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 # 30717
Name: Downing-Nelson Oil Co Inc
Address 1: PO BOX 1019
Address 2:
City: HAYS State: KS Zip: 67601 + 1019
Contact Person: Alan Downing
Phone: ( 785 ) 621-2610
CONTRACTOR: License # 31548
Name: Discovery Drilling
Wellsite Geologist: Alan Downing
Purchaser: CHS

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 #:

| 11/11/2021 | 11/19/2021 | 01/12/2022 |
|---|---|---|
| Spud Date or Recompletion Date | Date Reached TD | Completion Date or Recompletion Date |

API No.: 15-153-21273-00-00
Spot Description:
SW - SE - NW - NE Sec. 19 Twp. 5 S. R. 36 ☐ East ☑ West
1109 Feet from ☑ North / ☐ South Line of Section
1889 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: Rawlins
Lease Name: BUCKNER Well #: 1-19
Field Name:
Producing Formation: Cherokee Lime
Elevation: Ground: 3289 Kelly Bushing: 3297
Total Vertical Depth: 4880 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 444 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: 5000 ppm Fluid volume: 400 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: 02/01/2022
☐ **Confidential Release Date:** 02/01/2024
☑ **Wireline Log Received** ☑ **Drill Stem Tests Received**
☑ **Geologist Report / Mud Logs Received**
☐ **UIC Distribution**
**ALT** ☑ **I** ☐ **II** ☐ **III** **Approved by:** Deanna Garrison **Date:** 02/02/2022

*Page Two*

Operator Name: Downing-Nelson Oil Co Inc  Lease Name: BUCKNER  Well #: 1-19

Sec. 19  Twp. 5  S. R. 36  ☐ East ☑ West  County: Rawlins

**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 ☑ Yes ☐ No
*(Attach Additional Sheets)*

Samples Sent to Geological Survey ☑ Yes ☐ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☑ Yes ☐ No

Geologist Report / Mud Logs ☑ Yes ☐ No

List All E. Logs Run:
Attached

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

| Name | Top | Datum |
|---|---|---|
| Attached | Attached | Attached |

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 | 444 | Common | 280 | 2% Gel 3% CC |
| Production | 7.875 | 5.5 | 14 | 4973 | EA/2 | 155 | - |
| | | | | | | | |

ADDITIONAL CEMENTING / SQUEEZE RECORD

| Purpose: | Depth Top Bottom | Type of Cement | # Sacks Used | Type and Percent Additives |
|---|---|---|---|---|
| ☐ Perforate<br>☐ Protect Casing<br>☐ Plug Back TD<br>☐ 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: 01/28/2022

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: ☐ Vented ☐ Sold ☐ Used on Lease
*(If vented, Submit ACO-18.)*

METHOD OF COMPLETION: ☐ Open Hole ☑ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*

| PRODUCTION INTERVAL: Top | Bottom |
|---|---|
| 4640 | 4647 |
| | |

| Shots Per Foot | Perforation Top | Perforation Bottom | Bridge Plug Type | Bridge Plug Set At | Acid, Fracture, Shot, Cementing Squeeze Record *(Amount and Kind of Material Used)* |
|---|---|---|---|---|---|
| 4 | 4692 | 4696 | | | 250 gallons 15% INS |
| | | | CIBP Cast Iron Bridge Plug | 4680 | |
| 4 | 4640 | 4647 | | | 250 gallons 15% Mud Acid |
| | | | | | |
| | | | | | |

| TUBING RECORD: Size: | Set At: | Packer At: |
|---|---|---|
| 2.375 | 4673 | |

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

| | |
|---|---|
| Form | ACO1 - Well Completion |
| Operator | Downing-Nelson Oil Co Inc |
| Well Name | BUCKNER 1-19 |
| Doc ID | 1601244 |

All Electric Logs Run

| |
|---|
| Micro |
| Sonic |
| Dual Induction |
| Compensated Density Neutron |

| | |
|---|---|
| Form | ACO1 - Well Completion |
| Operator | Downing-Nelson Oil Co Inc |
| Well Name | BUCKNER 1-19 |
| Doc ID | 1601244 |

Tops

| Name | Top | Datum |
|---|---|---|
| Top Anhydrite | 3000 | +297 |
| Base Anhydrite | 3037 | +260 |
| Foraker | 3680 | -383 |
| Topeka | 3968 | -671 |
| Heebner | 4129 | -832 |
| LKC | 4182 | -885 |
| Stark | 4378 | -1081 |
| BKC | 4435 | -1138 |
| Marmaton | 4441 | -1144 |
| Pawnee | 4558 | 1261 |
| Cherokee Shale | 4636 | -1339 |
| Morrow | 4788 | -1491 |
| Mississippi | 4822 | -1525 |

| | |
|---|---|
| Form | ACO1 - Well Completion |
| Operator | Downing-Nelson Oil Co Inc |
| Well Name | BUCKNER 1-19 |
| Doc ID | 1601244 |

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 | 444 | Common | 280 | 2% Gel<br>3% CC |
| Production | 7.875 | 5.5 | 14 | 4973 | EA/2 | 155 | - |
| | | | | | | | |
| | | | | | | | |

# SWIFT Services, Inc.

| DATE | PAGE NO. |
|---|---|
| 11-11-2021 | 1 |

| CUSTOMER | WELL NO. | LEASE | JOB TYPE | TICKET NO. |
|---|---|---|---|---|
| DOWNING - NELSON OIL | 1-19 | BUCKNER | 8 5/8" SURFACE | 33963 |

| CHART NO. | TIME | RATE (BPM) | VOLUME (BBL) ~~(GAL)~~ | PUMPS T | PUMPS C | PRESSURE (PSI) TUBING | PRESSURE (PSI) CASING | DESCRIPTION OF OPERATION AND MATERIALS |
|---|---|---|---|---|---|---|---|---|
| | 1230 | | | | | | | ON LOCATION 375' CUT |
| | 1530 | | | | | | | START 8 5/8" CASING |
| | | | | | | | | TD - 444 SET @ 444 |
| | | | | | | | | TP - 444 8 5/8" #/FT 23 |
| | | | | | | | | 15' CEMENT LEFT IN CASING |
| | 1620 | | | | | | | BREAK CIRCULATION |
| | 1650 | 5 | 68 | | ✓ | | 200 | MIX CEMENT - 280 SKS STANDARD 2% GEL 3% CC, 1/4 FLO |
| | 1708 | 6 | 0 | | ✓ | | 300 | DISPLACE CEMENT |
| | 1715 | | 27 1/2 | | | | | CEMENT DISPLACED - SHUT IN |
| | | | | | | | | CIRCULATED 20 SKS CEMENT TO PIT |
| | | | | | | | | WASH TRUCK |
| | 1800 | | | | | | | JOB COMPLETE |
| | | | | | | | | THANK YOU |
| | | | | | | | | WAYNE, PRESTON, SHAWN, MARK |

SWIFT Services, Inc.

PO Box 466
Ness City, KS 67560
Off: 785-798-2300

# TICKET CONTINUATION

TICKET No. 35384

CUSTOMER: Downing & Nelson | WELL: Buckner 1-19 | DATE: 11/20/21 | PAGE 2 OF 2

| PRICE REFERENCE | SECONDARY REFERENCE/ PART NUMBER | ACCOUNTING LOC | ACCT | DI | TIME | DESCRIPTION | QTY. | U/M | QTY. | U/M | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 325 | | 2 | | | | Standard Cement | 200 | SKS | | | 14.50 | 2900.00 |
| 284 | | 2 | | | | Calseal | 10 | SKS | | | 40.00 | 400.00 |
| 283 | | 2 | | | | Salt | 1100 | lbs | | | 0.25 | 275.00 |
| 292 | | 2 | | | | Halad 322 | 100 | lbs | | | 8.50 | 850.00 |
| 276 | | 2 | | | | Flocele | 50 | lbs | | | 3.00 | 150.00 |
| 581 | | 2 | | | | SERVICE CHARGE Cement | ~~CUBIC FEET~~ 200 SKS | | | | 2.00 | 400.00 |
| 583 | | 2 | | | | MILEAGE CHARGE TOTAL WEIGHT 21050 LOADED MILES 125 | TON MILES 1315.63 | | | | 1.00 | 1315.63 |

CONTINUATION TOTAL 6290.63

LOG

# SWIFT Services, Inc.

DATE 11/20/21 | PAGE NO. 1

CUSTOMER: Downing & Nelson | WELL NO.: 1-19 | LEASE: Buckner | JOB TYPE: Long String | TICKET NO.: 35304

| CHART NO. | TIME | RATE (BPM) | VOLUME (BBL) (GAL) | PUMPS T | PUMPS C | PRESSURE (PSI) TUBING | PRESSURE (PSI) CASING | DESCRIPTION OF OPERATION AND MATERIALS |
|---|---|---|---|---|---|---|---|---|
| | 0545 | | | | | | | On location w/ Float Equipment |
| | | | | | | | | 5½" x 14# |
| | | | | | | | | TD - 4880' |
| | | | | | | | | Total Pipe Ran - 4872.88' |
| | | | | | | | | Shoe Jt - 42.43' |
| | | | | | | | | Baffle Plate - 4830.45' |
| | | | | | | | | Centralizers - 1, 3, 5, 7, 9, 11, 13, 15, 17 |
| | | | | | | | | Basket - 16 |
| | 0830 | | | | | | | Start Pipe w/ FE |
| | 1045 | | | | | | | Break Circulation on Btm |
| | | | | | | | | Hook up to Swift |
| | 1155 | 4 | 12 | | | | 500 | Pump Mud Flush |
| | | 4 | 20 | | | | 500 | Pump KCL Spacer |
| | | 2 | 7 | | | | | Plug Rathole w/ 30 sks |
| | | 2 | 4 | | | | | Plug Mousehole w/ 15 sks |
| | | 4 | | | | | 400 | Start Cmt - EA2 Mix at 15.5 |
| | | 4 | 42 | | | | Vac | Finish Cmt |
| | | | | | | | | Drop Plug |
| | | 3 | 3 | | | | | Washout Pump & Lines |
| | 1225 | 6¼ | ~~118~~ | | | | Vac | Start Displacement |
| | | 6 | 95 | | | | 500 | Catch Cmt |
| | | 6 | 105 | | | | 800 | Lift PSI |
| | 1245 | 6 | 118 | | | | 1500 | Land PSI |
| | | | | | | | | Release Truck, Held. |
| | | | | | | | | Wash up truck |
| | | | | | | | | Rack up |
| | 1315 | | | | | | | Job Complete |
| | | | | | | | | Thanks, |
| | | | | | | | | Jon, Preston, Shane |

# DRILL STEM TEST REPORT

Prepared For: **Downing-Nelson Oil Co Inc.**

PO Box 1019
Hays KS 67601

ATTN: Al Downing

**Buckner #1-19**

**19-5s-36w Rawlins,KS**

Start Date: 2021.11.16 @ 20:53:00

End Date: 2021.11.17 @ 04:55:45

Job Ticket #: 67741 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2021.11.22 @ 14:22:52

# DRILL STEM TEST REPORT

Downing-Nelson Oil Co Inc.
PO Box 1019
Hays KS 67601

ATTN: Al Downing

**19-5s-36w Rawlins,KS**

**Buckner #1-19**

Job Ticket: 67741 **DST#: 1**

Test Start: 2021.11.16 @ 20:53:00

## GENERAL INFORMATION:

Formation: **Altamont C**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 23:27:00
Time Test Ended: 04:55:45

Test Type: Conventional Bottom Hole (Initial)
Tester: Bradley Walter
Unit No: 78

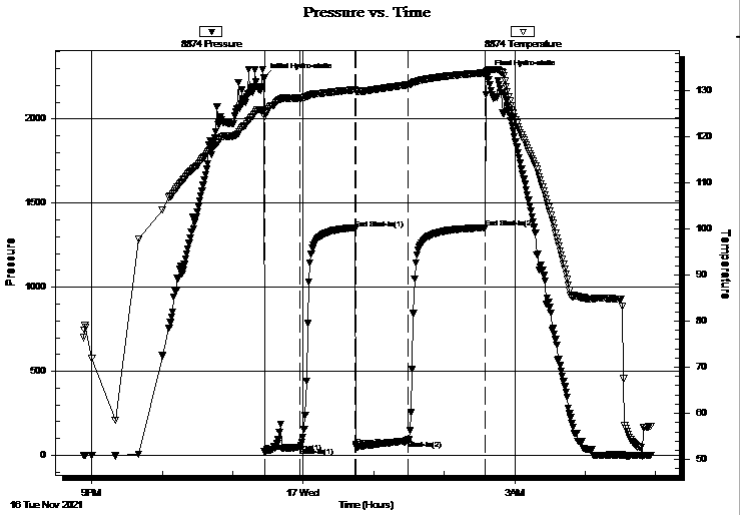
**Interval: 4475.00 ft (KB) To 4525.00 ft (KB) (TVD)**
Total Depth: 4525.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3296.00 ft (KB)
3288.00 ft (CF)
KB to GR/CF: 8.00 ft

**Serial #: 8874** **Inside**

| | | | | | |
|---|---|---|---|---|---|
| Press@RunDepth: | 87.75 psig @ | 4476.00 ft (KB) | | Capacity: | 8000.00 psig |
| Start Date: | 2021.11.16 | End Date: | 2021.11.17 | Last Calib.: | 2021.11.17 |
| Start Time: | 20:53:05 | End Time: | 04:55:44 | Time On Btm: | 2021.11.16 @ 23:26:45 |
| | | | | Time Off Btm: | 2021.11.17 @ 02:37:00 |

TEST COMMENT:
IF: BOB @ 19 min. 17"
ISI: No return.
FF: BOB @ 10 min. 39"
FSI: 1" return. 30-45-45-60




## PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|---|---|---|---|
| 0 | 2242.93 | 125.66 | Initial Hydro-static |
| 1 | 21.52 | 124.27 | Open To Flow (1) |
| 31 | 49.85 | 128.35 | Shut-In(1) |
| 78 | 1343.98 | 130.13 | End Shut-In(1) |
| 79 | 52.13 | 129.82 | Open To Flow (2) |
| 123 | 87.75 | 131.21 | Shut-In(2) |
| 188 | 1353.35 | 133.79 | End Shut-In(2) |
| 191 | 2261.31 | 134.31 | Final Hydro-static |

## Recovery

| Length (ft) | Description | Volume (bbl) |
|---|---|---|
| 130.00 | gmco 25g 25m 50o | 1.54 |
| 70.00 | go 10g 90o | 0.98 |
| 0.00 | 280' GIP | 0.00 |
| | | |
| | | |
| | | |

## Gas Rates

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

# DRILL STEM TEST REPORT

Downing-Nelson Oil Co Inc.

PO Box 1019
Hays KS 67601

ATTN: Al Downing

**19-5s-36w Rawlins,KS**

**Buckner #1-19**

Job Ticket: 67741 **DST#: 1**

Test Start: 2021.11.16 @ 20:53:00

## GENERAL INFORMATION:

Formation: **Altamont C**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 23:27:00
Time Test Ended: 04:55:45

Test Type: Conventional Bottom Hole (Initial)
Tester: Bradley Walter
Unit No: 78

**Interval: 4475.00 ft (KB) To 4525.00 ft (KB) (TVD)**
Total Depth: 4525.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

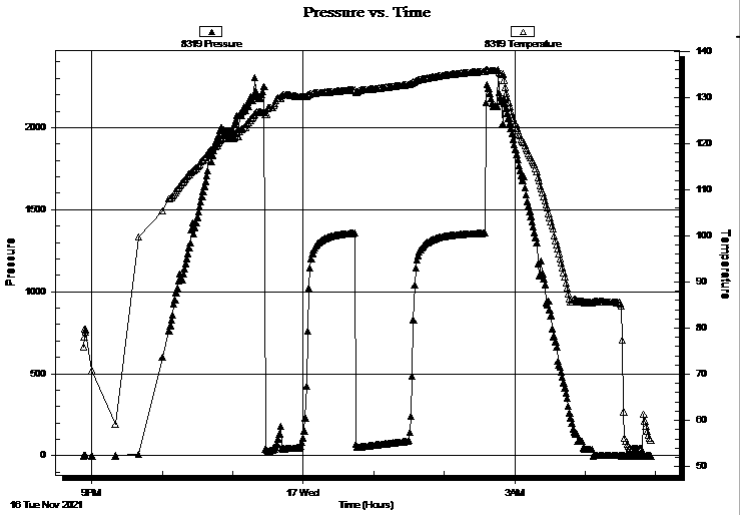
Reference Elevations: 3296.00 ft (KB)
3288.00 ft (CF)
KB to GR/CF: 8.00 ft

**Serial #: 8319** **Outside**

Press@RunDepth: psig @ 4476.00 ft (KB)
Start Date: 2021.11.16 End Date: 2021.11.17
Start Time: 20:53:05 End Time: 04:55:44

Capacity: 8000.00 psig
Last Calib.: 2021.11.17
Time On Btm:
Time Off Btm:

TEST COMMENT:
IF: BOB @ 19 min. 17"
ISI: No return.
FF: BOB @ 10 min. 39"
FSI: 1" return. 30-45-45-60




## PRESSURE SUMMARY

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

## Recovery

| Length (ft) | Description | Volume (bbl) |
|---|---|---|
| 130.00 | gmco 25g 25m 50o | 1.54 |
| 70.00 | go 10g 90o | 0.98 |
| 0.00 | 280' GIP | 0.00 |
| | | |
| | | |
| | | |

## Gas Rates

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

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Downing-Nelson Oil Co Inc.

PO Box 1019
Hays KS 67601

ATTN: Al Downing

**19-5s-36w Rawlins,KS**

**Buckner #1-19**

Job Ticket: 67741 **DST#: 1**

Test Start: 2021.11.16 @ 20:53:00

## Tool Information

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Drill Pipe: | Length: | 4456.00 ft | Diameter: | 3.80 | inches | Volume: | 62.51 | bbl | Tool Weight: | 2500.00 lb |
| Heavy Wt. Pipe: | Length: | 0.00 ft | Diameter: | 0.00 | inches | Volume: | 0.00 | bbl | Weight set on Packer: | 25000.00 lb |
| Drill Collar: | Length: | 31.00 ft | Diameter: | 2.25 | inches | Volume: | 0.15 | bbl | Weight to Pull Loose: | 78000.00 lb |
| | | | | | | Total Volume: | 62.66 | bbl | Tool Chased | 0.00 ft |
| Drill Pipe Above KB: | | 32.00 ft | | | | | | | String Weight: Initial | 64000.00 lb |
| Depth to Top Packer: | | 4475.00 ft | | | | | | | Final | 66000.00 lb |
| Depth to Bottom Packer: | | ft | | | | | | | | |
| Interval between Packers: | | 50.00 ft | | | | | | | | |
| Tool Length: | | 70.00 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 | | | 4456.00 | | |
| Shut In Tool | 5.00 | | Fluid | 4461.00 | | |
| Hydraulic tool | 5.00 | | | 4466.00 | | |
| Packer | 5.00 | | Inside | 4471.00 | 20.00 | Bottom Of Top Packer |
| Packer | 4.00 | | | 4475.00 | | |
| Stubb | 1.00 | | | 4476.00 | | |
| Recorder | 0.00 | 8874 | Inside | 4476.00 | | |
| Recorder | 0.00 | 8319 | Outside | 4476.00 | | |
| Perforations | 13.00 | | | 4489.00 | | |
| Change Over Sub | 1.00 | | | 4490.00 | | |
| Drill Pipe | 31.00 | | | 4521.00 | | |
| Change Over Sub | 1.00 | | | 4522.00 | | |
| Bullnose | 3.00 | | | 4525.00 | 50.00 | Bottom Packers & Anchor |
| **Total Tool Length:** | **70.00** | | | | | |

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Downing-Nelson Oil Co Inc.

PO Box 1019
Hays KS 67601

ATTN: Al Downing

**19-5s-36w Rawlins,KS**

**Buckner #1-19**

Job Ticket: 67741 **DST#: 1**

Test Start: 2021.11.16 @ 20:53:00

## Mud and Cushion Information

| | | | | | |
|---|---|---|---|---|---|
| Mud Type: | Gel Chem | Cushion Type: | | Oil API: | 26 deg API |
| Mud Weight: | 9.00 lb/gal | Cushion Length: | ft | Water Salinity: | 0 ppm |
| Viscosity: | 58.00 sec/qt | Cushion Volume: | bbl | | |
| Water Loss: | 8.78 in³ | Gas Cushion Type: | | | |
| Resistivity: | ohm.m | Gas Cushion Pressure: | psig | | |
| Salinity: | 900.00 ppm | | | | |
| Filter Cake: | 1.00 inches | | | | |

## Recovery Information

Recovery Table

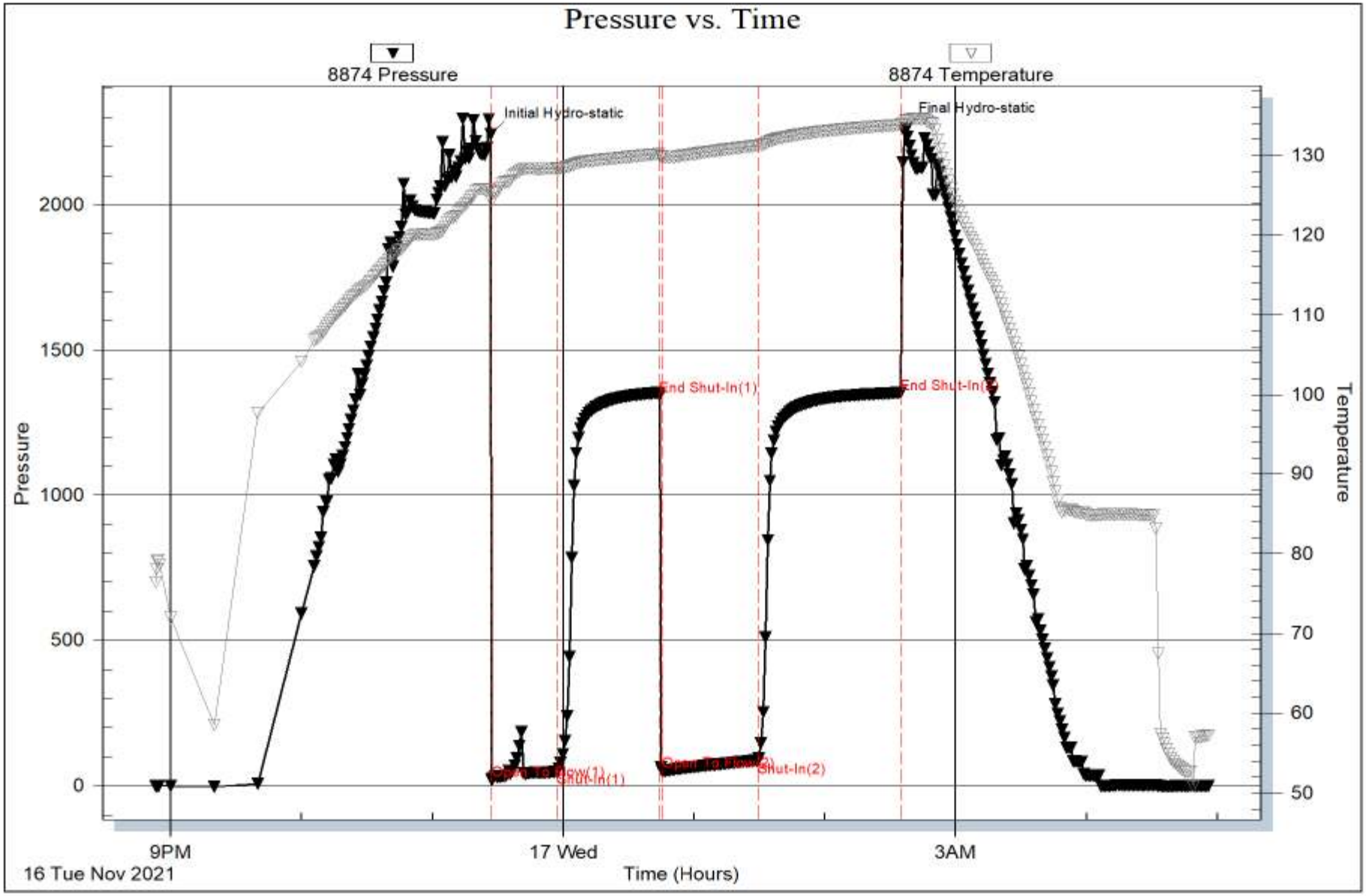
| Length ft | Description | Volume bbl |
|---|---|---|
| 130.00 | gmco 25g 25m 50o | 1.541 |
| 70.00 | go 10g 90o | 0.982 |
| 0.00 | 280' GIP | 0.000 |

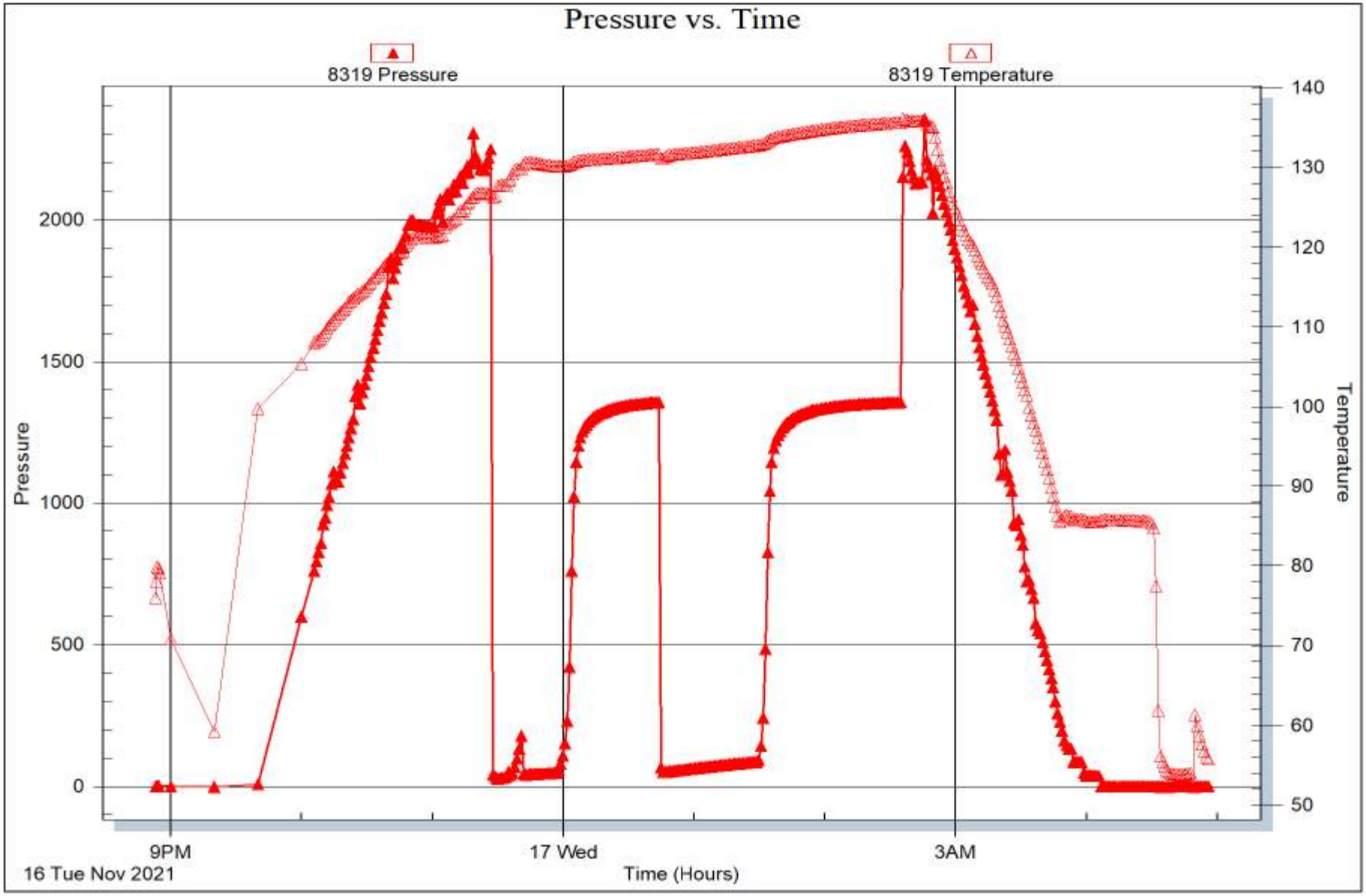
Total Length: 200.00 ft Total Volume: 2.523 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:


Pressure vs. Time
8874 Pressure
8874 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
Shut-In(2)
Pressure
Temperature
2000
1500
1000
500
0
130
120
110
100
90
80
70
60
50
9PM
16 Tue Nov 2021
17 Wed
3AM
Time (Hours)


Pressure vs. Time
8319 Pressure
8319 Temperature
Pressure
Temperature
2000
1500
1000
500
0
140
130
120
110
100
90
80
70
60
50
9PM
16 Tue Nov 2021
17 Wed
3AM
Time (Hours)

# DRILL STEM TEST REPORT

Prepared For: **Downing-Nelson Oil Co Inc.**

PO Box 1019
Hays KS 67601

ATTN: Al Downing

**Buckner #1-19**

**19-5s-36w Rawlins,KS**

Start Date: 2021.11.17 @ 16:14:00
End Date: 2021.11.17 @ 23:27:45
Job Ticket #: 67742 DST #: 2

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

Printed: 2021.11.22 @ 14:22:22

# DRILL STEM TEST REPORT

Downing-Nelson Oil Co Inc.

PO Box 1019
Hays KS 67601

ATTN: Al Downing

**19-5s-36w Rawlins,KS**

**Buckner #1-19**

Job Ticket: 67742 **DST#: 2**

Test Start: 2021.11.17 @ 16:14:00

## GENERAL INFORMATION:

Formation: **Pawnee**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 18:19:45
Time Test Ended: 23:27:45

Test Type: Conventional Bottom Hole (Reset)
Tester: Bradley Walter
Unit No: 78

**Interval: 4525.00 ft (KB) To 4575.00 ft (KB) (TVD)**
Total Depth: 4575.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

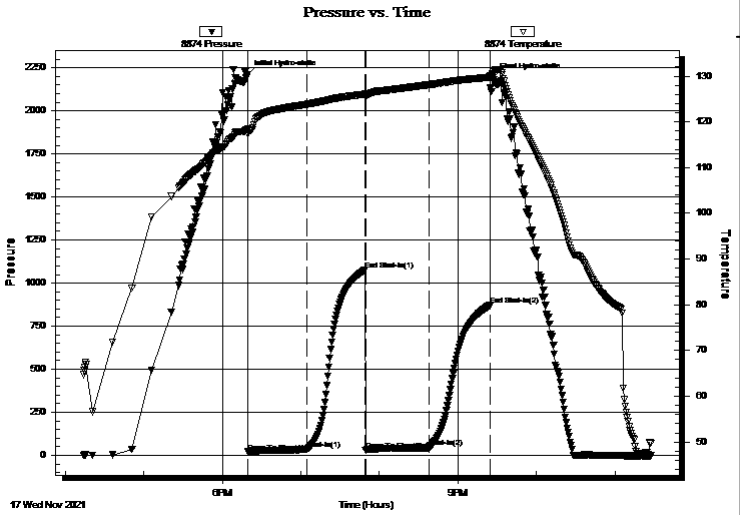
Reference Elevations: 3296.00 ft (KB)
3288.00 ft (CF)
KB to GR/CF: 8.00 ft

**Serial #: 8874** **Inside**

Press@RunDepth: 45.49 psig @ 4526.00 ft (KB)
Start Date: 2021.11.17 End Date: 2021.11.17
Start Time: 16:14:05 End Time: 23:27:44

Capacity: 8000.00 psig
Last Calib.: 2021.11.17
Time On Btm: 2021.11.17 @ 18:19:30
Time Off Btm: 2021.11.17 @ 21:26:45

TEST COMMENT: IF: 9" blow.
ISI: No return.
FF: 8.5" blow.
FSI: No return 45-45-45-45




## PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|---|---|---|---|
| 0 | 2212.04 | 118.49 | Initial Hydro-static |
| 1 | 20.30 | 117.36 | Open To Flow (1) |
| 45 | 33.92 | 123.82 | Shut-In(1) |
| 90 | 1075.73 | 126.03 | End Shut-In(1) |
| 90 | 30.24 | 125.77 | Open To Flow (2) |
| 139 | 45.49 | 128.11 | Shut-In(2) |
| 185 | 870.71 | 129.76 | End Shut-In(2) |
| 188 | 2193.06 | 130.58 | Final Hydro-static |

## Recovery

| Length (ft) | Description | Volume (bbl) |
|---|---|---|
| 80.00 | gmco 10g 40m 50o | 0.84 |
| | | |
| | | |
| | | |
| | | |
| | | |

* Recovery from multiple tests

## Gas Rates

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

# DRILL STEM TEST REPORT

Downing-Nelson Oil Co Inc.

PO Box 1019
Hays KS 67601

ATTN: Al Downing

**19-5s-36w Rawlins,KS**

**Buckner #1-19**

Job Ticket: 67742 **DST#: 2**

Test Start: 2021.11.17 @ 16:14:00

## GENERAL INFORMATION:

Formation: **Pawnee**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 18:19:45
Time Test Ended: 23:27:45

Test Type: Conventional Bottom Hole (Reset)
Tester: Bradley Walter
Unit No: 78

**Interval: 4525.00 ft (KB) To 4575.00 ft (KB) (TVD)**
Total Depth: 4575.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

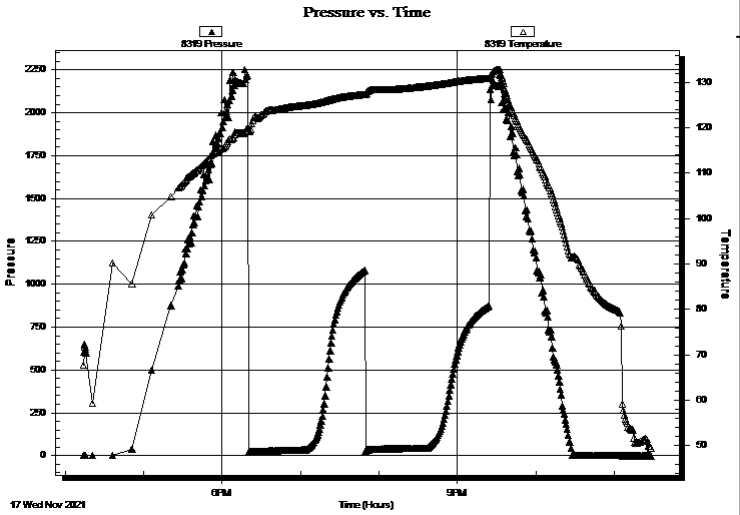
Reference Elevations: 3296.00 ft (KB)
3288.00 ft (CF)
KB to GR/CF: 8.00 ft

**Serial #: 8319** **Outside**

Press@RunDepth: psig @ 4526.00 ft (KB)
Start Date: 2021.11.17 End Date: 2021.11.17
Start Time: 16:14:05 End Time: 23:27:59

Capacity: 8000.00 psig
Last Calib.: 2021.11.17
Time On Btm:
Time Off Btm:

TEST COMMENT:
IF: 9" blow.
ISI: No return.
FF: 8.5" blow.
FSI: No return 45-45-45-45




## PRESSURE SUMMARY

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

## Recovery

| Length (ft) | Description | Volume (bbl) |
|---|---|---|
| 80.00 | gmco 10g 40m 50o | 0.84 |
| | | |
| | | |
| | | |
| | | |
| | | |

* Recovery from multiple tests

## Gas Rates

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

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Downing-Nelson Oil Co Inc.

PO Box 1019
Hays KS 67601

ATTN: Al Downing

**19-5s-36w Rawlins,KS**

**Buckner #1-19**

Job Ticket: 67742 **DST#: 2**

Test Start: 2021.11.17 @ 16:14:00

## Tool Information

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Drill Pipe: | Length: | 4488.00 ft | Diameter: | 3.80 | inches | Volume: | 62.95 | bbl | Tool Weight: | 2500.00 lb |
| Heavy Wt. Pipe: | Length: | 0.00 ft | Diameter: | 0.00 | inches | Volume: | 0.00 | bbl | Weight set on Packer: | 25000.00 lb |
| Drill Collar: | Length: | 31.00 ft | Diameter: | 2.25 | inches | Volume: | 0.15 | bbl | Weight to Pull Loose: | 80000.00 lb |
| | | | | | | Total Volume: | 63.10 | bbl | Tool Chased | 0.00 ft |
| Drill Pipe Above KB: | | 14.00 ft | | | | | | | String Weight: Initial | 65000.00 lb |
| Depth to Top Packer: | | 4525.00 ft | | | | | | | Final | 66000.00 lb |
| Depth to Bottom Packer: | | ft | | | | | | | | |
| Interval between Packers: | | 50.00 ft | | | | | | | | |
| Tool Length: | | 70.00 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 | | | 4506.00 | | |
| Shut In Tool | 5.00 | | Fluid | 4511.00 | | |
| Hydraulic tool | 5.00 | | | 4516.00 | | |
| Packer | 5.00 | | Inside | 4521.00 | 20.00 | Bottom Of Top Packer |
| Packer | 4.00 | | | 4525.00 | | |
| Stubb | 1.00 | | | 4526.00 | | |
| Recorder | 0.00 | 8874 | Inside | 4526.00 | | |
| Recorder | 0.00 | 8319 | Outside | 4526.00 | | |
| Perforations | 13.00 | | | 4539.00 | | |
| Change Over Sub | 1.00 | | | 4540.00 | | |
| Drill Pipe | 31.00 | | | 4571.00 | | |
| Change Over Sub | 1.00 | | | 4572.00 | | |
| Bullnose | 3.00 | | | 4575.00 | 50.00 | Bottom Packers & Anchor |
| **Total Tool Length:** | **70.00** | | | | | |

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Downing-Nelson Oil Co Inc.

PO Box 1019
Hays KS 67601

ATTN: Al Downing

**19-5s-36w Rawlins,KS**

**Buckner #1-19**

Job Ticket: 67742 **DST#: 2**

Test Start: 2021.11.17 @ 16:14:00

## Mud and Cushion Information

| | | | | | |
|---|---|---|---|---|---|
| Mud Type: | Gel Chem | Cushion Type: | | Oil API: | 0 deg API |
| Mud Weight: | 9.00 lb/gal | Cushion Length: | ft | Water Salinity: | 0 ppm |
| Viscosity: | 61.00 sec/qt | Cushion Volume: | bbl | | |
| Water Loss: | 8.78 in³ | Gas Cushion Type: | | | |
| Resistivity: | ohm.m | Gas Cushion Pressure: | psig | | |
| Salinity: | 900.00 ppm | | | | |
| Filter Cake: | 1.00 inches | | | | |

## Recovery Information

Recovery Table

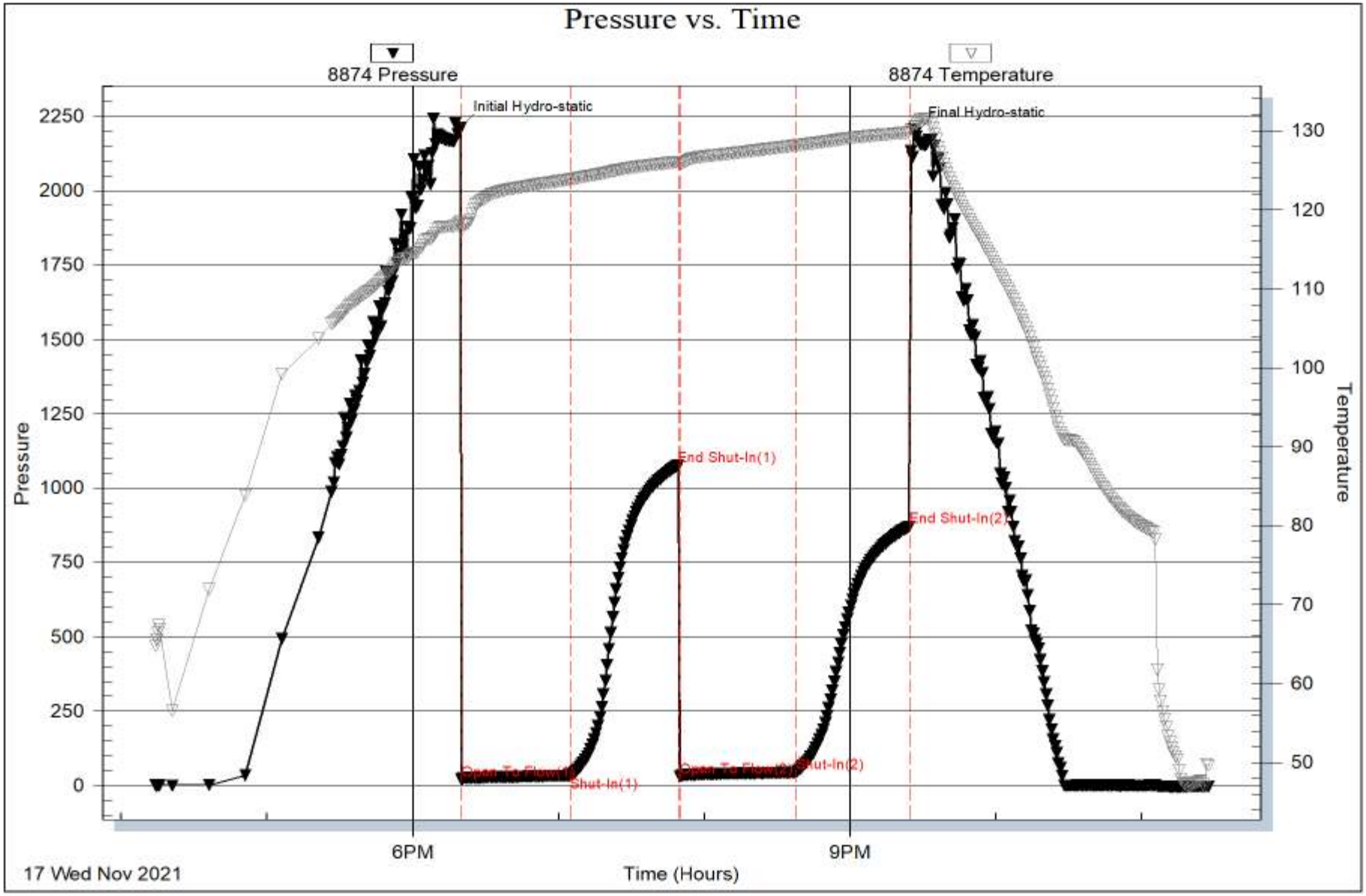
| Length ft | Description | Volume bbl |
|---|---|---|
| 80.00 | gmco 10g 40m 50o | 0.840 |

Total Length: 80.00 ft Total Volume: 0.840 bbl

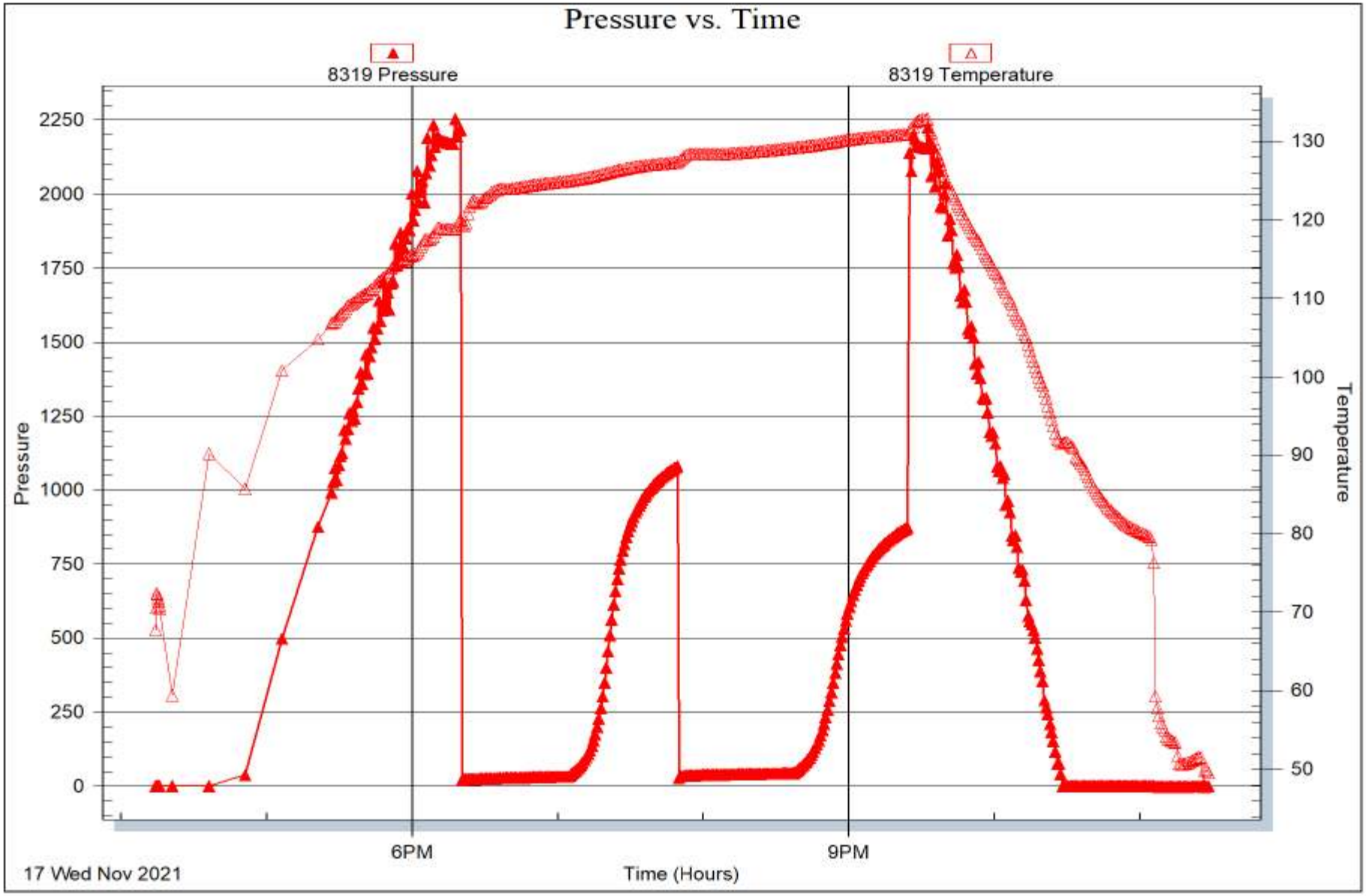
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments:


Pressure vs. Time
8874 Pressure
8874 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Shut-In(1)
Shut-In(2)
Pressure
Temperature
2250
2000
1750
1500
1250
1000
750
500
250
0
130
120
110
100
90
80
70
60
50
6PM
9PM
17 Wed Nov 2021
Time (Hours)

Serial #: 8319 **Outside** Downing-Nelson Oil Co Inc. Buckner #1-19 DST Test Number: 2




Trilobite Testing, Inc Ref. No: 67742 Printed: 2021.11.22 @ 14:22:23

# DRILL STEM TEST REPORT

Prepared For: **Downing-Nelson Oil Co Inc.**

PO Box 1019
Hays KS 67601

ATTN: Al Downing

**Buckner #1-19**

**19-5s-36w Rawlins,KS**

Start Date: 2021.11.18 @ 11:15:00

End Date: 2021.11.18 @ 19:26:30

Job Ticket #: 67743 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2021.11.22 @ 14:18:09

# DRILL STEM TEST REPORT

Downing-Nelson Oil Co Inc.
PO Box 1019
Hays KS 67601

ATTN: Al Downing

**19-5s-36w Rawlins,KS**

**Buckner #1-19**

Job Ticket: 67743 **DST#: 3**

Test Start: 2021.11.18 @ 11:15:00

## GENERAL INFORMATION:

Formation: **Cherokee Lime**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 13:21:45
Time Test Ended: 19:26:30

Test Type: Conventional Bottom Hole (Reset)
Tester: Bradley Walter
Unit No: 78

**Interval: 4615.00 ft (KB) To 4648.00 ft (KB) (TVD)**
Total Depth: 4648.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

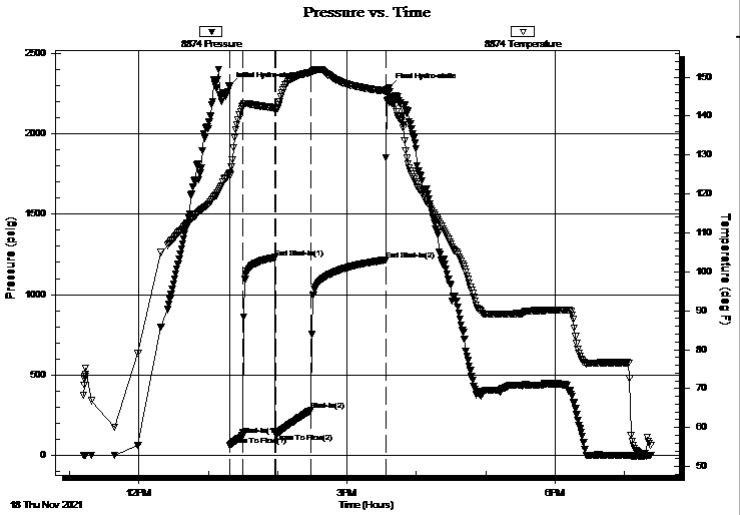
Reference Elevations: 3296.00 ft (KB)
3288.00 ft (CF)
KB to GR/CF: 8.00 ft

**Serial #: 8874** **Inside**

Press@RunDepth: 280.99 psig @ 4616.00 ft (KB)
Start Date: 2021.11.18 End Date: 2021.11.18
Start Time: 11:12:05 End Time: 19:23:29

Capacity: 8000.00 psig
Last Calib.: 2021.11.18
Time On Btm: 2021.11.18 @ 13:18:15
Time Off Btm: 2021.11.18 @ 15:36:15

TEST COMMENT: IF: BOB @ 2 min. 37.8"
ISI: 20.8" return.
FF: 84" blow .
FSI: 14.3" return 10-30-30-60




## PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|---|---|---|---|
| 0 | 2297.78 | 125.27 | Initial Hydro-static |
| 1 | 61.91 | 124.78 | Open To Flow (1) |
| 12 | 121.20 | 142.45 | Shut-In(1) |
| 40 | 1231.25 | 142.10 | End Shut-In(1) |
| 40 | 135.01 | 141.78 | Open To Flow (2) |
| 71 | 280.99 | 151.24 | Shut-In(2) |
| 136 | 1215.30 | 146.42 | End Shut-In(2) |
| 138 | 2285.86 | 143.79 | Final Hydro-static |

## Recovery

| Length (ft) | Description | Volume (bbl) |
|---|---|---|
| 121.00 | gmco 20g 35m 45o | 1.41 |
| 760.00 | go 30g 70o | 10.66 |
| 0.00 | 1200' GIP | 0.00 |
| | | |
| | | |
| | | |

* Recovery from multiple tests

## Gas Rates

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

# DRILL STEM TEST REPORT

Downing-Nelson Oil Co Inc.

PO Box 1019
Hays KS 67601

ATTN: Al Downing

**19-5s-36w Rawlins,KS**

**Buckner #1-19**

Job Ticket: 67743 **DST#: 3**

Test Start: 2021.11.18 @ 11:15:00

## GENERAL INFORMATION:

Formation: **Cherokee Lime**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 13:21:45
Time Test Ended: 19:26:30

Test Type: Conventional Bottom Hole (Reset)
Tester: Bradley Walter
Unit No: 78

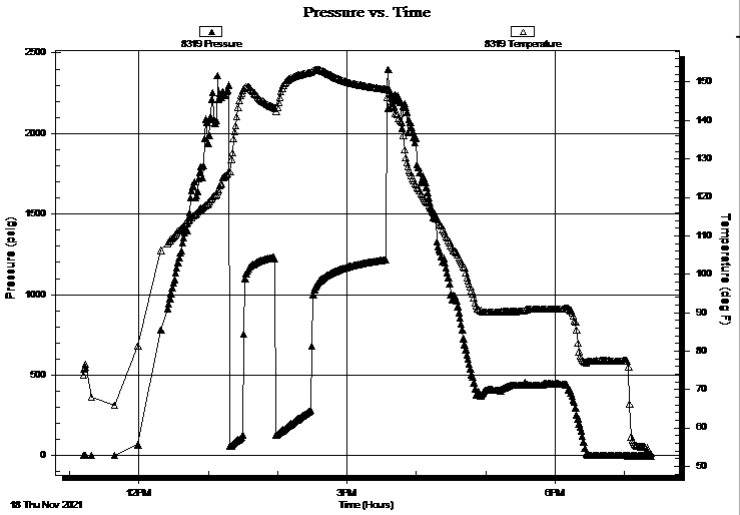
**Interval: 4615.00 ft (KB) To 4648.00 ft (KB) (TVD)**
Total Depth: 4648.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3296.00 ft (KB)
3288.00 ft (CF)
KB to GR/CF: 8.00 ft

**Serial #: 8319** **Outside**

| | | | | | |
|---|---|---|---|---|---|
| Press@RunDepth: | psig @ | 4616.00 ft (KB) | | Capacity: | 8000.00 psig |
| Start Date: | 2021.11.18 | End Date: | 2021.11.18 | Last Calib.: | 2021.11.18 |
| Start Time: | 11:12:05 | End Time: | 19:23:14 | Time On Btm: | |
| | | | | Time Off Btm: | |

TEST COMMENT: IF: BOB @ 2 min. 37.8"
ISI: 20.8" return.
FF: 84" blow .
FSI: 14.3" return 10-30-30-60




## PRESSURE SUMMARY

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

## Recovery

| Length (ft) | Description | Volume (bbl) |
|---|---|---|
| 121.00 | gmco 20g 35m 45o | 1.41 |
| 760.00 | go 30g 70o | 10.66 |
| 0.00 | 1200' GIP | 0.00 |
| | | |
| | | |
| | | |

* Recovery from multiple tests

## Gas Rates

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

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Downing-Nelson Oil Co Inc.

PO Box 1019
Hays KS 67601

ATTN: Al Downing

**19-5s-36w Rawlins,KS**

**Buckner #1-19**

Job Ticket: 67743 **DST#: 3**

Test Start: 2021.11.18 @ 11:15:00

## Tool Information

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Drill Pipe: | Length: | 4578.00 ft | Diameter: | 3.80 | inches | Volume: | 64.22 | 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: | 31.00 ft | Diameter: | 2.25 | inches | Volume: | 0.15 | bbl | Weight to Pull Loose: | 85000.00 lb |
| | | | | | | Total Volume: | 64.37 | bbl | Tool Chased | 0.00 ft |
| Drill Pipe Above KB: | | 14.00 ft | | | | | | | String Weight: Initial | 66000.00 lb |
| Depth to Top Packer: | | 4615.00 ft | | | | | | | Final | 68000.00 lb |
| Depth to Bottom Packer: | | ft | | | | | | | | |
| Interval between Packers: | | 33.00 ft | | | | | | | | |
| Tool Length: | | 53.00 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 | | | 4596.00 | | |
| Shut In Tool | 5.00 | | Fluid | 4601.00 | | |
| Hydraulic tool | 5.00 | | | 4606.00 | | |
| Packer | 5.00 | | Inside | 4611.00 | 20.00 | Bottom Of Top Packer |
| Packer | 4.00 | | | 4615.00 | | |
| Stubb | 1.00 | | | 4616.00 | | |
| Recorder | 0.00 | 8874 | Inside | 4616.00 | | |
| Recorder | 0.00 | 8319 | Outside | 4616.00 | | |
| Perforations | 29.00 | | | 4645.00 | | |
| Bullnose | 3.00 | | | 4648.00 | 33.00 | Bottom Packers & Anchor |
| **Total Tool Length:** | **53.00** | | | | | |

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Downing-Nelson Oil Co Inc.

PO Box 1019
Hays KS 67601

ATTN: Al Downing

**19-5s-36w Rawlins,KS**

**Buckner #1-19**

Job Ticket: 67743 **DST#: 3**

Test Start: 2021.11.18 @ 11:15:00

## Mud and Cushion Information

| | | | | | |
|---|---|---|---|---|---|
| Mud Type: | Gel Chem | Cushion Type: | | Oil API: | 28 deg API |
| Mud Weight: | 9.00 lb/gal | Cushion Length: | ft | Water Salinity: | 0 ppm |
| Viscosity: | 58.00 sec/qt | Cushion Volume: | bbl | | |
| Water Loss: | 8.78 in³ | Gas Cushion Type: | | | |
| Resistivity: | ohm.m | Gas Cushion Pressure: | psig | | |
| Salinity: | 900.00 ppm | | | | |
| Filter Cake: | 1.00 inches | | | | |

## Recovery Information

Recovery Table

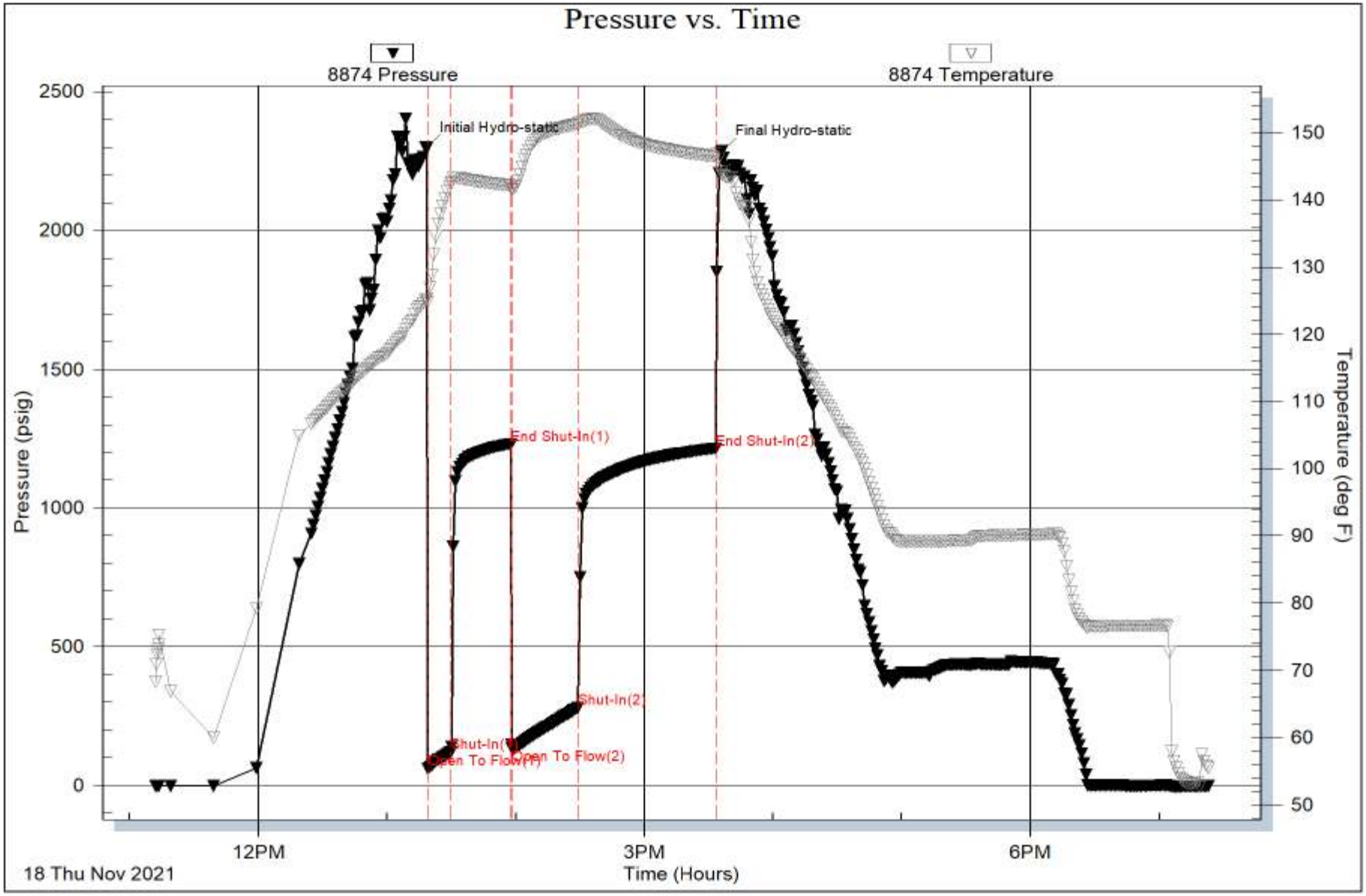
| Length ft | Description | Volume bbl |
|---|---|---|
| 121.00 | gmco 20g 35m 45o | 1.415 |
| 760.00 | go 30g 70o | 10.661 |
| 0.00 | 1200' GIP | 0.000 |

Total Length: 881.00 ft Total Volume: 12.076 bbl

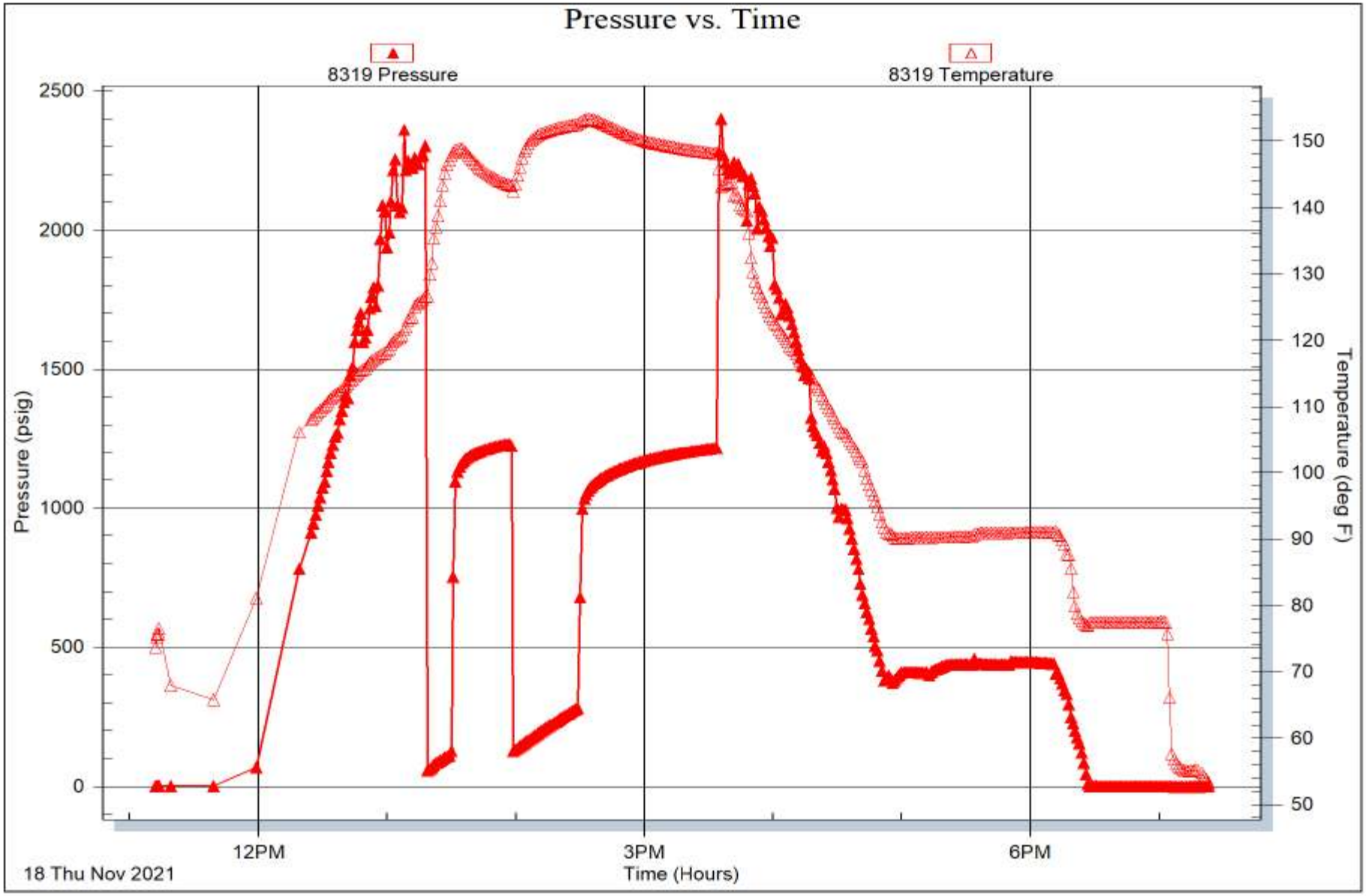
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments:


Pressure vs. Time
8874 Pressure
8874 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Shut-In(2)
Open To Flow(2)
Pressure (psig)
Temperature (deg F)
2500
2000
1500
1000
500
0
150
140
130
120
110
100
90
80
70
60
50
12PM
3PM
6PM
Time (Hours)
18 Thu Nov 2021

Serial #: 8319 **Outside** Downing-Nelson Oil Co Inc. Buckner #1-19 DST Test Number: 3




Trilobite Testing, Inc Ref. No: 67743 Printed: 2021.11.22 @ 14:18:10

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

4/10

# Test Ticket

NO. 67741

Well Name & No. Buckner #1-19 Test No. 1 Date 11/17/2021
Company Downing-Nelson Oil Co, Inc Elevation 3296 KB 3288 GL
Address PO Box 1019 Hays Ks 67601
Co. Rep / Geo. Al Downing Rig Discovery 4
Location: Sec. 19 Twp 5s Rge. 36w Co. Rawlins State Ks

Interval Tested 4475-4525 Zone Tested Altamont C
Anchor Length 50' Drill Pipe Run 4456 Mud Wt. 9.3
Top Packer Depth 4470 Drill Collars Run 31 Vis 58
Bottom Packer Depth 4475 Wt. Pipe Run Ø WL 8.8
Total Depth 4525 Chlorides 900 ppm System LCM 3#

Blow Description IF: BOB@ 19 min 17"
ISI: No return.
FF: BOB@ 10 min 39"
FSI: 1" return.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Rec | 70 | Feet of | GO | 10 | %gas | 90 | %oil | %water | %mud |
| Rec | 130 | Feet of | GMCO | 25 | %gas | 50 | %oil | %water | 25 %mud |
| Rec | | Feet of | 280' GIP | | %gas | | %oil | %water | %mud |
| Rec | | Feet of | | | %gas | | %oil | %water | %mud |
| Rec | | Feet of | | | %gas | | %oil | %water | %mud |

Rec Total 200 BHT 134 Gravity 26 API RW — @ — °F Chlorides ____ ppm

| | | | | | |
|---|---|---|---|---|---|
| (A) Initial Hydrostatic | 2243 | ☒ Test | 1450 | T-On Location | 1930 |
| (B) First Initial Flow | 21 | ☐ Jars | | T-Started | 2053 |
| (C) First Final Flow | 49 | ☐ Safety Joint | | T-Open | 2328 |
| (D) Initial Shut-In | 1343 | ☐ Circ Sub | | T-Pulled | 0244 |
| (E) Second Initial Flow | 52 | ☐ Hourly Standby | | T-Out | |
| (F) Second Final Flow | 87 | ☒ Mileage | 117rt 146.25 | Comments | |
| (G) Final Shut-In | 1353 | ☐ Sampler | | | |
| (H) Final Hydrostatic | 2261 | ☐ Straddle | | ☐ EM Tool | |
| | | ☐ Shale Packer | | ☐ Ruined Shale Packer | |
| Initial Open | | ☐ Extra Packer | | ☐ Ruined Packer | |
| Initial Shut-In | | ☐ Extra Recorder | | ☐ Extra Copies | |
| Final Flow | | ☐ Day Standby | | Sub Total | 0 |
| Final Shut-In | | ☐ Accessibility | | Total | 1596.25 |
| | | Sub Total | 1596.25 | MP/DST Disc't | |

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.

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

4/10

# Test Ticket

NO. 67742

Well Name & No. Buckner #1-19 Test No. 2 Date 11/17/2021
Company Downing Nelson Oil Co, Inc Elevation 3296 KB 3288 GL
Address PO Box 1019 Hays Ks 67601
Co. Rep / Geo. Alan Downing Rig Discovery 4
Location: Sec. 19 Twp 5s Rge. 31w Co. Rawlins State Ks

Interval Tested 4525-4575 Zone Tested Pawnee
Anchor Length 50' Drill Pipe Run 4488 Mud Wt. 9.0
Top Packer Depth 4520 Drill Collars Run ~~0~~ 31' Vis 61
Bottom Packer Depth 4525 Wt. Pipe Run ~~0~~ WL 8.8
Total Depth 4575 Chlorides 900 ppm System LCM 3#

Blow Description IF 9" blow
ISI No return
FF 8.5" blow
FSI No return.

| | | | | | | |
|---|---|---|---|---|---|---|
| Rec 80 | Feet of GMCO | 10 %gas | 50 %oil | %water | 40 %mud |
| 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 80 BHT 130 Gravity — API RW — @ — °F Chlorides — ppm

| | | | | | |
|---|---|---|---|---|---|
| (A) Initial Hydrostatic | 2212 | ☒ Test | 1450 | T-On Location | 1600 |
| (B) First Initial Flow | 20 | ☐ Jars | | T-Started | 1614 |
| (C) First Final Flow | 33 | ☐ Safety Joint | | T-Open | 1819 |
| (D) Initial Shut-In | 1075 | ☐ Circ Sub | | T-Pulled | 2121 |
| (E) Second Initial Flow | 30 | ☐ Hourly Standby | | T-Out | 2328 |
| (F) Second Final Flow | 45 | ☒ Mileage | | Comments | |
| (G) Final Shut-In | 870 | ☐ Sampler | | | |
| (H) Final Hydrostatic | 2193 | ☐ Straddle | | | |
| | | ☐ Shale Packer | | ☐ EM Tool | |
| Initial Open | 45 | ☐ Extra Packer | | ☐ Ruined Shale Packer | |
| Initial Shut-In | 45 | ☐ Extra Recorder | | ☐ Ruined Packer | |
| Final Flow | 45 | ☐ Day Standby | | ☐ Extra Copies | |
| Final Shut-In | 45 | ☐ Accessibility | | Sub Total | |
| | | Sub Total | | Total | |
| | | | | MP/DST Disc't | |

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.

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

# Test Ticket

NO. 67743

Well Name & No. Buckner #1-19 Test No. 3 Date 11/18/2021
Company Pearing Nelson Oil Co, Inc Elevation 3296 KB 3288 GL
Address PO Box 1019 Hays Ks 67601
Co. Rep / Geo. Jason Alm Rig Discovery #4
Location: Sec. 19 Twp 5s Rge. 31w Co. Rawlins State Ks

Interval Tested 4615 - 4648 Zone Tested Cherokee Lime
Anchor Length 33' Drill Pipe Run 4578 Mud Wt. 9.1
Top Packer Depth 4610 Drill Collars Run 31 Vis 60
Bottom Packer Depth 4615 Wt. Pipe Run — WL 8.8
Total Depth 4648 Chlorides 900 ppm System LCM 3#

Blow Description IF BOB @ 2 min - 37.8" blow.
ISI 20.8" return.
FF 84" blow
FSI 14.3" return.

| | | | | | | |
|---|---|---|---|---|---|---|
| Rec 760 | Feet of GO | 30 %gas | 70 %oil | %water | %mud |
| Rec 121 | Feet of GMCO | 20 %gas | 45 %oil | %water | 35 %mud |
| Rec | Feet of 1200' GIP | %gas | %oil | %water | %mud |
| Rec | Feet of | %gas | %oil | %water | %mud |
| Rec | Feet of | %gas | %oil | %water | %mud |

Rec Total 881 BHT 144 Gravity 28 API RW — @ — °F Chlorides — ppm

| | | | | | |
|---|---|---|---|---|---|
| (A) Initial Hydrostatic | 2298 | ☒ Test | 1450 | T-On Location | 1030 |
| (B) First Initial Flow | 61 | ☐ Jars | | T-Started | 1195 |
| (C) First Final Flow | 121 | ☐ Safety Joint | | T-Open | 1316 |
| (D) Initial Shut-In | 1231 | ☒ Circ Sub | used 50 | T-Pulled | 1529 |
| (E) Second Initial Flow | 135 | ☐ Hourly Standby | | T-Out | |
| (F) Second Final Flow | 280 | ☒ Mileage | 146.25 | Comments | |
| (G) Final Shut-In | 1215 | ☐ Sampler | | | |
| (H) Final Hydrostatic | 2285 | ☐ Straddle | | ☐ EM Tool | |
| | | ☐ Shale Packer | | ☐ Ruined Shale Packer | |
| Initial Open | 10 | ☐ Extra Packer | | ☒ Ruined Packer | 335 |
| Initial Shut-In | 30 | ☐ Extra Recorder | | ☐ Extra Copies | |
| Final Flow | 30 | ☐ Day Standby | | Sub Total | 335 |
| Final Shut-In | 60 | ☐ Accessibility | | Total | 1981.25 |
| | | Sub Total | 1646.25 | MP/DST Disc't | |

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.

| Marc A. Downing<br>Consulting Petroleum Geologist | Geologic Report<br>Drilling Time and Sample Log |
|---|---|

Operator **Downing-Nelson Oil Co., Inc.**

Lease **Buckner** No. **1-19**

API # **15-153-21273-0000**

Field **Wildcat**

Location **1100' FNL & 1889' FEL**

Sec. **19** Twp. **5s** Rge. **30w**

County **Rawlins** State **Kansas**

| Formation | Sample tops | Log Tops | Datum | Structural Comp |
|---|---|---|---|---|
| Top Sabetha | 2000 | 2000 | 1247 | |
| Base Sabetha | 2038 | 2037 | +210 | 9.5 |
| | | | | |
| Foraker | 2080 | 2080 | +202 | +12 |
| Topeka | 2968 | 2968 | -676 | +12 |
| Heebner | 3235 | 3235 | -943 | +12 |
| Toronto | 3257 | 3257 | -965 | +12 |
| Lansing | 3290 | 3279 | -987 | +12 |
| BKC | 3655 | 3655 | -1338 | +12 |
| Marmaton | 4048 | 4048 | -1731 | +12 |
| Pawnee | 4098 | 4098 | -1781 | +12 |
| Cherokee Sh | 4026 | 4026 | -1709 | +12 |
| Mississ | 4200 | 4200 | -1883 | +14 |
| Mississippi | 4821 | 4821 | -2504 | +19 |
| | | | | |
| Total Depth | 4880 | 4880 | -2564 | |

Reference Well For Structural Comparison
G. W. Sil, Sec. 19-5s-30w

**Picked - Production '47-91**

Drilling Contractor **Discovery Drilling, Rig #4**

| | | | |
|---|---|---|---|
| Commenced | 11-11-21 | Completed | 11-19-21 |
| Samples Saved From | 3650 | To | RTD |
| Drilling Time Kept From | 3500 | To | RTD |
| Samples Examined From | 3650 | To | RTD |
| Sheological Supervision From | 3650 | To | RTD |

**Elevation**
KB **3297**
DF **3295**
GL **3286**

**Casing Record**
Surface **8 5/8" @ 409'**
Production **5 1/2" @ 4879'**

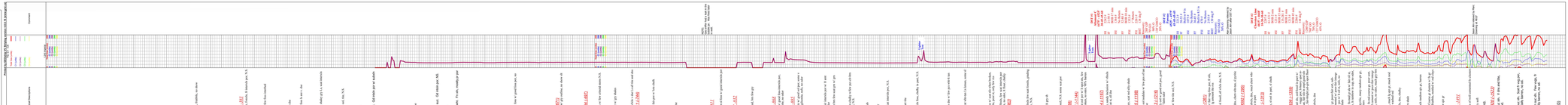
**Electrical Surveys**
**CNDL DIL**
**MEL, Sonic**

## Summary and Recommendations

**Due to structural position, DST recovery, and log evaluation, it was decided to set 5 1/2" production casing for completion.**

Respectfully Submitted,

Marc A. Downing


Drilling Time and Lithology Log 3315-4880 (Geo-Log)
Gamma
Drilling Time
Shows
Lithology
Sample Description
Structural Comparison
Cum. Total Gas
Gas Units
Cum. Total C1
Gas Units
Dolomite
Limestone
Shale
Chert
Sandstone
Porosity
Oil Show
Gas Show
Water Show
Dry Hole
Drilling Break
Sample Shows
Oil Show
Gas Show
Cut Fluor
Cut Fluor
Cut Fluor