/40 4% cc 2 1/2 gal									
Meas Line			Displace	44 BLS												
<b>EQUIPMENT</b>										Common 210						
Pumptrk	5	No.	Cementer	David		Poz. Mix	140									
Bulktrk	13	No.	Driver	Clayton		Gel.	6									
Bulktrk	P.M.	No.	Driver	Rick		Calcium	15									
<b>JOB SERVICES &amp; REMARKS</b>										Hulls						
Remarks:	Cement did Circulate										Salt					
Rat Hole											Flowseal					
Mouse Hole											Kol-Seal					
Centralizers											Mud CLR 48					
Baskets											CFL-117 or CD110 CAF 38					
D/V or Port Collar											Sand					
											Handling 371					
											Mileage					
<b>FLOAT EQUIPMENT</b>										Guide Shoe						
											Centralizer Rubber plug					
											Baskets					
											AFU Inserts					
											Float Shoe					
											Latch Down					
											Pumptrk Charge Long Surface					
											Mileage 27					
											Tax					
											Discount					
											Total Charge					

X Signature *Mark J. Ross*

Thanks *[Signature]*



**QUALITY OILWELL CEMENTING, INC.**

PO Box 32 - 740 West Wichita Ave, Russell KS 67665  
 Phone: 785-324-1041 fax: 785-483-1087  
 Email: cementing@ruraltel.net

Date: 6/21/2022  
 Invoice # 2848

P.O.#:

Due Date: 7/21/2022

Division: Russell

# Invoice

**Contact:**

Mai Oil Operations  
 Address/Job Location:

8411 Preston Rd. Ste 800  
 Dallas TX 75225-5520

**Reference:**

S&S UNIT 1 SEC 36-15-12

**Description of Work:**

PROD STRING

**Services / Items Included:**

	Quantity	Price	Taxable	Item	Quantity	Price	Taxable
Labor		\$ 855.03	No	Bulk Truck Mileage-Job to Nearest Bulk Plant	27	\$90.56	No
Common-Class A	110	\$ 2,171.58	Yes				
Mud Clear	1000	\$ 1,399.17	Yes				
5 1/2" Turbolizer	13	\$ 897.00	Yes				
POZ Mix-Standard	70	\$ 469.58	Yes				
Auto Fill Float Shoe, 5 1/2"	1	\$ 322.00	Yes				
Latch Down Plug & Baffle, 5 1/2"	1	\$ 254.92	Yes				
Salt (Fine)	15	\$ 188.31	Yes				
Bulk Truck Matl-Material Service Charge	206	\$ 197.42	No				
Pump Truck Mileage-Job to Nearest Camp	27	\$ 116.44	No				
Flo Seal	50	\$ 95.83	Yes				

**Invoice Terms:**

Net 30

SubTotal: \$ 7,057.84  
 Discount Available ONLY if Invoice is Paid & Received  
 within listed terms of invoice: \$ (176.45)

SubTotal for Taxable Items:	\$ 5,653.44
SubTotal for Non-Taxable Items:	\$ 1,227.96
<b>Total:</b>	<b>\$ 6,881.39</b>
<b>Tax:</b>	<b>\$ 480.54</b>

8.50% Russell County Sales Tax

**Thank You For Your Business!**

**Amount Due: \$ 7,361.93**  
**Applied Payments:**  
**Balance Due: \$ 7,361.93**

Past Due Invoices are subject to a service charge (annual rate of 24%)  
 This does not include any applicable taxes unless it is listed.  
 ©2008-2013 Straker Investments, LLC. All rights reserved.



# 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. **2848**

Date	6-21-22	Sec.	36	Twp.	15	Range	12	County	Russell	State	Ks	On Location		Finish	8:45 AM	
Lease	S + S unit							Well No.	#1	Location Dubuque - 1/2 W, 1 N, 1/2 E, 5 into						
Contractor	Southwind #1							Owner 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.								
Type Job	Longstring							Charge To	Main oil operations							
Hole Size	7-7/8"		T.D.	3420'		Street										
Csg.	5 1/2" used		Depth	3418'		City										
Tbg. Size			Depth			State										
Tool			Depth			The above was done to satisfaction and supervision of owner agent or contractor.										
Cement Left in Csg.	38.75'		Shoe Joint	38.75'		Cement Amount Ordered	180 60/40 10% Salt 2% Gel									
Meas Line			Displace	8 1/2 BLS		1/4# F/o seal	1000 gal mud clear 48									
<b>EQUIPMENT</b>												Common				110
Pumptrk	16	No.	Cementer	David		Poz. Mix	70									
Bulktrk	14	No.	Driver	Tom		Gel.	3									
Bulktrk	p.u.	No.	Driver	Rick		Calcium										
<b>JOB SERVICES &amp; REMARKS</b>												Hulls				
Remarks:													Salt	15		
Rat Hole	305X												Flowseal	50#		
Mouse Hole	N/A												Kol-Seal			
Centralizers	1-12 + 14												Mud CLR 48	1000 gal		
Baskets	Pipe on bottom break Circulation												-117 or CD110 CAF 38			
D/V or Port Collar	pump 1500 gal mud clear												Sand			
Plug Rathole	w/ 305X, Hook to												Handling	306		
5 1/2" Casing	+ mix 150X Cement												Mileage			
Shut down wash pump + lines												<b>FLOAT EQUIPMENT</b>				
Displaced plug w/ 8 1/2 BLS, H2O												Guide Shoe				
Released + held,												Centralizer	13			
Lift pressure 200 #												Baskets				
Land plug to 1500 #												AFU Inserts				
												Float Shoe	1			
												Latch Down	1			
												Pumptrk Charge	prod string			
												Mileage	27			
												Tax				
												Discount				
												Total Charge				

X Signature

*[Handwritten Signature]*

*Thanks*

**JAMES C. MUSGROVE**

Petroleum Geologist, LLC  
212 Main Street  
P.O. Box 215  
Claflin, KS 67525

Office (620) 588-4250

Res. Claflin (620) 786-0839

Mai Oil Operations, Inc.  
S&S Unit #1  
SW-SE-SE-NW (2507' FNL & 618' FEL)  
Section 36-15s-12w  
Russell County, Kansas

Page 1

**5 1/2" Production Casing Set**

**Contractor:** Southwind Drilling Co. (rig #1)  
**Commenced:** June 13, 2022  
**Completed:** June 20, 2022  
**Elevation:** 1925' K.B., 1923 D.F., 1915' G.L.  
**Casing program:** Surface; 8 5/8" @ 708'  
Production, 5 1/2" @ 3417'  
**Sample:** Samples saved and examined 2200' to the Rotary Total Depth.  
**Drilling time:** One (1) foot drilling time recorded and kept 2200' to the Rotary Total Depth.  
**Measurements:** All depths measured from the Kelly Bushing.  
**Drill Stem Tests:** There were four (4) test ran by Trilobite Testing Co.  
**Electric Log:** By Eli, Dual Induction; Compensated Density/Neutron, Micro-Resistivity and Sonic Logs.

<u>Formation</u>	<u>Log Depth</u>	<u>Sub-Sea Datum</u>
Anhydrite	699	+1147
Base Anhydrite	729	+1117
Grand Haven	2308	-462
1 <sup>st</sup> Tarkio Sand	2320	-474
Dover	2333	-487
Tarkio Lime	2384	-538
3 <sup>rd</sup> Tarkio Sand	2415	-569
Elmont	2444	-598
Howard	2581	-735
Severy	2606	-760
Topeka	2621	-775
Heebner	2903	-1057
Toronto	2918	-1072
Douglas	2932	-1086
Brown Lime	2993	-1147
Lansing	3008	-1162
Base Kansas City	3265	-1419
Arbuckle	3296	-1450
Rotary Total Depth	3420	-1574
Log Total Depth	3421	-1575

(All tops and zone(s) corrected to Electric Log Measurements)

**SAMPLE ANALYSIS, SHOWS OF OIL, TESTING DATA, ETC.**

**1<sup>st</sup> TARKIO SAND**

2320-2326' Sand; gray, grayish green; very fine grained; sub-rounded; friable; fair intergranular porosity, micaeous; no shows.

**2<sup>nd</sup> TARKIO SAND**

2344-2354' Poor sand development

**3<sup>rd</sup> TARKIO SAND**

2415-2424' Sand; gray; grayish green; very fine grained; sub-rounded; friable; fair intergranular porosity, micaeous, no show

**TOPEKA SECTION**

2621-2630' Limestone, tan; gray, chalky (poor samples)

2656-2668' Limestone, tan, gray, finely crystalline; slightly chalky (dense)

2690-2700' Limestone, gray, tan, fossiliferous in part, poor visible porosity, with coal black and gray boney chert.

2710-2720' Limestone, gray, tan, fossiliferous, poor porosity, dense

2756-2766' Limestone, tan, fossiliferous, chalky; poor visible porosity.

2827-2840' Limestone, gray and white, cream, finely crystalline, fair porosity; trace brown stain and golden brown stain, no free oil and no odor in fresh samples.

2848-2870' Limestone, gray, white, sub-oomoldic, chalky, trace brown stain and golden brown stain, no free oil and no odor.

2880-2900' Limestone, tan, gray, fine crystalline, chalky with gray, boney chert.

**TORONTO SECTION**

2918-2930' Limestone, tan, fossiliferous, chalky, trace brown stain, no free oil and no odor; dolomitic at base.

**LANSING SECTION**

3008-3014' Limestone, tan, fossiliferous, chalky, scattered porosity, trace brown and golden brown stain, trace of free oil and no odor.

3020-3030' Limestone, gray, white, fossiliferous, chalky; poor porosity; no shows.

3034-3044' Limestone, tan, gray, oomoldic, fair oomoldic porosity, poor brown stain, no free oil and no odor.

3054-3066' Limestone, tan, oolitic, dense, poor porosity, no shows.

- 3068-3075' Limestone; as above, with Limestone, tan, fine and medium crystalline, oolitic, chalky, trace gray and black stain, no free oil and questionable odor in fresh samples.
- 3086-3100' Limestone, gray, white, oolitic, poor visible porosity, trace poor stain, no free oil and no odor.
- 3100-3120' Limestone, tan, buff, oomoldic, chalky, fair oomoldic porosity, (barren)
- 3120-3138' Limestone, tan, slightly cherty (dense) with gray chert at base.
- 3146-3158' Limestone, tan, fine and medium crystalline, fossiliferous, scattered porosity, trace golden brown stain, no free oil and no odor.
- 3166-3174' Limestone; tan, oolitic, chalky, poor visible porosity, trace spotted brown stain, no free oil and no odor.
- 3184-3194; Limestone; tan, gray, oolitic, fair porosity, brown stain, show of free oil and faint odor in samples.
- 3201-3210' Limestone, gray fossiliferous, chalky, no shows.
- 3220-3230' Limestone, white, gray, fossiliferous, chalky, poor visible porosity, no shows.

**Drill Stem Test #1** **3168-3234**

**Times: 30-30-45-60**

**Blow: Strong (B.O.B. 8 mins)**

**2<sup>nd</sup> Opening: Strong (B.O.B. 8 mins)**

**Recovery: 660' gas in pipe  
120' muddy gassy oil  
(40% gas; 50% oil; 10% mud)  
120' muddy gassy oil  
(35% gas; 35% oil; 30% mud)**

**Pressures: ISIP 762 psi  
FSIP 852 psi  
IFP 42-58 psi  
FFP 77-82 psi  
HSH 1603-1549 psi**

- 3250-3260' Limestone, tan, brown, fine crystalline, slightly cherty (dense)

**MARMATON SECTION**

- 3270-3276' Limestone, tan, fine and medium crystalline, few nodular, chalky.
- 3281-3286' Limestone, white, tan, fine crystalline, few granular, trace of brown stain, no free oil and no odor.

**CONGLOMERATE SECTION**

3288-3296' Chert; white, gray, opaque with gray and red shales.

**ARBUCKLE SECTION**

3296-3307' Dolomite, white, cream, medium crystalline, fair inter-crystalline porosity; light brown and golden brown stain, show of free oil and faint to fair odor.

**Drill Stem Test #2** **3256-3307**

**Times:** 30-30-45-45

**Blow:** Strong (B.O.B. 10 mins)  
**2<sup>nd</sup> Opening:** Strong (B.O.B. 10 mins)

**Recovery:** 60' gas in pipe  
450' clean oil  
60' mud, show of oil  
180' muddy oil  
(50% oil; 50% mud)

**Pressures:** ISIP 1056 psi  
FSIP 1037 psi  
IFP 67-132 psi  
FFP 166-286 psi  
HSH 1644-1527 psi

3311-3318 Dolomite, as above, fair to good inter-crystalline porosity, brown to golden brown stain, fair show of free oil and fair odor.

**Drill Stem Test #3** **3309-3319**

**Times:** 30-30-45-45

**Blow:** Strong (B.O.B. 6 mins)  
**2<sup>nd</sup> Opening:** Strong (B.O.B. 9 mins)

**Recovery:** 60' gas in pipe  
760' clean oil  
60' slightly oil cut mud  
(90% mud; 10% oil)

**Pressures:** ISIP 1136 psi  
FSIP 1137 psi  
IFP 33-143 psi  
FFP 159-314 psi  
HSH 1662-1542 psi

3320-3331' Dolomite, white; cream, coarse crystalline, good inter-crystalline and vugular type porosity, good brown stain and saturation, good show of free oil and fair odor in fresh sample.

**Drill Stem Test #4** **3321-3331**

**Times:** 15-20-15-30

**Blow:** Strong (B.O.B. 30 secs)  
**2<sup>nd</sup> Opening:** Strong (B.O.B. 30 secs)

**Recovery:** 60' gas in pipe  
250' clean oil  
1260' heavily oil cut water  
(60% oil; 40% water)  
1070' water

**Pressures:** ISIP 1126 psi  
FSIP 1135 psi  
IFP 376-789 psi  
FFP 825-993 psi  
HSH 1680-1507 psi

- 3331-3340' Dolomite, as above with gray and white, boney and opaque chert.
- 3340-3354' Dolomite, as above, decreasing stain, show of free oil and odor, with white chalk.
- 3360-3370' Dolomite, white, cream, medium and coarse crystalline, fair porosity, trace gray and brown stain, trace of free oil and faint odor.
- 3370-3390' Dolomite, as above, glauconitic, sand in part, no show.
- 3390-3400' Dolomite, white, gray, cream, glauconitic, sandy, no shows.
- 3400-3420' Dolomite, gray, tan, fine and medium crystalline, highly sand, scattered porosity, no shows.

**Rotary Total Depth:** 3420  
**Log Total Depth:** 3421

**Remarks:**

5 1/2" production casing was set and cemented on Mai Oil Operations, Inc.; S&S Unit #1

Respectfully submitted,

James C Musgrove  
Petroleum Geologist



## DRILL STEM TEST REPORT

Prepared For: **Mai Oil Operations**

8411 Preston RD Ste 800  
Dallas TX 75225

ATTN: Jim Musgrove

### **S&S Unit #1**

#### **36-15s-12w Russell,KS**

Start Date: 2022.06.18 @ 07:00:00

End Date: 2022.06.18 @ 14:10:45

Job Ticket #: 59509                      DST #: 1

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

Printed: 2022.06.22 @ 11:57:26



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Mai Oil Operations

**36-15s-12w Russell,KS**

8411 Preston RD Ste 800  
Dallas TX 75225

**S&S Unit #1**

Job Ticket: 59509

**DST#: 1**

ATTN: Jim Musgrove

Test Start: 2022.06.18 @ 07:00:00

## GENERAL INFORMATION:

Formation: **LKC**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:28:30

Time Test Ended: 14:10:45

Test Type: Conventional Bottom Hole (Initial)

Tester: Terry

Unit No: 75

**Interval: 3168.00 ft (KB) To 3234.00 ft (KB) (TVD)**

Reference Elevations: 1846.00 ft (KB)

Total Depth: 3234.00 ft (KB) (TVD)

1836.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 8368**

**Inside**

Press@RunDepth: 82.37 psig @ 3175.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2022.06.18

End Date: 2022.06.18

Last Calib.: 2022.06.18

Start Time: 07:00:05

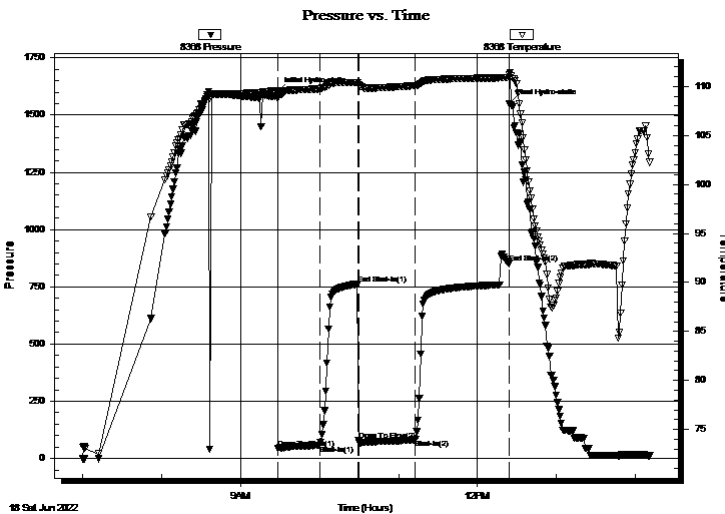
End Time: 14:10:44

Time On Btm: 2022.06.18 @ 09:28:15

Time Off Btm: 2022.06.18 @ 12:24:00

**TEST COMMENT:** IF-30-BOB In 8 min  
ISI30 No return  
FF45 BOB In 8 min  
FSI60 No nreturn

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1602.86	109.55	Initial Hydro-static
1	42.12	108.77	Open To Flow (1)
32	57.70	109.75	Shut-In(1)
61	762.23	110.41	End Shut-In(1)
62	77.50	110.18	Open To Flow (2)
105	82.37	110.08	Shut-In(2)
176	852.26	110.93	End Shut-In(2)
176	1548.78	111.19	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
120.00	35% gas 35% oil 30% mud	1.75
120.00	40% gas 50% oil 10% mud	1.75
0.00	660' GIP	0.00

## Gas Rates

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







**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Mai Oil Operations

**36-15s-12w Russell,KS**

8411 Preston RD Ste 800  
Dallas TX 75225

**S&S Unit #1**

Job Ticket: 59509

**DST#: 1**

ATTN: Jim Musgrove

Test Start: 2022.06.18 @ 07:00:00

## Tool Information

Drill Pipe:	Length: 3162.00 ft	Diameter: 3.87 inches	Volume: 46.00 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: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 48000.00 lb
			<u>Total Volume: 46.00 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 4000.00 lb
Depth to Top Packer:	3168.00 ft			Final 44000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	66.00 ft			
Tool Length:	97.00 ft			
Number of Packers:	2	Diameter: 6.88 inches		

Tool Comments:

## Tool Description

**Length (ft) Serial No. Position Depth (ft) Accum. Lengths**

Change Over Sub	1.00			3138.00	
Shut In Tool	5.00			3143.00	
Hydraulic tool	5.00			3148.00	
Jars	5.00			3153.00	
EM Tool	3.00			3156.00	
Safety Joint	3.00			3159.00	
Packer	5.00			3164.00	31.00 Bottom Of Top Packer
Packer	4.00			3168.00	
Stubb	1.00			3169.00	
Perforations	5.00			3174.00	
Change Over Sub	1.00			3175.00	
Recorder	0.00	8368	Inside	3175.00	
Recorder	0.00	8320	Outside	3175.00	
Drill Pipe	32.00			3207.00	
Change Over Sub	1.00			3208.00	
Perforations	23.00			3231.00	
Bullnose	3.00			3234.00	66.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>97.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Mai Oil Operations

**36-15s-12w Russell,KS**

8411 Preston RD Ste 800  
Dallas TX 75225

**S&S Unit #1**

Job Ticket: 59509

**DST#: 1**

ATTN: Jim Musgrove

Test Start: 2022.06.18 @ 07:00:00

### 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: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.98 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3600.00 ppm

Filter Cake: inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	35% gas 35% oil 30% mud	1.746
120.00	40% gas 50% oil 10% mud	1.746
0.00	660' GIP	0.000

Total Length: 240.00 ft      Total Volume: 3.492 bbl

Num Fluid Samples: 0

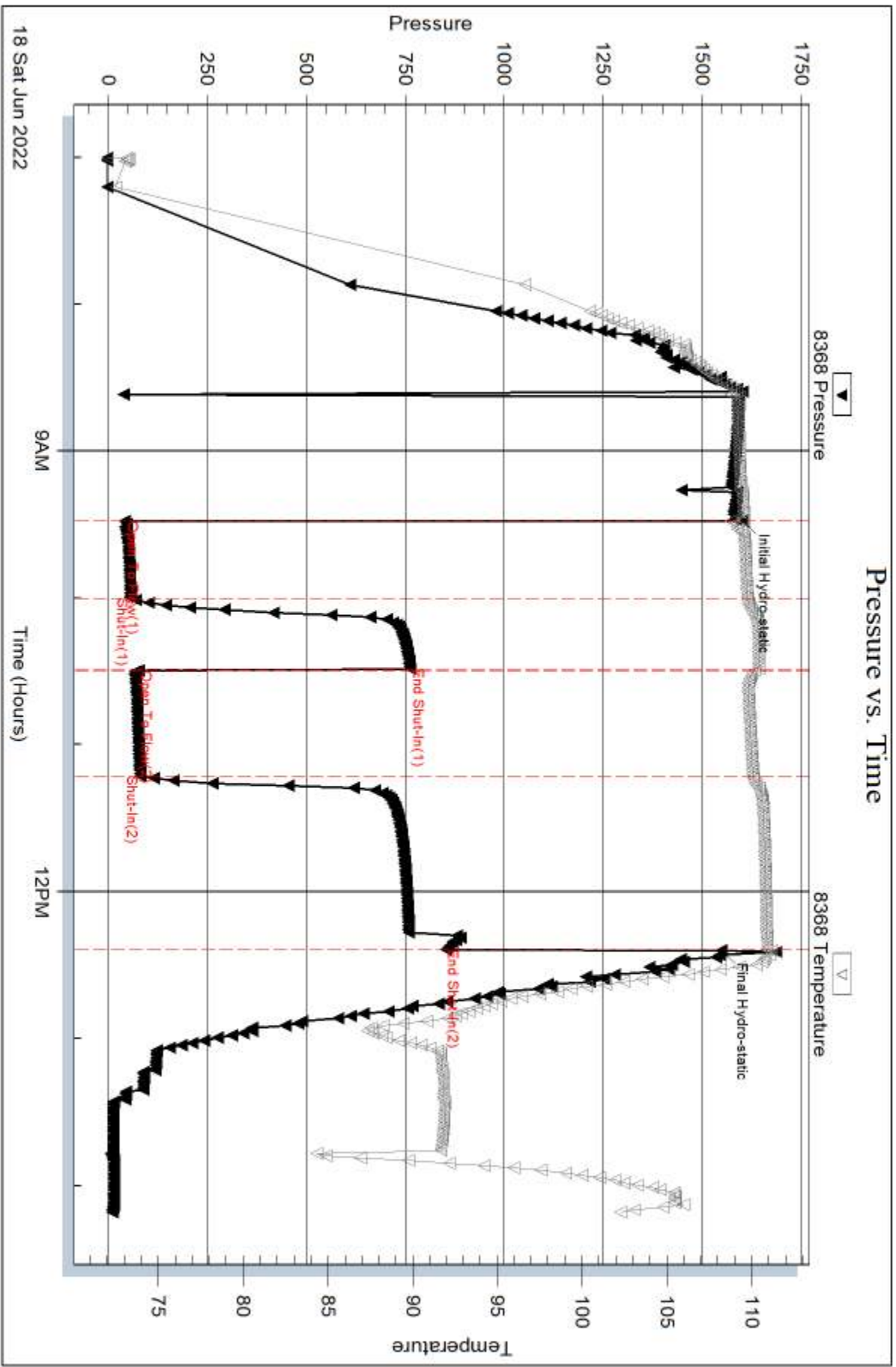
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

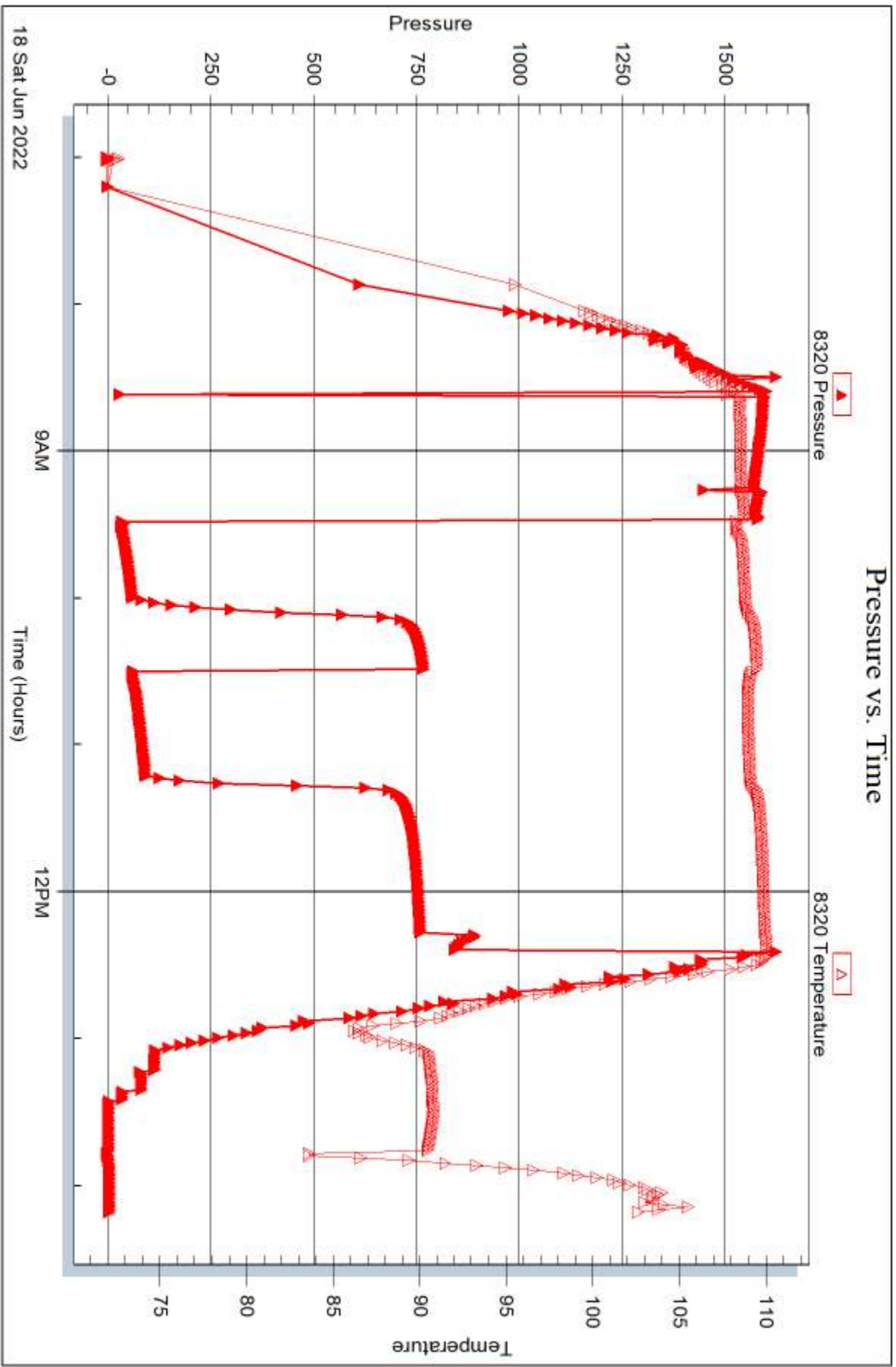


Serial #: 8320

Outside Mai Oil Operations

S&S Unit #1

DST Test Number: 1





## DRILL STEM TEST REPORT

Prepared For: **Mai Oil Operations**

8411 Preston RD Ste 800  
Dallas TX 75225

ATTN: Jim Musgrove

### **S&S Unit #1**

#### **36-15s-12w Russell,KS**

Start Date: 2022.06.19 @ 03:20:00

End Date: 2022.06.19 @ 09:57:00

Job Ticket #: 59510                      DST #: 2

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

Printed: 2022.06.22 @ 11:48:46



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Mai Oil Operations

**36-15s-12w Russell,KS**

8411 Preston RD Ste 800  
Dallas TX 75225

**S&S Unit #1**

Job Ticket: 59510

**DST#: 2**

ATTN: Jim Musgrove

Test Start: 2022.06.19 @ 03:20:00

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:03:30

Time Test Ended: 09:57:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Terry

Unit No: 75

**Interval: 3256.00 ft (KB) To 3307.00 ft (KB) (TVD)**

Reference Elevations: 1846.00 ft (KB)

Total Depth: 3234.00 ft (KB) (TVD)

1836.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 8368**

**Inside**

Press@RunDepth: 285.53 psig @ 3263.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2022.06.19

End Date:

2022.06.19

Last Calib.:

2022.06.19

Start Time:

03:20:05

End Time:

09:56:59

Time On Btm:

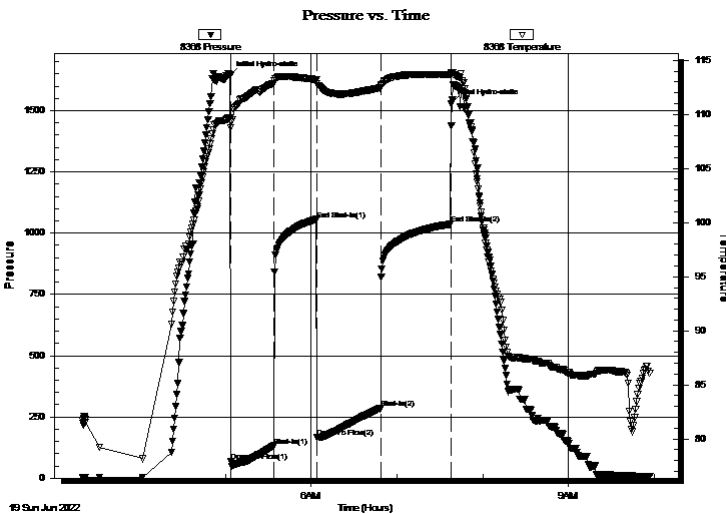
2022.06.19 @ 05:03:15

Time Off Btm:

2022.06.19 @ 07:37:45

TEST COMMENT: IF-30-BOB In 10 min  
ISI-30-No return  
FF-45-BOB In 10 min  
FSI-45-No return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1643.58	109.71	Initial Hydro-static
1	67.14	108.79	Open To Flow (1)
31	131.79	112.83	Shut-In(1)
61	1055.97	113.20	End Shut-In(1)
61	166.20	112.85	Open To Flow (2)
106	285.53	112.45	Shut-In(2)
155	1036.52	113.66	End Shut-In(2)
155	1527.07	113.88	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
180.00	HMCO 50% mud 50 % oil	2.62
60.00	100% mud	0.87
450.00	100% oil	6.55
0.00	60' GIP	0.00

\* Recovery from multiple tests

## Gas Rates

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







**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Mai Oil Operations

**36-15s-12w Russell,KS**

8411 Preston RD Ste 800  
Dallas TX 75225

**S&S Unit #1**

Job Ticket: 59510

**DST#: 2**

ATTN: Jim Musgrove

Test Start: 2022.06.19 @ 03:20:00

## Tool Information

Drill Pipe:	Length: 3232.00 ft	Diameter: 3.87 inches	Volume: 47.02 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: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: lb
			<u>Total Volume: 47.02 bbl</u>	Tool Chased: ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial lb
Depth to Top Packer:	3256.00 ft			Final lb
Depth to Bottom Packer:	ft			
Interval between Packers:	51.00 ft			
Tool Length:	82.00 ft			
Number of Packers:	2	Diameter: 6.88 inches		
Tool Comments:				

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3226.00	
Shut In Tool	5.00			3231.00	
Hydraulic tool	5.00			3236.00	
Jars	5.00			3241.00	
EM Tool	3.00			3244.00	
Safety Joint	3.00			3247.00	
Packer	5.00			3252.00	31.00 Bottom Of Top Packer
Packer	4.00			3256.00	
Stubb	1.00			3257.00	
Perforations	5.00			3262.00	
Change Over Sub	1.00			3263.00	
Recorder	0.00	8368	Inside	3263.00	
Recorder	0.00	8320	Outside	3263.00	
Drill Pipe	32.00			3295.00	
Change Over Sub	1.00			3296.00	
Perforations	8.00			3304.00	
Bullnose	3.00			3307.00	51.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>82.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Mai Oil Operations

**36-15s-12w Russell,KS**

8411 Preston RD Ste 800  
Dallas TX 75225

**S&S Unit #1**

Job Ticket: 59510

**DST#: 2**

ATTN: Jim Musgrove

Test Start: 2022.06.19 @ 03:20:00

### 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: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3600.00 ppm

Filter Cake: inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
180.00	HMCO 50% mud 50 % oil	2.619
60.00	100% mud	0.873
450.00	100% oil	6.547
0.00	60' GIP	0.000

Total Length: 690.00 ft

Total Volume: 10.039 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

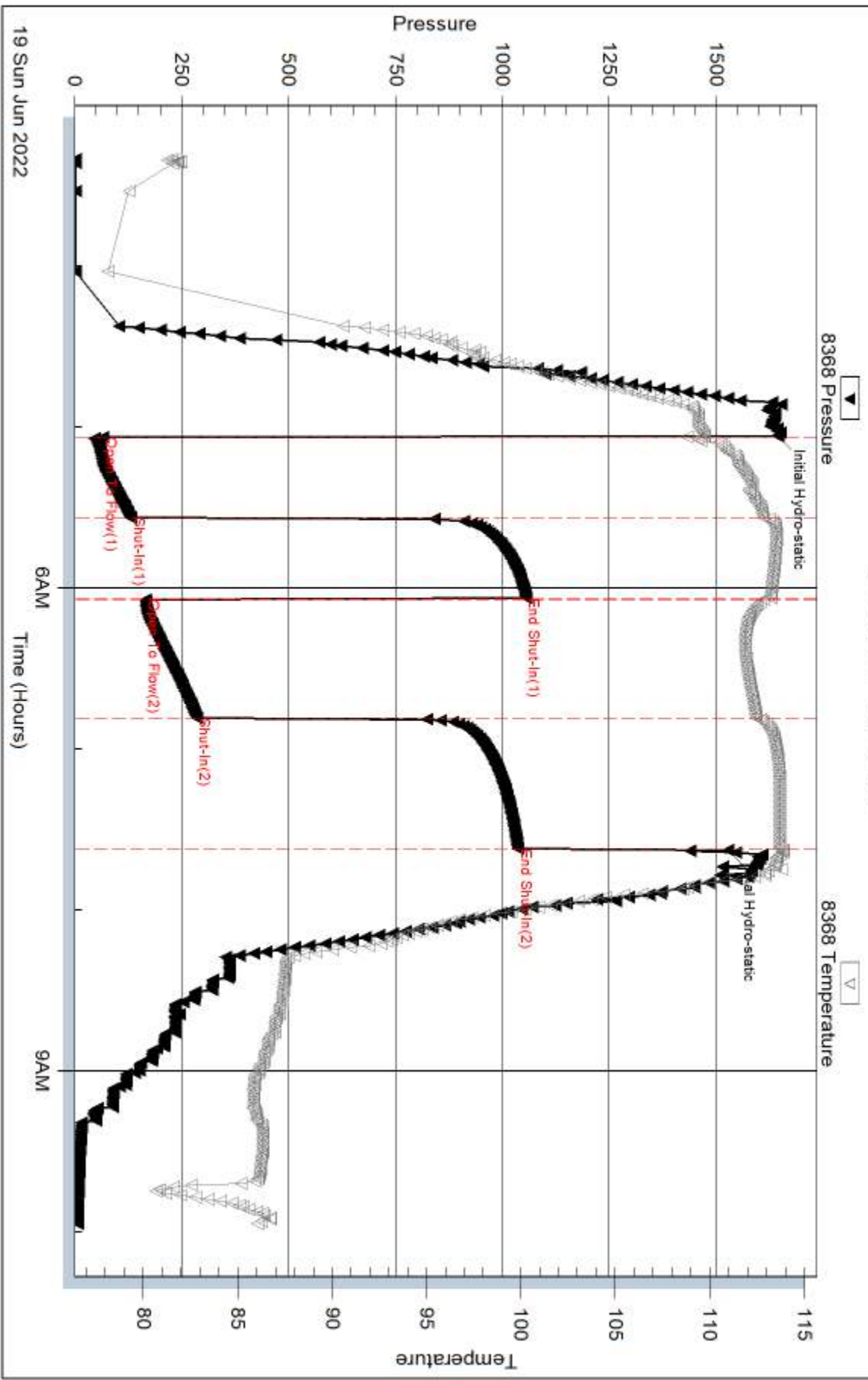
Serial #:

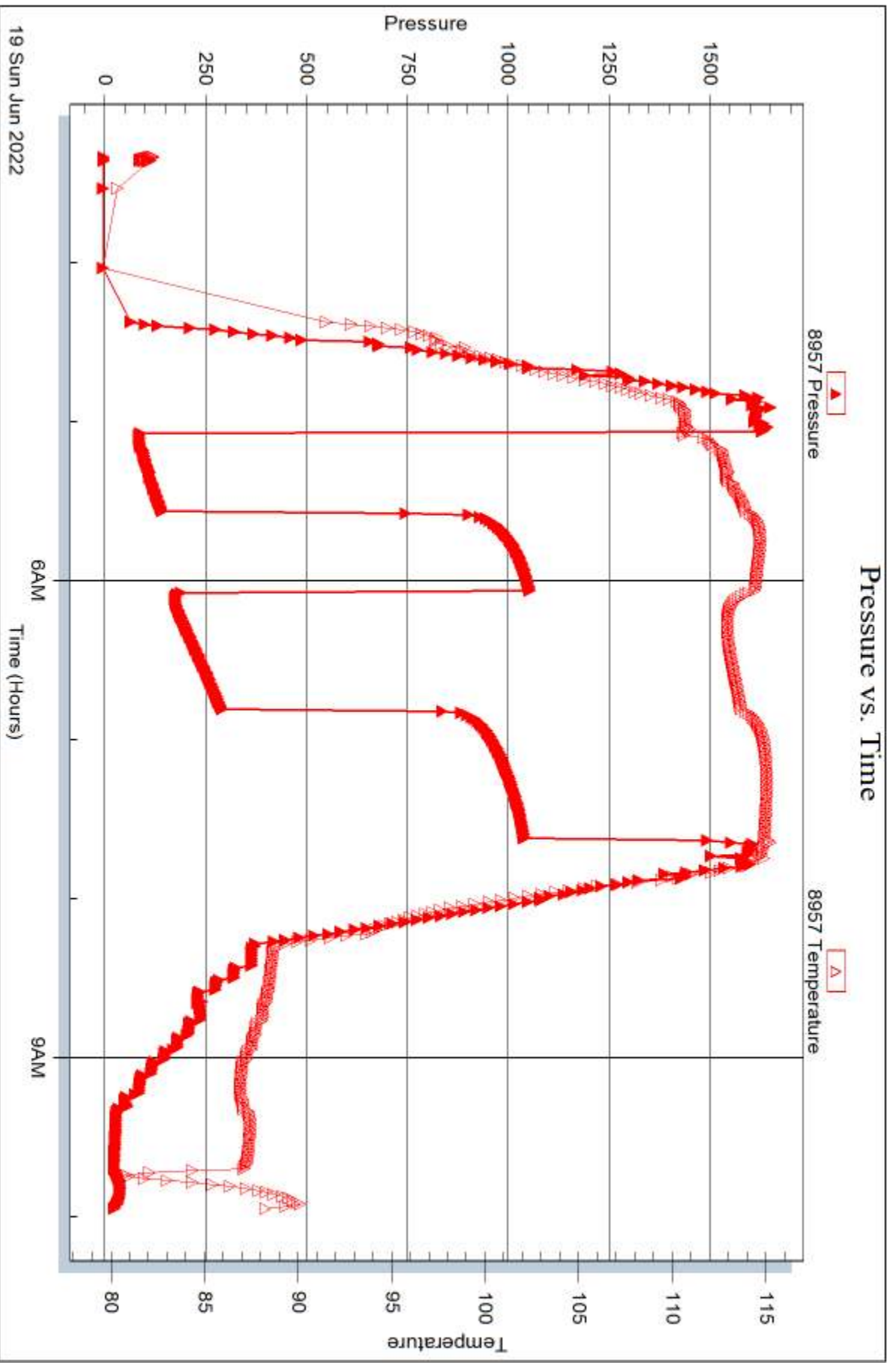
Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time







## DRILL STEM TEST REPORT

Prepared For: **Mai Oil Operations**

8411 Preston RD Ste 800  
Dallas TX 75225

ATTN: Jim Musgrove

### **S&S Unit #1**

#### **36-15s-12w Russell,KS**

Start Date: 2022.06.19 @ 15:30:00

End Date: 2022.06.19 @ 22:43:45

Job Ticket #: 59511                      DST #: 3

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

Printed: 2022.06.22 @ 11:48:19



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Mai Oil Operations  
 8411 Preston RD Ste 800  
 Dallas TX 75225  
 ATTN: Jim Musgrove

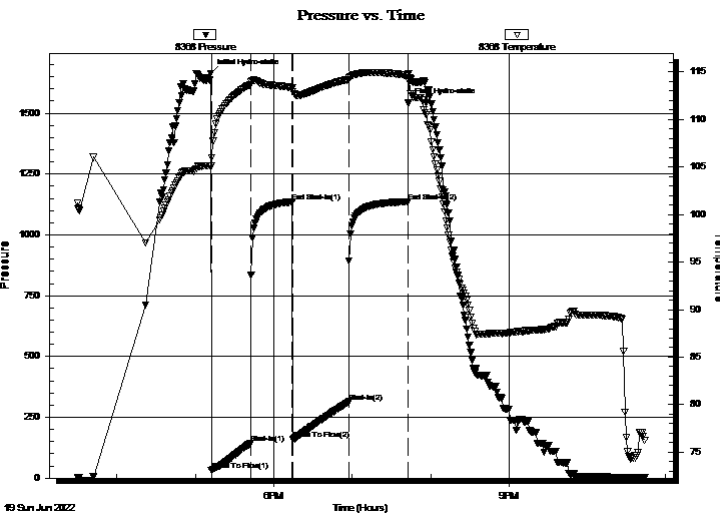
**36-15s-12w Russell,KS**  
**S&S Unit #1**  
 Job Ticket: 59511 **DST#: 3**  
 Test Start: 2022.06.19 @ 15:30:00

## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Reset)  
 Time Tool Opened: 17:12:15 Tester: Terry  
 Time Test Ended: 22:43:45 Unit No: 75  
 Interval: **3309.00 ft (KB) To 3319.00 ft (KB) (TVD)** Reference Elevations: 1846.00 ft (KB)  
 Total Depth: 3234.00 ft (KB) (TVD) 1836.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 10.00 ft

**Serial #: 8368 Inside**  
 Press@RunDepth: 314.06 psig @ 3310.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2022.06.19 End Date: 2022.06.19 Last Calib.: 2022.06.19  
 Start Time: 15:30:05 End Time: 22:43:44 Time On Btm: 2022.06.19 @ 17:11:45  
 Time Off Btm: 2022.06.19 @ 19:43:00

TEST COMMENT: IF-30-BOB 6 min  
 IS-30-No return  
 FF-45-BOB 9 min  
 FS-45-No return



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1662.00	105.08	Initial Hydro-static
1	33.28	105.11	Open To Flow (1)
31	142.75	113.68	Shut-In(1)
63	1135.73	113.35	End Shut-In(1)
63	159.32	112.94	Open To Flow (2)
106	314.06	114.22	Shut-In(2)
151	1136.86	114.65	End Shut-In(2)
152	1542.30	114.86	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
60.00	OCM 90% Mud 10% Oil	0.87
760.00	CO 100% Oil	11.06
0.00	60 GIP	0.00

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Mai Oil Operations

**36-15s-12w Russell,KS**

8411 Preston RD Ste 800  
Dallas TX 75225

**S&S Unit #1**

Job Ticket: 59511

**DST#: 3**

ATTN: Jim Musgrove

Test Start: 2022.06.19 @ 15:30:00

## Tool Information

Drill Pipe:	Length: 3295.00 ft	Diameter: 3.87 inches	Volume: 47.94 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: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 42000.00 lb
			<u>Total Volume: 47.94 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	17.00 ft			String Weight: Initial 38000.00 lb
Depth to Top Packer:	3309.00 ft			Final 40000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	10.00 ft			
Tool Length:	41.00 ft			
Number of Packers:	2	Diameter: 6.88 inches		

Tool Comments:

## Tool Description

**Length (ft) Serial No. Position Depth (ft) Accum. Lengths**

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3279.00	
Shut In Tool	5.00			3284.00	
Hydraulic tool	5.00			3289.00	
Jars	5.00			3294.00	
EM Tool	3.00			3297.00	
Safety Joint	3.00			3300.00	
Packer	5.00			3305.00	31.00 Bottom Of Top Packer
Packer	4.00			3309.00	
Stubb	1.00			3310.00	
Recorder	0.00	8368	Inside	3310.00	
Recorder	0.00	8320	Outside	3310.00	
Perforations	6.00			3316.00	
Bullnose	3.00			3319.00	10.00 Bottom Packers & Anchor

**Total Tool Length: 41.00**





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Mai Oil Operations

**36-15s-12w Russell,KS**

8411 Preston RD Ste 800  
Dallas TX 75225

**S&S Unit #1**

Job Ticket: 59511

**DST#: 3**

ATTN: Jim Musgrove

Test Start: 2022.06.19 @ 15:30:00

### 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: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3600.00 ppm

Filter Cake: inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	OCM 90% Mud 10% Oil	0.873
760.00	CO 100% Oil	11.057
0.00	60 GIP	0.000

Total Length: 820.00 ft      Total Volume: 11.930 bbl

Num Fluid Samples: 0

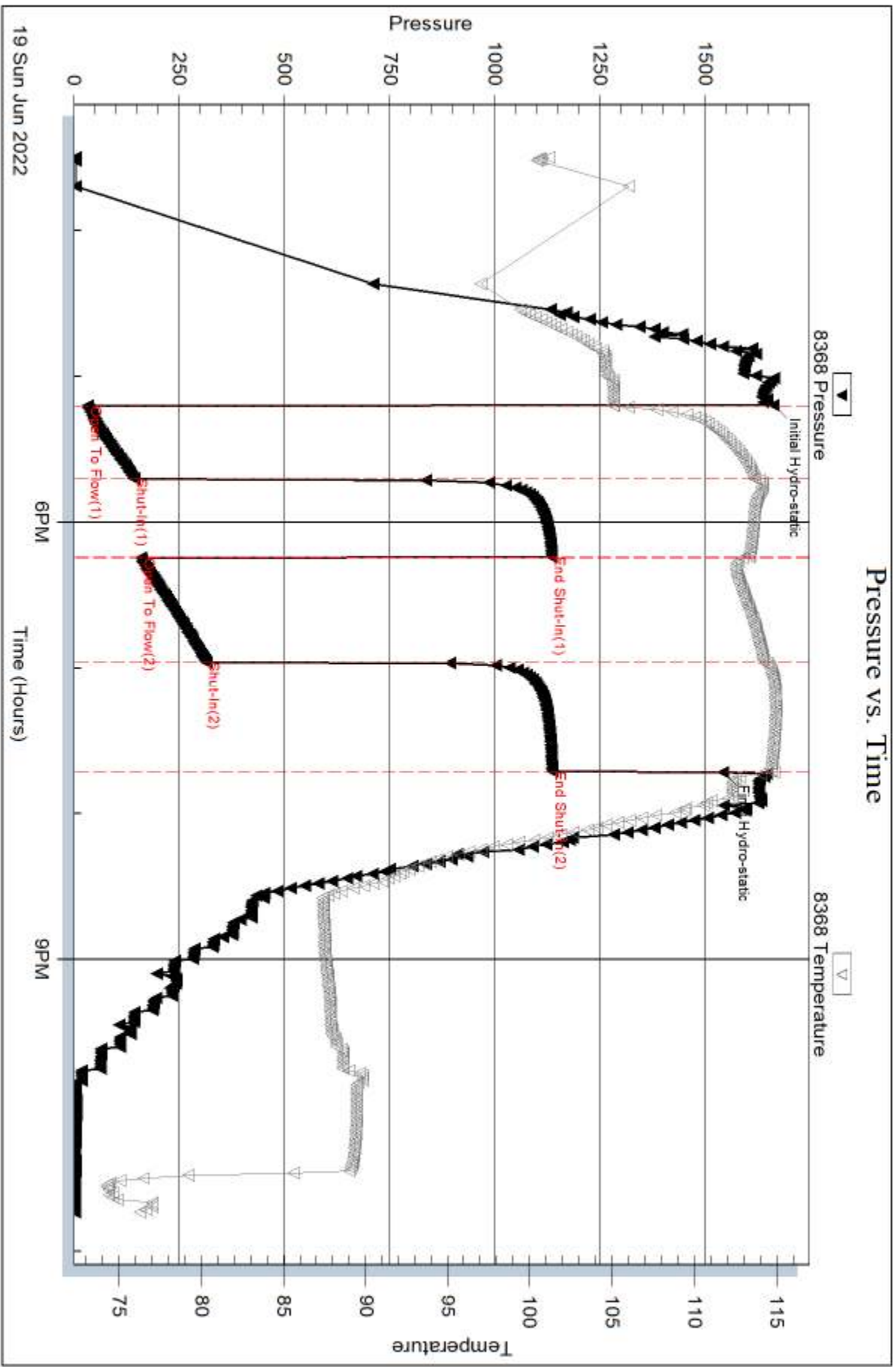
Num Gas Bombs: 0

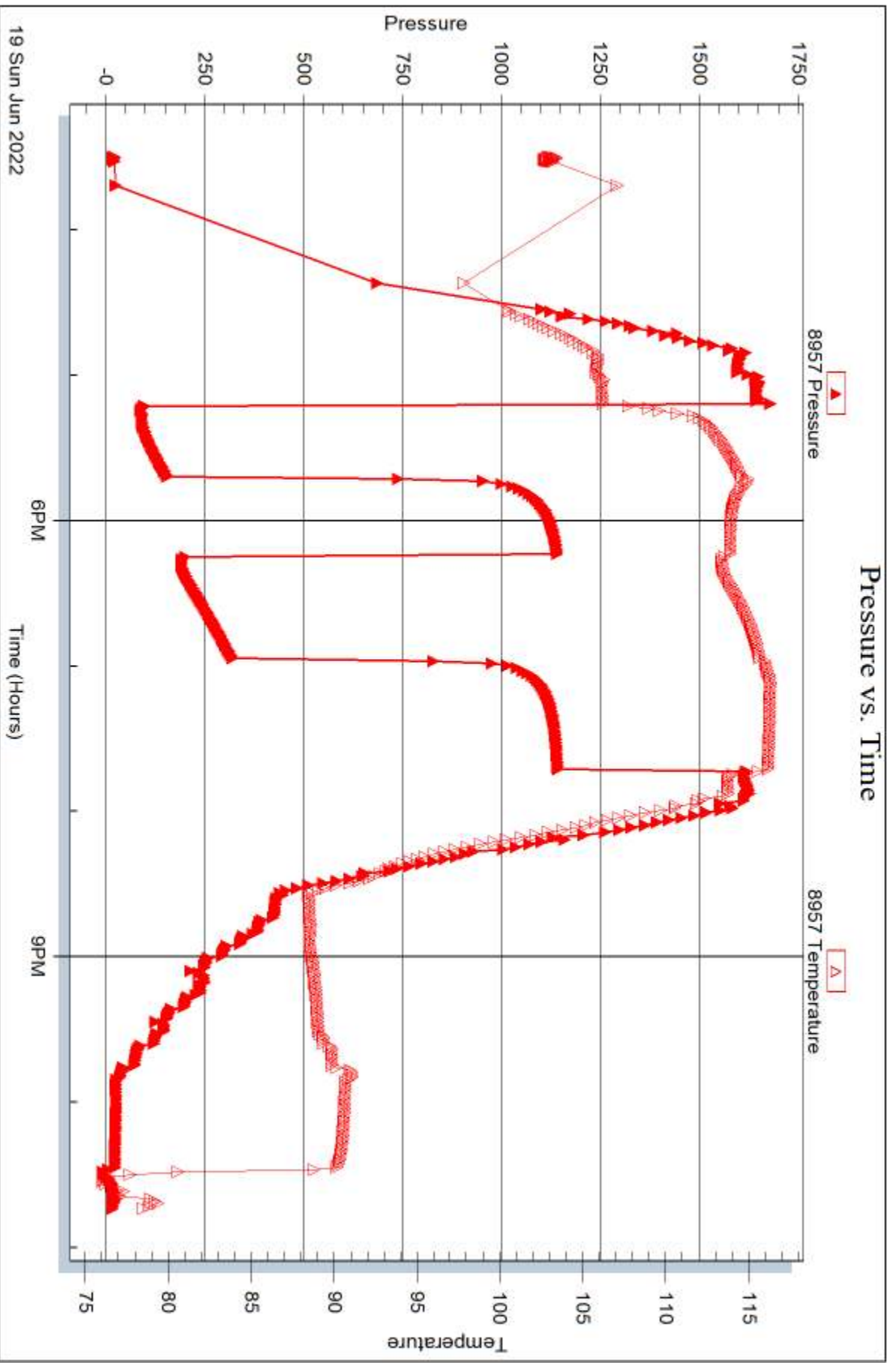
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







## DRILL STEM TEST REPORT

Prepared For: **Mai Oil Operations**

8411 Preston RD Ste 800  
Dallas TX 75225

ATTN: Jim Musgrove

### **S&S Unit #1**

#### **36-15s-12w Russell,KS**

Start Date: 2022.06.20 @ 05:30:00

End Date: 2022.06.20 @ 11:42:00

Job Ticket #: 59512                      DST #: 4

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

Printed: 2022.06.22 @ 11:46:05

Mai Oil Operations  
36-15s-12w Russell,KS  
S&S Unit #1  
DST # 4  
Arbuckle  
2022.06.20



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Mai Oil Operations  
 8411 Preston RD Ste 800  
 Dallas TX 75225  
 ATTN: Jim Musgrove

**36-15s-12w Russell,KS**  
**S&S Unit #1**  
 Job Ticket: 59512 **DST#: 4**  
 Test Start: 2022.06.20 @ 05:30:00

## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 06:35:00  
 Time Test Ended: 11:42:00  
 Interval: **3321.00 ft (KB) To 3331.00 ft (KB) (TVD)**  
 Total Depth: 3234.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Terry  
 Unit No: 75  
 Reference Elevations: 1846.00 ft (KB)  
 1836.00 ft (CF)  
 KB to GR/CF: 10.00 ft

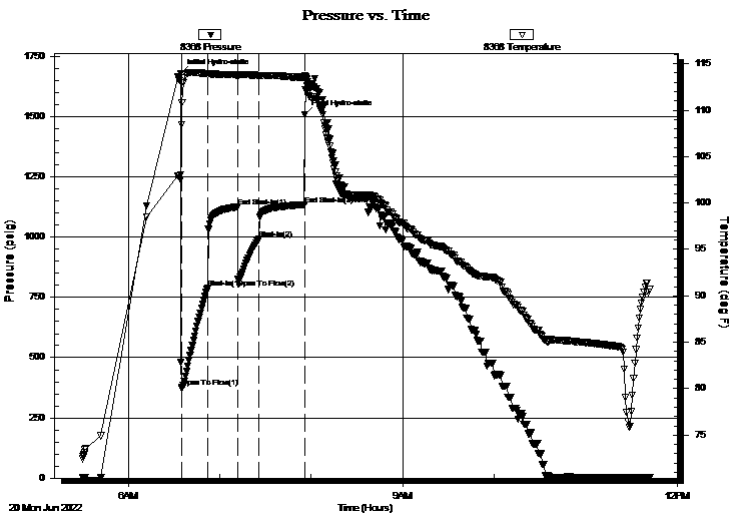
## Serial #: 8368

Inside

Press@RunDepth: 992.58 psig @ 3323.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2022.06.20 End Date: 2022.06.20 Last Calib.: 2022.06.20  
 Start Time: 05:30:05 End Time: 11:41:59 Time On Btm: 2022.06.20 @ 06:34:15  
 Time Off Btm: 2022.06.20 @ 07:56:00

TEST COMMENT: IF-15-BOB In 30 seconds  
 IS-20-No return  
 FF-15-BOB In 30 seconds  
 FS-30-No return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1679.66	103.03	Initial Hydro-static
1	376.40	108.41	Open To Flow (1)
18	789.05	113.90	Shut-In(1)
38	1126.19	113.76	End Shut-In(1)
38	825.13	113.59	Open To Flow (2)
52	992.58	113.72	Shut-In(2)
82	1135.27	113.51	End Shut-In(2)
82	1506.88	113.74	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
1070.00	W 100% water	15.57
1260.00	WCO 60 %oil 40% water	18.33
250.00	CO 100% oil	3.64
0.00	60' GIP	0.00

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Mai Oil Operations

**36-15s-12w Russell,KS**

8411 Preston RD Ste 800  
Dallas TX 75225

**S&S Unit #1**

Job Ticket: 59512

**DST#: 4**

ATTN: Jim Musgrove

Test Start: 2022.06.20 @ 05:30:00

## Tool Information

Drill Pipe:	Length: 3314.00 ft	Diameter: 3.87 inches	Volume: 48.22 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: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 50000.00 lb
			<u>Total Volume: 48.22 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial 38000.00 lb
Depth to Top Packer:	3321.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	10.00 ft			
Tool Length:	41.00 ft			
Number of Packers:	2	Diameter: 6.88 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3291.00	
Shut In Tool	5.00			3296.00	
Hydraulic tool	5.00			3301.00	
Jars	5.00			3306.00	
EM Tool	3.00			3309.00	
Safety Joint	3.00			3312.00	
Packer	5.00			3317.00	31.00 Bottom Of Top Packer
Packer	4.00			3321.00	
Stubb	1.00			3322.00	
Perforations	1.00			3323.00	
Recorder	0.00	8368	Inside	3323.00	
Recorder	0.00	8320	Outside	3323.00	
Perforations	5.00			3328.00	
Bullnose	3.00			3331.00	10.00 Bottom Packers & Anchor

**Total Tool Length: 41.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Mai Oil Operations

**36-15s-12w Russell,KS**

8411 Preston RD Ste 800  
Dallas TX 75225

**S&S Unit #1**

Job Ticket: 59512

**DST#: 4**

ATTN: Jim Musgrove

Test Start: 2022.06.20 @ 05:30:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

32 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

5000 ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3600.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1070.00	W 100% w ater	15.567
1260.00	WCO 60 %oil 40% w ater	18.332
250.00	CO 100% oil	3.637
0.00	60' GIP	0.000

Total Length: 2580.00 ft

Total Volume: 37.536 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

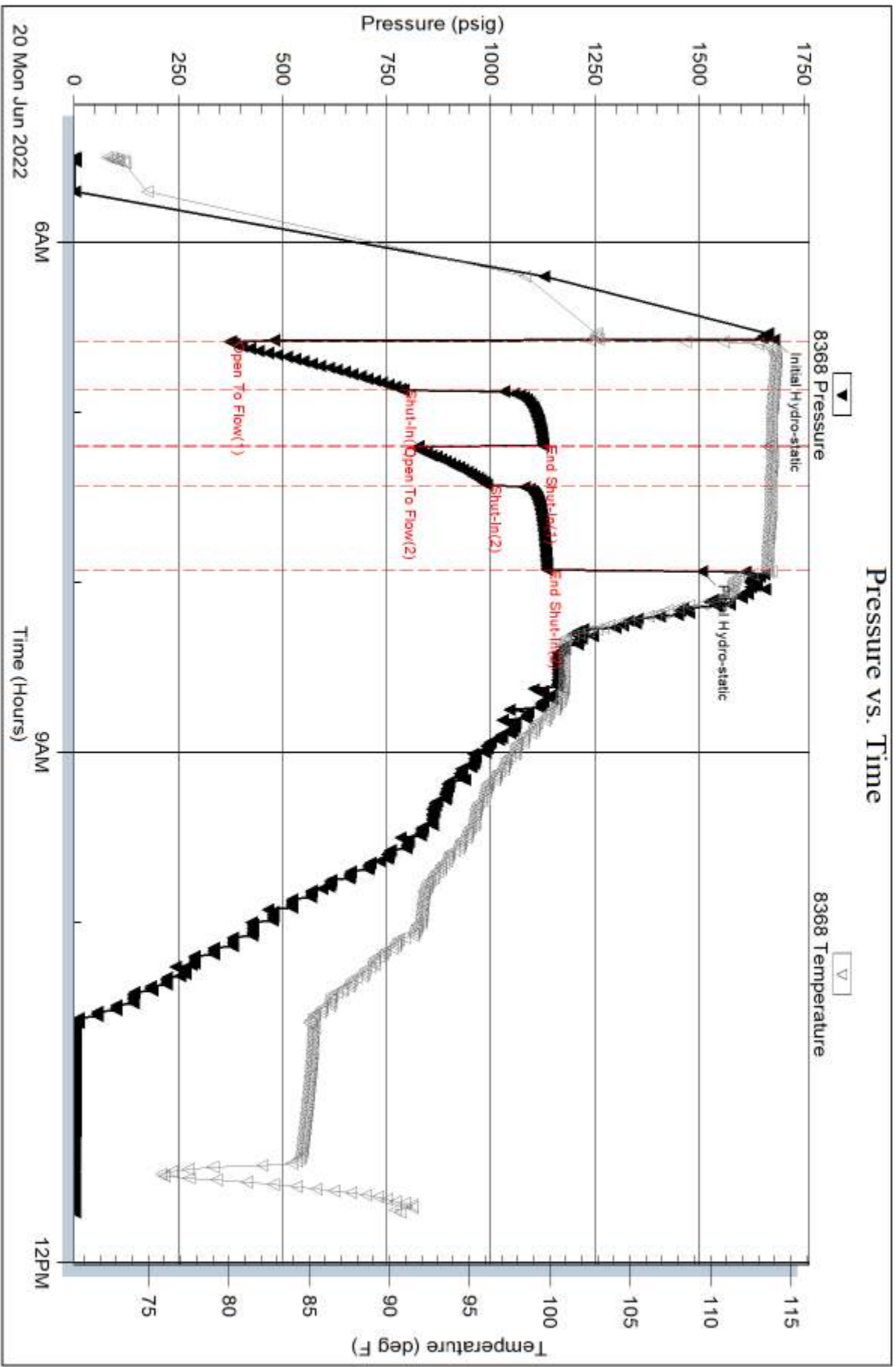
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



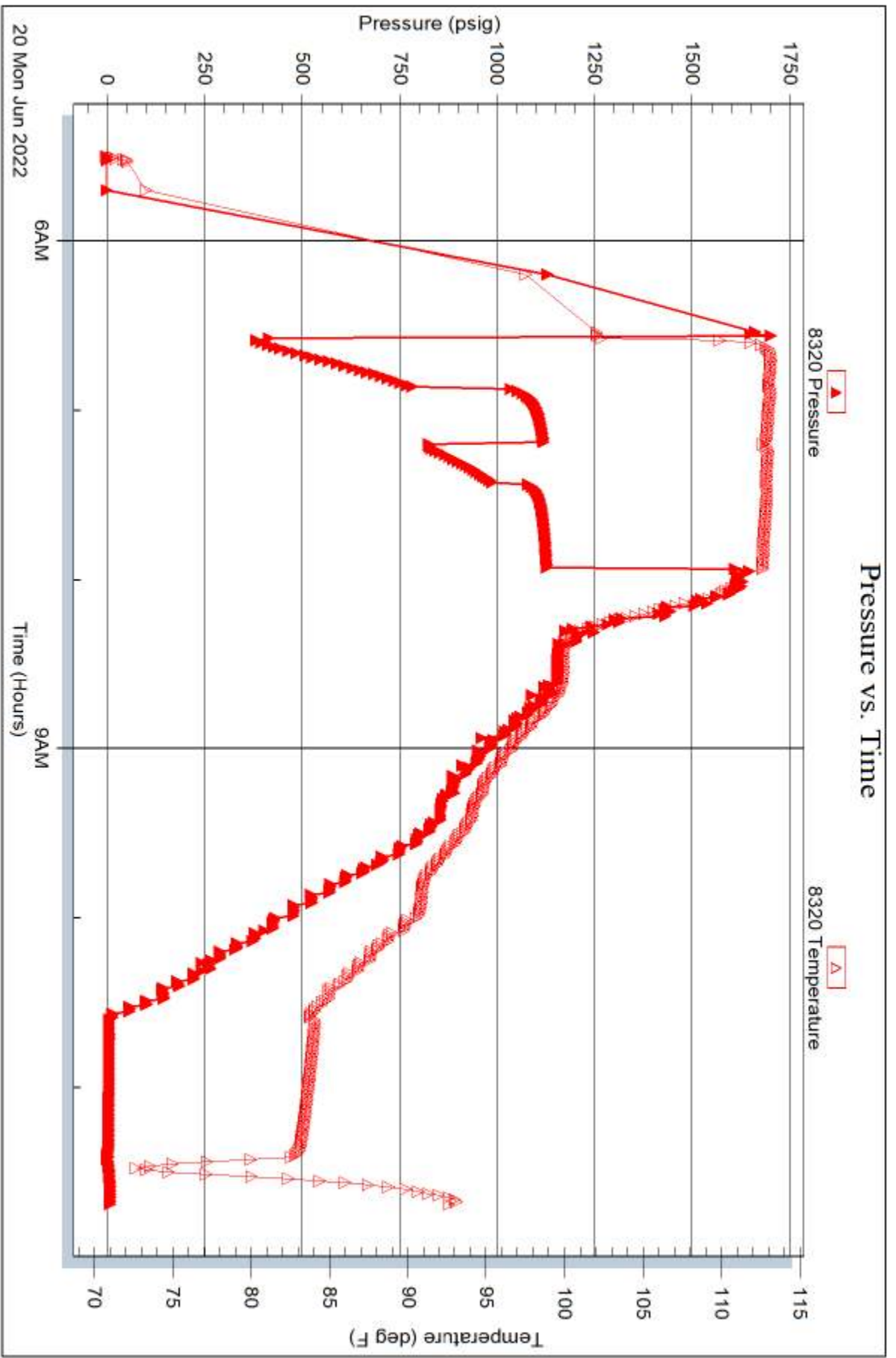


Serial #: 8320

Outside Mai Oil Operations

S&S Unit #1

DST Test Number: 4





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 59509

Well Name & No. 5 1/2 Summit #1 Test No. 1 Date 6-18-22  
 Company Mai Oil Operations Elevation 1846 KB 1836 GL  
 Address 9411 Preston Rd Ste 800 Dallas TX 75225  
 Co. Rep / Geo. Jim Musgrove Rig Southwind 1  
 Location: Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ Rge. \_\_\_\_\_ Co. \_\_\_\_\_ State \_\_\_\_\_

Interval Tested 3160-3234 Zone Tested L/KE  
 Anchor Length 66 Drill Pipe Run ~~3162~~ 3162 Mud Wt. 9.5  
 Top Packer Depth 3163 Drill Collars Run - Vis 54  
 Bottom Packer Depth 3166 Wt. Pipe Run - WL 6.0  
 Total Depth 3234 Chlorides 3600 ppm System LCM 2H

Blow Description  
IS-30 = Bob in 8min  
IS-30 = No Return  
SS-45 = Bob in 8min  
SS-60 = No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>660</u>		<u>100</u>			
<u>120</u>		<u>40</u>	<u>50</u>		
<u>120</u>		<u>35</u>	<u>35</u>		<u>10</u>
					<u>30</u>

Rec Total 900 BHT 111 Gravity 32 API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 1602  Test 1800 T-On Location 4:00  
 (B) First Initial Flow 42  Jars 300 T-Started 7:00  
 (C) First Final Flow 57  Safety Joint \_\_\_\_\_ T-Open 9:41  
 (D) Initial Shut-In 762  Circ Sub \_\_\_\_\_ T-Pulled 12:26  
 (E) Second Initial Flow 78  Hourly Standby \_\_\_\_\_ T-Out 2:20  
 (F) Second Final Flow 82  Mileage 61x2 183 Comments \_\_\_\_\_  
 (G) Final Shut-In 852  Sampler \_\_\_\_\_ EM didn't run  
 (H) Final Hydrostatic 1546  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Open 30  Extra Recorder \_\_\_\_\_ Sub Total -350  
 Initial Shut-In 30  Day Standby \_\_\_\_\_ Total 1933  
 Final Flow 45  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Final Shut-In 60  Sub Total 2283

Approved By \_\_\_\_\_ Our Representative Tessie  
 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. 59510

Well Name & No. S & S Unit #1 Test No. 2 Date 6-19-22  
 Company Mai Oil Operations Elevation 1844 KB 1834 GL  
 Address 8411 Preston Rd Ste 800 Dallas, TX 75225  
 Co. Rep / Geo. Jim Musgrove Rig Southwind 2  
 Location: Sec. 36 Twp. 15 Rge. 12 w Co. Russell State Ks

Interval Tested 3254-3307 Zone Tested Achuckle  
 Anchor Length 51' Drill Pipe Run 3232 Mud Wt. 9.5  
 Top Packer Depth 3251 Drill Collars Run \_\_\_\_\_ Vis 56  
 Bottom Packer Depth 3254 Wt. Pipe Run \_\_\_\_\_ WL 6.0  
 Total Depth 3307 Chlorides 3600 ppm System LCM 2H

Blow Description IF-30 - Bobin 10 Min  
IF-30 - No Return  
FF-45 - Bobin 10 Min  
FF-45 - No Return

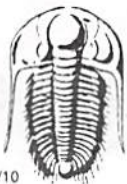
Rec	Feet of	%gas	%oil	%water	%mud
<u>60</u>		<u>100</u>			
<u>450</u>			<u>100</u>		
<u>60</u>					<u>100</u>
<u>180</u>			<u>50</u>		<u>50</u>

Rec Total 750 BHT 115 Gravity 32 API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 1843  Test 1800 T-On Location 12:00 AM  
 (B) First Initial Flow 67  Jars \_\_\_\_\_ T-Started 3:20  
 (C) First Final Flow ~~410~~ 132  Safety Joint \_\_\_\_\_ T-Open 7:03  
 (D) Initial Shut-In 1055  Circ Sub \_\_\_\_\_ T-Pulled 9:23  
 (E) Second Initial Flow 164  Hourly Standby \_\_\_\_\_ T-Out \_\_\_\_\_  
 (F) Second Final Flow ~~801~~ 266  Mileage 61 x 2 183 Comments Light Plant  
 (G) Final Shut-In 1034  Sampler \_\_\_\_\_ Broke Down in Middle  
 (H) Final Hydrostatic 1527  Straddle \_\_\_\_\_ of Changing Anchor  
 Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Copies \_\_\_\_\_  
 Initial Open 30  Extra Recorder \_\_\_\_\_ Sub Total -350  
 Initial Shut-In 30  Day Standby \_\_\_\_\_ Total 1633  
 Final Flow 45  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Final Shut-In 45  Sub Total 1983

Approved By \_\_\_\_\_ Our Representative Terrance Wickham

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. 59511

Well Name & No. SLS unit #1 Test No. 3 Date 6-19-22  
 Company Ma: Oil Operations Elevation 1846 KB 1836 GL  
 Address 8411 Preston rd Ste 800 Dallas, TX 75225  
 Co. Rep / Geo. Jim Mosgrove Rig Southwind 2  
 Location: Sec. 36 Twp. 15 Rge. 12w Co. Russell State KS

Interval Tested 3309-3319 Zone Tested Arbuckle  
 Anchor Length 10 Drill Pipe Run 3295 Mud Wt. 9.5  
 Top Packer Depth 3304 Drill Collars Run \_\_\_\_\_ Vis 54  
 Bottom Packer Depth 3309 Wt. Pipe Run \_\_\_\_\_ WL 6.0  
 Total Depth 3319 Chlorides 3,600 ppm System LCM 2#  
 Blow Description FF-30 - Bob 6 min  
FSI-30 - No Return  
FF-45 - Bob 9 min  
FSI-45 - No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>60</u>		<u>100</u>			
<u>760</u>			<u>100</u>		
<u>60</u>			<u>10</u>		<u>90</u>

Rec Total 880 BHT 114 Gravity 32 API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 1662  Test 1800 T-On Location 2:00  
 (B) First Initial Flow 33  Jars \_\_\_\_\_ T-Started 3:30  
 (C) First Final Flow 143  Safety Joint \_\_\_\_\_ T-Open 5:43  
 (D) Initial Shut-In 1136  Circ Sub \_\_\_\_\_ T-Pulled 8:18  
 (E) Second Initial Flow 159  Hourly Standby \_\_\_\_\_ T-Out 11:15  
 (F) Second Final Flow 314  Mileage 61x2 183 Comments \_\_\_\_\_  
 (G) Final Shut-In 1137  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1542  Straddle \_\_\_\_\_  
 Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Copies \_\_\_\_\_  
 Initial Open 30  Shale Packer \_\_\_\_\_  
 Initial Shut-In 30  Extra Packer \_\_\_\_\_  
 Final Flow 45  Extra Recorder \_\_\_\_\_  
 Final Shut-In 45  Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_  
 Sub Total 1983 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_

Our Representative Terry Wickham

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. 59512

Well Name & No. S:5 unit #1 Test No. 4 Date 6-20-22  
 Company Mai Oil Operations Elevation 1846 KB 1836 GL  
 Address 8411 Preston rd STE 800 Dallas, TX 75225  
 Co. Rep / Geo. Jim Mosegrave Rig SW 2  
 Location: Sec. 36 Twp. 15 Rge. 12w Co. Russell State Ks

Interval Tested 3321-3331 Zone Tested Arbuckle  
 Anchor Length 10 Drill Pipe Run 3314 Mud Wt. 9.3  
 Top Packer Depth 3316 Drill Collars Run \_\_\_\_\_ Vis 34  
 Bottom Packer Depth 3321 Wt. Pipe Run \_\_\_\_\_ WL 5.4  
 Total Depth 3331 Chlorides 3500 ppm System LCM 2#

Blow Description 15- Bob 30seconds  
15-20- No Return  
15- Bob 30sec  
30- No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>605</u>					
<u>60</u>		<u>100</u>			
<u>250</u>		<u>100</u>	<u>100</u>		
<u>1260</u>			<u>60</u>	<u>40</u>	
<u>1070</u>				<u>100</u>	

Rec Total 2640 ~~3000~~ BHT 116 Gravity 32 API RW 1. @ 90 ° F Chlorides 5,600 ppm

(A) Initial Hydrostatic 1680  Test 1800 T-On Location 5:00  
 (B) First Initial Flow 376  Jars \_\_\_\_\_ T-Started 5:30  
 (C) First Final Flow 789  Safety Joint \_\_\_\_\_ T-Open 6:29  
 (D) Initial Shut-In 1126  Circ Sub \_\_\_\_\_ T-Pulled 7:50  
 (E) Second Initial Flow 825  Hourly Standby \_\_\_\_\_ T-Out 11:30  
 (F) Second Final Flow 993  Mileage 61x2 183  
 (G) Final Shut-In 1135  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1507  Straddle \_\_\_\_\_

Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Copies \_\_\_\_\_  
 Initial Open 15  
 Initial Shut-In 20  
 Final Flow 15  
 Final Shut-In 30  
 Sub Total -350  
 Total 1633  
 MP/DST Disc't \_\_\_\_\_  
 Sub Total 1983

Approved By \_\_\_\_\_ Our Representative \_\_\_\_\_

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.