

Confidentiality Requested:

Yes No

**KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION**

Form ACO-1

January 2018

Form must be Typed

Form must be Signed

All blanks must be Filled

**WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE**

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

New Well Re-Entry Workover

Oil WSW SWD

Gas DH EOR

OG GSW

CM (Coal Bed Methane)

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

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

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

Deepening Re-perf. Conv. to EOR Conv. to SWD
 Plug Back Liner Conv. to GSW Conv. to Producer

Commingled Permit #: _____

Dual Completion Permit #: _____

SWD Permit #: _____

EOR Permit #: _____

GSW Permit #: _____

Spud Date or Date Reached TD Completion Date or Recompletion Date

API No.: _____

Spot Description: _____

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

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE NW SE SW

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

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite:

Operator Name: _____

Lease Name: _____ License #: _____

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

County: _____ Permit #: _____

AFFIDAVIT

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

Submitted Electronically

KCC Office Use ONLY

Confidentiality Requested

Date: _____

Confidential Release Date: _____

Wireline Log Received Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT I II III Approved by: _____ Date: _____

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

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

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

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

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

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

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

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

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

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

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

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

Form	ACO1 - Well Completion
Operator	Palomino Petroleum, Inc.
Well Name	DEEDS-COOPER 1
Doc ID	1459049

Tops

Name	Top	Datum
Anhy.	3095	(+ 302)
Base Anhy.	3133	(+ 264)
Heebner	4205	(- 808)
Lansing	4257	(- 860)
Muncie Creek	4376	(- 979)
BKC	4511	(-1114)
Pawnee	4643	(-1246)
Ft. Scott	4695	(-1298)
Cherokee Sh.	4721	(-1324)
Miss.	4940	(-1543)
LTD	5041	(-1644)

Form	ACO1 - Well Completion
Operator	Palomino Petroleum, Inc.
Well Name	DEEDS-COOPER 1
Doc ID	1459049

Perforations

Shots Per Foot	Perforation Top	Perforation Bottom	BridgePlugType	BridgePlugSet At	Material Record
4	4682	4685			300 gal. 20% MCA & 200 gal 20% NE; Retreated 800 gal. 20% NE
4	4669	4672			250 gal. 15% MCA
4	4257	4266	CIBP Cast Iron Bridge Plug	4252	
4	4220	4229			300 gal. 20% MCA
4	4211	4215			300 gal. 20% MCA
4	4234	4246			300 gal. 20% MCA; 500 gal. 20% super NE with friction reducer and DMO

SWIFT



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

RECEIVED

JAN 22 2019

Invoice

DATE	INVOICE #
1/17/2019	31991

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	Deeds-Cooper	Cheyenne	WW Drilling Rig ...	Oil	Development	Cement Long Str...	Blaine
PRICE REF.	DESCRIPTION				QTY	UM	UNIT PRICE	AMOUNT
575D	Mileage - 1 Way				150	Miles	5.00	750.00
579D	Pump Charge - Two-Stage & Top To Bottom LongString				1	Job	1,800.00	1,800.00
403-5	5 1/2" Cement Basket				2	Each	275.00	550.00T
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	85.00	1,020.00T
419-5	5 1/2" Rotating Head Rental				1	Each	200.00	200.00T
330	Swift Multi-Density Standard (MIDCON II)				350	Sacks	16.25	5,687.50T
325	Standard Cement				150	Sacks	13.00	1,950.00T
284	Calseal				7	Sack(s)	35.00	245.00T
283	Salt				750	Lb(s)	0.20	150.00T
285	CFR-1				75	Lb(s)	4.50	337.50T
276	Flocele				125	Lb(s)	2.50	312.50T
281	Mud Flush				500	Gallon(s)	1.50	750.00T
221	Liquid KCL (Clayfix)				4	Gallon(s)	25.00	100.00T
290	D-Air				4	Gallon(s)	42.00	168.00T
581D	Service Charge Cement				500	Sacks	1.75	875.00
583D	Drayage				3,787.76	Ton Miles	0.85	3,219.60
	Subtotal							18,690.10
	Sales Tax Cheyenne County						8.50%	1,023.87

We Appreciate Your Business!

Total

\$19,713.97



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

TICKET 031991

PAGE 1 OF 2

SERVICE LOCATIONS
 1. Love Day 25 WELL/PROJECT NO. #1 LEASE Doors-Cooper COUNTY/PARISH Acadiane STATE LA CITY Broussard DATE 17 Jan 14 OWNER
 2. TICKET TYPE SERVICE SALES CONTRACTOR RIG NAME/NO. SHIPPED W/C DELIVERED TO location ORDER NO.
 3. WELL TYPE 01 WELL CATEGORY Development JOB PURPOSE Concrete pump string WELL PERMIT NO. WELL LOCATION 15-9-37
 4. REFERRAL LOCATION INVOICE INSTRUCTIONS

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING LOC ACCT DF	DESCRIPTION	QTY. U/M		QTY. U/M		UNIT PRICE	AMOUNT
				QTY.	U/M	QTY.	U/M		
575			MILEAGE <u>TRK 115</u>	150	mi			5.00	750.00
579			<u>Fining Diesel</u>	1	ea			1800.00	1800.00
403			<u>Concrete Buckets</u>	5 1/2	in	2	ea	275.00	550.00
406			<u>Latex down plug & hoppers</u>	5 1/2	in	1	ea	250.00	250.00
407			<u>Insert float shoe w/ 4000 FILL</u>	5 1/2	in	1	ea	325.00	325.00
409			<u>TURBOCHARGER</u>	5 1/2	in	12	ea	85.00	1020.00
419			<u>Rotating head rental</u>	5 1/2	in	1	ea	200.00	200.00

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 Thomas [Signature]
 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? YES NO
 WE UNDERSTOOD AND MET YOUR NEEDS? YES NO
 OUR SERVICE WAS PERFORMED WITHOUT DELAY? YES NO
 WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY? YES NO
 ARE YOU SATISFIED WITH OUR SERVICE? YES NO
 CUSTOMER DID NOT WISH TO RESPOND

PAGE TOTAL 4895.00
 13795.00
 18690.00
 TOTAL 19913.99

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



PO Box 466

Ness City, KS 67560

Off: 785-798-2300

TICKET CONTINUATION

TICKET No. 31991

CUSTOMER *Palumbo Petroleum*

WELL *Doody's Cooper #1*

DATE *17 Nov 19*

PAGE *2* OF *2*

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING		TIME	DESCRIPTION	WELL		UNIT PRICE	AMOUNT
		LOC	ACCT			QTY	UM		
330		1			SMD cement	350	SK	16.95	5,687.50
325		1			Standard cement (for 31-2)	150	SK	13.00	1,950.00
284		1			Colseal	700	Lb	35.00	24,500.00
283		1			SALT	750	Lb	0.20	150.00
285		1			CFR-1	75	Lb	4.50	337.50
276		1			Fluore	185	Lb	2.15	397.75
281		1			MURKIN	500	gal	1.50	750.00
281		1			KCL for <i>Disused</i>	4	gal	25.00	100.00
290		1			Durite	4	gal	42.00	168.00
581		1			SERVICE CHARGE			1.75	875.00
583		1			MILEAGE CHARGE			0.85	32,191.60
SERVICE CHARGE: 500 MILEAGE CHARGE: 503.5 TOTAL WEIGHT: 503.5 LOADED MILES: 150 CUBIC FEET: 3787.76 TON MILES: 150									
CONTINUATION TOTAL						13,795.10			

JOB LOG

SWIFT Services, Inc.

DATE 17 Jan 19 PAGE NO. 1

CUSTOMER Palomino Petroleum WELL NO. #1 LEASE Deeds-Cooper JOB TYPE Cement long string TICKET NO. 31991

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
								350 375 sk SMD cement w/ 1/4" floater
								150 sk ST-2 cement w/ 1/4" floater TD = 5037
								5 1/2" x 15.5" casing 125 jts - 50394' shoe jts 41.35'
								Centralizers 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 51
	1930							Basket #2, 52
	1330							on loc TRK 115
	1945							start 5 1/2" x 15.5" casing in well
	1760							Drop ball - circulate - ROTATE
	1800	4	12				200	Pump 500 gal mud flush
		4	20				200	Pump 20 bbl KCL floater
			6					Plug RH - 300sk
	1815	5	184				200	MIX SMD cement 320sk @ 11.2 ppg
		5	190				200	Mix ST-2 cement 150sk @ 15.3 ppg
			280 Total					
	1915							Drop latch down plug wash out pump & line
	1925	5					200	Displace plug → cement to surface (300sk + 100sk)
		4	111				1100	
	2000	1	119				1500	Land plug Release pressure to truck - dried up
	2015							wash truck Rack up
	2050							job complete thanks Flint, Blaine, squatch & usage



REMIT TO
QES Pressure Pumping LLC
Dept:970
P.O.Box 4346
Houston, TX 77210-4346

MAIN OFFICE

P.O.Box884
Chanute,KS 66720
620/431-9210,1-800/467-8676
Fax 620/431-0012

Invoice

Invoice#

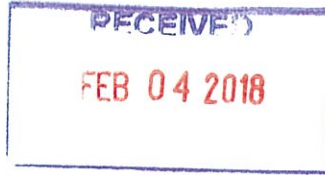
900074

Invoice Date: 01/31/19

Terms: Net 30

Page 1

PALOMINO PETROLEUM, INC.
4924 SE 84TH STREET
NEWTON KS 67114-8827
USA



PALOMINO DEEDS-COOPER

Tax: 420.75

Total: 7,350.01



Jan. 11. 2019 11:50AM
 PRESSURE PUMPING LLC
 PO Box 884, Chanute, KS 66720
 620-431-9210 or 800-467-8676

01/11/19
 FT 40058

No. 0754 P. 2

KET NUMBER 55911
 LOCATION Dalley, KS
 FOREMAN Walt Dinkel

FIELD TICKET & TREATMENT REPORT
 CEMENT

Invoice # 90007A
 KS

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY	
1-7-19	6285	Deeds-Cooper	15	53	37W	Cherokee	
CUSTOMER Palomino Petroleum		Brewster north to C.L. 3 West to Rd 34 north to 33-1/2N		TRUCK #	DRIVER	TRUCK #	DRIVER
MAILING ADDRESS 4924 SE 84th Street		731		Cory Davis			
CITY Newton		STATE KS		ZIP CODE 67114-8827		697	
				Walt Dinkel			

JOB TYPE Surface HOLE SIZE 12 1/4 HOLE DEPTH 347 CASING SIZE & WEIGHT 8 5/8 - 24#
 CASING DEPTH 347 DRILL PIPE _____ TUBING _____ OTHER _____
 SLURRY WEIGHT 15.2 SLURRY VOL _____ WATER gal/sk _____ CEMENT LEFT in CASING 15-20'
 DISPLACEMENT 20 3/4 DISPLACEMENT PSI _____ MIX PSI _____ RATE 4 BPM

REMARKS: Safety meeting, rig up on WW #10, Circ casing on bottom mix SKS concy 3% CC - 2% talc, Displace BBL 470 Shut in
Concrete Did Circ
Approx 2 BBL to Pit

Thank You
 Walt Dinkel

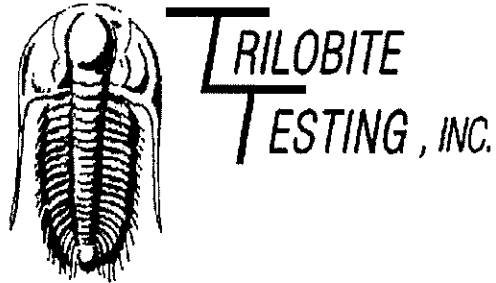
ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
CC0471	1	PUMP CHARGE	1,150.00	1,150.00
CC0022	50	MILEAGE	7.15	357.50
CC0010	12.93	Tow mileage Delivery	1.75	6,131.50
CC5871	275-SKS	Surface Blend	24.00	6,600.00
CC5326	100#	Salt	.75	75.00
				9,239.00
		Loss 25% Disc		-2,309.75
				6,929.25
		SALES TAX		420.75
		ESTIMATED TOTAL		\$7,350.01

AUTHORIZATION Rich [Signature] TITLE Walt Dinkel

DATE _____

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form

m 01.25.19



DRILL STEM TEST REPORT

Prepared For: **Palomino Petroleum Inc**

4924 SE 84th St
Newton, KS 67114

ATTN: Ryan Seib

Deeds - Cooper #1

15-5S-37W Cheyenne,KS

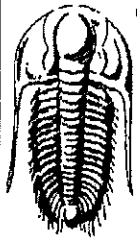
Start Date: 2019.01.11 @ 05:04:00

End Date: 2019.01.11 @ 10:57:31

Job Ticket #: 64750 DST #: 1

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

Printed: 2019.01.17 @ 14:13:42



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Palomino Petroleum Inc

15-5S-37W Cheyenne, KS

4924 SE 84th St
New ton, KS 67114

Deeds - Cooper #1

Job Ticket: 64750 DST#: 1

ATTN: Ryan Seib

Test Start: 2019.01.11 @ 05:04:00

GENERAL INFORMATION:

Formation: **Foraker**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:08:01

Time Test Ended: 10:57:31

Test Type: Conventional Bottom Hole (Initial)

Tester: Martine Salinas

Unit No: 76

Interval: **3801.00 ft (KB) To 3880.00 ft (KB) (TVD)**

Total Depth: 3880.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3397.00 ft (KB)

3392.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 6731

Inside

Press@RunDepth: 29.50 psig @ 3802.00 ft (KB)

Start Date: 2019.01.11

End Date:

2019.01.11

Start Time: 05:04:01

End Time:

10:57:31

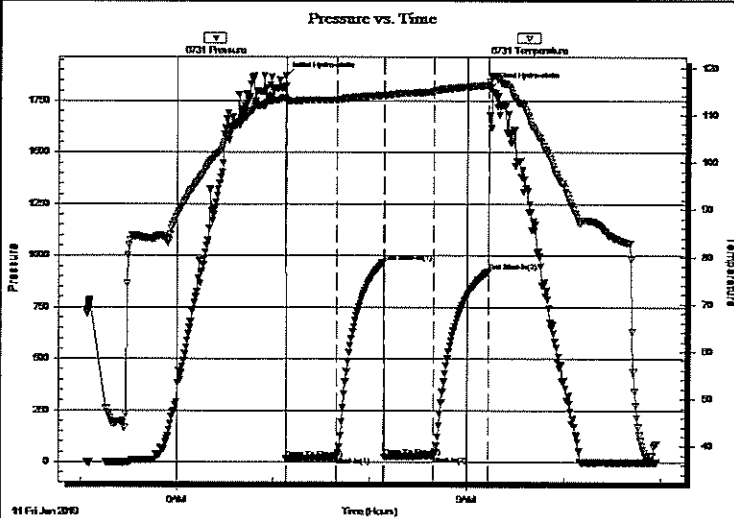
Capacity: 8000.00 psig

Last Calib.: 2019.01.11

Time On Btm: 2019.01.11 @ 07:07:31

Time Off Btm: 2019.01.11 @ 09:14:46

TEST COMMENT: 30-IF-Surface blow built to 1"
30-ISI-No blow
30-FF-Surface blow @ 10 mins built to 1/4"
30-FSI-No blow



PRESSURE SUMMARY

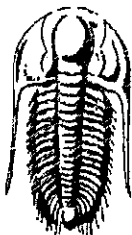
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1868.53	113.67	Initial Hydro-static
1	15.01	112.73	Open To Flow (1)
32	22.13	113.24	Shut-In(1)
61	968.21	114.21	End Shut-In(1)
61	23.88	114.02	Open To Flow (2)
92	29.50	115.05	Shut-In(2)
126	924.64	116.34	End Shut-In(2)
128	1817.60	118.27	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	100% Mud	0.07

Gas Rates

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Palomino Petroleum Inc

15-5S-37W Cheyenne, KS

4924 SE 84th St
New ton, KS 67114

Deeds - Cooper #1

Job Ticket: 64750 DST#: 1

ATTN: Ryan Seib

Test Start: 2019.01.11 @ 05:04:00

GENERAL INFORMATION:

Formation: **Foraker**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:08:01

Time Test Ended: 10:57:31

Test Type: Conventional Bottom Hole (Initial)

Tester: Martine Salinas

Unit No: 76

Interval: **3801.00 ft (KB) To 3880.00 ft (KB) (TVD)**

Reference Elevations: 3397.00 ft (KB)

Total Depth: 3880.00 ft (KB) (TVD)

3392.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8645

Outside

Press@RunDepth: psig @ 3802.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.01.11

End Date:

2019.01.11

Last Calib.:

2019.01.11

Start Time: 05:04:01

End Time:

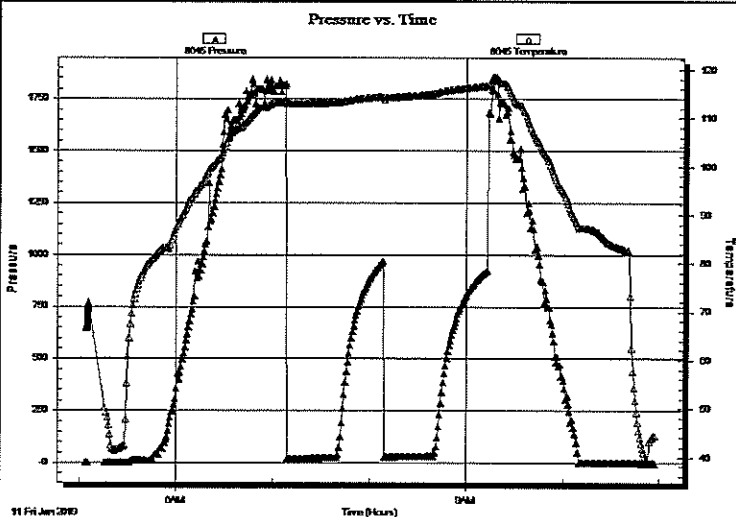
10:57:31

Time On Btm:

Time Off Btm:

TEST COMMENT: 30-IF-Surface blow built to 1"
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30-FF-Surface blow @ 10 mins built to 1/4"
30-FSI-No blow

PRESSURE SUMMARY



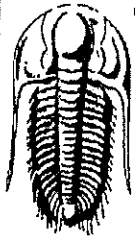
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
15.00	100% Mud	0.07

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Palomino Petroleum Inc

15-5S-37W Cheyenne,KS

4924 SE 84th St
New ton, KS 67114

Deeds - Cooper #1

Job Ticket: 64750 DST#: 1

ATTN: Ryan Seib

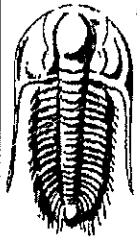
Test Start: 2019.01.11 @ 05:04:00

Tool Information

Drill Pipe:	Length: 3682.00 ft	Diameter: 3.80 inches	Volume: 51.65 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: 117.00 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose:	75000.00 lb
			Total Volume: 52.23 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial	54000.00 lb
Depth to Top Packer:	3801.00 ft			Final	54000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	79.00 ft				
Tool Length:	107.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		

Tool Comments: Worked through tight spot 20' off bottom,
Tool opened on bottom

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3774.00	
Shut In Tool	5.00			3779.00	
Hydraulic tool	5.00		Inside	3784.00	
Jars	5.00			3789.00	
Safety Joint	2.00			3791.00	
Packer	5.00			3796.00	28.00 Bottom Of Top Packer
Packer	5.00			3801.00	
Packer - Shale	0.00			3801.00	
Stubb	1.00			3802.00	
Recorder	0.00	8645	Outside	3802.00	
Recorder	0.00	6731	Inside	3802.00	
Perforations	10.00			3812.00	
Change Over Sub	1.00			3813.00	
Drill Pipe	63.00			3876.00	
Change Over Sub	1.00			3877.00	
Bullnose	3.00			3880.00	79.00 Bottom Packers & Anchor
Total Tool Length:	107.00				



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Palomino Petroleum Inc

15-5S-37W Cheyenne,KS

4924 SE 84th St
New ton, KS 67114

Deeds - Cooper #1

Job Ticket: 64750 DST#: 1

ATTN: Ryan Seib

Test Start: 2019.01.11 @ 05:04:00

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: 53.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.78 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2300.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	100% Mud	0.074

Total Length: 15.00 ft Total Volume: 0.074 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:

Serial #: 6731

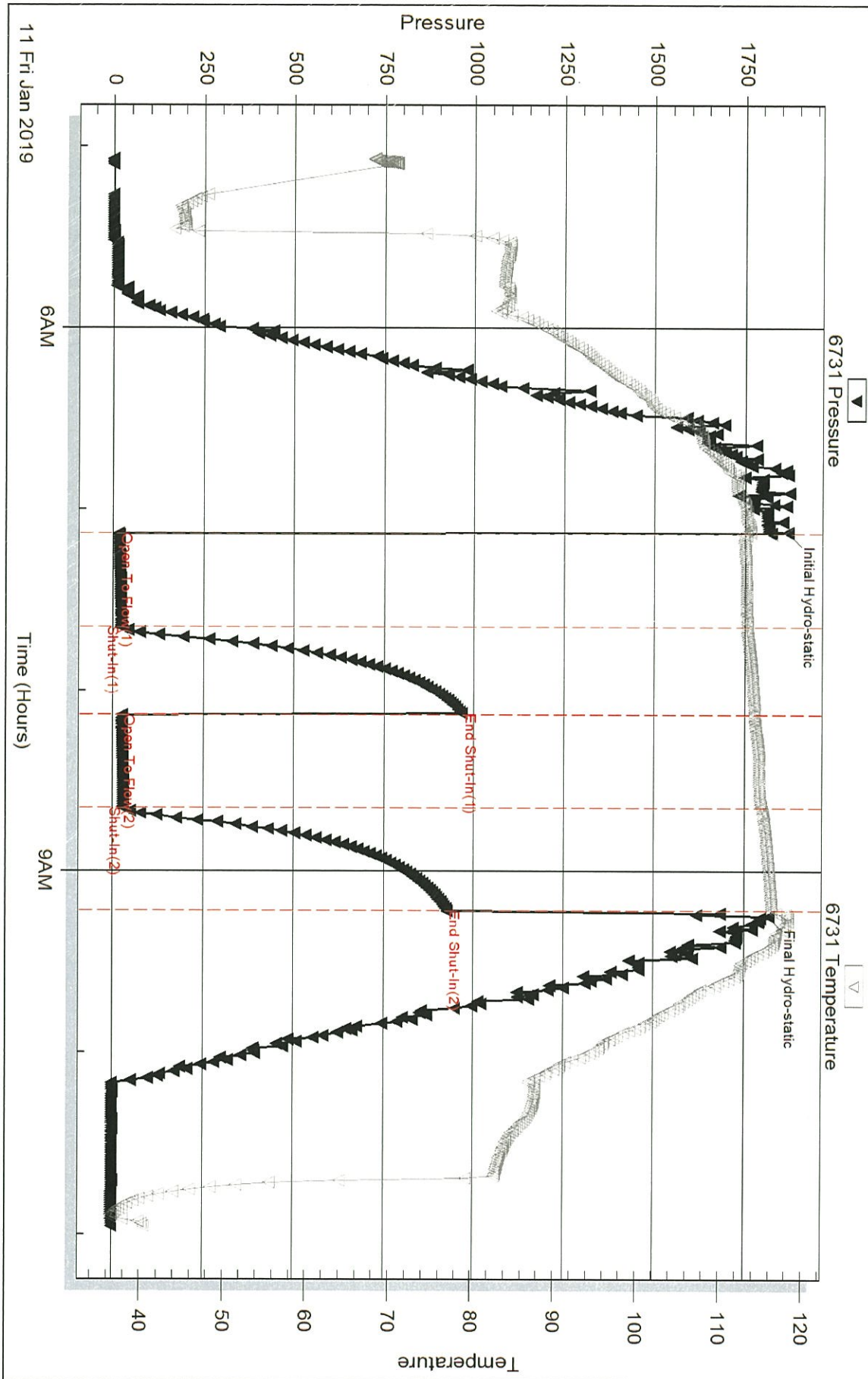
Inside

Palomino Petroleum Inc

Deeds - Cooper #1

DST Test Number: 1

Pressure vs. Time



Trilobite Testing, Inc

Ref. No: 64750

Printed: 2019.01.17 @ 14:13:43

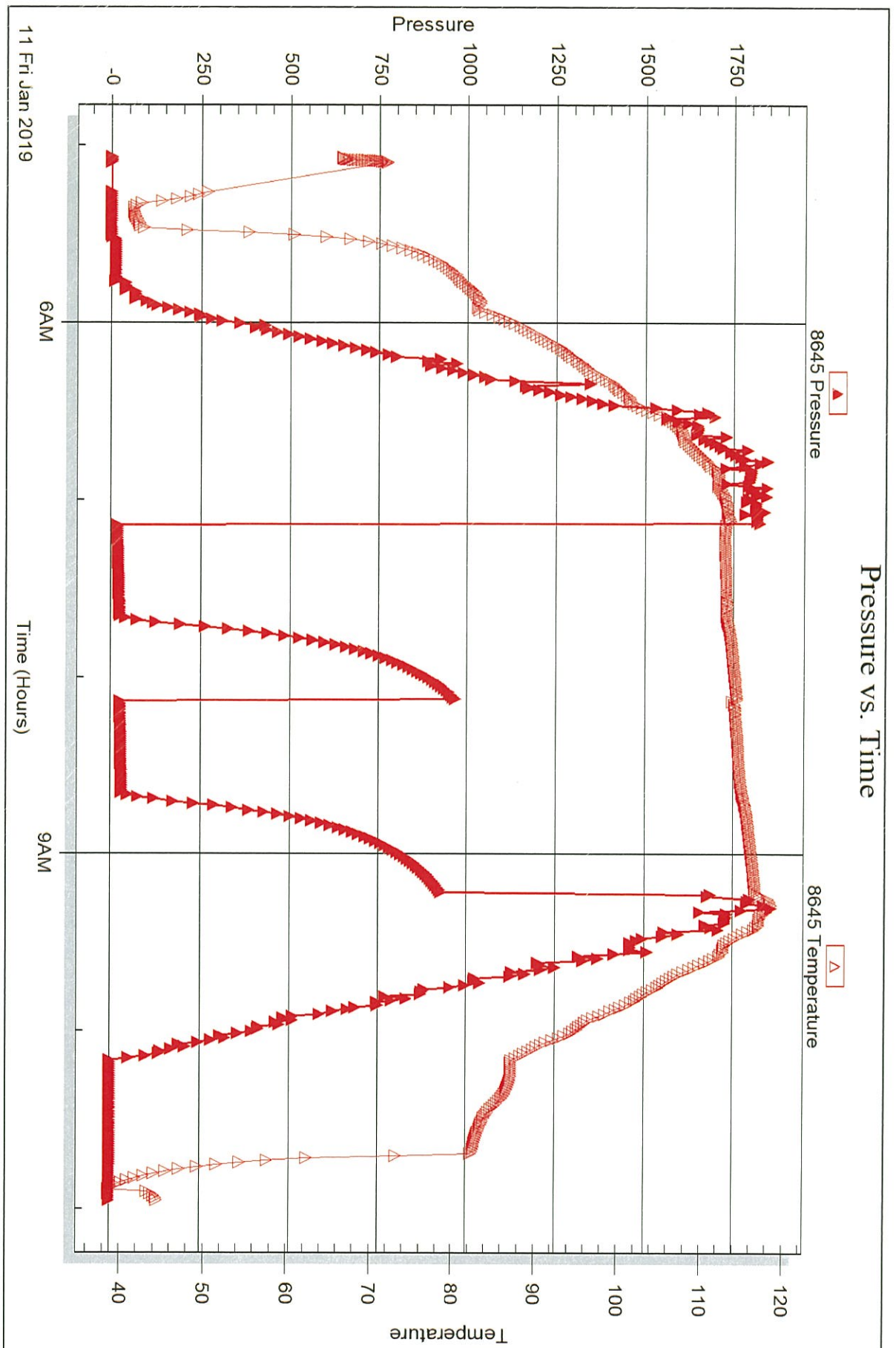
Serial #: 8645

Outside

Palomino Petroleum Inc

Deeds - Cooper #1

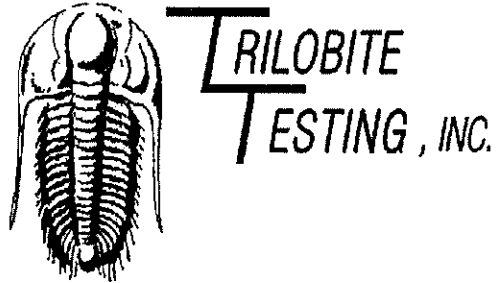
DST Test Number: 1



Triobite Testing, Inc

Ref. No: 64750

Printed: 2019.01.17 @ 14:13:43



DRILL STEM TEST REPORT

Prepared For: **Palomino Petroleum Inc**

4924 SE 84th St
Newton, KS 67114

ATTN: Ryan Seib

Deeds - Cooper #1

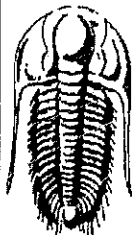
15-5S-37W Cheyenne,KS

Start Date: 2019.01.12 @ 13:15:00

End Date: 2019.01.12 @ 20:01:46

Job Ticket #: 65326 DST #: 2

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Palomino Petroleum Inc

15-5S-37W Cheyenne,KS

4924 SE 84th St
New ton, KS 67114

Deeds - Cooper #1

Job Ticket: 65326 DST#: 2

ATTN: Ryan Seib

Test Start: 2019.01.12 @ 13:15:00

GENERAL INFORMATION:

Formation: **"Toronto - Lansing A**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:11:46

Time Test Ended: 20:01:46

Test Type: Conventional Bottom Hole (Reset)

Tester: Martine Salinas

Unit No: 76

Interval: **4196.00 ft (KB) To 4280.00 ft (KB) (TVD)**

Reference Elevations: 3397.00 ft (KB)

Total Depth: 4280.00 ft (KB) (TVD)

3392.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 6731

Inside

Press@RunDepth: 198.44 psig @ 4197.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.01.12 End Date: 2019.01.12

Last Calib.: 2019.01.12

Start Time: 13:15:01 End Time: 20:01:46

Time On Btm: 2019.01.12 @ 15:11:01

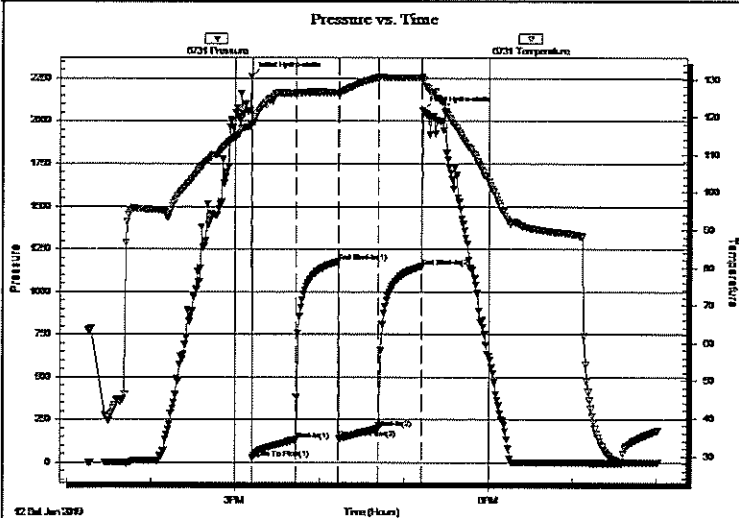
Time Off Btm: 2019.01.12 @ 17:13:01

TEST COMMENT: 30-IF- BOB (11 inches) @ 14 mins (blow increased to 19")

30-ISI-Surface blow back @ 2 mins built to 3/4"

30-FF-BOB @ 20 mins (blow increased to 15 1/2")

30-FSI-Surface blow back @ 3 mins built to 1"



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2261.66	117.89	Initial Hydro-static
1	25.81	118.25	Open To Flow (1)
32	131.40	126.25	Shut-In(1)
62	1176.15	126.45	End Shut-In(1)
63	140.71	125.87	Open To Flow (2)
91	198.44	130.62	Shut-In(2)
121	1147.87	130.44	End Shut-In(2)
122	2060.82	130.69	Final Hydro-static

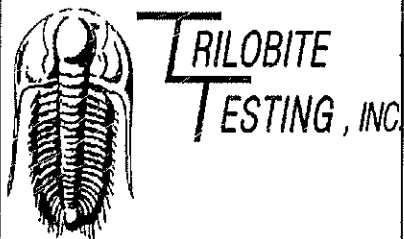
Recovery

Length (ft)	Description	Volume (bbl)
117.00	SOMCW 8%O,40%M, 52%W	0.58
135.00	GOCM 13%G, 17%O, 70%M	1.89
180.00	GHOCM 11%G, 43%O, 46%M	2.52

Gas Rates

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

* Recovery from multiple tests



DRILL STEM TEST REPORT

Palomino Petroleum Inc
 4924 SE 84th St
 New ton, KS 67114
 ATTN: Ryan Seib

15-5S-37W Cheyenne, KS

Deeds - Cooper #1

Job Ticket: 65326

DST#: 2

Test Start: 2019.01.12 @ 13:15:00

GENERAL INFORMATION:

Formation: "Toronto - Lansing A

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:11:46

Time Test Ended: 20:01:46

Test Type: Conventional Bottom Hole (Reset)

Tester: Martine Salinas

Unit No: 76

Interval: 4196.00 ft (KB) To 4280.00 ft (KB) (TVD)

Total Depth: 4280.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3397.00 ft (KB)

3392.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8645

Outside

Press@RunDepth: psig @ 4197.00 ft (KB)

Start Date: 2019.01.12

End Date: 2019.01.12

Start Time: 13:15:01

End Time: 20:02:01

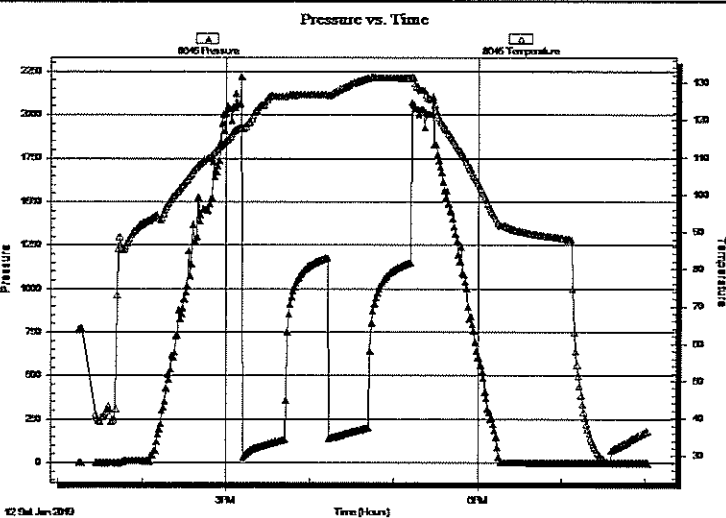
Capacity: 8000.00 psig

Last Calib.: 2019.01.12

Time On Btm:

Time Off Btm:

TEST COMMENT: 30-IF- BOB (11 inches) @ 14 mins (blow increased to 19")
 30-ISI-Surface blow back @ 2 mins built to 3/4"
 30-FF-BOB @ 20 mins (blow increased to 15 1/2")
 30-FSI-Surface blow back @ 3 mins built to 1"



PRESSURE SUMMARY

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

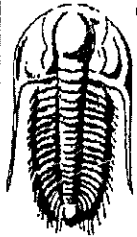
Recovery

Length (ft)	Description	Volume (bbl)
117.00	SOMCW 8%O,40%M, 52%W	0.58
135.00	GOCM 13%G, 17%O, 70%M	1.89
180.00	GHOCM 11%G, 43%O, 46%M	2.52

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Palomino Petroleum Inc

15-5S-37W Cheyenne,KS

4924 SE 84th St
New ton, KS 67114

Deeds - Cooper #1

Job Ticket: 65326

DST#: 2

ATTN: Ryan Seib

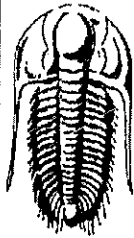
Test Start: 2019.01.12 @ 13:15:00

Tool Information

Drill Pipe:	Length: 4062.00 ft	Diameter: 3.80 inches	Volume: 56.98 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: 117.00 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 57.56 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4196.00 ft			Final 59000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	84.00 ft			
Tool Length:	112.00 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			4169.00	
Shut In Tool	5.00			4174.00	
Hydraulic tool	5.00		Inside	4179.00	
Jars	5.00			4184.00	
Safety Joint	2.00			4186.00	
Packer	5.00			4191.00	28.00 Bottom Of Top Packer
Packer	5.00			4196.00	
Packer - Shale	0.00			4196.00	
Stubb	1.00			4197.00	
Recorder	0.00	8645	Outside	4197.00	
Recorder	0.00	6731	Inside	4197.00	
Perforations	15.00			4212.00	
Change Over Sub	1.00			4213.00	
Drill Pipe	63.00			4276.00	
Change Over Sub	1.00			4277.00	
Bullnose	3.00			4280.00	84.00 Bottom Packers & Anchor
Total Tool Length:	112.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Palomino Petroleum Inc

15-5S-37W Cheyenne,KS

4924 SE 84th St
New ton, KS 67114

Deeds - Cooper #1

Job Ticket: 65326 DST#: 2

ATTN: Ryan Seib

Test Start: 2019.01.12 @ 13:15:00

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 21 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 46000 ppm
Viscosity: 57.00 sec/qt	Cushion Volume: bbl	
Water Loss: 7.18 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 3500.00 ppm		
Filter Cake: 1.00 inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
117.00	SOMCW 8%O,40%M, 52%W	0.575
135.00	GOCM 13%G, 17%O, 70%M	1.894
180.00	GHOCM 11%G, 43%O, 46%M	2.525

Total Length: 432.00 ft Total Volume: 4.994 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: Gravity of oil = 23.2 @ 82 degs
Gravity corrected to 21 @ 60 degs
RW= .339 @ 34.8 degs = 46,000PPM

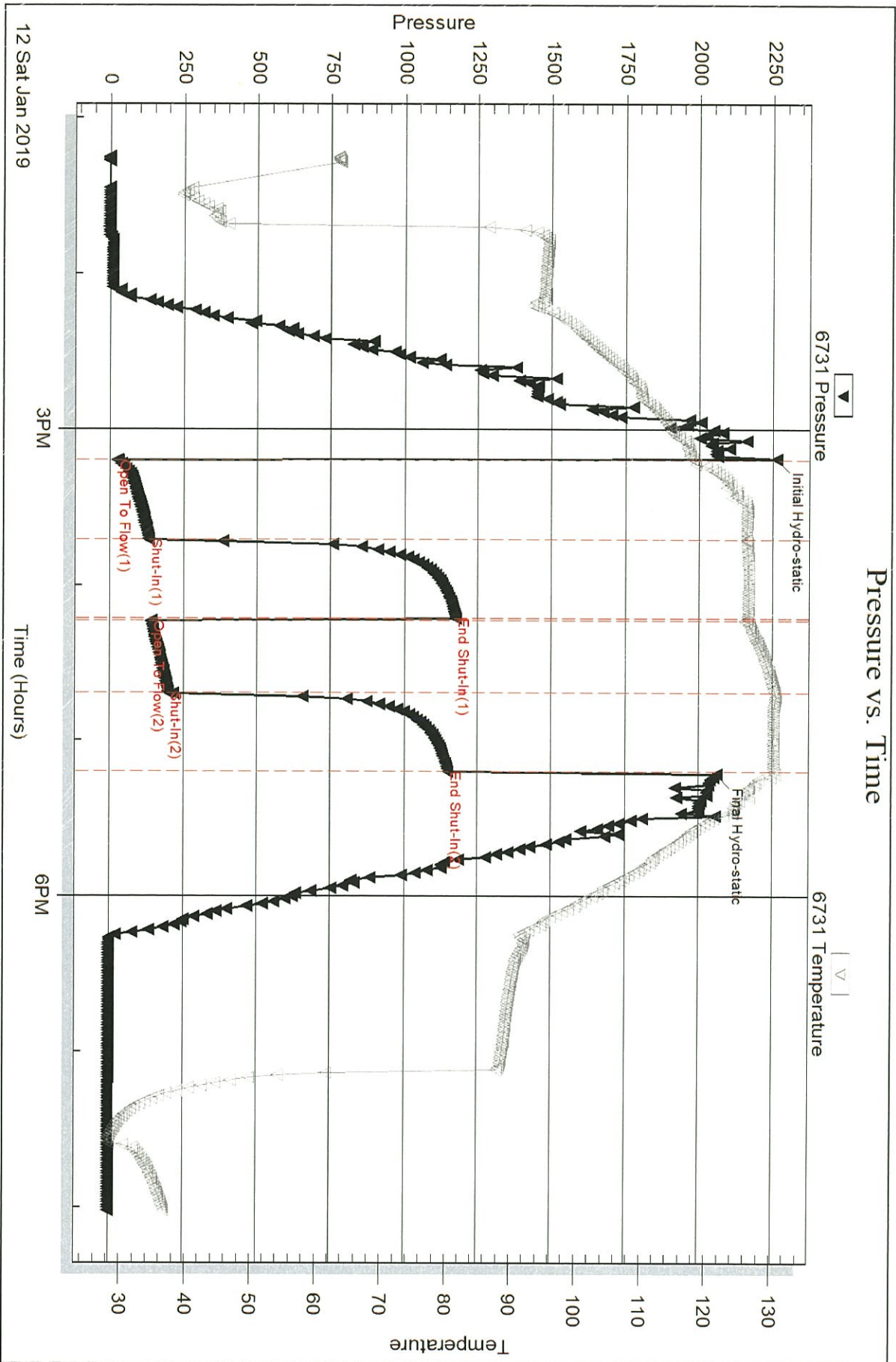
Serial #: 6731

Inside

Palomino Petroleum Inc

Deeds - Cooper #1

DST Test Number: 2



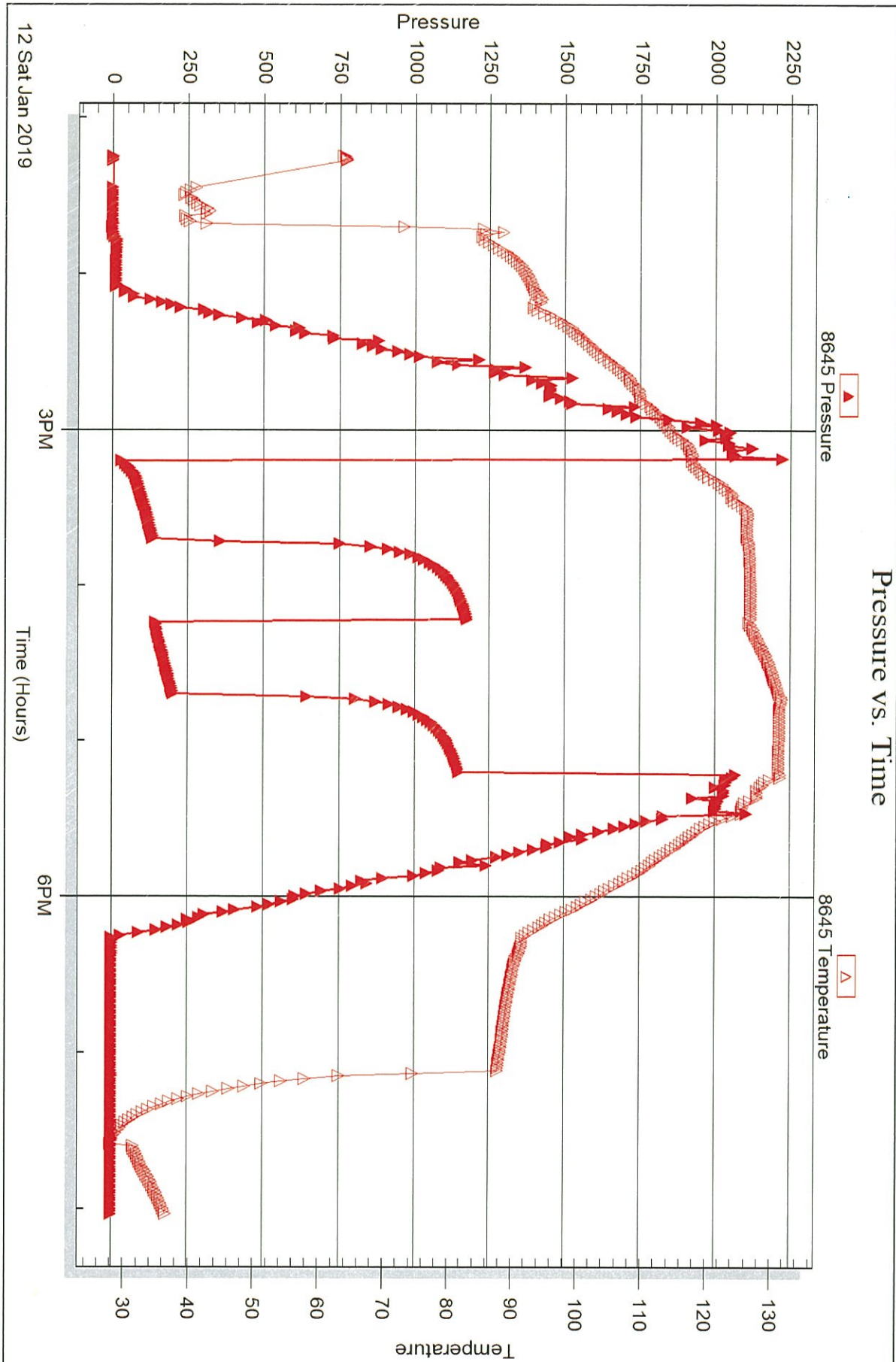
Serial #: 8645

Outside

Palomino Petroleum Inc

Deeds - Cooper #1

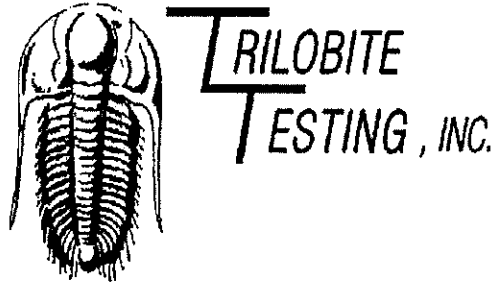
DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 65326

Printed: 2019.01.17 @ 14:13:23



DRILL STEM TEST REPORT

Prepared For: **Palomino Petroleum Inc**

4924 SE 84th St
Newton, KS 67114

ATTN: Ryan Seib

Deeds - Cooper #1

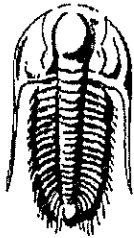
15-5S-37W Cheyenne,KS

Start Date: 2019.01.13 @ 05:22:00

End Date: 2019.01.13 @ 11:39:16

Job Ticket #: 65327 DST #: 3

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Palomino Petroleum Inc

15-5S-37W Cheyenne, KS

4924 SE 84th St
New ton, KS 67114

Deeds - Cooper #1

Job Ticket: 65327 DST#: 3

ATTN: Ryan Seib

Test Start: 2019.01.13 @ 05:22:00

GENERAL INFORMATION:

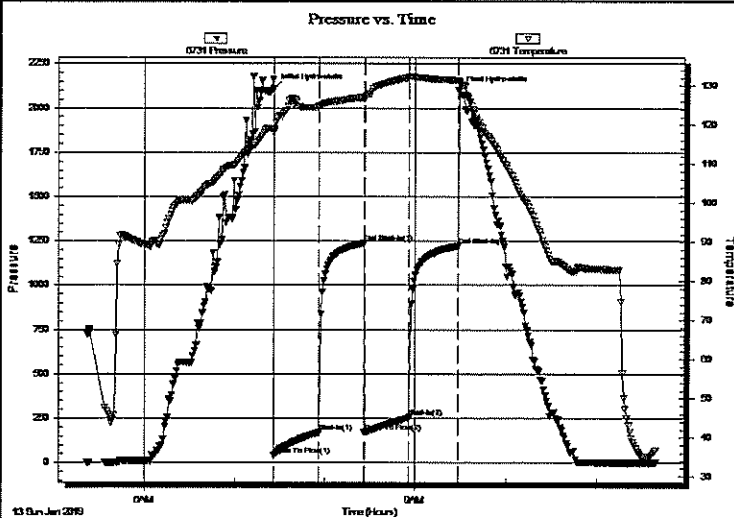
Formation: **LKC "B - G"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 07:25:46
 Time Test Ended: 11:39:16
 Interval: **4272.00 ft (KB) To 4381.00 ft (KB) (TVD)**
 Total Depth: 4381.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Martine Salinas
 Unit No: 76
 Reference Elevations: 3397.00 ft (KB)
 3392.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 6731

Inside

Press@RunDepth: 253.70 psig @ 4273.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2019.01.13 End Date: 2019.01.13 Last Calib.: 2019.01.13
 Start Time: 05:22:01 End Time: 11:39:16 Time On Btm: 2019.01.13 @ 07:25:31
 Time Off Btm: 2019.01.13 @ 09:28:46

TEST COMMENT: 30-IF-BOB (11 inches) @ 20 mins (blow increased to 16 1/2")
 30-ISI-No blow
 30-FF-BOB (11 inches) @ 21 mins (blow increased to 16")
 30-FSI-No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2108.82	119.13	Initial Hydro-static
1	38.93	118.08	Open To Flow (1)
31	167.92	124.64	Shut-In(1)
60	1237.09	126.96	End Shut-In(1)
61	169.95	126.90	Open To Flow (2)
91	253.70	132.31	Shut-In(2)
123	1220.26	131.41	End Shut-In(2)
124	2101.55	131.04	Final Hydro-static

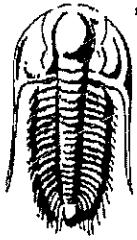
Recovery

Length (ft)	Description	Volume (bbl)
321.00	MCW 38%M, 62%W	3.44
189.00	SWCM 8%W, 92%M	2.65

Gas Rates

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

* Recovery from multiple tests



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Palomino Petroleum Inc
 4924 SE 84th St
 Newton, KS 67114
 ATTN: Ryan Seib

15-5S-37W Cheyenne, KS

Deeds - Cooper #1
 Job Ticket: 65327 DST#: 3
 Test Start: 2019.01.13 @ 05:22:00

GENERAL INFORMATION:

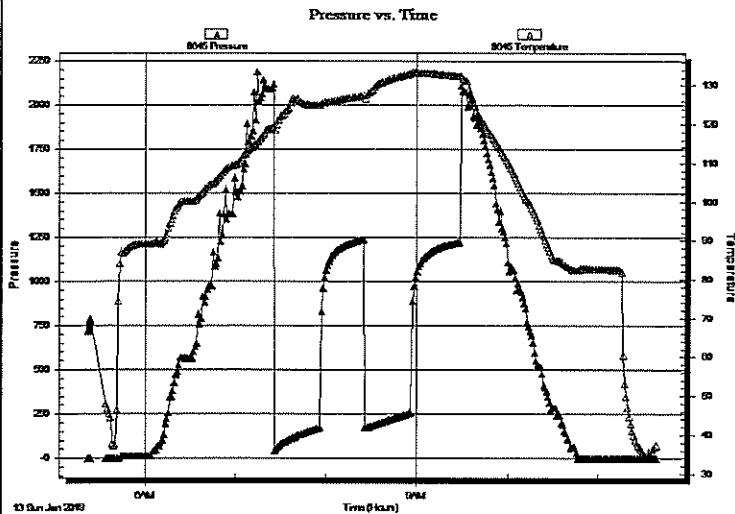
Formation: **LKC "B - G"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 07:25:46
 Time Test Ended: 11:39:16
 Interval: **4272.00 ft (KB) To 4381.00 ft (KB) (TVD)**
 Total Depth: 4381.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Martine Salinas
 Unit No: 76
 Reference Elevations: 3397.00 ft (KB)
 3392.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8645

Outside

Press@RunDepth: psig @ 4273.00 ft (KB)
 Start Date: 2019.01.13 End Date: 2019.01.13
 Start Time: 05:22:01 End Time: 11:39:31
 Capacity: 8000.00 psig
 Last Calib.: 2019.01.13
 Time On Btm:
 Time Off Btm:

TEST COMMENT: 30-IF-BOB (11 inches) @ 20 mins (blow increased to 16 1/2")
 30-ISI-No blow
 30-FF-BOB (11 inches) @ 21 mins (blow increased to 16")
 30-FSI-No blow



PRESSURE SUMMARY

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

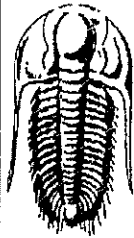
Recovery

Length (ft)	Description	Volume (bbl)
321.00	MCW 38%M, 62%W	3.44
189.00	SWCM 8%W, 92%M	2.65

* 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 Inc

15-5S-37W Cheyenne,KS

4924 SE 84th St
New ton, KS 67114

Deeds - Cooper #1

Job Ticket: 65327

DST#: 3

ATTN: Ryan Seib

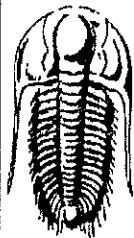
Test Start: 2019.01.13 @ 05:22:00

Tool Information

Drill Pipe:	Length: 4158.00 ft	Diameter: 3.80 inches	Volume: 58.33 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: 117.00 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 58.91 bbl</u>	Tool Chased 3.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4272.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	109.00 ft			
Tool Length:	137.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments: Slid 3' to bottom, bled off floor manifold

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4245.00	
Shut In Tool	5.00			4250.00	
Hydraulic tool	5.00		Inside	4255.00	
Jars	5.00			4260.00	
Safety Joint	2.00			4262.00	
Packer	5.00			4267.00	28.00 Bottom Of Top Packer
Packer	5.00			4272.00	
Packer - Shale	0.00			4272.00	
Stubb	1.00			4273.00	
Recorder	0.00	8645	Outside	4273.00	
Recorder	0.00	6731	Inside	4273.00	
Perforations	8.00			4281.00	
Change Over Sub	1.00			4282.00	
Drill Pipe	95.00			4377.00	
Change Over Sub	1.00			4378.00	
Bullnose	3.00			4381.00	109.00 Bottom Packers & Anchor
Total Tool Length:	137.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Palomino Petroleum Inc

15-5S-37W Cheyenne,KS

4924 SE 84th St
New ton, KS 67114

Deeds - Cooper #1

Job Ticket: 65327 DST#: 3

ATTN: Ryan Seib

Test Start: 2019.01.13 @ 05:22:00

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:	56000 ppm
Viscosity: 53.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.18 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 3500.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
321.00	MCW 38%M, 62%W	3.437
189.00	SWCM 8%W, 92%M	2.651

Total Length: 510.00 ft Total Volume: 6.088 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: RW= .320 @ 32.2 degs= 56,000PPM

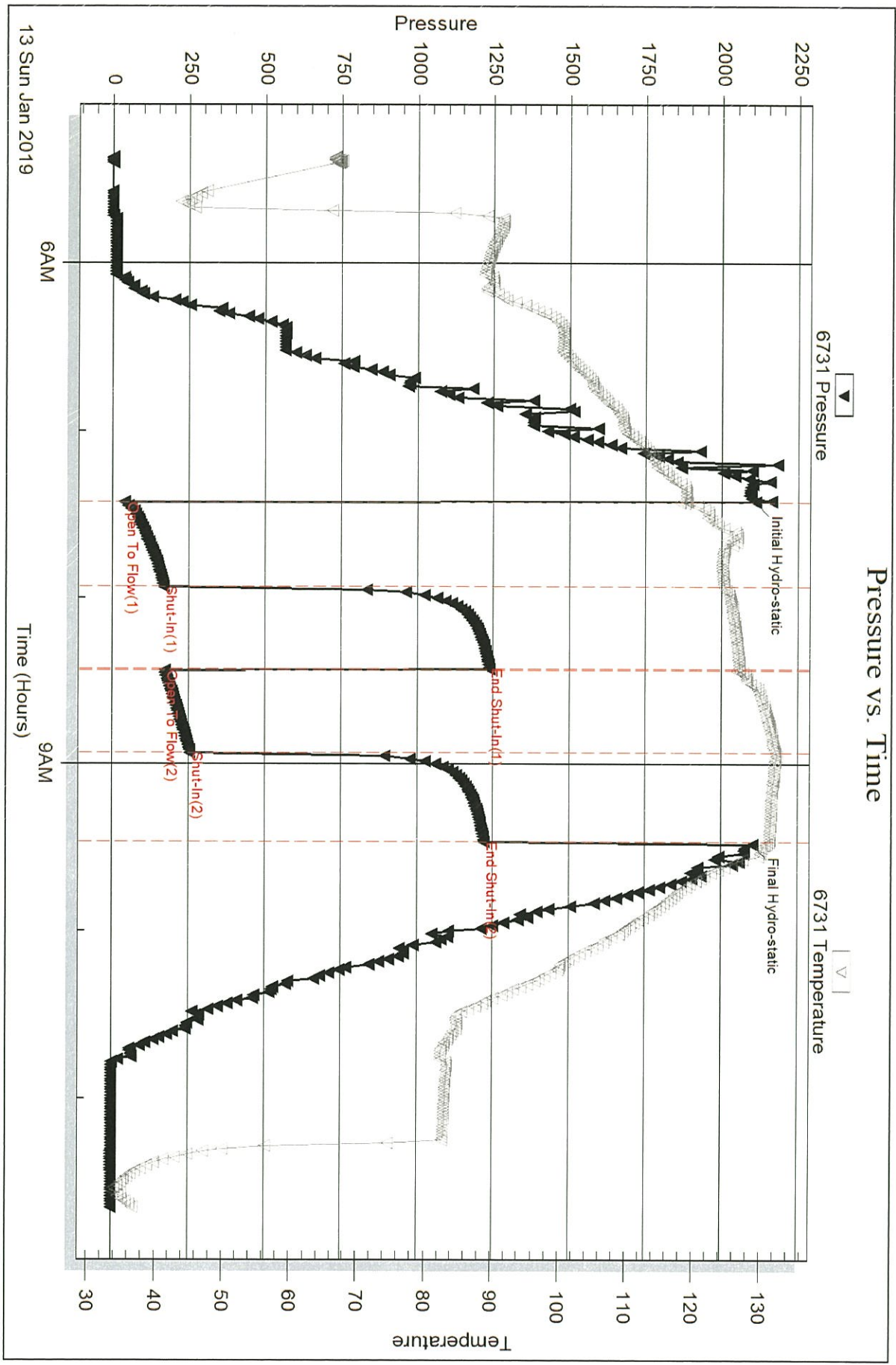
Serial #: 6731

Inside

Palomino Petroleum Inc

Deeds - Cooper #1

DST Test Number: 3



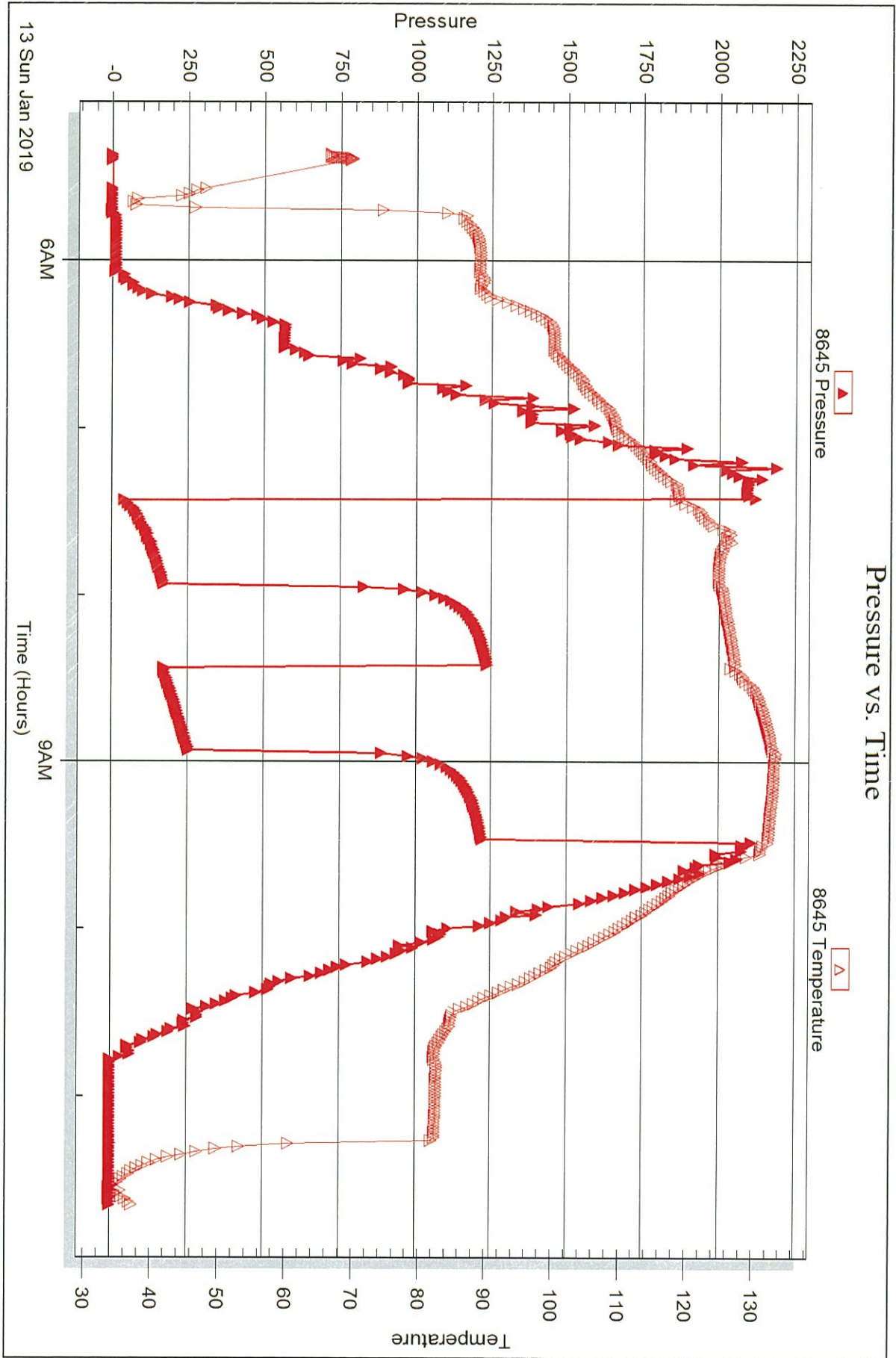
Serial #: 8645

Outside

Palomino Petroleum Inc

Deeds - Cooper #1

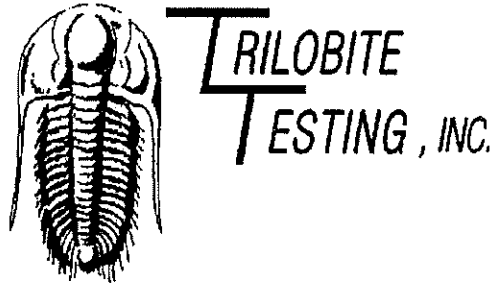
DST Test Number: 3



Tribolite Testing, Inc

Ref. No: 65327

Printed: 2019.01.17 @ 14:12:59



DRILL STEM TEST REPORT

Prepared For: **Palomino Petroleum Inc**

4924 SE 84th St
Newton, KS 67114

ATTN: Ryan Seib

Deeds - Cooper #1

15-5S-37W Cheyenne,KS

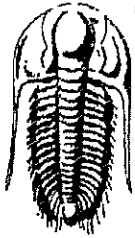
Start Date: 2019.01.13 @ 20:56:00

End Date: 2019.01.14 @ 02:13:46

Job Ticket #: 65328 DST #: 4

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

Printed: 2019.01.17 @ 14:12:36



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Palomino Petroleum Inc

15-5S-37W Cheyenne,KS

4924 SE 84th St
New ton, KS 67114

Deeds - Cooper #1

Job Ticket: 65328 **DST#: 4**

ATTN: Ryan Seib

Test Start: 2019.01.13 @ 20:56:00

GENERAL INFORMATION:

Formation: **LKC "H-1"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:32:16

Time Test Ended: 02:13:46

Test Type: Conventional Bottom Hole (Reset)

Tester: Martine Salinas

Unit No: 76

Interval: **4370.00 ft (KB) To 4460.00 ft (KB) (TVD)**

Total Depth: 4460.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3397.00 ft (KB)

3392.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 6731

Inside

Press@RunDepth: 18.60 psig @ 4371.00 ft (KB)

Start Date: 2019.01.13

End Date:

2019.01.14

Start Time: 20:56:01

End Time:

02:13:46

Capacity: 8000.00 psig

Last Calib.: 2019.01.14

Time On Btm: 2019.01.13 @ 22:32:01

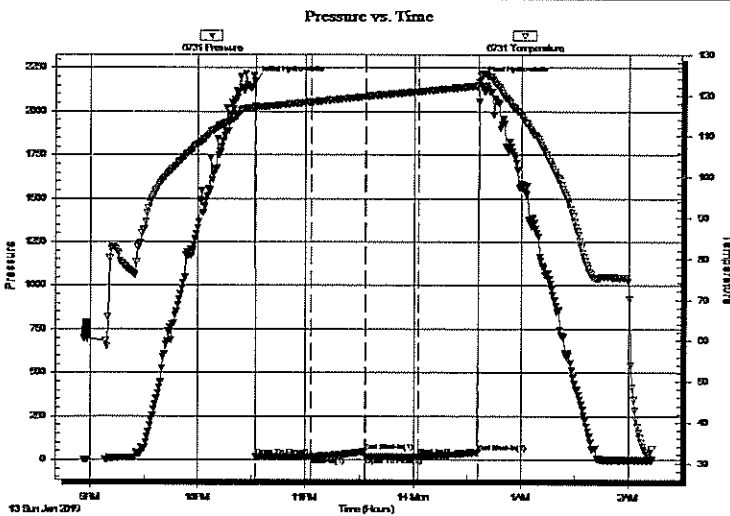
Time Off Btm: 2019.01.14 @ 00:37:16

TEST COMMENT: 30-IF-Surface blow built to 1 1/2"

30-ISI-No blow

30-FF-No blow

30-FSI-No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2174.44	117.44	Initial Hydro-static
1	16.55	116.83	Open To Flow (1)
31	18.05	118.36	Shut-In(1)
61	45.14	119.70	End Shut-In(1)
62	17.66	119.71	Open To Flow (2)
91	18.60	120.94	Shut-In(2)
124	41.41	122.25	End Shut-In(2)
126	2175.98	124.76	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	100% Mud	0.02

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Palomino Petroleum Inc

15-5S-37W Cheyenne, KS

4924 SE 84th St
New ton, KS 67114

Deeds - Cooper #1

Job Ticket: 65328 DST#: 4

ATTN: Ryan Seib

Test Start: 2019.01.13 @ 20:56:00

GENERAL INFORMATION:

Formation: **LKC "H-1"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:32:16

Time Test Ended: 02:13:46

Test Type: Conventional Bottom Hole (Reset)

Tester: Martine Salinas

Unit No: 76

Interval: **4370.00 ft (KB) To 4460.00 ft (KB) (TVD)**

Reference Elevations: 3397.00 ft (KB)

Total Depth: 4460.00 ft (KB) (TVD)

3392.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: **8645**

Outside

Press@RunDepth: psig @ 4371.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.01.13

End Date:

2019.01.14

Last Calib.:

2019.01.14

Start Time: 20:56:01

End Time:

02:13:46

Time On Btm:

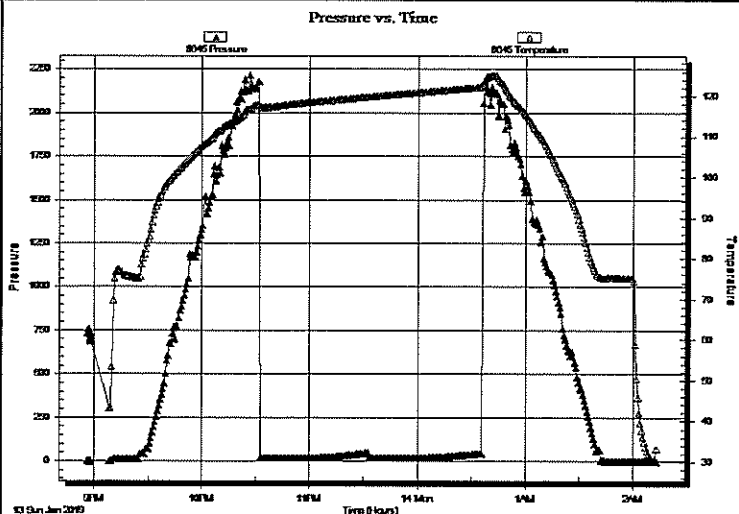
Time Off Btm:

TEST COMMENT: 30-IF-Surface blow built to 1 1/2"

30-ISI-No blow

30-FF-No blow

30-FSI-No blow



PRESSURE SUMMARY

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

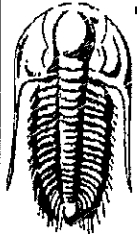
Recovery

Length (ft)	Description	Volume (bbl)
5.00	100% Mud	0.02

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Palomino Petroleum Inc

15-5S-37W Cheyenne,KS

4924 SE 84th St
New ton, KS 67114

Deeds - Cooper #1

Job Ticket: 65328

DST#: 4

ATTN: Ryan Seib

Test Start: 2019.01.13 @ 20:56:00

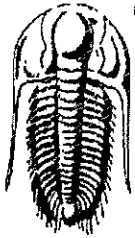
Tool Information

Drill Pipe:	Length: 4254.00 ft	Diameter: 3.80 inches	Volume: 59.67 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: 117.00 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose: 66000.00 lb
			<u>Total Volume: 60.25 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	29.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4370.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	90.00 ft			
Tool Length:	118.00 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			4343.00	
Shut In Tool	5.00			4348.00	
Hydraulic tool	5.00		Inside	4353.00	
Jars	5.00			4358.00	
Safety Joint	2.00			4360.00	
Packer	5.00			4365.00	28.00 Bottom Of Top Packer
Packer	5.00			4370.00	
Packer - Shale	0.00			4370.00	
Stubb	1.00			4371.00	
Recorder	0.00	8645	Outside	4371.00	
Recorder	0.00	6731	Inside	4371.00	
Perforations	21.00			4392.00	
Change Over Sub	1.00			4393.00	
Drill Pipe	63.00			4456.00	
Change Over Sub	1.00			4457.00	
Bullnose	3.00			4460.00	90.00 Bottom Packers & Anchor
Total Tool Length:	118.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Palomino Petroleum Inc

15-5S-37W Cheyenne,KS

4924 SE 84th St
New ton, KS 67114

Deeds - Cooper #1

Job Ticket: 65328 DST#: 4

ATTN: Ryan Seib

Test Start: 2019.01.13 @ 20:56:00

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: 55.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.98 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 4500.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	100% Mud	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:

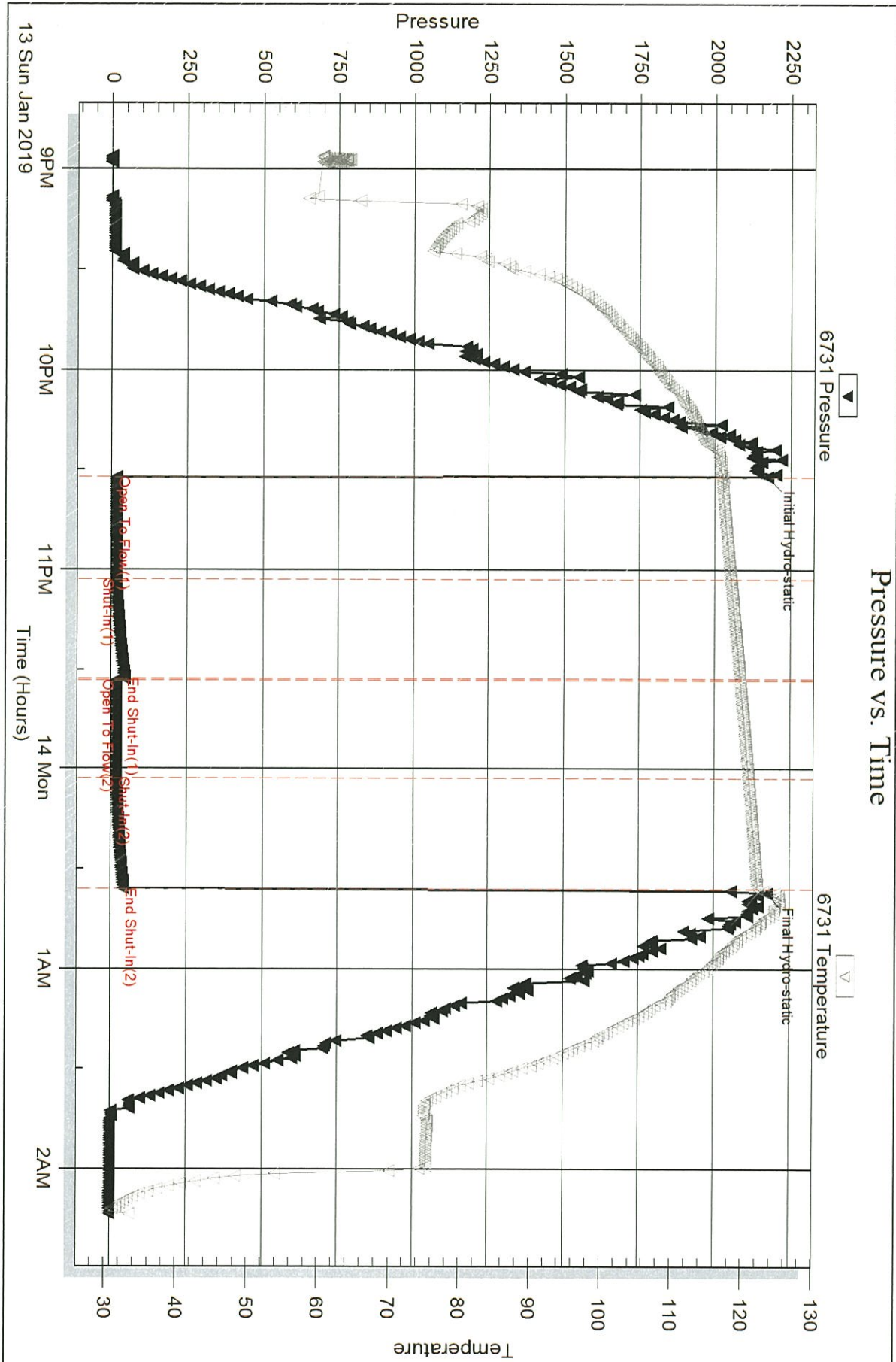
Serial #: 6731

Inside

Palomino Petroleum Inc

Deeds - Cooper #1

DST Test Number: 4



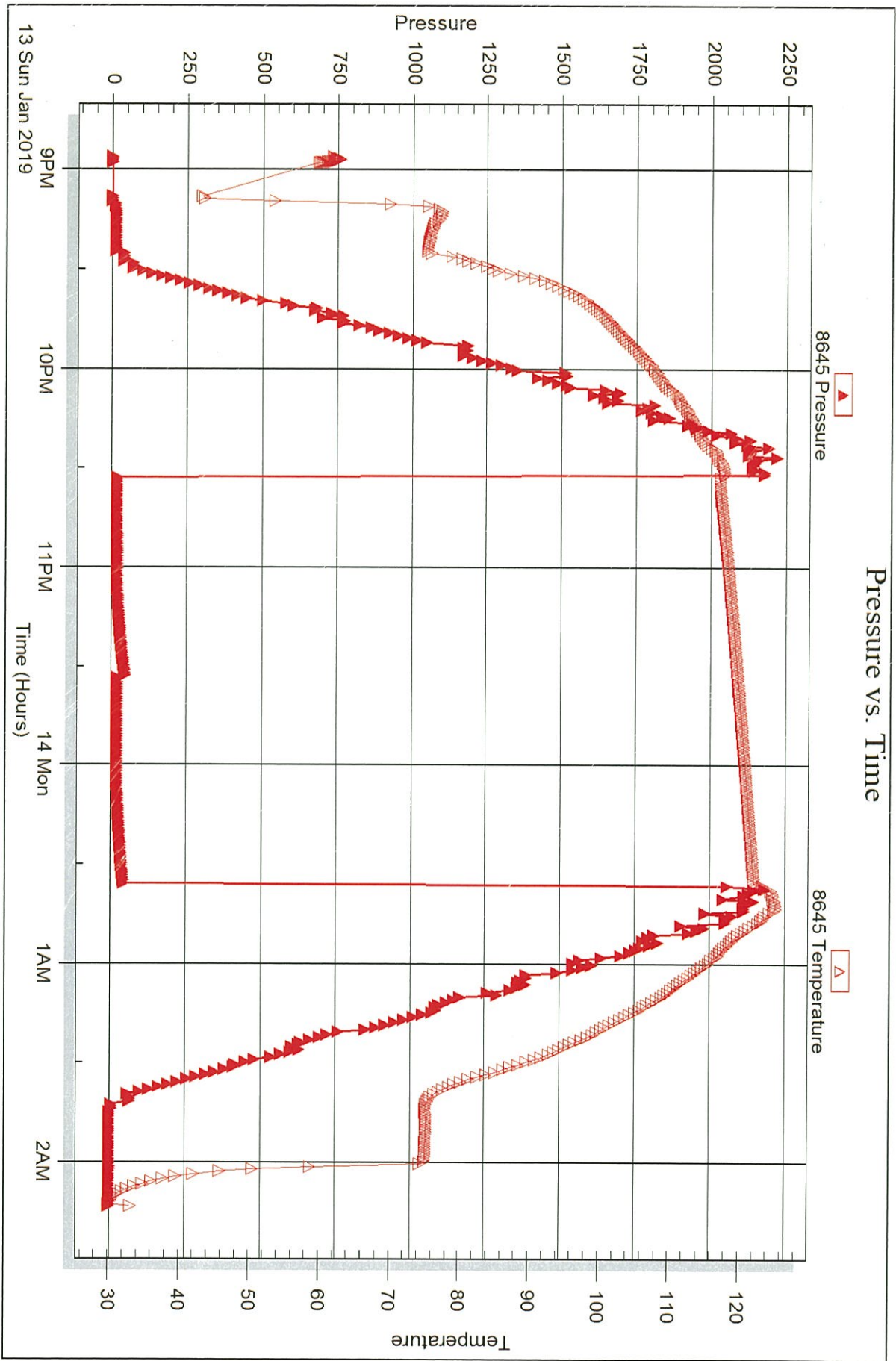
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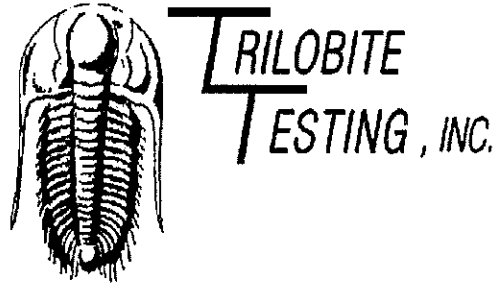
Outside

Palomino Petroleum Inc

Deeds - Cooper #1

DST Test Number: 4





DRILL STEM TEST REPORT

Prepared For: **Palomino Petroleum Inc**

4924 SE 84th St
Newton, KS 67114

ATTN: Ryan Seib

Deeds - Cooper #1

15-5S-37W Cheyenne,KS

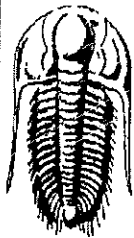
Start Date: 2019.01.14 @ 23:45:00

End Date: 2019.01.15 @ 07:28:46

Job Ticket #: 65329 DST #: 5

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

Printed: 2019.01.17 @ 14:12:12



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Palomino Petroleum Inc

15-5S-37W Cheyenne, KS

4924 SE 84th St
New ton, KS 67114

Deeds - Cooper #1

Job Ticket: 65329

DST#: 5

ATTN: Ryan Seib

Test Start: 2019.01.14 @ 23:45:00

GENERAL INFORMATION:

Formation: **Pawnee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:58:16

Time Test Ended: 07:28:46

Test Type: Conventional Bottom Hole (Reset)

Tester: Martine Salinas

Unit No: 76

Interval: 4617.00 ft (KB) To 4700.00 ft (KB) (TVD)

Total Depth: 4700.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3397.00 ft (KB)

3392.00 ft (CF)

KB to GRVCF: 5.00 ft

Serial #: 6731

Inside

Press@RunDepth: 156.13 psig @ 4618.00 ft (KB)

Start Date: 2019.01.14

End Date:

2019.01.15

Start Time: 23:45:01

End Time:

07:28:46

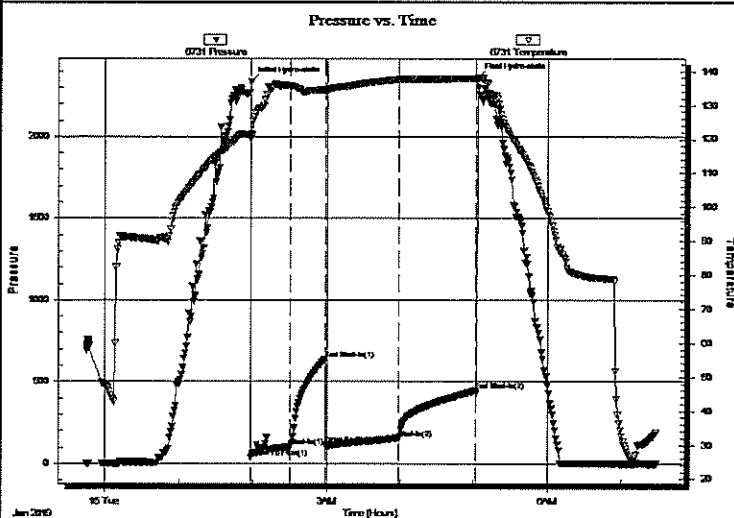
Capacity: 8000.00 psig

Last Calib.: 2019.01.15

Time On Btm: 2019.01.15 @ 01:58:01

Time Off Btm: 2019.01.15 @ 05:03:01

TEST COMMENT: 30-IF-BOB (11 inches) @ 6 mins (blow increased to 39 1/2")
30-ISI-Surface blow back built to 1"
60-FF-BOB (11 inches) @ 18 mins (blow increased to 29 1/2")
60-FSI-Surface blow back built to 5"



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2332.81	121.44	Initial Hydro-static
1	35.60	120.15	Open To Flow (1)
33	101.72	135.67	Shut-In(1)
61	637.41	134.38	End Shut-In(1)
61	114.57	134.13	Open To Flow (2)
121	156.13	137.64	Shut-In(2)
184	446.57	137.81	End Shut-In(2)
185	2361.37	138.17	Final Hydro-static

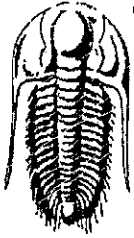
Recovery

Length (ft)	Description	Volume (bbl)
140.00	SO/GWCM 6%O, 13%G, 34%W, 47%M	0.90
120.00	GHOCM 33%G, 29%O, 38%M	1.68
120.00	CGO 20%G, 80%O	1.68
0.00	250' GIP	0.00

Gas Rates

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

* Recovery from multiple tests



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Palomino Petroleum Inc
 4924 SE 84th St
 Newton, KS 67114
 ATTN: Ryan Seib

15-5S-37W Cheyenne, KS

Deeds - Cooper #1

Job Ticket: 65329

DST#: 5

Test Start: 2019.01.14 @ 23:45:00

GENERAL INFORMATION:

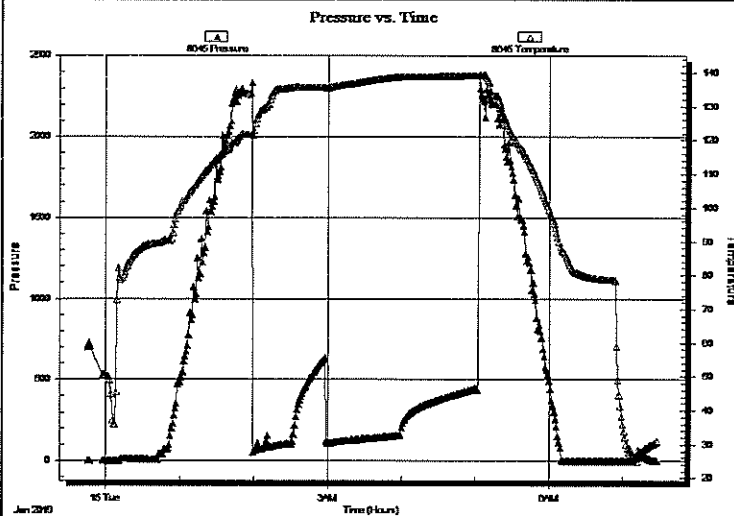
Formation: **Pawnee**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 01:58:16
 Time Test Ended: 07:28:46
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Martine Salinas
 Unit No: 76
 Interval: **4617.00 ft (KB) To 4700.00 ft (KB) (TVD)**
 Total Depth: 4700.00 ft (KB) (TVD)
 Reference Elevations: 3397.00 ft (KB)
 3392.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Good
 KB to GR/CF: 5.00 ft

Serial #: 8645

Outside

Press@RunDepth: psig @ 4618.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2019.01.14 End Date: 2019.01.15 Last Calib.: 2019.01.15
 Start Time: 23:45:01 End Time: 07:28:46 Time On Btm:
 Time Off Btm:

TEST COMMENT: 30-IF-BOB (11 inches) @ 6 mins (blow increased to 39 1/2")
 30-ISI-Surface blow back built to 1"
 60-FF-BOB (11 inches) @ 18 mins (blow increased to 29 1/2")
 60-FSI-Surface blow back built to 5"



PRESSURE SUMMARY

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

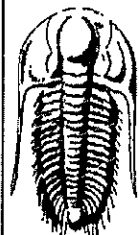
Recovery

Length (ft)	Description	Volume (bbl)
140.00	SO/GWCM 6%O, 13%G, 34%W, 47%M	0.90
120.00	GHOCM 33%G, 29%O, 38%M	1.68
120.00	CGO 20%G, 80%O	1.68
0.00	250' GIP	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Palomino Petroleum Inc

15-5S-37W Cheyenne,KS

4924 SE 84th St
New ton, KS 67114

Deeds - Cooper #1

Job Ticket: 65329

DST#: 5

ATTN: Ryan Seib

Test Start: 2019.01.14 @ 23:45:00

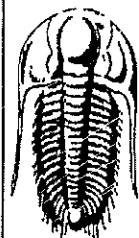
Tool Information

Drill Pipe:	Length: 4476.00 ft	Diameter: 3.80 inches	Volume: 62.79 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: 117.00 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 63.37 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	4617.00 ft			Final 67000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	83.00 ft			
Tool Length:	111.00 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			4590.00	
Shut In Tool	5.00			4595.00	
Hydraulic tool	5.00		Inside	4600.00	
Jars	5.00			4605.00	
Safety Joint	2.00			4607.00	
Packer	5.00			4612.00	28.00 Bottom Of Top Packer
Packer	5.00			4617.00	
Packer - Shale	0.00			4617.00	
Stubb	1.00			4618.00	
Recorder	0.00	8645	Outside	4618.00	
Recorder	0.00	6731	Inside	4618.00	
Perforations	14.00			4632.00	
Change Over Sub	1.00			4633.00	
Drill Pipe	63.00			4696.00	
Change Over Sub	1.00			4697.00	
Bullnose	3.00			4700.00	83.00 Bottom Packers & Anchor
Total Tool Length:	111.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Palomino Petroleum Inc

15-5S-37W Cheyenne,KS

4924 SE 84th St
New ton, KS 67114

Deeds - Cooper #1

Job Ticket: 65329

DST#: 5

ATTN: Ryan Seib

Test Start: 2019.01.14 @ 23:45:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 53.00 sec/qt
Water Loss: 8.79 in³
Resistivity: ohm.m
Salinity: 5200.00 ppm
Filter Cake: 1.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: 42 deg API
Water Salinity: 29000 ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
140.00	SO/GWCM 6%O, 13%G, 34%W, 47%M	0.898
120.00	GHOCM 33%G, 29%O, 38%M	1.683
120.00	CGO 20%G, 80%O	1.683
0.00	250' GIP	0.000

Total Length: 380.00 ft Total Volume: 4.264 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: Gravity of oil = 40 @ 40 degs
Gravity corrected to 42 @ 60 degs
RW= .610 @ 21.2 degs = 29,000 PPM

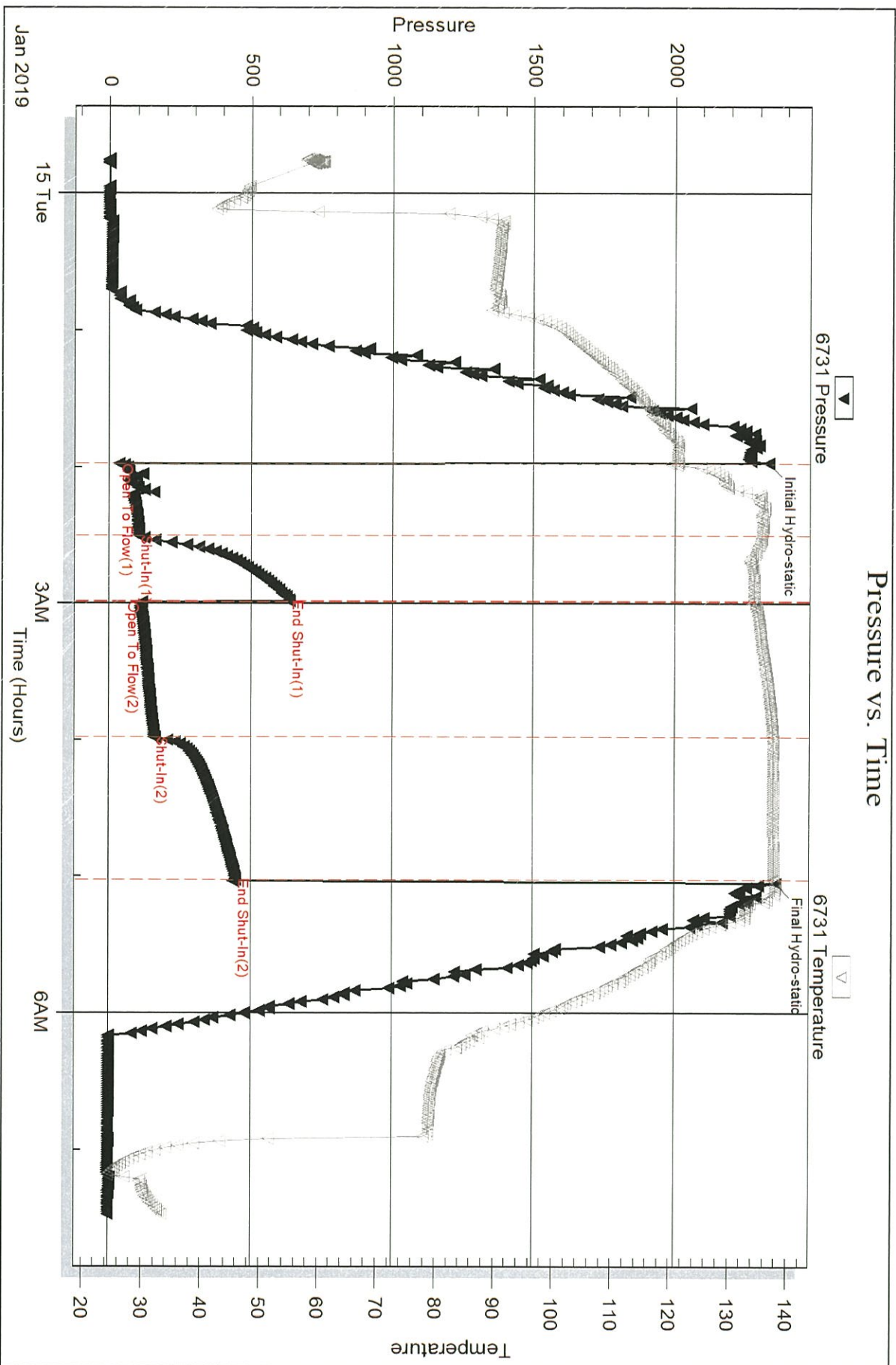
Serial #: 6731

Inside

Palomino Petroleum Inc

Deeds - Cooper #1

DST Test Number: 5



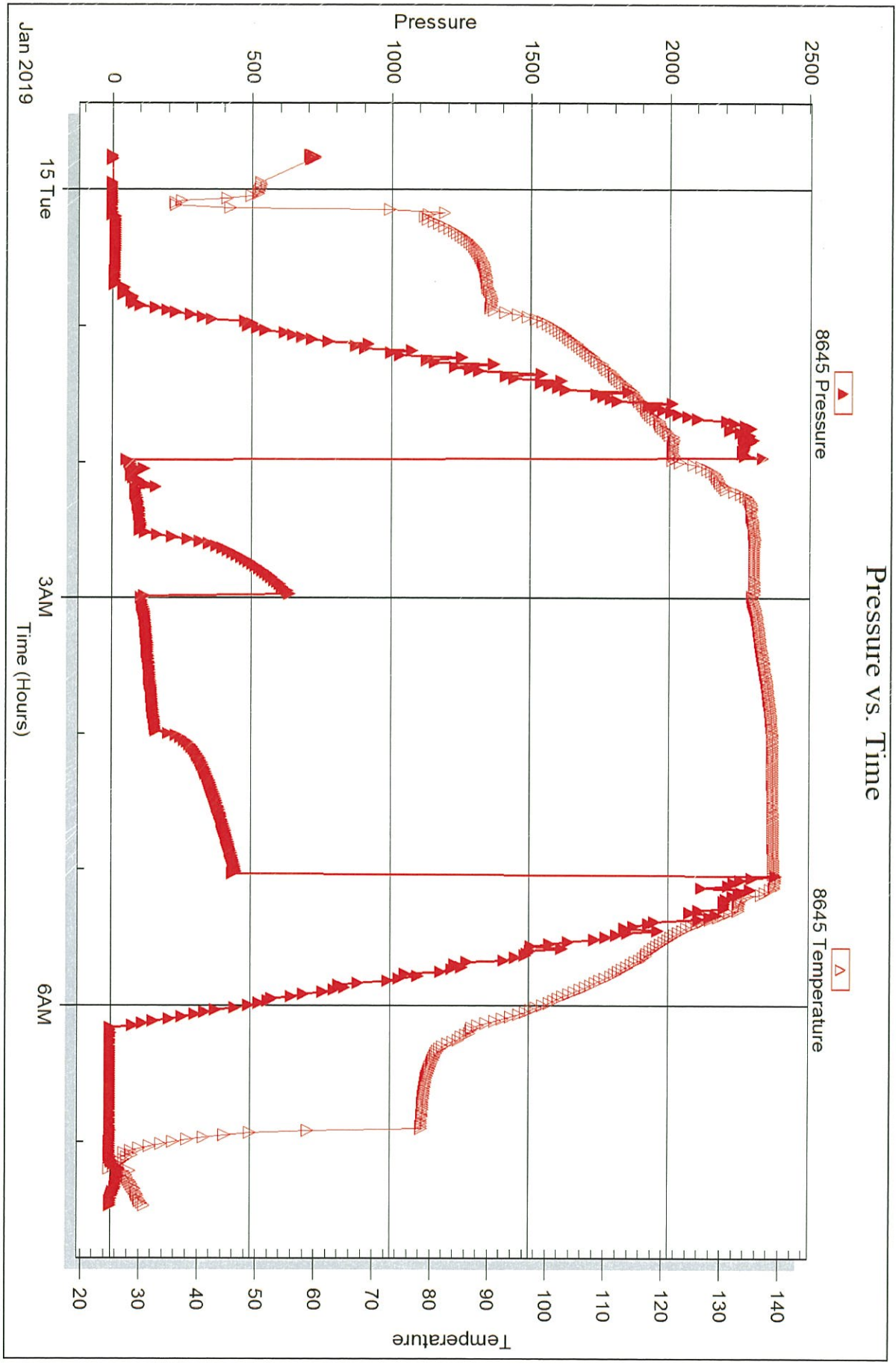
Serial #: 8645

Outside

Palomino Petroleum Inc

Deeds - Cooper #1

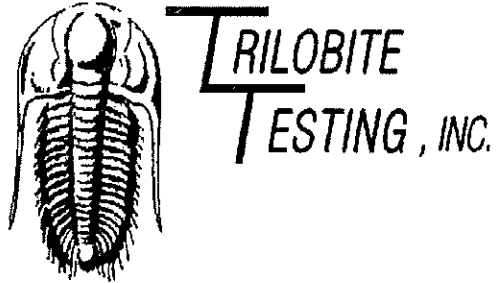
DST Test Number: 5



Trilobite Testing, Inc

Ref. No: 65329

Printed: 2019.01.17 @ 14:12:13



DRILL STEM TEST REPORT

Prepared For: **Palomino Petroleum Inc**

4924 SE 84th St
Newton, KS 67114

ATTN: Ryan Seib

Deeds - Cooper #1

15-5S-37W Cheyenne,KS

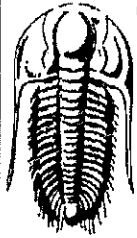
Start Date: 2019.01.16 @ 14:31:00

End Date: 2019.01.16 @ 21:49:31

Job Ticket #: 65330 DST #: 6

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

Printed: 2019.01.17 @ 14:11:46



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Palomino Petroleum Inc
 4924 SE 84th St
 Newton, KS 67114
 ATTN: Ryan Seib

15-5S-37W Cheyenne, KS
Deeds - Cooper #1
 Job Ticket: 65330 DST#: 6
 Test Start: 2019.01.16 @ 14:31:00

GENERAL INFORMATION:

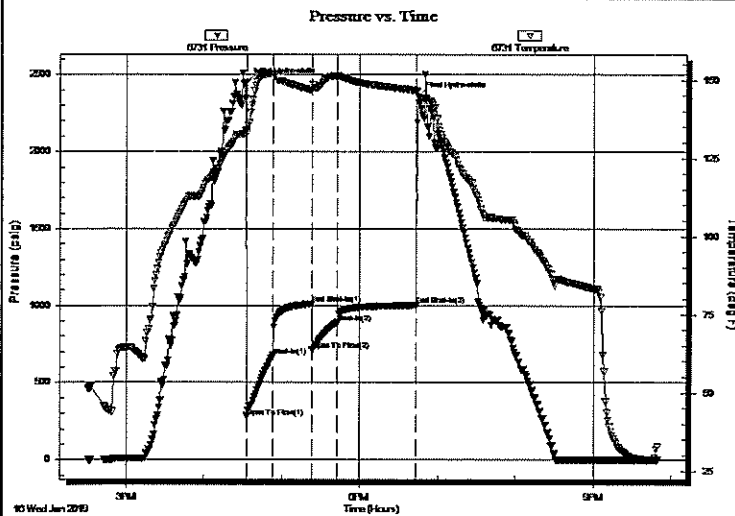
Formation: **Cherokee**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 16:33:16
 Time Test Ended: 21:49:31
 Test Type: Conventional Straddle (Reset)
 Tester: Martine Salinas
 Unit No: 76
 Interval: **4735.00 ft (KB) To 4940.00 ft (KB) (TVD)**
 Reference Elevations: 3397.00 ft (KB)
 Total Depth: 5041.00 ft (KB) (TVD)
 3392.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Good
 KB to GR/CF: 5.00 ft

Serial #: 6731

Inside

Press@RunDepth: 891.08 psig @ 4736.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2019.01.16 End Date: 2019.01.16 Last Calib.: 2019.01.16
 Start Time: 14:31:01 End Time: 21:49:31 Time On Btm: 2019.01.16 @ 16:32:46
 Time Off Btm: 2019.01.16 @ 18:44:31

TEST COMMENT: 20-IF-BOB (11 inches) @ 1 1/2" (blow increased to 123 1/2")
 30-ISI-Surface blow back built to 1/8"
 20-FF-BOB (11 inches) @ 3 1/2 mins (blow increased to 56 1/4")
 60-FSI-No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2451.85	133.91	Initial Hydro-static
1	277.57	134.17	Open To Flow (1)
21	675.77	152.09	Shut-In(1)
51	1010.57	146.75	End Shut-In(1)
51	711.04	146.95	Open To Flow (2)
71	891.08	151.25	Shut-In(2)
131	1002.99	146.60	End Shut-In(2)
132	2357.97	144.78	Final Hydro-static

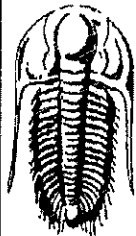
Recovery

Length (ft)	Description	Volume (bbl)
780.00	MSW 4%M, 96%W	9.88
536.00	MCW 23%M, 77%W	7.52
630.00	HVCM 32%W, 68%M	8.84

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Palomino Petroleum Inc

4924 SE 84th St
New ton, KS 67114

ATTN: Ryan Seib

15-5S-37W Cheyenne,KS

Deeds - Cooper #1

Job Ticket: 65330 DST#: 6

Test Start: 2019.01.16 @ 14:31:00

GENERAL INFORMATION:

Formation: **Cherokee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:33:16

Time Test Ended: 21:49:31

Test Type: Conventional Straddle (Reset)

Tester: Martine Salinas

Unit No: 76

Interval: **4735.00 ft (KB) To 4940.00 ft (KB) (TVD)**

Reference Elevations: 3397.00 ft (KB)

Total Depth: 5041.00 ft (KB) (TVD)

3392.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8645

Outside

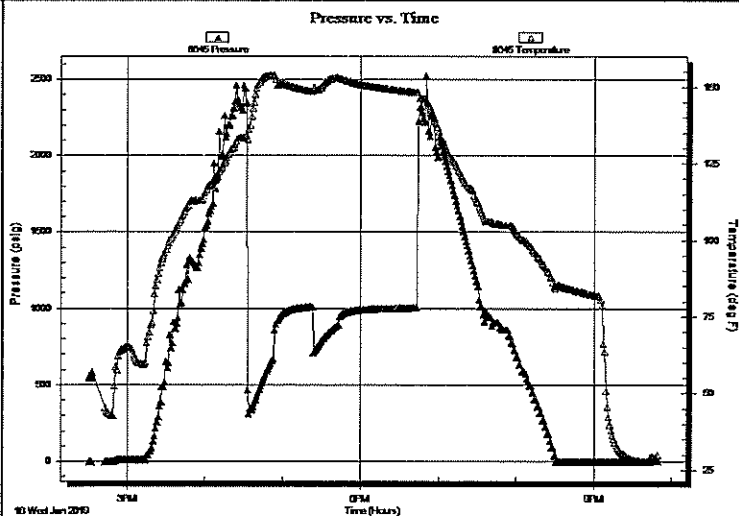
Press@RunDepth: psig @ 4736.00 ft (KB) Capacity: 8000.00 psig

Start Date: 2019.01.16 End Date: 2019.01.16 Last Calib.: 2019.01.16

Start Time: 14:31:01 End Time: 21:49:46 Time On Btm:

Time Off Btm:

TEST COMMENT: 20-IF-BOB (11 inches) @ 1 1/2" (blow increased to 123 1/2")
30-ISI-Surface blow back built to 1/8"
20-FF-BOB (11 inches) @ 3 1/2 mins (blow increased to 56 1/4")
60-FSI-No blow



PRESSURE SUMMARY

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

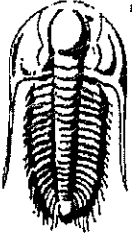
Recovery

Length (ft)	Description	Volume (bbl)
780.00	MSW 4%M, 96%W	9.88
536.00	MCW 23%M, 77%W	7.52
630.00	HWCM 32%W, 68%M	8.84

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Palomino Petroleum Inc
4924 SE 84th St
New ton, KS 67114
ATTN: Ryan Seib

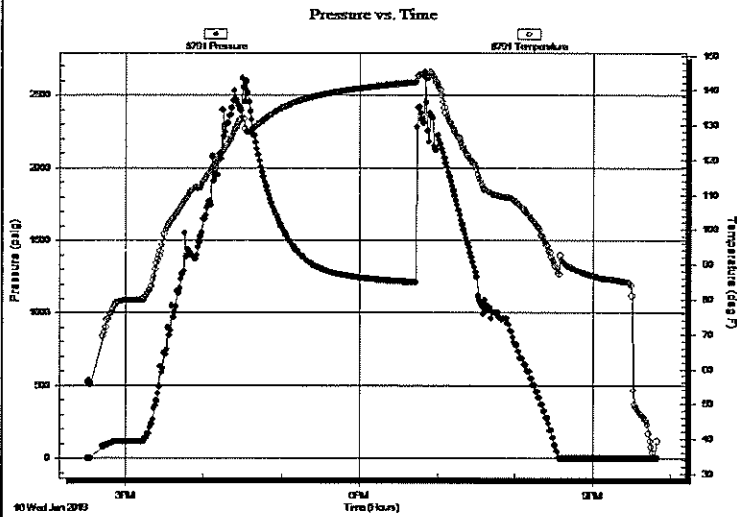
15-5S-37W Cheyenne,KS
Deeds - Cooper #1
Job Ticket: 65330 DST#: 6
Test Start: 2019.01.16 @ 14:31:00

GENERAL INFORMATION:

Formation: **Cherokee**
 Deviated: No Whipstock: ft (KB) Test Type: Conventional Straddle (Reset)
 Time Tool Opened: 16:33:16 Tester: Martine Salinas
 Time Test Ended: 21:49:31 Unit No: 76
 Interval: 4735.00 ft (KB) To 4940.00 ft (KB) (TVD) Reference Elevations: 3397.00 ft (KB)
 Total Depth: 5041.00 ft (KB) (TVD) 3392.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 5.00 ft

Serial #: 8791 Below (Straddle)
 Press@RunDepth: psig @ 4941.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2019.01.16 End Date: 2019.01.16 Last Calib.: 2019.01.16
 Start Time: 14:31:01 End Time: 21:49:31 Time On Btm:
 Time Off Btm:

TEST COMMENT: 20-IF-BOB (11 inches) @ 1 1/2" (blow increased to 123 1/2")
 30-ISI-Surface blow back built to 1/8"
 20-FF-BOB (11 inches) @ 3 1/2 mins (blow increased to 56 1/4")
 60-FSI-No blow



PRESSURE SUMMARY

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

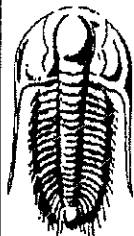
Recovery

Length (ft)	Description	Volume (bbl)
780.00	MSW 4%M, 96%W	9.88
536.00	MCW 23%M, 77%W	7.52
630.00	HVCM 32%W, 68%M	8.84

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Palomino Petroleum Inc

15-5S-37W Cheyenne,KS

4924 SE 84th St
New ton, KS 67114

Deeds - Cooper #1

Job Ticket: 65330

DST#: 6

ATTN: Ryan Seib

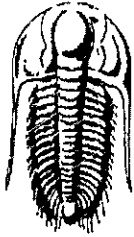
Test Start: 2019.01.16 @ 14:31:00

Tool Information

Drill Pipe:	Length: 4602.00 ft	Diameter: 3.80 inches	Volume: 64.55 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: 117.00 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 65.13 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	4735.00 ft			Final 75000.00 lb
Depth to Bottom Packer:	4931.00 ft			
Interval between Packers:	196.00 ft			
Tool Length:	334.00 ft			
Number of Packers:	4	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4708.00	
Shut In Tool	5.00			4713.00	
Hydraulic tool	5.00		Inside	4718.00	
Jars	5.00			4723.00	
Safety Joint	2.00			4725.00	
Packer	5.00			4730.00	28.00 Bottom Of Top Packer
Packer	5.00			4735.00	
Stubb	1.00			4736.00	
Recorder	0.00	8645	Outside	4736.00	
Recorder	0.00	6731	Inside	4736.00	
Perforations	33.00			4769.00	
Change Over Sub	1.00			4770.00	
Drill Pipe	159.00			4929.00	
Change Over Sub	1.00			4930.00	
Blank Off Sub	1.00			4931.00	196.00 Tool Interval
Packer	5.00			4936.00	
Packer - Shale	4.00			4940.00	
Stubb	1.00			4941.00	
Recorder	0.00	8791	Below	4941.00	
Perforations	1.00			4942.00	
Change Over Sub	1.00			4943.00	
Drill Pipe	94.00			5037.00	
Change Over Sub	1.00			5038.00	
Bullnose	3.00			5041.00	110.00 Bottom Packers & Anchor
Total Tool Length:	334.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Palomino Petroleum Inc

15-5S-37W Cheyenne,KS

4924 SE 84th St
New ton, KS 67114

Deeds - Cooper #1

Job Ticket: 65330

DST#: 6

ATTN: Ryan Seib

Test Start: 2019.01.16 @ 14:31:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 65.00 sec/qt
Water Loss: 7.19 in³
Resistivity: ohm.m
Salinity: 6000.00 ppm
Filter Cake: 1.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: deg API
Water Salinity: 45000 ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
780.00	MSW 4%M, 96%W	9.876
536.00	MCW 23%M, 77%W	7.519
630.00	HWCM 32%W, 68%M	8.837

Total Length: 1946.00 ft Total Volume: 26.232 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: RW= .400 @ 29.5 degs = 45,000PPM

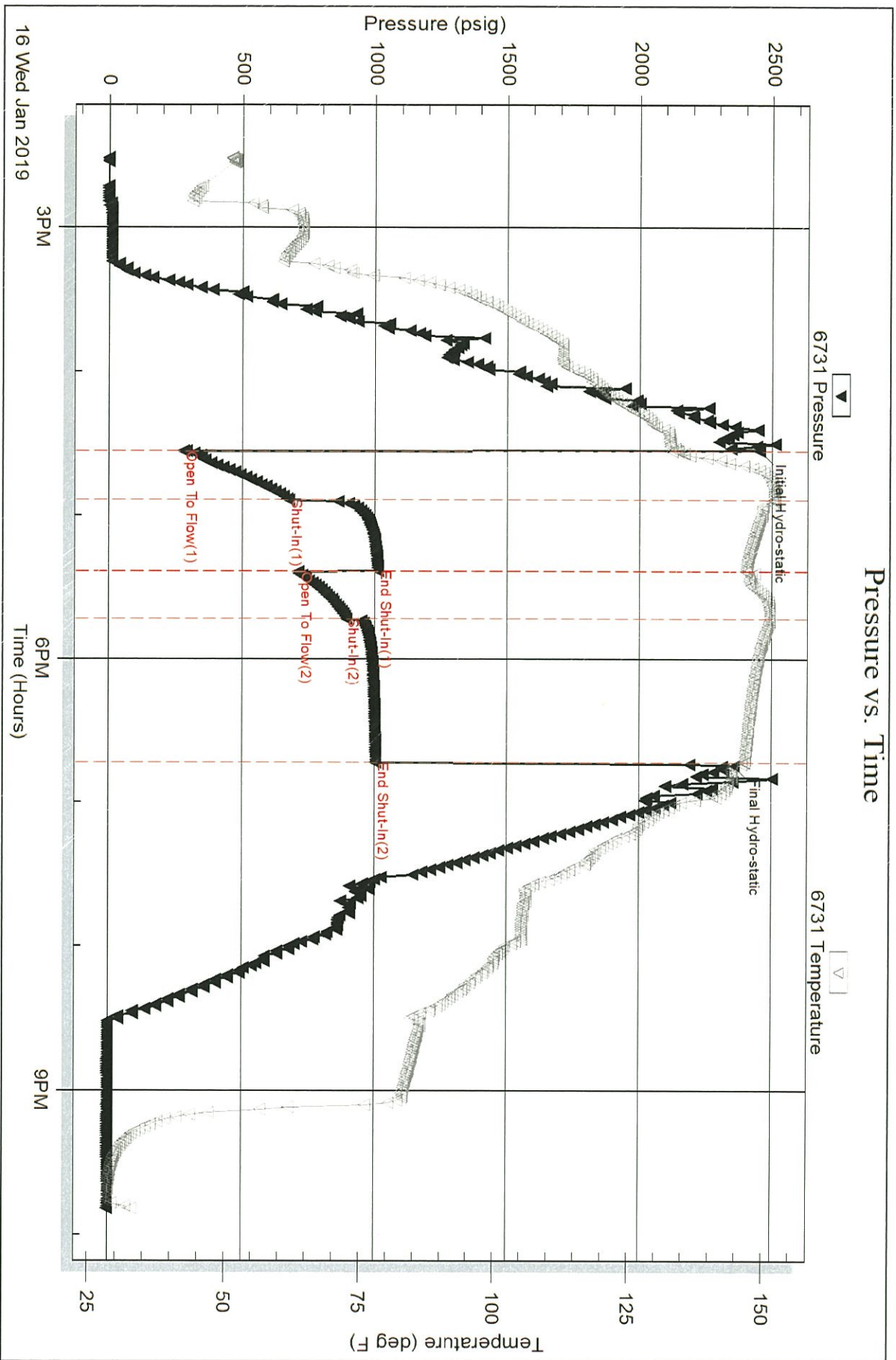
Serial #: 6731

Inside

Palomino Petroleum Inc

Deeds - Cooper #1

DST Test Number: 6



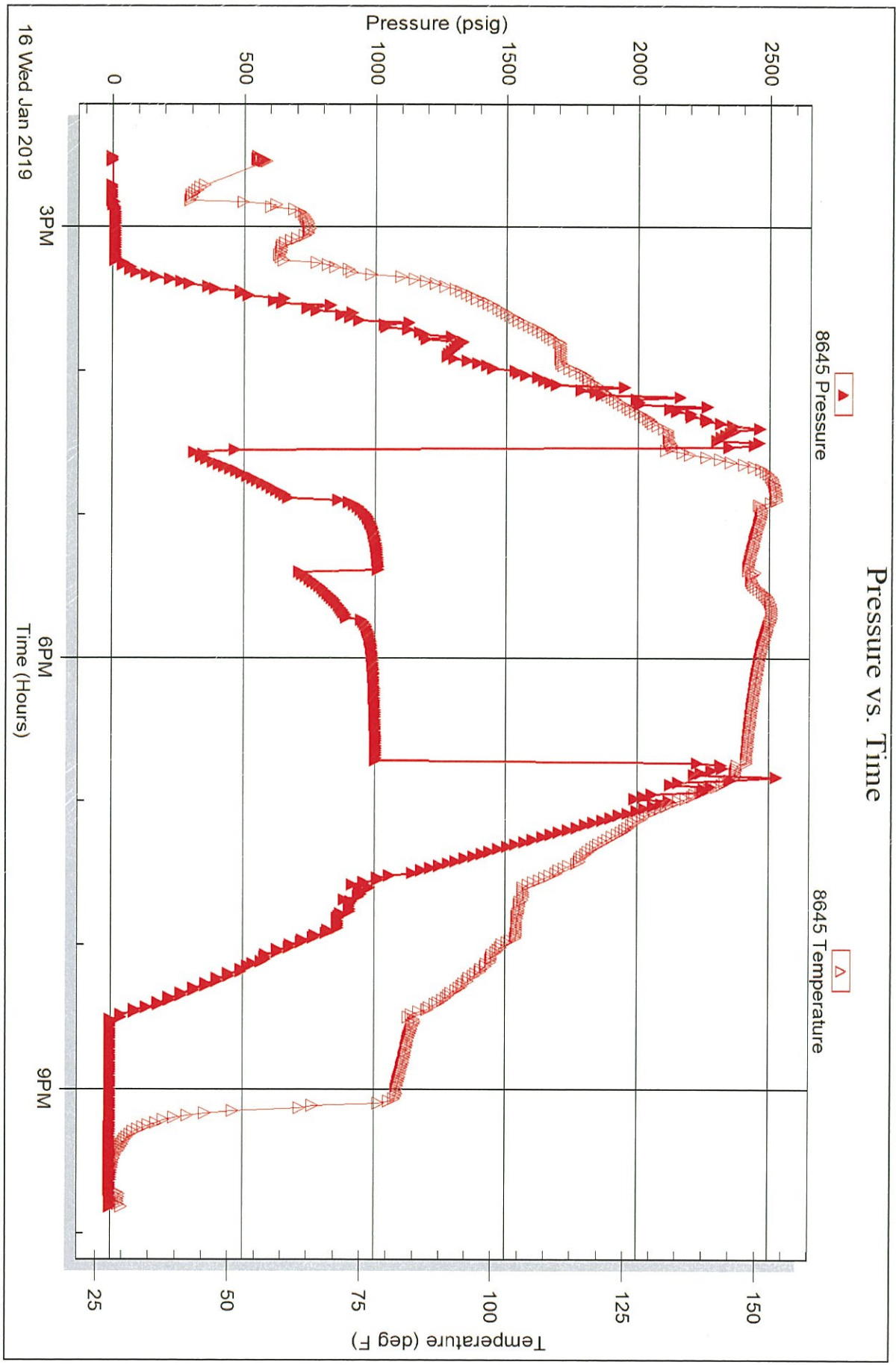
Serial #: 8645

Outside

Palomino Petroleum Inc

Deeds - Cooper #1

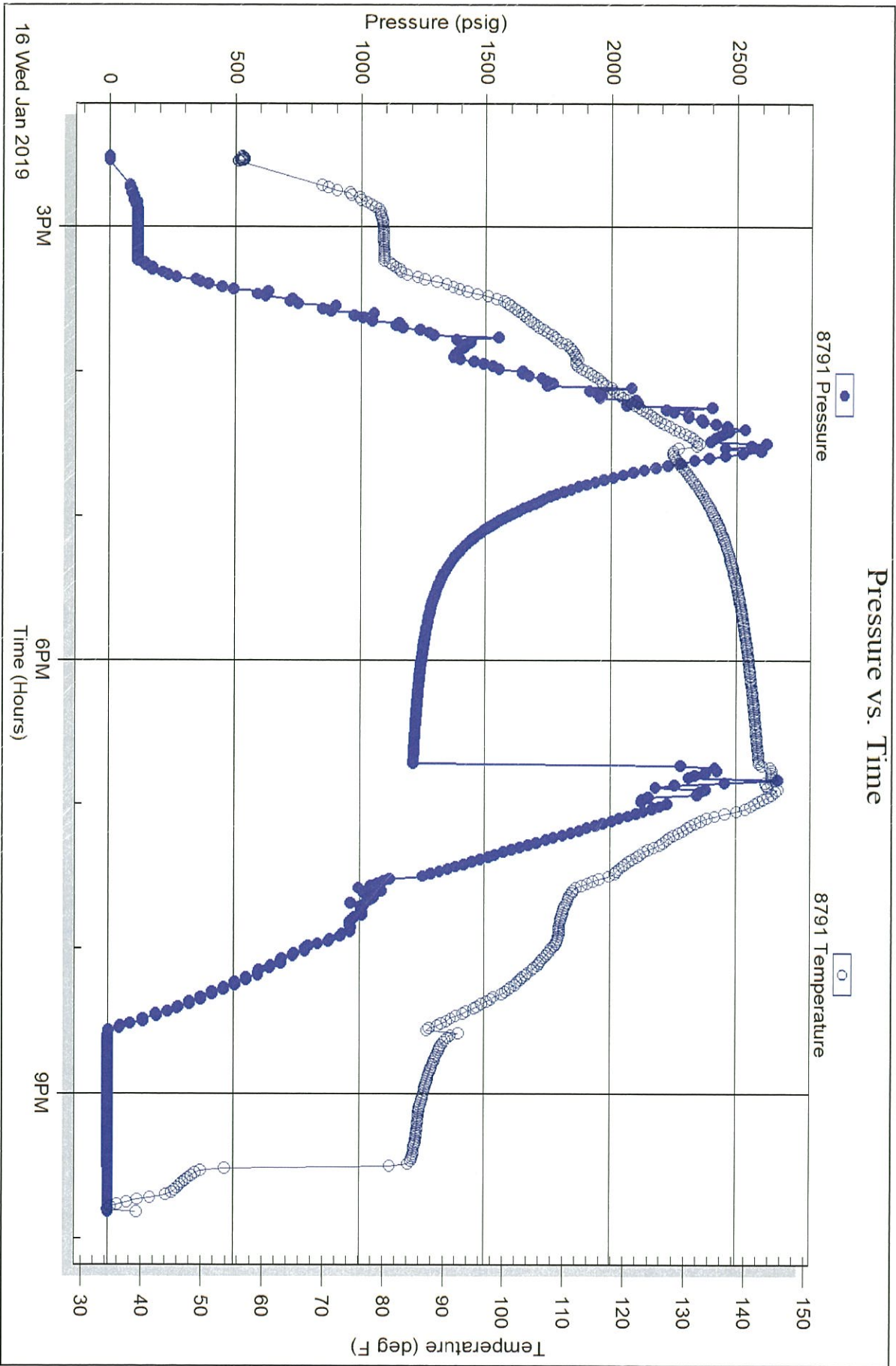
DST Test Number: 6

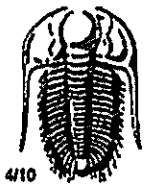


Triobite Testing, Inc

Ref. No: 65330

Printed: 2019.01.17 @ 14:11:47





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 64750

Well Name & No. Deeds - Cooper #1 Test No. 1 Date 01-11-19
 Company Palomino Petroleum Inc Elevation 3397 KB 3392 GL
 Address 4924 SE 84th ST, Newton, KS 67114
 Co. Rep / Geo. Ryan Seib Rig WVW#10
 Location: Sec. 15 Twp 5S. Rge. 37W Co. Cheyenne State KS.

Interval Tested 3801-3880 Zone Tested Foraker
 Anchor Length 79' Drill Pipe Run 3682 Mud Wt. 8.9
 Top Packer Depth 3796 Drill Collars Run 117 Vls 53
 Bottom Packer Depth 3801 (Shale) Wt. Pipe Run ← WL 6.8
 Total Depth 3880 Chlorides 2300 ppm System LCM 1#
 Blow Description IF - S. blow built to 1"
ISI - No blow
EF - S. blow @ 10 mins built to 1/4"
ESI - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>15</u>	<u>Mud</u>			<u>100</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 15 BHT 118 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>1869</u>	<input checked="" type="checkbox"/> Test <u>1050</u>	T-On Location <u>02:00</u>
(B) First Initial Flow <u>15</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>05:04</u>
(C) First Final Flow <u>22</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>07:08</u>
(D) Initial Shut-In <u>968</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>09:08</u>
(E) Second Initial Flow <u>24</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>10:57</u>
(F) Second Final Flow <u>30</u>	<input checked="" type="checkbox"/> Mileage <u>147 RT</u> <u>147</u>	Comments <u>Worked through</u>
(G) Final Shut-In <u>925</u>	<input type="checkbox"/> Sampler	<u>tight spot 20' off bottom,</u>
(H) Final Hydrostatic <u>1818</u>	<input type="checkbox"/> Straddle	<u>Tool opened on bottom</u>
Initial Open <u>30</u>	<input checked="" type="checkbox"/> Shale Packer <u>250</u>	<input type="checkbox"/> Ruined Shale Packer
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Ruined Packer
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder	<input type="checkbox"/> Extra Copies
Final Shut-In <u>30</u>	<input type="checkbox"/> Day Standby	Sub Total <u>0</u>
	<input type="checkbox"/> Accessibility	Total <u>1772</u>
	Sub Total <u>1772</u>	MP/DST Disc't

Approved By _____ Our Representative [Signature]
 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. 65326

Well Name & No. Deeds - Cooper #1 Test No. 9 Date 1-12-19
 Company Palomina Petroleum Inc Elevation 3397 KB 3392 GL
 Address 4924 SE 84th ST, Newton, KS 67114
 Co. Rep / Geo. Ryan Scib Rig WW #10
 Location: Sec. 15 Twp 5 S. Rge. 37 W. Co. Cheyenne State KS

Interval Tested 4196 - 4280 Zone Tested "Toronto - Lansing A"
 Anchor Length 84' Drill Pipe Run 4062 Mud Wt. 9.4
 Top Packer Depth 4191 Drill Collars Run 117 Vis 57
 Bottom Packer Depth 4196 (Shale) Wt. Pipe Run — WL 7.2
 Total Depth 4280 Chlorides 3500 ppm System LCM #
 Blow Description IF - 1/4" blow built to B.O.B (11 inches) @ 14 mins (blow increased to 19")
ISI - S. blow back @ 2 mins built to 3/4"
FF - S. blow built to B.O.D (11 inches) @ 20 mins (blow increased to 15 1/2")
FSS - S. blow back @ 3 min built to 1"

Rec	Feet of	%gas	%oil	%water	%mud
<u>180</u>	<u>G HOCM</u>	<u>11</u>	<u>43</u>	<u>46</u>	
<u>135</u>	<u>G OCM</u>	<u>13</u>	<u>17</u>	<u>70</u>	
<u>117</u>	<u>S OMCW</u>		<u>8</u>	<u>52</u>	<u>40</u>

Rec Total 432 BHT 131 Gravity 21 API RW 339 @ 34.8 °F Chlorides 46,000 ppm

(A) Initial Hydrostatic <u>2262</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>12:45</u>
(B) First Initial Flow <u>26</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>13:15</u>
(C) First Final Flow <u>131</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>15:12</u>
(D) Initial Shut-In <u>1176</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>17:12</u>
(E) Second Initial Flow <u>141</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>20:02</u>
(F) Second Final Flow <u>198</u>	<input checked="" type="checkbox"/> Mileage <u>147 RT</u> 147	Comments
(G) Final Shut-In <u>1148</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2061</u>	<input type="checkbox"/> Straddle	
Initial Open <u>30</u>	<input checked="" type="checkbox"/> Shale Packer <u>250</u>	<input type="checkbox"/> EM Tool
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Ruined Shale Packer
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder	<input type="checkbox"/> Ruined Packer
Final Shut-In <u>30</u>	<input type="checkbox"/> Day Standby	<input type="checkbox"/> Extra Copies
	<input type="checkbox"/> Accessibility	Sub Total <u>0</u>
	Sub Total <u>1772</u>	Total <u>1772</u>

Approved By _____ Our Representative [Signature]
 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.



TRIBOLITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 65327

Well Name & No. Deeds - Cooper #1 Test No. 3 Date 1-13-19
 Company Palomian Petroleum Inc. Elevation 3397 KB 3392 GL
 Address 4924 SE 84th St, Newton, KS 67114
 Co. Rep / Geo. Ryan Seib Rlg WW #10
 Location: Sec. 15 Twp 5S. Rge. 37W. Co. Cheyenne State KS

Interval Tested 4272-4381 Zone Tested "Lansing B-G"
 Anchor Length 109' Drill Pipe Run 4158 Mud Wt. 9.4
 Top Packer Depth 4267 Drill Collars Run 117 Vis 53
 Bottom Packer Depth 4272 (Shale) Wt. Pipe Run — WL 7.2
 Total Depth 4381 Chlorides 3500 ppm System LCM /#
 Blow Description IF - S. blow built to B.O.B (11 inches) @ 20 mins (blow increased to 16 1/2")
ISI - No blow
EF - S. blow built to B.O.B (11 inches) @ 21 mins (blow increased to 16")
FSI - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>321</u>	<u>MCW</u>		<u>62</u>	<u>38</u>	
<u>189</u>	<u>SWCM</u>		<u>8</u>	<u>92</u>	

Rec Total 510 BHT 131 Gravity — API RW 320 @ 32.2 °F Chlorides 56,000 ppm

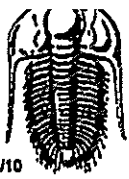
(A) Initial Hydrostatic 2109
 (B) First Initial Flow 39
 (C) First Final Flow 168
 (D) Initial Shut-In 1237
 (E) Second Initial Flow 170
 (F) Second Final Flow 254
 (G) Final Shut-In 1220
 (H) Final Hydrostatic 2102
 Initial Open 30
 Initial Shut-In 30
 Final Flow 30
 Final Shut-In 30

Test 1150
 Jars 250
 Safety Joint 75
 Circ Sub _____
 Hourly Standby _____
 Mileage 147RT 147
 Sampler _____
 Straddle _____
 Shale Packer 250
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Sub Total 1772

T-On Location 05:00
 T-Started 05:22
 T-Open 07:26
 T-Pulled 09:26
 T-Out 11:40
 Comments Slid 3' to bottom
bled off floor manifold
 EM Tool _____
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Sub Total 0
 Total 1772
 MP/DST Disc't _____

Approved By _____ Our Representative [Signature]

Tribolite 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. 65328

Well Name & No. Deeds - Cooper #1 Test No. 4 Date 1-13-19
 Company Palomino Petroleum Inc. Elevation 3397 KB 3392 GL
 Address 4924 SE 84th ST, Newton, KS 67114
 Co. Rep / Geo. Ryan Seib Rig WW #10
 Location: Sec. 15 Twp 5S. Rge. 37W. Co. Cheyenne State KS

Interval Tested 4370 - 4460 Zone Tested "Lansing H-I"
 Anchor Length 90' Drill Pipe Run 4254 Mud Wt. 9.4
 Top Packer Depth 4365 Drill Collars Run 117 Vls 55
 Bottom Packer Depth 4370 (Shale) Wt. Pipe Run — WL 8.0
 Total Depth 4460 Chlorides 4500 ppm System LCM 1#
 Blow Description IF - 1/4" blow built to 1 1/2"
ISI - No blow
FF - No blow
FSI - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>Mud</u>			<u>100</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 5 BHT 125 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 2174 Test 1150 T-On Location 20:15
 (B) First Initial Flow 17 Jars 250 T-Started 20:56
 (C) First Final Flow 18 Safety Joint 75 T-Open 22:32
 (D) Initial Shut-In 45 Circ Sub _____ T-Pulled 00:32
 (E) Second Initial Flow 18 Hourly Standby _____ T-Out 02:15
 (F) Second Final Flow 19 Mileage 147 RT 147 Comments _____
 (G) Final Shut-In 41 Sampler _____
 (H) Final Hydrostatic 2176 Straddle _____
 Shale Packer 250 EM Tool _____
 Extra Packer _____ Ruined Shale Packer _____
 Extra Recorder _____ Ruined Packer _____
 Day Standby _____ Extra Copies _____
 Accessibility _____ Sub Total 0
 Sub Total 1772 Total 1772 MP/DST Disc't _____

Approved By _____ Our Representative R. J. Jansen
 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.



TRIOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 65329

Well Name & No. Deeds - Cooper #1 Test No. 5 Date 1-14-19
 Company Palomino Petroleum Inc Elevation 3397 KB 3392 GL
 Address 4924 SE 84th St, Newton KS 67114
 Co. Rep / Geo. Ryan Seib Rig WW #10
 Location: Sec. 15 Twp 5S. Rge. 37W. Co. Cherokee State KS.

Interval Tested 4617-4700 Zone Tested Pawnee
 Anchor Length 83' Drill Pipe Run 4476 Mud Wt. 9.3
 Top Packer Depth 4612 Drill Collars Run 117 Vls 53
 Bottom Packer Depth 4617 (Shale) Wt. Pipe Run — WL 8.8
 Total Depth 4700 Chlorides 5200 ppm System LCM 1#

Blow Description IF - 1" Blow built to B.O.B (11 inches) @ 6 mins (blow increased to 39 1/2")
ISI - S. blow back built to 1"
EF - S. blow built to B.O.B (11 inches) @ 18 mins (blow increased to 29 1/2")
FSE - S. blow back built to 5"

Rec	Feet of		%gas	%oil	%water	%mud
<u>140</u>	<u>So/GWCM</u>	<u>13</u>	<u>6</u>	<u>34</u>	<u>47</u>	<u></u>
<u>170</u>	<u>GHOCM</u>	<u>33</u>	<u>29</u>	<u></u>	<u>38</u>	<u></u>
<u>120</u>	<u>CGO</u>	<u>20</u>	<u>80</u>	<u></u>	<u></u>	<u></u>
<u>0</u>	<u>250' GEP</u>					
<u>Rec Total 380</u>	<u>BHT 138</u>	<u>Gravity 42</u>	<u>API RW 610 @ 21.2 °F</u>	<u>Chlorides 29,000</u>	<u>ppm</u>	

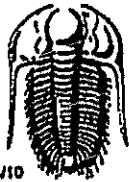
(A) Initial Hydrostatic 2333
 (B) First Initial Flow 36
 (C) First Final Flow 102
 (D) Initial Shut-In 637
 (E) Second Initial Flow 115
 (F) Second Final Flow 156
 (G) Final Shut-In 447
 (H) Final Hydrostatic 2361

Test 1150
 Jars 250
 Safety Joint 75
 Circ Sub
 Hourly Standby
 Mileage 147 RT 147
 Sampler
 Straddle
 Shale Packer 250
 Extra Packer
 Extra Recorder
 Day Standby
 Accessibility
 Sub Total 1772

T-On Location 21:00
 T-Started 23:45
 T-Open 01:59
 T-Pulled 04:59
 T-Out 07:30
 Comments
 EM Tool
 Ruined Shale Packer
 Ruined Packer
 Extra Copies
 Sub Total 0
 Total 1772
 MP/DST Disc't

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

Approved By _____ Our Representative Mattias Salinas
 Triobite 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. 65330

Well Name & No. Deeds - Cooper #1 Test No. 6 Date 1-16-19
 Company Palomino Petroleum Inc. Elevation 3397 KB 3392 GL
 Address 4924 SE 84th ST, Newton, KS 67114
 Co. Rep / Geo. Ryan Seib Rig NW#10
 Location: Sec. 15 Twp 55 Rge. 37W. Co. Cheyenne State KS

Interval Tested 4735-4940 Zone Tested Cherokee
 Anchor Length 265' Anchor 101' T. Pipe Drill Pipe Run 4602 Mud Wt. 9.4
 Top Packer Depth 4730 - 4735 Drill Collars Run 117 Vis 65
 Bottom Packer Depth 4935 - 4940' (Shale) Wt. Pipe Run --- WL 7.2
 Total Depth 5041 LTD Chlorides 6000 ppm System LCM 24
 Blow Description IF - 4" blow built to B.O.B (11 inches) @ 1 1/2 mins (blow increased to 123 1/2")
ISE - S. blow back built to 1/8"
FE - S. blow built to B.O.B (11 inches) @ 3 1/2 mins (blow increased to 56 1/4")
ESI - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>780</u>	<u>MSW</u>		<u>96</u>	<u>4</u>	
<u>536</u>	<u>MCW</u>		<u>77</u>	<u>23</u>	
<u>630</u>	<u>HWCM</u>		<u>32</u>	<u>68</u>	

Rec Total 1944 BHT 145 Gravity --- API RW 400 @ 29.5 °F Chlorides 45,000 ppm

(A) Initial Hydrostatic 2452 Test 1250 T-On Location 13:30
 (B) First Initial Flow 278 Jars 250 T-Started 14:31
 (C) First Final Flow 676 Safety Joint 75 T-Open 16:33
 (D) Initial Shut-In 1011 Circ Sub _____ T-Pulled 18:43
 (E) Second Initial Flow 711 Hourly Standby _____ T-Out 21:50
 (F) Second Final Flow 891 Mileage 147 RT 147 Comments Tools loaded @
 (G) Final Shut-In 1003 Sampler _____ 22:45
 (H) Final Hydrostatic 2358 Straddle 600 EM Tool _____
 Shale Packer X1 250 Ruined Shale Packer _____
 Extra Packer X3 Ruined Packer _____
 Extra Recorder _____ Extra Copies _____
 Day Standby _____ Sub Total 0
 Accessibility _____ Total 2472
 Sub Total 2472 MP/DST Disc't _____

Approved By _____ Our Representative Mark Seib

Triobite 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.

Ryan Salt
Petroleum Geologist

615 S. Tebala

Wass City, KS 675 50

(785) 798-5958

Palomino Petroleum

LEASE Deeds-Cooper # 7

FIELD

LOCATIONS 1211' FWL + 2426' FWL

SEC. 15 TWP. 5S. RGE 37W

COUNTY Cheyenne STATE KS

WELL NO. WW Drilling Rig # 10

DATE 1/17/18

WELL NO. 5037

DEPTH 3700' RTD

DEPTH 3700' RTD

DEPTH 3700' RTD

DEPTH 3650' RTD

DEPTH 3500' Chemical

15-023-21503

Anhydrite 3095 (+302) 3100 (+297)

Heebra 4205 (-808) 4202 (-805)

Lansing 4257 (-860) 4254 (-857)

BIKC 4511 (-1114) 4511 (-1114)

Pawnee 4643 (-1246) 4635 (-1238)

El Scott 4695 (-1298) 4691 (-1294)

Cherokee sh 4721 (-1324) 4717 (-1320)

Mississippi 4940 (-1543) 4937 (-1540)

3397'

3392'

From KB

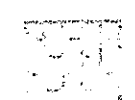
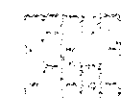
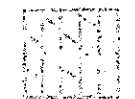
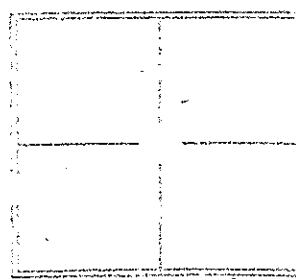
8 5/8" @

347'

5 1/2"

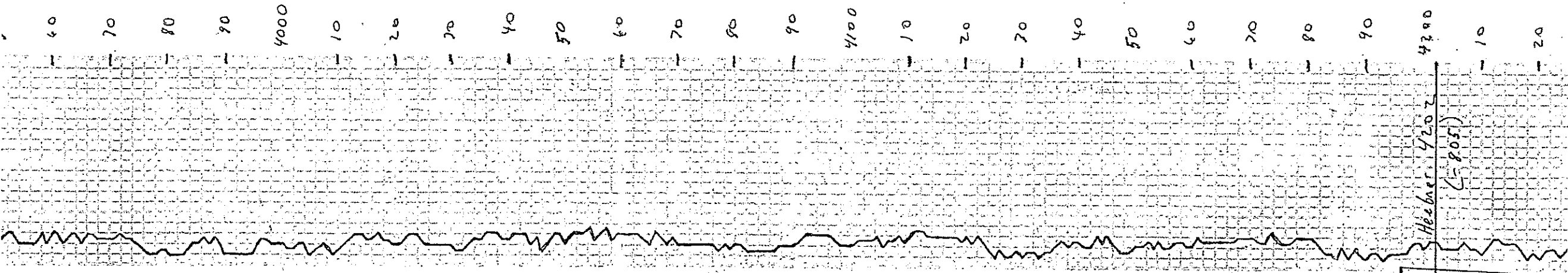
CNO, DIL,

Micro



Uniform - this is for - a - demand
hard, p - this is for - a - demand

3700'



Sh, var. color

ls, var. white to - ls
darker grey to black
no. 40, 48, 49, oil, part to

ls, var. white to - ls
darker grey to black
no. 40, 48, 49, oil, part to

ls, var. white to - ls
darker grey to black
no. 40, 48, 49, oil, part to

ls, var. white to - ls
darker grey to black
no. 40, 48, 49, oil, part to

ls, var. white to - ls
darker grey to black
no. 40, 48, 49, oil, part to

ls, var. white to - ls
darker grey to black
no. 40, 48, 49, oil, part to

ls, var. white to - ls
darker grey to black
no. 40, 48, 49, oil, part to

ls, var. white to - ls
darker grey to black
no. 40, 48, 49, oil, part to

ls, var. white to - ls
darker grey to black
no. 40, 48, 49, oil, part to

ls, var. white to - ls
darker grey to black
no. 40, 48, 49, oil, part to

ls, var. white to - ls
darker grey to black
no. 40, 48, 49, oil, part to

ls, var. white to - ls
darker grey to black
no. 40, 48, 49, oil, part to

ls, var. white to - ls
darker grey to black
no. 40, 48, 49, oil, part to

ls, var. white to - ls
darker grey to black
no. 40, 48, 49, oil, part to

ls, var. white to - ls
darker grey to black
no. 40, 48, 49, oil, part to

ls, var. white to - ls
darker grey to black
no. 40, 48, 49, oil, part to

ls, var. white to - ls
darker grey to black
no. 40, 48, 49, oil, part to

Mud ✓ @ 4235'
wt. - 9.3
vis. - 5.4
ul - 2.2
cll - 7.000
con. - 7 #

OST # 2 4196' - 4260'

newest on top

Sh. 197-611
Ls. H

ls. gray, fine sh. dense, hard,
thin bedded, calc. 1.5-2.5 ft

Sh., var. color

ls. gray, fine sh. dense, hard,
thin bedded, calc. 1.5-2.5 ft

ls. gray, fine sh. dense,
thin bedded, calc. 1.5-2.5 ft

Sh., gray, dense, gray

ls. gray, fine sh. dense, hard,
thin bedded, calc. 1.5-2.5 ft

ls. gray, fine sh. dense, hard,
thin bedded, calc. 1.5-2.5 ft

ls. gray, fine sh. dense, hard,
thin bedded, calc. 1.5-2.5 ft

ls. gray, fine sh. dense, hard,
thin bedded, calc. 1.5-2.5 ft

ls. gray, fine sh. dense, hard,
thin bedded, calc. 1.5-2.5 ft

ls. gray, fine sh. dense, hard,
thin bedded, calc. 1.5-2.5 ft

ls. gray, fine sh. dense, hard,
thin bedded, calc. 1.5-2.5 ft

ls. gray, fine sh. dense, hard,
thin bedded, calc. 1.5-2.5 ft

Sh., blk. carb

ls. gray, fine sh. dense, hard,
thin bedded, calc. 1.5-2.5 ft

Sh., gray, dense

ls. gray, fine sh. dense, hard,
thin bedded, calc. 1.5-2.5 ft

ls. gray, fine sh. dense, hard,
thin bedded, calc. 1.5-2.5 ft

Sh., var. color

ls. gray, fine sh. dense, hard,
thin bedded, calc. 1.5-2.5 ft

ls. gray, fine sh. dense, hard,
thin bedded, calc. 1.5-2.5 ft

Sh., var. color

ls. gray, fine sh. dense, hard,
thin bedded, calc. 1.5-2.5 ft

ls. gray, fine sh. dense, hard,
thin bedded, calc. 1.5-2.5 ft

DST # 2 4192' - 4280'
30-30-30-30
Rec. 432, 7F
FF-80.0-14" FSI-3/4"
FF-80.0-20" FSI-1"
180' g/cm (1190g, 433.0, 4630m)
135' g/cm (1370g, 1720.0, 7070m)
115' g/cm (1890g, 5270.0, 4070m)
HP-2262#-206, #
FFP-26#-13, # PFP-14, # 178 #
FFP-11, # ASIP-1148 #

DST # 3 4222' - 4381'
30-30-30-30
Rec. 570, 7F
FF-80.0-20" N. Return
FF-80.8-21"
321' g/cm (4290g, 389.2m)
189' g/cm (870g, 93.90m)
HP-2107#-2102 #
FFP-39#-168 # FFP-170 # 254 #
FFP-123 # FSI-1220 #

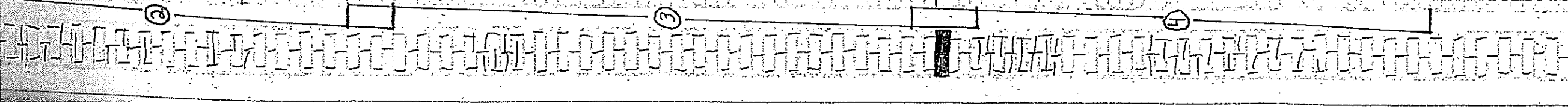
Mud ✓ @ 4381'
43-9.7
43-5.4
43-8.0
441-4,500
LCM-I #

DST # 4 4370' - 4460'
30-30-30-30
Rec. 5' mud
FF-1/4"
FF-80.0-20" N. Return
HP-2174#-2176 #
FFP-17#-18 # FFP-18 # 17 #
FFP-45 # FSI-41 #

4254
(458)

Mud ✓ (4381)
4374 (97)

- 20
- 30
- 40
- 50
- 60
- 70
- 80
- 90
4300
- 10
- 20
- 30
- 40
- 50
- 60
- 70
- 80
- 90
4400
- 10
- 20
- 30
- 40
- 50
- 60
- 70
- 80



70
80
90
4500
10
20
30
40
50
60
70
80
90
4600
10
20
30
40
50
60
70
80

denser than ...
denser than ...
Sl. MK carb
denser than ...
denser than ...
Sh. grey - dr. ...
denser than ...
Sl. grey - dr. ...
denser than ...
denser than ...
Sl. grey - dr. ...
denser than ...
denser than ...
Sl. MK carb
denser than ...
denser than ...
Sl. MK carb
denser than ...
denser than ...
Sl. MK carb
denser than ...
denser than ...

MK 45-11
(-1114)

Pauses 4635
(-1238)

OST # F 4617 - 4700
20-30-60-60
Rec. 380, 17F, 2.5, 6.1 F
FF-0.0, 1-6" FF-14
FF-0.0, 1-18" FF-5-5"
140 0 g/cm (1378, 600, 3400, 4200)
120 90 cm (3370, 2170, 3870, ...)
120 10 (2080, 60900)
140-2333 F-2.36 14



4700

10

20

30

40

50

60

70

80

90

4800

10

20

30

40

50

60

70

80

90

4900

10

20

30

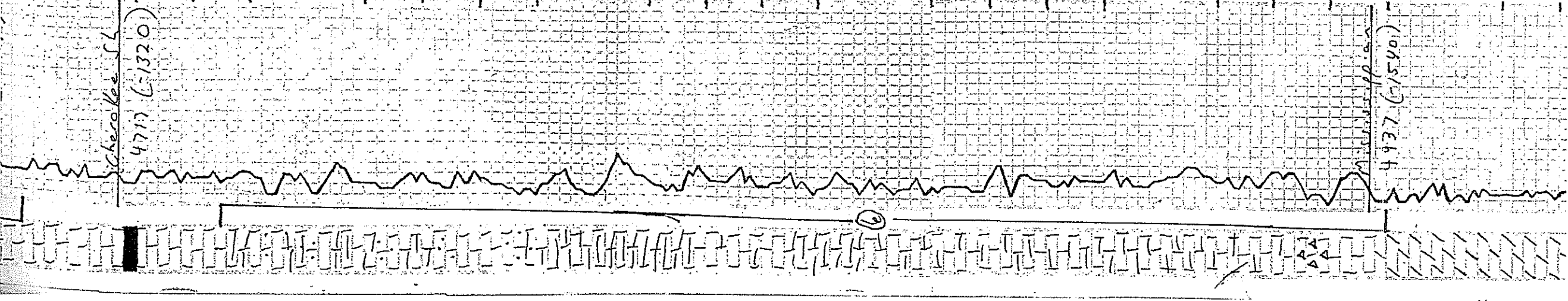
40

50

60

70

Cherokee SL
4717 (-1320)



dark grey shale, x-bedded, shaly, thin bedded

Sh, blue sand

dark grey shale, x-bedded, shaly, thin bedded

dark grey shale, x-bedded, shaly, thin bedded

dark grey shale, x-bedded, shaly, thin bedded

well sorted, fine sand, shaly, thin bedded

ls, dk

shaly, fine sand, dense, shaly, thin bedded

sh, vari. color

dark grey shale, x-bedded, shaly, thin bedded

sh, green sand

ls, dk

sh, dk

dark grey shale, x-bedded, shaly, thin bedded

sh, dk

ls, dk

sh, dk

sl, dk

sh, vari. color

dark grey shale, x-bedded, shaly, thin bedded

sh, vari. color

dark grey shale, x-bedded, shaly, thin bedded

sh, dk

sh, dk

dark grey shale, x-bedded, shaly, thin bedded

sh, dk

dark grey shale, x-bedded, shaly, thin bedded

dark grey shale, x-bedded, shaly, thin bedded

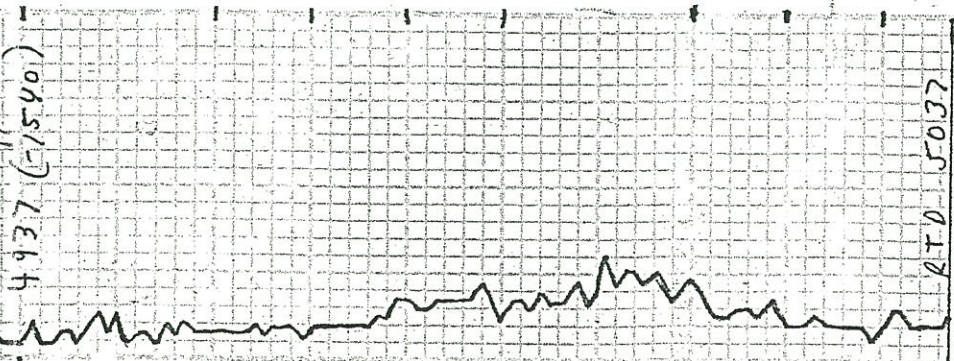
dark grey shale, x-bedded, shaly, thin bedded

dark grey shale, x-bedded, shaly, thin bedded

dark grey shale, x-bedded, shaly, thin bedded

DST # 4 4735' - 4740'
 Rec. - 1994, TF
 FF - 0.0.0. - 1 1/2" N. Redden
 FF - 0.0.0. - 3 1/2"
 780' m.w. (9470w, 470w)
 536' m.w. (7780w, 2370w)
 430' m.w. (3270w, 6870w)
 44P-2452# - 2558#
 FF-P-278# - 676# FF-P-211# - 871#
 FSI-P-1011# FSI-P-1003#

PA
PA
PA



RTD 5037

(-1640)

Sk, AA

Chol 180, 190, 200, 210, 220, 230, 240, 250, 260, 270, 280, 290, 300, 310, 320, 330, 340, 350, 360, 370, 380, 390, 400, 410, 420, 430, 440, 450, 460, 470, 480, 490, 500, 510, 520, 530, 540, 550, 560, 570, 580, 590, 600, 610, 620, 630, 640, 650, 660, 670, 680, 690, 700, 710, 720, 730, 740, 750, 760, 770, 780, 790, 800, 810, 820, 830, 840, 850, 860, 870, 880, 890, 900, 910, 920, 930, 940, 950, 960, 970, 980, 990, 1000

Pol 180, 190, 200, 210, 220, 230, 240, 250, 260, 270, 280, 290, 300, 310, 320, 330, 340, 350, 360, 370, 380, 390, 400, 410, 420, 430, 440, 450, 460, 470, 480, 490, 500, 510, 520, 530, 540, 550, 560, 570, 580, 590, 600, 610, 620, 630, 640, 650, 660, 670, 680, 690, 700, 710, 720, 730, 740, 750, 760, 770, 780, 790, 800, 810, 820, 830, 840, 850, 860, 870, 880, 890, 900, 910, 920, 930, 940, 950, 960, 970, 980, 990, 1000

Pol 180, 190, 200, 210, 220, 230, 240, 250, 260, 270, 280, 290, 300, 310, 320, 330, 340, 350, 360, 370, 380, 390, 400, 410, 420, 430, 440, 450, 460, 470, 480, 490, 500, 510, 520, 530, 540, 550, 560, 570, 580, 590, 600, 610, 620, 630, 640, 650, 660, 670, 680, 690, 700, 710, 720, 730, 740, 750, 760, 770, 780, 790, 800, 810, 820, 830, 840, 850, 860, 870, 880, 890, 900, 910, 920, 930, 940, 950, 960, 970, 980, 990, 1000

001, AA

Pol 180, 190, 200, 210, 220, 230, 240, 250, 260, 270, 280, 290, 300, 310, 320, 330, 340, 350, 360, 370, 380, 390, 400, 410, 420, 430, 440, 450, 460, 470, 480, 490, 500, 510, 520, 530, 540, 550, 560, 570, 580, 590, 600, 610, 620, 630, 640, 650, 660, 670, 680, 690, 700, 710, 720, 730, 740, 750, 760, 770, 780, 790, 800, 810, 820, 830, 840, 850, 860, 870, 880, 890, 900, 910, 920, 930, 940, 950, 960, 970, 980, 990, 1000

Pol 180, 190, 200, 210, 220, 230, 240, 250, 260, 270, 280, 290, 300, 310, 320, 330, 340, 350, 360, 370, 380, 390, 400, 410, 420, 430, 440, 450, 460, 470, 480, 490, 500, 510, 520, 530, 540, 550, 560, 570, 580, 590, 600, 610, 620, 630, 640, 650, 660, 670, 680, 690, 700, 710, 720, 730, 740, 750, 760, 770, 780, 790, 800, 810, 820, 830, 840, 850, 860, 870, 880, 890, 900, 910, 920, 930, 940, 950, 960, 970, 980, 990, 1000