

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

Form ACO-1

January 2018

Form must be Typed

Form must be Signed

All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

New Well Re-Entry Workover

Oil WSW SWD

Gas DH EOR

OG GSW

CM (Coal Bed Methane)

Cathodic Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

Deepening Re-perf. Conv. to EOR Conv. to SWD

Plug Back Liner Conv. to GSW Conv. to Producer

Commingled Permit #: _____

Dual Completion Permit #: _____

SWD Permit #: _____

EOR Permit #: _____

GSW Permit #: _____

Spud Date or Date Reached TD Completion Date or Recompletion Date

API No.: _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE NW SE SW

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite:

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

AFFIDAVIT

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

Submitted Electronically

KCC Office Use ONLY

Confidentiality Requested

Date: _____

Confidential Release Date: _____

Wireline Log Received Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT I II III Approved by: _____ Date: _____

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

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

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

| | |
|--|---|
| Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Geologist Report / Mud Logs <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run: | <input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum |
|--|---|

| CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used | | | | | | | |
|---|-------------------|---------------------------|-------------------|---------------|----------------|--------------|----------------------------|
| Report all strings set-conductor, surface, intermediate, production, etc. | | | | | | | |
| Purpose of String | Size Hole Drilled | Size Casing Set (In O.D.) | Weight Lbs. / Ft. | Setting Depth | Type of Cement | # Sacks Used | Type and Percent Additives |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

| ADDITIONAL CEMENTING / SQUEEZE RECORD | | | | |
|--|------------------|----------------|--------------|----------------------------|
| Purpose: | Depth Top Bottom | Type of Cement | # Sacks Used | Type and Percent Additives |
| <input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone | | | | |
| | | | | |

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

| | | | | |
|---|--|---------|-------------|-----------------------|
| Date of first Production/Injection or Resumed Production/Injection: | Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____ | | | |
| Estimated Production Per 24 Hours | Oil Bbls. | Gas Mcf | Water Bbls. | Gas-Oil Ratio Gravity |

| | | |
|---|---|------------------------------------|
| DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i> | METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i> | PRODUCTION INTERVAL: Top Bottom |
|---|---|------------------------------------|

| Shots Per Foot | Perforation Top | Perforation Bottom | Bridge Plug Type | Bridge Plug Set At | Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i> |
|----------------|-----------------|--------------------|------------------|--------------------|---|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

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

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. 2561

| | | | | | | | | | | | | | | | |
|------|----------|------|----|------|----|-------|----|--------|--------|-------|----|-------------|--|--------|----------|
| Date | 10-10-21 | Sec. | 17 | Twp. | 17 | Range | 24 | County | Barton | State | KS | On Location | | Finish | 10:30 AM |
|------|----------|------|----|------|----|-------|----|--------|--------|-------|----|-------------|--|--------|----------|

Location *Olmitz 1E 2N R4 V 28C 3W 2N*

| | | | | | |
|------------|-------------------|----------|----------|-------|--|
| Lease | <i>Bahr Heirs</i> | Well No. | <i>1</i> | 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. |
| Contractor | <i>Southwind</i> | | | | |

| | | | | | |
|-----------|---------------|-------|------------|-----------|-----------------------|
| Type Job | | | | | |
| Hole Size | <i>12 1/4</i> | T.D. | <i>889</i> | Charge To | <i>Charter Energy</i> |
| Csg. | <i>8 5/8</i> | Depth | <i>889</i> | Street | |
| Tbg. Size | | Depth | | City | State |

| | | | | | |
|---------------------|-----------|--|-----------|-----------------------|-----------------------|
| Tool | Depth | The above was done to satisfaction and supervision of owner agent or contractor. | | | |
| Cement Left in Csg. | <i>24</i> | Shoe Joint | <i>24</i> | Cement Amount Ordered | <i>350 @ 40, 44 2</i> |
| Meas Line | Displace | <i>55</i> | | | |

| EQUIPMENT | | | | Common | <i>210</i> |
|-----------|-----------|-----|----------|----------|------------|
| Pumptrk | <i>17</i> | No. | Cementer | Poz. Mix | <i>140</i> |
| | | | Helper | Gel. | <i>7</i> |
| Bulktrk | | No. | Driver | Calcium | <i>15</i> |
| | | | Driver | | |
| Bulktrk | <i>21</i> | No. | Driver | | |
| | | | Driver | | |

| JOB SERVICES & REMARKS | | Hulls | |
|------------------------|-----------------------------|-------------------------|------------|
| Remarks: | | Salt | |
| Rat Hole | | Flowseal | |
| Mouse Hole | | Kol-Seal | |
| Centralizers | | Mud CLR 48 | |
| Baskets | | CFL-117 or CD110 CAF 38 | |
| D/V or Port Collar | | Sand | |
| | <i>Surface rate 889</i> | Handling | <i>372</i> |
| | <i>Cemt w/ 350#</i> | Mileage | |
| | <i>pump plug w/ 55 bbls</i> | | |
| | <i>Cemt did circ</i> | | |

| FLOAT EQUIPMENT | | Guide Shoe | |
|-----------------|--|----------------|--------------------------|
| | | Centralizer | <i>8 3/4 Rubber plug</i> |
| | | Baskets | |
| | | AFU Inserts | |
| | | Float Shoe | |
| | | Latch Down | |
| | | | <i>Baffle Plate 1</i> |
| | | Pumptrk Charge | <i>Long Surface</i> |
| | | Mileage | |

| | | | |
|-----------|-----------------------------|--------------|--|
| Signature | <i>Frank J. [Signature]</i> | Total Charge | |
| | | Discount | |
| | | | |

Thanks



CHARGE TO: Charter Energy
 ADDRESS _____
 CITY, STATE, ZIP CODE _____

TICKET **35263**

PAGE 1 OF 3

SERVICE LOCATION # 1. Hays KS
2. Ness City KS
3.
4.

WELL/PROJECT NO. # 1
 TICKET TYPE SERVICE SALES
 CONTRACTOR SOUTHWIND
 WELL TYPE oil
 WELL CATEGORY Development
 JOB PURPOSE LOWS STRINGS
 INVOICE INSTRUCTIONS _____

LEASE Baile Heirs
 COUNTY/PARISH Barton
 RIG NAME/NO. _____

STATE KS
 CITY _____
 DELIVERED TO _____
 WELL PERMIT NO. _____

DATE 10/15/21
 ORDER NO. _____
 OWNER _____

WELL LOCATION _____

| PRICE REFERENCE | SECONDARY REFERENCE/ PART NUMBER | ACCOUNTING | | | DESCRIPTION | MILEAGE | QTY. | UM | QTY. | UM | UNIT PRICE | AMOUNT |
|-----------------|-------------------------------------|------------|------|----|--------------------------------------|------------|------------|----|------|----|----------------|----------------|
| | | LOC | ACCT | DF | | | | | | | | |
| <u>575</u> | | | | | <u>MILEAGE Tar # 111</u> | <u>600</u> | <u>mi</u> | | | | <u>6.00</u> | <u>360.00</u> |
| <u>578</u> | | | | | <u>Pump Charge - LOWS STRINGS</u> | <u>1</u> | <u>EA</u> | | | | <u>1500.00</u> | <u>1500.00</u> |
| <u>290</u> | | | | | <u>D-Air</u> | <u>2</u> | <u>EA</u> | | | | <u>42.00</u> | <u>84.00</u> |
| <u>281</u> | | | | | <u>MUDFLUSH</u> | <u>500</u> | <u>bar</u> | | | | <u>1.50</u> | <u>750.00</u> |
| <u>221</u> | | | | | <u>Liaids Kel</u> | <u>2</u> | <u>bar</u> | | | | <u>25.00</u> | <u>50.00</u> |
| <u>403</u> | | | | | <u>CEMENT BASKET</u> | <u>1</u> | <u>EA</u> | | | | <u>275.00</u> | <u>275.00</u> |
| <u>406</u> | | | | | <u>LATCH DOWN PLUG & BATTERY</u> | <u>1</u> | <u>EA</u> | | | | <u>250.00</u> | <u>250.00</u> |
| <u>407</u> | | | | | <u>INSECT FLOAT SHOE w/AND FILL</u> | <u>1</u> | <u>EA</u> | | | | <u>325.00</u> | <u>325.00</u> |
| <u>409</u> | | | | | <u>TURBOLIZER</u> | <u>1</u> | <u>EA</u> | | | | <u>90.00</u> | <u>90.00</u> |

LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, **PAYMENT, RELEASE, INDEMNITY, and LIMITED WARRANTY** provisions.

MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS.
X

DATE SIGNED _____ TIME SIGNED _____
 A.M. P.M.

REMIT PAYMENT TO:
SWIFT SERVICES, INC.
 P.O. BOX 466
 NESS CITY, KS 67560
 785-798-2300

| SURVEY | AGREE | UNDECIDED | DISAGREE | PAGE TOTAL | TOTAL |
|--|------------------------------|-----------------------------|----------|---------------|----------------|
| OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN? | | | | <u>P.1</u> | <u>4224.00</u> |
| WE UNDERSTOOD AND MET YOUR NEEDS? | | | | <u>P.2</u> | <u>4995.00</u> |
| OUR SERVICE WAS PERFORMED WITHOUT DELAY? | | | | <u>TOTAL</u> | <u>9219.00</u> |
| WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY? | | | | <u>517</u> | <u>484.43</u> |
| ARE YOU SATISFIED WITH OUR SERVICE? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | | <u>484.43</u> | <u>484.43</u> |
| <input type="checkbox"/> CUSTOMER DID NOT WISH TO RESPOND | | | | <u>TOTAL</u> | <u>9703.43</u> |

SWIFT OPERATOR David EBARTEL APPROVAL _____

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket.

Thank You!

JOB LOG

SWIFT Services, Inc.

DATE
10/15/21

PAGE NO.

CUSTOMER
CHARTER

WELL NO.
BAHR Heies

LEASE
#1

JOB TYPE
LONG STRING

TICKET NO.
35263

| CHART NO. | TIME | RATE (BPM) | VOLUME (BBL) (GAL) | PUMPS | | PRESSURE (PSI) | | DESCRIPTION OF OPERATION AND MATERIALS |
|-----------|------|------------|--------------------|-------|---|----------------|--------|--|
| | | | | T | C | TUBING | CASING | |
| | 1730 | | | | | | | ON LOCATION |
| | | | | | | | | 5 1/2 CSG |
| | | | | | | | | RTO - 3480 |
| | | | | | | | | TOTAL PIPE - 3470 |
| | | | | | | | | CENTRALIZERS - 1, 3, 7, 11, 15, 18, 21 |
| | | | | | | | | BASKET - 1 |
| | 1900 | | | | | | | START CSG |
| | 2030 | | | | | | | BACK CIRC |
| | | 2 | 8 | | | 0 | | plug RAT HOLE - 30 SX |
| | | 2 | 4 | | | 0 | | plug MOUSE HOLE - 15 SX |
| | | 6 | 12 | | | 350 | | PUMP MOD FLUSH |
| | | 6 | 20 | | | 350 | | PUMP HCL SPACER |
| | | 5 | 32 | | | 300 | | PUMP CMT |
| | | 7 | 0 | | | 300 | | Drop plug WASH PAL |
| | 1730 | 5.5 | 84 | | | 900 | | START DISP |
| | | | | | | | | LAND plug @ 1500 # |
| | | | | | | | | Release psi - Dry |
| | | | | | | | | JOB COMPLETE |
| | | | | | | | | THANKS |
| | | | | | | | | DAVID, GIDEON, JOE, JOHN & MARK |



DRILL STEM TEST REPORT

Prepared For: **Charter Energy**

PO Box 252
Great Bend, KS 67530

ATTN: Jim Musgrove

Bahr Heirs #1

17-17-14w Barton KS

Start Date: 2021.10.14 @ 04:00:00

End Date: 2021.10.14 @ 10:14:02

Job Ticket #: 67813 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2021.10.15 @ 08:24:47

Charter Energy

17-17-14w Barton KS

Bahr Heirs #1

DST # 1

LKC I - K

2021.10.14



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Charter Energy
 PO Box 252
 Great Bend, KS 67530
 ATTN: Jim Musgrove

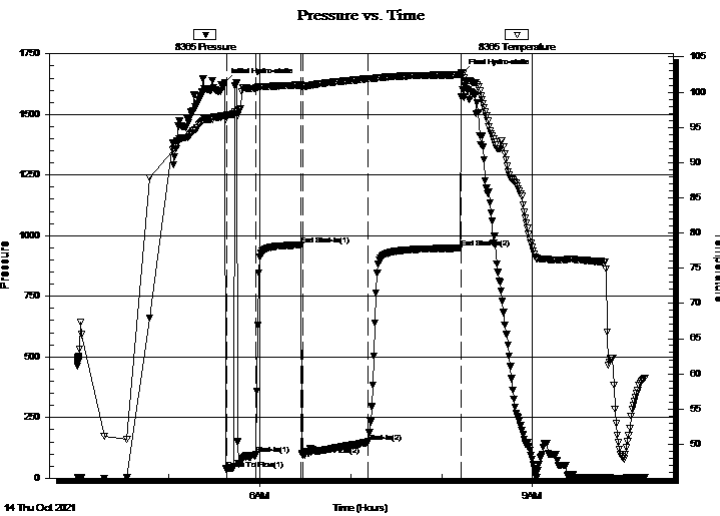
17-17-14w Barton KS
Bahr Heirs #1
 Job Ticket: 67813 **DST#: 1**
 Test Start: 2021.10.14 @ 04:00:00

GENERAL INFORMATION:

Formation: **LKC I - K**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 05:38:02 Tester: Kevin Webster
 Time Test Ended: 10:14:02 Unit No: 72
 Interval: **3298.00 ft (KB) To 3353.00 ft (KB) (TVD)** Reference Elevations: 1897.00 ft (KB)
 Total Depth: 3353.00 ft (KB) (TVD) 1884.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: KB to GR/CF: 13.00 ft

Serial #: 8365 Inside
 Press@RunDepth: 147.89 psig @ 3299.00 ft (KB) Capacity: psig
 Start Date: 2021.10.14 End Date: 2021.10.14 Last Calib.: 2021.10.14
 Start Time: 04:00:01 End Time: 10:14:02 Time On Btm: 2021.10.14 @ 05:36:47
 Time Off Btm: 2021.10.14 @ 08:13:32

TEST COMMENT: 20 IF- WSB died in 30 seconds, Flushed tool, Surging w sb died in 2 min
 30 IS- No blow back
 45 FF- WSB built to bob in 7 min
 60 FS- Blow back built to 2"



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1632.75 | 96.68 | Initial Hydro-static |
| 2 | 37.38 | 96.54 | Open To Flow (1) |
| 21 | 97.71 | 100.57 | Shut-In(1) |
| 51 | 961.32 | 100.99 | End Shut-In(1) |
| 52 | 94.70 | 100.78 | Open To Flow (2) |
| 95 | 147.89 | 101.94 | Shut-In(2) |
| 156 | 949.10 | 102.50 | End Shut-In(2) |
| 157 | 1669.51 | 102.63 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|---------------------------------|--------------|
| 186.00 | GWMCO 20% Gas 50% Oil 10% Water | 2(2.61)ud |
| 62.00 | GSOCM 10% Gas 5% Oil 85% Mud | 0.87 |
| 31.00 | Mud w trace of oil 100%M | 0.43 |
| | | |
| | | |

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Charter Energy
PO Box 252
Great Bend, KS 67530
ATTN: Jim Musgrove

17-17-14w Barton KS
Bahr Heirs #1
Job Ticket: 67813 **DST#: 1**
Test Start: 2021.10.14 @ 04:00:00

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3298.00 ft | Diameter: 3.80 inches | Volume: 46.26 bbl | Tool Weight: 2000.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight set on Packer: 25000.00 lb |
| Drill Collar: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight to Pull Loose: 65000.00 lb |
| | | | <u>Total Volume: 46.26 bbl</u> | Tool Chased 10.00 ft |
| Drill Pipe Above KB: | 20.00 ft | | | String Weight: Initial 40000.00 lb |
| Depth to Top Packer: | 3298.00 ft | | | Final 44000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 55.00 ft | | | |
| Tool Length: | 75.00 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 | | | 3279.00 | |
| Shut In Tool | 5.00 | | | 3284.00 | |
| Hydraulic tool | 5.00 | | | 3289.00 | |
| Packer | 5.00 | | | 3294.00 | 20.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 3298.00 | |
| Stubb | 1.00 | | | 3299.00 | |
| Recorder | 0.00 | 8365 | Inside | 3299.00 | |
| Recorder | 0.00 | 6752 | Outside | 3299.00 | |
| Change Over Sub | 1.00 | | | 3300.00 | |
| Drill Pipe | 31.00 | | | 3331.00 | |
| Change Over Sub | 1.00 | | | 3332.00 | |
| Perforations | 18.00 | | | 3350.00 | |
| Bullnose | 3.00 | | | 3353.00 | 55.00 Bottom Packers & Anchor |

Total Tool Length: 75.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Charter Energy

17-17-14w Barton KS

PO Box 252
Great Bend, KS 67530

Bahr Heirs #1

Job Ticket: 67813

DST#: 1

ATTN: Jim Musgrove

Test Start: 2021.10.14 @ 04:00:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 49.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.39 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 900.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbbl |
|--------------|---------------------------------------|----------------|
| 186.00 | GWMCO 20% Gas 50% Oil 10% Water 20% M | 2.609 |
| 62.00 | GSOCM 10% Gas 5% Oil 85% Mud | 0.870 |
| 31.00 | Mud w trace of oil 100%M | 0.435 |

Total Length: 279.00 ft

Total Volume: 3.914 bbl

Num Fluid Samples: 0

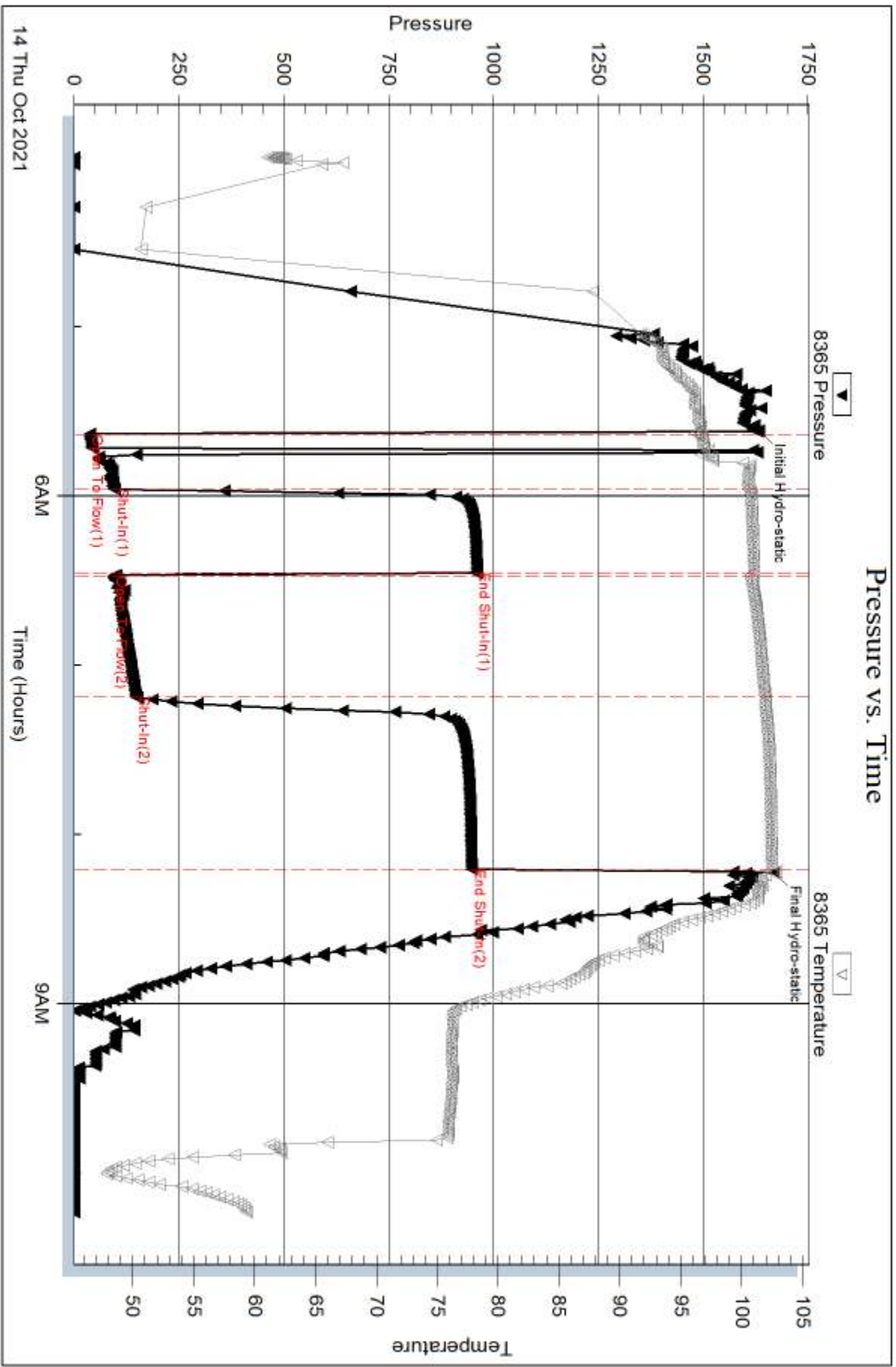
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 2# LCM

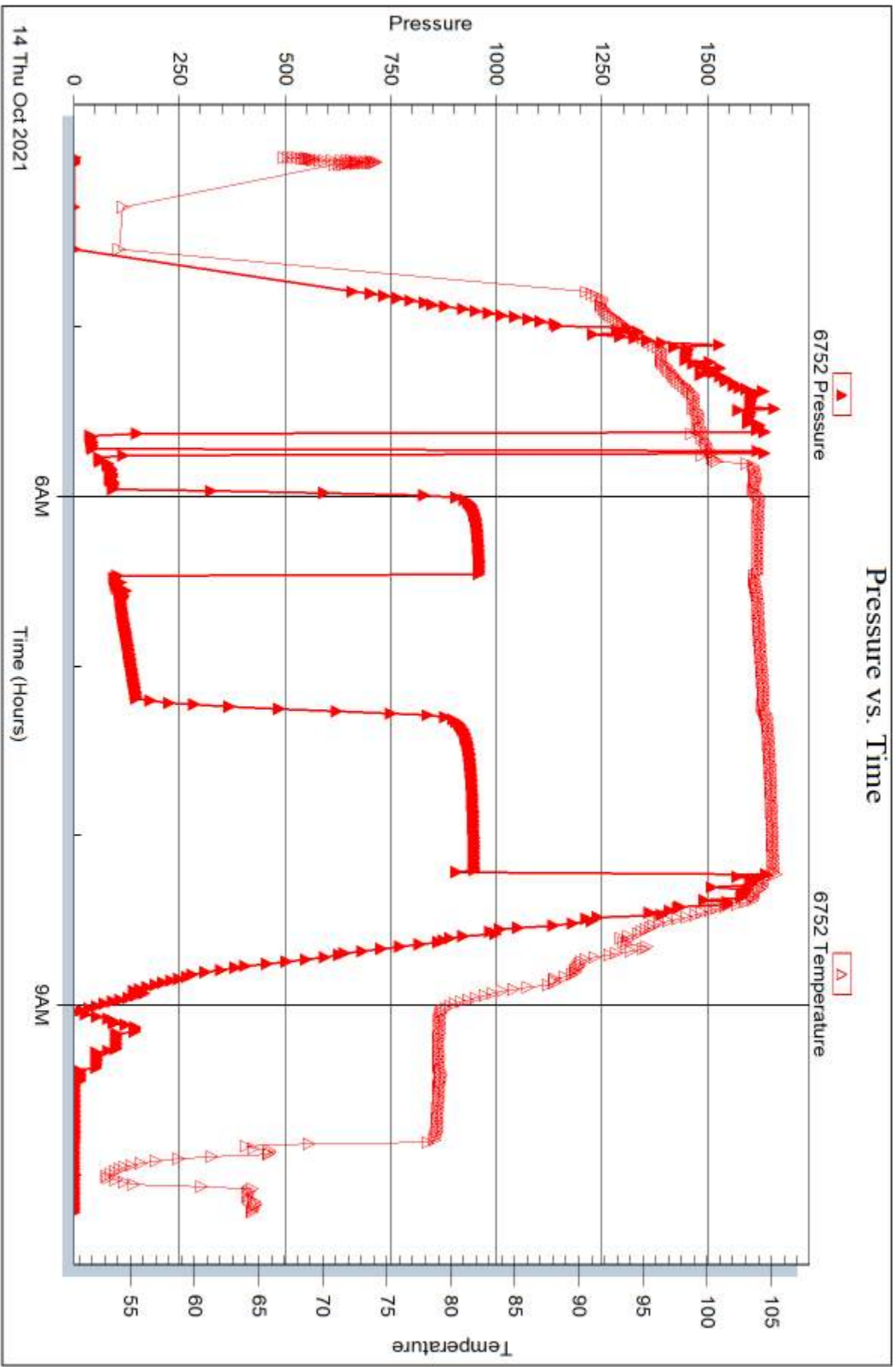


Serial #: 6752

Outside Charter Energy

Bahr Heirs #1

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 67813

Printed: 2021.10.15 @ 08:24:49



DRILL STEM TEST REPORT

Prepared For: **Charter Energy**

PO Box 252
Great Bend, KS 67530

ATTN: Jim Musgrove

Bahr Heirs #1

17-17-14w Barton KS

Start Date: 2021.10.15 @ 19:00:00

End Date: 2021.10.16 @ 00:50:02

Job Ticket #: 67814 DST #: 2

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

Printed: 2021.10.15 @ 08:26:36



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Charter Energy
PO Box 252
Great Bend, KS 67530
ATTN: Jim Musgrove

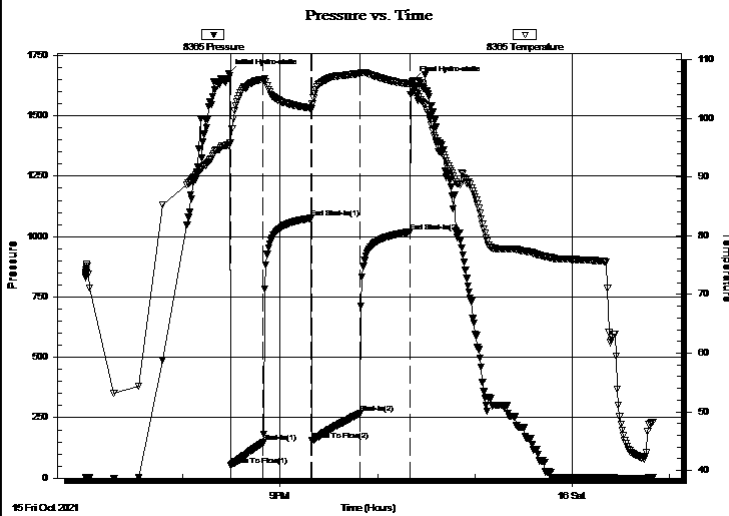
17-17-14w Barton KS
Bahr Heirs #1
Job Ticket: 67814 **DST#: 2**
Test Start: 2021.10.15 @ 19:00:00

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Reset)
Time Tool Opened: 20:29:32 Tester: Kevin Webster
Time Test Ended: 00:50:02 Unit No: 72
Interval: 3354.00 ft (KB) To 3410.00 ft (KB) (TVD) Reference Elevations: 1897.00 ft (KB)
Total Depth: 3353.00 ft (KB) (TVD) 1884.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Poor KB to GR/CF: 13.00 ft

Serial #: 8365 **Inside**
Press@RunDepth: 267.40 psig @ 3355.00 ft (KB) Capacity: psig
Start Date: 2021.10.15 End Date: 2021.10.16 Last Calib.: 2021.10.15
Start Time: 19:00:01 End Time: 00:50:02 Time On Btm: 2021.10.15 @ 20:28:17
Time Off Btm: 2021.10.15 @ 22:21:47

TEST COMMENT: 20 IF- Strong blow BOB in 4 min
30 IS- Blow back built to 8"
30 FF- Strong blow BOB in 3 min
30 FS- Blow back built to 5"



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1675.46 | 95.44 | Initial Hydro-static |
| 2 | 54.51 | 95.82 | Open To Flow (1) |
| 22 | 147.07 | 106.64 | Shut-In(1) |
| 51 | 1075.27 | 101.74 | End Shut-In(1) |
| 52 | 155.04 | 101.72 | Open To Flow (2) |
| 81 | 267.40 | 107.64 | Shut-In(2) |
| 112 | 1019.35 | 105.83 | End Shut-In(2) |
| 114 | 1646.07 | 104.88 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|---------------------------------|--------------|
| 124.00 | GOWCM 10% Gas 20% Oil 15% Water | 51.74 lud |
| 496.00 | GO 30% Gas 70% Oil | 6.96 |
| | | |
| | | |

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Charter Energy
PO Box 252
Great Bend, KS 67530
ATTN: Jim Musgrove

17-17-14w Barton KS
Bahr Heirs #1
Job Ticket: 67814 **DST#: 2**
Test Start: 2021.10.15 @ 19:00:00

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3350.00 ft | Diameter: 3.80 inches | Volume: 46.99 bbl | Tool Weight: 2000.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight set on Packer: 25000.00 lb |
| Drill Collar: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight to Pull Loose: 45000.00 lb |
| | | | <u>Total Volume: 46.99 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 16.00 ft | | | String Weight: Initial 44000.00 lb |
| Depth to Top Packer: | 3354.00 ft | | | Final 45000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 56.00 ft | | | |
| Tool Length: | 76.00 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 | | | 3335.00 | |
| Shut In Tool | 5.00 | | | 3340.00 | |
| Hydraulic tool | 5.00 | | | 3345.00 | |
| Packer | 5.00 | | | 3350.00 | 20.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 3354.00 | |
| Stubb | 1.00 | | | 3355.00 | |
| Recorder | 0.00 | 8365 | Inside | 3355.00 | |
| Recorder | 0.00 | 6752 | Outside | 3355.00 | |
| Change Over Sub | 1.00 | | | 3356.00 | |
| Drill Pipe | 31.00 | | | 3387.00 | |
| Change Over Sub | 1.00 | | | 3388.00 | |
| Perforations | 19.00 | | | 3407.00 | |
| Bullnose | 3.00 | | | 3410.00 | 56.00 Bottom Packers & Anchor |

Total Tool Length: 76.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Charter Energy

17-17-14w Barton KS

PO Box 252
Great Bend, KS 67530

Bahr Heirs #1

Job Ticket: 67814

DST#: 2

ATTN: Jim Musgrove

Test Start: 2021.10.15 @ 19:00:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 49.00 sec/qt

Cushion Volume:

bbf

Water Loss: 6.39 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 900.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbf |
|--------------|---------------------------------------|---------------|
| 124.00 | GOWCM 10% Gas 20% Oil 15% Water 55% M | 1.739 |
| 496.00 | GO 30% Gas 70% Oil | 6.958 |

Total Length: 620.00 ft Total Volume: 8.697 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

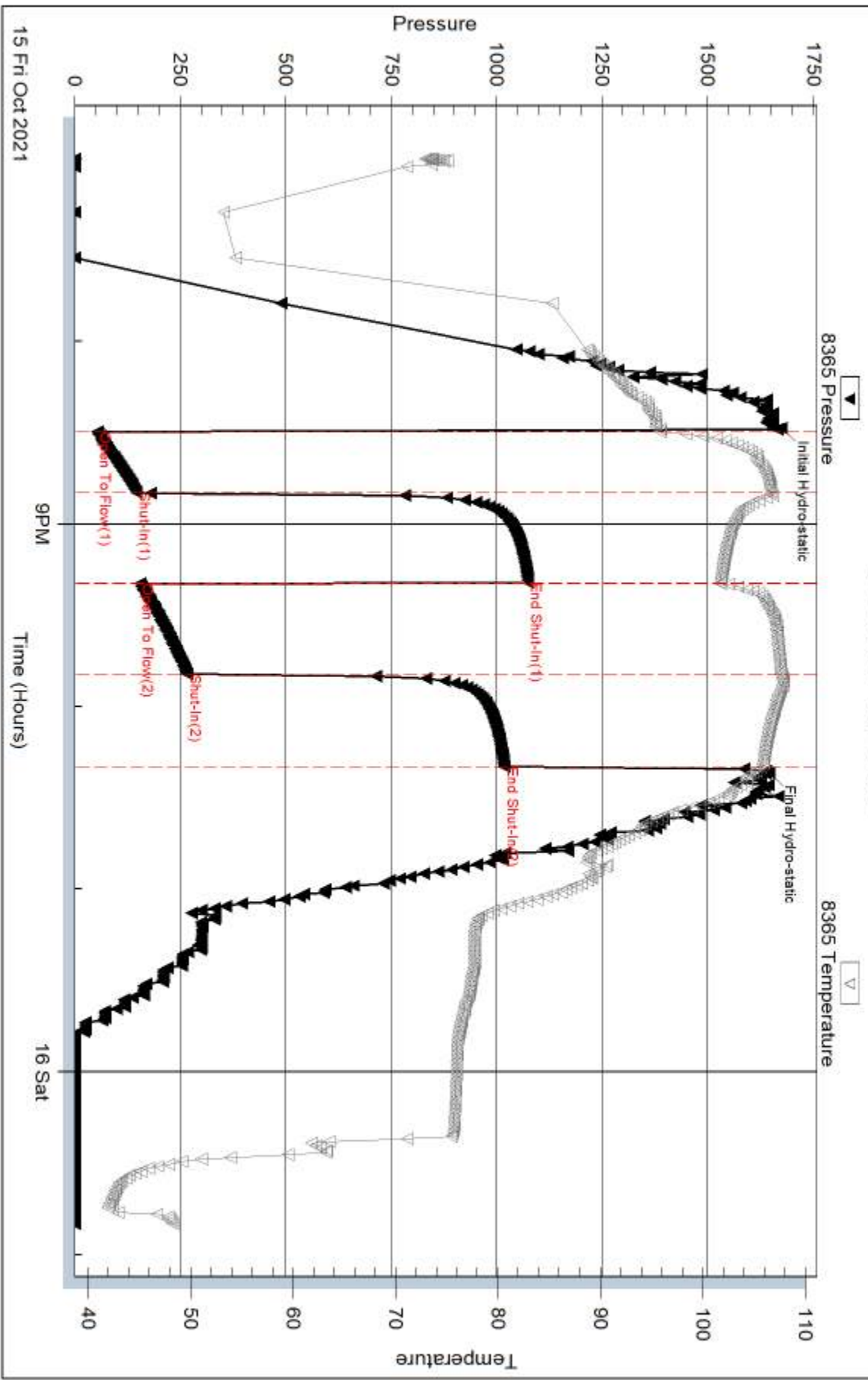
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

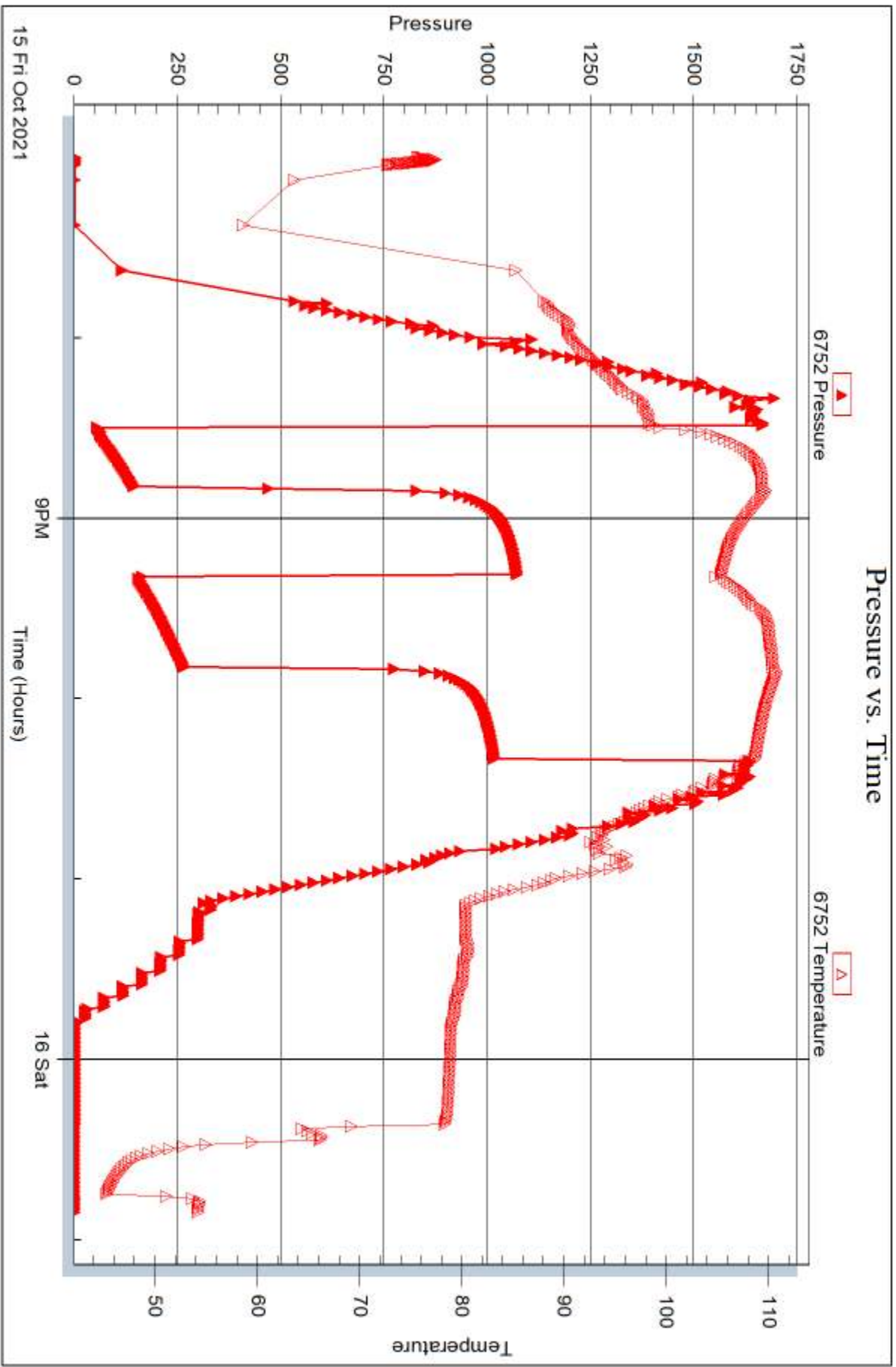


Serial #: 6752

Outside Charter Energy

Bahr Heirs #1

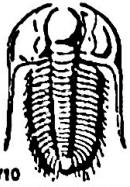
DST Test Number: 2



Triobite Testing, Inc

Ref. No: 67814

Printed: 2021.10.15 @ 08:26:38



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 67813

Well Name & No. Bahr Hays 1 Test No. 1 Date 10/14/21
 Company Chatter Energy Elevation 1884 KB 1897 GL
 Address PO box 252 Great Bend, KS 67530-0252
 Co. Rep / Geo. Jim Musgrove Rig Sautwind #1
 Location: Sec. 17 Twp 17 Rge. 14 Co. BALTON State KS

Interval Tested 3298 - 3353 Zone Tested LKC - F, J, K
 Anchor Length 55' Drill Pipe Run 3298 Mud Wt. 8.9
 Top Packer Depth 3293 Drill Collars Run 0 Vis 40
 Bottom Packer Depth 3298 Wt. Pipe Run 0 WL 6.4
 Total Depth 3353 Chlorides 900 ppm System LCM 2#

Blow Description IF - WSB died in 30 seconds, Flushed tool surging WSB died in 2 min
ISI - NO blow back
FF - WSB built to bobbin 7 min
FSI - blow back built to 2"

| Rec | Feet of | %gas | %oil | %water | %mud |
|------------|---------|-----------|-----------|-----------|------------|
| <u>186</u> | | <u>20</u> | <u>50</u> | <u>10</u> | <u>20</u> |
| <u>62</u> | | <u>10</u> | <u>5</u> | | <u>85</u> |
| <u>31</u> | | | <u>TR</u> | | <u>100</u> |
| | | | | | |
| | | | | | |

Rec Total 279 BHT 105 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

- A) Initial Hydrostatic 1632
- B) First Initial Flow 37
- C) First Final Flow 47
- D) Initial Shut-In 961
- E) Second Initial Flow 94
- F) Second Final Flow 147
- G) Final Shut-In 949
- H) Final Hydrostatic 1669

- Initial Open 20
- Initial Shut-In 30
- Final Flow 45
- Final Shut-In 60

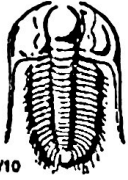
- Test 1300
- Jars _____
- Safety Joint _____
- Circ Sub _____
- Hourly Standby _____
- Mileage 60 RT 94rt 117.50
- Sampler _____
- Straddle _____
- Shale Packer _____
- Extra Packer _____
- Extra Recorder _____
- Day Standby _____
- Accessibility _____

- T-On Location 00:59
- T-Started 04:00
- T-Open 05:27
- T-Pulled 08:12
- T-Out _____

Comments _____
 EM Tool _____
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Sub Total 0
 Total 1417.50

Approved By _____ Our Representative Kevin Webster

Trilobite Testing Inc. shall not be liable for damaged or 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. 67814

Well Name & No. Bahl Heirs #1 Test No. 2 Date 10/14/21
 Company Charter Energy Elevation 1884 KB 1897 GL
 Address Pobox 252 Great Bend, KS 67530-0252
 Co. Rep / Geo. Jim Musgrove Rig Southwind #1
 Location: Sec. 17 Twp 17 Rge. 14w Co. Barton State KS

Interval Tested 3354 - 3410 Zone Tested Arbuckle
 Anchor Length 56' Drill Pipe Run 3350 Mud Wt. 8.9
 Top Packer Depth 3349 Drill Collars Run 0 Vis 49
 Bottom Packer Depth 3354 Wt. Pipe Run 0 WL 6.4
 Total Depth 3410 Chlorides 900 ppm System LCM 2 #
 Blow Description FF - strong blow bob in 4 min
ISI - blow back built to 8"
FF - strong blow bob in 3 min
FBI - blow back built to 5"

| Rec | Feet of | %gas | %oil | %water | %mud |
|-----|---------------------------|------|------|--------|------|
| 124 | Feet of <u>Gowem</u> | 10 | 20 | 15 | 55 |
| 496 | Feet of <u>Grassy oil</u> | 30 | 70 | | |
| | Feet of _____ | %gas | %oil | %water | %mud |
| | Feet of _____ | %gas | %oil | %water | %mud |
| | Feet of _____ | %gas | %oil | %water | %mud |

Rec Total 620 BHT 110 Gravity 33 API RW _____ @ _____ °F Chlorides _____ ppm

- (A) Initial Hydrostatic 1675
- (B) First Initial Flow 54
- (C) First Final Flow 147
- (D) Initial Shut-In 1075
- (E) Second Initial Flow 155
- (F) Second Final Flow 267
- (G) Final Shut-In 1019
- (H) Final Hydrostatic 1646

Initial Open 20
 Initial Shut-In 30
 Final Flow 30
 Final Shut-In 30

- Test 1300
- Jars _____
- Safety Joint _____
- Circ Sub _____
- Hourly Standby _____
- Mileage 60 RT 117.50
- Sampler _____
- Straddle _____
- Shale Packer _____
- Extra Packer _____
- Extra Recorder _____
- Day Standby _____
- Accessibility _____

T-On Location 18:15
 T-Started 19:00
 T-Open 20:29
 T-Pulled 22:19
 T-Out 00:30

Comments _____
 EM Tool _____
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Sub Total 0
 Total 1417.50

Approved By _____

Our Representative Kevin Webster

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.

OPERATOR

Company: Charter Energy, Inc.
 Address: PO Box 252
 Great Bend, Kansas 67530

Contact Geologist: Jim Musgrove
 Contact Phone Nbr: 620-786-0839
 Well Name: Bahr Heirs #1
 Location: 17-17s-14w SW-SE-NW-SW
 API: 15-009-26313-00-00
 Pool:
 State: Kansas

Field: Carroll
 Country: USA

**CHARTER ENERGY, INC.**

P.O. BOX 252
 GREAT BEND, KS 67530
 (620) 793-9090



Scale 1:240 Imperial

Well Name: Bahr Heirs #1
 Surface Location: 17-17s-14w SW-SE-NW-SW
 Bottom Location:
 API: 15-009-26313-00-00
 License Number: 9090
 Spud Date: 10/9/2021 Time: 12:00 AM
 Region: Barton
 Drilling Completed: 10/15/2021 Time: 12:00 AM
 Surface Coordinates: 1395' FSL & 833' FWL
 Bottom Hole Coordinates:
 Ground Elevation: 1897.00ft
 K.B. Elevation: 1907.00ft
 Logged Interval: 2800.00ft To: 3480.00ft
 Total Depth: 3480.00ft
 Formation: LKC/Arbuckle
 Drilling Fluid Type: Chemical/Fresh Water Gel

SURFACE CO-ORDINATES

Well Type: Vertical
 Longitude:
 Latitude:
 N/S Co-ord: 1395' FSL
 E/W Co-ord: 833' FWL

LOGGED BY

Company: James C Musgrove Petroleum LLC
 Address: 212 Main Street/PO Box 215
 Claflin, KS 67525

Phone Nbr: 620-588-4250 620-786-08
 Logged By: KLG #307

Name: James C Musgrove

CONTRACTOR

Contractor: Southwind Drilling
 Rig #: 1
 Rig Type: mud rotary
 Spud Date: 10/9/2021 Time: 12:00 AM
 TD Date: 10/15/2021 Time: 12:00 AM
 Rig Release: Time:

ELEVATIONS

K.B. Elevation: 1907.00ft Ground Elevation: 1897.00ft
 K.B. to Ground: 10.00ft

NOTES

5 1/2" production casing was set and cemented on Charter Energy, Inc. Bahr Heirs #1.

Respectfully Submitted,

James C Musgrove
Petroleum Geologist

well comparison sheet

| Formation | BAHR HEIRS #1 CHARTER ENERGY INC. SW-SE-NW-SW 17-17s-14w 1907 KB | | | | E.K. EDMISTON & BARNETT OIL CO HESTER #1 SE-NW-SW 17-17s-14w 1900 KB | | | | JOHN O. FARMER HESTER #2 NW-SE-SW 17-17s-14w 1887 KB | | | | |
|--------------------|--|---------|------|---------|--|---------|--------|-----|--|---------|--------|-----|-----|
| | Sample | Sub-Sea | Log | Sub-Sea | Log | Sub-Sea | Sample | Log | Log | Sub-Sea | Sample | Log | |
| Anhydrite | | | 885 | 1022 | | | | | | 866 | 1021 | | 1 |
| Base Anhydrite | | | 915 | 992 | | | | | | 989 | 898 | | 94 |
| Topeka | | | 2845 | -938 | 2839 | -939 | | 1 | | 2832 | -945 | | 7 |
| Heebner | | | 3078 | -1171 | 3072 | -1172 | | 1 | | 3070 | -1183 | | 12 |
| Toronto | | | 3089 | -1182 | 3086 | -1186 | | 4 | | | | | |
| Douglas | | | 3104 | -1197 | 3100 | -1200 | | 3 | | | | | |
| Brown Lime | | | 3140 | -1233 | 3136 | -1236 | | 3 | | 3134 | -1247 | | 14 |
| Lansing | | | 3152 | -1245 | 3150 | -1250 | | 5 | | 3144 | -1257 | | 12 |
| Base Kansas City | | | 3361 | -1454 | 3358 | -1458 | | 4 | | 3354 | -1467 | | 13 |
| Conglomerate | | | 3366 | -1459 | | | | | | | | | |
| Arbuckle | | | 3401 | -1494 | 3391 | -1491 | | -3 | | 3415 | -1528 | | 34 |
| Rotary Total Depth | | | 3480 | -1573 | 3402 | -1502 | | -71 | | 3426 | -1539 | | -34 |
| Log Total Depth | | | 3478 | -1571 | 3402 | -1502 | | -69 | | | | | |



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Charter Energy
PO Box 252
Great Bend, KS 67530
ATTN: Jim Musgrove

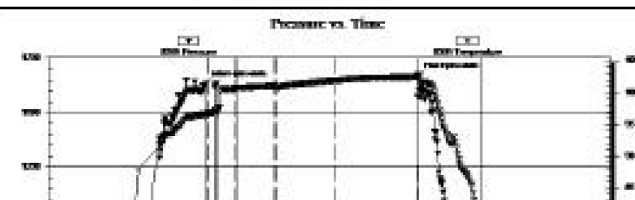
17-17-14w, Barton KS
Bahr Heirs #1
Job Ticket: 67813 DST#: 1
Test Start: 2021.10.14 @ 04:00:00

GENERAL INFORMATION:

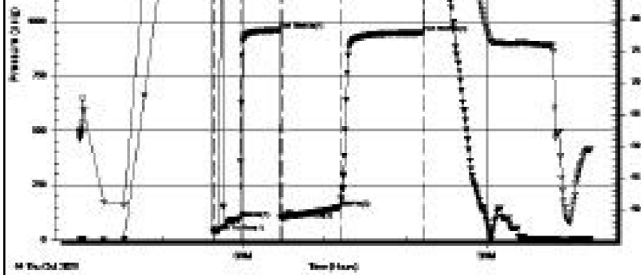
| | | | |
|-------------------|--|-----------------------|------------------------------------|
| Formation: | LKC - I, J, K | Test Type: | Conventional Bottom Hole (Initial) |
| Deviated: | No Whipstock: ft (KB) | Tester: | Kevin Webster |
| Time Tool Opened: | 05:38:02 | Unit No: | 72 |
| Time Test Ended: | 10:14:02 | Reference Elevations: | 1897.00 ft (KB) |
| Interval: | 3298.00 ft (KB) To 3353.00 ft (KB) (TVD) | | 1884.00 ft (CF) |
| Total Depth: | 3353.00 ft (KB) (TVD) | KB to GR/CF: | 13.00 ft |
| Hole Diameter: | 7.78 Inches Hole Condition: | | |

| | | | | | |
|-----------------------|---------------|-----------------|------------|---------------|-----------------------|
| Serial #: 8365 | Inside | | | | |
| Press@RunDepth: | 147.89 psig @ | 3299.00 ft (KB) | Capacity: | | psig |
| Start Date: | 2021.10.14 | End Date: | 2021.10.14 | Last Calib.: | 2021.10.14 |
| Start Time: | 04:00:01 | End Time: | 10:14:02 | Time On Btm: | 2021.10.14 @ 05:36:47 |
| | | | | Time Off Btm: | 2021.10.14 @ 08:13:32 |

TEST COMMENT: IF- WSB died in 30 seconds, Flushed tool, Surging w sb died in 2 min 20 min
IS- No blow back 30 min
FF- WSB built to bob in 7 min 45 min
FS- Blow back built to 2"



| PRESSURE SUMMARY | | | |
|------------------|-----------------|--------------|----------------------|
| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
| 0 | 1632.75 | 96.68 | Initial Hydro-static |
| 2 | 37.38 | 96.54 | Open To Flow (1) |
| 21 | 97.71 | 100.57 | Shut-In(1) |
| 51 | 961.32 | 100.99 | End Shut-In(1) |



| | | | |
|-----|---------|--------|--------------------|
| 51 | 1075.27 | 101.74 | End Shut-In(1) |
| 52 | 94.70 | 100.78 | Open To Flow (2) |
| 95 | 147.89 | 101.94 | Shut-In(2) |
| 156 | 949.10 | 102.50 | End Shut-In(2) |
| 157 | 1669.51 | 102.63 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-----------------------------------|--------------|
| 186.00 | 20% Gas 50% Oil 10% Water 20% Mud | 2.51 |
| 62.00 | 10% Gas 5% Oil 85% Mud | 0.87 |
| 31.00 | Tr Oil 100% Mud | 0.43 |
| | | |
| | | |
| | | |

Gas Rates

| Choke (Inches) | Pressure (psig) | Gas Rate (Mcfd) |
|----------------|-----------------|-----------------|
| | | |

Trilobite Testing, Inc

Ref. No: 67813

Printed: 2021.10.14 @ 11:16:12



DRILL STEM TEST REPORT

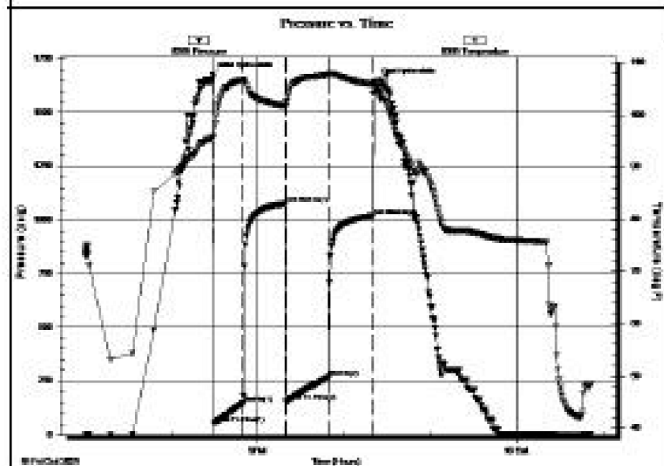
Charter Energy **17-17-14w, Barton KS**
 PO Box 252 **Bahr Heirs #1**
 Great Bend, KS 67530 Job Ticket: 67814 **DST#: 2**
 ATTN: Jim Musgrove Test Start: 2021.10.15 @ 19:00:00

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: **No** Whipstock: **ft (KB)** Test Type: **Conventional Bottom Hole (Reset)**
 Time Tool Opened: **20:29:32** Tester: **Kevin Webster**
 Time Test Ended: **00:50:02** Unit No: **72**
 Interval: **3354.00 ft (KB) To 3410.00 ft (KB) (TVD)** Reference Elevations: **1897.00 ft (KB)**
 Total Depth: **3353.00 ft (KB) (TVD)** **1894.00 ft (CF)**
 Hole Diameter: **7.78 inches** Hole Condition: **Poor** KB to GR/CF: **13.00 ft**

Serial #: 8365 Inside Capacity: **psig**
 Press@RunDepth: **267.40 psig @ 3355.00 ft (KB)** Last Calib.: **2021.10.15**
 Start Date: **2021.10.15** End Date: **2021.10.16** Time On Btm: **2021.10.15 @ 20:28:17**
 Start Time: **19:00:01** End Time: **00:50:02** Time Off Btm: **2021.10.15 @ 22:21:47**

TEST COMMENT: F- Strong blow bob in 4 min 20 min
 SF- Blow back built to 8" 30 min
 FF- Strong blow bob in 3 min 30 min
 FS- Blow back built to 5" 30 min



PRESSURE SUMMARY

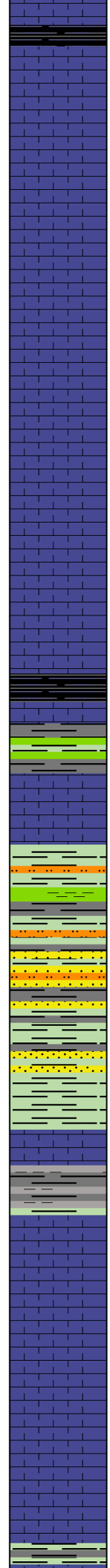
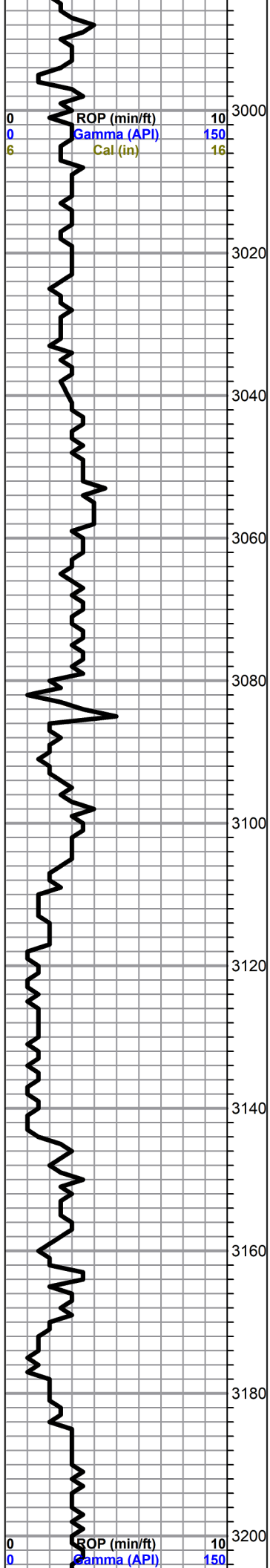
| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1675.46 | 95.44 | Initial Hydro-static |
| 2 | 54.51 | 95.82 | Open To Flow (1) |
| 22 | 147.07 | 106.64 | Shut-In(1) |
| 51 | 1075.27 | 101.74 | End Shut-In(1) |
| 52 | 155.04 | 101.72 | Open To Flow (2) |
| 81 | 267.40 | 107.64 | Shut-In(2) |
| 112 | 1019.35 | 105.83 | End Shut-In(2) |
| 114 | 1646.07 | 104.88 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| | | |

Gas Rates

| Choke (Inches) | Pressure (psig) | Gas Rate (Mcfd) |
|----------------|-----------------|-----------------|
| | | |



Shale,black,carbonaceous

Limestone,gray,white,chalky,granular,

Limestone,white,gray,cream,fine crystalline,scattered pinpoint type porosity,gray,black,stain,show of free oil(heavy,black) no odor

Limestone,gray,white,finely crystalline,granular,chalky. fossiliferous,poor porosity .no show

Limestone,as above,with Chert,gray,smokey gray,boney

HEEBNER 3079(-1172)

Shale,black,carbonaceous

Shale,gray,green,soft

TORONTO 3092(-1183)

Limestone,gray,fossiliferous,chalky,poor visible porosity,trace brown stain,no show of free oil and no odor

DOUGLAS 3105(1196)

Shale,gray,black,maroon,green,silty,soft

Sand,white,gray,fine grain,micaeous,subrounded,fair sorting,friable,fair intergranular porosity,no shows

Shale and sand as above

BROWN LIME 3143(-1234)

Limestone,white,,gray,brown,slightly chalky and cherty

LANSING 3158(-1249)

Limestone,white,gray,sub oomoldic,chalky,trace golden brown stain,show of free oil and faint odor

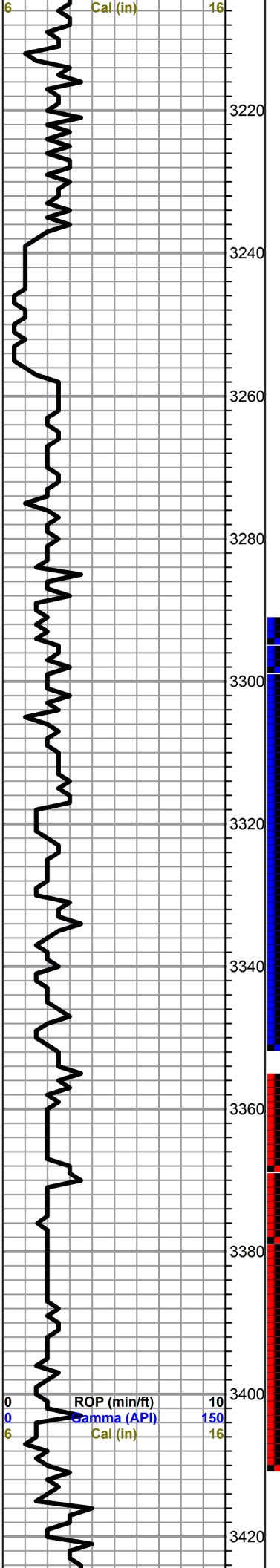
Limestone,white,oomoldic,good oomoldic porosity,no shows

Limestone,white,gray,chalky, dense

Limestone,white,gray,chalky,poor visible porosity,trace black stain,no free oil,no odor

| | | |
|---|-------------------|-----|
| 0 | Total Gas (units) | 100 |
| 0 | C1 (units) | 100 |
| 0 | C2 (units) | 100 |
| 0 | C3 (units) | 100 |
| 0 | C4 (units) | 100 |
| 0 | C5 (units) | 100 |

| | | |
|---|-------------------|-----|
| 0 | Total Gas (units) | 100 |
| 0 | C1 (units) | 100 |



Limestone, white, bioclastic, chalky, trace gray, black stain, no free and no odor

Limestone, gray, dark gray, oolitic, chalky, poorly developed porosity, no stain, no free oil and faint odor

Limestone, gray, oolitic dense

Limestone, white, gray, cream, oomoldic good oomoldic porosity, trace brown stain, weak show of free oil and questionable odor

Limestone, gray, white, chalky increasingly cherty (dense)

as above

Chert, gray, smokey gray, boney

Shale, black, carbonaceous

Limestone, white, oomoldic poor oomoldic porosity, no shows

Limestone, gray, white, oolitic, scattered porosity, trace gray and black stain, show of free oil and faint odor

Limestone, gray, white, oolitic, fair interoolitic porosity, dark brown to heavy black staining, show of free oil and fair odor in fresh samples

Limestone, white, gray, highly oolitic, poor visible porosity, fair stain and saturation, fair show of free oil and fair odor

BASE KANSAS CITY 3360(-1453)

CONGLOMERATE 3365(-1458)

Shale, rusty brown, chocolate brown, blocky, with Sand, very fine grain, calcareous, trace black stain no free oil, faint odor

Chert, white, gray, oolitic, opaque, weathered black brown stain. no free oil and faint odor, with sand, white, quartzitic.

Shale, blood red, maroon, purplish gray, blocky to subwaxy, trace Limestone, rose, nodular, cherty with Chert as above

ARBUCKLE 3403(-1496)

Dolomite, fine and medium crystalline, few coarse crystalline, good intercrystalline and vuggy type porosity, fair to good dark brown to golden brown stain and saturation, fair to good show of free oil and fair odor in fresh samples

Dolomite as above decreasing stain, show of free and porosity

| | | |
|---|------------|-----|
| 0 | C2 (units) | 100 |
| 0 | C3 (units) | 100 |
| 0 | C4 (units) | 100 |
| 0 | C5 (units) | 100 |

DST#1 3298-3353
 20-30-45-60
 Blow; weak, died in 30 seconds, flush tool no help
 FFP Weak surface to bob in 7 mins.
 Recovery
 31' mud, trace of oil
 62' Slightly oil and gas cut mud (10% gas, 5% oil, 85% mud)
 186' Heavily oil and gas cut watery mud (20% gas, 50% oil, 10% water, 20% mud)
 Pressures
 ISIP 961psi
 FSIP 949psi
 IFP 37-98psi***
 FFP 95-148psi
 HSH 1633-1670 psi
 *** Plugging action on IFP

| | | |
|---|-------------------|-----|
| 0 | Total Gas (units) | 100 |
| 0 | C1 (units) | 100 |
| 0 | C2 (units) | 100 |
| 0 | C3 (units) | 100 |
| 0 | C4 (units) | 100 |
| 0 | C5 (units) | 100 |

DST #2 3354-3410
 20-30-30-30
 Blow: Strong bob 4 min

