KOLAR Document ID: 1716205

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 # 5259
Name: Mai Oil Operations, Inc.
Address 1: 8411 PRESTON RD STE 800
Address 2:
City: DALLAS State: TX Zip: 75225 + 5520
Contact Person: Brent Homeier
Phone: (214) 219-8883
CONTRACTOR: License # 33350
Name: Southwind Drilling, Inc.
Wellsite Geologist: Jim Musgrove
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 #:

4/5/2023 Spud Date or Recompletion Date
4/10/2023 Date Reached TD
4/26/2023 Completion Date or Recompletion Date

API No.: 15-009-26388-00-00
Spot Description:
SW - NE - NW - SE Sec. 24 Twp. 18 S. R. 11 ☐ East ☑ West
2284 Feet from ☐ North / ☑ South Line of Section
1701 Feet from ☑ East / ☐ West Line of Section
Footages Calculated from Nearest Outside Section Corner:
☐ NE ☐ NW ☑ SE ☐ SW
GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Barton
Lease Name: STUMPS Well #: 4
Field Name:
Producing Formation: Arbuckle
Elevation: Ground: 1769 Kelly Bushing: 1779
Total Vertical Depth: 3400 Plug Back Total Depth: 3366
Amount of Surface Pipe Set and Cemented at: 346 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: 78000 ppm Fluid volume: 80 bbls
Dewatering method used: Evaporated
Location of fluid disposal if hauled offsite:
Operator Name:
Lease Name: License #:
Quarter Sec. Twp. S. R. ☐ East ☐ West
County: Permit #:

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

Submitted Electronically

KCC Office Use ONLY
☐ **Confidentiality Requested**
Date: 06/02/2023
☐ **Confidential Release Date:** 06/01/2025
☑ **Wireline Log Received** ☑ **Drill Stem Tests Received**
☑ **Geologist Report / Mud Logs Received**
☐ **UIC Distribution**
ALT ☑ **I** ☐ **II** ☐ **III** **Approved by:** David Befort **Date:** 06/05/2023

Page Two

Operator Name: Mai Oil Operations, Inc. Lease Name: STUMPS Well #: 4

Sec. 24 Twp. 18 S. R. 11 ☐ East ☑ West County: Barton

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken *(Attach Additional Sheets)*	☑ Yes	☐ No	☑ Log Formation (Top), Depth and Datum ☐ Sample
Samples Sent to Geological Survey	☐ Yes	☑ No	Name: Attached Top: Attached Datum: Attached
Cores Taken	☐ Yes	☑ No	
Electric Log Run	☑ Yes	☐ No	
Geologist Report / Mud Logs	☑ Yes	☐ No	

List All E. Logs Run:

CDN
Micro
DIL

CASING RECORD ☑ New ☐ Used

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

Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface	12.25	8.625	23	346	60/40	180	4%CC,2%gel
Production	7.875	5.5	14	3399	60/40	135	10%salt,2%gel,1/4# flo

ADDITIONAL CEMENTING / SQUEEZE RECORD

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

1. Did you perform a hydraulic fracturing treatment on this well? ☐ Yes ☑ No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? ☐ Yes ☐ No *(If No, skip question 3)*
3. Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? ☐ Yes ☐ No *(If No, fill out Page Three of the ACO-1)*

Date of first Production/Injection or Resumed Production/ Injection: 5/10/2023	Producing Method: ☐ Flowing ☑ Pumping ☐ Gas Lift ☐ Other *(Explain)*					
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity	

DISPOSITION OF GAS:	METHOD OF COMPLETION:	PRODUCTION INTERVAL:	
		Top	Bottom
☐ Vented ☐ Sold ☐ Used on Lease *(If vented, Submit ACO-18.)*	☐ Open Hole ☑ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*	3289	3366

Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record *(Amount and Kind of Material Used)*
2	3291	3296			
2	3297	3299			

TUBING RECORD: Size: Set At: Packer At:

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

Form	ACO1 - Well Completion
Operator	Mai Oil Operations, Inc.
Well Name	STUMPS 4
Doc ID	1716205

Tops

Name	Top	Datum
Heebner	2868	-1089
Toronto	2886	-1107
Douglas	2898	-1119
Brown Lime	2982	-1203
Lansing	2999	-1220
BKC	3266	-1487
Conglomerate	3274	-1495
Arb	3289	-1510

Form	ACO1 - Well Completion
Operator	Mai Oil Operations, Inc.
Well Name	STUMPS 4
Doc ID	1716205

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	12.25	8.625	23	346	60/40	180	4%CC,2% gel
Production	7.875	5.5	14	3399	60/40	135	10%salt,2 %gel,1/4# flo

Date: 4/5/2023
Invoice # 3098

P.O.#:

Due Date: 5/5/2023
Division: *Russell*

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

Invoice

Contact:
Mai Oil Operations
Address/Job Location:

8411 Preston Rd. Ste 800
Dallas TX 75225-5520

Reference:
STUMPS 4 SEC 24-18-11

Description of Work:
SURFACE JOB

Services / Items Included:

	Quantity	Price	Taxable
Labor		$ 869.52	No
Common-Class A	110	$ 2,208.39	Yes
POZ Mix-Standard	70	$ 477.54	Yes
Calcium Chloride	8	$ 436.61	Yes
Bulk Truck Matl-Material Service Charge	191	$ 186.14	No
Pump Truck Mileage-Job to Nearest Camp	33	$ 144.72	No
Bulk Truck Mileage-Job to Nearest Bulk Plant	33	$ 112.56	No
Premium Gel (Bentonite)	3	$ 84.79	Yes

Item	Quantity	Price	Taxable

Invoice Terms:
Net 30

SubTotal:	$	*4,520.28*
Discount Available ONLY if Invoice is Paid & Received within listed terms of invoice:	$	(113.01)
SubTotal for Taxable Items:	$	3,127.15
SubTotal for Non-Taxable Items:	$	1,280.13
Total:	$	4,407.27
Tax:	$	234.54
Amount Due:	**$**	**4,641.81**
Applied Payments:		
Balance Due:	**$**	**4,641.81**

7.50% Barton 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.
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QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

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

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

No. 3098

Date	Sec.	Twp.	Range	County	State	On Location	Finish
4/5/23	24	18	11	Barton	Kansas		6:00pm

Location Claflin 3E 3½S Winto

Lease Stumps Well No. 4

Contractor Southwind Drilling

Type Job Surface

Hole Size 12¼ T.D. 343

Csg. 8⅝ Depth 341.92

Tbg. Size Depth

Tool Depth

Cement Left in Csg. 20 Shoe Joint 20

Meas Line Displace 20.4

EQUIPMENT

Pumptrk 16	No.	Cementer Helper	Jordan
Bulktrk 3	No.	Driver Driver	Doug
Bulktrk PU	No.	Driver Driver	David

JOB SERVICES & REMARKS

Remarks:

Rat Hole

Mouse Hole

Centralizers

Baskets

D/V or Port Collar

Ran 8⅝ and est. Circulation

Cemented with 180 SKs

Cement Did Circulate

x Signature

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.

Charge To Mai Oil

Street

City State

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

Cement Amount Ordered 180 60/40 4% cc 2% gel

Common	110
Poz. Mix	70
Gel.	3
Calcium	8
Hulls	
Salt	
Flowseal	
Kol-Seal	
Mud CLR 48	
CFL-117 or CD110 CAF 38	
Sand	
Handling	190
Mileage	

FLOAT EQUIPMENT

Guide Shoe	
Centralizer	
Baskets	
AFU Inserts	
Float Shoe	
Latch Down	

Pumptrk Charge	Surface
Mileage	33
Tax	
Discount	
Total Charge	

Date: 4/10/2023
Invoice # 3497

P.O.#:

Due Date: 5/10/2023
Division: *Russell*

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

Invoice

Contact:
Mai Oil Operations
Address/Job Location:

8411 Preston Rd. Ste 800
Dallas TX 75225-5520

Reference:
STUMPS 4 SEC 24-18-11

Description of Work:
PROD STRING

Services / Items Included:

	Quantity	Price	Taxable
Labor		$ 869.52	No
Common-Class A	110	$ 2,208.39	Yes
Mud Clear	1000	$ 1,422.88	Yes
5 1/2" Turbolizer	14	$ 982.37	Yes
POZ Mix-Standard	70	$ 477.54	Yes
Auto Fill Float Shoe, 5 1/2"	1	$ 327.46	Yes
Latch Down Plug & Baffle, 5 1/2"	1	$ 259.24	Yes
Salt (Fine)	15	$ 191.50	Yes
Bulk Truck Matl-Material Service Charge	198	$ 192.97	No
Pump Truck Mileage-Job to Nearest Camp	33	$ 144.72	No
Bulk Truck Mileage-Job to Nearest Bulk Plant	33	$ 112.56	No

Item	Quantity	Price	Taxable
Flo Seal	50	$97.46	Yes
Premium Gel (Bentonite)	3	$84.79	Yes

Invoice Terms:

Net 30

SubTotal:	$	*7,371.40*
Discount Available ONLY if Invoice is Paid & Received within listed terms of invoice:	$	(184.29)
SubTotal for Taxable Items:	$	5,900.34
SubTotal for Non-Taxable Items:	$	1,286.78
Total:	$	7,187.11
7.50% Barton County Sales Tax Tax:	$	442.53
Amount Due:	**$**	**7,629.64**
Applied Payments:		
Balance Due:	**$**	**7,629.64**

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.
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QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

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

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

No. 3497

Date	Sec.	Twp.	Range	County	State	On Location	Finish
4-10-23	24	18	11	Barton	KS		9:00 p.m

Location Claflin - 3E to C.L., 3½S,

Lease Stumps Well No. 4

Contractor Southwind #1

Type Job Longstring

Hole Size 7⅞" T.D. 3398'

Csg. 5½" 14# used Depth 3399'

Tbg. Size Depth

Tool Depth

Cement Left in Csg. 26.42' Shoe Joint 26.42'

Meas Line Displace 82½ BLS

EQUIPMENT

Pumptrk 5 No. Cementer Helper Tim

Bulktrk 9 No. Driver Ross

Bulktrk P.U. No. Driver Rick

JOB SERVICES & REMARKS

Remarks:

Rat Hole 30 SX

Mouse Hole 15 SX

Centralizers 1-4 6-15

Baskets Pipe on bottom break Circulation

D/V or Port Collar ~~Break Circ~~ pump 1000 gal mud Clear, plug Rathole + mousehole, Cement 5½" w/ 135 SX. Shut down wash pump + lines. Released plug + Displaced w/ 82½ BLS HW! Released + held.

Lift pressure 700 #

Land plug to 1500 #

X Signature

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.

Owner

Charge To Mai oil operations

Street

City State

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

Cement Amount Ordered 180 60/40 10% Salt 2% Gel 1/4# Flo-seal 1000 gal mud Clear 48

Common	110
Poz. Mix	70
Gel.	3
Calcium	
Hulls	
Salt	15
Flowseal	50#
Kol-Seal	
Mud CLR 48	1000 gal
CFR-1 or CD110 CAF 38	
Sand	
Handling	198
Mileage	

FLOAT EQUIPMENT

Guide Shoe	
Centralizer	4
Baskets	
AFU Inserts	
Float Shoe	1
Latch Down	1

Pumptrk Charge prod String

Mileage 33

Tax

Discount

Total Charge

Thanks



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Mai Oil Operations**

8411 Preston Rd.STE800
Dallas TX 75225

ATTN: Josh Austin

Stumps #4

24-18s-11w/Barton

Start Date: 2023.04.08 @ 19:18:00
End Date: 2023.04.09 @ 01:10:45
Job Ticket #: 65030 DST #: 1

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

Printed: 2023.04.11 @ 10:43:24

DRILL STEM TEST REPORT

Mai Oil Operations

8411 Preston Rd.STE800
Dallas TX 75225

ATTN: Josh Austin

24-18s-11w/Barton

Stumps #4

Job Ticket: 65030 **DST#: 1**

Test Start: 2023.04.08 @ 19:18:00

GENERAL INFORMATION:

Formation: **LKSC B-F**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 20:47:45
Time Test Ended: 01:10:45

Test Type: Conventional Bottom Hole (Initial)
Tester: Richie Samora
Unit No: 66

Interval: 3024.00 ft (KB) To 3095.00 ft (KB) (TVD)
Total Depth: 3095.00 ft (KB) (TVD)
Hole Diameter: 7.79 inches Hole Condition: Good

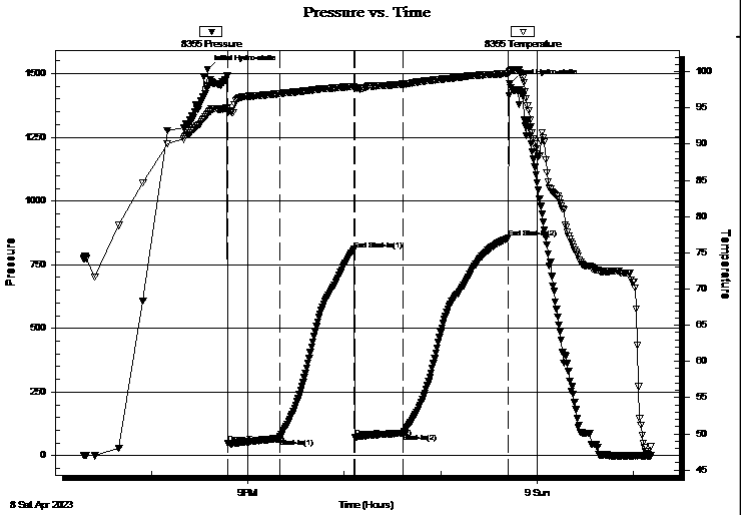
Reference Elevations: 1779.00 ft (KB)
1769.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8355 **Inside**

Press@RunDepth: 89.29 psig @ 3030.00 ft (KB)
Start Date: 2023.04.08 End Date: 2023.04.09
Start Time: 19:18:05 End Time: 01:10:44

Capacity: 8000.00 psig
Last Calib.: 1899.12.30
Time On Btm: 2023.04.08 @ 20:35:15
Time Off Btm: 2023.04.08 @ 23:43:00

TEST COMMENT: 30-IF: Strong blow BOB in 4 minutes and 30 seconds blow built to 53.5"
45-ISI- No blow back
30-FF: Strong blow BOB in 30 seconds built to 51"
60-FSI: No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1516.74	94.16	Initial Hydro-static
13	48.92	94.41	Open To Flow (1)
45	69.05	96.98	Shut-In(1)
91	809.83	97.99	End Shut-In(1)
92	72.09	97.80	Open To Flow (2)
122	89.29	98.27	Shut-In(2)
187	853.99	99.75	End Shut-In(2)
188	1461.92	100.01	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
63.00	GOCMW 5%G 20%O 15%W 60%M	0.88
57.00	GOCM 10%G 5%O 85%M	0.80

Gas Rates

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

DRILL STEM TEST REPORT

Mai Oil Operations

8411 Preston Rd.STE800
Dallas TX 75225

ATTN: Josh Austin

24-18s-11w/Barton

Stumps #4

Job Ticket: 65030 **DST#: 1**

Test Start: 2023.04.08 @ 19:18:00

GENERAL INFORMATION:

Formation: **LKSC B-F**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 20:47:45
Time Test Ended: 01:10:45

Test Type: Conventional Bottom Hole (Initial)
Tester: Richie Samora
Unit No: 66

Interval: 3024.00 ft (KB) To 3095.00 ft (KB) (TVD)
Total Depth: 3095.00 ft (KB) (TVD)
Hole Diameter: 7.79 inches Hole Condition: Good

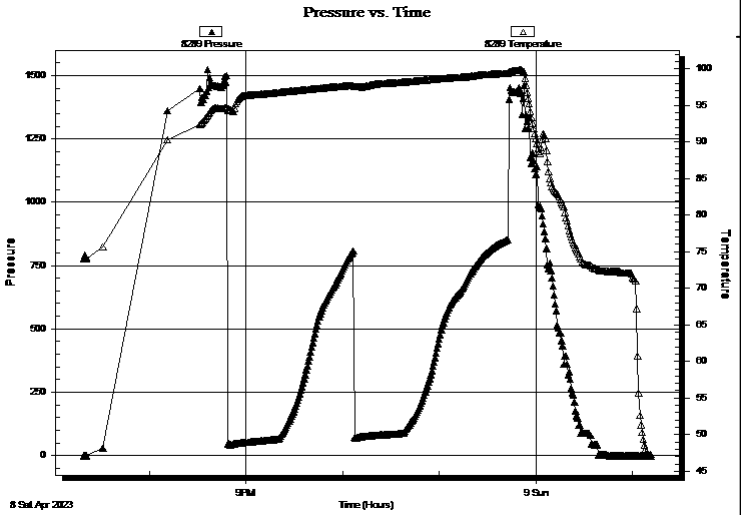
Reference Elevations: 1779.00 ft (KB)
1769.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8289 **Outside**

Press@RunDepth: psig @ 3030.00 ft (KB)
Start Date: 2023.04.08 End Date: 2023.04.09
Start Time: 19:19:01 End Time: 01:11:40

Capacity: 8000.00 psig
Last Calib.: 1899.12.30
Time On Btm:
Time Off Btm:

TEST COMMENT: 30-IF: Strong blow BOB in 4 minutes and 30 seconds blow built to 53.5"
45-ISI- No blow back
30-FF: Strong blow BOB in 30 seconds built to 51"
60-FSI: No blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
63.00	GOCMW 5%G 20%O 15%W 60%M	0.88
57.00	GOCM 10%G 5%O 85%M	0.80

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Mai Oil Operations

8411 Preston Rd.STE800
Dallas TX 75225

ATTN: Josh Austin

24-18s-11w/Barton

Stumps #4

Job Ticket: 65030 **DST#: 1**

Test Start: 2023.04.08 @ 19:18:00

Tool Information

Drill Pipe:	Length:	3016.00 ft	Diameter:	3.80	inches	Volume:	42.31	bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	3.25	inches	Volume:	0.00	bbl	
Drill Collar:	Length:	0.00 ft	Diameter:	2.25	inches	Volume:	0.00	bbl	
						Total Volume:	42.31	bbl	

Drill Pipe Above KB:	20.00 ft
Depth to Top Packer:	3024.00 ft
Depth to Bottom Packer:	ft
Interval betw een Packers:	71.00 ft
Tool Length:	99.00 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:		2500.00 lb
Weight set on Packer:		22000.00 lb
Weight to Pull Loose:		38000.00 lb
Tool Chased		0.00 ft
String Weight:	Initial	35000.00 lb
	Final	35000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			2997.00		
Shut In Tool	5.00			3002.00		
Hydraulic tool	5.00			3007.00		
EM	4.00			3011.00		
Safety Joint	3.00			3014.00		
Packer	5.00			3019.00	28.00	Bottom Of Top Packer
Packer	5.00			3024.00		
Stubb	1.00			3025.00		
Recorder Carrier	5.00			3030.00		
Recorder	0.00	8355	Inside	3030.00		
Recorder	0.00	8289	Outside	3030.00		
Perforations	29.00			3059.00		
Change Over Sub	1.00			3060.00		
Drill Pipe	31.00			3091.00		
Change Over Sub	1.00			3092.00		
Bullnose	3.00			3095.00	71.00	Bottom Packers & Anchor
Total Tool Length:	**99.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Mai Oil Operations

8411 Preston Rd.STE800
Dallas TX 75225

ATTN: Josh Austin

24-18s-11w/Barton

Stumps #4

Job Ticket: 65030 **DST#: 1**

Test Start: 2023.04.08 @ 19:18:00

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:	58.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	8.19 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	4000.00 ppm				
Filter Cake:	0.20 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
63.00	GOCMW 5%G 20%O 15%W 60%M	0.884
57.00	GOCM 10%G 5%O 85%M	0.800

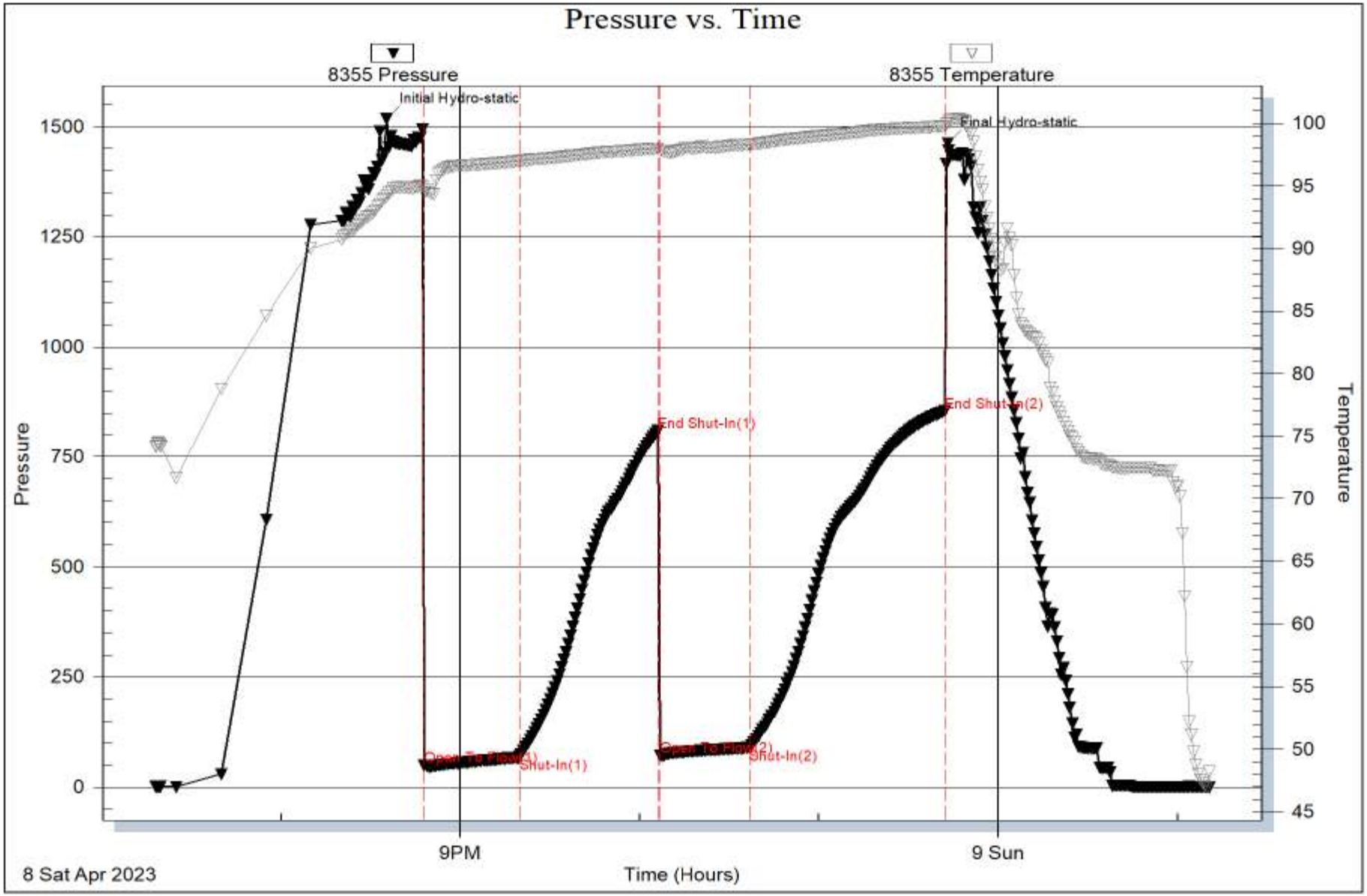
Total Length: 120.00 ft Total Volume: 1.684 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

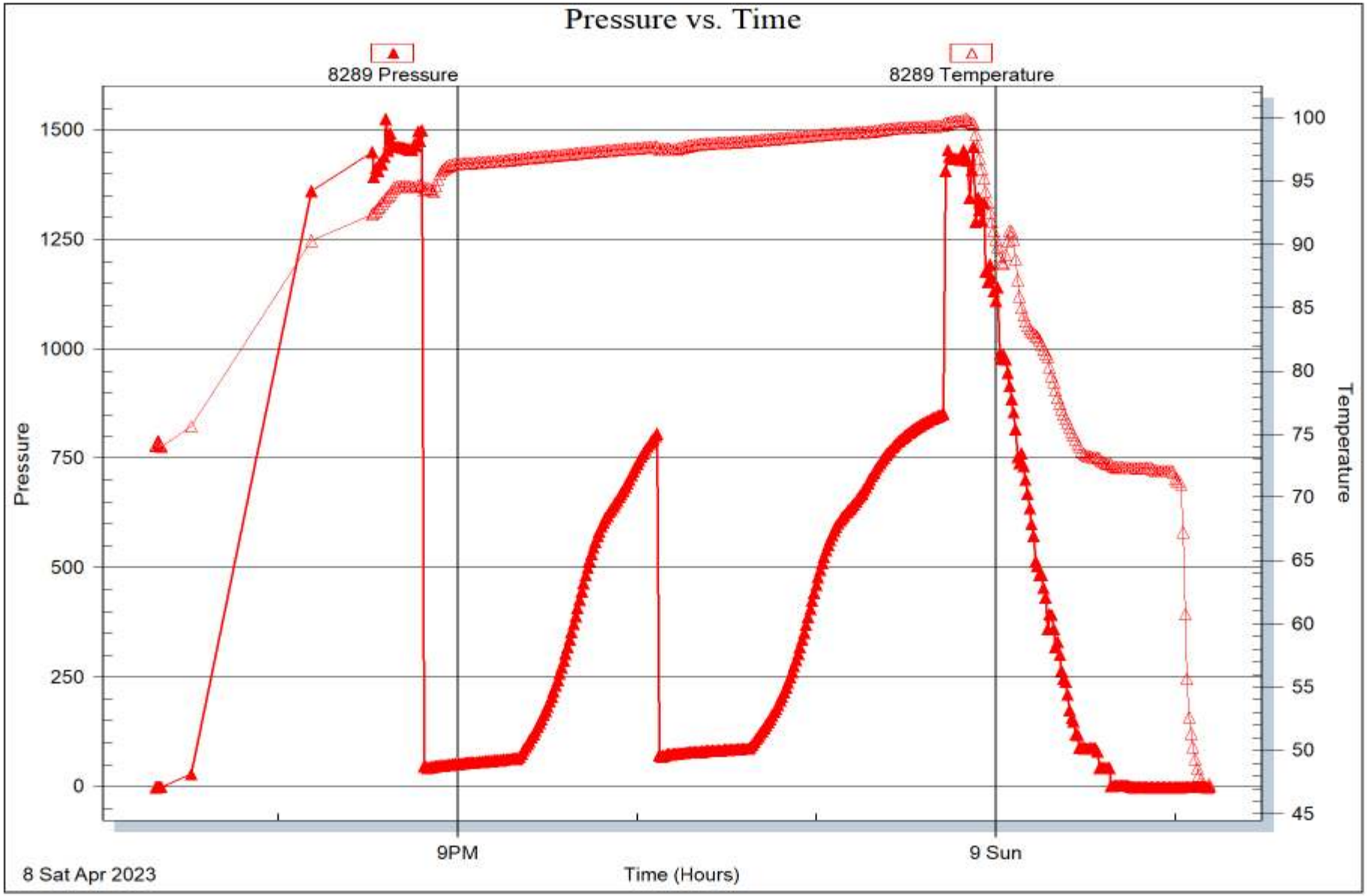
Recovery Comments: 819' GIP

Serial #: 8355 **Inside** Mai Oil Operations Stumps #4 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 65030 Printed: 2023.04.11 @ 10:43:24

Serial #: 8289 **Outside** Mai Oil Operations Stumps #4 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 65030 Printed: 2023.04.11 @ 10:43:24



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Mai Oil Operations**

8411 Preston Rd.STE800
Dallas TX 75225

ATTN: Josh Austin

Stumps #4

24-18s-11w/Barton

Start Date: 2023.04.09 @ 16:07:05
End Date: 2023.04.09 @ 23:31:15
Job Ticket #: 65031 DST #: 2

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

Printed: 2023.04.11 @ 10:36:52

DRILL STEM TEST REPORT

Mai Oil Operations

8411 Preston Rd.STE800
Dallas TX 75225

ATTN: Josh Austin

24-18s-11w/Barton

Stumps #4

Job Ticket: 65031 **DST#: 2**

Test Start: 2023.04.09 @ 16:07:05

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 17:24:30
Time Test Ended: 23:31:15

Test Type: Conventional Bottom Hole (Reset)
Tester: Richie Samora
Unit No: 66

Interval: 3274.00 ft (KB) To 3305.00 ft (KB) (TVD)
Total Depth: 3305.00 ft (KB) (TVD)
Hole Diameter: 7.79 inches Hole Condition: Good

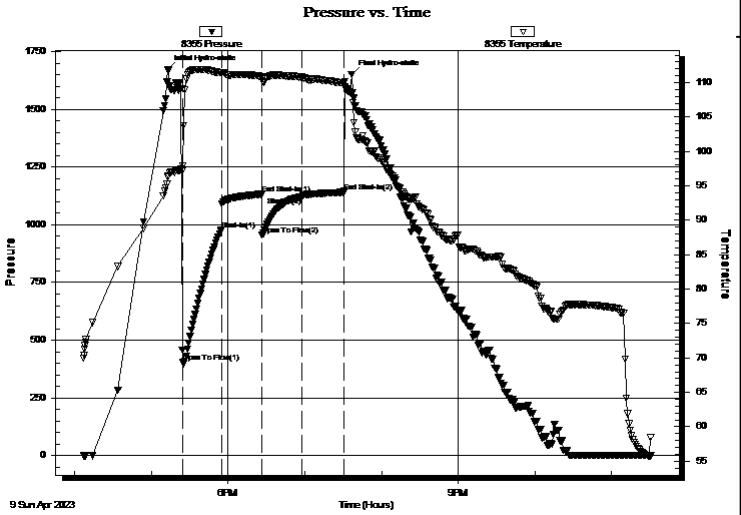
Reference Elevations: 1779.00 ft (KB)
1769.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8355 **Inside**

Press@RunDepth: 1121.14 psig @ 3280.00 ft (KB)
Start Date: 2023.04.09 End Date: 2023.04.09
Start Time: 16:07:05 End Time: 23:31:14

Capacity: 8000.00 psig
Last Calib.: 1899.12.30
Time On Btm: 2023.04.09 @ 17:13:00
Time Off Btm: 2023.04.09 @ 19:36:30

TEST COMMENT: 30-IF:Strong blow BOB in 20 seconds reached 38psi
30-ISI: No blow back
30-FF: Strong blow BOB in 25 seconds reached 12psi
30-FSI: No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1672.85	96.37	Initial Hydro-static
12	405.95	97.86	Open To Flow (1)
42	978.54	111.43	Shut-In(1)
74	1132.51	110.90	End Shut-In(1)
74	955.86	110.76	Open To Flow (2)
105	1121.14	110.78	Shut-In(2)
138	1144.61	109.88	End Shut-In(2)
144	1649.09	108.28	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
126.00	WM 90%W 10%M	1.77
126.00	OWM 10%O 60%W 30%M	1.77
2835.00	CGOSMC 15%G 80%O 5%M	39.77

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Mai Oil Operations

8411 Preston Rd.STE800
Dallas TX 75225

ATTN: Josh Austin

24-18s-11w/Barton

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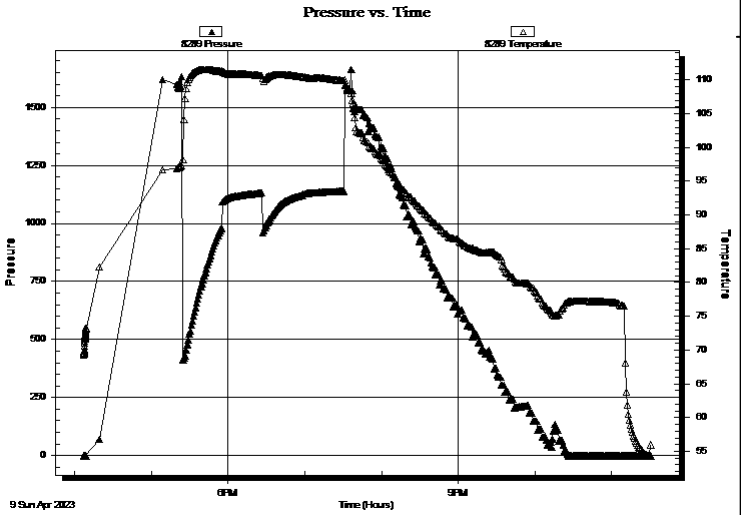
Reference Elevations: 1779.00 ft (KB)
1769.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8289 **Outside**

Press@RunDepth: psig @ 3280.00 ft (KB)
Start Date: 2023.04.09 End Date: 2023.04.09
Start Time: 16:07:01 End Time: 23:31:00

Capacity: 8000.00 psig
Last Calib.: 1899.12.30
Time On Btm:
Time Off Btm:

TEST COMMENT: 30-IF:Strong blow BOB in 20 seconds reached 38psi
30-ISI: No blow back
30-FF: Strong blow BOB in 25 seconds reached 12psi
30-FSI: No blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
126.00	WM 90%W 10%M	1.77
126.00	OWM 10%O 60%W 30%M	1.77
2835.00	CGOSMC 15%G 80%O 5%M	39.77

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Mai Oil Operations

8411 Preston Rd.STE800
Dallas TX 75225

ATTN: Josh Austin

24-18s-11w/Barton

Stumps #4

Job Ticket: 65031 **DST#: 2**

Test Start: 2023.04.09 @ 16:07:05

Tool Information

Drill Pipe:	Length:	3270.00 ft	Diameter:	3.80	inches	Volume:	45.87	bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	3.25	inches	Volume:	0.00	bbl	
Drill Collar:	Length:	0.00 ft	Diameter:	2.25	inches	Volume:	0.00	bbl	
						Total Volume:	45.87	bbl	

Drill Pipe Above KB:	24.00 ft
Depth to Top Packer:	3274.00 ft
Depth to Bottom Packer:	ft
Interval betw een Packers:	31.00 ft
Tool Length:	59.00 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:		2500.00 lb
Weight set on Packer:		24000.00 lb
Weight to Pull Loose:		37000.00 lb
Tool Chased		0.00 ft
String Weight:	Initial	37000.00 lb
	Final	46000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			3247.00		
Shut In Tool	5.00			3252.00		
Hydraulic tool	5.00			3257.00		
EM	4.00			3261.00		
Safety Joint	3.00			3264.00		
Packer	5.00			3269.00	28.00	Bottom Of Top Packer
Packer	5.00			3274.00		
Stubb	1.00			3275.00		
Recorder Carrier	5.00			3280.00		
Recorder	0.00	8355	Inside	3280.00		
Recorder	0.00	8289	Outside	3280.00		
Perforations	22.00			3302.00		
Bullnose	3.00			3305.00	31.00	Bottom Packers & Anchor
Total Tool Length:	**59.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Mai Oil Operations

8411 Preston Rd.STE800
Dallas TX 75225

ATTN: Josh Austin

24-18s-11w/Barton

Stumps #4

Job Ticket: 65031 **DST#: 2**

Test Start: 2023.04.09 @ 16:07:05

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:	58.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	8.19 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	4000.00 ppm				
Filter Cake:	0.20 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
126.00	WM 90%W 10%M	1.767
126.00	OWM 10%O 60%W 30%M	1.767
2835.00	CGOSMC 15%G 80%O 5%M	39.768

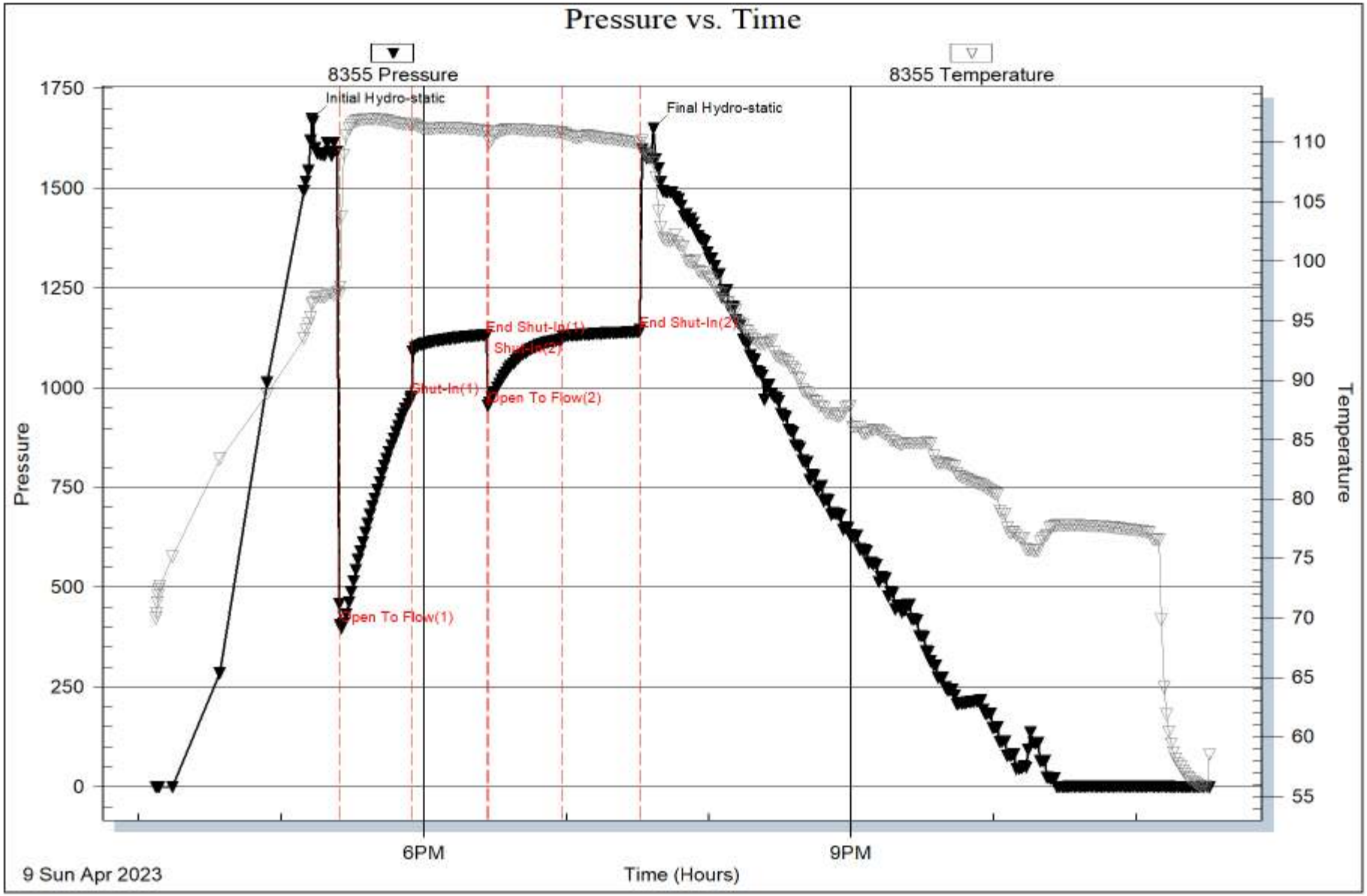
Total Length: 3087.00 ft Total Volume: 43.302 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

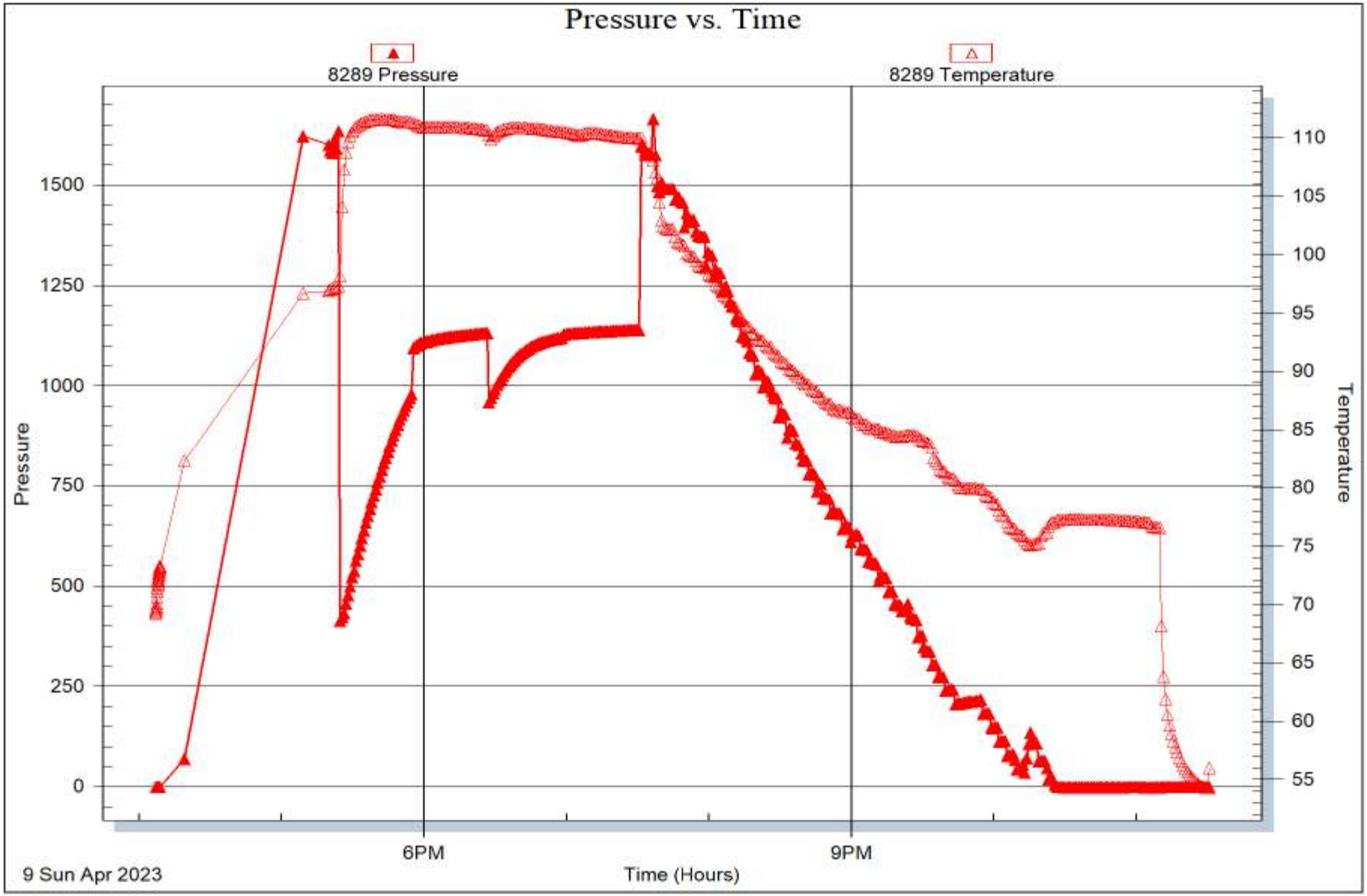
Recovery Comments: 63' GIP

Serial #: 8355 **Inside** Mai Oil Operations Stumps #4 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 65031 Printed: 2023.04.11 @ 10:36:53

Serial #: 8289 **Outside** Mai Oil Operations Stumps #4 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 65031 Printed: 2023.04.11 @ 10:36:53

TRILOBITE TESTING INC.
1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket NO. 65030

Well Name & No. STUMPS #4 Test No. 1 Date 4-8-23
Company Mai Oil Operations Elevation 1779 KB 1769 GL
Address 8411 Preston Rd STE 800 Dallas TX 75225
Co. Rep / Geo. Josh Austin Rig Southwind 9
Location: Sec. 24 Twp 18 Rge. 11 Co. Barton State KS

Interval Tested 3024-3095 Zone Tested Lansing B-F
Anchor Length 71' Drill Pipe Run 3016 Mud Wt. 8.8
Top Packer Depth 3020 Drill Collars Run 0 Vis 58
Bottom Packer Depth 3024 Wt. Pipe Run 0 WL 8.2
Total Depth 3095 Chlorides 4000 ppm System LCM 2#

Blow Description IF Strong blow BOB in 4 minutes 30 seconds built to 53.5
ISI: No Blow Back
FF: Strong blow BOB in 30 seconds built to
FSI: No Blow Back

Rec 27	Feet of GOCM	10 %gas	5 %oil	0 %water	85 %mud
Rec 63	Feet of GOCMW	5 %gas	20 %oil	15 %water	60 %mud
Rec	Feet of 819' GIP	100 %gas	0 %oil	0 %water	6 %mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 120 BHT 100.3 Gravity N/A API RW .400@50.7 °F Chlorides 27000 ppm

(A) Initial Hydrostatic 1517	☒ Test 1800	T-On Location 1830
(B) First Initial Flow 49	☐ Jars	T-Started 19:30
(C) First Final Flow 69	☐ Safety Joint	T-Open 20:49
(D) Initial Shut-In 810	☐ Circ Sub	T-Pulled 2342
(E) Second Initial Flow 72	☐ Hourly Standby	T-Out 1:00
(F) Second Final Flow 89	☒ Mileage 2 36.75	Comments Both Gas
(G) Final Shut-In 854	☐ Sampler	
(H) Final Hydrostatic 1462	☐ Straddle	☒ EM Tool Geo
	☐ Shale Packer	☐ Ruined Shale Packer
Initial Open 30	☐ Extra Packer	☐ Ruined Packer
Initial Shut-In 45	☐ Extra Recorder	☐ Extra Copies
Final Flow 30	☐ Day Standby	Sub Total 0
Final Shut-In 60	☐ Accessibility	Total 1836.75
	Sub Total 1836.75	MP/DST Disc't

Approved By Our Representative Richie Spencer

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.

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 65031

Well Name & No. STUMPS #4 Test No. 2 Date 4-9-23

Company Mai Oil Operations Elevation 1779 KB 1789 GL

Address 8411 Preston Rd STE 800 Dallas TX 75225

Co. Rep / Geo. Josh Austin Rig Southwind 1

Location: Sec. 24 Twp 18 Rge. 11 Co. Barton State KS

Interval Tested 3274-3305 Zone Tested Arbuckle

Anchor Length 31 Drill Pipe Run 3249 Mud Wt. 8.8

Top Packer Depth 3270 Drill Collars Run 0 Vis 53

Bottom Packer Depth 3274 Wt. Pipe Run 0 WL 8.4

Total Depth 3305 Chlorides 4000 ppm System LCM 2#

Blow Description IF Strong blow BOB in 20 seconds built to 38psi

ISI: No blow back

EF: Strong blow BOB in 25 seconds Reached 12psi

FSI: No blow back

Rec 2835	Feet of CGO SCM	15 %gas	80 %oil	0 %water	5 %mud
Rec 126	Feet of OWM	0 %gas	10 %oil	60 %water	30 %mud
Rec 126	Feet of WM	0 %gas	0 %oil	90 %water	10 %mud
Rec	Feet of 63' GIP	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 3087 BHT 111.9 Gravity 34 RW 36 @ 58 °F Chlorides 16000 ppm

(A) Initial Hydrostatic	1673	☒ Test	1800	T-On Location	1555
(B) First Initial Flow	406	☐ Jars		T-Started	1625
(C) First Final Flow	979	☐ Safety Joint		T-Open	1725
(D) Initial Shut-In	1133	☐ Circ Sub		T-Pulled	19:30
(E) Second Initial Flow	956	☐ Hourly Standby		T-Out	23:15
(F) Second Final Flow	1121	☐ Mileage	21 36.75	Comments	BHS 16.07
(G) Final Shut-In	1145	☐ Sampler			EMG 1618
(H) Final Hydrostatic	1649	☐ Straddle		☒ EM Tool	Good
		☐ Shale Packer		☐ Ruined Shale Packer	
Initial Open	30	☐ Extra Packer		☐ Ruined Packer	
Initial Shut-In	30	☐ Extra Recorder		☐ Extra Copies	
Final Flow	30	☐ Day Standby		Sub Total	0
Final Shut-In	30	☐ Accessibility		Total	1836.75
		Sub Total	1836.75	MP/DST Disc't	

Approved By _____ Our Representative Robin Gamez

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Mai Oil Operations, Inc.
Stumps #4
2284' FSL & 1701' FEL
Section 24-18s-11w
Barton County, Kansas

Contractor: Southwind Drilling inc. Rig # 1

Geologist: Joshua Austin

Commenced: 4-5-2023

Completed: 4-10-2023

Elevation: GL 1769', KB 1779'

Casing Program: Surface; 8 5/8" @ 343'
Production; 5 ½" @ 3399'

Samples: Samples saved and examined 2700' to Rotary Total Depth.

Drilling Time: One (1) foot drilling time recorded and kept 2700' to Rotary Total Depth.

Measurements: All depths measured from the kelly bushing.

Formation Testing: Two drill stem test were performed by Trilobite Testing

Electric Log: ELI (CNL/CDL, DIL, MEL)

Formation	Sample	Sub-Sea	Log	Sub-Sea
Heebner	2869	-1090	2868	-1089
Toronto	2886	-1107	2886	-1107
Douglas	2898	-1119	2898	-1119
Brown Lime	2984	-1205	2982	-1203
Lansing	3002	-1223	2999	-1220
BKC	3268	-1489	3266	-1487
Conglomerate	3278	-1499	3274	-1495
Arbuckle	3295	-1516	3289	-1510
Total Depth	3400	-1621	3400	-1621

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

Shawnee Section

2818-2820' Limestone; tan, sub oomoldic, granular in part, scattered oomoldic porosity, questionable trace spotty brown stain, no show of free oil, no odor

2832-2835' Limestone; tan, trace highly oolitic, dense, brown stain, poorly developed porosity, show of free oil, when sample broke, faint odor

Lansing Section

3002-3009' Limestone; cream, fossiliferous/oolitic, scattered oolicastic porosity, golden brown stain, no show of free oil, faint odor

3028-3032' Limestone; tan, oolitic, oomoldic porosity, brown stain, slight SFO, fair odor

3061-3064' Limestone; lt. grey-cream, fine crystalline, chalky, sub oomoldic, few oomoldic porosity, spotty brown stain, trace spotty free oil, faint odor

3088-3092' Limestone; tan, oomoldic, good oomoldic porosity, brown stain, SFO, good odor

DST #1 Lansing 'B-G' 3,024-3,095'

Times: 30-45-30-60

Blow; B.O.B. in 4 minutes
No blow back
Final; B.O.B. in 30 seconds
No blow back

Recovery: 819' GIP
60' GOCM (10%G, 5%O, 85%M)
60' GOCWM (5%G, 20%O, 15%W, 60%M)

Pressure:	**ISIP**	**810**	**psi**
	FSIP	**854**	**psi**
	IFP	**49-69**	**psi**
	FFP	**72-89**	**psi**
	HSH	**1517-1462**	**psi**

3104-3111' Limestone; tan-cream, oomoldic, oolitic, fair-good oomoldic porosity, trace brown stain, no show of free oil, no odor

3148-3150’ Limestone; buff-cream, fine crystalline, chalky, fossiliferous in part, 2-3 pcs Limestone; highly oolitic, scattered porosity, golden brown stain, no show of free oil, very faint odor

Arbuckle Section

3293-3305’ Dolomite; grey-tan-cream, sucrosic, inter crystalline porosity, trace vuggy porosity, spotty brown stain, SFO, faint-fair odor

DST #2 Arbuckle 3,274-3,305’

Times: 30-30-30-30

Blow; B.O.B. in 20 sec
No blow back
Final; B.O.B. in 25 sec
No blow back

Recovery: 63' GIP
2835' CGO
125' OCMW (10%O, 30%M, 60%M)
126' MW (10%M, 90%W)

Pressure:	**ISIP**	**87**	**psi**
	FSIP	**97**	**psi**
	IFP	**33-28**	**psi**
	FFP	**30-30**	**psi**
	HSH	**1670-1603**	**psi**

3308-3311’ Dolomite; white-cream-lt. grey, sucrosic in part, fine crystalline, dense, poor visible porosity, trace staining, trace spotty free oil

Rotary Total Depth 3400’ (-1621)

Recommendations:
Based on the structural position and positive drill stem test, it was recommended by all parties involved in the Stumps #4 to run 5 ½” production casing at the rotary total depth 3,400’.

Respectfully submitted.

Joshua R. Austin
Petroleum Geologist