

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
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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:	
----------------	-------	---------	------------	--

Form	ACO1 - Well Completion
Operator	Palomino Petroleum, Inc.
Well Name	BLACK GOLD 1
Doc ID	1476776

All Electric Logs Run

Dual Induction
Micro
Dual Receiver Cement
Litho Density Neutron

Form	ACO1 - Well Completion
Operator	Palomino Petroleum, Inc.
Well Name	BLACK GOLD 1
Doc ID	1476776

Tops

Name	Top	Datum
Anhy.	1740	(+ 718)
Base Anhy.	1780	(+ 678)
Heebner	3828	(-1370)
Lansing	3871	(-1413)
BKC	4188	(-1730)
Marmaton	4222	(-1764)
Pawnee	4306	(-1848)
Ft. Scott	4378	(-1920)
Cherokee Sh.	4402	(-1944)
Miss.	4478	(-2020)
LTD	4620	(-2162)



P. O. Box 466
 Ness City, KS 67560
 Off: 785-798-2300



Invoice

DATE	INVOICE #
9/19/2019	32358

BILL TO
Palomino Petroleum Inc. 4924 S E 84th Street Newton, KS 67114-8827

RECEIVED
 SEP 23 2019

- Acidizing
- Cement
- Tool Rental

TERMS	Well No.	Lease	County	Contractor	Well Type	Well Category	Job Purpose	Operator
Net 30	#1	Blackgold	Ness	Express Well	Oil	Development	Cement Port Collar	Wayne
PRICE REF.	DESCRIPTION				QTY	UM	UNIT PRICE	AMOUNT
575D	Mileage - 1 Way				15	Miles	5.00	75.00
576D-D	Pump Charge - Deep Surface (> 500 Ft.) & Port Collars				1	Job	1,400.00	1,400.00
105	Port Collar Tool Rental With Man				1	Each	275.00	275.00T
330	Swift Multi-Density Standard (MIDCON II)				150	Sacks	17.00	2,550.00T
276	Flocele				50	Lb(s)	3.00	150.00T
290	D-Air				3	Gallon(s)	42.00	126.00T
581D	Service Charge Cement				200	Sacks	1.85	370.00
582D	Minimum Drayage Charge				1	Each	250.00	250.00
	Subtotal							5,196.00
	Sales Tax Ness County						6.50%	201.57
We Appreciate Your Business!							Total	\$5,397.57



TICKET 032358

CHARGE TO: **Palomalo Petroleum**
 ADDRESS
 CITY, STATE, ZIP CODE

PAGE 1 OF 1

SERVICE LOCATIONS
 1. **Ness City, Ks**
 2.
 3.
 4.
 REFERRAL LOCATION

WELL/PROJECT NO. #1
 LEASE **Blackgold**
 COUNTY/PARISH **Ness**
 STATE **Ks**
 CITY

TICKET TYPE
 SERVICE
 SALES
 CONTRACTOR **Express Well Service**
 RIG NAME/NO.
 SHIPPED VIA **cr**
 DELIVERED TO **Location**
 ORDER NO.

WELL TYPE **Oil**
 WELL CATEGORY **Development**
 JOB PURPOSE **Center Port Couar**
 WELL PERMIT NO.
 WELL LOCATION **S/Lazeb, Ks**

INVOICE INSTRUCTIONS

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING		DESCRIPTION	QTY.	U/M	QTY.	U/M	UNIT PRICE	AMOUNT
		LOC	ACCT							
575		1								
576b		1		MILEAGE # 114	15	hrs			5.00	75.00
105		1		PUMP CHARGE - Port Couar	1	hrs			1400.00	1400.00
330		1		Port Couar Operator Tool	1	hrs			275.00	275.00
276		1		Subst Maint - Dusty Standards	150	SKS			17.00	2550.00
290		1		FIELD	50	lbs			3.00	150.00
581		1		D-ADR	3	gal			42.00	126.00
582		1		Service Charge Center	200	SKS			1.85	370.00
				MINIMUM DRAVAGE CHARGE	19950	lbs			149.63	2973.74

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 **9-19-19** TIME SIGNED **1200**
 A.M. P.M.

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

SURVEY

OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?	AGREE	UNDECIDED	DISAGREE
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?
 YES NO
 CUSTOMER DID NOT WISH TO RESPOND

PAGE TOTAL **5196.00**
 TOTAL **5397.57**

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket.
 SWIFT OPERATOR **Wayne Watson** APPROVAL
 Thank You!

JOB LOG

SWIFT Services, Inc.

DATE 9-19-19 PAGE NO. 1

CUSTOMER PALOMINO PETROLEUM WELL NO. #1 LEASE BLACKGOLD JOB TYPE CEMENT PORT COLLAR TICKET NO. 032358

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL/GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	1315							ON LOCATION
								TUBING - 2 3/8" CASING - 5 1/2" PORT COLLAR - 1727
	1345				✓		1000	PSI TEST CASING - HELD
	1350	3	4	✓			350	OPEN PORT COLLAR - INT RATE
	1355	3 1/4	83	✓			350	MIX CEMENT - 150 SKS SMD = 11.2 PPG
	1415	3	6	✓			450	DISPLACE CEMENT
	1420				✓		1250	CLOSE PORT COLLAR - PSI TEST - HELD
								CIRCULATED 15 SKS CEMENT TO PT
	1435	4	20		✓		400	RUN 5 JTS - CIRCULATE CLEAN
								WASH TRUCK
	1530							JOB COMPLETE
								THANK YOU WAYNE, BLAWE, SHAW

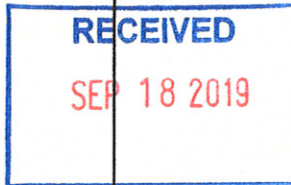


P. O. Box 466
Ness City, KS 67560
Off: 785-798-2300

Invoice

DATE	INVOICE #
9/14/2019	32477

BILL TO
Palomino Petroleum Inc. 4924 S E 84th Street Newton, KS 67114-8827



- Acidizing
- Cement
- Tool Rental

TERMS	Well No.	Lease	County	Contractor	Well Type	Well Category	Job Purpose	Operator
Net 30	#1	Blackgold	Ness	WW	Oil	Development	Cement Long Str...	Blaine
PRICE REF.	DESCRIPTION				QTY	UM	UNIT PRICE	AMOUNT
575D	Mileage - 1 Way				15	Miles	5.00	75.00
578D-L	Pump Charge - Long String				1	Job	1,400.00	1,400.00
403-5	5 1/2" Cement Basket				2	Each	275.00	550.00T
404-5	5 1/2" Port Collar				1	Each	2,500.00	2,500.00T
406-5	5 1/2" Latch Down Plug & Baffle				1	Each	250.00	250.00T
407-5	5 1/2" Insert Float Shoe With Auto Fill				1	Each	325.00	325.00T
409-5	5 1/2" Turbolizer				12	Each	90.00	1,080.00T
419-5	5 1/2" Rotating Head Rental				1	Each	250.00	250.00T
330	Swift Multi-Density Standard (MIDCON II)				125	Sacks	17.00	2,125.00T
325	Standard Cement				100	Sacks	13.50	1,350.00T
284	Calseal				5	Sack(s)	40.00	200.00T
283	Salt				500	Lb(s)	0.25	125.00T
285	CFR-1				50	Lb(s)	5.00	250.00T
276	Flocele				50	Lb(s)	3.00	150.00T
290	D-Air				2	Gallon(s)	42.00	84.00T
221	Liquid KCL (Clayfix)				4	Gallon(s)	25.00	100.00T
281	Mud Flush				500	Gallon(s)	1.50	750.00T
581D	Service Charge Cement				225	Sacks	1.85	416.25
582D	Minimum Drayage Charge				1	Each	250.00	250.00
	Subtotal							12,230.25
	Sales Tax Ness County						6.50%	655.79
We Appreciate Your Business!							Total	\$12,886.04



TICKET 032477

CHARGE TO: Edmond Petroleum
 ADDRESS
 CITY, STATE, ZIP CODE

PAGE 1 OF 2

SERVICE LOCATIONS
 1. Ness city WELL/PROJECT NO. 1 LEASE Blackgold COUNTY/PARISH Ness STATE KS CITY Ness city DATE 14 sep 19 OWNER
 2. TICKET TYPE SERVICE CONTRACTOR WJW RIG NAME/NO. 102 SHIPPED YES DELIVERED TO location ORDER NO.
 3. WELL TYPE oil WELL CATEGORY Development JOB PURPOSE Cement log string WELL PERMIT NO.
 4. REFERRAL LOCATION INVOICE INSTRUCTIONS

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	QTY.	UM	QTY.	UM	UNIT PRICE	AMOUNT
		LOC	ACCT	DF							
575					MILEAGE	15	mi			5.00	75.00
578					Pump Charge	1	ea			1400.00	1400.00
403					Cement basket	5 1/2	in	2	ea	875.00	4787.50
404					Port collar	5 1/2	in			2500.00	13750.00
406					Control down plug & buffer	5 1/2	in	1	ea	2500.00	2500.00
407					1 WS ext float sleeve w/ auto fill	5 1/2	in	1	ea	325.00	325.00
409					TDRSOLVER	5 1/2	in	12	ea	92.00	1104.00
419					Rotating head assembly	5 1/2	in	1	ea	250.00	250.00

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.
 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

OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?	AGREE	UNDECIDED	DISAGREE
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? YES NO
 CUSTOMER DID NOT WISH TO RESPOND

PAGE TOTAL
 TOTAL 19886.04

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
14 Sep 19

PAGE NO.
1

CUSTOMER Falcon Petroleum		WELL NO. #1	LEASE Blackgold	JOB TYPE comit long string	TICKET NO.
------------------------------	--	----------------	--------------------	-------------------------------	------------

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
								1.25 sk SMD comit & 100 sk EA-2 comit 5/2 x 14" casing 110 jts #16 4614' short 42' Port collar #69 1726' Circulators 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 68 Basket 2, 69
	2045							on loc TRK 114
	2130							start 5/2 x 14" casing in well
	2320							Drop ball - circulate - ROTATE
15 SEP	0020	4	12			200		Pump 500 gal mix flush
		4	20			200		Pump 20 bbl KCL flush
	0030		7					Plug RTT 30sk
	0035	5	35			250		Mix SMD comit 95sk @ 12.7 ppg
		5	24			250		Mix EA-2 comit 100sk @ 15.3 ppg
								Drop batch down plug wash out Pump & Line
	0108	6				200		Displace
		6	90			500		
		5	105			900		
	0130	5	111			1500		Land plug
								Release pressure to truck - dried up
	0138							WASH truck
								Back up
	0215							job complete Thanks Blaine Flint & Russell



HURRICANE SERVICES INC

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

RECEIVED
SEP 25 2019

Customer:
PALOMINO PETROLEUM INC
4924 SE 84TH ST
NEWTON, KS 67114-8827

Invoice Date: 9/5/2019
Invoice #: 0343628
Lease Name: Black Gold
Well #: 1 (New)
County: Ness
Job Number: ICT2345

Date/Description	HRS/QTY	Rate	Total
Surface	0.000	0.000	0.00
Cement pump 266	1.000	637.500	637.50
Light Eq Mileage	30.000	1.700	51.00
Heavy Eq Mileage	30.000	3.400	102.00
Ton Mileage	553.970	1.275	706.31
H-CON	170.000	17.850	3,034.50
H-325	200.000	17.000	3,400.00
Wooden plug 8 5/8"	1.000	127.500	127.50

Total 8,058.81

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!



CEMENT TREATMENT REPORT

Customer:	Palamino Petroleum Inc	Well:	Black Gold #1	Ticket:	ICT2345
City, State:	Newton, KS	County:	Ness, KS	Date:	9/5/2019
Field Rep:	Jon Nicodemus	S-T-R:	Sec 10 - T19S - R25W	Service:	Surface

Downhole Information	
Hole Size:	12.25 in
Hole Depth:	687 ft
Casing Size:	8 5/8 in
Casing Depth:	686.42 ft
Tubing / Liner:	in
Depth:	ft
Tool / Packer:	
Depth:	ft
Displacement:	42.6 bbls

Calculated Slurry	
Weight:	13.0 # / sx
Water / Sx:	11.36 gal / sx
Yield:	2.01 ft³ / sx
Bbls / Ft.:	0.0735
Depth:	687 ft
Annular Volume:	50.4945 bbls
Excess:	
Total Slurry:	61.0 bbls
Total Sacks:	170 sx

Product	% / #	#
Class A	100.00	15980
Poz		
Gel		
CaCl	3.00	479
Gypsum	2.00	320
Metso	2.00	320
Kol Seal	0.25	40
Flo Seal		
Salt (bww)		
Total		17,139

Downhole Information	
Hole Size:	12.25 in
Hole Depth:	687 ft
Casing Size:	8 5/8 in
Casing Depth:	686.42 ft
Tubing / Liner:	in
Depth:	ft
Tool / Packer:	
Depth:	ft
Displacement:	42.6 bbls

Calculated Slurry	
Weight:	14.8 # / sx
Water / Sx:	6.88 gal / sx
Yield:	1.41 ft³ / sx
Bbls / Ft.:	0.0735
Depth:	687 ft
Annular Volume:	50.4945 bbls
Excess:	
Total Slurry:	50.2 bbls
Total Sacks:	200 sx

Product	% / #	#
Class A	100.00	18800
Poz		
Gel	2.00	376
CaCl	3.00	564
Gypsum		
Metso		
Kol Seal	0.25	47
Flo Seal		
Salt (bww)		
Total		19,787

TIME	RATE	PSI	BBLs	REMARKS
15:00				Called for job
17:00				Depart Oakley yard
19:00				Arrive on locn
19:05				JSA, discuss moving on, spotting & rigging up equipment
19:10				Move on, spot & rig up equipment
19:30				Rig-up complete
19:45				Rig TD 12 1/4" OH @ 687'
19:55				Rig performing wiper trip
21:45				Rig TOH w/ DP
22:25				Rig RIH w/ csg
0:10				Casing @ setting depth
0:20		150.0		Circulate & condition hole
0:30	2.0	50.0	5.0	Pump water
0:35	4.5	315.0	61.0	Mix & pump 170sx @ 13.0ppg. Y - 2.01cuft/sk, MW - 11.36g/sk
0:50	5.5	625.0	50.0	Mix & pump 200sx @ 14.8ppg. Y - 1.41cuft/sk, MW - 6.88g/sk
1:00				Release wooden plug
1:02	4.0	450.0		Displace w/ water
1:05	3.5	260.0	13.0	Cement returns to surface Note: 29bbls / 80sx of cement circulated to surface.
1:15			42.6	Shutdown & shut-in
1:20				Wash-up pumps & lines
1:35				JSA, discuss rigging down & racking up equipment
1:40				Rig down & rack up equipment
2:00				JSA, discuss journey management
2:15				Depart locn
				Thanks for calling Hurricane Services Inc

CREW		UNIT	SUMMARY		
Cementer:	Scott Green	74	Average Rate	Average Pressure	Total Fluid
Pump Operator:	Michael Rebarchek	266	3.9 bpm	308 psi	172 bbls
Bulk #1:	John Polley	194 / 254			
Bulk #2:					



Home
(785) 798-3400

Andrew Stenzel Geologist

Ness City, Kansas



Cell
(785) 798-8977

Scale 1:240 (5"=100') Imperial
Measured Depth Log

Well Name: Black Gold #1
API: 15-135-26078-00-00
Location: SW-SE-NE-SW Sec. 10-19S-25W (Ness County)
License Number: 30742
Spud Date: 9/5/19
Surface Coordinates: 1611' FSL & 2016' FWL
Region: KANSAS
Drilling Completed: 9/15/19

Bottom Hole
Coordinates:
Ground Elevation (ft): 2453
Logged Interval (ft): 3500 To: TD
Formation: MISSISSIPPIAN
Type of Drilling Fluid: Mud-Co Chemical
K.B. Elevation (ft): 2458
Total Depth (ft): 4620

Printed by MudLog from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: Palomino Petroleum, Inc.
Address: 4924 SE 84th St.
Newton, KS 67114

GEOLOGIST

Name: Andrew Stenzel
Company: Petroleum Geologist
Address: 501 S. Franklin
Ness City, KS 67560

Drilling Report

DAILY DRILLING REPORT:

9/5/19 MIRU, ran surface casing
9/6/19 Waiting on cement
9/7/19 Drilling @ 1925'
9/8/19 Drilling @ 2585'
9/9/19 Drilling @ 3385'
9/10/19 Drilling @ 3965'
9/11/19 Drilling @ 4345'
9/12/19 DST #1
9/13/19 DST #2, DST #3
9/14/19 Ran electric logs, DST #4
9/15/19 Ran Production Casing

Services

RIG: Murfin Drilling, DBA WW Drilling, Rig #102

MUD: MUDCO

LOGS: Gemini Wireline; CNDL, PE, DIL, ML

Casing Record

SURFACE Casing: Ran 16 jts new 8 5/8", 23# casing @ 687'.

PRODUCTION Casing: Ran 110 jts new 5 1/2", 14# casing set at 4615'.

Formation Tops

Sample Tops		LogTops	
Anhy.	1741 (+717)	Anhy.	1740 (+718)
Base Anhy.	1779 (+679)	Base Anhy.	1780 (+678)
Heebner	3830 (-1372)	Heebner	3828 (-1370)
Lansing	3870 (-1412)	Lansing	3871 (-1413)
BKC	4187 (-1729)	BKC	4188 (-1730)
Marmaton	4218 (-1760)	Marmaton	4222 (-1764)
Pawnee	4305 (-1847)	Pawnee	4306 (-1848)
Ft. Scott	4379 (-1921)	Ft. Scott	4378 (-1920)
Cher. Sh.	4405 (-1947)	Cher. Sh.	4402 (-1944)
Miss.	4477 (-2019)	Miss.	4478 (-2020)
RTD	4620 (-2162)	LTD	4620 (-2162)



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Palomino Petroleum
4924 SE 58th St.
New ton, KS 67114

10- 19 S. - 25 W. Ness, KS

Black Gold #1

Job Ticket: 65552 **DST#: 1**

ATTN: Andrew Stenzel

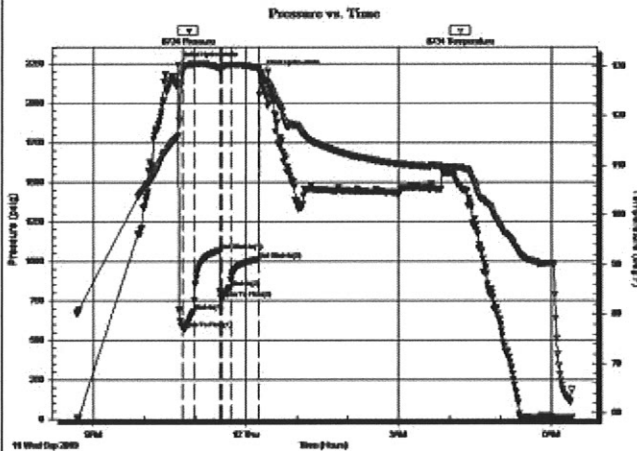
Test Start: 2019.09.11 @ 20:40:00

GENERAL INFORMATION:

Formation: **Ft. Scott**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 22:44:40
 Time Test Ended: 06:25:00
 Interval: **4355.00 ft (KB) To 4412.00 ft (KB) (TVD)**
 Total Depth: **4412.00 ft (KB) (TVD)**
 Hole Diameter: **7.88 inches** Hole Condition: **Good**
 Test Type: **Conventional Bottom Hole (Initial)**
 Tester: **Martine Salinas**
 Unit No: **82**
 Reference Elevations: **2458.00 ft (KB)**
2453.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8734 Outside
 Press@RunDepth: **832.75 psig @ 4356.00 ft (KB)** Capacity: **8000.00 psig**
 Start Date: **2019.09.11** End Date: **2019.09.12** Last Callb.: **2019.09.12**
 Start Time: **20:40:01** End Time: **06:25:00** Time On Btmr: **2019.09.11 @ 22:39:50**
 Time Off Btmr: **2019.09.12 @ 00:17:10**

TEST COMMENT: 15-IF-B.O.B (11 inches) @ 30 secs (blow increased to 671") GTS @ 15 mins
 30-ISI-B.O.B (11 inches) ASASI (blow increased to 62 1/2" & decreased to 7")
 15-FF-B.O.B (11 inches) ASAO (blow increased to 338")
 30-FSI-B.O.B (11 inches) @ 1 mins (blow increased to 251 1/2")



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2245.10	115.97	Initial Hydro-static
5	571.57	128.99	Open To Flow (1)
19	681.34	130.43	Shut-in(1)
49	1065.29	129.74	End Shut-in(1)
51	765.76	129.41	Open To Flow (2)
62	832.75	130.28	Shut-in(2)
95	1010.61	129.59	End Shut-in(2)
98	2190.72	128.30	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
181.00	GMCO 32%G, 25%M, 43%O	1.46
2804.00	CGO 25%G,75%O 0-40 MINS REVERSED	39.33
15.00	CGO 15%G, 85%O	0.21
0.00	1000' GIP	0.00

Gas Rates

Choke (Inches)	Pressure (psig)	Gas Rate (Mcf/d)
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**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Palomino Petroleum

10- 19 S. - 25 W. Ness, KS

4924 SE 58th St.
New ton, KS 67114

Black Gold #1

Job Ticket: 65553

DST#: 2

ATTN: Andrew Stenzel

Test Start: 2019.09.12 @ 19:45:00

GENERAL INFORMATION:

Formation: **Mississippian**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:37:20

Time Test Ended: 02:26:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Martine Salinas

Unit No: 82

Interval: **4481.00 ft (KB) To 4493.00 ft (KB) (TVD)**

Total Depth: **4493.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: Good

Reference Elevations: **2458.00 ft (KB)**

2453.00 ft (CF)

KB to GR/CF: **5.00 ft**

Serial #: 8734 Outside

Press@RunDepth: **76.72 psig @ 4482.00 ft (KB)**

Start Date: **2019.09.12**

End Date:

2019.09.13

Capacity: **8000.00 psig**

Last Calib.: **2019.09.13**

Start Time: **19:45:01**

End Time:

02:26:00

Time On Btrr: **2019.09.12 @ 21:36:40**

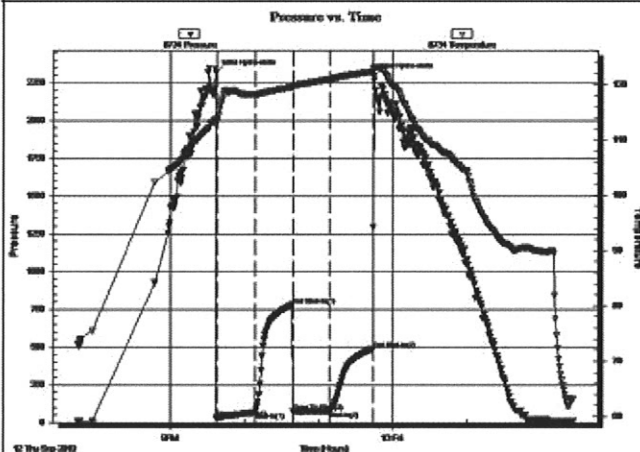
Time Off Btrr: **2019.09.12 @ 23:45:00**

TEST COMMENT: 30-IF-1/4" blow dead @ 24 mins

30-ISI-No blow back

30-FF-No blow

30-FSI-No blow back



PRESSURE SUMMARY

Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	2316.97	113.80	Initial Hydro-static
1	30.94	113.35	Open To Flow (1)
32	66.65	118.21	Shut-in(1)
63	780.18	119.51	End Shut-in(1)
64	72.88	119.74	Open To Flow (2)
93	76.72	120.95	Shut-in(2)
128	488.15	122.27	End Shut-in(2)
129	2296.18	123.10	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	GOCM 15%G, 25%O, 60%M	0.30
140.00	CGO 20%G, 80%O	1.44

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Palomino Petroleum

4924 SE 56th St.
Newton, KS 67114

ATTN: Andrew Stenzel

10- 19 S. - 25 W. Ness, KS

Black Gold #1

Job Ticket: 65554 DST#: 3

Test Start: 2019.09.13 @ 10:20:00

GENERAL INFORMATION:

Formation: Lower Mississippian

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:26:10

Time Test Ended: 16:16:30

Interval: 4494.00 ft (KB) To 4502.00 ft (KB) (TVD)

Total Depth: 4502.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Test Type: Conventional Bottom Hole (Reset)

Tester: Martine Salinas

Unit No: 82

Reference Elevations: 2458.00 ft (KB)

2453.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8734 Outside

Press@RunDepth: 31.91 psig @ 4495.00 ft (KB)

Start Date: 2019.09.13

Start Time: 10:20:01

End Date:

End Time:

2019.09.13

16:16:30

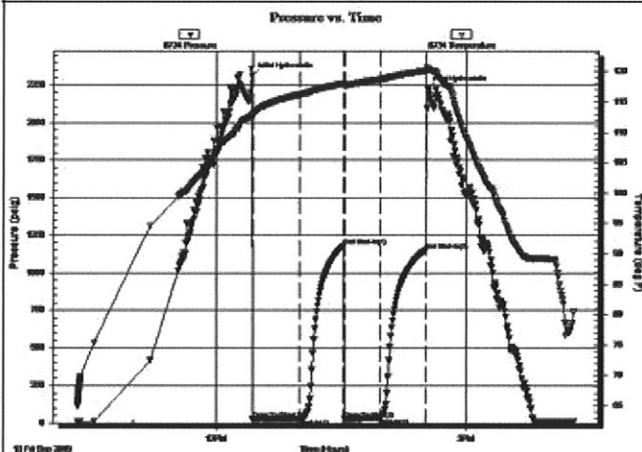
Capacity: 8000.00 psig

Last Callb.: 2019.09.13

Time On Btrr: 2019.09.13 @ 12:25:50

Time Off Btrr: 2019.09.13 @ 14:32:00

TEST COMMENT: 30-IF-Weak surface blow built to 1/4"
30-ISI-No blow back
30-FF-No blow @ 5 mins, Flushed tool, maintained surface blow
30-FSI-No blow back



PRESSURE SUMMARY

Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	2311.67	113.06	Initial Hydro-static
1	28.85	112.51	Open To Flow (1)
34	27.56	116.24	Shut-in(1)
66	1181.10	118.06	End Shut-in(1)
67	30.95	117.81	Open To Flow (2)
92	31.91	118.70	Shut-in(2)
125	1152.32	120.15	End Shut-in(2)
127	2224.52	120.31	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	GOCWM 5%G,5%O,40%W,50%O	0.05

* Recovery from multiple tests

Gas Rates

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

Trilobite Testing, Inc

Ref. No: 65554

Printed: 2019.09.13 @ 18:01:30



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Palomino Petroleum

10- 19 S. - 25 W. Ness, KS

4924 SE 58th St.
New ton, KS 67114

Black Gold #1

Job Ticket: 65555

DST#: 4

ATTN: Andrew Stenzel

Test Start: 2019.09.14 @ 06:56:00

GENERAL INFORMATION:

Formation: **Lower Mississipian**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:02:20

Time Test Ended: 13:55:00

Test Type: Conventional Straddle (Reset)

Tester: Martine Salinas

Unit No: 82

Interval: **4496.00 ft (KB) To 4519.00 ft (KB) (TVD)**

Total Depth: 4620.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2458.00 ft (KB)

2453.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8734 Outside

Press@RunDepth: 185.33 psig @ 4496.00 ft (KB)

Start Date: 2019.09.14

End Date:

2019.09.14

Capacity: 8000.00 psig

Last Callb.: 2019.09.14

Start Time: 06:56:01

End Time:

13:55:00

Time On Btrr: 2019.09.14 @ 09:02:10

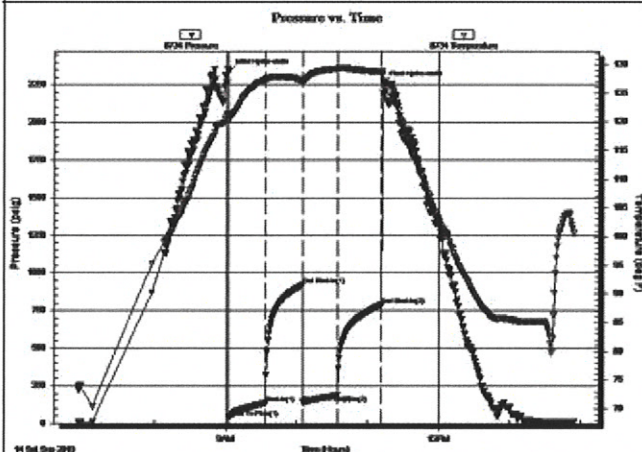
Time Off Btrr: 2019.09.14 @ 11:13:20

TEST COMMENT: 30-IF-1/2" blow built to B.O.B(11 inches) @ 16 mins (blow increased to 15"

30-ISI-No blow back

30-FF-S.blow built to 7 1/2"

30-FSI-No blow back



PRESSURE SUMMARY

Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	2339.00	121.37	Initial Hydro-static
1	42.40	120.24	Open To Flow (1)
32	135.38	127.36	Shut-in(1)
63	921.38	127.31	End Shut-in(1)
64	139.90	127.07	Open To Flow (2)
93	185.33	129.30	Shut-in(2)
130	789.76	128.73	End Shut-in(2)
132	2259.56	127.15	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	MSW & Oil scum 4%M, 96%W	0.61
297.00	OSMCW 3%O, 20%M, 77%W	4.17
3.00	CGO 2%G, 98%O	0.04

* Recovery from multiple tests

Gas Rates

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

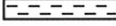



Trilobite Testing, Inc



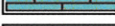

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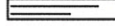


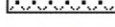
ROCK TYPES

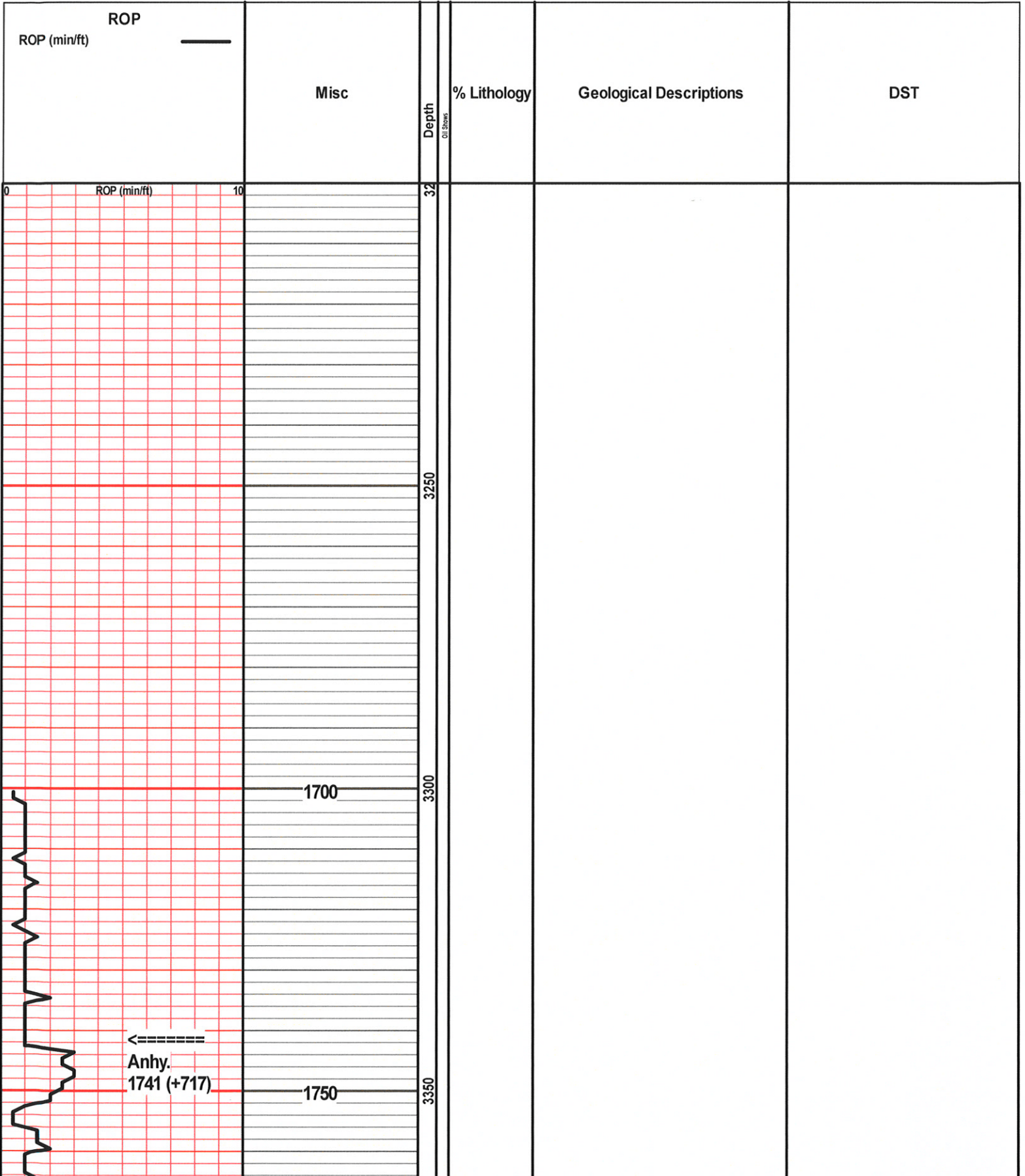
 Anhy
 Bent
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 Cht

 Clyst
 Carb shale
 Congl
 Dol

 Gyp
 Igne
 Lmst
 Meta

 Mrlst
 Salt
 Shale
 Shcol

 Shgy
 Sltst
 Ss
 Till





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Palomino Petroleum

10- 19 S. - 25 W. Ness, KS

4924 SE 58th St.
Newton, KS 67114

Black Gold #1

Job Ticket: 65554 **DST#: 3**

ATTN: Andrew Stenzel

Test Start: 2019.09.13 @ 10:20:00

GENERAL INFORMATION:

Formation: **Lower Mississippian**

Deviated: No Whipstock: ft (KB)

Test Type: Conventional Bottom Hole (Reset)

Time Tool Opened: 12:26:10

Tester: Martine Salinas

Time Test Ended: 16:16:30

Unit No: 82

Interval: **4494.00 ft (KB) To 4502.00 ft (KB) (TVD)**

Reference Elevations: 2458.00 ft (KB)

Total Depth: 4502.00 ft (KB) (TVD)

2453.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8734

Outside

Press@RunDepth: 31.91 psig @ 4495.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.09.13

End Date:

2019.09.13

Last Calib.: 2019.09.13

Start Time: 10:20:01

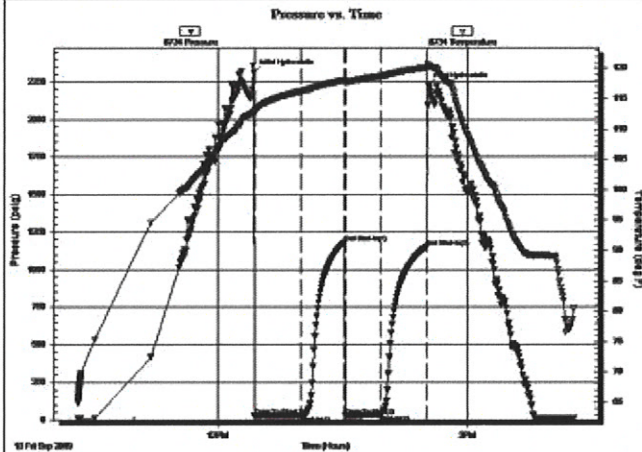
End Time:

16:16:30

Time On Btrr: 2019.09.13 @ 12:25:50

Time Off Btrr: 2019.09.13 @ 14:32:00

TEST COMMENT: 30-IF-Weak surface blow built to 1/4"
30-ISI-No blow back
30-FF-No blow @ 5 mins, Flushed tool, maintained surface blow
30-FSI-No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2311.67	113.06	Initial Hydro-static
1	28.85	112.51	Open To Flow (1)
34	27.56	116.24	Shut-In(1)
66	1181.10	118.06	End Shut-In(1)
67	30.95	117.81	Open To Flow (2)
92	31.91	118.70	Shut-In(2)
125	1152.32	120.15	End Shut-In(2)
127	2224.52	120.31	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	GOCWM 5%G,5%O,40%W,50%O	0.05

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Palomino Petroleum

10- 19 S. - 25 W. Ness, KS

4924 SE 58th St.
New ton, KS 67114

Black Gold #1

Job Ticket: 65555 **DST#: 4**

ATTN: Andrew Stenzel

Test Start: 2019.09.14 @ 06:56:00

GENERAL INFORMATION:

Formation: **Lower Mississipian**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:02:20

Time Test Ended: 13:55:00

Test Type: Conventional Straddle (Reset)

Tester: Martine Salinas

Unit No: 82

Interval: **4496.00 ft (KB) To 4519.00 ft (KB) (TVD)**

Total Depth: 4620.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2458.00 ft (KB)

2453.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8734 Outside

Press@RunDepth: 185.33 psig @ 4496.00 ft (KB)

Start Date: 2019.09.14

End Date:

2019.09.14

Capacity: 8000.00 psig

Last Callb.: 2019.09.14

Start Time: 06:56:01

End Time:

13:55:00

Time On Btrr: 2019.09.14 @ 09:02:10

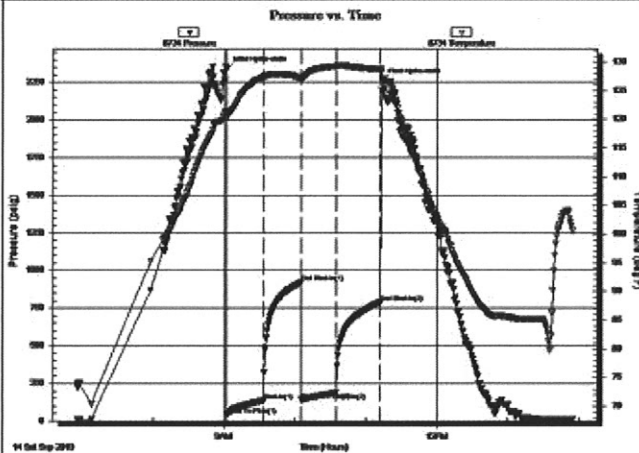
Time Off Btrr: 2019.09.14 @ 11:13:20

TEST COMMENT: 30-IF-1/2" blow built to B.O.B(11 inches) @ 16 mins (blow increased to 15"

30-ISI-No blow back

30-FF-S.blow built to 7 1/2"

30-FSI-No blow back



PRESSURE SUMMARY

Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	2339.00	121.37	Initial Hydro-static
1	42.40	120.24	Open To Flow (1)
32	135.38	127.36	Shut-in(1)
63	921.38	127.31	End Shut-in(1)
64	139.90	127.07	Open To Flow (2)
93	185.33	129.30	Shut-in(2)
130	789.76	128.73	End Shut-in(2)
132	2259.56	127.15	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	MSW & Oil scum 4%M, 96%W	0.61
297.00	OSMCW 3%O, 20%M, 77%W	4.17
3.00	CGO 2%G, 98%O	0.04

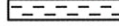



* Recovery from multiple tests





Gas Rates

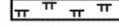

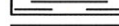
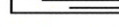
	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

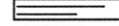



ROCK TYPES

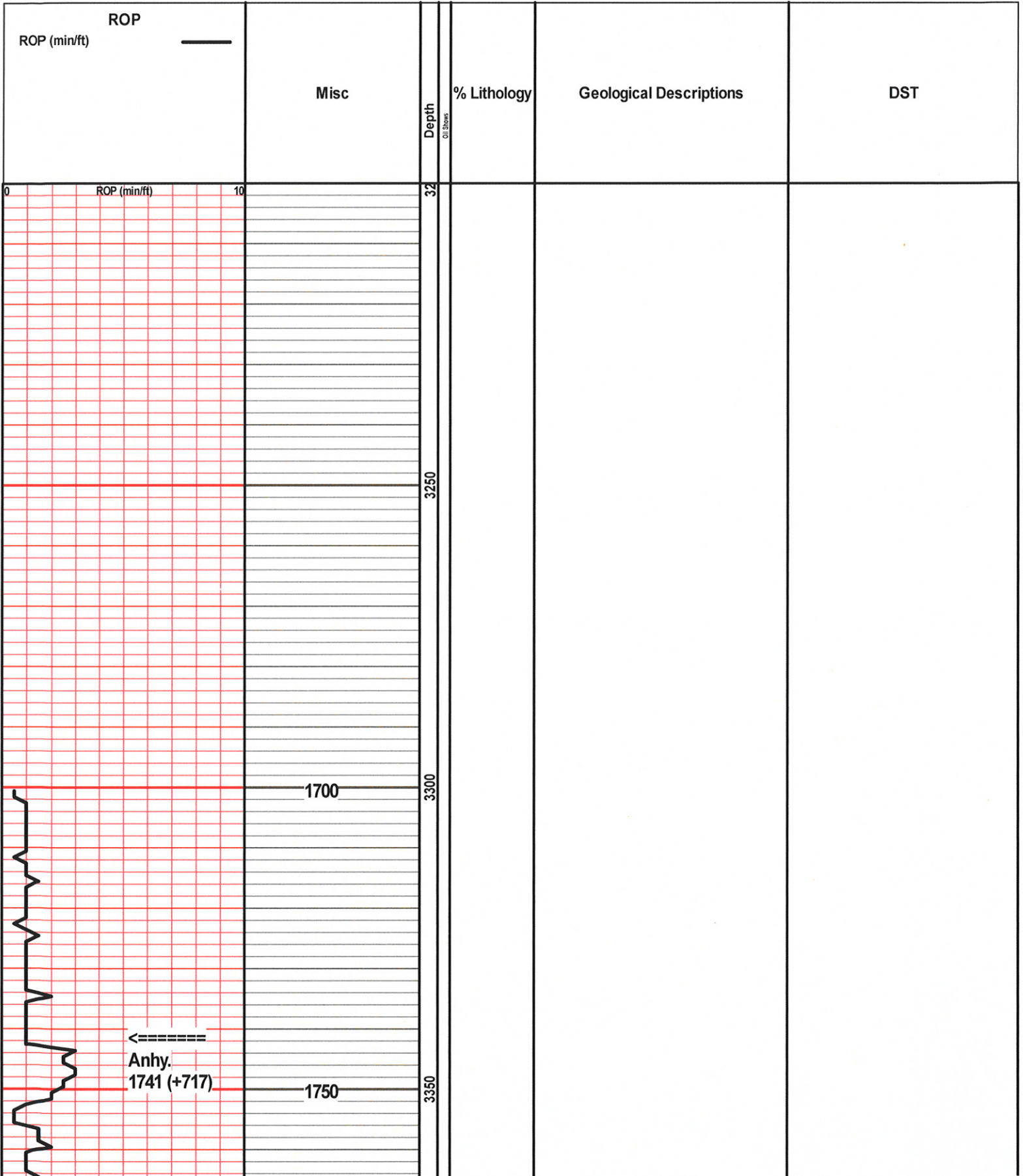
-  Anhy
-  Bent
-  Brec
-  Cht

-  Clyst
-  Carb shale
-  Congl
-  Dol

-  Gyp
-  Igne
-  Lmst
-  Meta

-  Mrlst
-  Salt
-  Shale
-  Shcol

-  Shgy
-  Sltst
-  Ss
-  Till



←=====

Base Anhy.
1779 (+679)

ROP (min/ft)

10

1800

3400

3450

Mud @ 3440'
Wt. 8.6
Vis. 58
Filtrate 6.8
Chlor 2300
LCM 2#

3500

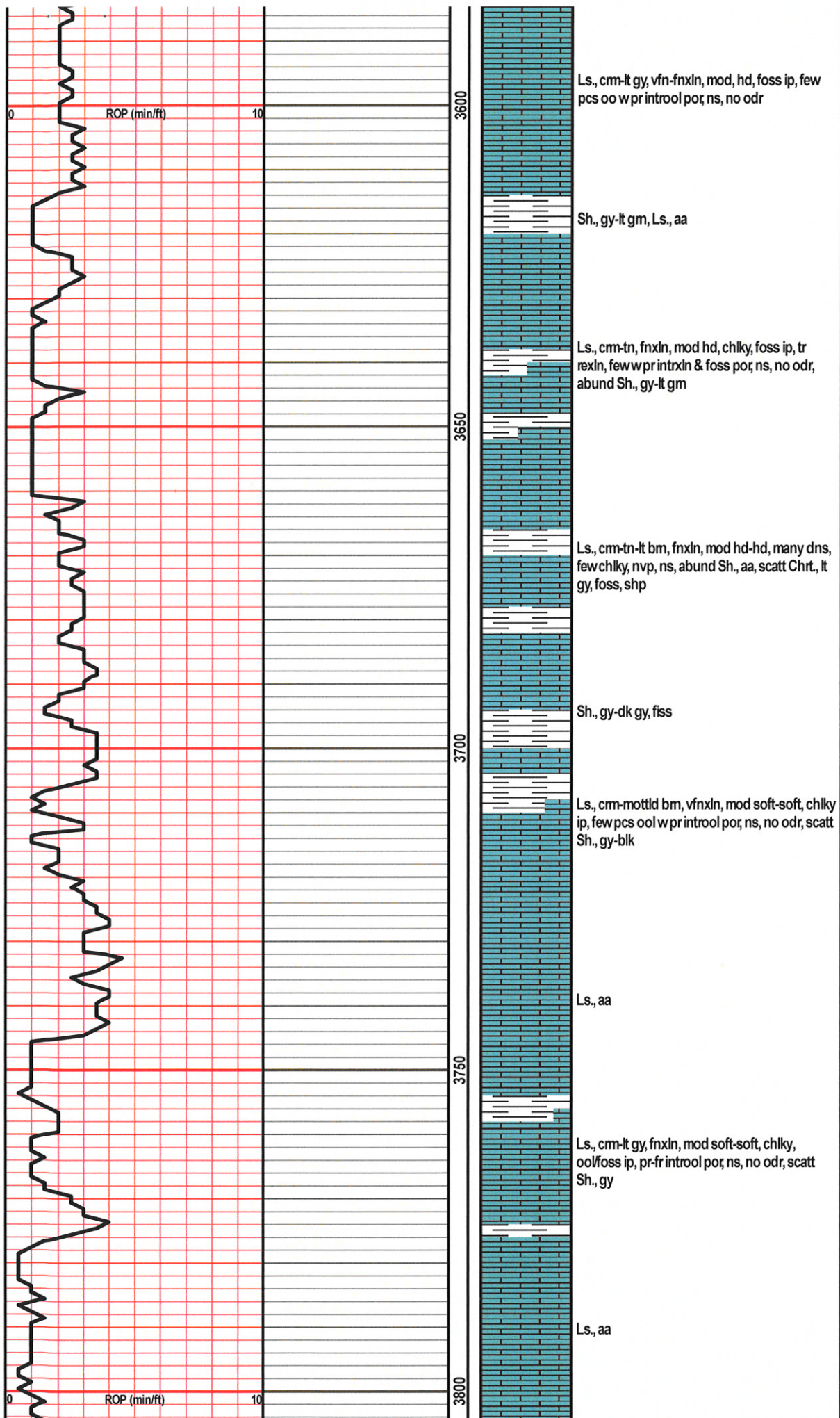
Ls., lt gy-gy, fnxn, mod soft, ool, dk gy ooids,
few w pr introol & ooc por, ns, no odr, abund
Sh., gy

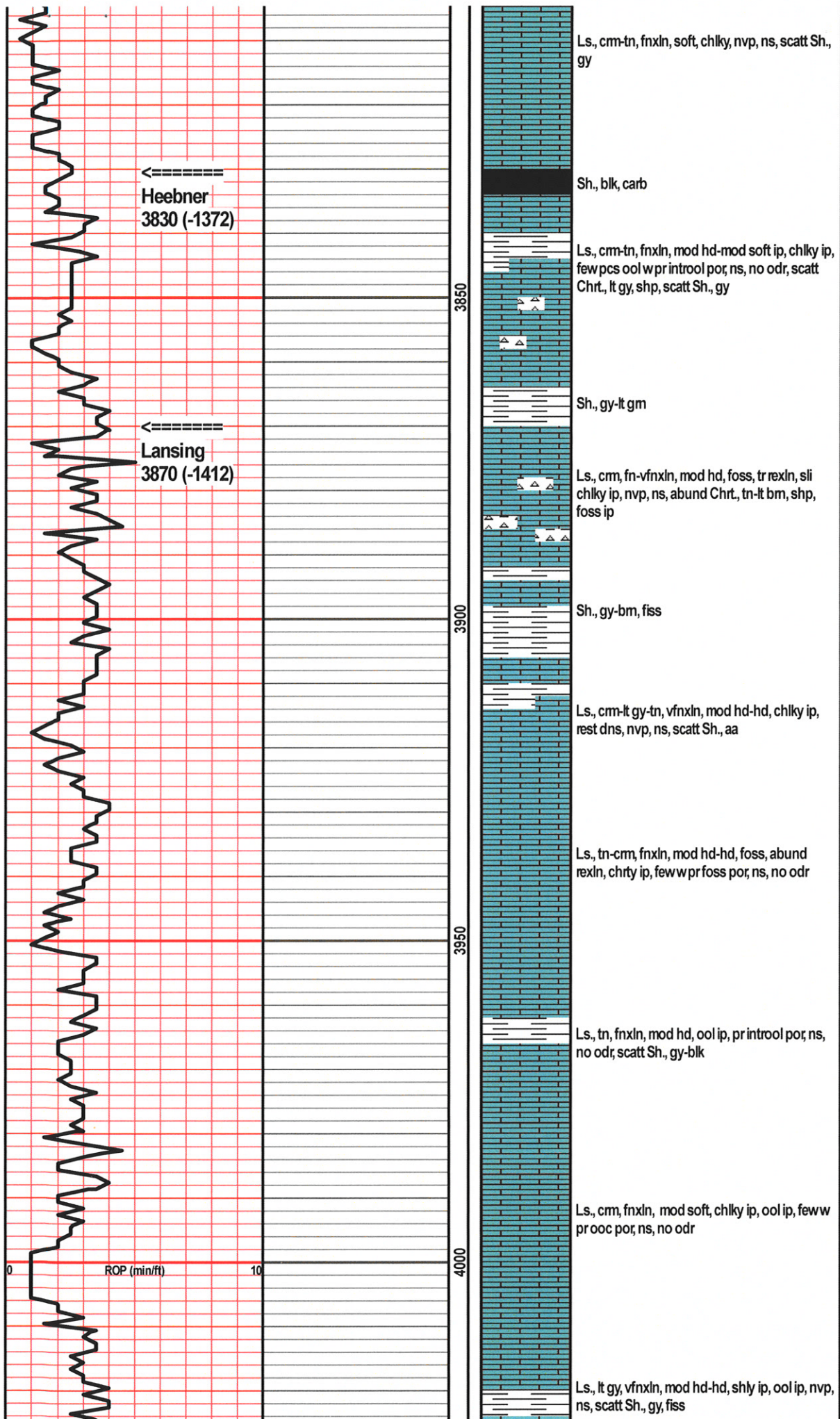
Ls., cm, soft, vfnxn, sli chlky, nvp, ns, scatt Sh.,
aa

Ls., cm-lt gy, vnxn, mod hd-mod soft ip, chlky
ip, ool/foss ip, nvp, ns, no odr

3550

Ls., tn, fnxn, mod soft, ool, pr-fr ooc por, ns, no
odr





Mud @ 4035'
Wt 9.0
Vis. 44
Filtrate API 7.2
Chlor 3000
LCM 1#

4050

Ls., tn, fnxn, mod hd-hd, tr pyr, ool/foss, few pcs wvy pr foss por, ns, no odr, abund Chrt, tn-cm, sli weath

4100

Ls., cm-tn, vfnxn, hd, dns, tr rexln, nvp, ns, scatt Chrt., aa, scatt Sh., gy-bm

Ls., tn-lt gy, vfnxn, mod hd-hd, ool ip, nvp, ns

Ls., aa, Sh., blk

4150

Ls., cm-lt gy, fnxn, mod hd, dns, tr pyr, nvp, ns, abund Chrt., cm-lt gy, shp

Sh., blk, carb

Ls., cm-tn, mod soft-mod hd ip, chlky, nvp, ns, scatt Chrt., tn, sli weath

Sh., gy-dk gy-bm

4200

Ls., cm-tn-lt bm, vfnxn, mod hd-hd, brttle, dns, shly ip, nvp, ns, scatt Sh., dk gy-blk

Ls., cm-tn, vfnxn, mod hd-hd, dns, tr pyr, nvp, ns, abund Sh., gy-bm-lt gm, vly soft

Ls., cm-tn-lt gy, mod hd, sli shly ip, tr rexln, tr fracs, 6-8 pcs wvy slight-slight lt bm edge str, 2-3 of these w pr intrxn por, VSSFO, no det odr

←=====

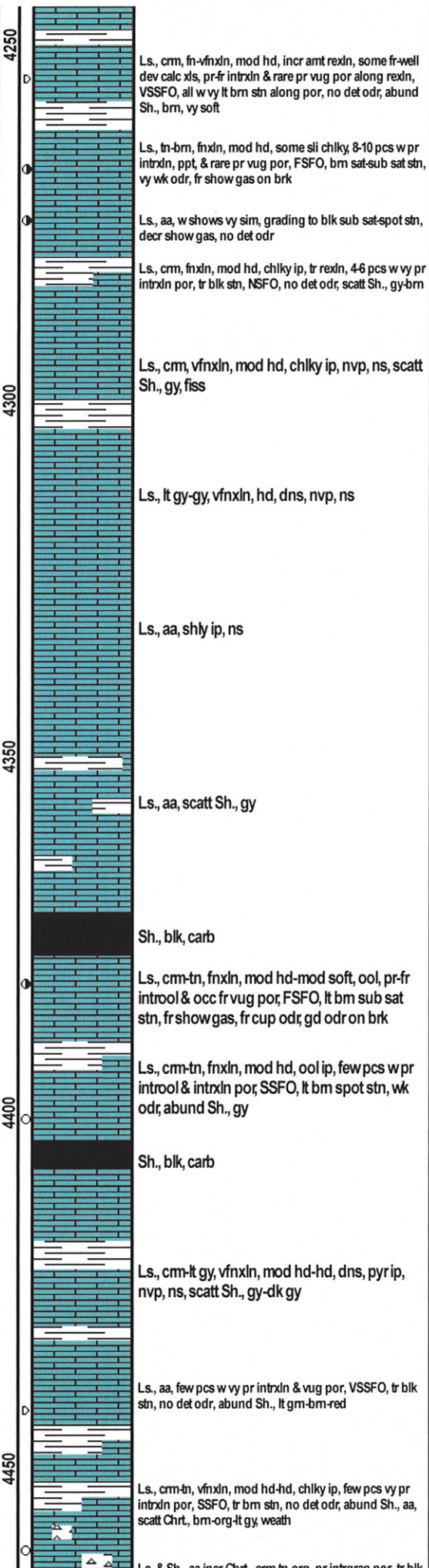
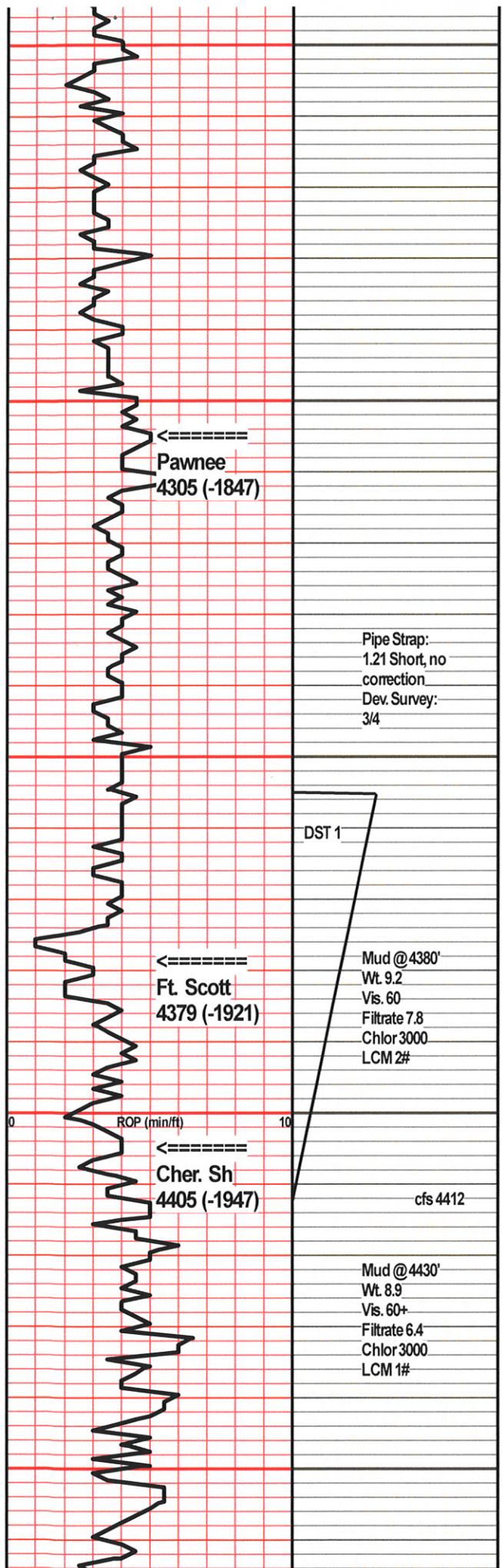
BKC
4187 (-1729)

←=====

Marmaton
4218 (-1760)

ROP (min/ft)

0 10



DST #1 4355-4412 (Ft. Scott)
 15-30-15-30
 IF: BOB in 30 seconds, GTS in 15 min, built to 671"
 IS: BOB immediately, built to 62.5", decreased to 7"
 FF: BOB immediately, built to 338"
 FS: BOB in 1 min, increased to 251.5"

Recovery:
 1000' GIP
 15' CGO (15%G, 85%O)
 2804' CGO (25%G, 75%O)
 181' GMCO (32%G, 25%M, 43%O)

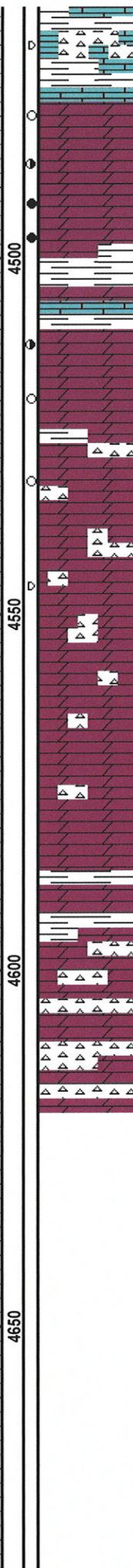
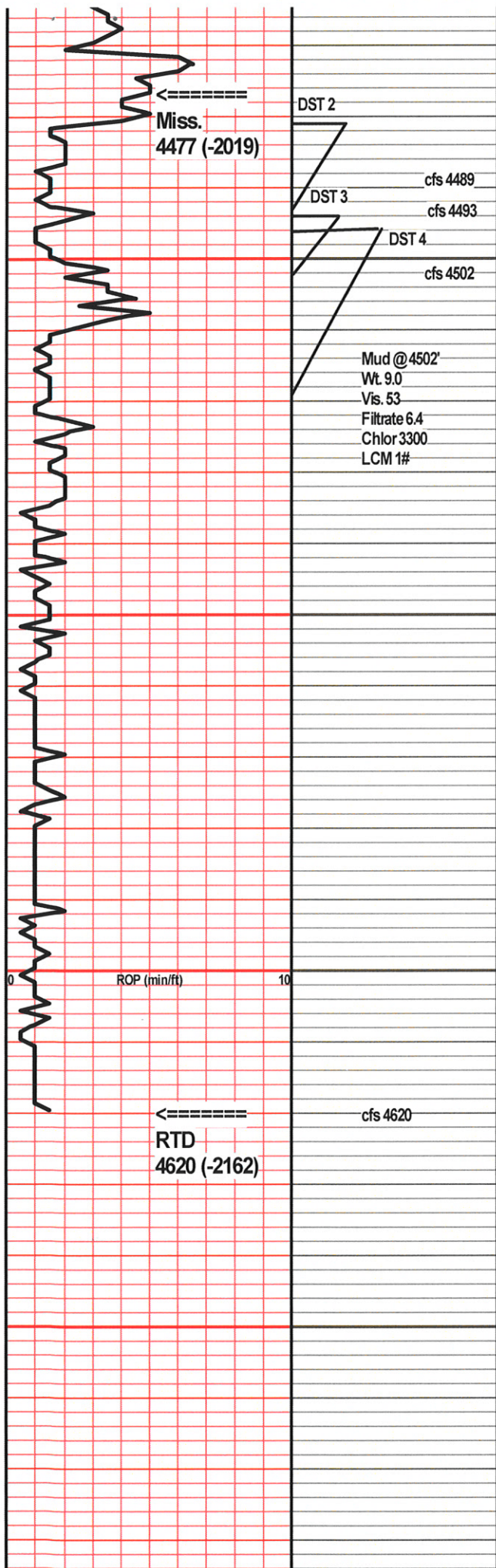
 3000' TF

FP: 572-681; 766-832
 SIP: 1065-1011
 HP: 2245-2191

BHT: 128
 Gravity: 39
 Chlor: ---

DST #2 4481-4493 (Mississippian)
 30-30-30-30
 IF: Built to 1/4", died in 24 min
 IS: No blow
 FF: No blow
 FS: No blow

Recovery:



stn, few pcs Ls., crm, sandy, chiky, tr blk stn, no det odr in cup
 Ls., crm, vfxln, mod hd, dns, nvp, ns, Dol., crm-ft gy, vfxln, mod hd-hd, many w nvp, few w pr-vy pr intrxn & spic cast por, SSFO, brm spot stn, wk odr, scatt Sh., gy-brm

4489 Dol., crm, fmxln, mod hd, few dns w nvp, many w pr intrxn & spic cast por, SSFO, dk brm spot stn, fr odr, 60 min sample had scatt pcs w fr vug por, FSFO, abund dk brm sub sat stn abund edge stn along vugs, fr odr

4493 Dol., crm, fmxln, mod hd, fr intrxn, vug & spic cast por, GSFO, most w sub sat dk brm stn, few w spot stn, gd odr

4502 Dol., tn, fmxln, mod hd-mod soft, sucr, fr sucr por, fr-rare pr ppt & vug por, GSFO, sub sat-spot stn, sli show gas, gd odr, 60 min sample w abund Sh., gy-brm

Dol., tn, fmxln, mod hd, many pcs dns, nvp, few w pr intrxn & ppt por, FSFO, dk brm sub sat stn, fr odr, scatt Ls., crm, vfxln, mod hd, dns, nvp, ns, abund Sh., gy-brm

Dol., crm-tn, fmxln, mod hd-mod soft ip, fr-rare gd intrxn & vug por, 20-30% w SSFO, blk res stn, few pcs w sub sat stn, fr odr, rest barren

Dol., aa, sli incr amt w SSFO on brk, 40-50% w shows, vy rare spot blk stn, vy sli show gas on brk, wk odr, scatt Chrt., crm-ft gy, sli weath ip, nvp, ns, scatt Sh., gy-brm

Dol., lt gy-lt gm, fmxln, mod hd-hd, pr-fr intrxn & vug por, glauc, few pcs w blk res stn, couple w VSSFO, vy wk odr, scatt Chrt., aa

Dol., tn-crm, fmxln, mod hd, fr intrxn & vug por, couple pcs w VSSFO, blk res stn, no det odr, few pcs Chrt., aa

Dol., aa, scatt Sh., gy-brm

Dol., aa, abund Chrt., wht, trip, weath, nvp, ns

140' CGO (20%G, 80%O)
 60' GOCM (15%G, 25%O, 60%M)

 200' TF

FP: 31-67; 73-77
 SIP: 780-488
 HP: 2317-2296

BHT: 123
 Gravity: 36
 Chlor: ---

DST #3 4494-4502 (Mississippian)
 30-30-30-30
 IF: WSB, built to 1/4"
 IS: No blow
 FF: No blow, 5 min flushed tool, SB
 FS: No blow

Recovery:
 10' GOCWM (5%G, 5%O, 40%W, 50%M)

FP: 29-28; 31-32
 SIP: 1181-1132
 HP: 2312-2225

BHT: 120
 Gravity: -
 Chlor: 11500

DST #4 4496-4519 (Mississippian)
 30-30-30-30
 IF: BOB in 16 min, built to 15"
 IS: No blow
 FF: Built to 7 1/2"
 FS: No blow

Recovery:
 3' CGO (2%G, 98%O)
 297' OSMCW (3%O, 20%M, 77%W)
 120' MSW wscum oil (4%M, 96%W)

 420' TF

FP: 42-135; 140-185
 SIP: 921-790
 HP: 2339-2260

BHT: 129
 Gravity: 36
 Chlor: 23500

		00			
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DRILL STEM TEST REPORT

Prepared For: **Palomino Petroleum**

4924 SE 58th St.
Newton, KS 67114

ATTN: Andrew Stenzel

Black Gold #1

10-19S-25W Ness, KS

Start Date: 2019.09.11 @ 20:40:00

End Date: 2019.09.12 @ 06:25:00

Job Ticket #: 65552 DST #: 1

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

Printed: 2019.09.17 @ 15:43:29



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Palomino Petroleum

10-19S-25W Ness, KS

4924 SE 58th St.
Newton, KS 67114

Black Gold #1

Job Ticket: 65552

DST#: 1

ATTN: Andrew Stenzel

Test Start: 2019.09.11 @ 20:40:00

GENERAL INFORMATION:

Formation: **Ft. Scott**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:44:40

Time Test Ended: 06:25:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Martine Salinas

Unit No: 82

Interval: **4355.00 ft (KB) To 4412.00 ft (KB) (TVD)**

Reference Elevations: 2458.00 ft (KB)

Total Depth: 4412.00 ft (KB) (TVD)

2453.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8734

Outside

Press@RunDepth: 832.75 psig @ 4356.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.09.11

End Date: 2019.09.12

Last Calib.: 2019.09.12

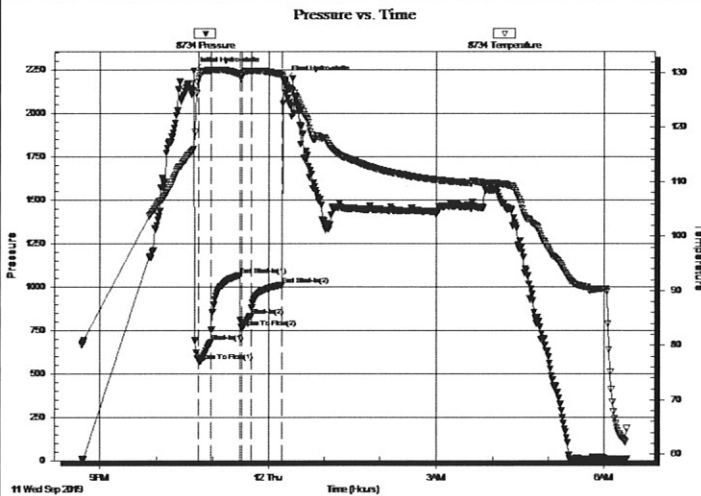
Start Time: 20:40:01

End Time: 06:25:00

Time On Btm: 2019.09.11 @ 22:39:50

Time Off Btm: 2019.09.12 @ 00:17:10

TEST COMMENT: 15-IF-B.O.B (11 inches) @ 30 secs (blow increased to 671") GTS @ 15 mins
 30-ISI-B.O.B (11 inches) ASASI (blow increased to 62 1/2" & decreased to 7")
 15-FF-B.O.B (11 inches) ASAO (blow increased to 338")
 30-FSI-B.O.B (11 inches) @ 1 mins (blow increased to 251 1/2")



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2245.10	115.97	Initial Hydro-static
5	571.57	128.99	Open To Flow (1)
19	681.34	130.43	Shut-In (1)
49	1065.29	129.74	End Shut-In (1)
51	765.76	129.41	Open To Flow (2)
62	832.75	130.28	Shut-In (2)
95	1010.61	129.59	End Shut-In (2)
98	2190.72	128.30	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
181.00	GMCO 32%G, 25%M, 43%O	1.46
2804.00	CGO 25%G,75%O 0-40 MINS REVERSED	39.33
15.00	CGO 15%G, 85%O	0.21
0.00	1000' GIP	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Palomino Petroleum

10-19S-25W Ness, KS

4924 SE 58th St.
New ton, KS 67114

Black Gold #1

Job Ticket: 65552

DST#: 1

ATTN: Andrew Stenzel

Test Start: 2019.09.11 @ 20:40:00

Tool Information

Drill Pipe:	Length: 4239.00 ft	Diameter: 3.80 inches	Volume: 59.46 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 118.00 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 60.04 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4355.00 ft			Final 63000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	57.00 ft			
Tool Length:	85.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments: ISI- Bled off floor manifold 5 mins
FSI- Bled off floor manifold 5 mins

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4332.00	
Hydraulic tool	5.00	1113		4337.00	
Jars	5.00	01-07		4342.00	
Safety Joint	3.00	-001		4345.00	
Packer	5.00			4350.00	28.00 Bottom Of Top Packer
Packer	5.00			4355.00	
Stubb	1.00			4356.00	
Recorder	0.00	8959	Inside	4356.00	
Recorder	0.00	8734	Outside	4356.00	
Perforations	18.00			4374.00	
Change Over Sub	1.00			4375.00	
Drill Pipe	31.00			4406.00	
Change Over Sub	1.00			4407.00	
Bullnose	5.00			4412.00	57.00 Bottom Packers & Anchor

Total Tool Length: 85.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Palomino Petroleum

10-19S-25W Ness, KS

4924 SE 58th St.
New ton, KS 67114

Black Gold #1

Job Ticket: 65552

DST#: 1

ATTN: Andrew Stenzel

Test Start: 2019.09.11 @ 20:40:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

39 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.78 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
181.00	GMCO 32%G, 25%M, 43%O	1.464
2804.00	CGO 25%G,75%O 0-40 MINS REVERSED	39.333
15.00	CGO 15%G, 85%O	0.210
0.00	1000' GIP	0.000

Total Length: 3000.00 ft Total Volume: 41.007 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity of oil = 40.8 @ 78 degs

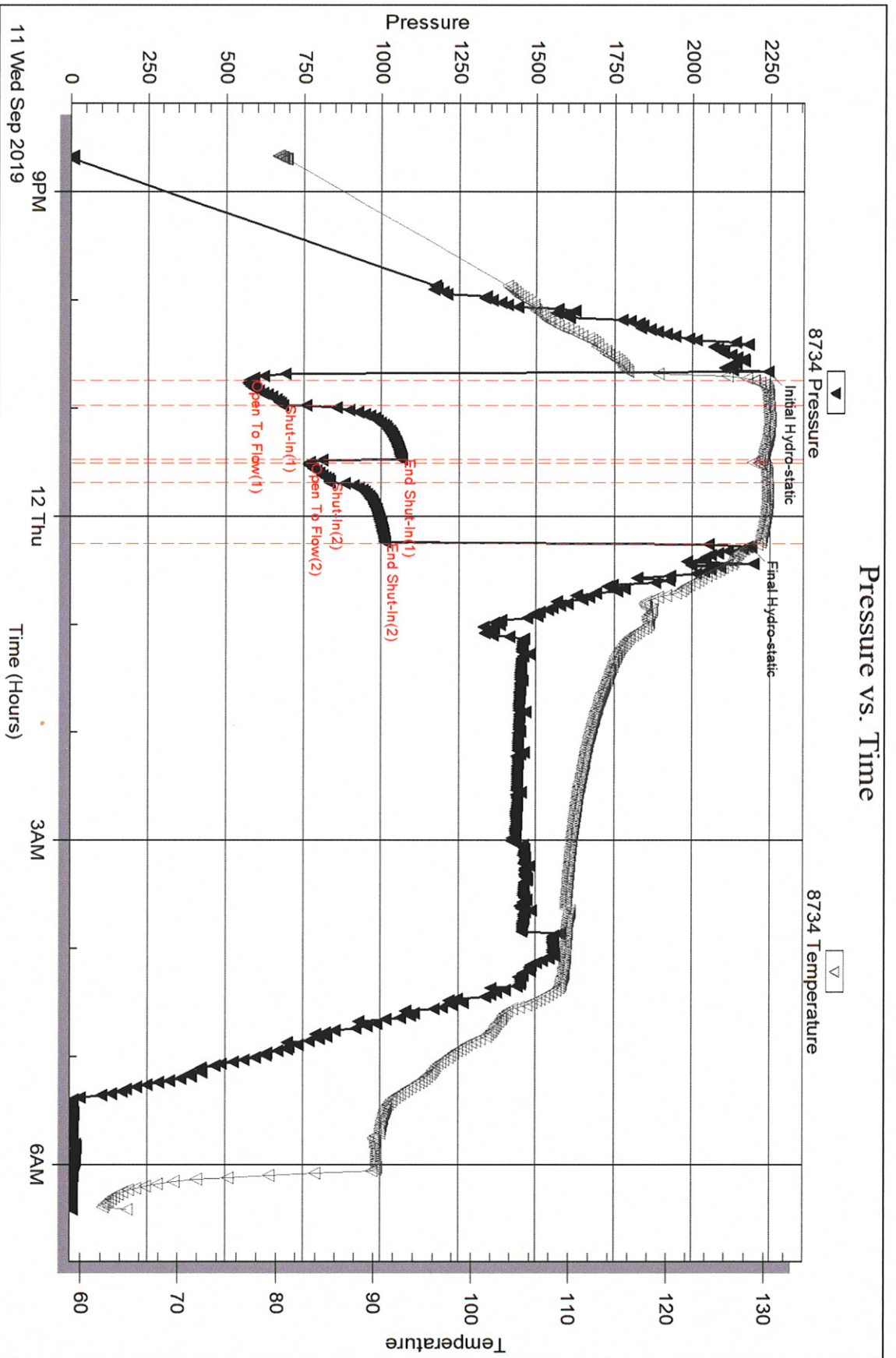
Gravity corrected to 39.0 @ 60 degs

Serial #: 8734

Outside Palomino Petroleum

Black Gold #1

DST Test Number: 1



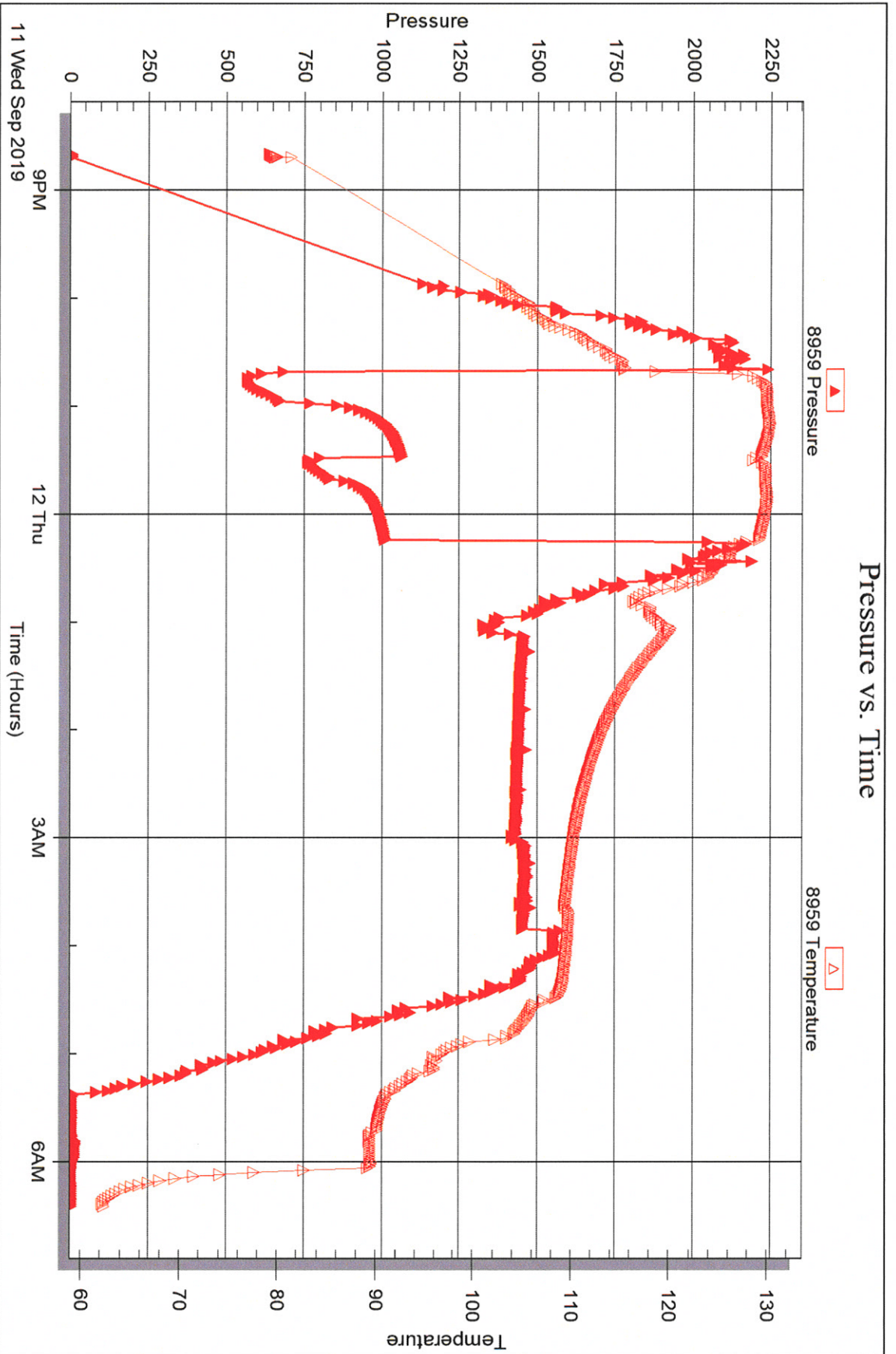
Serial #: 8959

Inside

Palomino Petroleum

Black Gold #1

DST Test Number: 1



Trilobe Testing, Inc

Ref. No: 65552

Printed: 2019.09.17 @ 15:43:30



DRILL STEM TEST REPORT

Prepared For: **Palomino Petroleum**

4924 SE 58th St.
Newton, KS 67114

ATTN: Andrew Stenzel

Black Gold #1

10-19S-25W Ness, KS

Start Date: 2019.09.12 @ 19:45:00

End Date: 2019.09.13 @ 02:26:00

Job Ticket #: 65553 DST #: 2

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

Printed: 2019.09.17 @ 15:36:38

Palomino Petroleum

10-19S-25W Ness, KS

Black Gold #1

DST # 2

Mississippian

2019.09.12



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Palomino Petroleum

10-19S-25W Ness, KS

4924 SE 58th St.
Newton, KS 67114

Black Gold #1

Job Ticket: 65553

DST#: 2

ATTN: Andrew Stenzel

Test Start: 2019.09.12 @ 19:45:00

GENERAL INFORMATION:

Formation: **Mississipian**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:37:20

Time Test Ended: 02:26:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Martine Salinas

Unit No: 82

Interval: **4481.00 ft (KB) To 4493.00 ft (KB) (TVD)**

Reference Elevations: 2458.00 ft (KB)

Total Depth: 4493.00 ft (KB) (TVD)

2453.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8734 Outside

Press@RunDepth: 76.72 psig @ 4482.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.09.12 End Date: 2019.09.13

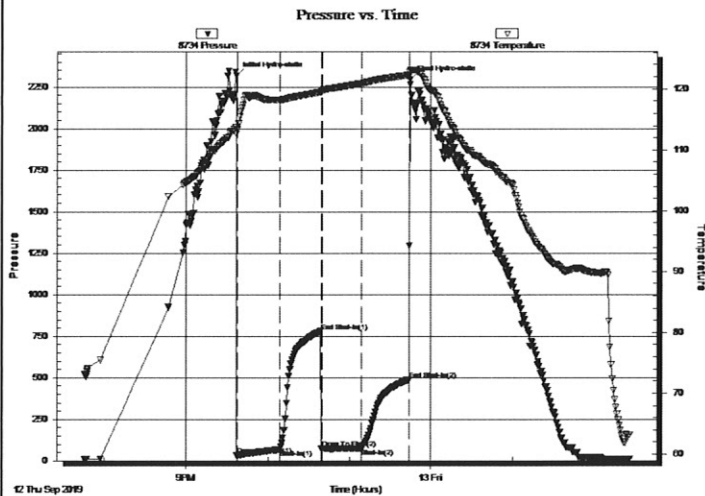
Last Calib.: 2019.09.13

Start Time: 19:45:01 End Time: 02:26:00

Time On Btm: 2019.09.12 @ 21:36:40

Time Off Btm: 2019.09.12 @ 23:45:00

TEST COMMENT: 30-IF-1/4" blow dead @ 24 mins
30-ISI-No blow back
30-FF-No blow
30-FSI-No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2316.97	113.80	Initial Hydro-static
1	30.94	113.35	Open To Flow (1)
32	66.65	118.21	Shut-In(1)
63	780.18	119.51	End Shut-In(1)
64	72.88	119.74	Open To Flow (2)
93	76.72	120.95	Shut-In(2)
128	488.15	122.27	End Shut-In(2)
129	2296.18	123.10	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	GOCM 15%G, 25%O, 60%M	0.30
140.00	CGO 20%G, 80%O	1.44

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Palomino Petroleum

10-19S-25W Ness, KS

4924 SE 58th St.
New ton, KS 67114

Black Gold #1

Job Ticket: 65553

DST#: 2

ATTN: Andrew Stenzel

Test Start: 2019.09.12 @ 19:45:00

GENERAL INFORMATION:

Formation: **Mississippian**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:37:20

Time Test Ended: 02:26:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Martine Salinas

Unit No: 82

Interval: **4481.00 ft (KB) To 4493.00 ft (KB) (TVD)**

Reference Elevations: 2458.00 ft (KB)

Total Depth: 4493.00 ft (KB) (TVD)

2453.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8959 Inside

Press@RunDepth: psig @ 4482.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.09.12

End Date: 2019.09.13

Last Calib.: 2019.09.13

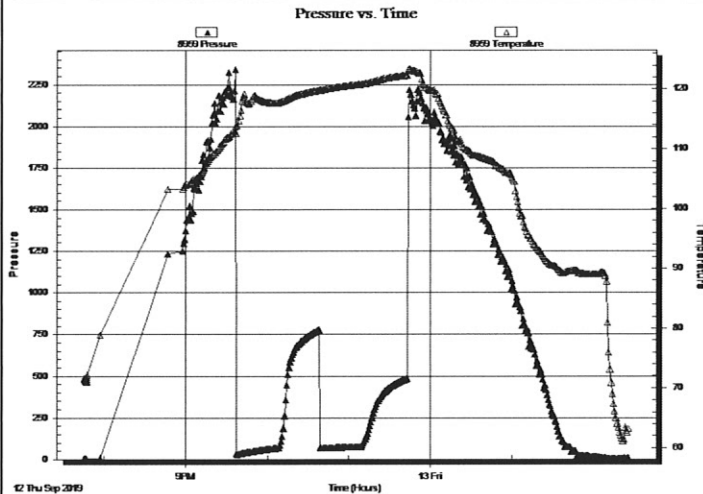
Start Time: 19:45:01

End Time: 02:26:00

Time On Btm:

Time Off Btm:

TEST COMMENT: 30-IF-1/4" blow dead @ 24 mins
30-ISI-No blow back
30-FF-No blow
30-FSI-No blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
60.00	GOCM 15%G, 25%O, 60%M	0.30
140.00	CGO 20%G, 80%O	1.44

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Palomino Petroleum

10-19S-25W Ness, KS

4924 SE 58th St.
New ton, KS 67114

Black Gold #1

Job Ticket: 65553

DST#: 2

ATTN: Andrew Stenzel

Test Start: 2019.09.12 @ 19:45:00

Tool Information

Drill Pipe:	Length: 4365.00 ft	Diameter: 3.80 inches	Volume: 61.23 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 118.00 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose: 66000.00 lb
			<u>Total Volume: 61.81 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4481.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	12.00 ft			
Tool Length:	40.00 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			4454.00	
Shut In Tool	5.00			4459.00	
Hydraulic tool	5.00	1113		4464.00	
Jars	5.00	01-07		4469.00	
Safety Joint	3.00	-001		4472.00	
Packer	5.00			4477.00	28.00 Bottom Of Top Packer
Packer	4.00			4481.00	
Stubb	1.00			4482.00	
Recorder	0.00	8959	Inside	4482.00	
Recorder	0.00	8734	Outside	4482.00	
Perforations	6.00			4488.00	
Bullnose	5.00			4493.00	12.00 Bottom Packers & Anchor

Total Tool Length: 40.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Palomino Petroleum

10-19S-25W Ness, KS

4924 SE 58th St.
Newton, KS 67114

Black Gold #1

Job Ticket: 65553

DST#: 2

ATTN: Andrew Stenzel

Test Start: 2019.09.12 @ 19:45:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

36 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 59.00 sec/qt

Cushion Volume:

bbl

Water Loss: 6.39 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	GOCM 15%G, 25%O, 60%M	0.295
140.00	CGO 20%G, 80%O	1.435

Total Length: 200.00 ft Total Volume: 1.730 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity of oil = 36.4 @ 64 degs

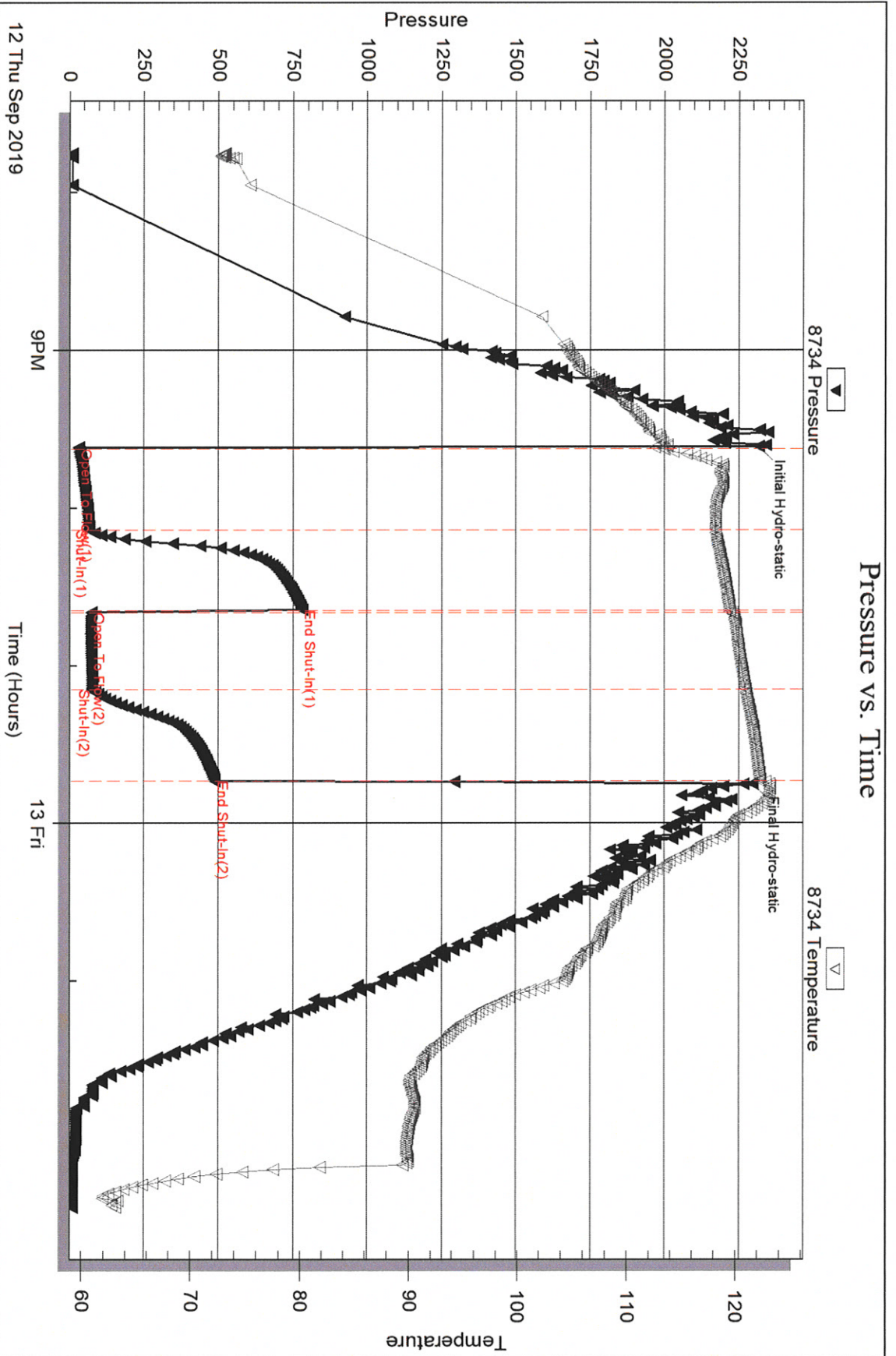
Gravity corrected to 36 @ 60 degs

Serial #: 8734

Outside Palomino Petroleum

Black Gold #1

DST Test Number: 2



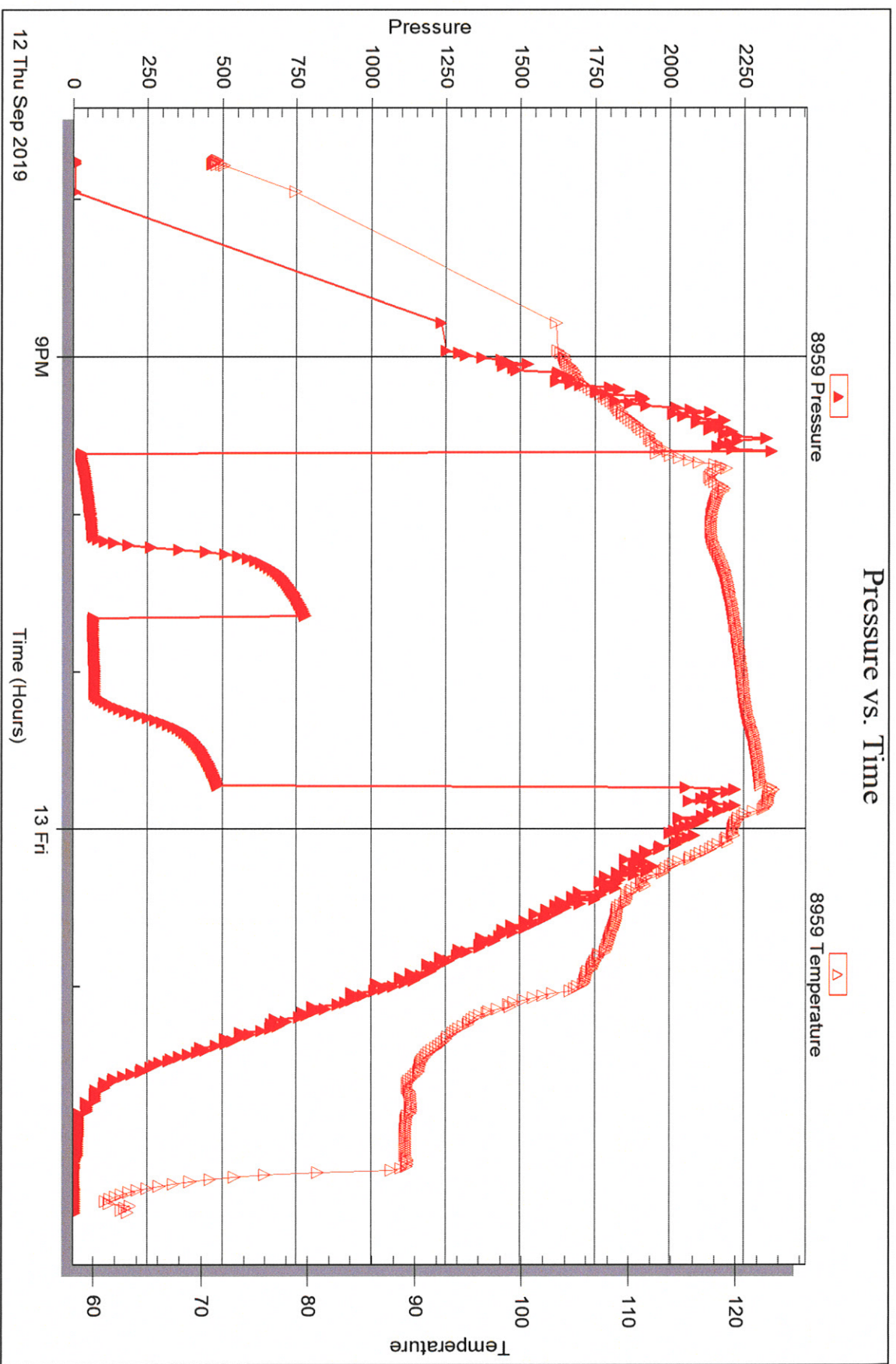
Serial #: 8959

Inside

Palomino Petroleum

Black Gold #1

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 65553

Printed: 2019.09.17 @ 15:36:40



DRILL STEM TEST REPORT

Prepared For: **Palomino Petroleum**

4924 SE 58th St.
Newton, KS 67114

ATTN: Andrew Stenzel

Black Gold #1

10-19S-25W Ness, KS

Start Date: 2019.09.13 @ 10:20:00

End Date: 2019.09.13 @ 16:16:30

Job Ticket #: 65554 DST #: 3

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

Printed: 2019.09.17 @ 15:11:43



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Palomino Petroleum

10-19S-25W Ness, KS

4924 SE 58th St.
Newton, KS 67114

Black Gold #1

Job Ticket: 65554

DST#: 3

ATTN: Andrew Stenzel

Test Start: 2019.09.13 @ 10:20:00

GENERAL INFORMATION:

Formation: **Lower Mississipian**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:26:10

Time Test Ended: 16:16:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Martine Salinas

Unit No: 82

Interval: **4494.00 ft (KB) To 4502.00 ft (KB) (TVD)**

Reference Elevations: 2458.00 ft (KB)

Total Depth: 4502.00 ft (KB) (TVD)

2453.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8734 Outside

Press@RunDepth: 31.91 psig @ 4495.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.09.13

End Date: 2019.09.13

Last Calib.: 2019.09.13

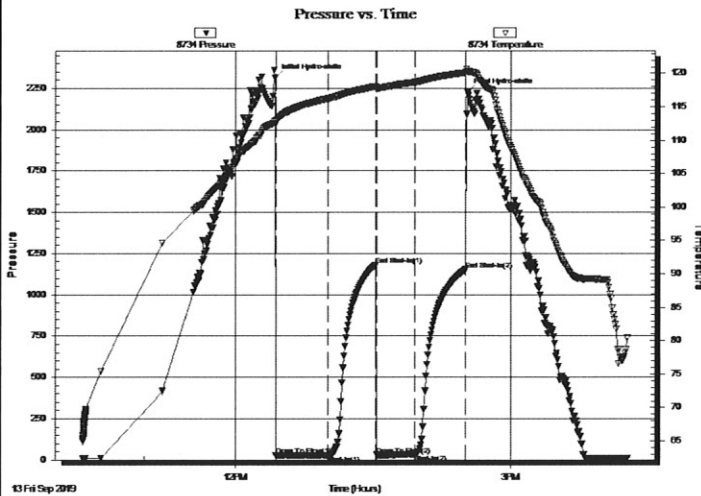
Start Time: 10:20:01

End Time: 16:16:30

Time On Btm: 2019.09.13 @ 12:25:50

Time Off Btm: 2019.09.13 @ 14:32:00

TEST COMMENT: 30-IF-Weak surface blow built to 1/4"
30-ISI-No blow back
30-FF-No blow @ 5 mins, Flushed tool, maintained surface blow
30-FSI-No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2311.67	113.06	Initial Hydro-static
1	28.85	112.51	Open To Flow (1)
34	27.56	116.24	Shut-In(1)
66	1181.10	118.06	End Shut-In(1)
67	30.95	117.81	Open To Flow (2)
92	31.91	118.70	Shut-In(2)
125	1152.32	120.15	End Shut-In(2)
127	2224.52	120.31	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	GOCWM 5%G,5%O,40%W,50%O	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

Palomino Petroleum

10-19S-25W Ness, KS

4924 SE 58th St.
Newton, KS 67114

Black Gold #1

Job Ticket: 65554

DST#: 3

ATTN: Andrew Stenzel

Test Start: 2019.09.13 @ 10:20:00

Tool Information

Drill Pipe:	Length: 4364.00 ft	Diameter: 3.80 inches	Volume: 61.22 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 118.00 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 61.80 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial 56000.00 lb
Depth to Top Packer:	4494.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	8.00 ft			
Tool Length:	36.00 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			4467.00	
Shut In Tool	5.00			4472.00	
Hydraulic tool	5.00	1113		4477.00	
Jars	5.00	01-07		4482.00	
Safety Joint	3.00	-001		4485.00	
Packer	5.00			4490.00	28.00 Bottom Of Top Packer
Packer	4.00			4494.00	
Stubb	1.00			4495.00	
Recorder	0.00	8959	Inside	4495.00	
Recorder	0.00	8734	Outside	4495.00	
Perforations	2.00			4497.00	
Bullnose	5.00			4502.00	8.00 Bottom Packers & Anchor

Total Tool Length: 36.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Palomino Petroleum

10-19S-25W Ness, KS

4924 SE 58th St.
New ton, KS 67114

Black Gold #1

Job Ticket: 65554

DST#: 3

ATTN: Andrew Stenzel

Test Start: 2019.09.13 @ 10:20:00

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:

11500 ppm

Viscosity: 65.00 sec/qt

Cushion Volume:

bbl

Water Loss: 6.39 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	GOCWM 5%G,5%O,40%W,50%O	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:

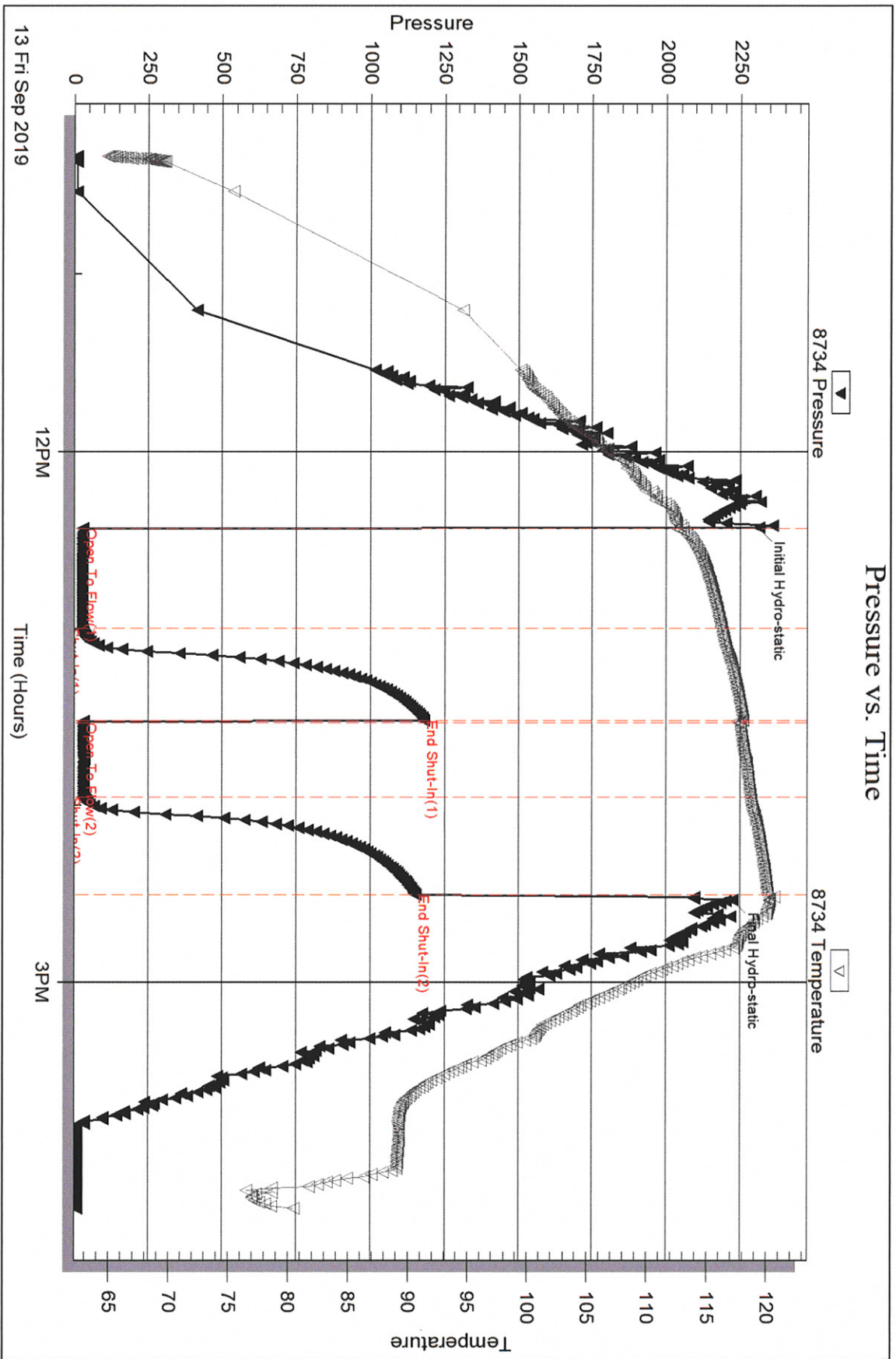
Recovery Comments: RW= .466 @ 86.5 degs = 11,500 PPM

Serial #: 8734

Outside Palomino Petroleum

Black Gold #1

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 65554

Printed: 2019.09.17 @ 15:11:44

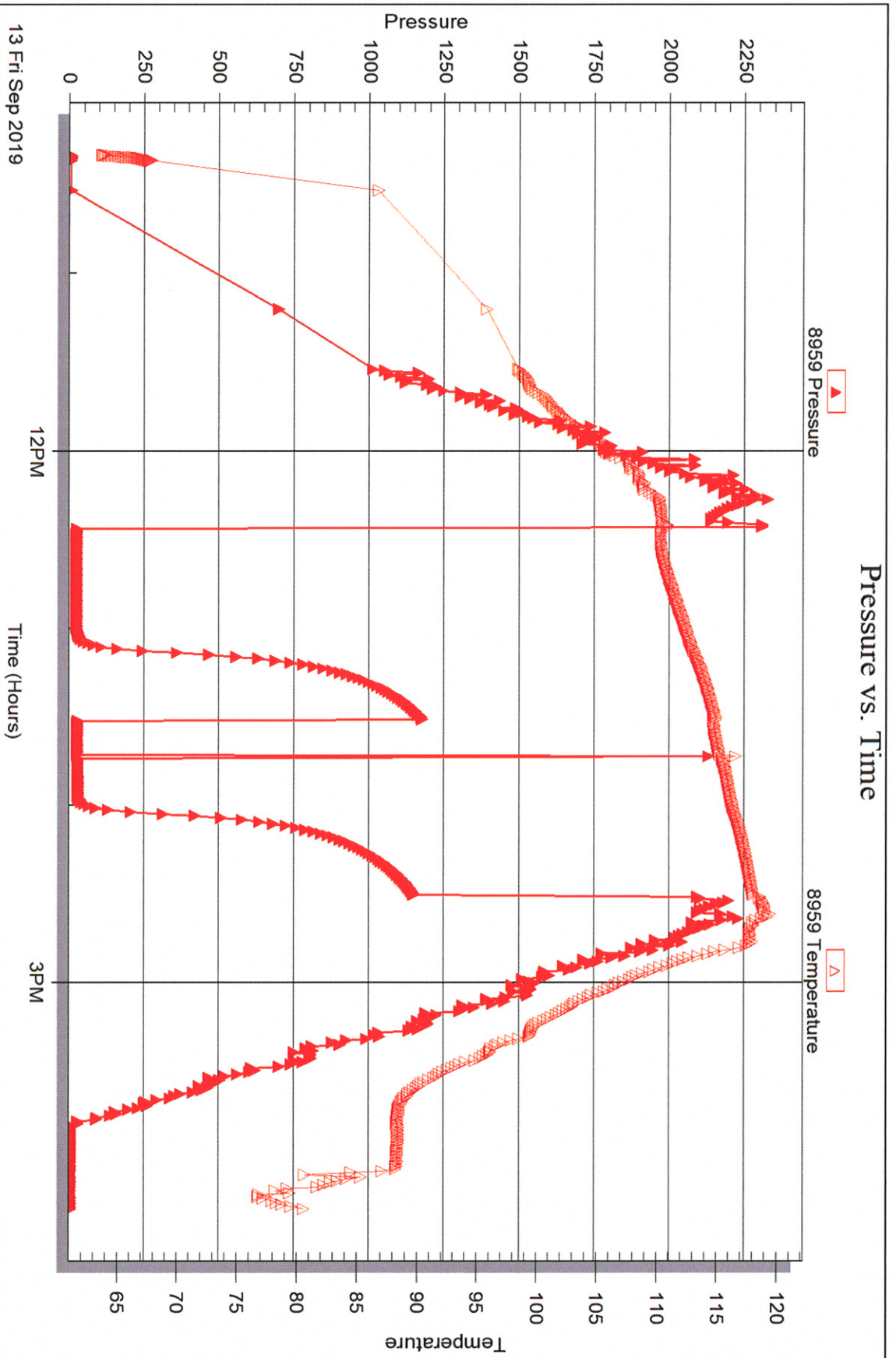
Serial #: 8959

Inside

Palomino Petroleum

Black Gold #1

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 65554

Printed: 2019.09.17 @ 15:11:44



DRILL STEM TEST REPORT

Prepared For: **Palomino Petroleum**

4924 SE 58th St.
Newton, KS 67114

ATTN: Andrew Stenzel

Black Gold #1

10-19S-25W Ness, KS

Start Date: 2019.09.14 @ 06:56:00

End Date: 2019.09.14 @ 13:55:00

Job Ticket #: 65555 DST #: 4

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

Printed: 2019.09.17 @ 15:06:43



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Palomino Petroleum

10-19S-25W Ness, KS

4924 SE 58th St.
New ton, KS 67114

Black Gold #1

Job Ticket: 65555

DST#: 4

ATTN: Andrew Stenzel

Test Start: 2019.09.14 @ 06:56:00

GENERAL INFORMATION:

Formation: **Lower Mississipian**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:02:20

Time Test Ended: 13:55:00

Test Type: Conventional Straddle (Reset)

Tester: Martine Salinas

Unit No: 82

Interval: **4496.00 ft (KB) To 4519.00 ft (KB) (TVD)**

Reference Elevations: 2458.00 ft (KB)

Total Depth: 4620.00 ft (KB) (TVD)

2453.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8734

Outside

Press@RunDepth: 185.33 psig @ 4496.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.09.14

End Date:

2019.09.14

Last Calib.:

2019.09.14

Start Time: 06:56:01

End Time:

13:55:00

Time On Btm:

2019.09.14 @ 09:02:10

Time Off Btm:

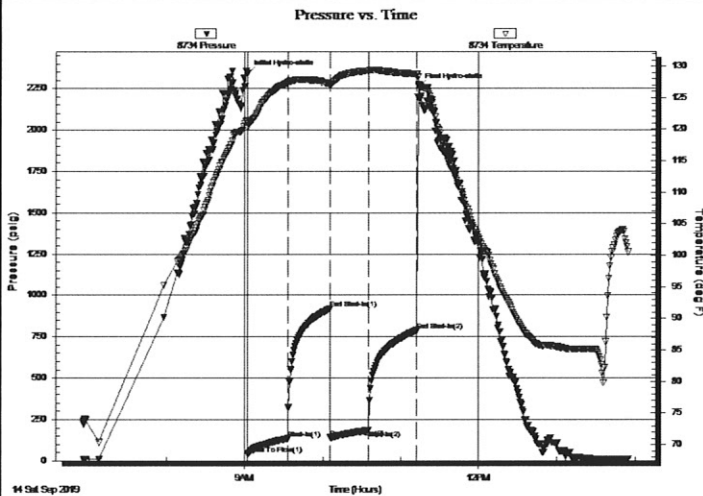
2019.09.14 @ 11:13:20

TEST COMMENT: 30-IF-1/2" blow built to B.O.B(11 inches) @ 16 mins (blow increased to 15"

30-ISI-No blow back

30-FF-S.blow built to 7 1/2"

30-FSI-No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2339.00	121.37	Initial Hydro-static
1	42.40	120.24	Open To Flow (1)
32	135.38	127.36	Shut-In(1)
63	921.38	127.31	End Shut-In(1)
64	139.90	127.07	Open To Flow (2)
93	185.33	129.30	Shut-In(2)
130	789.76	128.73	End Shut-In(2)
132	2259.56	127.15	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	MCW w/ Oil scum 4%M, 96%W	0.61
297.00	V SOMCW 3%O, 20%M, 77%W	4.17
3.00	CGO 2%G, 98%O	0.04

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Palomino Petroleum

10-19S-25W Ness, KS

4924 SE 58th St.
New ton, KS 67114

Black Gold #1

Job Ticket: 65555

DST#: 4

ATTN: Andrew Stenzel

Test Start: 2019.09.14 @ 06:56:00

GENERAL INFORMATION:

Formation: **Lower Mississipian**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:02:20

Time Test Ended: 13:55:00

Test Type: Conventional Straddle (Reset)

Tester: Martine Salinas

Unit No: 82

Interval: **4496.00 ft (KB) To 4519.00 ft (KB) (TVD)**

Reference Elevations: 2458.00 ft (KB)

Total Depth: 4620.00 ft (KB) (TVD)

2453.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8959 Inside

Press@RunDepth: psig @ 4496.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.09.14

End Date: 2019.09.14

Last Calib.: 2019.09.14

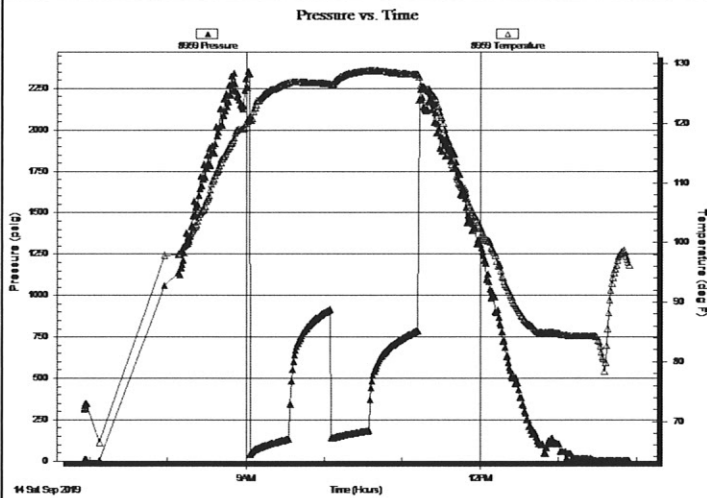
Start Time: 06:56:01

End Time: 13:54:50

Time On Btm:

Time Off Btm:

TEST COMMENT: 30-IF-1/2" blow built to B.O.B(11 inches) @ 16 mins (blow increased to 15")
 30-ISI-No blow back
 30-FF-S.blow built to 7 1/2"
 30-FSI-No blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
120.00	MCW w / Oil scum 4%M, 96%W	0.61
297.00	V SOMCW 3%O, 20%M, 77%W	4.17
3.00	CGO 2%G, 98%O	0.04

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Palomino Petroleum

10-19S-25W Ness, KS

4924 SE 58th St.
Newton, KS 67114

Black Gold #1

Job Ticket: 65555

DST#: 4

ATTN: Andrew Stenzel

Test Start: 2019.09.14 @ 06:56:00

GENERAL INFORMATION:

Formation: **Lower Mississipian**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:02:20

Time Test Ended: 13:55:00

Test Type: Conventional Straddle (Reset)

Tester: Martine Salinas

Unit No: 82

Interval: **4496.00 ft (KB) To 4519.00 ft (KB) (TVD)**

Reference Elevations: 2458.00 ft (KB)

Total Depth: 4620.00 ft (KB) (TVD)

2453.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8520 Below (Straddle)

Press@RunDepth: psig @ 4519.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.09.14

End Date: 2019.09.14

Last Calib.: 2019.09.14

Start Time: 06:56:01

End Time: 13:54:50

Time On Btm:

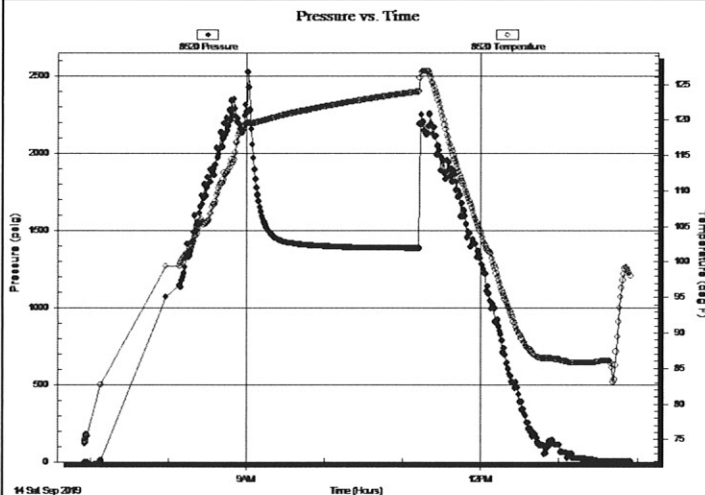
Time Off Btm:

TEST COMMENT: 30-IF-1/2" blow built to B.O.B(11 inches) @ 16 mins (blow increased to 15"

30-ISI-No blow back

30-FF-S.blow built to 7 1/2"

30-FSI-No blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
120.00	MCW w/ Oil scum 4%M, 96%W	0.61
297.00	VSOMCW 3%O, 20%M, 77%W	4.17
3.00	CGO 2%G, 98%O	0.04

* Recovery from multiple tests

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Palomino Petroleum

10-19S-25W Ness, KS

4924 SE 58th St.
New ton, KS 67114

Black Gold #1

Job Ticket: 65555

DST#: 4

ATTN: Andrew Stenzel

Test Start: 2019.09.14 @ 06:56:00

Tool Information

Drill Pipe:	Length: 4363.00 ft	Diameter: 3.80 inches	Volume: 61.20 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 118.00 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 61.78 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4496.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	4620.00 ft			
Interval between Packers:	124.00 ft			
Tool Length:	152.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4473.00	
Hydraulic tool	5.00	1113		4478.00	
Jars	5.00	01-07		4483.00	
Safety Joint	3.00	-001		4486.00	
Packer	5.00			4491.00	28.00 Bottom Of Top Packer
Packer	5.00			4496.00	
Recorder	0.00	8959	Inside	4496.00	
Recorder	0.00	8734	Outside	4496.00	
Perforations	17.00			4513.00	
Blank Off Sub	1.00			4514.00	
Packer - Shale	5.00			4519.00	
Recorder	0.00	8520	Below	4519.00	
Perforations	30.00			4549.00	
Change Over Sub	1.00			4550.00	
Drill Pipe	64.00			4614.00	
Change Over Sub	1.00			4615.00	
Bullnose	5.00			4620.00	124.00 Bottom Packers & Anchor
Total Tool Length:	152.00				



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Palomino Petroleum

10-19S-25W Ness, KS

4924 SE 58th St.
New ton, KS 67114

Black Gold #1

Job Ticket: 65555

DST#: 4

ATTN: Andrew Stenzel

Test Start: 2019.09.14 @ 06:56:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

34.8 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

10000 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.77 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	MCW w / Oil scum 4%M, 96%W	0.608
297.00	VSOMCW 3%O, 20%M, 77%W	4.166
3.00	CGO 2%G, 98%O	0.042

Total Length: 420.00 ft Total Volume: 4.816 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity of oil = 38 @ 92 degs corrected to 34.8 @ 60 degs

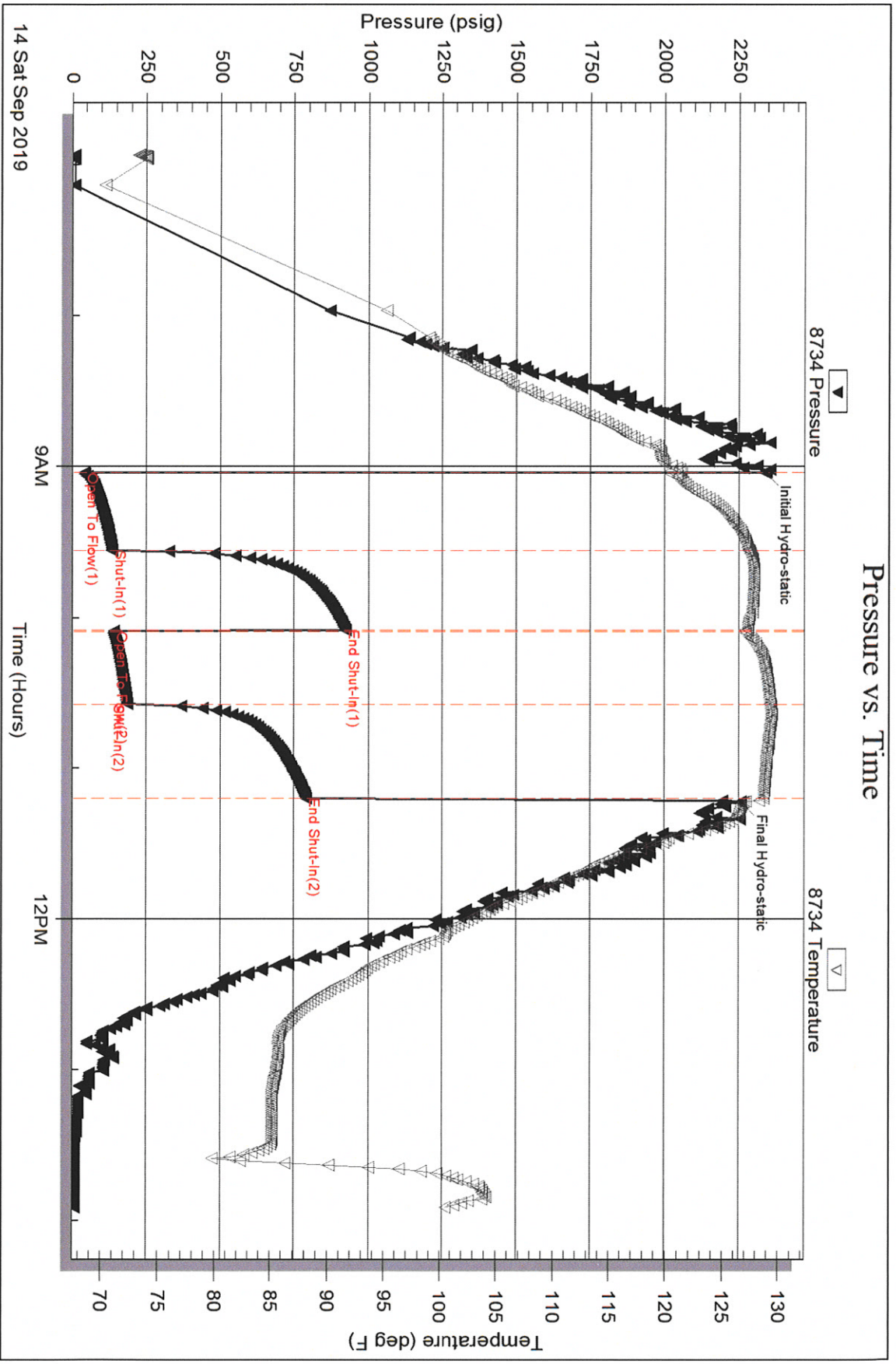
RW= .455 @ 95 degs = 10,000 PPM

Serial #: 8734

Outside Palomino Petroleum

Black Gold #1

DST Test Number: 4



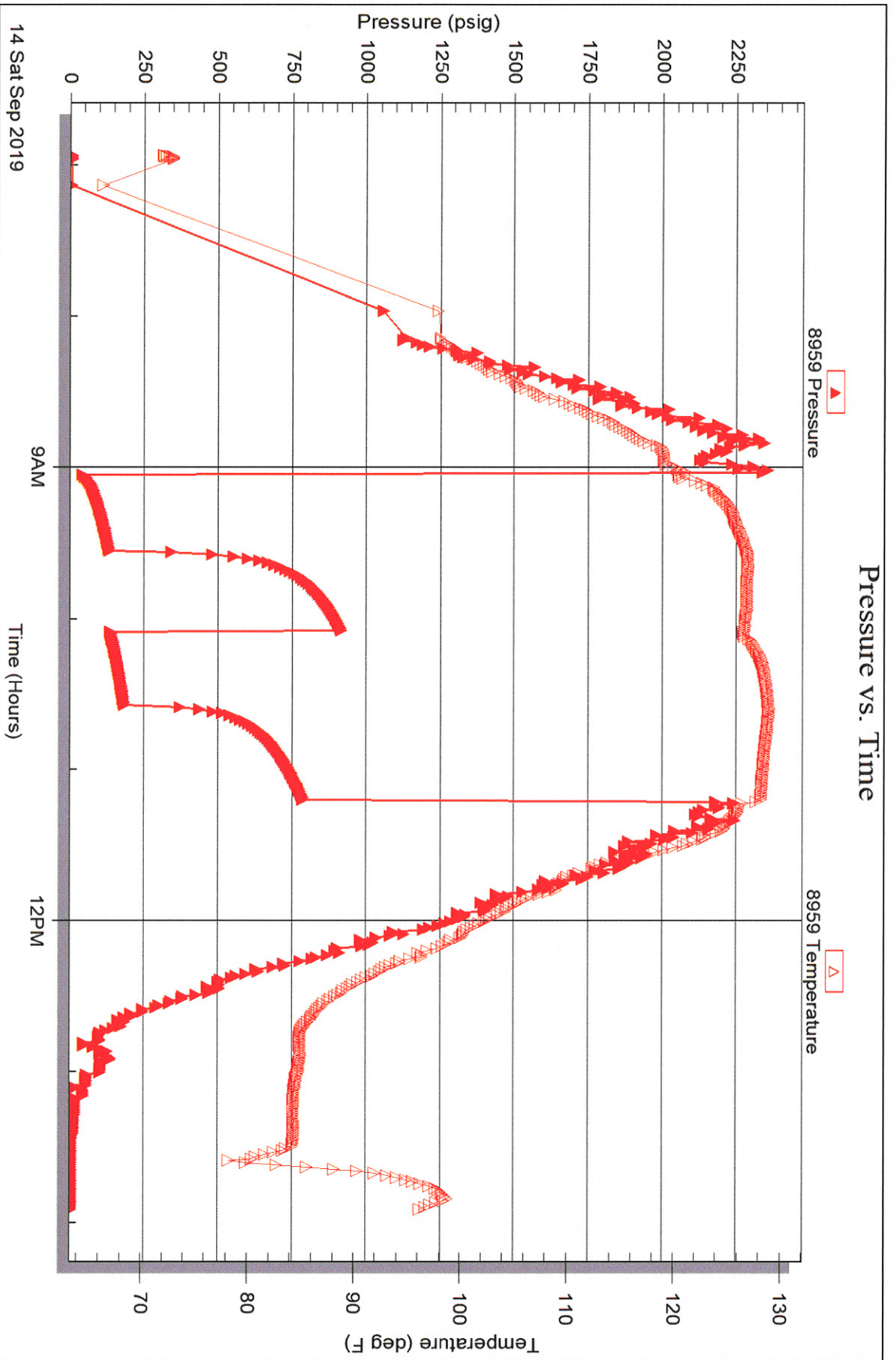
Serial #: 8959

Inside

Palomino Petroleum

Black Gold #1

DST Test Number: 4

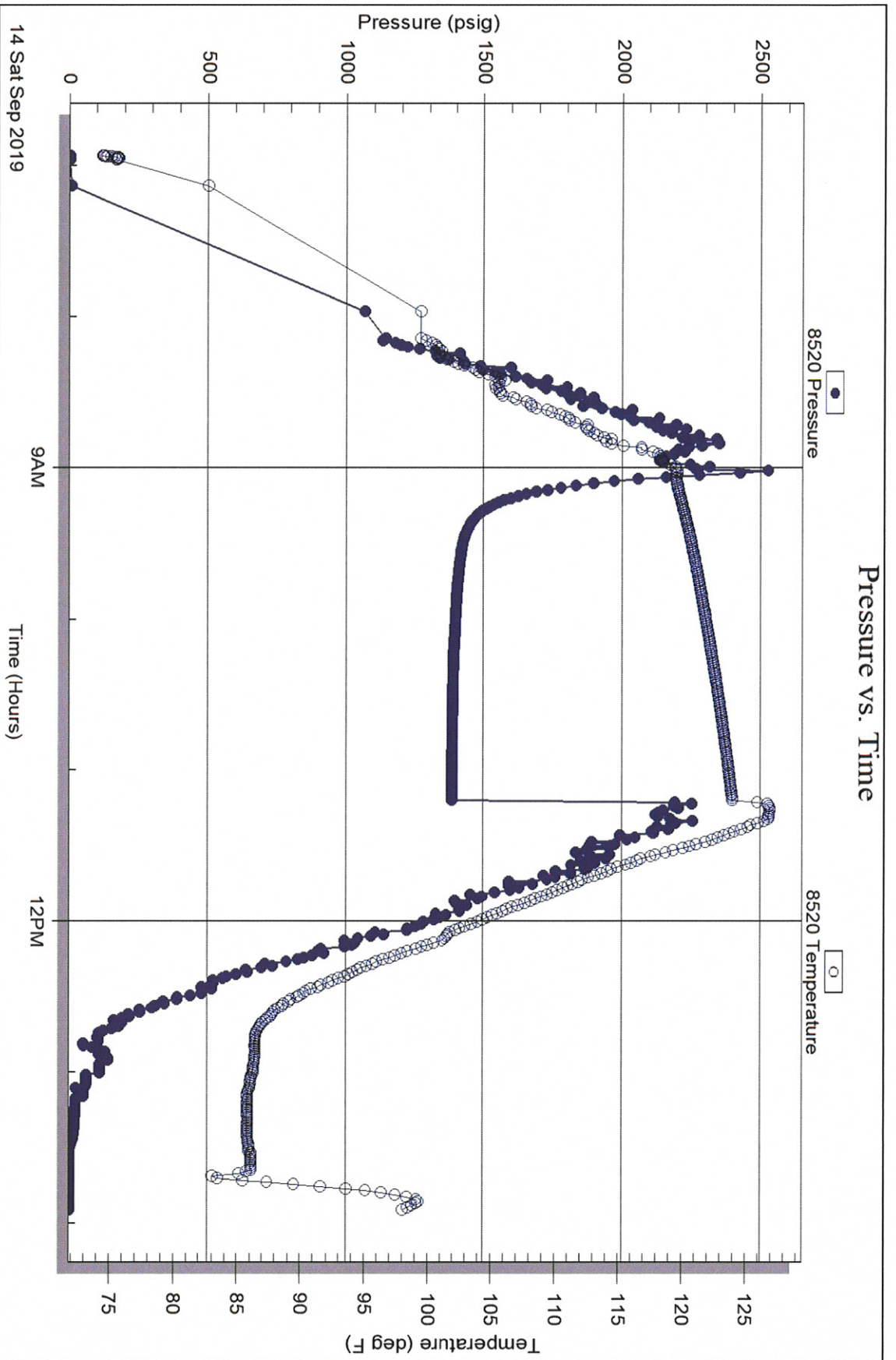


Serial #: 8520

Below (Strathmore) Petroleum

Black Gold #1

DST Test Number: 4





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **65552**

Well Name & No. Black Gold #1 Test No. 1 Date 9-11-19
 Company Palomine Petroleum Elevation 2458 KB 2453 GL
 Address 4924 SE 84th St. Newton, KS 67114
 Co. Rep / Geo. Andrew Stenzel Rig NW #2
 Location: Sec. 10 Twp 19 S. Rge 25 W. Co. Ness State KS

Interval Tested 4355-4412 Zone Tested Ft. Scott
 Anchor Length 57 Drill Pipe Run 4239 Mud Wt. 9.1
 Top Packer Depth 4350 Drill Collars Run 118 Vis 52
 Bottom Packer Depth 4355 Wt. Pipe Run — WL 7.8
 Total Depth 4412 Chlorides 3000 ppm System LCM 2#

Blow Description IF - B.O.B (11 inches) @ 30 secs (blow increased to 67") GTS @ 15 mins
ISI - B.O.B (11 inches) ASAST (blow increased to 62 1/2" & decreased to 7")
FF - B.O.B (11 inches) ASAO (blow increased to 338")
FST - B.O.B (11 inches) @ 1 mins (blow increased to 251 1/2")

Rec	Feet of	%gas	%oil	%water	%mud
181	GMCO	32	43	25	
2804	CGO (Reversed) 0-40 mins	25	75		
15	CGO	15	85		
0	1000' GIP				

Rec Total 3000 BHT 128 Gravity 39.0 API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 2245 Test 1300 T-On Location 17:45
 (B) First Initial Flow 572 Jars 250 T-Started 20:40
 (C) First Final Flow 681 Safety Joint 75 T-Open 22:40
 (D) Initial Shut-In 1065 Circ Sub Drop Bar 50 T-Pulled 00:10
 (E) Second Initial Flow 766 Hourly Standby — T-Out 06:25
 (F) Second Final Flow 833 Mileage 101 RT 101 Comments ISI - bled off floor manifold 5 mins, FSI - bled off floor manifold 5 mins
 (G) Final Shut-In 1011 Sampler — EM Tool (GTS @ 15 mins)
 (H) Final Hydrostatic 2191 Straddle — Ruined Shale Packer —
 Shale Packer — Ruined Packer —
 Extra Packer — Extra Copies —
 Extra Recorder — Sub Total 0
 Day Standby — Total 1776
 Accessibility — MP/DST Disc't —
 Sub Total 1776

Initial Open 15
 Initial Shut-In 30
 Final Flow 15
 Final Shut-In 30

Approved By [Signature] Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **65553**

Well Name & No. Black Gold #1 Test No. 2 Date 9-12-19
 Company Palmira Petroleum Elevation 2458 KB 2453 GL
 Address 4924 SE 84th St Newton, KS 67114
 Co. Rep / Geo. Andrew Stenzel Rig WV#2
 Location: Sec. 10 Twp 19S. Rge. 25W. Co. NESS State KS.

Interval Tested 4481-4493 Zone Tested Mississippian
 Anchor Length 12' Drill Pipe Run ~~4365~~ Mud Wt. 8.9
 Top Packer Depth 4476 Drill Collars Run 118 Vls 59
 Bottom Packer Depth 4481 Wt. Pipe Run - WL 6.4
 Total Depth 4493 Chlorides 3000 ppm System LCM 2#
 Blow Description IF: 1/4" blow dead @ 24 mins
ISI: No blowback
FF: No blow
FSS: No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>60</u>	<u>GOCM</u>	<u>15</u>	<u>25</u>	<u>60</u>	
<u>140</u>	<u>CGO</u>	<u>20</u>	<u>80</u>		
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 200' BHT 123 Gravity 36 API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic 2317 Test 1300 T-On Location 19:15
 (B) First Initial Flow 31 Jars 250 T-Started ~~19:45~~
 (C) First Final Flow 67 Safety Joint 75 T-Open 21:37
 (D) Initial Shut-In 780 Circ Sub _____ T-Pulled 23:37
 (E) Second Initial Flow 73 Hourly Standby _____ T-Out 02:26
 (F) Second Final Flow 77 Mileage 101 RT 101 Comments _____
 (G) Final Shut-In 488 Sampler _____
 (H) Final Hydrostatic 2296 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Sub Total 1726 EM Tool _____
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Sub Total 0
 Total 1726
 MP/DST Disc't _____

Approved By _____ Our Representative Justin Salinas
 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. **65554**

Well Name & No. Black Gold #1 Test No. 3 Date 9-13-19
 Company Palomino Petroleum Elevation 2458 KB 2453 GL
 Address 4924 SE 84th St. Newton, KS 67114
 Co. Rep / Geo. Andrew Stenzel Rig INW#2
 Location: Sec. 10 Twp 19S. Rge. 25W. Co. N655 State KS.

Interval Tested 4494-4502 Zone Tested Lower Mississippian
 Anchor Length 8' Drill Pipe Run 4364 Mud Wt. 8.9
 Top Packer Depth 4489 Drill Collars Run 118 Vis 65
 Bottom Packer Depth 4494 Wt. Pipe Run - WL 6.4
 Total Depth 4502 Chlorides 3000 ppm System LCM 2#

Blow Description IF - Weak surface blow built to 1/4"
ISI - No blowback
EF - No blow @ 5 mins flushed tool, maintained surface blow
FSE - No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>GOKWM</u>	<u>5</u>	<u>5</u>	<u>40</u>	<u>50</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 10 BHT 120 Gravity - API RW 0466 @ 86.5 °F Chlorides 11,500 ppm

(A) Initial Hydrostatic 2312 Test 1300 T-On Location 10:15
 (B) First Initial Flow 29 Jars 250 T-Started 10:20
 (C) First Final Flow 28 Safety Joint 75 T-Open 12:26
 (D) Initial Shut-In 1181 Circ Sub _____ T-Pulled 14:26
 (E) Second Initial Flow 31 Hourly Standby _____ T-Out 16:17
 (F) Second Final Flow 32 Mileage 101RT 101 Comments _____
 (G) Final Shut-In 1152 Sampler _____
 (H) Final Hydrostatic 2225 Straddle _____

Initial Open 30 Shale Packer _____ EM Tool _____
 Initial Shut-In 30 Extra Packer _____ Ruined Shale Packer _____
 Final Flow 30 Extra Recorder _____ Ruined Packer _____
 Final Shut-In 30 Day Standby _____ Extra Copies _____
 Sub Total 1726 Accessibility _____ Sub Total 0
 MP/DST Disc't _____ Total 1726

Approved By _____ Our Representative Martin Adams

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. **65555**

Well Name & No. Black Gold #1 Test No. 4 Date 9-14-19
 Company Palomino Petroleum Elevation 2458 KB 2453 GL
 Address 4924 SE 84th St. Newton, KS 67114
 Co. Rep / Geo. Andrew Stenzel Rig NW #2
 Location: Sec. 10 Twp 19 S. Rge. 25W. Co. Ness State KS

Interval Tested 4496-4519 Zone Tested Mississippian (lower)
 Anchor Length 23' 101' T. Pipe. Drill Pipe Run 4363 Mud Wt. 8.9
 Top Packer Depth 4491 - 4496 Drill Collars Run 118 Vls 49
 Bottom Packer Depth 4519 (Shale) Wt. Pipe Run — WL 6.4
 Total Depth 4620 Chlorides 3300 ppm System LCM 2#
 Blow Description IF: 1/2" blow built to B.O.B (11 inches) @ 16 mins (blow increased to 15")
ISI: No blowback
FE: S. blow built to 7 1/2"
FSI: No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>120</u>	<u>MSW tail sum</u>		<u>96</u>	<u>4</u>	
<u>297</u>	<u>MSW</u>		<u>77</u>	<u>20</u>	
<u>3</u>	<u>CGO</u>	<u>2</u>	<u>98</u>		

Rec Total 420 BHT 127 Gravity 34.8 API RW 455 @ 95.0 °F Chlorides 10,000 ppm
 (A) Initial Hydrostatic 2339 Test 1300 T-On Location 06:15
 (B) First Initial Flow 42 Jars 250 T-Started 06:56
 (C) First Final Flow 135 Safety Joint 75 T-Open 09:03
 (D) Initial Shut-In 921 Circ Sub _____ T-Pulled 11:03
 (E) Second Initial Flow 140 Hourly Standby _____ T-Out 13:55
 (F) Second Final Flow 185 Mileage 101 RT 101 Comments Tools loaded @ 15:00
 (G) Final Shut-In 790 Sampler _____
 (H) Final Hydrostatic 2260 Straddle 600 EM Tool _____
 Shale Packer 250 Ruined Shale Packer _____
 Extra Packer _____ Ruined Packer _____
 Extra Recorder _____ Extra Copies _____
 Day Standby _____ Sub Total 0
 Accessibility _____ Total 2576
 Sub Total 2576 MP/DST Disc't _____

Approved By _____ Our Representative Martin Salinas
 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 all cost by the party for whom the test is made.