

ALT ☐ I ☐ II ☐ III Approved by: _____ Date: _____

Form	ACO1 - Well Completion
Operator	Norstar Petroleum, Inc.
Well Name	DOWNEY 1-36
Doc ID	1393609

Tops

Name	Top	Datum
Anhydrite	1940	+646
Heebner	3875	-1289
Lansing	3917	-1331
Stark Shale	4183	-1597
Pawnee	4390	-1804
Cherokee Shale	4460	-1874
Cherokee Sand	4499	-1913
Mississippi	4538	-1952

Form	ACO1 - Well Completion
Operator	Norstar Petroleum, Inc.
Well Name	DOWNEY 1-36
Doc ID	1393609

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	7.875	23	274	Common	185	2 %gel, 3% cc

TREATMENT REPORT



Customer:	Norstar Petroleum Inc.		Date:	1/26/2018	Ticket No.:	100870
Field Rep:	Mike Kern					
Address:						
City, State:						
County, Zip:						

Field Order No.:	100870	Open Hole:		Perf Depths (ft)		Perfs
Well Name:	Downey # 1-36	Casing Depth:	274'			
Location:	Ness City	Casing Size:	8 5/8 23 LB			
Formation:		Tubing Depth:				
Type of Service:	Surface	Tubing Size:				
Well Type:	Oil	Liner Depth:				
Age of Well:	New	Liner Size:				
Packer Type:		Liner Top:				
Packer Depth:		Liner Bottom:				
Treatment Via:	Casing	Total Depth:	278'			
				Total Perfs		0

TIME	INJECTION RATE		PRESSURE		REMARKS	PROP (lbs)	HCL (gls)	FLUID (bbls)
	FLUID	N2/CO2	STP	ANNULUS				
9:00 PM					Called Out			
11:30 PM					On Location W/Trucks Hold Safety Meeting			
					Spot & Set Up Trucks			
					TD= 278' TP= 274' SJ= 25'			
11:45 PM					Start Casing			
1:30 AM					Casing On Bottom			
1:35 AM	3.0		100.0		Hook Up To Casing Break Circulation W/Pump Truck			15.00
	4.5		200.0		Start Mix & Pump 185 Sacks Common 2% Gel 3% CC			46.46
	4.5		180.0		Start Displacement H2O			15.70
2:00 AM			150.0		Shut Down			
2:01 AM			125.0		Close Vavle On Casing			
					Good Circulation Thru Job			
					Circulate 15 Sacks To Pit			
					Wash Up Truck & Rack Up Trucks			
2:30 AM					Off Location			
					Thank You			
					Please Call Again			
					Todd Brad Cody			
TOTAL:						-	-	77.16

PRODUCTS USED

Max FI. Rate	Avg FI. Rate	Max PSI	Avg PSI
4.5	4.0	200.0	151.0

185 Sacks Common 2% Gel 3% Calcium Chloride

Treater: *Todd Seba*

Customer: Mike Kern

TREATMENT REPORT



HURRICANE SERVICES INC

Customer:	Norstar Petroleum Inc	Date:	2/5/2018	Ticket No.:	50602
Field Rep:	Mike Kern				
Address:					
City, State:					
County, Zip:					

Field Order No.:		Open Hole:	4591' 7.875"	Perf Depths (ft)	Perfs
Well Name:	Downey 1-36	Casing Depth:			
Location:	Dighton, Ks	Casing Size:			
Formation:		D.Pipe Depth:	2000' 1140' 600, 300, 60'		
Type of Service:	PTA	D.Pipe Size:	4.5' x- hole 16.6#		
Well Type:	Oil	Liner Depth:			
Age of Well:	New	Liner Size:			
Packer Type:		Liner Top:			
Packer Depth:		Liner Bottom:			
Treatment Via:	Drill Pipe	Total Depth:			
				Total Perfs	0

TIME	INJECTION RATE		PRESSURE		REMARKS	PROP (lbs)	HCL (gls)	FLUID (bbls)
	FLUID	N2/CO2	STP	ANNULUS				
					On location safety meeting. Spot in and rig up			
					Wait on Rig. Thaw out equipment			
					Hook up to Drill pipe 2000'			
	4.0		300.0		Pump water			8.50
	4.0		300.0		Pump cement 50 sacks			12.64
	4.0		300.0		Pump water			3.00
	8.0		300.0		Pump mud			15.00
					Hook up to Drill pipe 1140'			
	4.0		300.0		Pump water			8.50
	4.0		300.0		Pump cement 80 sacks			20.23
	4.0		300.0		Pump water			3.00
	8.0		300.0		Pump Mud			6.00
					Hook up to drill pipe 600'			
	4.0		300.0		Pump water			8.50
	4.0		300.0		Pump cement 40 sacks			10.11
	4.0		300.0		Pump water			5.00
TOTAL:						-	-	138.75

SUMMARY

Max Fl. Rate	Avg Fl. Rate	Max PSI	Avg PSI
8.0	4.2	300.0	258.8

PRODUCTS USED

270 sacks 60:40 4% gel .5 lb/sk Phenoseal

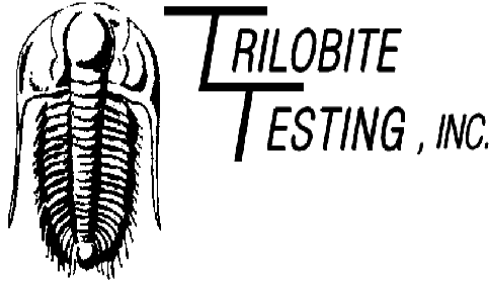
Treater:

Jake Heard

Customer: Mike Kern

[illegible]

Activity provided on this page is calculated in the summary and totals on page 1



DRILL STEM TEST REPORT

Prepared For: **Norstar Petroleum Inc.**

38 Inverness Cir.E
Unit F104
Englewood CO 80112

ATTN: Aaron Young

Downey #1-36

36-18s-27w Lane,KS

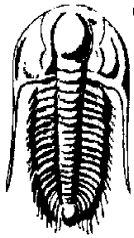
Start Date: 2018.02.01 @ 01:08:00

End Date: 2018.02.01 @ 08:20:15

Job Ticket #: 64421 DST #: 1

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

Printed: 2018.02.05 @ 15:55:44



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Norstar Petroleum Inc.

38 Inverness Cir.E
Unit F104
Englewood CO 80112
ATTN: Aaron Young

36-18s-27w Lane,KS

Downey #1-36

Job Ticket: 64421

DST#: 1

Test Start: 2018.02.01 @ 01:08:00

GENERAL INFORMATION:

Formation: **Marmaton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:22:15

Time Test Ended: 08:20:15

Test Type: Conventional Bottom Hole (Initial)

Tester: Mike Roberts

Unit No: 81

Interval: 4360.00 ft (KB) To 4380.00 ft (KB) (TVD)

Reference Elevations: 2586.00 ft (KB)

Total Depth: 4380.00 ft (KB) (TVD)

2581.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8672 Inside

Press@RunDepth: 17.92 psig @ 4361.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.02.01

End Date:

2018.02.01

Last Calib.: 2018.02.02

Start Time: 01:08:00

End Time:

08:20:15

Time On Btm: 2018.02.01 @ 04:22:00

Time Off Btm: 2018.02.01 @ 06:30:45

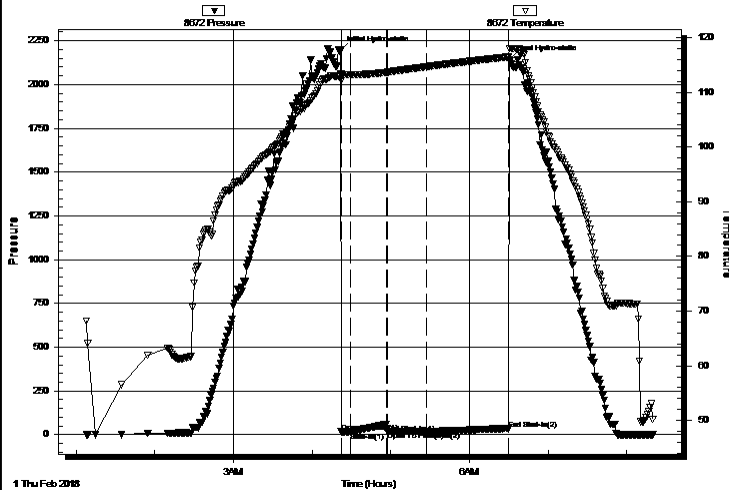
TEST COMMENT: IF: Built to weak surface blow

IS: No return blow

FF: No blow

FS: No return blow

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2196.24	113.30	Initial Hydro-static
1	16.22	112.08	Open To Flow (1)
7	17.00	113.18	Shut-In(1)
35	60.63	113.64	End Shut-In(1)
36	18.23	113.64	Open To Flow (2)
65	17.92	114.66	Shut-In(2)
128	34.13	116.45	End Shut-In(2)
129	2143.79	118.00	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2.00	mud 100% m	0.01

Gas Rates

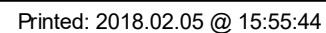
	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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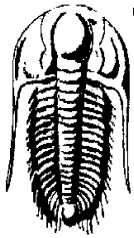


Test Start: 2018.02.01 @ 01:08:00

KB to GR/CF: 5.00 ft

FS:No return blow





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Norstar Petroleum Inc.

36-18s-27w Lane, KS

38 Inverness Cir.E
Unit F104
Englewood CO 80112
ATTN: Aaron Young

Downey #1-36

Job Ticket: 64421

DST#: 1

Test Start: 2018.02.01 @ 01:08:00

Tool Information

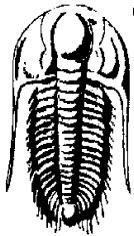
Drill Pipe:	Length:	4222.00 ft	Diameter:	3.80 inches	Volume:	59.22 bbl	Tool Weight:	1500.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length:	121.00 ft	Diameter:	2.25 inches	Volume:	0.60 bbl	Weight to Pull Loose:	80000.00 lb
					Total Volume:	59.82 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		7.00 ft					String Weight: Initial	62000.00 lb
Depth to Top Packer:		4360.00 ft					Final	62000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		20.00 ft						
Tool Length:		44.00 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			4337.00	
Shut In Tool	5.00			4342.00	
Hydraulic tool	5.00			4347.00	
Jars	5.00			4352.00	
Safety Joint	3.00			4355.00	
Packer	5.00			4360.00	24.00 Bottom Of Top Packer
Packer - Shale	0.00			4360.00	
Stubb	1.00			4361.00	
Recorder	0.00	8672	Inside	4361.00	
Recorder	0.00	8374	Outside	4361.00	
Perforations	14.00			4375.00	
Bullnose	5.00			4380.00	20.00 Anchor Tool

Total Tool Length: 44.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Norstar Petroleum Inc.

36-18s-27w Lane, KS

38 Inverness Cir.E
Unit F104
Englewood CO 80112
ATTN: Aaron Young

Downey #1-36

Job Ticket: 64421

DST#: 1

Test Start: 2018.02.01 @ 01:08:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 56.00 sec/qt

Water Loss: 7.76 in³

Resistivity: 0.00 ohm.m

Salinity: 3000.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity:

0 deg API

0 ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	mud 100% m	0.010

Total Length: 2.00 ft Total Volume: 0.010 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

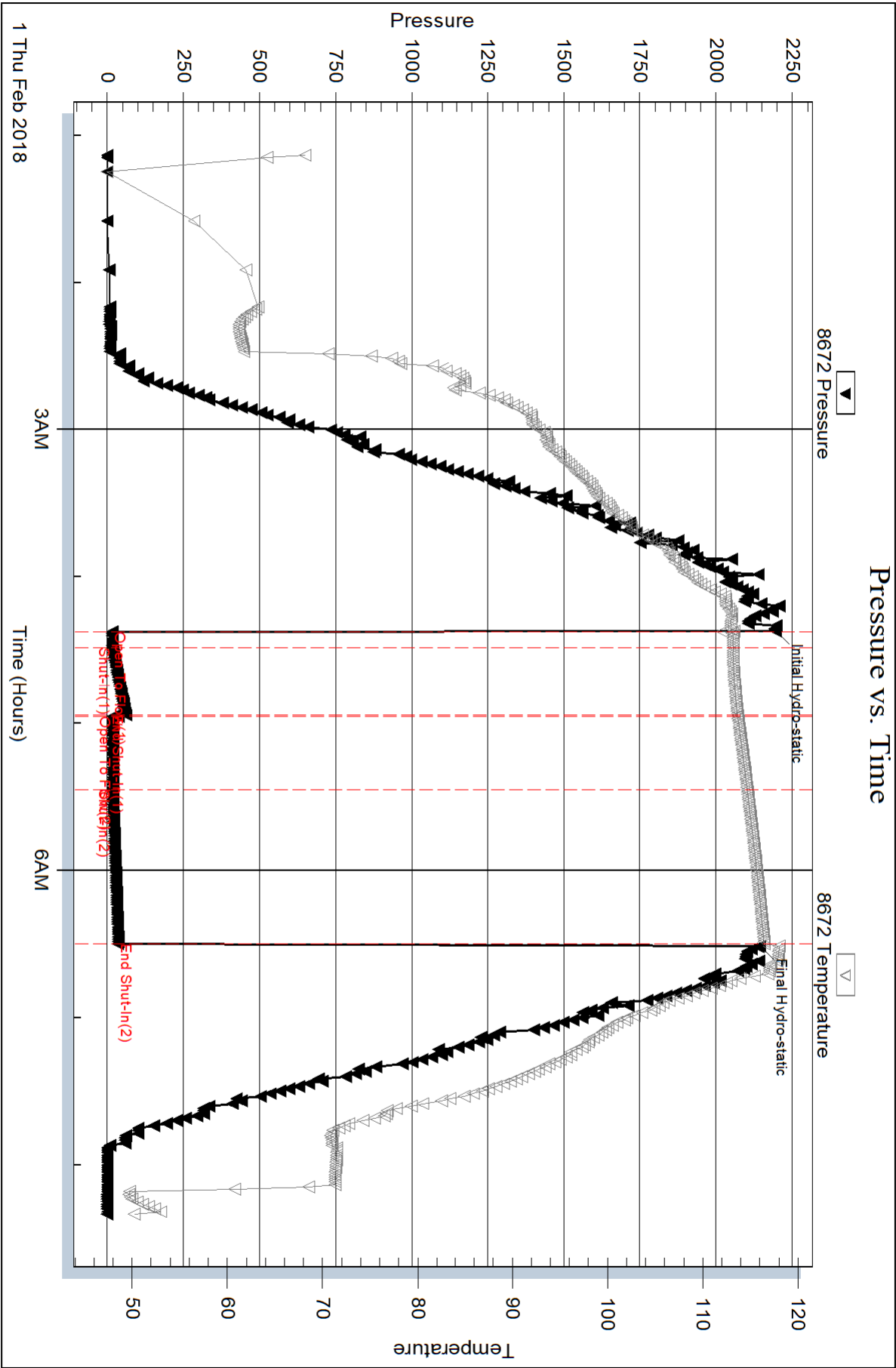
Serial #: 8672

Inside

Norstar Petroleum Inc.

Dowrey #1-36

DST Test Number: 1

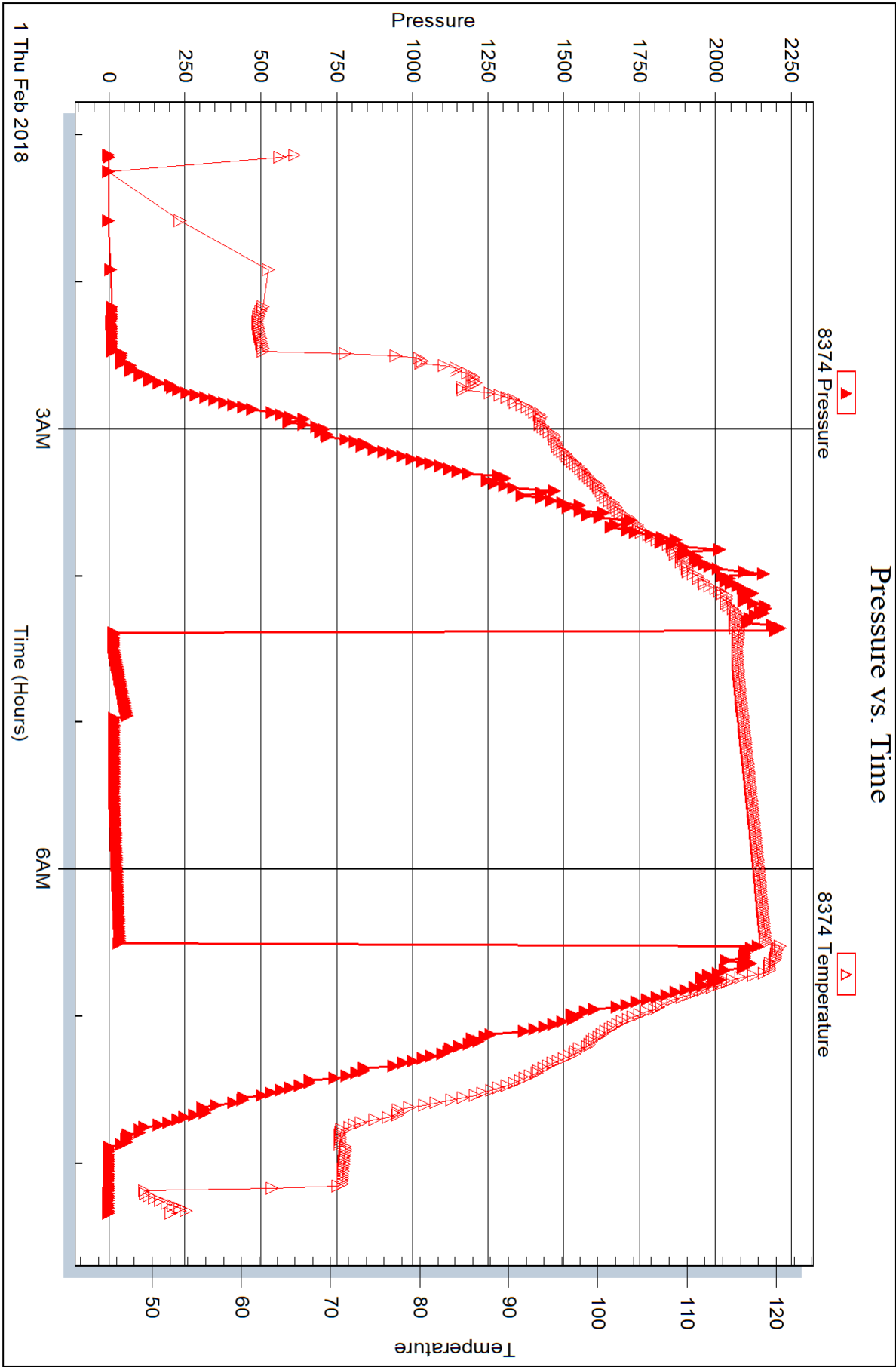


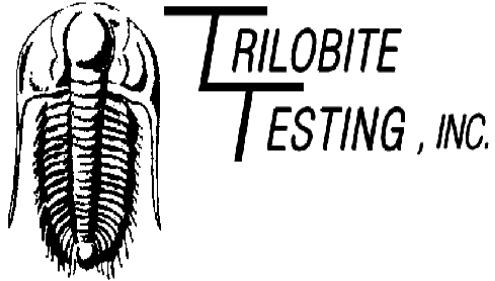
Serial #: 8374

Outside Norstar Petroleum Inc.

Dowrey #1-36

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Norstar Petroleum Inc.**

38 Inverness Cir.E
Unit F104
Englewood CO 80112

ATTN: Aaron Young

Downey #1-36

36-18s-27w Lane,KS

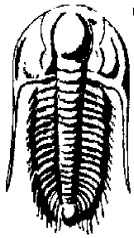
Start Date: 2018.02.03 @ 04:53:15

End Date: 2018.02.03 @ 10:47:30

Job Ticket #: 64422 DST #: 2

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

Printed: 2018.02.05 @ 15:55:02



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Norstar Petroleum Inc.

38 Inverness Cir.E
Unit F104
Englewood CO 80112
ATTN: Aaron Young

36-18s-27w Lane,KS

Downey #1-36

Job Ticket: 64422

DST#: 2

Test Start: 2018.02.03 @ 04:53:15

GENERAL INFORMATION:

Formation: **Cherokee Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:26:15

Time Test Ended: 10:47:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Mike Roberts

Unit No: 81

Interval: 4498.00 ft (KB) To 4520.00 ft (KB) (TVD)

Reference Elevations: 2586.00 ft (KB)

Total Depth: 4520.00 ft (KB) (TVD)

2581.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8672 Inside

Press@RunDepth: 20.28 psig @ 4499.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.02.03

End Date:

2018.02.03

Last Calib.: 2018.02.03

Start Time: 04:53:15

End Time:

10:47:30

Time On Btm: 2018.02.03 @ 07:26:00

Time Off Btm: 2018.02.03 @ 09:03:00

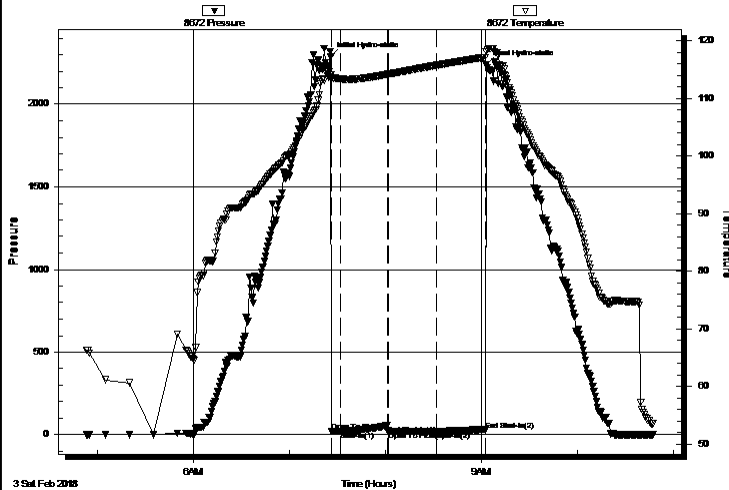
TEST COMMENT: IF: Built to weak surface blow

IS: No return blow

FF: No blow

FS: No return blow

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2288.25	114.14	Initial Hydro-static
1	19.71	113.29	Open To Flow (1)
6	20.78	113.37	Shut-In(1)
36	56.10	114.19	End Shut-In(1)
36	21.44	114.20	Open To Flow (2)
66	20.28	115.76	Shut-In(2)
97	29.47	117.16	End Shut-In(2)
97	2237.69	118.09	Final Hydro-static

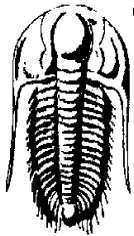
Recovery

Length (ft)	Description	Volume (bbl)
2.00	mud 100% m	0.01

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Norstar Petroleum Inc.

38 Inverness Cir.E
Unit F104
Englewood CO 80112
ATTN: Aaron Young

36-18s-27w Lane,KS

Downey #1-36

Job Ticket: 64422

DST#: 2

Test Start: 2018.02.03 @ 04:53:15

GENERAL INFORMATION:

Formation: **Cherokee Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:26:15

Time Test Ended: 10:47:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Mike Roberts

Unit No: 81

Interval: 4498.00 ft (KB) To 4520.00 ft (KB) (TVD)

Reference Elevations: 2586.00 ft (KB)

Total Depth: 4520.00 ft (KB) (TVD)

2581.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8374 Outside

Press@RunDepth: psig @ 4499.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.02.03

End Date:

2018.02.03

Last Calib.:

2018.02.03

Start Time: 04:53:15

End Time:

10:47:30

Time On Btm:

Time Off Btm:

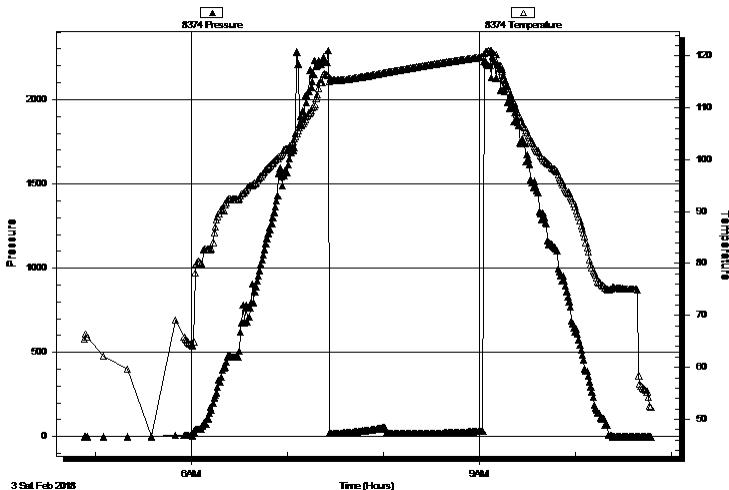
TEST COMMENT: IF: Built to weak surface blow

IS: No return blow

FF: No blow

FS: No return blow

Pressure vs. Time



PRESSURE SUMMARY

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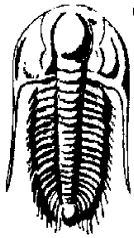
Recovery

Length (ft)	Description	Volume (bbl)
2.00	mud 100% m	0.01

Gas Rates

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

* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Norstar Petroleum Inc.

36-18s-27w Lane,KS

38 Inverness Cir.E
Unit F104
Englewood CO 80112
ATTN: Aaron Young

Downey #1-36

Job Ticket: 64422

DST#: 2

Test Start: 2018.02.03 @ 04:53:15

Tool Information

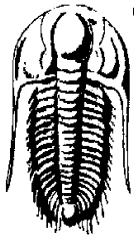
Drill Pipe:	Length:	4379.00 ft	Diameter:	3.80 inches	Volume:	61.43 bbl	Tool Weight:	1500.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length:	121.00 ft	Diameter:	2.25 inches	Volume:	0.60 bbl	Weight to Pull Loose:	80000.00 lb
					Total Volume:	62.03 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		29.00 ft					String Weight: Initial	65000.00 lb
Depth to Top Packer:		4498.00 ft					Final	65000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		20.00 ft						
Tool Length:		47.00 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			4472.00		
Shut In Tool	5.00			4477.00		
Hydraulic tool	5.00			4482.00		
Jars	5.00			4487.00		
Safety Joint	3.00			4490.00		
EM Tool	3.00			4493.00		
Packer	5.00			4498.00	27.00	Bottom Of Top Packer
Packer - Shale	0.00			4498.00		
Stubb	1.00			4499.00		
Recorder	0.00	8672	Inside	4499.00		
Recorder	0.00	8374	Outside	4499.00		
Perforations	14.00			4513.00		
Bullnose	5.00			4518.00	20.00	Anchor Tool

Total Tool Length: 47.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Norstar Petroleum Inc.

36-18s-27w Lane, KS

38 Inverness Cir.E
Unit F104
Englewood CO 80112
ATTN: Aaron Young

Downey #1-36

Job Ticket: 64422

DST#: 2

Test Start: 2018.02.03 @ 04:53:15

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 58.00 sec/qt

Water Loss: 7.78 in³

Resistivity: 0.00 ohm.m

Salinity: 2000.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity:

0 deg API

0 ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	mud 100%m	0.010

Total Length: 2.00 ft Total Volume: 0.010 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

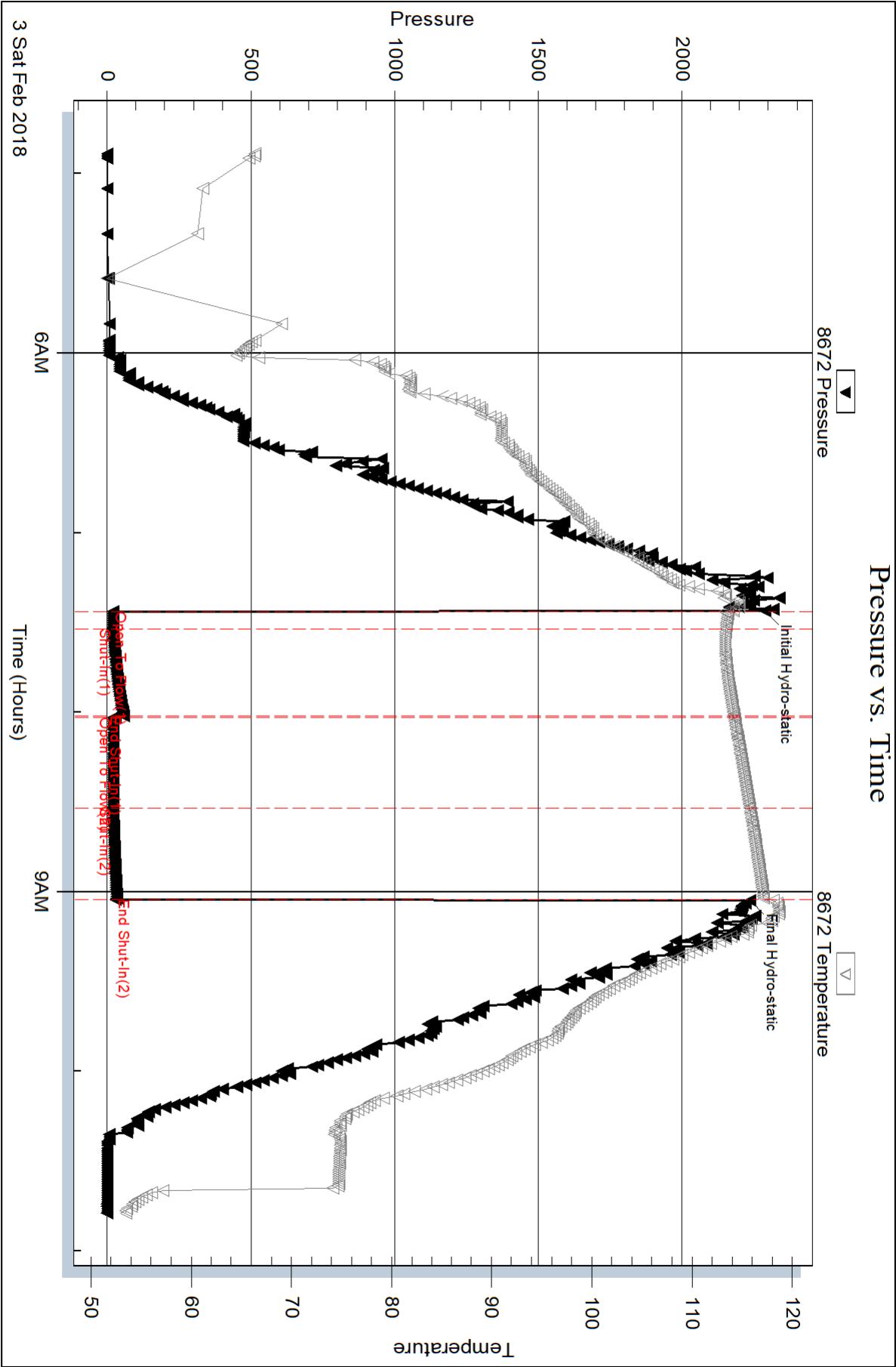
Serial #: 8672

Inside

Norstar Petroleum Inc.

Dowrey #1-36

DST Test Number: 2

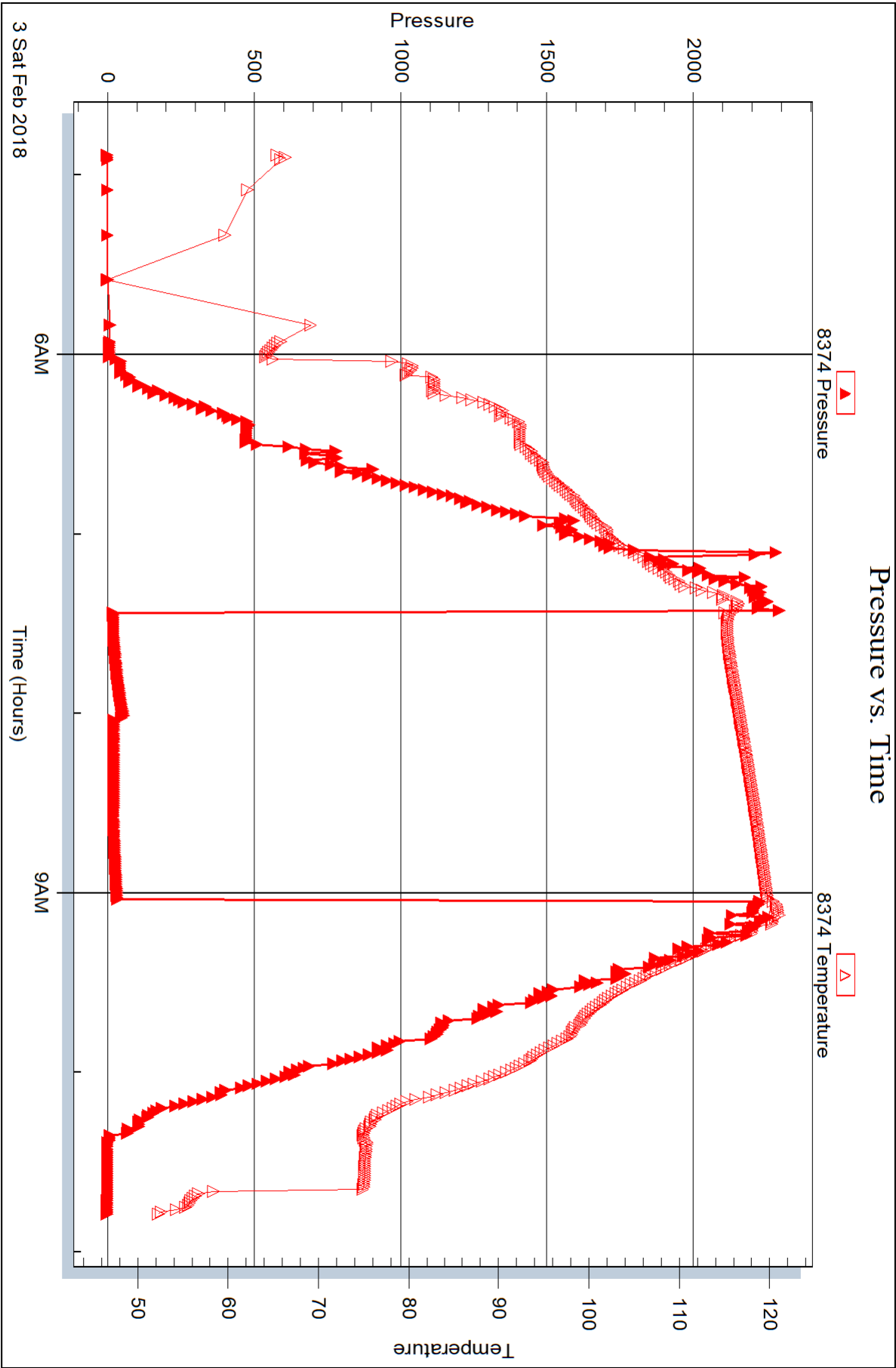


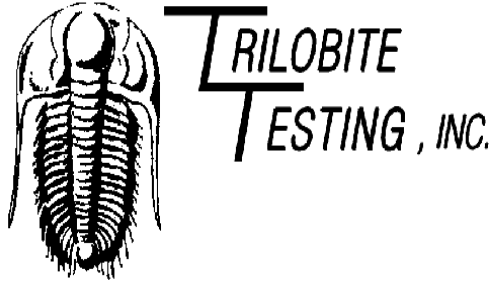
Serial #: 8374

Outside Norstar Petroleum Inc.

Dowrey #1-36

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **Norstar Petroleum Inc.**

38 Inverness Cir.E
Unit F104
Englewood CO 80112

ATTN: Aaron Young

Downey #1-36

36-18s-27w Lane,KS

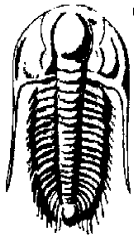
Start Date: 2018.02.03 @ 20:36:15

End Date: 2018.02.04 @ 04:33:30

Job Ticket #: 64423 DST #: 3

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

Printed: 2018.02.05 @ 15:53:34



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Norstar Petroleum Inc.

38 Inverness Cir.E
Unit F104
Englewood CO 80112
ATTN: Aaron Young

36-18s-27w Lane,KS

Downey #1-36

Job Ticket: 64423

DST#: 3

Test Start: 2018.02.03 @ 20:36:15

GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:04:30

Time Test Ended: 04:33:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Mike Roberts

Unit No: 81

Interval: 4503.00 ft (KB) To 4551.00 ft (KB) (TVD)

Reference Elevations: 2586.00 ft (KB)

Total Depth: 4551.00 ft (KB) (TVD)

2581.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8374 Outside

Press@RunDepth: 114.81 psig @ 4546.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.02.03

End Date:

2018.02.04

Last Calib.: 2018.02.04

Start Time: 20:36:15

End Time:

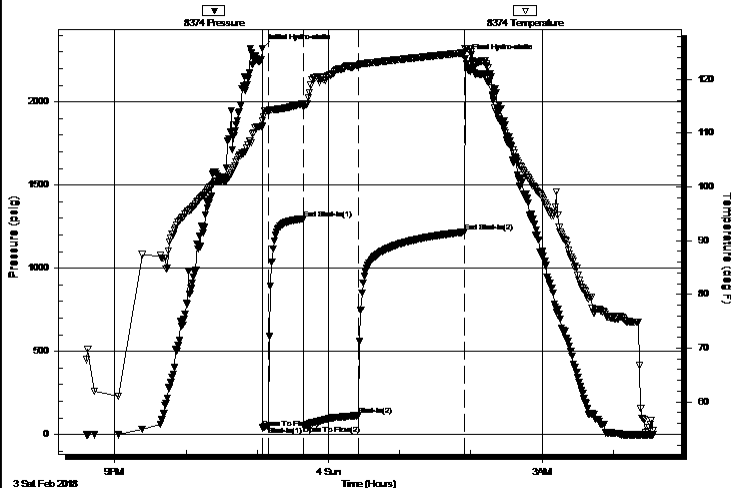
04:33:30

Time On Btm: 2018.02.03 @ 23:04:15

Time Off Btm: 2018.02.04 @ 01:55:15

TEST COMMENT: IF: Built to 1 1/2" blow
IS: No return blow
FF: Built to 5 1/2" blow
FS: No return blow

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2320.48	112.24	Initial Hydro-static
1	40.44	111.27	Open To Flow (1)
6	51.21	114.09	Shut-In(1)
35	1297.26	115.51	End Shut-In(1)
35	54.59	114.92	Open To Flow (2)
81	114.81	122.60	Shut-In(2)
170	1216.93	124.91	End Shut-In(2)
171	2261.21	125.66	Final Hydro-static

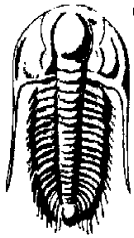
Recovery

Length (ft)	Description	Volume (bbl)
183.00	mud 100% m	1.46

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Norstar Petroleum Inc.

36-18s-27w Lane, KS

38 Inverness Cir.E
Unit F104
Englewood CO 80112
ATTN: Aaron Young

Downey #1-36

Job Ticket: 64423

DST#: 3

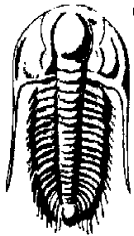
Test Start: 2018.02.03 @ 20:36:15

Tool Information

Drill Pipe:	Length:	4380.00 ft	Diameter:	3.80 inches	Volume:	61.44 bbl	Tool Weight:	1500.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length:	121.00 ft	Diameter:	2.25 inches	Volume:	0.60 bbl	Weight to Pull Loose:	80000.00 lb
					Total Volume:	62.04 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	25.00 ft					String Weight: Initial	68000.00 lb	
Depth to Top Packer:	4503.00 ft					Final	69000.00 lb	
Depth to Bottom Packer:	ft							
Interval between Packers:	48.00 ft							
Tool Length:	75.00 ft							
Number of Packers:	2		Diameter:	6.75 inches				
Tool Comments:								

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4477.00	
Shut In Tool	5.00			4482.00	
Hydraulic tool	5.00			4487.00	
Jars	5.00			4492.00	
Safety Joint	3.00			4495.00	
EM Tool	3.00			4498.00	
Packer	5.00			4503.00	27.00 Bottom Of Top Packer
Packer - Shale	0.00			4503.00	
Stubb	1.00			4504.00	
Perforations	4.00			4508.00	
Change Over Sub	1.00			4509.00	
Drill Pipe	31.00			4540.00	
Change Over Sub	1.00			4541.00	
Perforations	5.00			4546.00	
Recorder	0.00	8672	Inside	4546.00	
Recorder	0.00	8374	Outside	4546.00	
Bullnose	5.00			4551.00	48.00 Anchor Tool
Total Tool Length:	75.00				



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Norstar Petroleum Inc.

36-18s-27w Lane, KS

38 Inverness Cir.E
Unit F104
Englewood CO 80112
ATTN: Aaron Young

Downey #1-36

Job Ticket: 64423

DST#: 3

Test Start: 2018.02.03 @ 20:36:15

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 65.00 sec/qt

Water Loss: 7.18 in³

Resistivity: 0.00 ohm.m

Salinity: 2000.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

Oil API:

Water Salinity:

0 deg API

0 ppm

ft

bbl

psig

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
183.00	mud 100% m	1.465

Total Length: 183.00 ft

Total Volume: 1.465 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

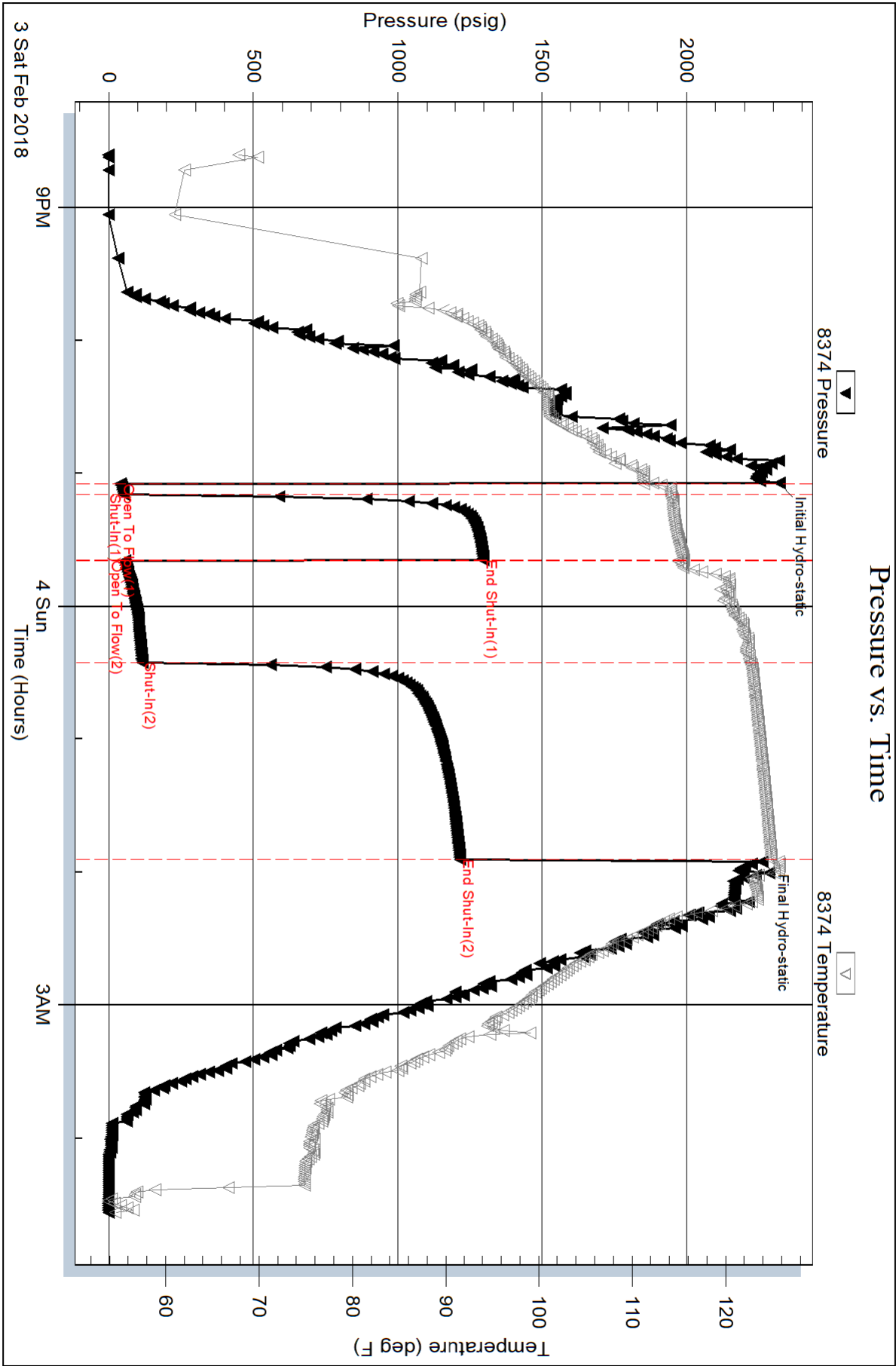
Recovery Comments:

Serial #: 8374

Outside Norstar Petroleum Inc.

Dowrey #1-36

DST Test Number: 3





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **64421**

Well Name & No. Downey #1-36 Test No. 1 Date 2-1-18
Company Norstar Petroleum Inc Elevation 2586 KB 2581 GL
Address 38 Inverness Cir E Unit F104 Englewood CO 80112
Co. Rep / Geo. Aaron Young Rig Pickrell 10
Location: Sec. 36 Twp. 18s Rge. 27w Co. Lane State KS

Interval Tested 4360-4380 Zone Tested Marmaton
Anchor Length 20 Drill Pipe Run 4222 Mud Wt. 9.3
Top Packer Depth 4355 Drill Collars Run 121 Vis 56
Bottom Packer Depth 4360 Wt. Pipe Run Ø WL 7.8
Total Depth 4380 Chlorides 3000 ppm System LCM 2
Blow Description IF: Weak Surface Blow
IS: No Return Blow
FF: No Blow
FS: No Return Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>2</u>	<u>MUD</u>			<u>100</u>	
Rec	Feet of	%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 2 BHT 116 Gravity — API RW — @ — ° F Chlorides — ppm
(A) Initial Hydrostatic 2196 ☒ Test 1150 T-On Location 21:13
(B) First Initial Flow 16 ☒ Jars 250 ? T-Started 01:38
(C) First Final Flow 17 ☒ Safety Joint 75 T-Open 04:21
(D) Initial Shut-In 60 ☒ Circ Sub NC T-Pulled 08:20
(E) Second Initial Flow 18 ☐ Hourly Standby — T-Out —
(F) Second Final Flow 17 ☒ Mileage 78 RT= 58.50 Comments —
(G) Final Shut-In 34 ☐ Sampler —
(H) Final Hydrostatic 2143 ☐ Straddle —

Initial Open 5 ☐ Ruined Shale Packer —
Initial Shut-In 30 ☐ Ruined Packer —
Final Flow 30 ☐ Extra Copies —
Final Shut-In 60 ☐ Extra Recorder — Sub Total 0
☐ Day Standby — Total 1783.50
☐ Accessibility — MP/DST Disc't —
Sub Total 1783.50

Approved By [Signature] 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. **64422**

Well Name & No. Downey #1-36 Test No. 2 Date 2-2-18
 Company Norstar Petroleum Inc Elevation 2586 KB 2581 GL
 Address 38 Inverness Cir E Unit F104 Englewood Co 80112
 Co. Rep / Geo. Aaron Young Rig Pickrell 10
 Location: Sec. 36 Twp. 18S Rge. 27W Co. Lane State KS

Interval Tested 4498-4520 Zone Tested Cherokee Sand
 Anchor Length ~~4498~~ 22 Drill Pipe Run 4379 Mud Wt. 9.3
 Top Packer Depth ~~4498~~ 4493 Drill Collars Run 121 Vis 58
 Bottom Packer Depth 4498 Wt. Pipe Run 0 WL 7.8
 Total Depth 4520 Chlorides 2000 ppm System LCM 2
 Blow Description IF: Built to Weak Surface Blow
IS: No Return Blow
FF: No Blow
FS: No Return Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>2</u>	<u>MUD</u>			<u>100</u>	
Rec	Feet of	%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 2 BHT 118 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 2288
 (B) First Initial Flow 19
 (C) First Final Flow 20
 (D) Initial Shut-In 56
 (E) Second Initial Flow 21
 (F) Second Final Flow 20
 (G) Final Shut-In 29
 (H) Final Hydrostatic 2237

☒ Test 1150
☒ Jars 250
☒ Safety Joint 75
☒ Circ Sub NC
☐ Hourly Standby
☒ Mileage 78 RT 58.50
☐ Sampler
☐ Straddle
☒ Shale Packer 250
☐ Extra Packer
☐ Extra Recorder
☐ Day Standby
☐ Accessibility
 Sub Total 1783.50

T-On Location 03:45
 T-Started 04:53
 T-Open 07:27
 T-Pulled 09:02
 T-Out 10:47
 Comments
☐ Ruined Shale Packer
☐ Ruined Packer
☐ Extra Copies
 Sub Total 0
 Total 1783.50
 MP/DST Disc't

Initial Open 5
 Initial Shut-In 30
 Final Flow 30
 Final Shut-In 30

Approved By Aaron Young

Our Representative Mike Roberts

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **64423**

Well Name & No. Downey #1-36 Test No. 3 Date 2-2-18
 Company Norstar Petroleum Inc Elevation 2586 KB 2581 GL
 Address 38 Inverness Cir E Unit F104 Englewood CO 80112
 Co. Rep / Geo. Aaron Young Rig Pickrell 10
 Location: Sec. 36 Twp. 18S Rge. 27W Co. Lane State KS

Interval Tested 4503-4551 Zone Tested Miss
 Anchor Length 48 Drill Pipe Run 4380 Mud Wt. 9.4
 Top Packer Depth 4498 Drill Collars Run 121 Vis 65
 Bottom Packer Depth 4503 Wt. Pipe Run Ø WL 7.2
 Total Depth 4551 Chlorides 2000 ppm System LCM 2
 Blow Description IF: Built to 1 1/2" Blow
FS: No Return Blow
FF: Built to 5 1/2" Blow
FS: No Return Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>183</u>	<u>mud</u>			<u>100</u>	
Rec	Feet of	%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 183 BHT 125 Gravity — API RW — @ — F Chlorides — ppm

(A) Initial Hydrostatic <u>2320</u>	☒ Test <u>1150</u>	T-On Location <u>19:39</u>
(B) First Initial Flow <u>40</u>	☒ Jars <u>250</u>	T-Started <u>20:36</u>
(C) First Final Flow <u>51</u>	☒ Safety Joint <u>75</u>	T-Open <u>23:09</u>
(D) Initial Shut-In <u>1297</u>	☒ Circ Sub <u>NC</u>	T-Pulled <u>01:54</u>
(E) Second Initial Flow <u>54</u>	☐ Hourly Standby	T-Out <u>04:33</u>
(F) Second Final Flow <u>114</u>	☒ Mileage <u>78RT X2</u> 117	Comments <u>Loaded Tools</u>
(G) Final Shut-In <u>1216</u>	☐ Sampler	<u>at 14:30 2-3-18</u>
(H) Final Hydrostatic <u>2261</u>	☐ Straddle	

Initial Open <u>5</u>	☒ Shale Packer <u>250</u>	☐ Ruined Shale Packer
Initial Shut-In <u>30</u>	☐ Extra Packer	☐ Ruined Packer
Final Flow <u>45</u>	☐ Extra Recorder	☐ Extra Copies
Final Shut-In <u>90</u>	☐ Day Standby	Sub Total <u>0</u>
	☐ Accessibility	Total <u>1842</u>
	Sub Total <u>1842</u>	MP/DST Disc't

Approved By [Signature]

Our Representative Mike Roberts

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