

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) (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:	
----------------	-------	---------	------------	--

Form	ACO1 - Well Completion
Operator	Darrah Oil Company, LLC
Well Name	PANTHER RANCH 1-30
Doc ID	1603667

All Electric Logs Run

dual induction
micro
comp density/neutron
sonic



HURRICANE SERVICES INC



Remit To: Hurricane Services, Inc.
250 N. Water, Suite 200
Wichita, KS 67202
316-303-9515

Customer:
DARRAH OIL
C/O JOHN JAY DARRAH JR
PO BOX 2786
WICHITA, KS 67201-2786

Invoice Date: 9/7/2021
Invoice #: 0355316
Lease Name: Panther Ranch
Well #: 1-30 (New)
County: Chase, Ks
Job Number: EP2683
District: El Dorado

Date/Description	HRS/QTY	Rate	Total
Surface	0.000	0.000	0.00
Heavy Eq Mileage	50.000	3.600	180.00
Light Eq Mileage	50.000	1.800	90.00
Ton Mileage	371.000	1.350	500.85
Cement Pump Service	1.000	675.000	675.00
H-325	150.000	18.000	2,700.00

92090

Total 4,145.85

TERMS: Net 30 days. Interest may be charged on past due invoice at rate of 1 ½% per month or maximum allowed by applicable state or federal laws. HSI has right to revoke any discounts applied in arriving at net invoice price if invoice is past due. If revoked, full invoice price without discount plus additional sales tax, as applicable, is due immediately and subject to interest charges. Customer agrees to pay all collection costs directly or indirectly incurred by HSI in the event HSI engages a third party to pursue collection of past due invoice.

SALES TAX: Services performed on oil, gas and water wells in Kansas are subject to sales tax, with certain exceptions. HSI relies on the well information provided by the customer in identifying whether the services performed on wells qualify for exemption.

WE APPRECIATE YOUR BUSINESS!

Hurricane Services, Inc.
 250 N. Water St., Suite #200
 Wichita, KS 67202



Customer	Darrah Oil Co	Lease & Well #	Panther Ranch # 1-30		Date	9/7/2021
Service District	El Dorado	County & State	Chase, KS	Legals S/T/R	30-19S-6E	Job #
Job Type	Surface	<input type="checkbox"/> PROD <input type="checkbox"/> INJ <input type="checkbox"/> SWD	New Well?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> No		Ticket #
						EP2683
						EP2683

Equipment #	Driver	Job Safety Analysis - A Discussion of Hazards & Safety Procedures				
91	Kevin	<input checked="" type="checkbox"/> Hard hat	<input checked="" type="checkbox"/> Gloves	<input type="checkbox"/> Lockout/Tagout	<input type="checkbox"/> Warning Signs & Flagging	
265	Garret	<input checked="" type="checkbox"/> H2S Monitor	<input checked="" type="checkbox"/> Eye Protection	<input type="checkbox"/> Required Permits	<input type="checkbox"/> Fall Protection	
294	T.C.	<input checked="" type="checkbox"/> Safety Footwear	<input type="checkbox"/> Respiratory Protection	<input checked="" type="checkbox"/> Slip/Trip/Fall Hazards	<input checked="" type="checkbox"/> Specific Job Sequence/Expectations	
		<input checked="" type="checkbox"/> FRC/Protective Clothing	<input type="checkbox"/> Additional Chemical/Add PPE	<input checked="" type="checkbox"/> Overhead Hazards	<input checked="" type="checkbox"/> Muster Point/Medical Locations	
		<input checked="" type="checkbox"/> Hearing Protection	<input checked="" type="checkbox"/> Fire Extinguisher	<input type="checkbox"/> Additional concerns or issues noted below		
Comments						

Product/ Service Code	Description	Unit of Measure	Quantity	Net Amount	
M010	Heavy Equipment Mileage	mi	50.00		\$180.00
M015	Light Equipment Mileage	mi	50.00		\$90.00
M020	Ton Mileage	tm	371.00		\$500.85
C010	Cement Pump Service	ea	1.00		\$675.00
Cp015	H-325	sack	150.00		\$2,700.00

Customer Section: On the following scale how would you rate Hurricane Services Inc.?			Net: \$4,145.85		
Based on this job, how likely is it you would recommend HSI to a colleague? <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <small>Unlikely 1 2 3 4 5 6 7 8 9 10 Extremely Likely</small>		Total Taxable	\$ -	Tax Rate:	
		State tax laws deem certain products and services used on new wells to be sales tax exempt. Hurricane Services relies on the customer provided well information above to make a determination if services and/or products are tax exempt.			
		Sale Tax:	\$ -	Total:	\$ 4,145.85
HSI Representative: <i>Kevin Noeller</i>					

TERMS: Cash in advance unless Hurricane Services Inc. (HSI) has approved credit prior to sale. Credit terms of sale for approved accounts are total invoice due on or before the 30th day from the date of invoice. Past due accounts shall pay interest on the balance past due at the rate of 1 ½% per month or the maximum allowable by applicable state or federal laws. In the event it is necessary to employ an agency and/or attorney to affect the collection, Customer hereby agrees to pay all fees directly or indirectly incurred for such collection. In the event that Customer's account with HSI becomes delinquent, HSI has the right to revoke any discounts previously applied in arriving at net invoice price. Upon revocation, the full invoice price without discount is immediately due and subject to collection. Prices quoted are estimates only and are good for 30 days from the date of issue. Pricing does not include federal, state, or local taxes, or royalties and stated price adjustments. Actual charges may vary depending upon time, equipment, and material ultimately required to perform these services. Any discount is based on 30 days net payment terms or cash. **DISCLAIMER NOTICE:** Technical data is presented in good faith, but no warranty is stated or implied. HSI assumes no liability for advice or recommendations made concerning the results from the use of any product or service. The information presented is a best estimate of the actual results that may be achieved and should be used for comparison purposes and HSI makes no guarantee of future production performance. Customer represents and warrants that well and all associated equipment in acceptable condition to receive services by HSI. Likewise, the customer guarantees proper operational care of all customer owned equipment and property while HSI is on location performing services. The authorization below acknowledges the receipt and acceptance of all terms/conditions stated above, and Hurricane has been provided accurate well information in determining taxable services.

X _____ **CUSTOMER AUTHORIZATION SIGNATURE**



CEMENT TREATMENT REPORT

Customer: Darrah Oil Co	Well: Panther Ranch # 1-30	Ticket: EP2683
City, State:	County: Chase, KS	Date: 9/7/2021
Field Rep: Judd Gulick	S-T-R: 30-19S-6E	Service: Surface

Downhole Information	
Hole Size:	12.25 in
Hole Depth:	ft
Casing Size:	8 5/8 in
Casing Depth:	237' ft
Tubing / Liner:	in
Depth:	ft
Tool / Packer:	
Tool Depth:	ft
Displacement:	bbls

Calculated Slurry - Lead	
Blend:	H-325
Weight:	15.0 ppg
Water / Sx:	6.5 gal / sx
Yield:	1.36 ft ³ / sx
Annular Bbls / Ft.:	0.0735 bbs / ft.
Depth:	250 ft
Annular Volume:	18.4 bbls
Excess:	
Total Slurry:	18.4 bbls
Total Sacks:	150 sacks

Calculated Slurry - Tail	
Blend:	
Weight:	ppg
Water / Sx:	gal / sx
Yield:	ft ³ / sx
Annular Bbls / Ft.:	bbs / ft.
Depth:	ft
Annular Volume:	0 bbls
Excess:	
Total Slurry:	0.0 bbls
Total Sacks:	#DIV/0! sx

TIME	RATE	PSI	STAGE BBLs	TOTAL BBLs	REMARKS
6:00 PM			-	-	On location safety meeting
6:05 PM				-	Hook up pump and hoses
6:40 PM				-	Rig broke circulation Circulated for 5 min.
6:54 PM	4.5	30.0	8.0	8.0	Pumped 8 bbls of water
7:00 PM	2.5	20.0	36.0	44.0	Mix and pump cement 150 sacks
7:22 PM	3.0	55.0	14.0	58.0	Displaced 14 bbls water good returns on cement
7:27 PM				58.0	Shut in casing
7:30 PM				58.0	Wash up pump and lines
7:35 PM				58.0	Rig down
				58.0	
				58.0	
				58.0	
				58.0	
				58.0	
				58.0	
				58.0	
				58.0	
				58.0	
				58.0	
				58.0	
				58.0	
				58.0	
				58.0	
				58.0	
				58.0	
				58.0	
				58.0	
				58.0	
				58.0	
				58.0	
				58.0	
				58.0	
				58.0	
				58.0	
				58.0	

CREW	UNIT	AVERAGE RATE	AVERAGE PRESSURE	TOTAL FLUID
Cementer: Kevin	91	3.3 bpm	35 psi	58 bbls
Pump Operator: Garret	265			
Bulk #1: T.C.	294			
Bulk #2:				



Customer	Darrah Oit Co	Lease & Well #	Panther Ranch #1-30		Date	9/13/2021	
Service District	Garnett	County & State	Chase Co., KS	Legals S/T/R	30-19S-6E	Job #	
Job Type	Longstring	<input checked="" type="checkbox"/> PROD	<input type="checkbox"/> INJ	<input type="checkbox"/> SWD	New Well?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> No	Ticket #
Equipment #	Driver	Job Safety Analysis - A Discussion of Hazards & Safety Procedures					
247	Alan Mader	<input checked="" type="checkbox"/> Hard hat	<input checked="" type="checkbox"/> Gloves	<input type="checkbox"/> Lockout/Tagout	<input type="checkbox"/> Warning Signs & Flagging		
239	Casey Kennedy	<input checked="" type="checkbox"/> H2S Monitor	<input checked="" type="checkbox"/> Eye Protection	<input type="checkbox"/> Required Permits	<input type="checkbox"/> Fall Protection		
124	Scott McCrea	<input checked="" type="checkbox"/> Safety Footwear	<input type="checkbox"/> Respiratory Protection	<input checked="" type="checkbox"/> Slip/Trip/Fall Hazards	<input checked="" type="checkbox"/> Specific Job Sequence/Expectations		
90	Devin Katzer	<input checked="" type="checkbox"/> FRC/Protective Clothing	<input type="checkbox"/> Additional Chemical/Acid PPE	<input checked="" type="checkbox"/> Overhead Hazards	<input checked="" type="checkbox"/> Muster Point/Medical Locations		
		<input checked="" type="checkbox"/> Hearing Protection	<input checked="" type="checkbox"/> Fire Extinguisher	<input type="checkbox"/> Additional concerns or issues noted below			
Comments							
Set 5.5" casing - 100 sxs H854 Thixo + 50 sxs for rat hole & mousehole; KCl water in first 20 bbl displacement							

Product/ Service Code	Description	Unit of Measure	Quantity	Net Amount
M010	Heavy Equipment Mileage	mi	50.00	\$180.00
M020	Ton Mileage	tm	425.00	\$573.75
C015	Cement Pump Service	ea	1.00	\$1,350.00
C040	Casing Swivel	job	1.00	\$270.00
CP060	H854 Thixo	sack	150.00	\$3,780.00
CP170	Mud Flush	gal	500.00	\$450.00
AF055	Liquid KCL Substitute	gal	1.00	\$27.00
CP125	Pheno Seal	lb	150.00	\$236.25
FE125	5 1/2" Centralizer	ea	4.00	\$216.00
FE145	5 1/2" Float Shoe - AFU Flapper Type	ea	1.00	\$337.50
FE170	5 1/2" Latch Down Plug & Baffle	ea	1.00	\$315.00
T010	Vacuum Truck - 80 bbl	hr	6.50	\$685.00
AF080	Fresh Water	gal	3,000.00	\$45.00

Customer Section: On the following scale how would you rate Hurricane Services Inc.?				Net:	\$8,365.50
<p>Based on this job, how likely is it you would recommend HSI to a colleague?</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>Unlikely 1 2 3 4 5 6 7 8 9 10 Extremely Likely</p>				Total Taxable	\$ -
				Tax Rate:	
				Safe Tax:	\$ -
				Total:	\$ 8,365.50
HSI Representative:					

TERMS: Cash in advance unless Hurricane Services Inc. (HSI) has approved credit prior to sale. Credit terms of sale for approved accounts are total invoice due on or before the 30th day from the date of invoice. Past due accounts shall pay interest on the balance past due at the rate of 1 1/2% per month or the maximum allowable by applicable state or federal laws. In the event it is necessary to employ an agency and/or attorney to affect the collection, Customer hereby agrees to pay all fees directly or indirectly incurred for such collection. In the event that Customer's account with HSI becomes delinquent, HSI has the right to revoke any discounts previously applied in arriving at net invoice price. Upon revocation, the full invoice price without discount is immediately due and subject to collection. Prices quoted are estimates only and are good for 30 days from the date of issue. Pricing does not include federal, state, or local taxes, or royalties and stated price adjustments. Actual charges may vary depending upon time, equipment, and material ultimately required to perform these services. Any discount is based on 30 days net payment terms or cash. **DISCLAIMER NOTICE:** Technical data is presented in good faith, but no warranty is stated or implied. HSI assumes no liability for advice or recommendations made concerning the results from the use of any product or service. The information presented is a best estimate of the actual results that may be achieved and should be used for comparison purposes and HSI makes no guarantee of future production performance. Customer represents and warrants that well and all associated equipment in acceptable condition to receive services by HSI. Likewise, the customer guarantees proper operational care of all customer owned equipment and property while HSI is on location performing services. The authorization below acknowledges the receipt and acceptance of all terms/conditions stated above, and Hurricane has been provided accurate well information in determining taxable services.

X _____ **CUSTOMER AUTHORIZATION SIGNATURE**



CEMENT TREATMENT REPORT

Customer: Darrah Oil Co	Well: Panther Ranch #1-30	Ticket: EP2725
City, State: Wichita, Ks.	County: Chase Co., KS	Date: 9/13/2021
Field Rep: Cooper Seely	S-T-R: 30-19S-6E	Service: Longstring

Downhole Information		Calculated Slurry - Lead		Calculated Slurry - Tail	
Hole Size:	7 7/8 in	Blend:	H854	Blend:	
Hole Depth:	2400 ft	Weight:	14.0 ppg	Weight:	ppg
Casing Size:	5 1/2 in	Water / Sx:	8.3 gal / sx	Water / Sx:	gal / sx
Casing Depth:	2382 ft	Yield:	1.73 ft ³ / sx	Yield:	ft ³ / sx
Tubing / Liner:	in	Annular Bbls / Ft.:	bbs / ft.	Annular Bbls / Ft.:	bbs / ft.
Depth:	ft	Depth:	ft	Depth:	ft
Tool / Packer:	baffle	Annular Volume:	0.0 bbls	Annular Volume:	0 bbls
Tool Depth:	2352 ft	Excess:		Excess:	
Displacement:	57.7 bbls	Total Slurry:	0.0 bbls	Total Slurry:	0.0 bbls
		Total Sacks:	0 sx	Total Sacks:	0 sx

TIME	RATE	PSI	BBLs	STAGE	TOTAL BBLs	REMARKS
9:00 AM			-		-	Arrive at location. Hold safety meeting. Wait for rig to finish running casing and then rig up.
10:55 AM	2.0	100.0			-	Mix and pump 30 sacks to plug rat hole and 20 sacks to plug key hole under rig.
11:20 AM		300.0			-	Mix and pump 500 gallons mud flush ahead of cement. Mix and pump 100 sacks H854 cement with 1# PhenoSeal per sack. Flush pump and release latch down plug.
11:35 AM		500.0			-	Pump plug to baffle with KCL in first 20 bbls. Plug landed and latched at 57.7 bbls. Well held 1000 PSI.
		1,000.0			-	Had good circulation and good rotation the entire time.
					-	Released pressure. Washed up and rigged down.
					-	
					-	
					-	
					-	
					-	
					-	
					-	
					-	
					-	
					-	
					-	
					-	
					-	
					-	
					-	
					-	
					-	
					-	
					-	
					-	

CREW		UNIT	SUMMARY		
Cementer:	Alan Mader	247	Average Rate	Average Pressure	Total Fluid
Pump Operator:	Casey Kennedy	239	2.0 bpm	475 psi	- bbls
Bulk #1:	Scott McCrea	124			
Bulk #2:	Devin Katzer	90			



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Darrah Oil Company, LLC

30/19S/6E Chase, KS

125 North Market
Suite 1425
Wichita, KS 67202-1720
ATTN: Harlan Clonts/Roger

Panther Ranch #1-30

Job Ticket: 67135 **DST#: 1**

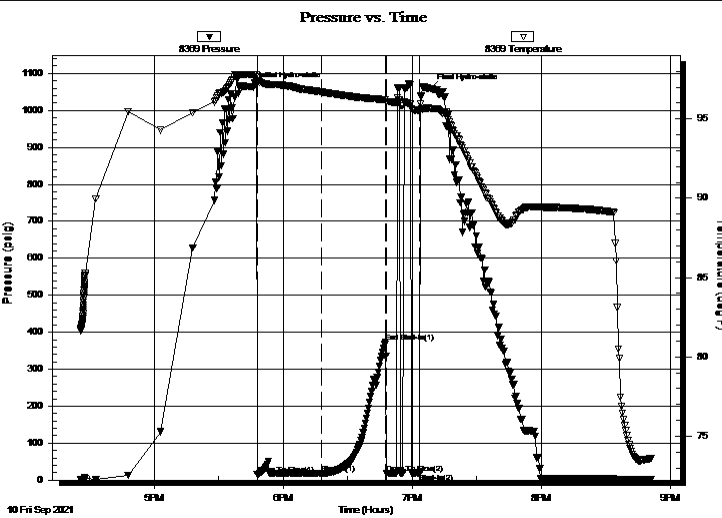
Test Start: 2021.09.10 @ 16:26:00

GENERAL INFORMATION:

Formation: **Viola**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 17:47:50
 Time Test Ended: 20:51:20
 Interval: **2165.00 ft (KB) To 2178.00 ft (KB) (TVD)**
 Total Depth: 2178.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Jimmy Ricketts
 Unit No: 80
 Reference Elevations: 1445.00 ft (KB)
 1436.00 ft (CF)
 KB to GR/CF: 9.00 ft

Serial #: 8369 Inside
 Press@RunDepth: 18.86 psig @ 2166.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2021.09.10 End Date: 2021.09.10 Last Calib.: 1899.12.30
 Start Time: 16:26:01 End Time: 20:51:20 Time On Btm: 2021.09.10 @ 17:45:40
 Time Off Btm: 2021.09.10 @ 19:08:10

TEST COMMENT: IF - No blow .
 FF - No blow . flushed tool 5 minutes and 10 minutes into final flow period. Still no blow . Pulled test 15 minutes in.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1063.72	97.77	Initial Hydro-static
3	16.08	97.30	Open To Flow (1)
33	18.86	96.69	Shut-In(1)
62	374.16	96.20	End Shut-In(1)
63	18.89	96.09	Open To Flow (2)
78	18.85	95.50	Shut-In(2)
83	1058.61	95.67	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2.00	OSM 1% O 99% M	0.01
0.00	TS OCM 13% O 87% M	0.00

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Darrah Oil Company, LLC

30/19S/6E Chase, KS

125 North Market
Suite 1425
Wichita, KS 67202-1720
ATTN: Harlan Clonts/Roger

Panther Ranch #1-30

Job Ticket: 67135 **DST#: 1**

Test Start: 2021.09.10 @ 16:26:00

GENERAL INFORMATION:

Formation: **Viola**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:47:50

Time Test Ended: 20:51:20

Test Type: Conventional Bottom Hole (Initial)

Tester: Jimmy Ricketts

Unit No: 80

Interval: 2165.00 ft (KB) To 2178.00 ft (KB) (TVD)

Reference Elevations: 1445.00 ft (KB)

Total Depth: 2178.00 ft (KB) (TVD)

1436.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 9.00 ft

Serial #: 8846 Outside

Press@RunDepth: psig @ 2166.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2021.09.10 End Date: 2021.09.10

Last Calib.: 1899.12.30

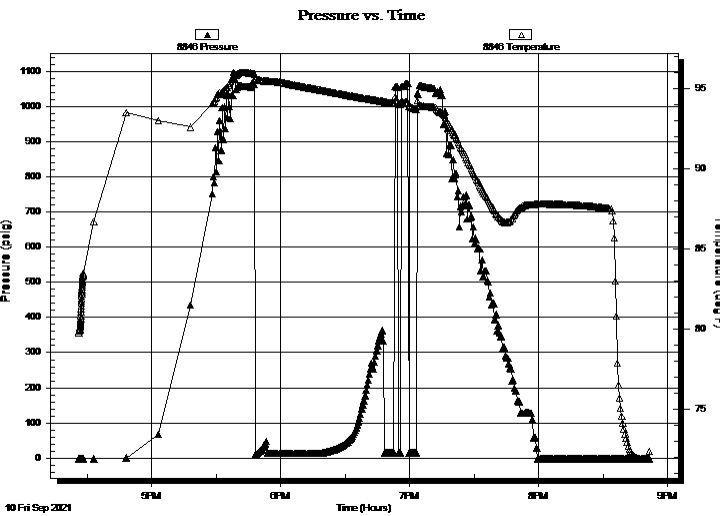
Start Time: 16:26:01 End Time: 20:52:00

Time On Btm:

Time Off Btm:

TEST COMMENT: IF - No blow .

FF - No blow . flushed tool 5 minutes and 10 minutes into final flow period. Still no blow . Pulled test 15 minutes in.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
2.00	OSM 1% O 99% M	0.01
0.00	TS OCM 13% O 87% M	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Darrah Oil Company, LLC

30/19S/6E Chase, KS

125 North Market
Suite 1425
Wichita, KS 67202-1720

Panther Ranch #1-30

Job Ticket: 67135

DST#: 1

ATTN: Harlan Clonts/Roger

Test Start: 2021.09.10 @ 16:26:00

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: 45.00 sec/qt

Cushion Volume:

bbbl

Water Loss: in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
2.00	OSM 1% O 99% M	0.010
0.00	TS OCM 13% O 87% M	0.000

Total Length: 2.00 ft Total Volume: 0.010 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

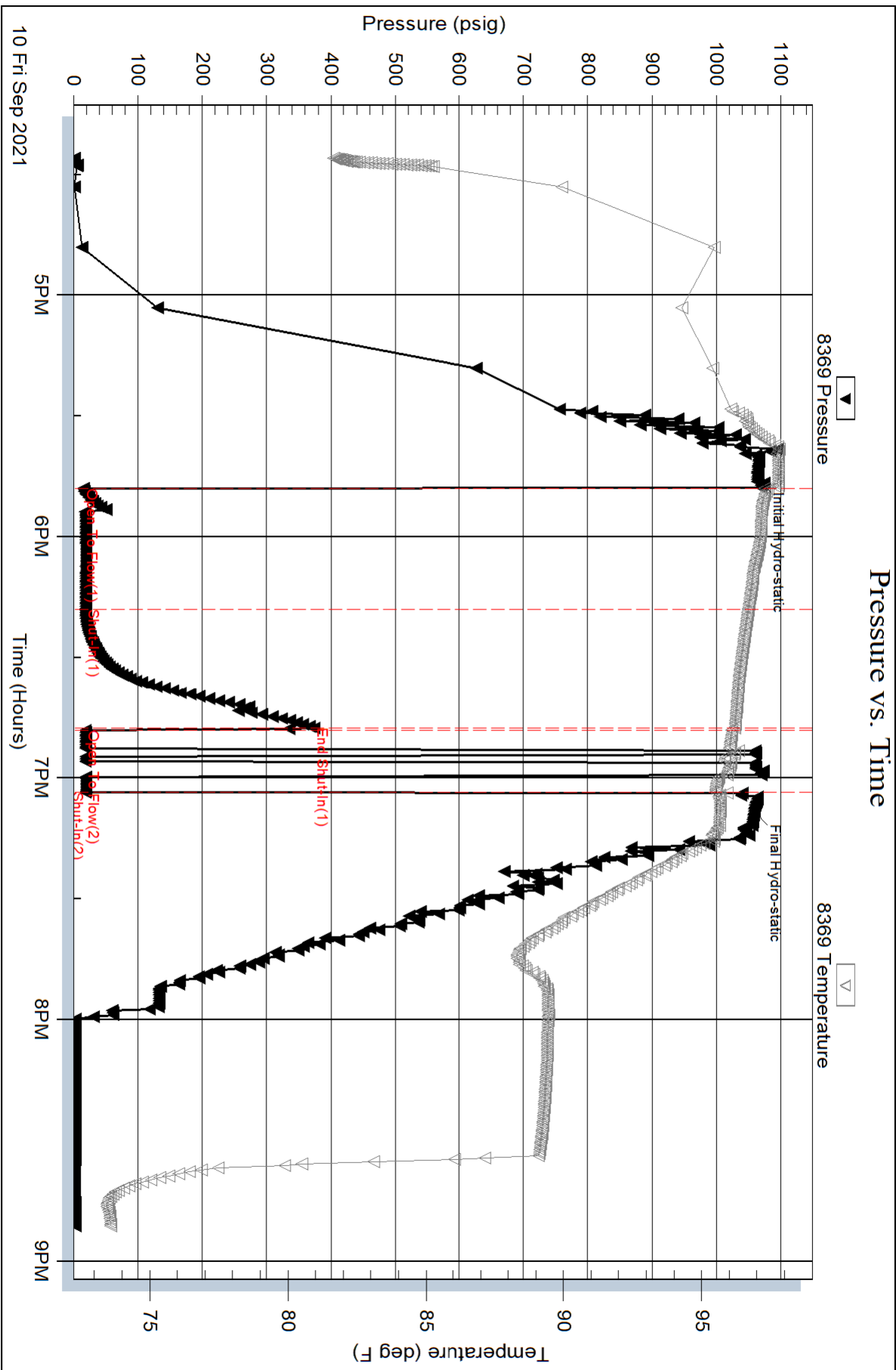
Serial #: 8369

Inside

Darrah Oil Company, LLC

Panther Ranch #1-30

DST Test Number: 1

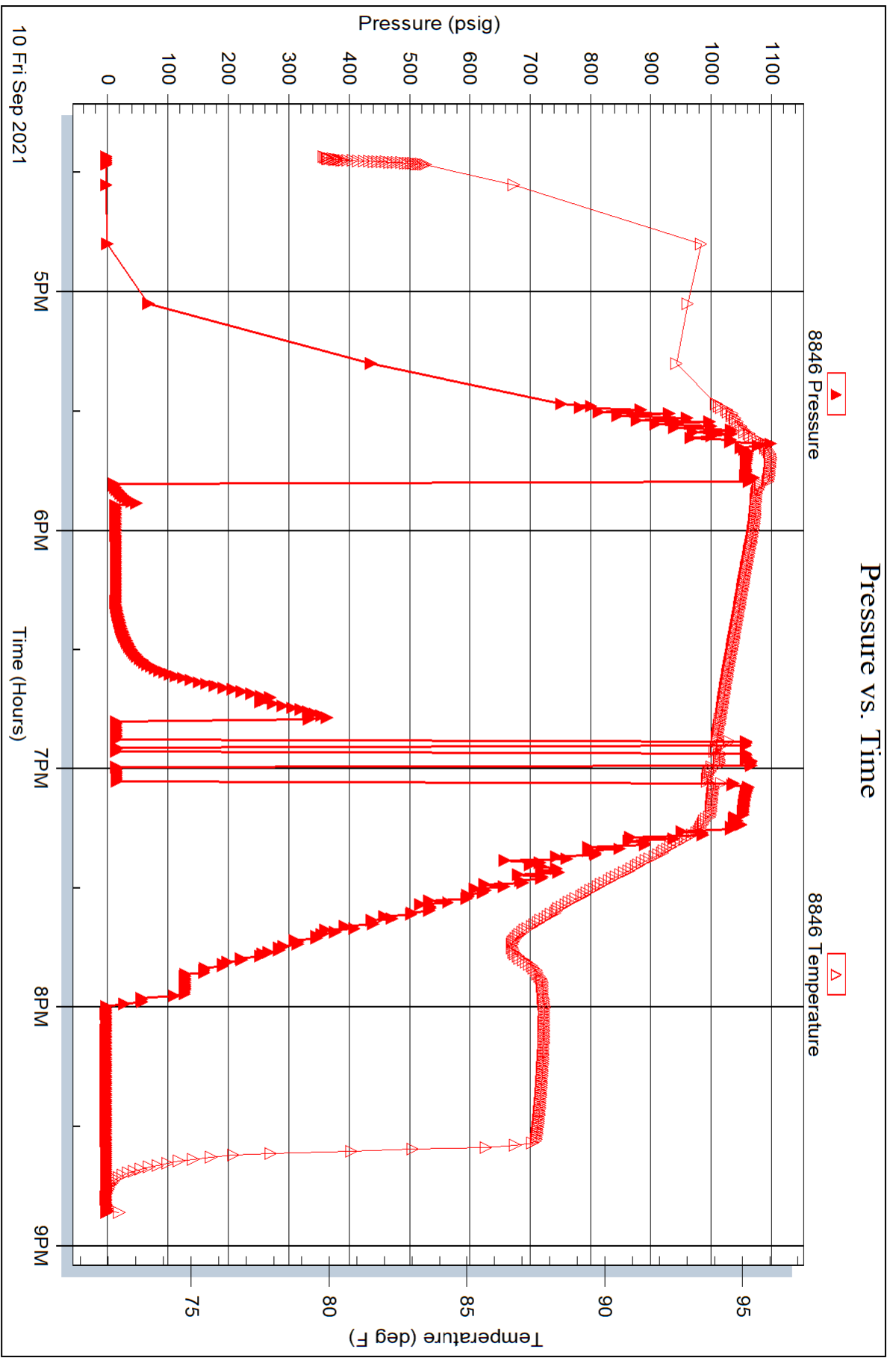


Serial #: 8846

Outside Darrah Oil Company, LLC

Panther Ranch #1-30

DST Test Number: 1





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Darrah Oil Company, LLC

30/19S/6E Chase, KS

125 North Market
Suite 1425
Wichita, KS 67202-1720
ATTN: Harlan Clonts/Roger

Panther Ranch #1-30

Job Ticket: 67136

DST#: 2

Test Start: 2021.09.11 @ 06:18:00

GENERAL INFORMATION:

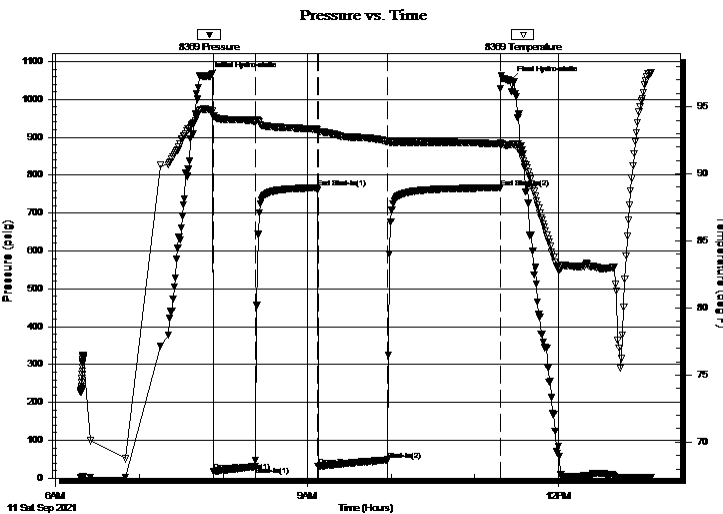
Formation: **Viola**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 07:53:00
 Time Test Ended: 13:07:00
 Interval: **2177.00 ft (KB) To 2193.00 ft (KB) (TVD)**
 Total Depth: 2193.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Jimmy Ricketts
 Unit No: 80
 Reference Elevations: 1445.00 ft (KB)
 1436.00 ft (CF)
 KB to GR/CF: 9.00 ft

Serial #: 8369

Inside

Press@RunDepth: 48.06 psig @ 2178.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2021.09.11 End Date: 2021.09.11 Last Calib.: 1899.12.30
 Start Time: 06:18:01 End Time: 13:07:00 Time On Btm: 2021.09.11 @ 07:49:20
 Time Off Btm: 2021.09.11 @ 11:25:30

TEST COMMENT: IF - Weak blow building to 1/2 inch of water during initial flow period.
 FF - Weak blow building to 1/2 inch of water during final flow period.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1061.21	94.79	Initial Hydro-static
4	17.89	94.28	Open To Flow (1)
34	30.74	93.90	Shut-In(1)
78	766.50	93.32	End Shut-In(1)
79	31.26	93.13	Open To Flow (2)
128	48.06	92.40	Shut-In(2)
209	766.58	92.23	End Shut-In(2)
217	1050.03	92.16	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	VSOCM 2% O * 98% M	0.30
1.00	CO 100% O	0.00
0.00	TS SOCM 10% O & 90% M	0.00

Gas Rates

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



TRILLOBITE TESTING, INC.

DRILL STEM TEST REPORT

Darrah Oil Company, LLC

125 North Market
Suite 1425
Wichita, KS 67202-1720
ATTN: Harlan Clonts/Roger

30/19S/6E Chase, KS

Panther Ranch #1-30

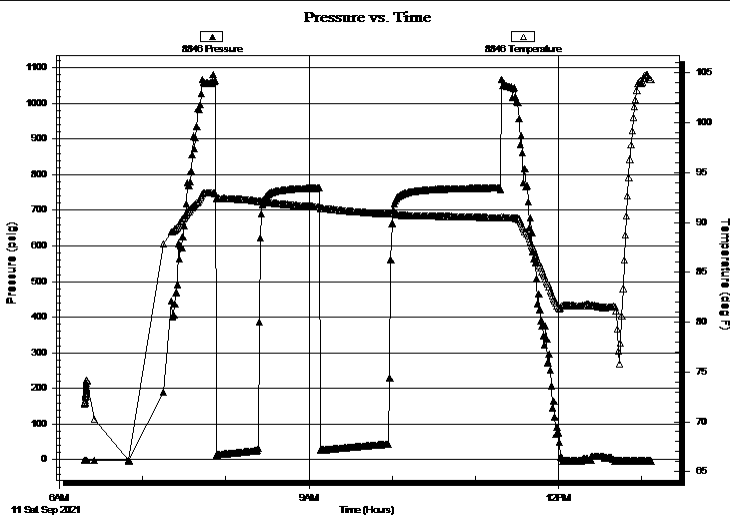
Job Ticket: 67136 DST#: 2
Test Start: 2021.09.11 @ 06:18:00

GENERAL INFORMATION:

Formation: **Viola**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 07:53:00 Tester: Jimmy Ricketts
 Time Test Ended: 13:07:00 Unit No: 80
 Interval: **2177.00 ft (KB) To 2193.00 ft (KB) (TVD)** Reference Elevations: 1445.00 ft (KB)
 Total Depth: 2193.00 ft (KB) (TVD) 1436.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 9.00 ft

Serial #: 8846 **Outside**
 Press@RunDepth: psig @ 2178.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2021.09.11 End Date: 2021.09.11 Last Calib.: 1899.12.30
 Start Time: 06:18:01 End Time: 13:07:10 Time On Btm:
 Time Off Btm:

TEST COMMENT: IF - Weak blow building to 1/2 inch of water during initial flow period.
 FF - Weak blow building to 1/2 inch of water during final flow period.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
60.00	VSOCM 2% O * 98% M	0.30
1.00	CO 100% O	0.00
0.00	TS SOCM 10% O & 90% M	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Darrah Oil Company, LLC

30/19S/6E Chase, KS

125 North Market
Suite 1425
Wichita, KS 67202-1720
ATTN: Harlan Clonts/Roger

Panther Ranch #1-30

Job Ticket: 67136 **DST#: 2**
Test Start: 2021.09.11 @ 06:18:00

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 45.00 sec/qt	Cushion Volume: bbl		
Water Loss: in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	VSOCM 2% O * 98% M	0.295
1.00	CO 100% O	0.005
0.00	TS SOCM 10% O & 90% M	0.000

Total Length: 61.00 ft Total Volume: 0.300 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:

Serial #: 8369

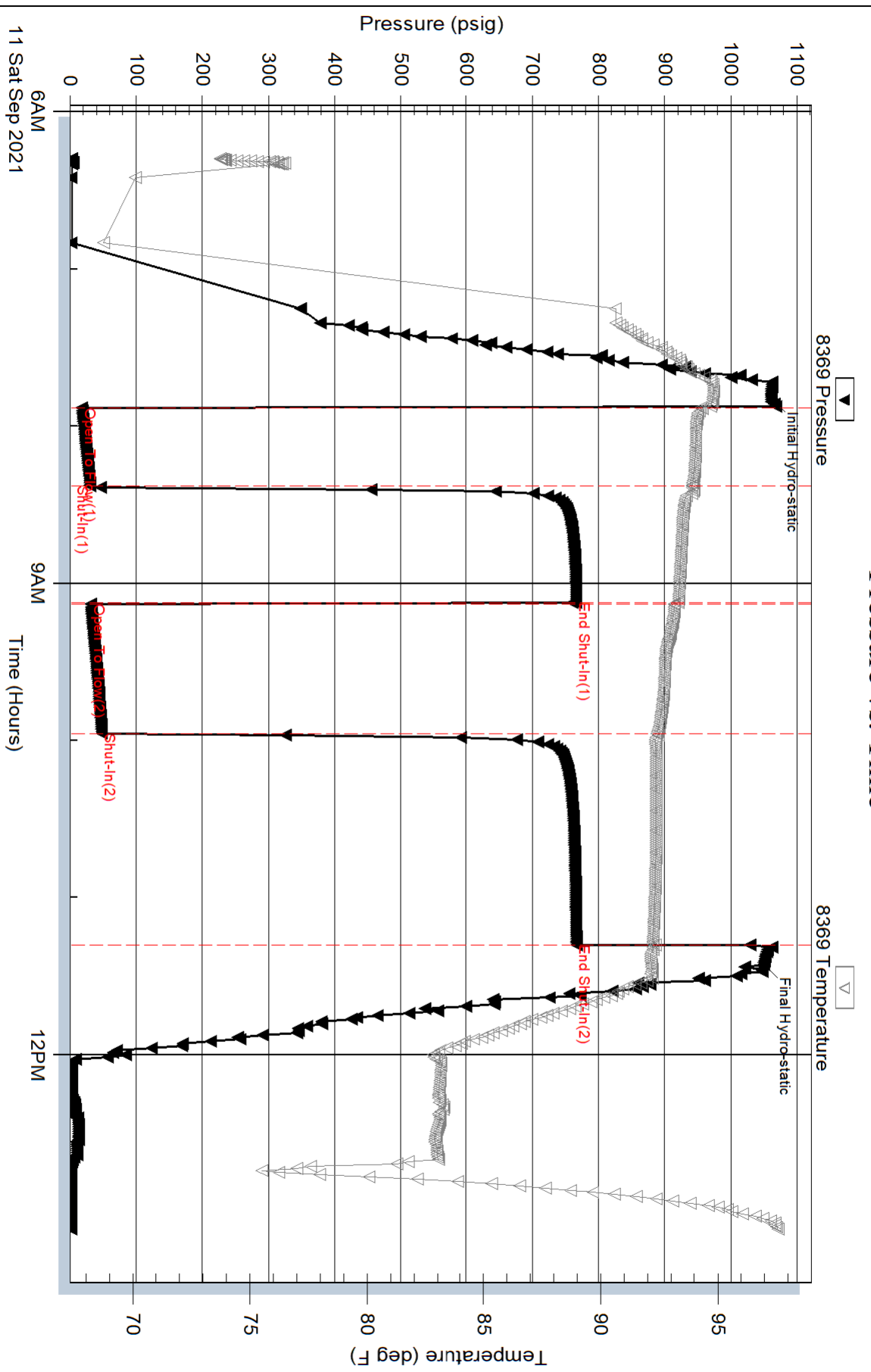
Inside

Darrah Oil Company, LLC

Panther Ranch #1-30

DST Test Number: 2

Pressure vs. Time

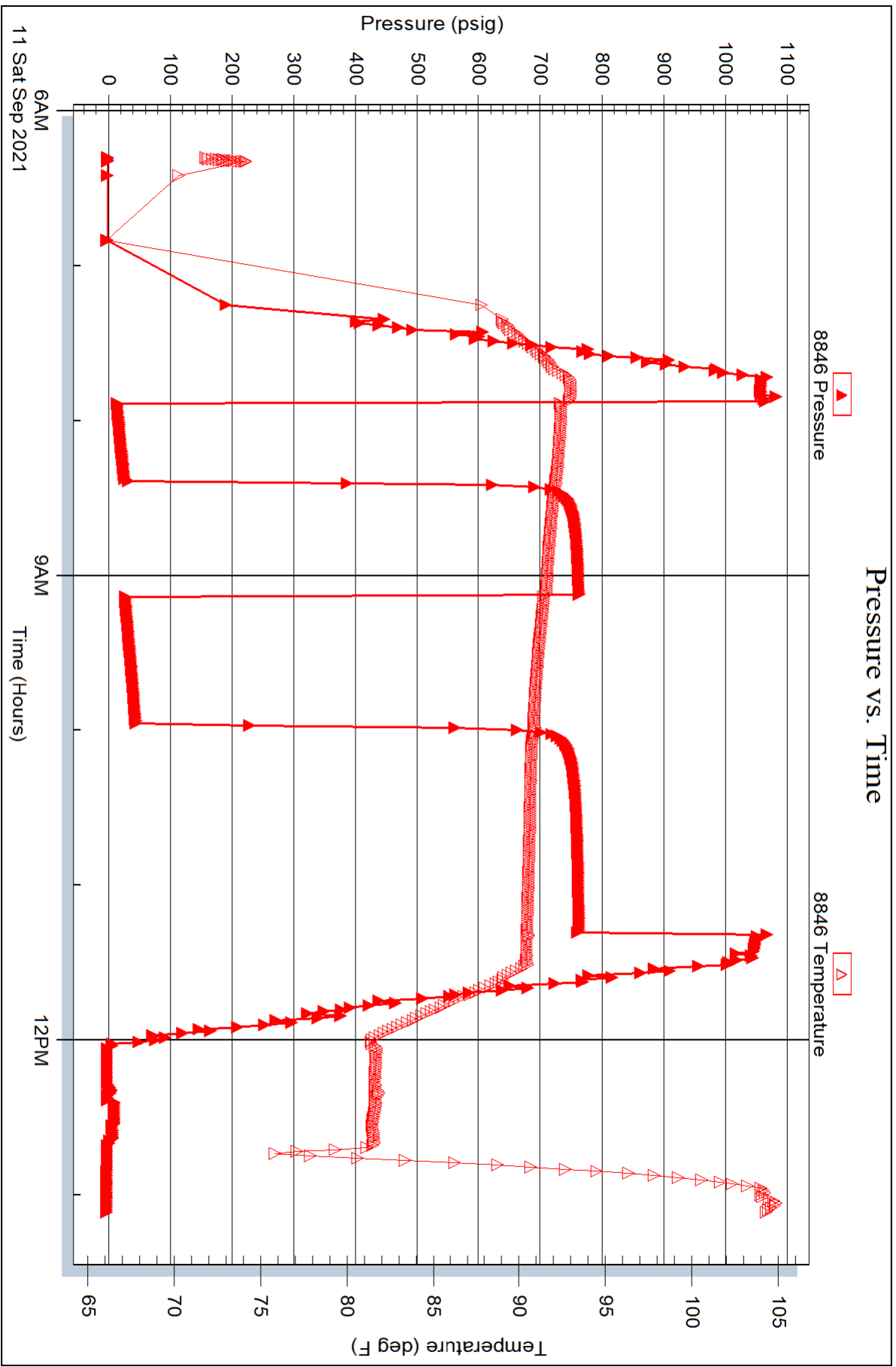


Serial #: 8846

Outside Darrah Oil Company, LLC

Panther Ranch #1-30

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 67136

Printed: 2021.09.11 @ 13:34:18

STATE **Ks** COMPANY **Darragh Oil**
 COUNTY **Chase** FARM **1-30**
 BLOCK **NE/4** SURVEY **596' FNL &**
 SEC **30** **542' FEL**

19s **6E** TOTAL DEPTH
 CONTRACTOR **C&G Rig 2**
 COMMENCED
 COMPLETED

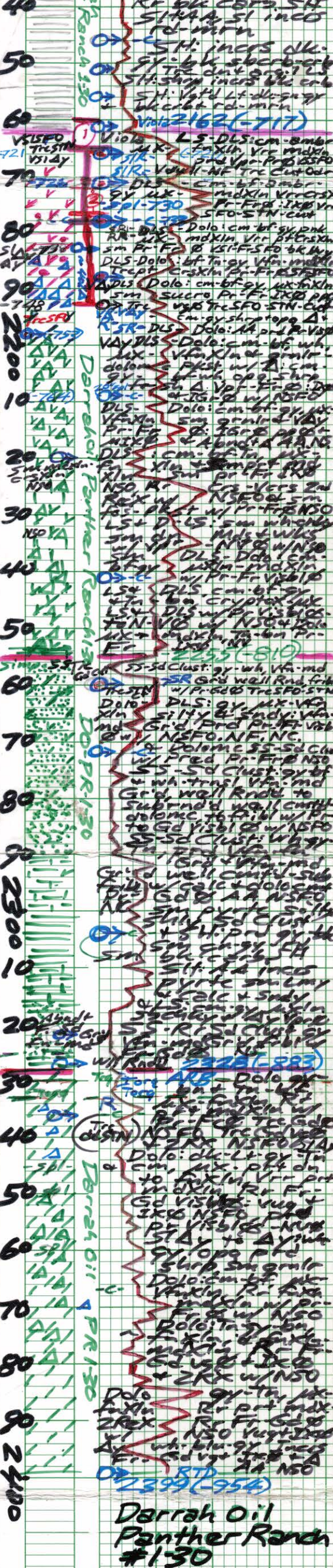
REMARKS **NSO above**
NSM445 2100'
 PRODUCTION **API#15-017-20928-0000**

5 1/2" casing set for Viola

Cherokee SH 2088 (-643)
 Conglo SS 2110' (-665)
 Viola 2162' (-717)
 Simpson SS 2255' (-810)

SHOT ARBUCKLE QUARTS BETWEEN 2328 (-883)
 TIME RATE SCALE: 1 MU = 100 SQUARE FEET
RTD 2399 (-954)

2020 Darragh Oil #130



Darragh Oil Panther Ranch #130

DST #1 Viola 2165-2178'

Times: 30-30-15-out
 Rec: 2' oil spkd Mud (~1% oil, ~99% M)
 Tool spl (13% oil, 87% M)
 IHP: 1064 IFP: 16-19
 ISIP: 374 FFP: 19-19
 FHP: ~1059
 Temp: ~98°

DST #2 Viola 2177-2193'

30-45-50-80 min unload csq
 Rec: 1' cld Oil
 60' VS 10CM (2% oil, 98% M)
 Tool spl -> 10% oil, 90% M
 IHP: 1061 IFP: 18-31
 ISIP: 766 FF: 31-48
 FSIP: 767 FHP: 1050
 Temp: 95°F

E-Log Tops

Cherokee 2087 (-642)

Chero. SS 2108 (-663)

Viola 2162 (-717)
 Simpson SS 2253 (-808)
 Arbuckle 2327 (-882)
 LTD 2398 (-953)
 RTD 2399 (-954)