

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
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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) (Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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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:	
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Form	ACO1 - Well Completion
Operator	Cobalt Energy LLC
Well Name	SCHROEDER UNIT "A" 1-8
Doc ID	1434512

Tops

Name	Top	Datum
ANHY	1458	798
HEEBNER	3827	-1571
LANSING	3879	-1623
HUSH	4198	-1942
BKC	4282	-2026
PAWNEE	4396	-2140
FT SCOTT	4446	-2190
CHEROKEE	4471	-2215
MISS	4542	2286



DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy, LLC**

PO Box 8037
Wichita, KS 67208

ATTN: Larry Nicholson

8-23-23W Hodgeman,KS

Schroeder Unit "A" #1-8

Start Date: 2018.12.20 @ 10:00:13

End Date: 2018.12.20 @ 16:47:49

Job Ticket #: 65020 DST #: 1

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

Printed: 2018.12.24 @ 09:25:48



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Cobalt Energy, LLC

Schroeder Unit "A" #1-8

PO Box 8037
Wichita, KS 67208

8-23-23W Hodgeman,KS

ATTN: Larry Nicholson

Job Ticket: 65020

DST#: 1

Test Start: 2018.12.20 @ 10:00:13

GENERAL INFORMATION:

Formation: **Miss**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:25:34

Time Test Ended: 16:47:49

Test Type: Conventional Bottom Hole (Initial)

Tester: Brannan Lonsdale

Unit No: 73

Interval: 4524.00 ft (KB) To 4556.00 ft (KB) (TVD)

Reference Elevations: 2256.00 ft (KB)

Total Depth: 4556.00 ft (KB) (TVD)

2251.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8700 Outside

Press@RunDepth: 32.17 psig @ 4525.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.12.20 End Date: 2018.12.20

Last Calib.: 2018.12.20

Start Time: 10:00:14 End Time: 16:47:49

Time On Btm: 2018.12.20 @ 12:25:19

Time Off Btm: 2018.12.20 @ 14:41:19

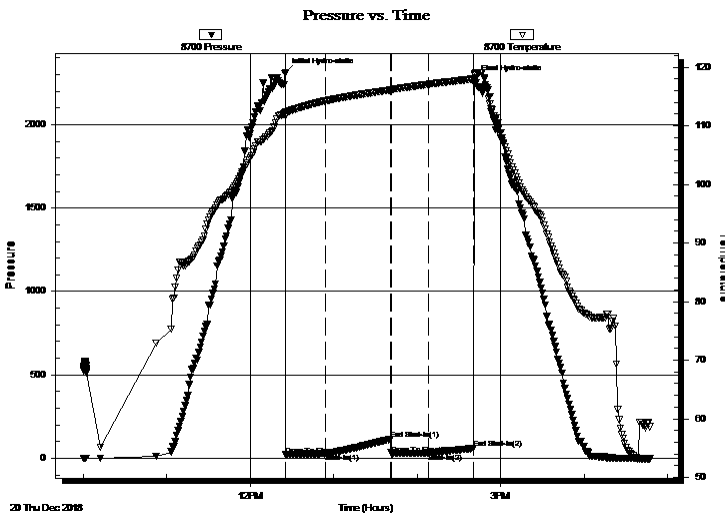
TEST COMMENT: 30- IF- Slowly built to 1.44"

45- IS- No blow

30- FF- No blow

30- FSI- No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2312.78	112.36	Initial Hydro-static
1	21.37	111.68	Open To Flow (1)
29	29.00	114.26	Shut-In(1)
76	114.39	116.10	End Shut-In(1)
77	26.79	116.18	Open To Flow (2)
103	32.17	117.08	Shut-In(2)
135	60.24	117.99	End Shut-In(2)
136	2267.39	118.85	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	OCM, 25%O 75%M	0.10

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Cobalt Energy, LLC

Schroeder Unit "A" #1-8

PO Box 8037
Wichita, KS 67208

8-23-23W Hodgeman,KS

Job Ticket: 65020

DST#: 1

ATTN: Larry Nicholson

Test Start: 2018.12.20 @ 10:00:13

Tool Information

Drill Pipe:	Length: 4370.00 ft	Diameter: 3.82 inches	Volume: 61.95 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 147.00 ft	Diameter: 2.25 inches	Volume: 0.72 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4524.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	32.00 ft			
Tool Length:	63.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			4494.00	
Shut In Tool	5.00			4499.00	
Hydraulic tool	5.00			4504.00	
Jars	5.00			4509.00	
Gap Sub	3.00			4512.00	
Safety Joint	3.00			4515.00	
Packer	5.00			4520.00	31.00 Bottom Of Top Packer
Packer	4.00			4524.00	
Stubb	1.00			4525.00	
Recorder	0.00	6771	Inside	4525.00	
Recorder	0.00	8700	Outside	4525.00	
Perforations	28.00			4553.00	
Bullnose	3.00			4556.00	32.00 Bottom Packers & Anchor

Total Tool Length: 63.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Cobalt Energy, LLC

Schroeder Unit "A" #1-8

PO Box 8037
Wichita, KS 67208

8-23-23W Hodgeman,KS

Job Ticket: 65020

DST#: 1

ATTN: Larry Nicholson

Test Start: 2018.12.20 @ 10:00:13

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

33 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 64.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.59 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4150.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	OCM, 25%O 75%M	0.098

Total Length: 20.00 ft Total Volume: 0.098 bbl

Num Fluid Samples: 0

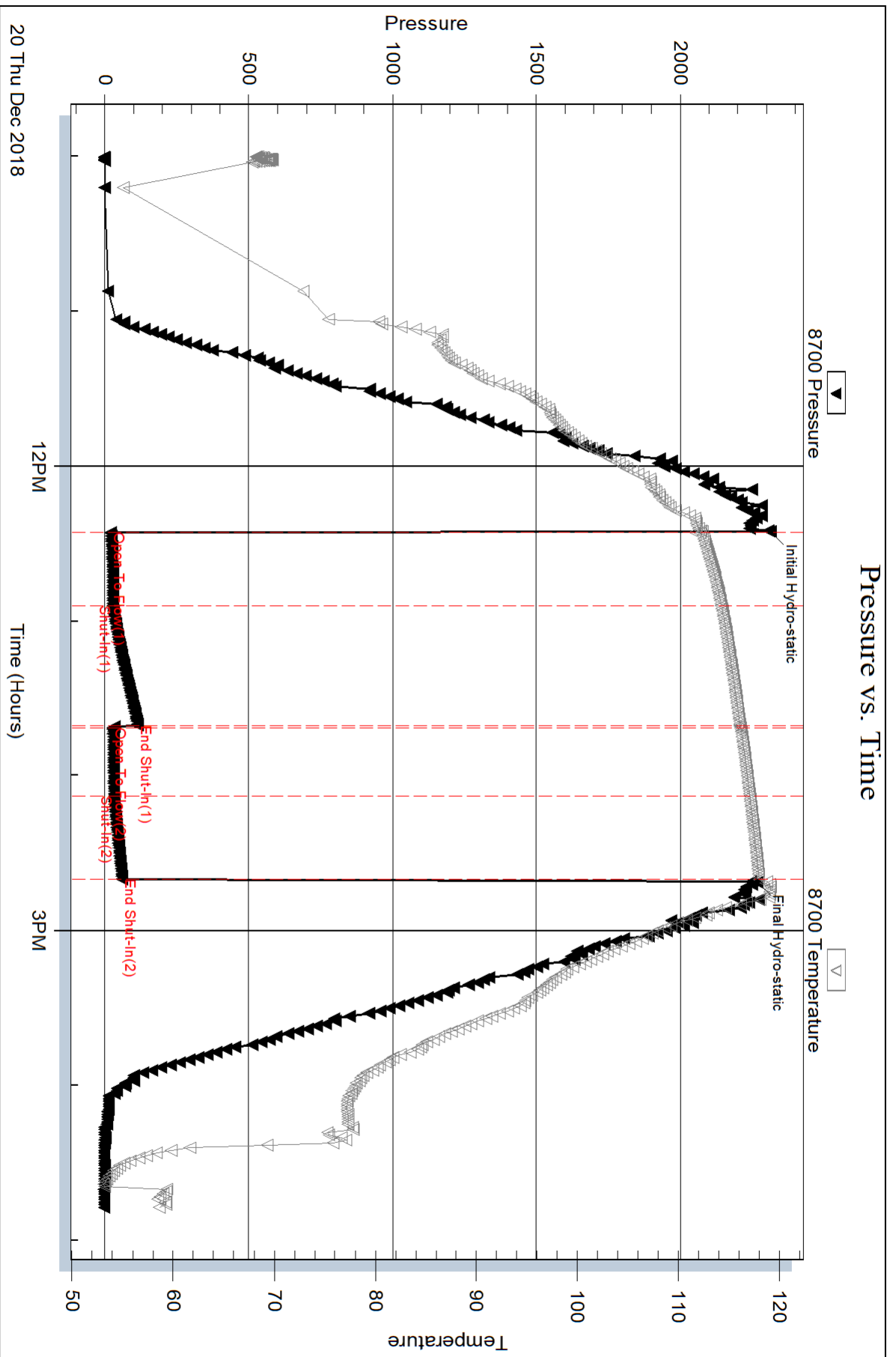
Num Gas Bombs: 0

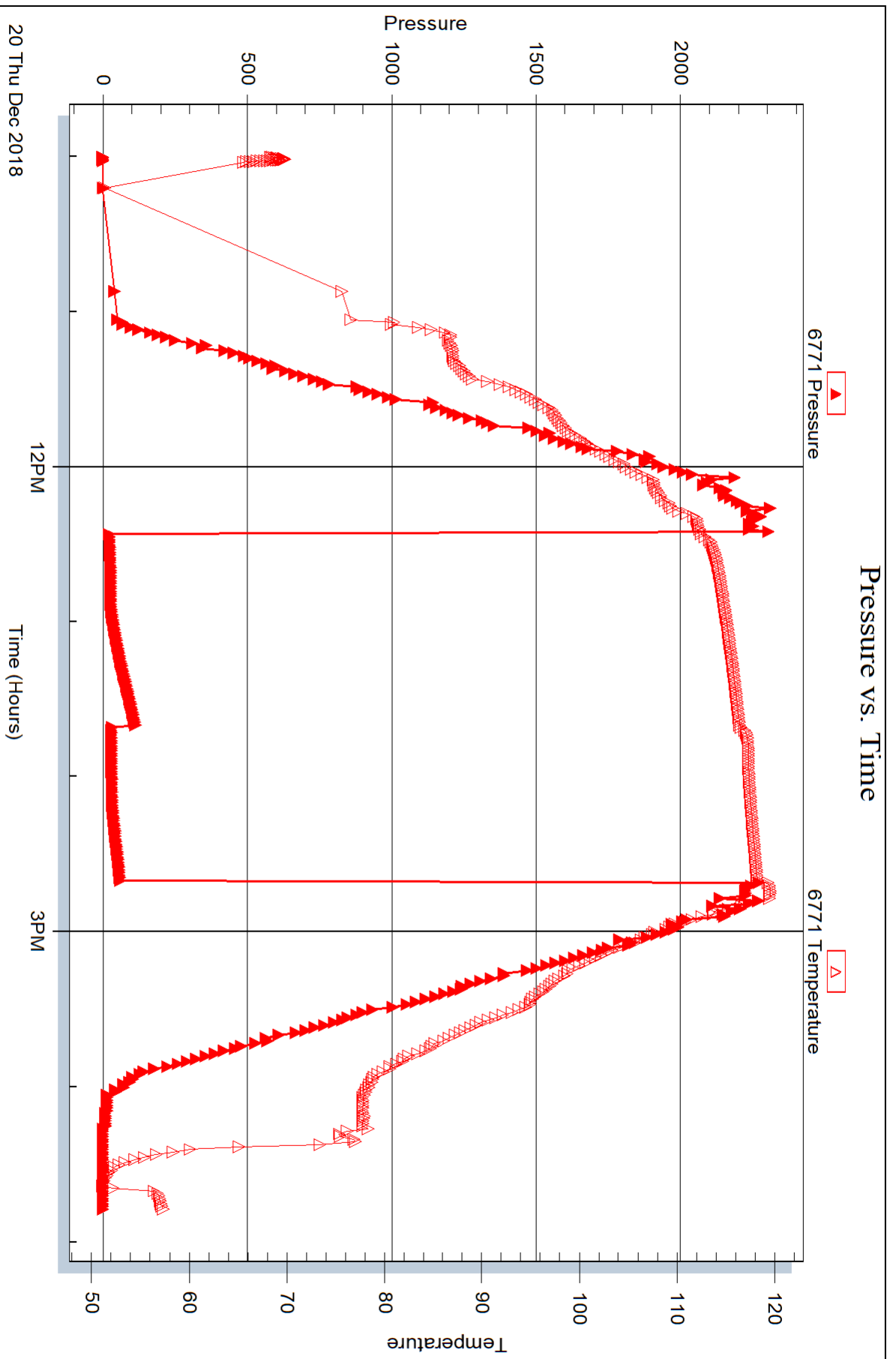
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy, LLC**

PO Box 8037
Wichita, KS 67208

ATTN: Larry Nicholson

8-23-23W Hodgeman,KS

Schroeder Unit "A" #1-8

Start Date: 2018.12.21 @ 00:12:49

End Date: 2018.12.21 @ 06:24:55

Job Ticket #: 65021 DST #: 2

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

Printed: 2018.12.24 @ 09:25:22



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Cobalt Energy, LLC

Schroeder Unit "A" #1-8

PO Box 8037
Wichita, KS 67208

8-23-23W Hodgeman,KS

ATTN: Larry Nicholson

Job Ticket: 65021

DST#: 2

Test Start: 2018.12.21 @ 00:12:49

GENERAL INFORMATION:

Formation: **Miss**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:30:40

Time Test Ended: 06:24:55

Test Type: Conventional Bottom Hole (Reset)

Tester: Brannan Lonsdale

Unit No: 73

Interval: 4554.00 ft (KB) To 4581.00 ft (KB) (TVD)

Reference Elevations: 2256.00 ft (KB)

Total Depth: 4581.00 ft (KB) (TVD)

2251.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8700 Outside

Press@RunDepth: 21.39 psig @ 4555.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.12.21

End Date:

2018.12.21

Last Calib.:

2018.12.21

Start Time: 00:12:50

End Time:

06:24:55

Time On Btm:

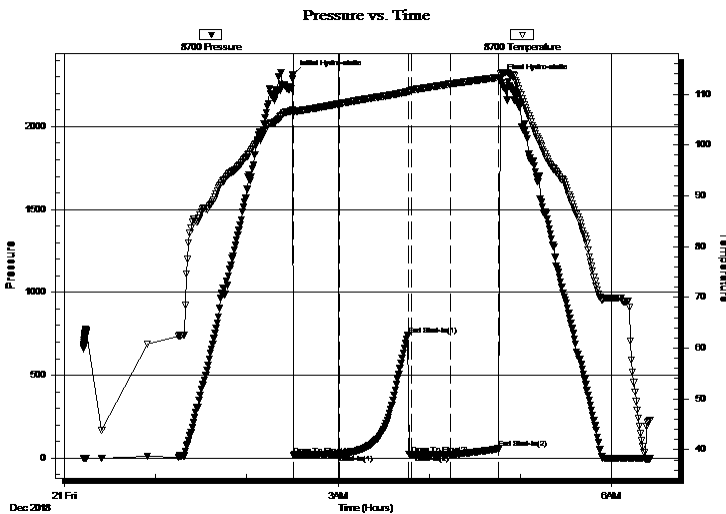
2018.12.21 @ 02:30:25

Time Off Btm:

2018.12.21 @ 04:46:40

TEST COMMENT: 30- IF- Slowly built to 1"
45- IS- No blow
30- FF- Surface blow
30- FSI- No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2311.82	106.85	Initial Hydro-static
1	18.27	106.16	Open To Flow (1)
31	19.63	108.09	Shut-In(1)
76	742.14	110.48	End Shut-In(1)
78	21.39	110.79	Open To Flow (2)
104	21.39	111.98	Shut-In(2)
136	55.97	113.27	End Shut-In(2)
137	2287.17	114.05	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	HOCM, 40%O 60%M	0.05

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Cobalt Energy, LLC

Schroeder Unit "A" #1-8

PO Box 8037
Wichita, KS 67208

8-23-23W Hodgeman,KS

ATTN: Larry Nicholson

Job Ticket: 65021

DST#: 2

Test Start: 2018.12.21 @ 00:12:49

Tool Information

Drill Pipe:	Length: 4527.00 ft	Diameter: 3.82 inches	Volume: 64.17 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 29.00 ft	Diameter: 2.25 inches	Volume: 0.14 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	33.00 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	4554.00 ft			Final 55000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	27.00 ft			
Tool Length:	58.00 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			4524.00	
Shut In Tool	5.00			4529.00	
Hydraulic tool	5.00			4534.00	
Jars	5.00			4539.00	
Gap Sub	3.00			4542.00	
Safety Joint	3.00			4545.00	
Packer	5.00			4550.00	31.00 Bottom Of Top Packer
Packer	4.00			4554.00	
Stubb	1.00			4555.00	
Recorder	0.00	6771	Inside	4555.00	
Recorder	0.00	8700	Outside	4555.00	
Perforations	23.00			4578.00	
Bullnose	3.00			4581.00	27.00 Bottom Packers & Anchor

Total Tool Length: 58.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Cobalt Energy, LLC

Schroeder Unit "A" #1-8

PO Box 8037
Wichita, KS 67208

8-23-23W Hodgeman,KS

Job Ticket: 65021

DST#: 2

ATTN: Larry Nicholson

Test Start: 2018.12.21 @ 00:12:49

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

33 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 64.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.58 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4150.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	HOCM, 40%O 60%M	0.049

Total Length: 10.00 ft Total Volume: 0.049 bbl

Num Fluid Samples: 0

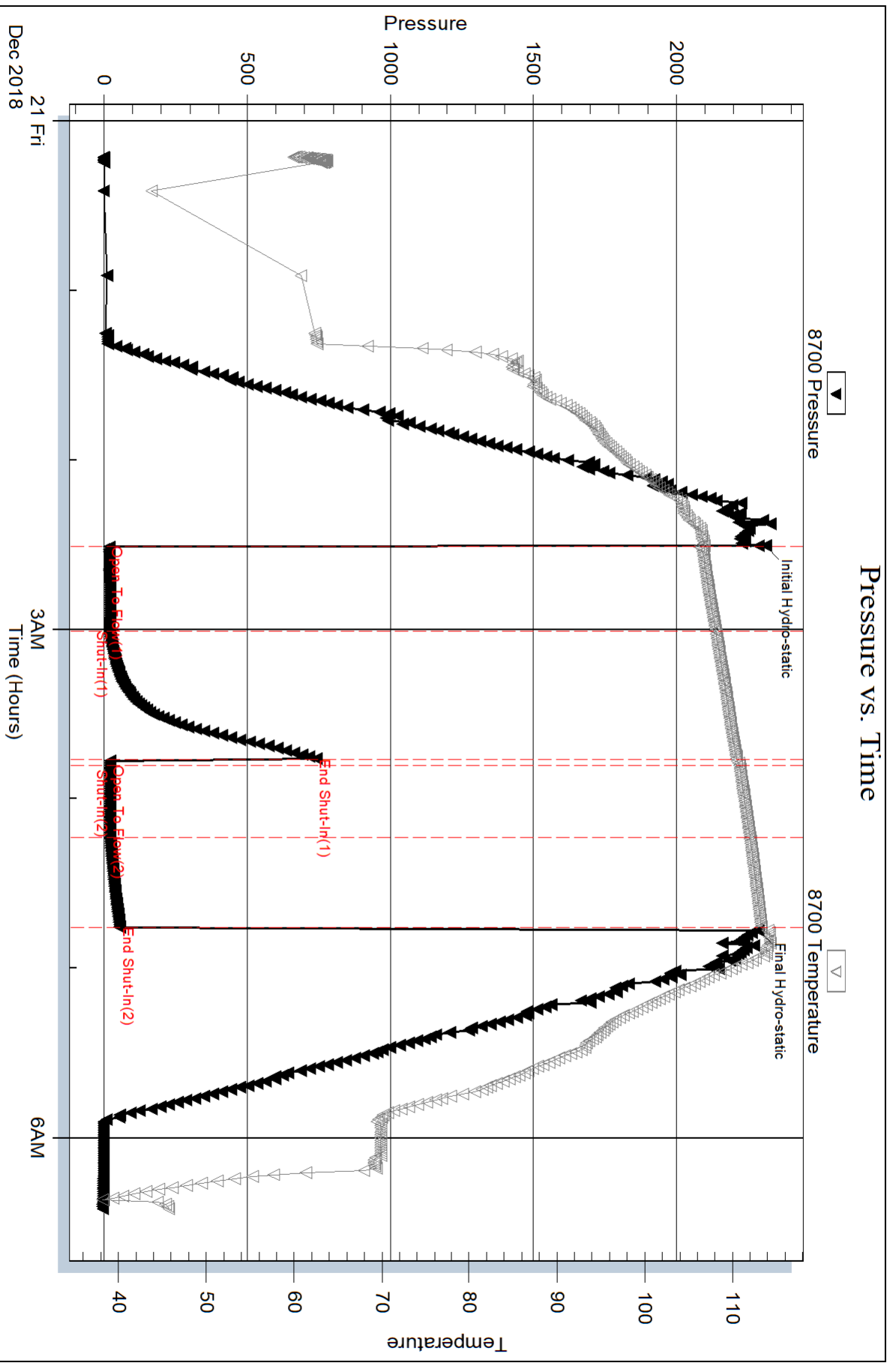
Num Gas Bombs: 0

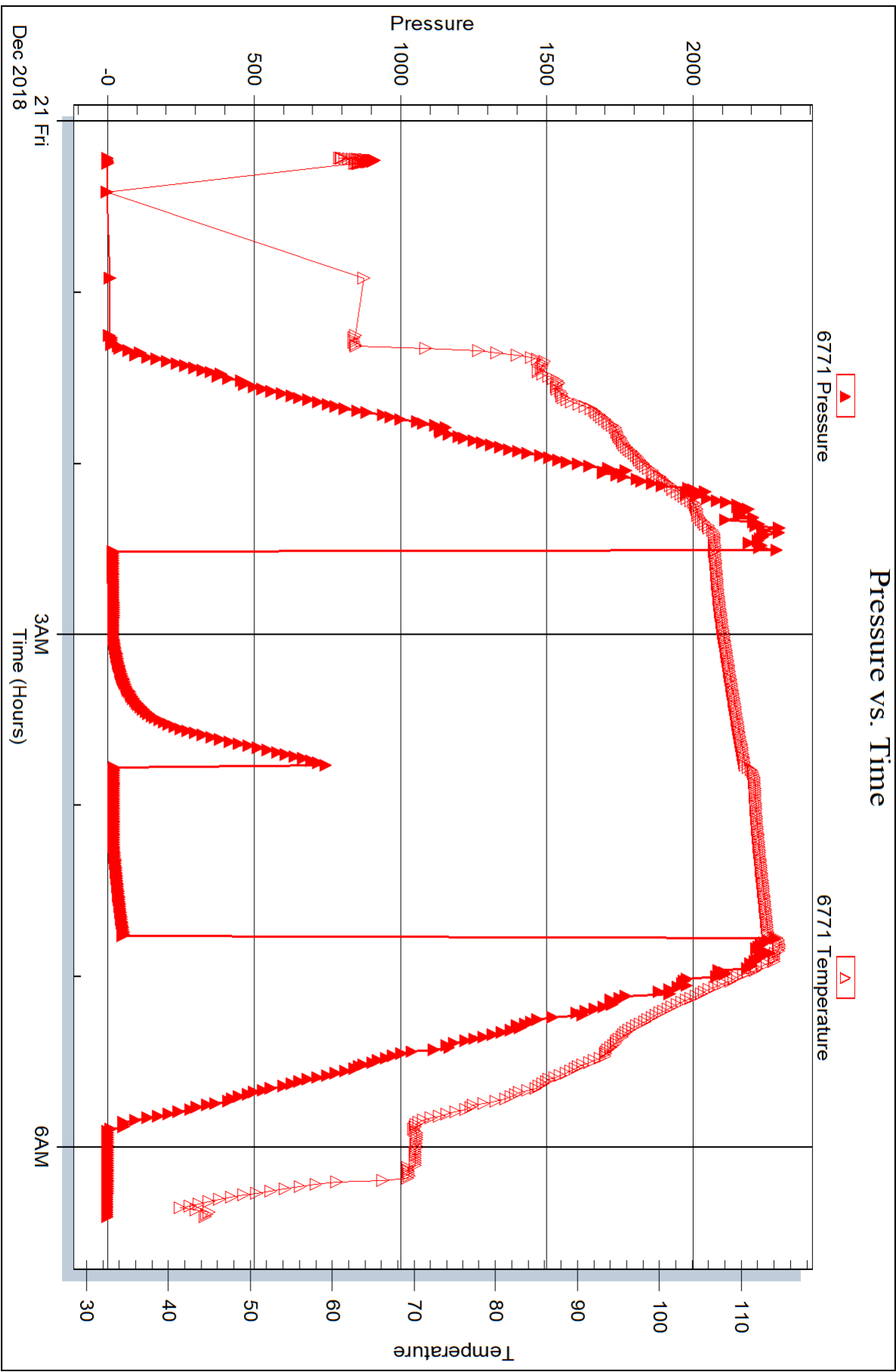
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy, LLC**

PO Box 8037
Wichita, KS 67208

ATTN: Larry Nicholson

8-23-23W Hodgeman,KS

Schroeder Unit "A" #1-8

Start Date: 2018.12.21 @ 11:48:47

End Date: 2018.12.21 @ 18:13:08

Job Ticket #: 65022 DST #: 3

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

Printed: 2018.12.24 @ 09:25:01



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Cobalt Energy, LLC

Schroeder Unit "A" #1-8

PO Box 8037
Wichita, KS 67208

8-23-23W Hodgeman,KS

ATTN: Larry Nicholson

Job Ticket: 65022

DST#: 3

Test Start: 2018.12.21 @ 11:48:47

GENERAL INFORMATION:

Formation: **Miss**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:45:08

Time Test Ended: 18:13:08

Test Type: Conventional Bottom Hole (Reset)

Tester: Brannan Lonsdale

Unit No: 73

Interval: 4579.00 ft (KB) To 4591.00 ft (KB) (TVD)

Reference Elevations: 2256.00 ft (KB)

Total Depth: 4591.00 ft (KB) (TVD)

2251.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8700 Outside

Press@RunDepth: 18.31 psig @ 4580.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.12.21

End Date:

2018.12.21

Last Calib.:

2018.12.21

Start Time: 11:48:48

End Time:

18:13:08

Time On Btm:

2018.12.21 @ 14:44:53

Time Off Btm:

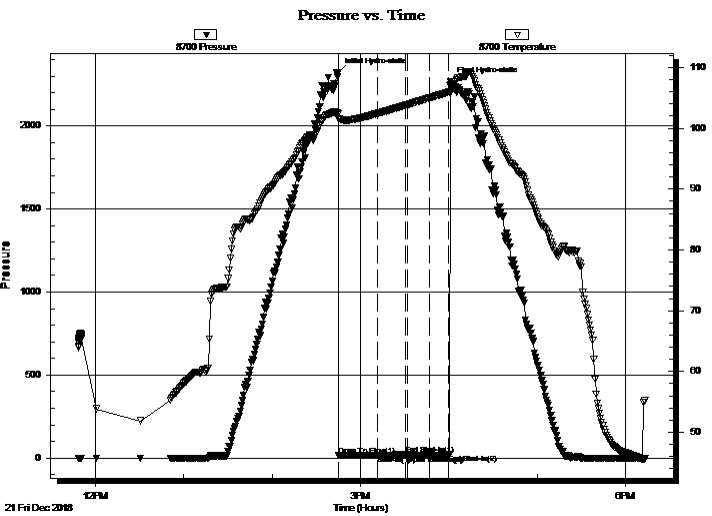
2018.12.21 @ 16:01:08

TEST COMMENT: 30- IF- Very weak surface blow died 24 mins

15- IS- No blow

15- FF- No blow

15- FSI- No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2319.77	102.36	Initial Hydro-static
1	16.25	101.55	Open To Flow (1)
27	17.02	102.43	Shut-In(1)
46	20.37	103.82	End Shut-In(1)
47	17.74	103.87	Open To Flow (2)
62	18.31	104.97	Shut-In(2)
75	19.53	105.91	End Shut-In(2)
77	2265.79	107.18	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1.00	M	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Cobalt Energy, LLC

Schroeder Unit "A" #1-8

PO Box 8037
Wichita, KS 67208

8-23-23W Hodgeman,KS

ATTN: Larry Nicholson

Job Ticket: 65022

DST#: 3

Test Start: 2018.12.21 @ 11:48:47

Tool Information

Drill Pipe:	Length: 4527.00 ft	Diameter: 3.82 inches	Volume: 64.17 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 29.00 ft	Diameter: 2.25 inches	Volume: 0.14 bbl	Weight to Pull Loose: 73000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial 57000.00 lb
Depth to Top Packer:	4579.00 ft			Final 57000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	12.00 ft			
Tool Length:	43.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			4549.00	
Shut In Tool	5.00			4554.00	
Hydraulic tool	5.00			4559.00	
Jars	5.00			4564.00	
Gap Sub	3.00			4567.00	
Safety Joint	3.00			4570.00	
Packer	5.00			4575.00	31.00 Bottom Of Top Packer
Packer	4.00			4579.00	
Stubb	1.00			4580.00	
Recorder	0.00	6771	Inside	4580.00	
Recorder	0.00	8700	Outside	4580.00	
Perforations	8.00			4588.00	
Bullnose	3.00			4591.00	12.00 Bottom Packers & Anchor

Total Tool Length: 43.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Cobalt Energy, LLC

Schroeder Unit "A" #1-8

PO Box 8037
Wichita, KS 67208

8-23-23W Hodgeman,KS

Job Ticket: 65022

DST#: 3

ATTN: Larry Nicholson

Test Start: 2018.12.21 @ 11:48:47

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: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5600.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1.00	M	0.005

Total Length: 1.00 ft Total Volume: 0.005 bbl

Num Fluid Samples: 0

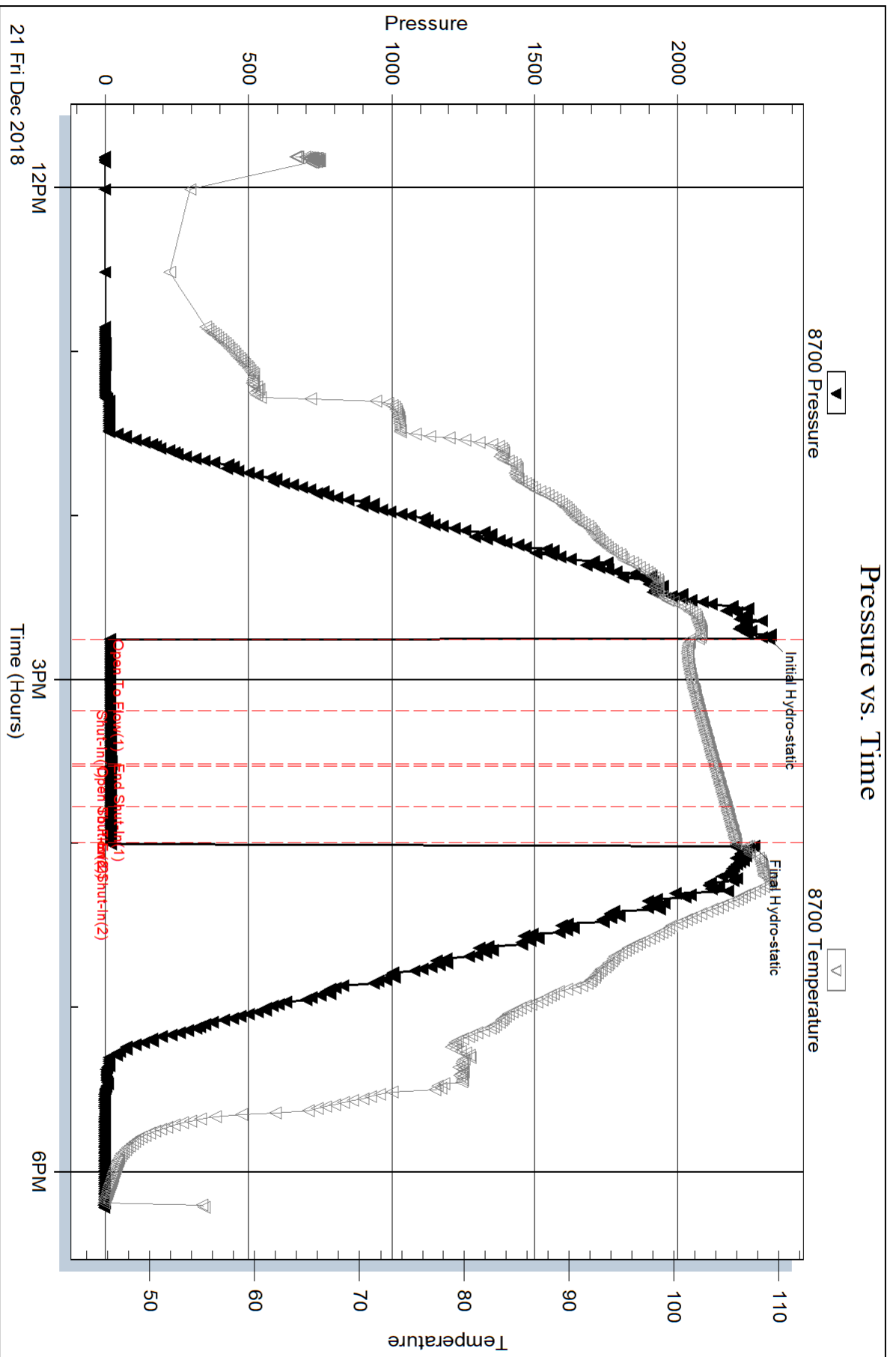
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



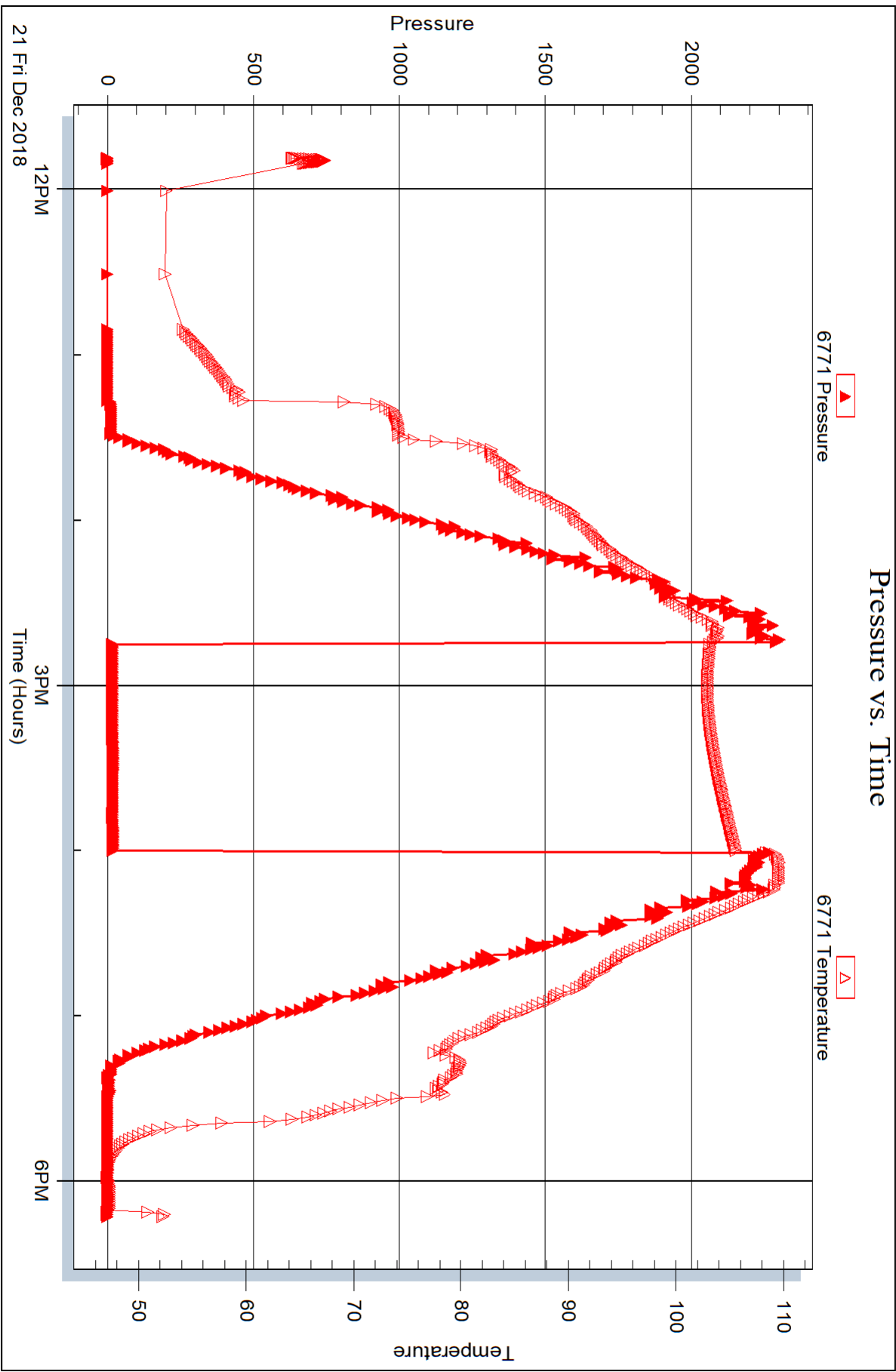
Serial #: 6771

Inside

Cobalt Energy, LLC

8-23-23W Hodgeman, KS

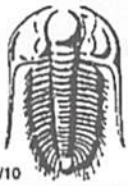
DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 65022

Printed: 2018.12.24 @ 09:25:01



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 65020

Well Name & No. Schroeder Unit "A" #1-8 Test No. 1 Date 12/20/18
 Company Cohalt Energy LLC Elevation 2256 KB 2251 GL
 Address 115 S. Belmont #12, PO Box 8037 Wichita, KS 67208
 Co. Rep / Geo. Larry Nicholson Rig Murfin 16
 Location: Sec. 8 Twp 23 S Rge. 23 W Co. Hodgeman State KS

Interval Tested 4524-4556 Zone Tested M155
 Anchor Length 32' Drill Pipe Run 4370 Mud Wt. 9.4
 Top Packer Depth 4519 Drill Collars Run 147 Vis 64
 Bottom Packer Depth 4524 Wt. Pipe Run --- WL 2.6
 Total Depth 4556 Chlorides 4150 ppm System LCM 1#
 Blow Description IF - slowly built to 1.44"
PSI - No blow
FF - No blow
FSI - No blow

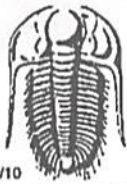
Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>OCM</u>	<u>25</u>		<u>75</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 20' BHT 118° Gravity 33 API RW --- @ --- °F Chlorides --- ppm

(A) Initial Hydrostatic <u>2313</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>2930</u>
(B) First Initial Flow <u>21</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1000</u>
(C) First Final Flow <u>29</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>1225</u>
(D) Initial Shut-In <u>114</u>	<input type="checkbox"/> Circ Sub <u>---</u>	T-Pulled <u>1440</u>
(E) Second Initial Flow <u>27</u>	<input type="checkbox"/> Hourly Standby <u>---</u>	T-Out <u>1648</u>
(F) Second Final Flow <u>32</u>	<input checked="" type="checkbox"/> Mileage <u>174 RT</u> 132rt	Comments <u>---</u>
(G) Final Shut-In <u>60</u>	<input type="checkbox"/> Sampler <u>---</u>	
(H) Final Hydrostatic <u>2267</u>	<input type="checkbox"/> Straddle <u>---</u>	<input checked="" type="checkbox"/> EM Tool <u>350</u>
Initial Open <u>30</u>	<input checked="" type="checkbox"/> Shale Packer <u>250</u>	<input type="checkbox"/> Ruined Shale Packer <u>---</u>
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer <u>---</u>	<input type="checkbox"/> Ruined Packer <u>---</u>
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder <u>---</u>	<input type="checkbox"/> Extra Copies <u>---</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Day Standby <u>---</u>	Sub Total <u>0</u>
	<input type="checkbox"/> Accessibility <u>---</u>	Total <u>1857</u>
	Sub Total <u>1857</u>	MP/DST Disc't <u>---</u>

Approved By _____ Our Representative Brannan Lonsdale

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. **65021**

Well Name & No. Schroeder Unit 'A' #1-8 Test No. 2 Date 12/21/18
 Company Cobalt Energy, LLC Elevation 2256 KB 2251 GL
 Address 115 S. Belmont #12, PO Box 8037 Wichita, KS 67208
 Co. Rep / Geo. Larry Nicholson Rig Murphy 16
 Location: Sec. 8 Twp 23 S Rge. 23 W Co. Hodgeman State KS

Interval Tested 4554-4581 Zone Tested M155
 Anchor Length 27' Drill Pipe Run 4527 Mud Wt. 9.4
 Top Packer Depth 4549 Drill Collars Run 29 Vis 64
 Bottom Packer Depth 4554 Wt. Pipe Run — WL 7.6
 Total Depth 4581 Chlorides 4150 ppm System LCM 1-A

Blow Description IF - Sluery built to 1"
ISF - No blow
PF - Surface blow
BSI - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>HOCM</u>	<u>40</u>	<u>—</u>	<u>60</u>	<u>—</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

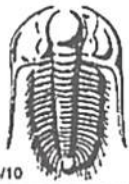
Rec Total 10 BHT 113° Gravity 33 API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2312</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>2355</u>
(B) First Initial Flow <u>18</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>0013</u>
(C) First Final Flow <u>20</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>0230</u>
(D) Initial Shut-In <u>742</u>	<input type="checkbox"/> Circ Sub <u>—</u>	T-Pulled <u>0445</u>
(E) Second Initial Flow <u>21</u>	<input type="checkbox"/> Hourly Standby <u>—</u>	T-Out <u>0625</u>
(F) Second Final Flow <u>21</u>	<input checked="" type="checkbox"/> Mileage <u>174 RT</u> 132	Comments <u>—</u>
(G) Final Shut-In <u>56</u>	<input type="checkbox"/> Sampler <u>—</u>	<u>—</u>
(H) Final Hydrostatic <u>2287</u>	<input type="checkbox"/> Straddle <u>—</u>	<input checked="" type="checkbox"/> EM Tool <u>350</u>
Initial Open <u>30</u>	<input checked="" type="checkbox"/> Shale Packer <u>250</u>	<input type="checkbox"/> Ruined Shale Packer <u>—</u>
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer <u>—</u>	<input type="checkbox"/> Ruined Packer <u>—</u>
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder <u>—</u>	<input type="checkbox"/> Extra Copies <u>—</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Day Standby <u>—</u>	Sub Total <u>350</u>
	<input type="checkbox"/> Accessibility <u>—</u>	Total <u>2207</u>
	Sub Total <u>1857</u>	MP/DST Disc't <u>—</u>

Approved By _____

Our Representative Banner Lonsdale

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 65022

Well Name & No. Schroeder Unit "A" #1-8 Test No. 3 Date 12/21/18
 Company Cobalt Energy, LLC Elevation 2256 KB 2251 GL
 Address 115 S. Behmint #12, PO Box 8037 Wichita, KS 67208
 Co. Rep / Geo. Larry Nicholson Rig Murfin 16
 Location: Sec. 8 Twp 23 S Rge. 23 W Co. Hodgeman State KS

Interval Tested 4579-4591 Zone Tested Miss
 Anchor Length 12' Drill Pipe Run 4527 Mud Wt. 9.3
 Top Packer Depth 4574 Drill Collars Run 29 Vis 52
 Bottom Packer Depth 4579 Wt. Pipe Run --- WL 9.2
 Total Depth 4591 Chlorides 5600 ppm System LCM 1/2"
 Blow Description IF - Very weak surface blow died 24 mins
ISF - No blow
FF - No blow
FST - No blow

Rec	Feet of	%gas	%oil	%water	%mud
1	M				

Rec Total 1' BHT 106° Gravity --- API RW --- @ --- °F Chlorides --- ppm

(A) Initial Hydrostatic <u>2320</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>1125</u>
(B) First Initial Flow <u>16</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1148</u>
(C) First Final Flow <u>17</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>1444</u>
(D) Initial Shut-In <u>20</u>	<input type="checkbox"/> Circ Sub <u>---</u>	T-Pulled <u>1559</u>
(E) Second Initial Flow <u>18</u>	<input type="checkbox"/> Hourly Standby <u>---</u>	T-Out <u>1812</u>
(F) Second Final Flow <u>18</u>	<input checked="" type="checkbox"/> Mileage <u>174 RT</u> 132rt	Comments <u>---</u>
(G) Final Shut-In <u>20</u>	<input type="checkbox"/> Sampler <u>---</u>	
(H) Final Hydrostatic <u>2266</u>	<input type="checkbox"/> Straddle <u>---</u>	
	<input checked="" type="checkbox"/> Shale Packer <u>250</u>	<input checked="" type="checkbox"/> EM Tool <u>350</u>
	<input type="checkbox"/> Extra Packer <u>---</u>	<input type="checkbox"/> Ruined Shale Packer <u>---</u>
Initial Open <u>30</u>	<input type="checkbox"/> Extra Recorder <u>---</u>	<input type="checkbox"/> Ruined Packer <u>---</u>
Initial Shut-In <u>15</u>	<input type="checkbox"/> Day Standby <u>---</u>	<input type="checkbox"/> Extra Copies <u>---</u>
Final Flow <u>15</u>	<input type="checkbox"/> Accessibility <u>---</u>	Sub Total <u>350</u>
Final Shut-In <u>15</u>	Sub Total <u>1857</u>	Total <u>2207</u>

Approved By _____ Our Representative Braman Lonsdale

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.



Services, Inc.

TICKET 031983

CHARGE TO: Cobalt
 ADDRESS
 CITY, STATE, ZIP CODE

PAGE 1 OF 1

1. SERVICE LOCATIONS <u>Ness City KS</u>	WELL/PROJECT NO. <u>1-8</u>	LEASE <u>Shroeder unit A</u>	COUNTY/PARISH <u>Hogman</u>	STATE <u>KS</u>	CITY <u>Setwater</u>	DATE <u>02 Dec 10</u>	OWNER <u>AA Dec 10</u>
2. TICKET TYPE <input type="checkbox"/> SERVICE <input type="checkbox"/> SALES	CONTRACTOR	WELL CATEGORY <u>WHPIN</u>	RIG NAME/NO.	SHIPPED VIA <u>AT</u>	DELIVERED TO <u>location</u>	ORDER NO.	
3. WELL TYPE <u>oil</u>	WELL PURPOSE <u>PTA</u>	JOB PURPOSE <u>Play to Aberdeen</u>		WELL PERMIT NO.		WELL LOCATION <u>8-23-23</u>	
4. REFERRAL LOCATION	INVOICE INSTRUCTIONS						

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	MILEAGE	QTY.	UM	QTY.	UM	UNIT PRICE	AMOUNT
		LOC	ACCT	DF								
515					TRK 115	30	mi				5.00	150.00
576P					Pump Charge	1	ea				875.00	875.00
328-4					60 HPD postmix (40 pages)	240	sk				10.60	2544.00
276					Fluore	50	lb				2.50	125.00
290					D-AIR	2	gal				42.00	84.00
581					sewer charge	240	sk				1.75	420.00
583					Drayage	200	hrs				0.85	256.00

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.

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
OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?				4454 12
WE UNDERSTOOD AND MET YOUR NEEDS?				
OUR SERVICE WAS PERFORMED WITHOUT DELAY?				
WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?				
ARE YOU SATISFIED WITH OUR SERVICE? <input type="checkbox"/> CUSTOMER DID NOT WISH TO RESPOND				TOTAL
				4454 12

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

SWIFT OPERATOR _____ APPROVAL _____

Thank You!

JOB LOG

SWIFT Services, Inc.

DATE PAGE NO.

22 Dec 18

1

CUSTOMER

Cobalt

WELL NO.

7-8

LEASE

Schroeder Unit A

JOB TYPE

PLUG TO ABANDON

TICKET NO.

31983

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
								240SK 60/40 (40/0 gel) plugs 1500' 50sk 630' 80sk 230' 40sk 60' 20sk RH 30 MH 20
	0130	4	13				100	on loc TRK 1145 mix 60/40 (40%) @ 13.1 ppd 50sk 1500' Pump H ₂ O spot cement pull to 630'
	0235		21 3					mix 60/40 (40%) @ 13.1 ppd 80sk Pump H ₂ O - spot cement pull to 230' in front of surface
	0310		11 6 13					mix 60/40 (40%) @ 13.1 40sk Displace 3661 H ₂ O pull to 60' mix 60/40 (40%) @ 13.1 ppd 20sk Plug R H - MH 30sk - 20sk
	<u>0430</u>							wash truck Break up { 240sk } total
	0500							Job complete Thanks Flint, Blaine & Russ



NEW WELL

FIELD ORDER N° C 46655

BOX 438 • HAYSVILLE, KANSAS 67060
316-524-1225

DATE 12-14 20 18

IS AUTHORIZED BY: Cobalt Energy
(NAME OF CUSTOMER)

Address _____ City _____ State _____

To Treat Well As Follows: Lease Schroeder Unit Well No. 'A' 1-8 Customer Order No. _____

Sec. Twp. Range _____ County Hodgeman State KS

CONDITIONS: As a part of the consideration hereof it is agreed that Copeland Acid Service is to service or treat at owners risk, the hereinbefore mentioned well and is not to be held liable for any damage that may accrue in connection with said service or treatment. Copeland Acid Service has made no representation, expressed or implied, and no representations have been relied on, as to what may be the results or effect of the servicing or treating said well. The consideration of said service or treatment is payable. There will be no discount allowed subsequent to such date. 6% interest will be charged after 60 days. Total charges are subject to correction by our invoicing department in accordance with latest published price schedules.

The undersigned represents himself to be duly authorized to sign this order for well owner or operator.

THIS ORDER MUST BE SIGNED BEFORE WORK IS COMMENCED

Well Owner or Operator _____ By _____ Agent

CODE	QUANTITY	DESCRIPTION	UNIT COST	AMOUNT
2	50	Mileage Pump Truck	4 ⁰⁰	200 ⁰⁰
2		Pump Charge - Surface Pipe		1100 ⁰⁰
2	200	Sacks 60/40 2% Gel	10 ⁷⁵	2150 ⁰⁰
2	11	Calcium Chloride	30 ⁰⁰	330 ⁰⁰
2	211	Bulk Charge	1 ²⁵	263 ⁷⁵
2		Bulk Truck Miles 9.284 T x 50 miles = 464.20 TM	1 ¹⁰	510 ⁶⁰
		Process License Fee on _____ Gallons		
		TOTAL BILLING	20%	4554³²

I certify that the above material has been accepted and used; that the above service was performed in a good and workmanlike manner under the direction, supervision and control of the owner, operator or his agent, whose signature appears below.

Copeland Representative Greg C.

Station GB

Andy Muffin
Well Owner, Operator or Agent

- 910.81
3643.50

Remarks _____

NET 30 DAYS

GEOLOGICAL REPORT FINAL

Larry A. Nicholson

NAD 83
38.07294217
-99.87124974

COMPANY & WELL: **Cobalt Schroeder Unit 'A' #1-18**
 LOCATION: **197 FNL 2476 FEL NW NW NW NE**
 SEC: **8** TWP: **23S** RGE: **23W**
 COUNTY: **Hodgeman** STATE: **Ks**

COMPANY: **Cobalt Energy, LLC**
 API #: **15-083-21965** FIELD: _____
 LEASE: **Schroeder Unit 'A'** WELL: **#1-18**
 LOCATION: **NW NW NW NE**
 SURVEY: **197 FNL 2476 FEL**
 SECTION: **8** TWP: **23S** RGE: **23W**
 COUNTY: **Hodgeman** STATE: **Kansas**

CONTRACTOR: **Murfin** Rig # **16**
 SPUD: **12-14-18 12:45pm** COMP: _____
 RTD: **4:591 9:45am 12-23-18** LTD: **4588**
 MUD UP AT: **3310 w/785 bbls**
 MUD TYPE: **Chemical MudCo Justin Whiting**

SAMPLES SAVED: _____
 DRILLING TIME: _____
 SAMPLES EXAMINED: _____
 GEOLOGICAL SUPERVISION: _____
 WELLSITE GEOLOGIST: **LARRY A. NICHOLSON**

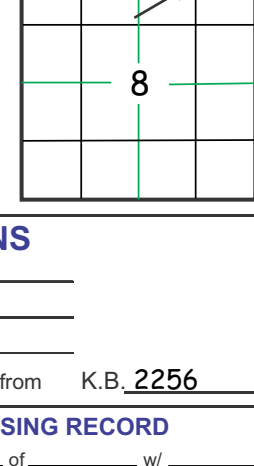
ELEVATIONS

K.B. **2256**
 D.F. _____
 G.L. **2251**

All measurements from **K.B. 2256**

CASING RECORD

Conductor _____ of _____ wf _____ sq
 Surface **223** of **8** wf **200** sq
 Production _____ of _____ wf _____ sq



ELECTRICAL SURVEYS Pioneer: Radiation Guard, 81m Gamma

FORMATION	SAMPLE TOPS	SURSEA DATUM	ELEC LOG TOPS	SURSEA DATUM	REFERENCE WELL
Anhydrite	1461 -1795	1458 -1798	1468 -1798	1468 -1798	+812 -17
Heobner	3832 -1975	3827 -1975	3857 -1975	3857 -1975	-1574 -2
Lansing	3886 -1630	3890 -1630	3900 -1630	3913 -1630	+3
Hushpuckney	4203 -2031	4198 -2031	4198 -2031	4233 -2031	+5
BKC	4287 -2031	4282 -2031	4282 -2031	4312 -2032	+1
Ponnee	4384 -2194	4378 -2194	4378 -2194	4403 -2193	-5
Ft Scott	4450 -2194	4456 -2200	4475 -2195	-2119	+1
Cherokee	4476 -2292	4470 -2214	4499 -2219	-2219	-1
Mississippian	4548 -2320	4541 -2285	4565 -2285	-7	
RTD	4591 -2335	4591 -2335	4675 -2395	-	
LTD	4588	4588	-2332	4672	-2392

REFERENCE WELLS
A: Petroleum Inc Blatner H #1 690 FNL 760 FEL -R23S-R23W KB 2280.
B: _____

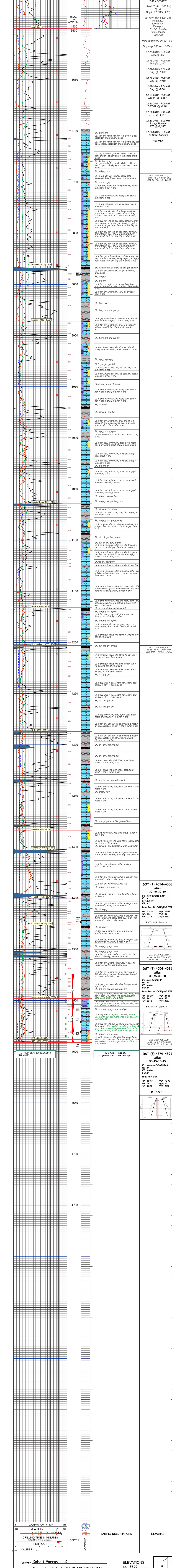
LAN: 792, Modified 5/05, 11/11, 4/12, 4/18 1inch=25.4mm 8.5 x 97.5 216 mm x 2460 mm

DRILLSTEM TEST SUMMARY :

Dat #1 4524-4556 (Miss) 30 45 30 30 IF-21-29 FF-27-32 SI-114-60 Rec Total Fluid 20' (250 75M) IF slow built to 144' NR FF n blow NR Grav 33 API	REMARKS & RECOMMENDATIONS: Based on DST results and the lack of developed reservoir the well was P&A ROP is 5.5 deg/s to Logs. Log curves were moved down to match GeoReport Both logs were with nearly identical LTD, and surf csq was correct. Pipetally was nearly identical to last well pipe tally
Dat #2 4554-4581 (Miss) 30 45 30 30 IF-18-20 FF-21 SI-742-56 Rec Total Fluid 10' (400 60M) IF slow built to 1', NR FF n blow NR	
Dat #3 4579-4591 (Miss) 30 15 15 15 IF-16-17 FF-18-20 SI-20-20 Rec Total Fluid 1' Mud IF surf bit dies 24 min NR FF n blow NR	

LEGEND

Dolomite	Limestone	Shale	Carbonaceous Shale	Sandstone	Chert	Anhydrite



COMPANY: **Cobalt Energy, LLC** ELEVATIONS: **K.B. 2256**
 LEASE: **Schroeder Unit 'A' #1-18 NW NW NW NE** D.F. _____
 LOCATION: **197 FNL 2476 FEL** SEC: **8** TWP: **23S** RGE: **23W** G.L. **2251**
 COUNTY: **Hodgeman** STATE: **Ks** All measurements from **K.B. 2256**

